ORDER WQ 2017-0031-DWQ

AMENDING

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)

GENERAL PERMIT FOR
WASTE DISCHARGE REQUIREMENTS
(WDRs) FOR
STORM WATER DISCHARGES FROM SMALL MUNICIPAL SEPARATE
STORM SEWER SYSTEMS (MS4s)

ORDER NO. 2013-0001-DWQ
NPDES NO. CAS000004

Order WQ 2013-0001-DWQ was adopted by the State Water Resources Control Board on:	February 5, 2013
Order WQ 2013-0001-DWQ became effective on:	July 1, 2013
The Executive Director of the State Water Board issued Order WQ 2015-0133-EXEC on:	September 2, 2015
The Executive Director of the State Water Board issued Order WQ 2016-0069-EXEC on:	June 20, 2016
This Order was adopted on:	December 19, 2017
This Order becomes effective on:	January 1, 2019

IT IS HEREBY ORDERED that this Order amends Order 2013-0001-DWQ, including the Findings, the Order Provisions, the Fact Sheet, and Attachment G. Additions to Order 2013-0001-DWQ are reflected in underline text and deletions are reflected in ~~strikeout text~~ or as otherwise noted.

I, Courtney Tyler, Clerk to the Board, do hereby certify that this Order with all attachments is a full, true, and correct copy of an Order adopted by the State Water Resources Control Board on December 19, 2017.

AYE:	Chair Felicia Marcus Board Member Tam M. Doduc Board Member Dorene D'Adamo Board Member E. Joaquin Esquivel
NAY:	None
ABSENT:	Vice Chair Steven Moore
ABSTAIN:	None

Courtney Tyler

Courtney Tyler
Clerk to the Board

Summary of Revisions

The following are the revisions amending **Order WQ 2013-0001-DWQ**, NPDES permit for the Discharge of Storm Water from Municipal Separate Storm Sewer Systems (MS4s)

Finding 40. Total Maximum Daily Loads (TMDL) are numerical calculations of the maximum amount of a pollutant that a water body can assimilate and still meet water quality standards. A TMDL is the sum of the allowable loads of a single pollutant from all contributing point sources (waste load allocations) and non-point sources (load allocations), background contribution, plus a margin of safety. Discharges from Small MS4s are point source discharges subject to TMDLs. TMDLs are a mechanism to achieve compliance with water quality standards (i.e. receiving water limitations in this Order) in impaired water bodies. Incorporation of TMDL-based requirements into the MS4 permit, consistent with applicable basin plans, allows the permittee greater flexibility in achieving the water quality standards in the receiving water by allowing additional time to meet the receiving water limitations. The TMDL-specific requirements of Attachment G are mandated by federal law and federal regulations. Clean Water Act Section 303(d) states that each state "shall" identify impaired waterbodies, "shall" prioritize such waters/watersheds for future development of TMDLs, and "shall" develop TMDLs for the appropriate pollutants in accordance with the prioritization. (33 U.S.C. § 1313(d).) The TMDLs must be approved by U.S. EPA. *(Id.)* The Code of Federal Regulations provides that, once U.S. EPA approves a TMDL for a waterbody, the effluent limitations in any NPDES permit "shall" be "consistent with the assumptions and requirements of any available wasteload allocations." (40 C.F.R. § 122.44(d)(1)(vii)(B).) Specific to Phase II MS4 permits, the Code of Federal Regulations states that "the permit will include… [m]ore stringent terms and conditions… based on an approved total maximum daily load;"… (40 C.F.R. § 122.34(c)(1).) Federal law thus compels the State Water Board to include the TMDL-specific provisions of Attachment G in the Phase II MS4 Permit.

This Order requires Permittees to comply with all applicable TMDL-based requirements listed ~~requires Permittees to comply with all applicable TMDLs approved pursuant to 40 Code of Federal Regulations section 130.7 that assign a Waste Load Allocation to Permittee and that have been identified~~ in Attachment G. These requirements are consistent with the assumptions and requirements of the wasteload allocations established in the relevant TMDLs. (40 C.F.R. §122.44(d)(1)(vii)(B).) ~~The high variance in the level of detail and specificity of TMDLs necessitates the development of more specific permit requirements in many cases to provide clarity to the Permittees regarding responsibilities for compliance.~~ The requirements were developed by the State Water Board and the Regional Water Boards, in consultation with the permittees. ~~The Regional Water Boards have submitted TMDL-specific permit requirements to the State Water Board, for applicable TMDLs, along with statements~~The Fact Sheet incorporates a discussion ~~explaining~~ establishing ~~how~~ that the requirements are ~~designed to achieve~~consistent with the assumptions and requirements of the ~~goals~~wasteload allocations of the TMDLs~~(incorporated into the Fact Sheet). The TMDL-specific permit requirements are summarized in Attachment G and are an enforceable component of this Order. The Regional Water Boards are additionally being directed through this Order to review the TMDL-specific permit requirements of Attachment G in consultation with the Permittees and the State Water Board staff and propose any revisions to the State Water Board within one year of the effective date of this Order. TMDLs applicable to non-traditional dischargers in the region of the Los Angeles Regional Water Board are listed in Attachment G~

~~without TMDL-specific permit requirements. The Los Angeles Water Board is being directed to develop and propose TMDL-specific permit requirements for Attachment G in consultation with the Permittees and the State Water Board staff within one year of the effective date of this Order. Any such revisions will be incorporated into the permit through a reopener.~~

Past final TMDL wasteload allocation attainment deadlines are enforceable on the effective date of this Order on July 1, 2018. It is appropriate to set the effective date of the Order at July 1, 2018, one year following adoption, in order to allow permittees additional time to demonstrate attainment of the waste load allocations, request time schedule orders incorporating compliance schedules for the attainment of the waste load allocations, or request consideration by the Regional Water Board Executive Officer of whether the particular regulatory language of a given TMDL allows for an extension of a deadline for attainment of the wasteload allocation. Attachment G specifies BMP-based WQBELs and other permit requirements for attainment of the wasteload allocations even in cases where the final wasteload allocation deadline is past. These requirements are appropriate because the Order states that it is not the intention of the State Water Board or the Regional Water Boards to take enforcement action against a permittee where (1) a permittee has applied in good faith for a time schedule order and is implementing the requirements in Attachment G pending approval of the time schedule order or (2) the Regional Board has initiated proceedings to revise the implementation schedule or other requirements of a TMDL and the permittee is implementing the requirements in Attachment G pending the outcome of the proceedings.

C. EFFLUENT LIMITATIONS

1. Permittees shall implement controls as required by this Order to reduce the discharge of pollutants from their MS4s to waters of the U. S. to the MEP. Permittees shall additionally reduce the discharge of pollutants (1) to achieve applicable TMDL waste load allocations in accordance with Sections E.15.a and F.5.i.1. of this Order ~~(WLAs) established for discharges by the MS4s~~ and (2) to comply with the Special Protections for discharges to ASBS in accordance with Section E.4 of this Order.

2. Storm water discharges regulated by this Order shall not contain a hazardous substance in amounts equal to or in excess of a reportable quantity listed in 40 C.F.R. Part 117 or 40 C.F.R. Part 302.

D. RECEIVING WATER LIMITATIONS

[…New paragraph at end of section]

If a Permittee fully complies with the applicable requirements and deadlines in Attachment G for a specific pollutant and water body, including the requirement to demonstrate attainment of the applicable wasteload allocation in accordance with sections E.15.a or F.5.i.1 of this Order, the Permittee is deemed to be in compliance with this section's requirement that discharges not cause or contribute to an exceedance of water quality standards for that specific pollutant and water body.

E. PROVISIONS FOR ALL TRADITIONAL SMALL MS4 PERMITTEES

E.13. WATER QUALITY MONITORING

E.13.b. TMDL Monitoring

All Permittees ~~that are assigned a wasteload allocation or identified as a responsible party in a TMDL approved by the U.S. EPA where urban runoff is listed as the source,~~ shall ~~comply with the monitoring requirements included~~implement any monitoring requirements assigned to them in Attachment G. ~~and consult with the Regional Water Board within one year of the effective date of the permit to determine the monitoring study design and a monitoring implementation schedule. Where a TMDL is limited to a single constituent within a single reach of the watershed, t~~ The Regional Water Board Executive Officer may require additional monitoring, per Water Code § 13383. ~~Permittees shall implement TMDL monitoring as specified by the Regional Water Board Executive Officer.~~

E.15. TOTAL MAXIMUM DAILY LOADS COMPLIANCE REQUIREMENTS

Attachment G contains a list of TMDL-specific, BMP-based water quality based effluent limitations (WQBELs) and other permit requirements, applicable to identified permittees, consistent with the assumptions and requirements of the applicable wasteload allocations of the TMDLs.

E.15.a. ~~The Permittee shall comply with all applicable TMDLs approved pursuant to 40 Code of Federal Regulations section 130.7 that assign a Waste Load Allocation to the Permittee and that have been identified in Attachment G.~~

~~E.15.b~~a. ~~WLA, Load Allocations (LA), effluent limitations, implementation requirements, and monitoring requirements are specified in the adopted and approved Regional Water Board Basin Plans and authorizing resolutions which are incorporated herein by reference as enforceable parts of this Order. Applicable Basin Plan amendments are resolutions are identified in Attachment G. Attachment G additionally contains a list of TMDL-specific permit requirements. developed by the Regional Water Boards for compliance with the implementation requirements of the relevant TMDLs. These requirements are an enforceable component of this Order.~~ Permittees shall comply with the requirement in Section C.1 to reduce the discharge of pollutants to achieve applicable TMDL wasteload allocations as follows:

1) Prior to the deadline to attain the final wasteload allocation, a permittee is deemed in compliance with the requirement in Section C.1 to *reduce the discharge of pollutants to achieve applicable TMDL wasteload allocations*, if the permittee is timely implementing all BMP-based WQBELs and other requirements specified in Attachment G for that TMDL. The permittee may alternatively make a demonstration in accordance with section E.15.a.2 below.

2) On or after the deadline to attain the final wasteload allocation, a permittee is deemed in compliance with the requirement in Section C.1 to *reduce the discharge of pollutants to achieve applicable TMDL wasteload allocations* if the permittee meets one or more of the criteria in subsections a-g below. For purposes of this section only, the wasteload allocations specified in the applicable TMDLs (as listed in the Fact Sheet) are incorporated by reference.

   a) Receiving water monitoring and analysis by the permittee or other responsible parties under the TMDL, as approved by the Regional

Water Board or its designee, demonstrates attainment of the applicable receiving water limitation in the waterbody as determined at the TMDL monitoring attainment locations or as determined at or immediately downstream of the permittee's discharge; or

b) Receiving water monitoring does not demonstrate attainment of the applicable receiving water limitation in the waterbody, but the permittee demonstrates, through an approach approved by the Regional Water Board or its designee, that exceedances of the receiving water limitations for the receiving water are due to loads from other sources and pollutant loads from the permittee are not causing or contributing to the exceedances; or

c) Where the wasteload allocation is expressed as a concentration, sampling of the permittee's discharge, as approved by the Regional Water Board or its designee, indicates that the discharge has attained the applicable wasteload; or

d) Where a mass-based wasteload has been allocated to an individual or jointly to a group or is expressed as a percent reduction in load, the permittee demonstrates, through an approach approved by the Regional Water Board or its designee, that the permittee's discharge is attaining the individual or joint allocation or the percent reduction; or

e) Where a wasteload allocation is expressed as the number of allowable exceedance days, the permittee demonstrates, through an approach approved by the Regional Water Board or its designee, that the permittee's discharge conforms to the allowable exceedance days; or

f) The permittee demonstrates, in a manner approved by the Regional Water Board or its designee, that no discharges, either directly or indirectly, from the permittee's MS4 to the applicable water body occurred during the relevant time period; or

g) The permittee demonstrates the attainment of the wasteload allocation through other factors as described by the specific TMDL(s)[1] and as approved by the Regional Water Board or its designee.

3) Pursuant to Section D, a permittee deemed in compliance with Section C.1 in accordance with subsections 1) and 2) of this section is also deemed in compliance with the Section D requirement to *not cause or contribute to an exceedance of water quality standards* for the specific pollutants and water bodies addressed.

E.15.b. In some cases, Attachment G includes dates that fall outside the term of

[1] As an example, the TMDL for Sacramento and San Joaquin Delta – Diazinon and Chlorpyrifos states "In determining compliance with the wasteload allocations, the Regional Water Board will consider any data or information submitted by the discharger regarding diazinon and chlorpyrifos inputs from sources outside of the jurisdiction of the permitted discharger, including any diazinon and chlorpyrifos present in precipitation and other available relevant information, and any applicable provisions In the discharger's NPDES permit requiring the discharger to reduce the discharge of pollutants to the maximum extent possible.", Resolution No. R5-2006-0061, Attachment 1, #11, Page 4.

this Order. ~~Compliance dates that have already passed are enforceable on the effective date of this Order.~~ Compliance dates for BMP-based WQBELs and other permit requirements that exceed the term of this Order are included for reference, and become enforceable in the event that this Order is administratively extended.

Wasteload allocation attainment dates that have already passed are enforceable on the effective date of this Order and have been assigned a due date of July 1, 2018.

1) If the Regional Water Board Executive Officer makes a determination, on a case by case basis, that the language of a particular TMDL allows flexibility to extend a final deadline to attain a wasteload allocation, the State Water Board Executive Director may amend Attachment G to provide an extended deadline following public notice and comment.

   Where a final deadline to attain a wasteload allocation is past and the permittee has not demonstrated compliance as specified in Section E.15.a above, the permittee may seek a time schedule order pursuant to Water Code section 13300 from the Regional Water Board. Permittees may either individually request a time schedule order or may jointly request a time schedule order with all Permittees subject to the TMDL in Attachment G. Permittees may also request time schedule orders where the permittee has not timely complied with a BMP-based WQBEL or other permit requirement in Attachment G.

   A request to the applicable Regional Water Board for a time schedule order shall include the following information:

   a) Any available data demonstrating the current quality of the MS4 discharge(s) in terms of the applicable wasteload allocation units (i.e. concentration and/or load) of the target pollutant(s) to the receiving waters subject to the TMDL;
   b) A description and chronology of structural controls and source control efforts carried out by the permittee since the effective date of the TMDL to reduce the pollutant load in the MS4 discharges to the receiving waters subject to the TMDL;
   c) Justification of the need for additional time to achieve the requirements;
   d) The specific actions the Permittee will take in order to meet the TMDL requirements and a time schedule of interim and final deadlines proposed to implement those actions. The actions will reflect the requirements specified for the TMDL in Attachment G; and
   e) A demonstration that the time schedule requested is as short as possible, taking into account the technological, operational, and economic factors that affect the design, development, and implementation of the control measures that are necessary to comply with the TMDL requirements.

2) It is not the intention of the State Water Board or the Regional Water Boards to bring an enforcement action for non-attainment of the wasteload allocation where:

   a) A permittee is in compliance with a time schedule order's implementation requirements and compliance schedule;

b) A permittee has in good faith requested a time schedule order from the Regional Water Board and is in compliance with all BMP-based WQBELs and other permit requirements of Attachment G, except the requirement to attain the applicable wasteload allocation by the final attainment deadline;

c) A Regional Water Board has initiated proceedings to revise the TMDL to provide additional time for attainment or to modify TMDL wasteload allocations and the permittee is in compliance with all BMP-based WQBELs and other permit requirements in Attachment G, except the requirement to attain the applicable wasteload allocation by the final attainment deadline.

~~E.15.c.~~ ~~The Regional Water Boards are directed to review, within one year of the effective date of this Order, the TMDL-specific permit requirements contained in Attachment G and to develop or propose revisions, as appropriate, to TMDL- specific permit requirements to the State Water Board after consultation with the Permittees and State Water Board staff. Any proposed revisions by the Regional Water Boards shall be supported by an explanation of how the proposed TMDL-specific permit requirements are consistent with the assumptions and requirements of applicable WLAs and with the goals of the TMDL. Where a TMDL is limited to a single constituent within a single reach of the watershed, the Regional Water Board Executive Officer may require additional monitoring, per Water Code § 13383. The State Water Board will incorporate any necessary revisions through a reopener.~~ The State Water Board may ~~additionally~~ revise this Order through a reopener to incorporate any modifications or revisions to the TMDLs in Attachment G, or to incorporate any new TMDLs adopted during the term of this Order that assign a ~~WLA~~ wasteload allocation to a Regulated Small MS4 or that identify a Regulated Small MS4 as a responsible party. In revising Attachment G, the State Water Board will allow adequate notice and public review.

E.15.d. The Permittee shall complete and report the status of their implementation of the specific TMDL implementation requirements that have been incorporated into the permit with each Annual Report via SMARTS. Reporting on TMDL implementation shall include the following information:

1) A description of BMPs implemented, including types, number, and locations
2) All supplemental information and reports required under the specific TMDL implementation requirements in Attachment G
3) An assessment of the effectiveness of implemented BMPs in progressing towards attainment of wasteload allocations within the TMDLs' specified timeframes
4) All monitoring data, including a statistical analysis of the data to assess progress towards attainment of wasteload allocations within the TMDLs' specified timeframes
5) Based on results of the effectiveness assessment and monitoring, a description of the additional BMPs that will be implemented to attain wasteload allocations within the TMDLs specified timeframes

E.16. ANNUAL REPORTING PROGRAM

E.16.a. **By October 15 of each year**, ~~T~~The Permittee shall use State Water Board SMARTS to submit a summary of the past year activities for each program element and certify compliance with all requirements of this permit. If a Permittee is unable to certify compliance with a requirement, the Permittee must submit in SMARTS the reason for failure to comply, a description and schedule of tasks necessary to achieve compliance, and an estimated date for achieving full compliance.

F. NON-TRADITIONAL SMALL MS4 PERMITTEE PROVISIONS

F.5. PROVISIONS

F.5.i. TOTAL MAXIMUM DAILY LOADS COMPLIANCE REQUIREMENTS

~~**F.5.i.1.** The Permittee shall comply with all applicable TMDLs approved pursuant to 40 Code of Federal Regulations § 130.7 that assign a Waste Load Allocation to the Permittee and that have been identified in Attachment G.~~

~~F.5.i.~~1)~~2.~~ ~~Waste Load Allocations (WLA), Load Allocations (LA), effluent limitations, implementation requirements, and monitoring requirements are specified in the adopted and approved Regional Water Board Basin Plans and authorizing resolutions which are incorporated herein by reference as enforceable parts of this Order. Applicable Basin Plan amendments and resolutions are identified in Attachment G. With the exception of the TMDLs for the Los Angeles Regional Water Board, Attachment G additionally contains a list of TMDL-specific permit requirements developed by the Regional Boards for compliance with the implementation requirements of the relevant TMDLs.~~ Attachment G contains a list of TMDL-specific, BMP-based water quality based effluent limitations (WQBELs) and other permit requirements, applicable to identified permittees, consistent with the assumptions and requirements of the applicable wasteload allocations of the TMDLs.

the requirement in Section C.1. to reduce the discharge of pollutants to achieve applicable TMDL wasteload allocations as follows:

a) Prior to the deadline to attain the final wasteload allocation, a permittee is deemed in compliance with the requirement in Section C.1 *to reduce the discharge of pollutants to achieve applicable TMDL wasteload allocations* if the permittee is timely implementing all BMP-based WQBELs and other requirements specified in Attachment G for that TMDL. The permittee may alternatively make a demonstration in accordance with section F.5.i.1.b) below.

b) On or after the deadline to attain the final wasteload allocation, a permittee is deemed in compliance with the requirement in Section C.1 *to reduce the discharge of pollutants to achieve applicable TMDL wasteload allocations* if the permittee meets one or more of the criteria in subsections i)-vii) below. For purposes of this section only, the wasteload allocations specified in the applicable TMDLs (as listed in the Fact Sheet) are incorporated by reference.

i) Receiving water monitoring and analysis by the permittee or other responsible parties under the TMDL, as approved by the Regional Water Board or its designee, demonstrates attainment of the applicable receiving water limitation in the waterbody as determined at the TMDL monitoring attainment locations or as determined at or immediately downstream of the

permittee's discharge; or

ii) Receiving water monitoring does not demonstrate attainment of the applicable receiving water limitation in the waterbody, but the permittee demonstrates, through an approach approved by the Regional Water Board or its designee, that exceedances of the receiving water limitations for the receiving water are due to loads from other sources and pollutant loads from the permittee are not causing or contributing to the exceedances; or

iii) Where the wasteload allocation is expressed as a concentration, sampling of the permittee's discharge, as approved by the Regional Water Board or its designee, indicates that the discharge has attained the applicable wasteload; or

iv) Where a mass-based wasteload has been allocated to an individual or jointly to a group or is expressed as a percent reduction in load, the permittee demonstrates, through an approach approved by the Regional Water Board or its designee, that the permittee's discharge is attaining the individual or joint allocation or the percent reduction; or

v) Where a wasteload allocation is expressed as the number of allowable exceedance days, the permittee demonstrates, through an approach approved by the Regional Water Board or its designee, that the permittee's discharge conforms to the allowable exceedance days; or

vi) The permittee demonstrates, in a manner approved by the Regional Water Board or its designee, that no discharges, either directly or indirectly, from the permittee's MS4 to the applicable water body occurred during the relevant time period; or

vii) The permittee demonstrates the attainment of the wasteload allocation through other factors as described by the specific TMDL(s)[2] and as approved by the Regional Water Board or its designee.

c) Pursuant to Section D, a permittee deemed in compliance with Section C.1 in accordance with subsections i) and ii) of this section is also deemed in compliance with the Section D requirement to *not cause or contribute to an exceedance of water quality standards* for the specific pollutants and water bodies addressed.

These ~~requirements are an enforceable component of this Order.~~

In some cases, ~~dates are given~~ Attachment G includes dates that fall outside the term of this Order. ~~Compliance dates that have already passed are enforceable on the effective date of this Order.~~ Compliance dates for BMP-based WQBELs and other permit requirements that exceed the term of this Order are included for reference, and become enforceable in the event that this Order is administratively extended.

Wasteload allocation attainment dates that have already passed are enforceable on the effective date of this Order and have been assigned a due date of July 1, 2018.

a) If the Regional Water Board Executive Officer makes a determination, on

[2] As an example, the TMDL for Sacramento and San Joaquin Delta – Diazinon and Chlorpyrifos states "In determining compliance with the wasteload allocations, the Regional Water Board will consider any data or information submitted by the discharger regarding diazinon and chlorpyrifos inputs from sources outside of the jurisdiction of the permitted discharger, including any diazinon and chlorpyrifos present in precipitation and other available relevant information, and any applicable provisions In the discharger's NPDES permit requiring the discharger to reduce the discharge of pollutants to the maximum extent possible.", Resolution No. R5-2006-0061, Attachment 1, #11, Page 4.

a case by case basis, that the language of a particular TMDL allows flexibility to extend a final deadline to attain a wasteload allocation, the State Water Board Executive Director may amend Attachment G to provide an extended deadline following public notice and comment.

Where a final deadline to attain a wasteload allocation is past and the permittee has not demonstrated compliance as specified in Section F.5.i.1).b) above, the permittee may seek a time schedule order pursuant to Water Code section 13300 from the Regional Water Board. Permittees may either individually request a time schedule order or may jointly request a time schedule order with all Permittees subject to the TMDL in Attachment G. Permittees may also request time schedule orders where the permittee has not timely complied with a BMP-based WQBEL or other permit requirement in Attachment G.

A request to the applicable Regional Water Board for a time schedule order shall include the following information:

i) Any available data demonstrating the current quality of the MS4 discharge(s) in terms of concentration and/or load of the target pollutant(s) to the receiving waters subject to the TMDL;
ii) A description and chronology of structural controls and source control efforts carried out by the permittee since the effective date of the TMDL to reduce the pollutant load in the MS4 discharges to the receiving waters subject to the TMDL;
iii) Justification of the need for additional time to achieve the requirements;
iv) The specific actions the Permittee will take in order to meet the TMDL requirements and a time schedule of interim and final deadlines proposed to implement those actions. The actions will reflect the requirements specified for the TMDL in Attachment G; and
v) A demonstration that the time schedule requested is as short as possible, taking into account the technological, operational, and economic factors that affect the design, development, and implementation of the control measures that are necessary to comply with the TMDL requirements.

b) It is not the intention of the State Water Board or the Regional Water Boards to bring an enforcement action for non-attainment of the wasteload allocation where:

i) A permittee is in compliance with a time schedule order's implementation requirements and compliance schedule;
ii) A permittee has in good faith requested a time schedule order from the Regional Water Board and is in compliance with all BMP-based WQBELs and other permit requirements of Attachment G, except the requirement to attain the applicable wasteload allocation by the final attainment deadline;
iii) A Regional Water Board has initiated proceedings to revise the TMDL to provide additional time for attainment or to modify TMDL wasteload allocations and the permittee is in compliance with all BMP-based WQBELs and other permit requirements in Attachment G, except the requirement to attain the applicable wasteload allocation by the final attainment deadline.

~~F.5.i.3.)~~ ~~The Regional Water Boards are directed to review, within one year of the effective date of this Order, the TMDL-specific permit requirements contained in Attachment G and to propose to the State Water Board any appropriate revisions after consultation with the Permittees and State Water Board staff. The Los Angeles Regional Water Board will develop TMDL-specific permit requirements within one year of the effective date of this Order in consultation with the Permittees and State Water Board staff. Any proposed revisions by the Regional Water Boards shall be supported by a statement of reasons explaining how the proposed TMDL-specific permit requirements are consistent with the assumptions and requirements of applicable WLAs and with the goals of the TMDL. The State Water Board will incorporate into this Order any necessary revisions, including the statements of reasons through a reopener.~~ The State Water Board may ~~additionally~~ revise this Order through a reopener to incorporate any modifications or revisions to the TMDLs in Attachment G, or to incorporate any new TMDLs adopted during the term of this ~~General Permit~~Order that assign a ~~WLA~~ wasteload allocation to the Permittee or that identify the Permittee as a responsible party. ~~Where a TMDL is limited to a single constituent within a single reach of the watershed, the Regional Water Board Executive Officer may require additional monitoring, per Water Code § 13383.~~ In revising Attachment G, the State Water Board will allow adequate notice and public review.

F.5.i.4) ~~.~~ The Permittee shall complete and have available a report that includes the status of their implementation of the specific TMDL implementation requirements that have been incorporated into the Order with each Annual Report. The TMDL implementation report shall include the following information:

a) A description of BMPs implemented, including types, number, and locations;
b) All supplemental information and reports required under the specific TMDL implementation requirements in Attachment G
c) An assessment of the effectiveness of implemented BMPs in progressing towards attainment of wasteload allocations within the TMDLs' specified timeframes
d) All monitoring data, including a statistical analysis of the data to assess progress towards attainment of wasteload allocations within the TMDLs' specified timeframes
e) Based on results of the effectiveness assessment and monitoring, a description of the additional BMPs that will be implemented to attain wasteload allocations within the TMDLs' specified timeframes

F.5.j. ONLINE ANNUAL REPORTING

F.5.j.2 **By October 15 of each year,** t~~T~~he Permittee shall use State Water Board's SMARTS to submit a summary of the past year activities for each program element and certify compliance with all requirements of this permit. If a Permittee is unable to certify compliance with a requirement, it must submit in SMARTS the reason for failure to comply, a description and schedule of tasks necessary to achieve compliance, and an estimated date for achieving full compliance.

CALIFORNIA STATE WATER RESOURCES CONTROL BOARD
1001 I STREET
SACRAMENTO, CA 95814

FACT SHEET
FOR

NPDES GENERAL PERMIT and WASTE DISCHARGE REQUIREMENTS
FOR

STORM WATER DISCHARGES FROM SMALL MUNICIPAL SEPARATE STORM SEWER SYSTEMS (ORDER)

ORDER No. 2013-0001-DWQ
As Amended by Order WQ 2015-0133-EXEC, Order WQ 2016-0069-EXEC, and 2017-0031-DWQ

This Fact Sheet describes the factual, legal, and methodological basis for the General Permit, provides supporting documentation, and explains the rationale and assumptions used in deriving the limits and requirements.

All changes are shown in Underline / ~~Strikeout~~ to show additions and deletions, respectively.

I. BACKGROUND

History

A 1972 amendment to the federal Water Pollution Control Act (also referred to as the Clean Water Act) provides that the discharge of pollutants to waters of the United States from any point source is unlawful unless the discharge is in compliance with a National Pollutant Discharge Elimination System (NPDES) permit. The 1987 amendments to the Clean Water Act added section 402(p), which established a framework for regulating storm water discharges under the NPDES Program. Subsequently, in 1990, the U.S. Environmental Protection Agency (U.S. EPA) promulgated regulations for permitting storm water discharges from industrial sites (including construction sites that disturb five acres or more) and from municipal separate storm sewer systems (MS4s) serving a population of 100,000 people or more. These regulations, known as the Phase I regulations, require operators of medium and large MS4s to obtain storm water permits. On December 8, 1999, U.S. EPA promulgated regulations, known as Phase II regulations, requiring permits for storm water discharges from Small MS4s and from construction sites disturbing between one and five acres of land. The Order accompanying this Fact Sheet regulates storm water discharges from Small MS4s.

A municipal separate storm sewer is a conveyance or system of conveyances (including roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, man-made channels, or storm drains): (i) "owned or operated by the United States, a State, city, town, borough, county, parish, district, association, or other public body (created by or pursuant to State law) having jurisdiction over disposal of sewage, industrial wastes, storm water, or other wastes, including special districts under State law such as a sewer district, flood control district or drainage district, or similar entity…." (ii) designed or used for collecting or conveying storm water; (iii) which is not a combined sewer; and (iv) which is not part of a Publicly Owned Treatment Works (POTW). [See Title 40, Code of Federal Regulations (40 C.F.R.) §122.26(b)(8).]

A Small MS4 is an MS4 that is not permitted under the municipal Phase I regulations. (40 C.F.R. §122.26(b)(16)). Small MS4s include systems similar to separate storm sewer systems in municipalities, such as systems at military bases, large hospital or prison complexes, and highways and other thoroughfares, but do not include separate storm sewers in very discrete areas, such as individual buildings. (40 C.F.R. §122.26(b)(16(iii).) This permit refers to MS4s that operate throughout a community as "Traditional MS4s" and MS4s that are similar to traditional MS4s but operate at a separate campus or facility as "Non-traditional MS4s."

Federal regulations allow two permitting options for storm water discharges: individual permits and general permits. The State Water Resources Control Board (State Water Board) elected to adopt a statewide general permit for Small MS4s in order to efficiently regulate numerous storm water discharges under a single permit. In certain situations a storm water discharge may be more appropriately and effectively regulated by an individual permit, a region-specific general permit, or by inclusion in an existing Phase I MS4 permit. In these situations, the Regional Water Quality Control Board (Regional Water Board) Executive Officer will direct the Small MS4 operator to submit the appropriate application, in lieu of a Notice of Intent (NOI), to comply with the terms of

this Order. In these situations, the individual or regional permits will govern, rather than this Order.

~~The existing General Permit (Water Quality Order 2003-0005-DWQ) was adopted by the State Water Board in April 2003 for a 5-year permit term. The existing General Permit expired in May 2008; however, it continues in force and in effect until rescinded by the State Water Board, or until a new Order is issued.~~

~~The~~ This Order regulates storm water runoff from small municipalities and other facilities, including federal and State operated facilities that can include universities, prisons, hospitals, military bases (e.g. State Army National Guard barracks, parks and office building complexes.) Regulating many storm water discharges under one permit greatly reduces the administrative burden associated with permitting individual storm water discharges. Permittees obtain coverage under this Order by filing an electronic NOI through the State Water Board's Stormwater Multiple Application and Report TrackingSystem (SMARTS) and by mailing the appropriate permit fee to the State Water Board.

Order Goals

The goals for the Order included:

1. Ensure statewide consistency for Regulated Small MS4s.
2. Include more specificity in Order language and requirements to streamline implementation of storm water programs.
3. Implement and enhance actions to control 303(d) listed pollutants, pollutants of concern, achieve ~~Waste Load~~Wasteload Allocations adopted under Total Maximum Daily Loads, and protect Areas of Special Biological Significance.
4. Implement more specific and comprehensive storm water monitoring, including monitoring for 303(d) listed pollutants.
5. Incorporate emerging technologies, especially those that are being increasingly utilized by municipalities (e.g., low impact development).
6. Include program elements that address Program Management Effectiveness Assessments.
7. Implement a step-wise stakeholder collaborative approach.

Stakeholder Collaborative Process

State Water Board staff conducted a series of stakeholder meetings with Permittees and other interested parties over a five year period, from 2007- 2012. These meetings included the California Stormwater Quality Association (CASQA) Phase II Small MS4 Subcommittee, representatives of non-governmental organizations, Non-traditional Small MS4s and Regional Water Board staff. The following is a summary of the stakeholder process.

State Water Board staff completed an administrative draft Order and submitted it to CASQA, U.S. EPA, Natural Resources Defense Council, Coast/Bay Keepers, and Heal the Bay for informal stakeholder review in February 2011. Each of the nine Regional Water Boards provided comments. Staff revised the draft Order to address the informal comments received and released it for 60-day public review in June 2011.

Approximately 151 comments were received and several workshops were held throughout California to meet Stakeholders, answer questions and discuss the development process.

On May 4, 2012 a second administrative draft was completed and submitted for informal stakeholder review. On May 18, 2012 the second draft Order was released for 60-day public review. Approximately 110 comments were received and a public hearing was held on August 8, 2012 to hear oral comments on the second administrative draft.

On November 16, 2012 a third draft was completed and submitted for 30-day public review period. The comment deadline was set for noon on December 17, 2012. Approximately 55 comments were received and a board workshop was held on January 8, 2013 to hear comments on the revisions made to the second administrative draft.

On January 23, 2013, a final draft was completed and proposed for State Water Board adoption.

In 2015, State Water Board staff conducted a series of stakeholder meetings with Permittees and other interested parties over several months to discuss proposed changes to the Order, specifically revising and Attachment G with updated TMDL requirements. These meetings included the CASQA Phase II Small MS4 Subcommittee, representatives of non-governmental organizations, Non-traditional Small MS4s and Regional Water Board staff. On June 5, 2017 a draft amendment to this Order was issued for a 30-day public review period. The public review period was extended by request and the due date for public comments became August 21, 2017.

II. PERMITTING APPROACH

Existing General Permit Approach

U.S. EPA storm water regulations for Phase II storm water permits envision a process in which entities subject to regulation develop a Storm Water Management Plan (SWMP). The SWMP contains detailed Best Management Practices (BMPs) and specific level-of-implementation information reviewed and approved by the permitting agency before the Permittee obtains coverage under the storm water permit. The existing General Permit followed this approach as suggested by U.S. EPA and simply identified goals and objectives for each of the six Minimum Control Measures.

The existing General Permit approach provides the flexibility to target an MS4's problem areas while working within the existing organizational structure. However, audits of Permittees and information gained from interviews with Regional Water Board staff revealed that many of these storm water programs lacked a baseline program and specific details in the SWMP to implement an adequate program for protection from the impacts of storm water runoff. Regional Water Board staff found it difficult to determine Permittees' compliance with the existing General Permit, due to the lack of specific requirements. The permit language did not contain specific deadlines for compliance, did not incorporate clear performance standards, and did not include measurable goals or quantifiable targets for implementation.[1]

The Regional Water Boards conducted approximately 36 on-site audits of MS4

[1] Storm W~~w~~ater Phase I MS4 Permitting: Writing more effective, measurable permits, EPA, Kosco.

programs[2] in the state that addressed 122 Permittees, including some Phase II Small MS4s. They found that programs with more specific permit requirements generally resulted in more comprehensive and progressive storm water management programs. For example, the more prescriptive permit requirements in the Los Angeles and San Diego MS4 permits require Permittees to be specific in how they implement their storm water program. The auditors concluded that the specificity of the provisions enabled the permitting authorities to enforce the MS4 permits and improve the quality of MS4 discharges. In addition, U.S. EPA on-site audits of MS4s throughout the nation have repeatedly shown the need for clear, measurable requirements in MS4 permits to ensure an effective and enforceable program.

Given this information, State Water Board staff aimed to write permit language clear enough to set appropriate standards and establish required outcomes.

Current Order Approach

The current approach simplifies assessment of Permittee compliance and allows the public to more easily access measurable results. The Order provisions establish compliance implementation levels such as escalating enforcement and requirements for tracking projects. Required actions include specific reporting elements to substantiate compliance with implementation levels. Regional Water Board staff will be able to evaluate each individual Permittee's compliance through an online Annual Report review and the program evaluation (audit) process.

Federal regulations and State law require that the implementation specifics of Municipal Storm Water NPDES permits be adopted after adequate public review and comment.[3] This Order's approach satisfies the public involvement requirements of both the federal Clean Water Act and the California Water Code. Permit details are known at the time of adoption of the Order. Substantive information as to how the discharger will reduce pollutants to the Maximum Extent Practicable (MEP) is not left to the details of the SWMP. The public need not guess program details until Regional Water Board review and approval of a SWMP, as was the case in the existing General Permit.

This Order specifies the actions necessary to reduce the discharge of pollutants in storm water to the MEP in a manner designed to achieve compliance with water quality standards and objectives. This set of specific actions is equivalent to the requirements that were included in a separate SWMP for each Permittee in the existing General Permit.

This Order effectively prohibits non-storm water discharges into municipal storm drain systems and watercourses within the Permittees' jurisdictions.

The State Board has also identified the most critical water quality problems as priorities

[2] Assessment Report on Tetra Tech's Support of California's MS4 Storm Water Program, July 2006.

[3] On January 14, 2003, the U.S. Ninth Circuit Court issued a decision in *Environmental Defense Center v. EPA* ((9th Cir. 2003) 344 F.3d 832.) This ruling upheld the Phase II regulations on all but three of the 20 issues contested. The court determined that applications for general permit coverage (including the NOI and any Storm Water Management Program [SWMP]) must be made available to the public, the applications must be reviewed and determined to meet the Maximum Extent Practicable (MEP) standard by the permitting authority before coverage commences, and there must be a process to accommodate public hearings. Regarding the issue of public participation, the Ninth Circuit noted that such participation was required because the "substantive information about how the operator of a small MS4 will reduce discharges to the maximum extent practicable" was found in the storm water management plan rather than the permit itself" (344 F3d at 857).

in this Order. The priorities include (1) discharges to Areas of Special Biological Significance (2) discharges to water bodies listed as impaired on the 303[d] list (3) Post-Construction Requirements and (4) Water Quality Monitoring Requirements. A majority of the Permittees' implementation efforts focus on the four priority areas as identified by the State Water Board.

Permittee Diversity
In California, Permittees face highly variable conditions both in terms of threats to water quality from their storm water discharges and resources available to manage those discharges. Consequently, making one set of prescriptive requirements work for all of them is inherently difficult. This Order contains separate provisions for Traditional and Non-traditional MS4s. The requirements for the Non-traditional MS4s are tailored specifically to the Non-traditional management structure. Additionally, this permit introduces the concept of compliance tiers in particular sections, designed to relieve the Regional Water Board burden of reviewing and approving individual SWMPs while preserving the ability of the Permittees to tailor requirements that address their unique circumstances.

Non-traditional MS4 Categories and Provisions
This Order identifies specific provisions Non-traditional MS4 Permittees must comply with in Section F and considers the following categories to be Non-traditional MS4s, but not limited to:

- Community Services Districts
- Fairgrounds
- Higher Education Institutions (Community Colleges and Universities)
- Military Bases
- Ports
- State Parks/Beaches/Historical Areas
- School Districts K-12
- State and Federal Prisons/Health Institutions
- State Vehicle Recreation Areas
- Water Agencies
- Transit Agencies

The regulations direct that the term Small MS4s includes "large hospitals" and "prison complexes." (40 C.F.R. §122.26(b)(16)(iii).) For purposes of State Water Board designation of state and federal hospitals and prisons, the Board interprets the terms "large hospital" and "prison complex" to mean health institutions and prison facilities with a resident and staff population of 5,000 or more. However, Regional Water Boards may designate smaller facilities on a case by case basis.

Guidance Document
The case for eliminating a SWMP for this second permit term has been clearly addressed, however, the latent advantages of having some form of a storm water management document has not.

First, a storm water management document assists Permittees in managing their storm water program. Such a document serves as guidance to (1) identify different staff involved in storm water compliance over multiple departments within the Permittee agency and, (2) provide those staff with a simple narrative connecting all the detailed, specific BMPs in relation to multiple Permittee departments. Simply put, the document provides the Permittee with a map to the compliance process.

Second, the storm water management document is an essential tool for Regional Water Board audits. During MS4 audits, the Regional Water Board typically requests and reviews a SWMP to understand the Permittee's storm water program and management structure. Although the Order contains specific details on each program requirement, it lacks the simple narrative nexus that a storm water management document can provide on how the storm water program is implemented by a specific Permittee. The guidance document may be in spreadsheet form, as a flowchart, or as a written narrative. In other words, the structure is left up to the Permittee as to the way in which they want to demonstrate or illustrate the relationship between their storm water program and their management structure. To that end, the guidance document will provide the Permittee with a clear map to the compliance process. Therefore, although the draft Order eliminates the submittal for review and approval of a SWMP, the requirement to develop a planning/guidance document has been retained for new Permittees.

New Permittees are allowed six months to develop and upload the guidance document to SMARTS along with the NOI and appropriate fee. The document is open for public viewing, but will not be reviewed and approved by the relevant Regional Water Board.

Renewal Permittees will also submit a guidance document and are allowed six months to develop and upload the guidance document to SMARTS along with the NOI and appropriate fee.

The State Water Board recognizes that in some instances Renewal Permittees' existing SWMPs have incorporated BMPs designed to address locality-specific storm water issues and that in some cases these BMPs may, because of locality-specific factors, be more protective of water quality than the minimum requirements established by this Order. Renewal Permittees will additionally include in the guidance document the following: identification and brief description of each BMP and associated measurable goal included in the Permittee's most current SWMP that constitutes a more specific local or tailored level of implementation that may be more protective of water quality than the minimum requirements of this Order; and identification of whether the Permittee proposes to maintain, reduce, or cease implementation for each more protective, locally-tailored BMP. In no instance may a BMP be reduced or ceased if it is required by the minimum standards set by this Order. Further, for each more protective, locally-tailored BMP and associated measurable goal for which the Renewal Permittee proposes to reduce or cease implementation, the Renewal Permittee may do so only if the Permittee can demonstrate, to the Regional Water Board Executive Officer, that the reduction or cessation is in compliance with this Order and the maximum extent practicable standard, and will not result in increased pollutant discharges. This process is designed to direct Renewal Permittees, where appropriate, to continue to implement more protective, locally-tailored BMPs and measurable goals developed in the previous permit term that were specifically designed to address local storm water priorities.

Summary of Significant Changes in this Order

This Order significantly differs from the previous order (Order 2003-0005-DWQ) by including the following:

- Specific BMP and Management Measure Requirements
- Elimination of submission of a SWMP for review and approval by the Regional Water Boards
- Electronic filing of NOIs and Annual Reports
- Waiver Certification

- New State Water Board and Regional Water Board designation criteria
- Separate requirements for Traditional and Non-traditional MS4s
- New program management requirements
- Post-construction storm water management requirements
- TMDL implementation requirements
- Requirements for ASBS discharges
- Water quality monitoring and BMP assessment
- Program effectiveness assessment

III. ECONOMIC CONSIDERATIONS

In 2000, the State Water Board issued a precedential order (Order WQ 2000-11 (Cities of Bellflower, et al.)) stating that cost of compliance with the programs and requirements of a municipal storm water permit is a relevant factor in determining MEP. The Order also explicitly stated that a cost benefit analysis is not required. The State Water Board discussed costs as follows:

> *While the standard of MEP is not defined in the storm water regulations or the Clean Water Act, the term has been defined in other federal rules...*
>
> *These definitions focus mostly on technical feasibility, but cost is also a relevant factor. There must be a serious attempt to comply, and practical solutions may not be lightly rejected. If, from the list of BMPs, a permittee chooses only a few of the least expensive methods, it is likely that MEP has not been met. On the other hand, if a permittee employs all applicable BMPs except those where it can show that they are not technically feasible in the locality, or whose cost would exceed any benefit to be derived, it would have met the standard. MEP requires permittees to choose effective BMPs, and to reject applicable BMPs only where other effective BMPs will serve the same purpose, the BMPs would not be technically feasible, or the cost would be prohibitive. Thus while cost is a factor, the Regional Water Board is not required to perform a cost-benefit analysis.*

(State Water Board Order WQ 2000-11, *supra,* p.20.) The State Water Board received extensive comments addressing the costs associated with compliance with the first publicly released Phase II small MS4 draft Order in June 2011. The depressed economic conditions in California challenge Permittees' ability to fully implement the requirements of the first draft permit. The State Water Board recognizes that many Permittees currently have limited staff and resources to implement storm water provisions. State Water Board staff carefully considered comments received regarding economic feasibility while revising the June 2011 draft Order. The Order continues to address critical water quality priorities, namely discharges to ASBS, TMDLs, and waterbodies listed as impaired on the 303(d) list, but aims to do so in a focused and cost-effective manner.

Brief History

State Water Board staff completed an administrative draft Order and submitted it to CASQA, U.S. EPA, Natural Resources Defense Council, Water Keepers, and Heal the Bay for informal stakeholder review in February 2011. Each of the nine Regional Water Boards also provided comments. Staff revised the draft Order to address the informal comments received and released it for 60-day public review in June 2011. Approximately 151 comments were received and several workshops were held throughout California to meet Stakeholders, answer questions and discuss the development process.

On October 6, 2011, the California Senate Select Committee on California Job Creation and Retention held a hearing on the economic impacts of the State Water Board's three general or statewide storm water permits that were under renewal: the Phase II Small MS4 permit, the Industrial General Permit, and the Caltrans statewide MS4 permit. The Executive Director of the State Water Board testified at the hearing that the comments regarding cost of compliance with the permits were being considered carefully and that the three permits required substantial revision to address the comments. Following the hearing, State Water Board staff launched Stakeholder meetings beginning in November 2011 to April 2012. The meetings were held with CASQA, National Resources Defense Council, Water Keepers, Heal the Bay and each category of Non-traditional Small MS4 proposed for designation in the draft permit. The meetings were designed to discuss implementation challenges and solutions for each section of this Order, given the issues raised at the Senate hearing and the written comments from the June 2011 draft Order. Substantial revisions were then made and were reflected in the May 2012 draft Order. State Water Board staff attempted to reduce costs while maintaining the level of water quality protection mandated by CWA, CWC and other applicable requirements**.**

Approach to Cost of Compliance
This section is a general discussion of the more significant changes between the June 2011 and the May 2012 draft Order, including cost of compliance. It is not possible to accurately predict the cost impact of requirements that involve an unknown level of implementation or that depend on environmental variables that are as yet undefined. Only general conclusions can be drawn from this information.

It is extremely important to note that many storm water program components and their associated costs existed before any MS4 permits were issued. For example, storm drain maintenance, street sweeping and trash/litter collection costs cannot be solely or even principally attributed to MS4 permit compliance since these long-standing practices preceded the adoption of the earliest storm water permit in 1990. Even many structural BMPs (erosion protection, energy dissipation devices, detention basins etc.) are standard engineering practice for many projects and are not implemented solely to comply with permit provisions. Therefore, the true cost resulting from MS4 permit requirements is some fraction of the total storm water program costs.

The California State University, Sacramento study found that only 38% of program costs are new costs fully attributable to MS4 permits. The remainder of program costs was either pre-existing or resulted from enhancement of pre-existing programs.[4] The County of Orange found that even lesser amounts of program costs are solely attributable to MS4 permit compliance, reporting that the amount attributable to implement its Drainage Area Management Plan is less than 20% of the total budget. The remaining 80% is attributable to pre-existing programs.[5] Any increase in cost to the Permittees by the requirements of this Order will be incremental in nature.

Testimony from the California Senate Select Committee on California Job Creation and Retention hearing and comment letters on the June 2011 draft Order asserted numerous estimates of compliance costs. Generally, the estimates are based on worst-case scenarios or the most restrictive interpretation of the June 2011 draft Order. A worst-case scenario would come about, for example, if a new Traditional MS4 Permittee fails to leverage existing resources and maximize efficiencies, and does not segregate

[4] Ibid. p. 58.
[5] County of Orange, 2000. A NPDES Annual Progress Report. P. 60. More current data from the County of Orange is not used in this discussion because the County of Orange no longer reports such information.

pre-existing program expenditures and new costs to implement the storm water program when considering cost of compliance. Furthermore, the assertions do not take into consideration the phased-in nature of many of the June 2011 draft Order requirements. Finally, the cost estimate assertions did not address the diversity among Permittees, specifically the different levels of compliance from a new vs. renewal Traditional MS4 Permittee expenditure and new vs. renewal Non-traditional MS4 expenditure and funding sources.

State Water Board staff estimated the cost of compliance in two ways. First, staff utilized cost data from the California State University (CSUS) NPDES Stormwater Cost Survey[6]. The rationale for using this document is that it's very difficult to precisely determine the true cost of implementation of the Permittees' storm water management program as affected by this Order. Reported costs of compliance for the same program element vary widely from city to city and by a very great margin that cannot be explained. However, economies of scale play a great role for the great margin of compliance costs. Some Permittees storm water programs are general funded while others utilize a service/user/utility fees to support the program. Unfortunately, those Permittees with general funded programs must compete for dollars in a dwindling economic climate. Furthermore, a study by the Los Angeles Regional Water Board reported wide variability in the cost of compliance among municipal permit holders, which was not easily explained.[7] Due to the wide diversity among the Permittees, Traditional and Non-traditional and new and renewal Permittees, the uncertainty of the extent of needed improvements, and the difficulty in isolating program costs attributable to permit compliance, the true cost of implementation can only be discussed in a general way.

Second, staff considered comparisons between the June 2011 draft Order and first term Phase I MS4 permits. The municipalities chosen in the CSUS survey were smaller Phase I cities, were early in the first permit term, and had reported cost in their annual reports. In addition, the cost categories correspond to the federal Phase II Small MS4 six minimum control measures. Given these factors, State Water Board staff estimated the worst-case scenario example to be a $32 median annual cost per household to implement the June 2011 draft Order. The CSUS survey estimated the annual cost per household for the six storm water programs ranged from $18 to $46.

Of the 100 new Traditional Small MS4s proposed to be designated, 20,000 is the average population with an average of 2.8 individuals per household, therefore the average annual cost to implement the June 2011 draft Order is approximately $229,000.

The average population of a renewal Traditional MS4 Permittee identified in the June 2011 draft Order is 27,353 with an average of 2.8 individuals per household. Therefore, the average annual cost to implement the June 2011 draft Order is approximately $313,000.

As discussed previously, the May 2012 draft Order has undergone substantial edits and no requirements have been added to the draft Order that would materially increase the cost of compliance. State Water Board staff carefully evaluated comments from Stakeholder meetings, written public comments, and testimony from the Senate Select Committee hearing. And, although the May 2012 draft Order contains these substantial revisions, the draft Order continues to protect storm water quality without overburdening Permittees and Businesses. Below is a list of some of the more significant changes to

[6] California State University, NPDES Stormwater Cost Survey, 2005

[7] LARWQCB, 2003. Review and Analysis of Budget Data Submitted by the Permittees for Fiscal Years 2000-2003. p.2

reduce costs.

1. Deleted annual cost analysis
2. Deleted Industrial/Commercial Inspection Program
3. Deleted mandatory construction inspection frequency
4. Deleted Trash Reduction Program
5. Modified post-construction standard requirements
6. Modified Community-Based Social Marketing provision
7. Modified Non-traditional MS4 provisions
8. Extended compliance deadlines
9. Eliminated redundancy with construction inventory and tracking requirements
10. Deleted mandatory development of a citizen advisory group
11. Deleted costly IDDE monitoring, complaint response based
12. Made spatial data in a Geographic Information System (GIS) optional
13. Deleted requirement to identify 20% of storm drain system as high priority
14. Included Water Quality Monitoring Tiers

Though no firm conclusions or precise estimates can be drawn from this analysis, it is expected that the revisions to the May 2012 draft Order will significantly reduce the cost of compliance of the average annual cost per household from the estimated $32 to substantially lower.

TMDLs
The cost of complying with TMDL waste-load allocations is not considered since TMDLs are not subject to the MEP standard. Federal law requires that NPDES permits contain effluent limitations consistent with the assumptions of any applicable wasteload allocation in a TMDL. (40 C.F.R. §122.44(d)(1)(vii)(B).)

Benefits of Permit Costs
The State Water Board further found in adopting Order WQ-2000-11 that in considering the cost of compliance, it is also important to consider the costs of impairment; that is, the negative impact of pollution on the economy and the positive impact of improved water quality. For example, economic benefits may result through program implementation, and alternative costs (as well as environmental impacts) may be incurred by not fully implementing the program.

Storm water management programs cannot be considered solely in terms of their costs. The programs must also be viewed in terms of their value to the public. For example, household willingness to pay for improvements in fresh water quality for fishing and boating has been estimated by U.S. EPA to be $158-210.[8] This estimate can be considered conservative, since it does not include important considerations such as marine waters benefits, wildlife benefits, or flood control benefits. The California State University, Sacramento study corroborates U.S. EPA's estimates, reporting annual household willingness to pay for statewide clean water to be $180.[9] Though these costs may be assessed differently at the state level than at the municipal level, the results indicate that there is public support for storm water management programs and that costs incurred by the Permittees to implement its storm water management program remain reasonable.

It is also important to consider the cost of not implementing a storm water management program. Urban runoff in southern California has been found to cause illness in people

[8] Federal Register / Vol. 64, No. 235 / Wednesday, December 8, 1999 / Rules and Regulations. P. 68793.
[9] State Water Board, 2005. NPDES Storm water Cost Survey. P. iv.

bathing near storm drains.[10] A study of south Huntington Beach and north Newport Beach found that an illness rate of about 0.8% among bathers at those beaches resulted in about $3 million annually in health-related expenses.[11] Extrapolation of such illness rates and associated health expenses to the beaches and other water contact recreation areas in the state would increase these costs significantly.

Storm water runoff and its impact on receiving waters also negatively affects the tourism industry. The California Travel and Tourism Commission estimated that out-of-state visitors spent $168 per person per day (including transportation) in California in 2007. The Commission estimated total direct travel spending in California was $97.6 billion, directly supporting 924,000 jobs, with earnings of $30.6 billion. Effects on tourism from storm water runoff (e.g. beach closures) can have a significant impact on the economy. The experience of Huntington Beach provides an example of the potential economic impact of poor water quality. Approximately eight miles of Huntington Beach were closed for two months in the middle of summer of 1999, impacting beach visitation and the local economy.

Finally, the benefits of storm water management programs must be considered in conjunction with their costs. A study conducted by University of Southern California and the University of California, Los Angeles assessed the costs and benefits of implementing various approaches for achieving compliance with the MS4 permits in the Los Angeles Region. The study found that non-structural systems would cost $2.8 billion but provide $5.6 billion in benefit. If structural systems were necessary, the study found that total costs would range from $5.7 to $7.4 billion, while benefits could reach $18 billion.[12] Costs are anticipated to be borne over many years, approximately a ten year minimum. That the benefits of the programs would considerably exceed their costs is a view corroborated by U.S. EPA, which also found that the benefits of implementation of its Phase II storm water rule would outweigh the costs.[13]

IV. UNFUNDED MANDATES

Article XIII B, Section 6(a) of the California Constitution provides that whenever "any state agency mandates a new program or higher level of service on any local government, the state shall provide a subvention of funds to reimburse that local government for the costs of the program or increased level of service." The requirements of this Order do not constitute state mandates that are subject to a subvention of funds.

First, the requirements of this Order do not constitute a new program or a higher level of service as compared to the requirements of the Existing Order. The overarching requirement to impose controls to reduce the pollutants in municipal storm water is dictated by the Clean Water Act and is not new to this permit cycle. (33 U.S.C. §1342(p)(3)(B).) The inclusion of new and advanced measures as the storm water programs evolve and mature over time is anticipated under the Clean Water Act (55 Fed. Reg. 48052), and these new and advanced measures do not constitute a new program or higher level of service. Further, this Order sets out a more detailed set of requirements compared to the 2003 Order in large part because, unlike the 2003 Order, this Order does not require submission of SWMPs. Specifics concerning how the

[10] Haile, R.W., et al, 1996. An Epidemiological Study of Possible Adverse Health Effects of Swimming in Santa Monica Bay. Santa Monica Bay Restoration Project.

[11] Los Angeles Times, May 2, 2005. Here's What Ocean Germs Cost You: A UC Irvine Study Tallies the Cost of Treatment and Lost Wages for Beachgoers Who Get Sick.

[12] LARWQCB, 2004. Alternative Approaches to Storm water Control.

[13] Federal Register / Vol. 64, No. 235 / Wednesday, December 8, 1999 / Rules and Regulations. P. 68791.

minimum measures will be implemented, which would have been proposed in the SWMP under the 2003 Order, are now incorporated into the Order itself.

Second, and more broadly, mandates imposed by federal law, rather than by a state agency, are exempt from the requirement that the local agency's expenditures be reimbursed. (Cal. Const., art. XIII B, §9, subd. (b).) The Draft Order implements federally mandated requirements under the Clean Water Act and its requirements are therefore not subject to subvention of funds. This includes federal requirements to effectively prohibit non-storm water discharges, to reduce the discharge of pollutants to the maximum extent practicable, and to include such other provisions as the Administrator or the State determines appropriate for the control of such pollutants. (30 U.S.C. §1342(p)(3)(B).) The authority exercised under this Order is not reserved state authority under the Clean Water Act's savings clause (*cf. Burbank v. State Water Resources Control Bd.* (2005) 35 Cal.4th 613, 627-628), but instead is part of a federal mandate to develop pollutant reduction requirements for municipal separate storm sewer systems. To this extent, it is entirely federal authority that forms the legal basis to establish the permit provisions. (See, *City of Rancho Cucamonga v. Regional Water Quality Control Bd.-Santa Ana Region* (2006) 135 Cal.App.4th 1377, 1389; *Building Industry Ass'n of San Diego County v. State Water Resources Control Bd.* (2004) 124 Cal.App.4th 866, 882-883.)

Further, the maximum extent practicable standard is a flexible standard that balances a number of considerations, including technical feasibility, cost, public acceptance, regulatory compliance, and effectiveness. (*Building Ind. Ass'n~~o~~., supra,* 124 Cal. App.4th at pp. 873, 874, 889.) Such considerations change over time with advances in technology and with experience gained in storm water management. (55 Fed.Reg. 48052.) Accordingly, the determination of whether the Draft Order conditions exceed the requirements of federal law cannot be based on a point by point comparison of the permit conditions and the six minimum measures that are required "at a minimum" to reduce pollutants to the maximum extent practicable and to protect water quality (40 C.F.R. §122.34). Likewise, individual permit provisions cannot be considered in isolation. When implementing the federal requirement to reduce pollutants to the maximum extent practicable, the entire permit must be evaluated as a whole. This is so because the permitting agency may decide that it is more practicable to expend limited municipal resources on one aspect of the permit rather than another. In other words, requirements in one area may be relaxed to account for greater expenditures in another that will reduce pollutants to the maximum extent practicable

In recent months, the County of Los Angeles and County of Sacramento Superior Courts have granted writs setting aside decisions of the Commission on State Mandates that held that certain requirements in Phase I permits constituted unfunded mandates. In both cases, the courts found that the correct analysis in determining whether a municipal storm water permit constituted a state mandate was to evaluate whether the permit conditions were expressly specified in federal statute or regulation but whether the permit conditions exceeded the maximum extent practicable standard. (*State of Cal. v. Comm. On State Mandates* (Super. Ct. Sacramento County, 2012, No. 34-2010-80000604), *State of Cal. v. County of Los Angeles* (Super. Ct. Los Angeles County, 2011, No. BS130730.) It should be noted that USEPA has issued an MS4 Permit Improvement Guide (April 2010, available at: http://www.epa.gov/npdes/pubs/ms4permit_improvement_guide.pdf) that recommends many provisions for Phase II MS4 permits not explicitly specified in the six minimum measures established at Code of Federal Regulations, title 40, section 122.34.

As laid out in this Fact Sheet and as supported by the record of this permitting action,

the requirements of the Draft Order, taken as a whole rather than individually, are necessary to reduce the discharge of pollutants to the maximum extent practicable, to effectively prohibit non-storm water discharges, and to protect water quality. The findings as to implementing these federal requirements are the expert conclusions of the principal state agency charged with implementing the NPDES program in California. (Wat. Code, §§13001.) The requirements of the Draft Order do not constitute an unfunded mandate.

It should be noted that the Draft Order provisions to effectively prohibit non-storm water discharges are also mandated by the Clean Water Act. (33 U.S.C. §1342(p)(3)(B)(ii).) Likewise, the provisions of this Draft Order to implement total maximum daily loads (TMDLs) are federal mandates. Federal law requires that permits must contain effluent limitations consistent with the assumptions of any applicable wasteload allocation in a TMDL. (40 C.F.R. §122.44(d)(1)(vii)(B).)

Finally, even if any of the permit provisions could be considered unfunded mandates, under Government Code section 17556, subdivision (d), a state mandate is not subject to reimbursement if the local agency has the authority to charge a fee. The local agency permittees have the authority to levy service charges, fees, or assessments sufficient to pay for compliance with this Order. (See, e.g., *Apartment Ass'n of Los Angeles County, Inc. v. City of Los Angeles* (2001) 24 Cal.4th 830, 842.) The authority of a local agency to defray the cost of a program without raising taxes indicates that a program does not entail a cost subject to subvention. (*Clovis Unified School Dist. v. Chiang* (2010) 188 Cal. App.4th 794, 812, quoting *Connell v. Superior court* (1997) 59 Cal.App.4th 382, 401; *County of Fresno v. State of California* (1991) 53 Cal.3d 482, 487-488.)

V. ROLE OF THE REGIONAL WATER BOARDS

Under the Water Code, either the State Water Board or the regional boards have authority to issue NPDES permits (Wat. Code, §13377.) The State Water Board is issuing this Order; however Regional Water Board staff will continue to have the authority to evaluate each individual Permittee's compliance through online Annual Report review and by requesting a detailed annual report from Permittees anytime during the permit term. In addition, Regional Board staff can conduct program evaluations (audits). These evaluations can either be targeted or comprehensive evaluations. Responsibilities of Regional Water Board staff also include oversight of implementation and compliance with this Order. As appropriate, they can require modification to programs and other submissions, impose region-specific monitoring requirements, conduct inspections, take enforcement actions, and make additional designations of Regulated Small MS4s. The Regional Water Boards also have a role in approving water quality monitoring efforts and may also direct that dischargers carry out a particular type of education and outreach program (*see* discussion under Section XII).

Regional Water Boards may also issue individual permits to Regulated Small MS4s, and alternative general permits to categories of Regulated Small MS4s. In addition, Regional Water Boards may allow Phase II Permittees the ability to become Phase I Permittees within the same urbanized area. Upon issuance of such permits by a Regional Water Board, this Order shall no longer regulate the affected MS4s.

The Permittees and Regional Water Boards are encouraged to work together to accomplish the goals of the storm water program, specifically, by coordinating the oversight of construction and industrial sites. For example, certain Permittees are required to implement a construction program that must include procedures for

construction site inspection and enforcement. Construction sites disturbing an acre of land or more are also subject to inspections by the Regional Water Board under the State Water Board's Construction General Permit for Storm Water Discharges associated with Construction and Land Disturbance Activities (CGP). U.S. EPA intended to provide a structure that requires permitting through the federal Clean Water Act while at the same time achieving local oversight of construction projects. A structured plan review process and field enforcement at the local level, which is also required by this Order, were cited in the preamble to the Phase II regulations as the most effective components of a construction program.

The Permittees and Regional Water Boards are encouraged to coordinate efforts and use each of their enforcement tools in the most effective manner. However, in order to further ensure coordination, this Order requires Permittees to include procedures for referring non-filers as identified in the Program Management section and violations of the storm water general permits to the Regional Water Board when observed.

Dispute Resolution
As discussed, several areas of the permit will be mandated at the discretion of the Regional Board Executive Officer after permit adoption. In this function, the Regional Water Board Executive Officers are in essence acting as agents of the State Water Board. Therefore, determinations of the Regional Water Board Executive Officers in interpreting and implementing this permit are considered actions of the State Water Board (and accordingly not actions of the Regional Water Board subject to the petition process under Water Code section 13320) except where the Regional Water Board itself acts or the Executive Officer acts under Water Code Sections 13300, 13304, or 13383. However, recognizing the need for some level of statewide consistency in interpretation and implementation of Order provisions, the Order includes a dispute resolution process where there is disagreement between a Permittee and a Regional Water Board Executive Officer. The Permittee should first attempt to resolve the issue with the Executive Officer of the Regional Water Board. If a satisfactory resolution is not obtained at the Regional Water Board level, the Permittee may submit the issue in writing to the Executive Director of the State Water Board or his designee for resolution, with a copy to the Executive Officer of the Regional Water Board. The issue must be submitted to the Executive Director within thirty days of any final determination by the Executive Officer of the Regional Water Board; after thirty days the Permittee will be deemed to have accepted the Regional Water Board Executive Officer's determination. The Executive Officer of the Regional Water Board will be provided an opportunity to respond.

VI. ENTITIES SUBJECT TO THIS ORDER

This Order regulates discharges of storm water from Regulated Small MS4s. A Regulated Small MS4 is a Small MS4 that has been designated as regulated in accordance with criteria described in 40 C.F.R. 122.32.

a. Renewal Permittee - Traditional and Non-traditional MS4s

All Traditional and Non-traditional MS4s currently covered under the existing General Permit are covered under this Order and must implement the requirements of this Order.

b. New Traditional MS4 Permittee or New Urbanized Areas

In some cases, the urbanized boundaries and/or infrastructure of previously permitted Traditional MS4 Permittees may expand to include new areas

designated as urbanized under the 2010 U.S. Decennial Census (e.g., when new areas are annexed within the urbanized area). Permittees must identify and include these new urbanized areas as part of their existing storm water program. Any new urbanized areas must be indicated on Permittees permit boundary map. For cities, the permit area boundary is the city boundary. For counties, permit boundaries must include urbanized areas and places identified in Attachment A located within their jurisdictions. The boundaries must be proposed in the permit boundary map and may be developed in conjunction with the applicable Regional Water Board.

New Traditional MS4 Permittees that are outside of Urbanized Areas have been designated as Regulated Small MS4s based on one or more of the following criteria developed by the State Water Board:

1) High population and population density – High population means a population of 10,000 or more. High population density means a density greater than 1,000 residents per square mile. Also considered in this definition is high density created by a non-residential population, such as tourists or commuters.
2) Discharge to Areas of Special Biological Significance (ASBS) as defined in the California Ocean Plan.

The above factors were considered when evaluating whether an MS4 outside an Urbanized Area should be regulated pursuant to this Order. An MS4 and the population that it serves need not meet all of the factors to be designated. The criteria selected to designate MS4s to be regulated are based on the potential impact to water quality due to conditions influencing discharges into their system or due to their discharge location(s).

On a case by case basis, the Regional Water Boards may designate Small MS4s outside of Urbanized Areas as Regulated Small MS4s. Case by case determinations of designation shall be based on the potential of a Small MS4's discharges to result in exceedances of water quality standards, including impairment of designated uses, or other significant water quality impacts, including habitat and biological impacts. Where such case by case designations have been recommended by the Regional Water Boards prior to adoption of this Order, the designated Small MS4s are listed on the relevant Attachments to the Order and the reasons for designation are laid out in the Fact Sheet. The Regional Water Boards may continue to make case by case determinations of designation during the permit term by notification to the discharger, which shall include a statement of reasons for the designation.

Finally, any Small MS4 that contributes substantially to the pollutant loadings of a physically interconnected municipal separate storm sewer that is regulated by the NPDES storm water program must be designated as Regulated Small MS4s. An MS4 is interconnected with a separately permitted MS4 if storm water that has entered the MS4 is discharged to another permitted MS4. In general, if the MS4 discharges more than 10 percent of its storm water to the permitted MS4, or its discharge makes up more than 10 percent of the other permitted MS4's total storm water volume, it is a significant contributor of pollutants to the permitted MS4. In specific cases, the MS4s involved or third parties may show that the 10 percent threshold is inappropriate for the MS4 in question.

The definition for significant contributor of pollutants to an interconnected

permitted MS4 uses a volume of 10 percent, with the assumption that storm water contains pollutants. This is meant to capture flows that may affect water quality or the permit compliance status of another MS4, but exclude incidental flows between communities.

c. **New Non-traditional MS4 Permittees**

Non-traditional MS4s include, but are not limited to, universities, prisons, large hospitals, military bases (e.g., State Army National Guard barracks), and State parks.

The ~~existing~~ previous General Permit, Water Quality Order 2003-0005-DWQ, Attachment 3 listed Non-traditional MS4s anticipated to be designated by the end of the permit term, either by the State or Regional Water Boards. However, some Non-traditional MS4s were not designated. All Non-traditional MS4s, except K-12 School Districts, Offices of Education and Community Colleges, not yet designated are now subject to this Order. These entities are listed in Attachment B.

Additional Non-traditional MS4 Permittees have been designated as Regulated Small MS4s in accordance with the same criteria described in b above.

VII. APPLICATION REQUIREMENTS

All Regulated Small MS4s listed in Attachments A and B are automatically designated upon adoption of this Order and must file for coverage. To file for coverage, Permittees must electronically file an NOI on the State Water Board's SMARTS website and mail the appropriate permit fee to the State Water Board:

https://smarts.waterboards.ca.gov/smarts/faces/SwSmartsLogin.jsp

The NOI will include a statement that the discharger intends to comply with the BMP requirements of the Order in lieu of proposing BMP practices. Permittees must file the NOI by July 1, 2013.

Joint Phase II Co-Permittees or Permittees relying on Separate Implementing Entities must also electronically file an NOI via SMARTS and mail the appropriate fee to the State Water Board, by July 1, 2013.

Census Designated Places (CDPs) are included in Attachment A to clearly show that they are designated Phase II entities. However, CDPs that are located within an urbanized area and within an existing NPDES permit area do not have a government entity and as such, are not required to file separately and pay fees. The Permittee (ie. a designated county) will name the CDPs within their jurisdiction when they file their NOI via SMARTS.

For fee purposes, in determining the total population served by the MS4, both resident and commuter populations are to be included. For example, publicly operated school complexes including universities and colleges, the total population served would include the sum of the average annual student enrollment plus staff.

For community services districts, the total population served would include the resident population and any non-residents regularly employed in the areas served by the district. Regulated Small MS4s that fail to obtain coverage under this Order or other NPDES

permit for storm water discharges will be in violation of the Clean Water Act and the California Water Code.

The Order includes State and Regional Water Board contact information for questions and submittals.

Waiver Certification
This Order allows Regulated Small MS4s to request a waiver of requirements. Regulated Small MS4 must certify (1) their discharges do not cause or contribute to, or have the potential to cause or contribute to a water quality impairment, and (2) they meet one of the following three waiver options:

a. Option 1

(1) The jurisdiction served by the system is less than 1,000 people;
(2) The system is not contributing substantially to the pollutant loadings of a physically interconnected regulated MS4; and
(3) If the small MS4 discharges any pollutants identified as a cause of impairment of any water body to which it discharges, storm water controls are not needed based on waste load allocations that are part of an EPA approved or established TMDL that addresses the pollutant(s) of concern.

b. Option 2

(1) The jurisdiction served by the system is less than 10,000 people;
(2) The Regional Water Board has evaluated all waters of the U.S. that receive a discharge from the system;
(3) The Regional Water Board has determined that storm water BMPs are not needed based on wasteload allocations that are part of an EPA approved or established TMDL that addresses the pollutant(s) of concern or an equivalent analysis; and
(4) The Regional Water Board has determined that future discharges from the Regulated Small MS4 do not have the potential to result in exceedances of water quality standards.

c. Option 3 (applicable to Small MS4s outside an Urbanized Area only)

(1) Small Disadvantaged Community – a community with a population of 20,000 or less with an annual median household income (MHI) that is less than 80 percent of the statewide annual MHI (CWC § 79505.5 (a)).

VIII. POST-CONSTRUCTION STORMWATER MANAGEMENT CRITERIA FOR NEW DEVELOPMENT AND REDEVELOPMENT

This Order incorporates Site Design and Low Impact Development (LID) Runoff requirements for new development and redevelopment. The Order will incorporate runoff retention and hydromodification control criteria in the next permit term that will be keyed to specific watershed processes as identified by the State Water Board within specific Watershed Management Zones (WMZs). The WMZs will be used to identify applicable areas and appropriate criteria for runoff retention and hydromodification control.

IX. DISCHARGE PROHIBITIONS

Storm Water Discharges

This Order authorizes storm water and conditionally exempt non-storm water discharges[14] from the Permittees' MS4s subject to effluent and receiving water limitations. This Order prohibits the discharge of material other than storm water, unless specifically authorized in this Order.

Non-Storm Water Discharges

Section 402(p)(3)(B)(ii) of the Clean Water Act requires that MS4 permits include a requirement to effectively prohibit non-storm water discharges into the storm sewers. Prohibition B.3 of the Order implements this requirement. Although the Clean Water Act phrases the non-storm water discharge prohibition as a prohibition of discharges "into the storm sewers," this Order states that "discharges *through the MS4* of material other than storm water to waters of the U.S. shall be effectively prohibited." There is no meaningful distinction between the two language iterations as both prohibit discharges from reaching receiving waters and are consistent with the intent of the Clean Water Act. When discussing the effective prohibition of non-storm water discharger, U.S. EPA's preamble to its Phase I regulations uses the term "through" interchangeably with the term "into." (55 Fed. Reg. 47995.) Staff believes that the use of the phrasing "through the MS4 . . . to waters of the U.S." allows the Permittees greater flexibility with regard to utilizing dry weather diversions.

The Phase I regulations at 40 C.F.R. §122.34(b)(3)(iii).specify certain categories of non-storm water discharges that are conditionally exempt from the prohibition and the Order follows this approach. Unless authorized by a separate NPDES permit, non-storm water discharges that are not specifically exempted by this Order are prohibited. Certain enumerated conditionally exempt non-storm water discharges are allowed provided they are not found to be significant source of pollution If a discharger or a Regional Water Board Executive Officer determines that any individual or class of conditionally exempt non-storm water discharge may be a significant source of pollutants, the Regional Water Board may require the discharger to monitor and submit a report and impose BMPs to control the discharge.

Areas of Special Biological Significance

The State Water Board adopted the California Ocean Plan (Ocean Plan) on July 6, 1972 and revised the Ocean Plan in 1978, 1983, 1988, 1990, 1997, 2000, 2005 and 2009. The Ocean Plan prohibits the discharge of waste to Areas of Special Biological Significance (ASBS). The State Water Board designates ASBS as ocean areas requiring protection of species or biological communities to the extent that alteration of natural water quality is undesirable.

The Ocean Plan states that the State Water Board may grant an exception to Ocean Plan provisions where the State Water Board determines that the exception will not compromise protection of ocean waters for beneficial uses and the public interest will be served.

On October 18, 2004, the State Water Board directed several dischargers to cease the discharge of storm water and nonpoint source waste into ASBS, or request an exception to the Ocean Plan. Several of these dischargers are designated as Regulated Small MS4s.

[14] Conditionally exempt non-storm water also refers to authorized non-storm water.

On March 20, 2012, the State Water Board adopted Resolution 2012-0012 granting an exception from the Ocean Plan prohibition to 13 parties (Attachment D) designated as Regulated Small MS4s under this Order. In order to legally discharge into an ASBS, the parties must comply with the terms of the exception and have an appropriate authorization to discharge. Authorization for point source discharges to ASBS consists of coverage under this NPDES Order.

The parties authorized to discharge under the general exception are listed in Attachment D. The general exception contains "Special Protections" to protect beneficial uses and maintain natural water quality in ASBS. Limited by the special conditions in the resolution, parties listed in Attachment D can legally discharge waste into ASBS as long as the discharges are also regulated under this Order.

This Order incorporates the terms of the exception and includes the monitoring requirements the 13 parties identified as Regulated Small MS4s must comply with.

X. EFFLUENT LIMITATIONS

Consistent with Clean Water Act section 402(p)(3)(B)(iii), this Order requires that Permittees implement controls to reduce the discharge of pollutants from their MS4s to waters of the U. S. to the Maximum Extent Practicable (MEP). The MEP standard requires Permittees to apply Best Management Practices (BMPs) that are effective in reducing or eliminating the discharge of pollutants to the waters of the U.S. MEP emphasizes pollutant reduction and source control BMPs to prevent pollutants from entering storm water runoff. MEP may require treatment of the storm water runoff if it contains pollutants. The MEP standard is an ever-evolving, flexible, and advancing concept, which considers technical and economic feasibility. As knowledge about controlling urban runoff continues to evolve, so does that which constitutes MEP. BMP development is a dynamic process and may require changes over time as the Permittees gain experience and/or the state of the science and art progresses. Permittees must conduct and document evaluation and assessment of each relevant element of the program, and of the program as a whole, and revise activities, control measures/BMPs, and measurable goals, as necessary to meet MEP. MEP requires Permittees to choose effective BMPs, and to reject applicable BMPs only where other effective BMPs will serve the same purpose, the BMPs are not technically feasible, or the cost is prohibitive. Further, because local conditions vary, some BMPs may be more effective in one community than in another. MEP is the cumulative result of implementing, evaluating, and creating corresponding changes to a variety of technically appropriate and economically feasible BMPs, ensuring that the most appropriate BMPs are implemented in the most effective manner.

Under 40 Code of Federal Regulations section 122.44(k)(2) & (3), the State Water Board may impose BMPs for control of storm water discharges in lieu of numeric effluent limitations.[15]

[15] On November 12, 2010, U.S. EPA issued a revision to a November 22, 2002, memorandum in which it had "affirm[ed] the appropriateness of an iterative, adaptive management best management practices (BMP) approach"for improving storm water management over time. In the revisions, U.S. EPA recommended that, in the case thepermitting authority determines that MS4 discharges have the reasonable potential to cause or contribute to a water quality excursion, the permitting authority, where feasible, include numeric effluent limitations as necessary to meet water quality standards. However, the revisions recognized that the permitting authority's decision as to how to express water quality based effluent limitations (WQBELs), i.e. as numeric effluent limitations or BMPs, would bebased on an analysis of the specific facts and circumstances surrounding the permit. U.S. EPA has since invitedcomment on the 2010 memorandum and will be making a determination as to whether

In 2004, the State Water Board assembled a blue ribbon panel to address the feasibility of including numeric effluent limits as part of NPDES municipal, industrial, and construction storm water permits. The panel issued a report dated June 19, 2006, which included recommendations as to the feasibility of including numeric limits in storm water permits, how such limits should be established, and what data should be required.

The report concluded that "It is not feasible at this time to set enforceable numeric effluent criteria for municipal BMPs and in particular urban discharges. However, it is possible to select and design them much more rigorously with respect to the physical, chemical and/or biological processes that take place within them, providing more confidence that the estimated mean concentrations of constituents in the effluents will be close to the design target."

Consistent with the federal regulations, the findings of the Blue Ribbon Panel, and precedential State Water Board orders (State Water Board Orders Nos. WQ 91-03 and WQ 91-04), this Order allows the Permittees to implement BMPs to comply with the requirements of the Order.

XI. RECEIVING WATER LIMITATIONS

Under federal law, an MS4 permit must include "controls to reduce the discharge of pollutants to the maximum extent practicable . . . and such other provisions as . . . the State determines appropriate for the control of such pollutants." (Clean Water Act §402(p)(3)(B)(iii).) Consistent with this provision, requirements to meet water quality standards are at the discretion of the permitting agency. (*Defenders of Wildlife v. Browner* (9th Cir. 1999) 191 F3d 1159.)

The State Water Board has previously determined that limitations necessary to meet water quality standards are appropriate for the control of pollutants discharged by MS4s and must be included in MS4 permits. (State Water Board Orders WQ 91-03, 98-01, 99-05, 2001-15).). This Order accordingly prohibits discharges that cause or contribute to violations of water quality standards. Consistent with federal law, the State Water Board has also found it appropriate to require implementation of BMPs in lieu of numeric water quality-based effluent limitations and further, in lieu of "strict compliance" with water quality standards, has prescribed an iterative process of BMP improvement to achieve water quality standards. (State Water Board Orders WQ 91-03, 98-01, 2001-15; 40 C.F.R. §122.44(k).) As a result, this Order further sets out that, upon determination that a Permittee is causing or contributing to an exceedance of applicable water quality standards, the Permittee must engage in an iterative process of proposing and implementing additional control measures to prevent or reduce the pollutants causing or contributing to the exceedance. This iterative process is modeled on receiving water limitations set out in State Water Board precedential Order WQ 99-05 and required by that Order to be included in all municipal storm water permits.

The Water Boards have generally directed dischargers to achieve compliance with water quality standards by improving control measures through the iterative process and, as a matter of practice, have generally declined to initiate enforcement actions against MS4 permittees who have been actively engaged in the iterative process. At the same time, however, the Water Boards have maintained that the iterative process does

to "either retain the memorandum without change, to reissue it with revisions, or to withdraw it." http://www.epa.gov/npdes/pubs/sw_tmdlwla_comments_pdf

not provide a "safe harbor" to MS4 permittees:[16] that is, when a discharger is shown to be causing or contributing to an exceedance of water quality standards, that discharger is in violation of the relevant discharge prohibitions and receiving water limitations of the permit and potentially subject to enforcement by the Water Boards or through a citizen suit, even if the discharger is actively engaged in the iterative process.

The question of the "safe harbor" became a priority concern for storm water dischargers following the Ninth Circuit's holding in *Natural Resources Defense Council, Inc. v. County of Los Angeles* (2011) 673 F.3d 880 that engagement in the iterative process does not provide a safe harbor from liability for violations of permit terms prohibiting exceedances of water quality standards. Although the U.S. Supreme Court has reversed the judgment of the Ninth Circuit and remanded (on grounds unrelated to the "safe harbor" holding), *LA County Flood Control District v. NRDC* (2013) 568 U.S.____, the receiving water limitations provisions is expected to remain a significant issue for dischargers based on the position, to date, of the Water Boards that the iterative process does not provide a "safe harbor" from violations. The State Water Board has received multiple comments, from dischargers and from other interested parties, expressing confusion and concern about the Order provisions regarding receiving water limitations and the iterative process. Many commenters have stated that the provisions as currently written do not provide the dischargers with a viable path to compliance with the proposed Order. Other commenters, including environmental parties, support the current language.

As stated above, the provisions in this Order regarding receiving water limitations and the iterative process are based on precedential Board orders. Accordingly, substantially identical provisions are found in the adopted Caltrans MS4 NPDES permit, as well as the Phase I NPDES permits issued by the Regional Water Boards. Because of the broad applicability of any policy decisions regarding the receiving water limitations and iterative process provisions, the State Water Board held a public workshop on November 20, 2012, to consider this issue and seek public input.

Rather than delay consideration of adoption of the tentative Order in anticipation of any future changes to the receiving water limitations and iterative process provisions that may result from the public workshop and deliberation, the Board has added a specific reopener clause at Section H to facilitate any future revisions as necessary.

XII. STORM WATER MANAGEMENT PROGRAM FOR TRADITIONAL MS4s

PROGRAM ELEMENTS

Program Management

This component is essential to ensure timely implementation of all elements of the storm water program and consistency with the Order requirements. Lessons learned in California from Phase I Permittees and various municipal audits are that a Program Management element can:

a. Identify departments that assist with the implementation of the program as well as their roles and responsibilities; and

b. Maintain and enforce adequate legal authority to control pollutant discharges.

Adequate Legal Authority and Certification

[16] *Building Industry Assn. of San Diego County v. State Water Resources Control Bd.* (2004) 124 Cal.App.4th 866; *City of Rancho Cucamonga v. Regional Water Quality Control Bd.* (2006) 135 Cal.App.4th 1377.

Legal Authority: Clean Water Act § 402(p)(3)(b); 40 C.F.R. §§ 122.22(b), 122.34(b)(3)(ii)(B), (b)(4)(ii)(A), and (b)(5)(ii)(B); 122.41(k). MS4 Permit Improvement Guide, U.S. EPA, April 2010, EPA 833-R-10-001; MS4 Program Evaluation Guidance, U.S. EPA, EPA-833-R-07-003

Adequate legal authority is required for Permittees to implement and enforce their storm water programs. Without adequate legal authority, Permittees would be unable to perform many vital program elements such as performing inspections and requiring installation of control measures. In addition, Permittees would not be able to conduct enforcement activities, assess penalties and/or recover costs of remediation.

Enforcement Response Plan
Legal Authority: Clean Water Act §402(p)(3)(b); MS4 Permit Improvement Guide, U.S. EPA, April 2010, EPA 833-R-10-001; MS4 Program Evaluation Guidance, U.S. EPA, EPA-833-R-07-003

In ordinances or other regulatory mechanisms, Permittees are required to include penalty provisions to (1) ensure compliance with construction and industrial requirements, (2) to require the removal of illicit discharges, and (3) to address noncompliance with post-construction requirements. To meet these requirements, this Order requires enforcement responses that vary with the type of permit violation, and escalate if violations are repeated or not corrected. The Permittee must develop and implement an Enforcement Response Plan (ERP), which clearly describes the action to be taken for common violations associated with the construction program, illicit discharge detection and elimination, or other program elements. A well-written ERP provides guidance to inspectors on the different enforcement responses available, actions to address general permit non-filers, when and how to refer violators to the State, and how to track enforcement actions.

Education and Outreach on Storm Water Impacts

Legal Authority: Clean Water Act § 402(p)(3)(b); 40 C.F.R. § 122.34(b)(1); MS4 Permit Improvement Guide, U.S. EPA, April 2010, EPA 833-R-10-001; MS4 Program Evaluation Guidance, U.S. EPA , EPA-833-R-07-003; U.S. EPA Stormwater Phase II Final Rule Fact Sheet Series, U.S. EPA Stormwater Phase II Final Rule (64 FR 68722), U.S. EPA National Menu of Best Management Practices for Stormwater Phase II[17]; Measurable Goals Guidance for Phase II Small MS4s; U.S. EPA Getting In Step

Without a focused and comprehensive program, outreach and education efforts will be poorly coordinated and ineffective. This Order requires Permittees to develop an education and outreach program that is tailored and targeted to specific water quality issues of concern in the community. These community-wide and targeted issues should then guide the development of the comprehensive outreach program, including the creation of appropriate messages and educational materials. Outreach and education not only includes the public as the target audience, but includes Permittee staff and construction site operators as well.

This Order includes a different compliance path that, upon determination by a Regional Board Executive Officer, requires the possible implementation of Community-Based Social Marketing (CBSM). CBSM is a systematic way to change the behavior of communities to reduce their impact on the environment. Simply providing information is usually not sufficient to initiate behavior change. CBSM uses tools and findings from social psychology to discover the perceived barriers to behavior change and ways of

[17] http://cfpub.epa.gov/npdes/stormwater/menuofbmps/

overcoming these barriers.[18]

CBSM is also cited in EPA's Getting in Step[19] outreach guide which includes successful CBSM case studies. The CBSM path is included in Attachment E.

To ensure effective implementation of CBSM principles, Regional Water Boards who have invoked Attachment E, CBSM Requirements, are encouraged to consult with Permittees to ensure CBSM principles are implemented adequately. Regional Board staff should use the first year annual report and effectiveness assessment information during the consultation. The information gained from the consultation should assist the Regional Water Board's evaluation of program effectiveness and whether a Permittee should continue implementation of Attachment E.

In addition to external public outreach, outreach and education efforts should also be directed internally at Permittee staff who, as part of their normal job responsibilities, participate in storm water program operations such as illicit discharge detection and elimination, construction, and pollution prevention and good housekeeping. The training program will ensure proper illicit discharge and illicit connection identification, reporting and response. The construction training program will ensure that Permittee staff who is responsible for construction storm water program implementation receive adequate training. Additionally, the Permittee must develop educational materials and training for construction site operators to ensure program compliance. Construction operators must be educated about site requirements for control measures, local storm water requirements, enforcement activities, and penalties for non-compliance. Permittee staff training in pollution prevention/good housekeeping will ensure the incorporation of pollution prevention/good housekeeping techniques into Permittee operations.

A comprehensive and cohesive outreach and education program will likely be effective and well-coordinated if it involves the public, storm water program staff, and construction site operators.

This Order includes a list of potential residential and commercial pollution sources, but the Permittee may also identify other sources that contribute significant pollutant loads to the MS4. The Order identifies specific pollutant generating activities that must be addressed, including organized car washes, mobile cleaning and power washing operations, and landscape over-irrigation.

The Permittee is encouraged to use existing public educational materials in its program. The Permittee is also encouraged to leverage resources with other agencies and municipalities with similar public education goals.

In addition, this Order requires storm water education for school-age children. The United States suffers from a "nature deficit disorder" as discussed in popular literature (e.g., "Last Child in the Woods" by Richard Louv) and elsewhere (American Fisheries Society "Fisheries" magazine, available at www.fisheries.org). As discussed in the "America's Great Outdoors: A Promise to Future Generations" report, in order to make environmental stewardship and conservation relevant to young Americans, environmental and place-based, experiential learning must be integrated into school curricula and school facility management across the country.[20] If a program such as Splash (www.sacsplash.org/),Effie Yeaw Nature Center (www.sacnature.net) or Yolo Basin (www. Yolobasin.org) does not exist, Permittees are encouraged to use

[18] A variation of social marketing, referred to as CBSM by Canadian environmental psychologist Doug McKenzie- Mohr.
[19] Getting in Step, 3rd Edition, A Guide to Watershed Outreach Campaigns, November 2010 EPA 841-B-10-002
[20] http://americasgreatoutdoors.gov/files/2011/02/AGO-Report-With-All-Appendices-3-1-11.pdf

California's Education and Environment Initiative Curriculum (EEI)[21] or equivalent. California's landmark EEI Curriculum is a national model designed to help prepare today's students to become future scientists, economists, and green technology leaders.

The K-12th grade curriculum is comprised of 85 units teaching select Science and History-Social Science academic standards. Each EEI Curriculum unit teaches these standards to mastery using a unique set of California Environmental Principles and Concepts. The EEI curriculum was created to bring education about the environment into the primary and secondary classrooms of more than 1,000 school districts serving over 6 million students throughout California.

Classroom education plays an integral role in any storm water pollution outreach program. Providing storm water education through schools conveys the message not only to students but to their parents. Permittees should partner with educators and experts to develop storm water-related programs for the classroom. These lessons need not be elaborate or expensive to be effective.

The Permittees' role is to support a school district's storm water education efforts, not to dictate what programs and materials the school should use. Permittees should work with school officials to identify their needs. For example, if the schools request storm water outreach materials, Permittees can provide a range of educational aids, from simple photocopied handouts, overheads, posters and slide shows, to more costly and elaborate working models and displays.

The principal goal of any public education and outreach effort is to change awareness and knowledge. The advanced level public education and outreach effort goes a step further in pursuit of changing behavior. The Permittee should develop a process to assess its public education and outreach programs and to determine necessary improvements to raise public awareness and knowledge. The Permittee is encouraged to use a variety of assessment methods to evaluate the effectiveness of different public education activities. The first evaluation assessment must be conducted before the final year of the Permittee's coverage under this permit, before the next permit is issued. Permittees should coordinate their evaluation assessment with other Permittees on a regional level to determine how best to get the regional message out and how to facilitate awareness, knowledge and ultimately, behavior changes.

Public Involvement/Participation
Legal Authority: Clean Water Act § 402(p)(3)(b); 40 C.F.R. § 122.34(b)(2).
MS4 Permit Improvement Guide, U.S. EPA, April 2010, EPA 833-R-10-001

Storm water management programs can be greatly improved by involving the community throughout the entire process of developing and implementing the program. Involving the public benefits both the Permittee as well as the community. By listening to public concerns and coming up with solutions together, the Permittee stands to gain public support and the community should become invested in the program. The Permittees will likewise gain more insight into the most effective ways to communicate their messages.

This Order requires the development of a public involvement strategy, which may include a citizen advisory group or process to solicit feedback on the storm water program, and opportunities for citizens to participate in implementation of the storm

[21] http://www.californiaeei.org/

water program. If a citizen advisory group is developed, the group should meet with the local land use planners and provide input on land use code or ordinance updates so that land use requirements incorporate provisions for better management of storm water runoff and watershed protection. Public participation in implementation of the storm water program can include many different activities such as stream clean-ups, storm drain markings, volunteer monitoring, and participation in integrated regional water management and watershed planning efforts.

Permittees are encouraged to work together with other entities that have an impact on storm water (for example, schools, homeowner associations, Department of Transportation agencies, other MS4s). Permittees are also encouraged to work through existing advisory groups, community groups or processes in order to implement these public involvement requirements.

Illicit Discharge Detection and Elimination

Legal Authority: Clean Water Act § 402(p)(3)(b); 40 C.F.R. § 122.34(b)(3).
MS4 Permit Improvement Guide, U.S. EPA, April 2010, EPA 833-R-10-001

Studies have shown that dry weather flows from the storm drain system may contribute a larger amount of some pollutants than wet weather storm water flows.[22] Detecting and eliminating these illicit discharges involves complex detective work, which makes it hard to establish a rigid prescription to identify and correct all illicit connections. There is no single approach to take, but rather a variety of ways to get from detection to elimination. Local knowledge and available resources can play significant roles in determining which path to take. At the very least, communities need to systematically understand and characterize their stream, conveyance, and storm sewer infrastructure systems. Illicit discharges need to be identified and eliminated. The process is ongoing and the effectiveness of a program should improve with time. A well-coordinated IDDE programs can benefit from and contribute to other community-wide water resources- based programs such as public education, storm water management, stream restoration, and pollution prevention.[23]

This Order requires the Permittees to address illicit discharges into the MS4. An illicit discharge is defined as any discharge to a municipal separate storm sewer system that is not composed entirely of storm water, except allowable discharges pursuant to an NPDES permit (40 C.F.R. 122.34(b)(3)).[24] This Order includes requirements that the Permittee have the legal authority to effectively prohibit non-storm water discharges from entering storm sewers as well as provisions requiring the development of a comprehensive, proactive IDDE program.

Specifically, this Order requires the development of a map that includes outfalls operated by the Permittee within the urbanized area. The map will also include identification of receiving water bodies, priority areas (ie. areas with a history of past illicit discharges), and the permit boundary.

It is essential for Permittees to understand their stream and storm sewer systems and how illicit discharge sources are connected to outfalls that discharge to their system. To that end, this Order requires the development of an inventory that identifies potential illicit discharge sources and facilities. To proactively identify illicit discharges originating

[22] Evaluation of Non-Storm water Discharges to California Storm Drains and Potential Policies for Effective Prohibition. California Regional Water Quality Control Board. Los Angeles, CA., Duke, L.R. 1997., Results of the Nationwide Urban Runoff Program. Water Planning Division, PB 84-185552, Washington, D.C. U.S. EPA. 1983.

[23] Illicit Discharge Detection and Elimination A Guidance Manual for Program Development and Technical Assessments, CWP and Pitt, 2006

[24] Non-point source return flows from irrigated agriculture are not considered illicit discharges.

from priority inventoried sources, it is essential that an assessment is conducted at least once over the permit term. The assessment may include field observations, field screening, inspections and any other appropriate and effective survey methods that proactively identify potential illicit discharges. As an alternative, the Permittee may require a self-certification program that all appropriate BMPs are in place to prevent illicit discharges from the inventoried source or facility.

Further, a once per permit term survey of outfalls will identify outfalls needing sampling and possible follow-up actions[25]. The outfall inventory will also assist Permittees in the identification of "problem" outfalls, or those outfalls that may have a history of past illicit discharges. The inventory can be utilized to conduct source investigations and corrective actions for potential illicit discharges into their system. Additionally, dry weather sampling must be conducted in each subsequent year of the permit term for outfalls identified as priority areas. While the Order specifies indicator parameters used to detect illicit discharges, the Permittee may select alternative parameters to sample that are based on local pollutants of concern. Similarly, the action level concentrations for the indicator parameters may also be tailored to match the parameters selected based on local knowledge. Finally, the outfall inventory will assist Permittees in clearly understanding the stream system and the storm sewer system within their jurisdiction.

The Permittee shall provide a mechanism for public reporting of illicit discharges and spills.

Construction Site Storm Water Runoff Control
Legal Authority: Clean Water Act § 402(p)(3)(b); 40 C.F.R. § 122.34(b)(4).
MS4 Permit Improvement Guide, U.S. EPA, April 2010, EPA 833-R-10-001

Permittees must implement a construction site storm water runoff management program that includes an enforceable ordinance or other regulatory mechanism with commonly understood and legally binding definitions. These terms should be defined consistently across other related guidance and regulatory documents. The construction site storm water runoff management program is designed to prevent pollutants associated with construction activity from entering receiving water bodies (ie. sediment, fertilizers, pesticides, paints, solvents and/or fuels).

The Permittee must ensure that construction site operators select and implement appropriate construction site storm water runoff management measures to reduce or eliminate impacts to receiving waters. The Permittee is required to utilize California Stormwater Quality Association's (CASQA) Construction BMP handbook or equivalent to help guide their Construction Program). In the case that a project proponent is not implementing appropriate measures to reduce or eliminate impacts to receiving waters (ie. ineffective BMPs installed), the Permittee must take appropriate enforcement action to address the problem. Enforcement may include verbal warnings, written notices and escalated enforcement measures as described in the Enforcement Response Plan (Section E.6.c. of the Order).

The Permittee must establish review procedures for construction site plans to determine potential water quality impacts and ensure the proposed controls are adequate. These procedures should include a review of individual pre-construction site plans to ensure consistency with local sediment and erosion control requirements. In addition, the Permittee must conduct inspection and enforcement of erosion and sediment control

[25] The Permittee may utilize existing forms such as the CWP Outfall Reconnaissance Inventory/Sample Collection Field Sheet while conducting the mapping inventory and Field Sampling as specified below, in Section E.9.c.(http://cfpub.epa.gov/npdes/stormwater/idde.cfm)

measures once construction begins. The Permittees' Municipal Inspectors must be trained and qualified pursuant to the State Water Board sponsored Qualified Storm Water Pollution Prevention Plan (SWPPP) Practitioner (QSP) certification program. Inspections must be prioritized based on project threat to water quality. It is important that the following factors are considered in determining a project's threat to waterquality: soil erosion potential, site slope, project size and type, sensitivity of receiving waterbodies, proximity to receiving waterbodies, non-stormwater discharges, and a past record of non-compliance by the operators of the construction site.

While the construction site storm water runoff management program focuses the Permittee's detailed inspections on projects less than one acre, Permittees must use their discretion to provide oversight to projects that are subject to the CGP that pose a threat to water quality. For example, in the case that a Permittee identifies a project subject to the CGP that has BMPs that have not been maintained, the Permittee should notify the local Regional Water Board. Priority project sites include: sites with 5 acres or more of soil disturbance, sites with one acre or more soil disturbance that discharge to a tributary listed as impaired water for sediment or turbidity under the CWA Section 303(d), and other sites with one acre or more of soil disturbance determined by the Permittee or State or Regional Water Quality Control Board to be a significant threat to water quality.

Pollution Prevention/Good Housekeeping for Permittee Operations
Legal Authority: Clean Water Act § 402(p)(3)(b); 40 C.F.R. § 122.34(b)(6)

Permittees are required to develop a program to:

a. Prevent or reduce the amount of storm water pollution generated by permittee operations.

b. Train employees on how to incorporate pollution prevention/good housekeeping techniques into permittee operations.

c. Identify appropriate control measures and measurable goals for preventing or reducing the amount of storm water pollution generated by permittee operations.

Permittees must first assess the areas and municipal facilities that it controls, determine which activities may currently have a negative impact on water quality, and find solutions for any problems. The simplest solution is to limit the number of activities that are conducted outside and exposed to storm water.

Storm Drain System Maintenance
Storm drain systems need maintenance to ensure that structures within the storm drain system that are meant to reduce pollutants do not become sources of pollution. Maintenance of catch basins and storm sewers will prevent the accumulation of pollutants that are later released during rain events as well as blockages, backups, and flooding. Most Permittees have an existing program to maintain the storm sewer infrastructure. Some of these programs have tended to focus on flood control and complaint response rather than reducing water quality impacts from storm water discharges.

This Order requires that the system be maintained to prevent the discharge of pollutants into receiving waters. To achieve this, the storm sewer system must be mapped and a

program of regular maintenance established. The Permittee must establish a tiered maintenance schedule for the entire storm sewer system area, with the highest priority areas being maintained at the greatest frequency. Priorities are driven by water quality concerns and can be based on the land use within the watershed, the condition of the receiving water, the amount and type of material that typically accumulates in an area, or other location-specific factors. The Permittee also must use spill and illicit discharge data to track areas that may require immediate sewer infrastructure maintenance. Any waste that is collected must be disposed of in a responsible manner.

All storm sewer system maintenance procedures should be documented in the Permittee's standard operating procedures (SOPs) or similar type of documents. All staff should be trained on these SOPs. Maintenance activities should be documented and, where possible, quantified (e.g., number and location of inspections and clean-outs, type and quantity of materials removed). Characterization of the quantity, location, and composition of pollutants removed from catch basins can be used to assess the program's overall effectiveness, identify illicit discharges, and help the Permittee better prioritize implementation activities in the future.

Pollutant Generating Activities
This Order contains specific requirements and recommendations related to pollutant-generating activities such as discouraging conventional landscaping practices (including the application of pesticides, herbicides, and fertilizer) and operating and maintaining public streets.

Resource-sensitive landscaping practices such as integrated pest management (IPM), climate appropriate plant selection and irrigation, and mechanical (non-chemical) removal of unwanted plants are required under this Order. The use of other landscaping practices, such as mulch and compost, minimizing chemical inputs (pesticides, herbicides, and fertilizer), emphasis on maintaining and enhancing soil quality, and erosion control is required. The Order recognizes the storm water quality benefits that will likely result from implementation of the Water Efficient Landscape Ordinance required under AB 1881.

Flood Management Projects
The Order requires that water quality be considered when designing new and upgraded flood management projects. The focus of storm water management in the past has been to control flooding and mitigate property damage, with less emphasis on water quality protection. These structures may handle a significant amount of storm water and therefore offer an opportunity to modify their design to include water quality features for less than the cost of building new controls. This requirement applies to new and upgraded flood control projects.

Municipally-owned or operated facilities
Municipally-owned or operated facilities often serve as the focal point of activity for municipal staff from different departments. Some municipalities have one facility at which all activities take place (e.g., the municipal maintenance yard), while others may have several specialized facilities. A comprehensive inventory and map of facilities will help Permittee staff build a better awareness of facility locations within the MS4 and their potential to contribute storm water pollutants. The facility inventory will also serve as a basis for scheduling periodic facility assessments and developing, where necessary, facility storm water pollution prevention plans.

The best way to avoid pollutant discharges is to keep precipitation and runoff from coming into contact with potential pollutants. For example, the Permittee should cover

or build berms around stockpiles, create dedicated structures for stored materials, and maintain a minimum distance between stockpiles and storm water infrastructure and receiving waters.

Inspections
This Order requires comprehensive quarterly site inspections which is an appropriate frequency to ensure that material stockpiles that might be moved or utilized on a seasonal basis are protected from precipitation and runoff. Also, quarterly inspections will allow inspectors to observe different types of operations that occur at different times of the year (e.g., landscape maintenance crews are less active in the winter). Quarterly visual observations are required so that inspectors can see in real time the qualitative nature of the storm water discharge so that corrective action can be taken where necessary to improve on-site storm water controls.

This Order also specifies documentation requirements of inspection procedures and results, including inspection logs for each facility to ensure that the site inspections are consistent and that maintenance of storm water controls remains part of the municipality's standard operating procedures. The requirement for an inspection log will allow the Regional Water Boards to verify that periodic site inspections have been performed.

Storm Sewer System Maintenance
Fine particles and pollutants from run-off, run-on, atmospheric deposition, vehicle emissions, breakup of street surface materials, littering, and sanding (for improving traction in snow and ice) can accumulate in the gutters between rainfall events. Storm drain maintenance is often the last opportunity to remove pollutants before they enter the environment. Because storm drain systems effectively trap solids, they need to be cleaned periodically to prevent those materials from being picked up during high flow storm events.

Some catch basins will accumulate pollutants faster than others due to the nature of the drainage area and whether controls are present upstream of the catch basin. A priority ranking system is required for catch basins so that municipal resources are directed to the areas and structures that generate the most pollutants. Catch basins with the highest accumulations will need to be cleaned more frequently than those with low accumulations. The Order also includes a requirement that triggers catch basin cleaning when a catch basin is one-third full.

Proper storm drain system cleanout includes vacuuming or manually removing debris from catch basins; vacuuming or flushing pipes to increase capacity and remove clogs; removing sediment, debris, and overgrown vegetation from open channels; and repairing structures to ensure the integrity of the drainage system. It is important to conduct regular inspections of all storm sewer infrastructure and perform maintenance as necessary. Though these activities are intended to ensure that the storm drain system is properly maintained and that any accumulated pollutants are removed prior to discharge, if not properly executed, cleanout activities can result in pollutant discharges. The Permittee should carefully evaluate maintenance practices to minimize unintended pollutant discharges, such as flushing storm drains without capturing the discharge.

Materials removed from catch basins must not be allowed to reenter the MS4. If necessary, the material can be dewatered in a contained area and the water treated with an appropriate and approved control measure or discharged to the sanitary sewer. The solid material must be disposed of properly to avoid discharge during a storm event. Some materials removed from storm drains and open channels may require special

handling and disposal, and may not be suitable for disposal in a landfill.

Green waste on the streets
For some Traditional MS4 Permittees, residents are allowed to deposit non-containerized green waste (lawn and garden clippings) onto the street for weekly collection by the municipal staff. Permittees instruct residents to put the green waste out right before collection and to avoid putting it in gutters or near storm drains. However, green waste on the street is a potential illicit discharge and maintenance concern.[26] This Order prohibits green waste on the streets. Permittees must find additional ways to educate residents on the potential problems this practice can cause or to find alternatives to the current practice.

Street Sweeping and Cleaning Streets
Street sweeping and cleaning streets and parking lots is a practice that most municipalities initially conducted for aesthetic purposes or air quality benefit. However, the water quality benefits are now widely recognized. As a result, many California MS4 permits require some sort of street sweeping provision that require the MS4 to prioritize streets as high, medium, and low pollutant-generators and base the cleaning schedule appropriately.

This Order does not include street sweeping and cleaning streets as a permit requirement because MS4s already conduct these activities for aesthetics and air quality benefit. Permittees should count street sweeping not as a storm water compliance cost, but an aesthetic and air quality cost.

Third-party contractors
Third-party contractors conducting municipal maintenance activities must be held to the same standards as the Permittee. These expectations are required to be defined in contracts between the Permittee and its contractors; however, the Permittee is responsible for ensuring, through contractually-required documentation or periodic site visits, that contractors are using storm water controls and following standard operating procedures.

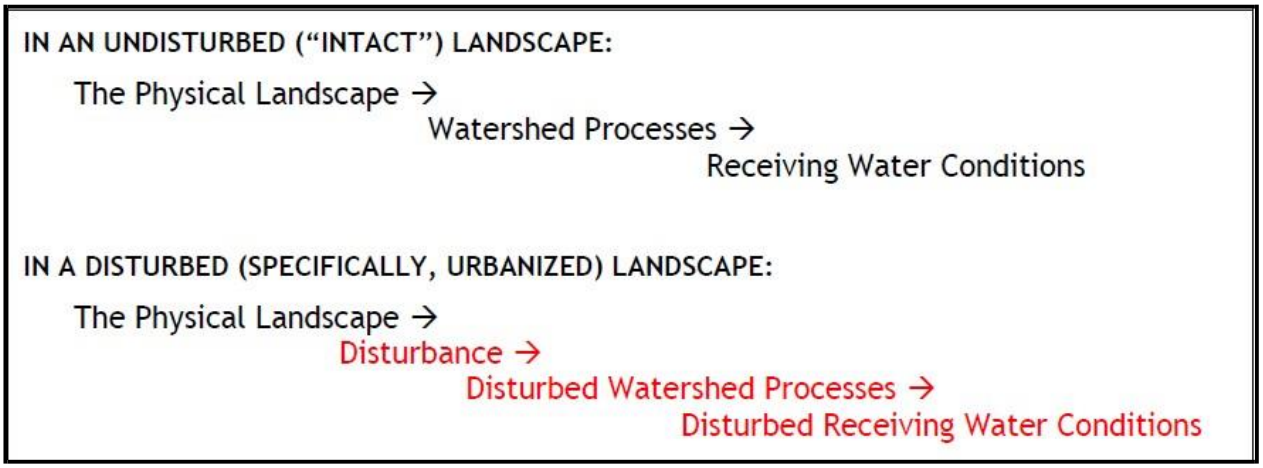
Post Construction Storm Water Management for New Development and Re-development
Legal Authority: Clean Water Act § 402(p)(3)(b); 40 C.F.R. § 122.34(b)(5).
MS4 Permit Improvement Guide, U.S. EPA, April 2010, EPA 833-R-10-001; U.S. EPA Incorporating Environmentally Sensitive Development into Municipal Stormwater Programs, EPA 833-F-07-011

In California, urban storm water is listed as the primary source of impairment for ten percent of all rivers, ten percent of all lakes and reservoirs, and 17 percent of all estuaries (2010 Integrated Report). Although these numbers may seem low, urban areas cover just six percent of the land mass of California[27], and so their influence is disproportionately large. Urbanization causes a number of changes in the landscape, including increased loads of chemical pollutants; increased toxicity; changes to flow magnitude, frequency, and seasonality of various discharges; physical changes to stream, lake, or wetland habitats; changes in the energy dynamics of food webs, sunlight, and temperature; and biotic interactions between native and exotic species.[28]

[26] Program Evaluation Report, Sacramento Area Stormwater Program, NPDES Permit No. CA0082597, May 21, 2002, USEPA and Tetra Tech Inc.
[27] U.S. Department of Agriculture, 2009
[28] Urban Storm Water Management in the United States, National Research Council, 2008.

These impacts are also referred to as “urban stream syndrome [29]. In addition to surface water impacts, urbanization can alter the amount and quality of storm water that infiltrates and recharges groundwater aquifers. In essence, once watershed processes are disturbed, receiving water conditions also become disturbed, (Figure 1) In California and the rest of the United States, the challenge to storm water managers and regulators has been to establish goals and performance standards that account for the highly variable nature of urban flow and pollutant inputs while ensuring that the ultimate biological response is within “acceptable” limits. The Surface Water AmbientMonitoring Program (SWAMP) is attempting to define biological responses through their Biological Objectives Development Process. Although final results and policy recommendations from this effort are not yet available, linking urbanization drivers to biological response represents the next phase in storm water management and cannot be delayed.[30]

Figure 1 – Relationship between Physical Landscape, Watershed Processes, and Receiving Water Condition



The Water Boards have historically derived site design, runoff reduction and hydromodification control criteria without identifying the dominant watershed processes and the sensitivity of receiving waterbodies to degradation of those processes. In most MS4 permits, projects are subject to the same set of criteria regardless of the dominant watershed processes and the sensitivity of receiving waters to degradation of those processes. In reality, every location on the landscape does not require the same set of control criteria because of intrinsic differences in the dominant watershed processes at each location and sensitivity of receiving waters to degradation of those processes. In recognizing this, the State Water Board is developing criteria that are more protective of receiving water quality.

The existing General Permit requires post-construction controls for areas of high growth or areas with a population greater than 50,000. These requirements are contained in Attachment 4 of Order 2003-0005-DWQ and include matching pre-development peak discharge rates, conserving natural areas, minimizing storm water pollutants of concern, protecting slopes and channels, and designing volumetric and flow through treatment measures to handle a specific volume or flow rate. These requirements represented an initial attempt at establishing performance standards that account for hydrological and geomorphological processes (Figure 1). Recent research has yielded new information

[29] Walsh, C.J., A.H.Roy, J.W. Feminella, P.D. Cottingham, P.M. Groffman, and R.P. Morgan. 2005. The urban stream syndrome: current knowledge and the search for a cure. J. N. Am. Benthol. Soc. 24(3):706–723.

[30] Urban Storm Water Management in the United States, National Research Council, 2008.

on complex watershed process interactions. For example, storm water management techniques that are intended to mimic natural hydrologic functions (e.g., low impact development) can protect key hydrologic processes such as surface and base flow, and groundwater recharge. Additionally, there is increasing awareness that, while site-based requirements are important to reduce impacts from urbanization, a site-based approach alone is unable to achieve a broader set of watershed goals, especially given the State Water Board's interest in regional issues such as water reuse, groundwater management, and maintaining instream flows. Consequently, a better understanding of watershed conditions and processes has become increasingly important in the development of MS4 permits.

This Order has specific site design and LID requirements for all projects. The LID requirements emphasize landscape-based site design features that are already required elsewhere (e.g., the Water Efficient Landscape Ordinance required under AB 1881).

Hydromodification Requirements

This Order also incorporates a baseline peak flow matching requirement for hydromodification control. During this permit term, the State Board will work towards developing runoff retention and hydromodification control criteria that are keyed to watershed processes (See discussion in Section VIII.) Watershed management zones[31] will be delineated by the State Board during this permit term. The watershed management zones will be used to identify applicable areas and to determine appropriate criteria for runoff retention and hydromodification control. Watershed process based runoff retention and hydromodification criteria will be incorporated into the next permit. Through the development of hydromodification measures based on watershed management zones, key watershed processes will be protected, and where degraded, restored. As a result of restored and maintained watersheds, key relationships between hydrology, channel geomorphology and biological health will be created and maintained and water quality/beneficial uses protected.

The State Water Board's efforts in developing runoff retention and hydromodification control criteria keyed to watershed processes can be significantly informed by similar efforts carried out regionally under the Regional Water Boards. This Order provides at Provision E.12.k (also referenced in F.5.g.) that Small MS4s shall comply with any post-construction storm water management requirements based on a watershed process approach developed by Regional Water Boards in lieu of the post-construction requirements of E.12 (also referenced in F.5.g.). The regional watershed process-based approach must be approved by the Regional Water Board following a public process and must include the following:

- Completion of a comprehensive assessment of dominant watershed processes affected by urban storm water
- LID site design and runoff reduction measures, numeric runoff treatment and retention controls, and hydromodification controls that will maintain watershed processes and protect water quality and beneficial uses.
- A process by which Regional Board staff will actively engage Permittees to adaptively manage requirements as determined by the assessment of watershed processes.
- An annual reporting program that involves Regional Board staff and State Board staff to inform statewide watershed process based criteria.

[31] A Watershed Management Zone (WMZ) is a combination of a Physical Landscape Zone (PLZ, based on surficial geology and slope) and direct receiving water type. Key watershed processes potentially impacted by urbanization (e.g., infiltration and groundwater recharge) are derived from each PLZ-receiving water combination.

A watershed process-based approach is already being used for Phase II MS4s that participated in the Central Coast Joint Effort for developing hydromodification control criteria. By Resolution No. R3-2012-0025 dated September 6, 2012, the Central Coast Water Board approved modifications to the SWMPs of MS4s participating in the Joint Effort. These modifications would incorporate the Central Coast-Specific Post-Construction Requirements into the SWMPs. Several petitions are currently pending before the State Water Board challenging the Resolution. In the November 16, 2012, draft of this Order, the requirements developed in the Joint Effort were proposed to be adopted into the Order as Attachment J. After receiving extensive public comment on Attachment J, the State Water Board determined that, while the Board continues to support a watershed process-based approach to hydromodification requirements, the Joint Effort process should be allowed to evolve and proceed, without incorporation into this Order, to address several unresolved issues acknowledged by the parties to that process, including the Regional Water Board. Under Provisions E.12.k (also referenced in F.5.g), the Central Coast Region Small MS4s will be required to implement watershed process-based requirements developed through the Joint Effort only after those requirements have been reconsidered and approved by the Central Coast Water Board. Because the requirements cannot be imposed through existing Resolution No. R3-2012-0025 (which operated as an update to SWMPs that are no longer required under this Order), the State Water Board expects the pending petitions on that Resolution to be moot as of adoption of this Order. As part of the petition process, the State Water Board will evaluate whether the entirety of the petitions are moot following adoption of the Order. However, any future action by a Regional Water Board, including the Central Coast Water Board, to adopt a regional watershed process-based approach would be subject to petitions for review by the State Water Board.

Multiple-benefits Projects

This Order encourages and allows for multiple-benefits projects at various scales. At the development site scale, multiple-benefit site design measures are required for all projects that create and/or replace more than 2,500 square feet of impervious surface. Designers are able to quantify runoff reduction using a site design runoff calculator in SMARTS for site design measures (e.g., trees, stream setbacks and buffers, and soil quality improvement). The site design measures in this Order all have multiple benefits (e.g., shading from trees, wildlife habitat from stream setbacks and buffers, less need for pesticides and irrigation from soil quality improvement) in addition to storm water runoff and pollutant load reduction. At the site and local scale, smart growth projects that utilize density, design and land use strategically to achieve multiple benefits including environmental, economic and social benefits are encouraged. For example, high density development contributes to less impervious surface than low density development, generally resulting in less vehicle-related emissions and pollutants (e.g., heavy metals, oil and grease, fine sediment), improved water and air quality results, thus, achieving environmental benefits. The clustering of populations through high density development essentially substitutes evaluation of individual site design criteria for evaluation of per capita loading (Jacob and Lopez 2009[32]). As such, Permittees may implement an alternative approach to requirements for bioretention measures if they can effectively demonstrate a reduction in runoff volume per capita. In other words, alternative compliance may be achieved through the implementation of high density development, or smart growth projects.

Section E.12.l gives “credit” and creates incentive for Permittees to identify and

[32] Jacob, John S. and Lopez, Ricardo. Is Denser Greener? An Evaluation of Higher Density Development as an Urban Stormwater-Quality Best Management Practice. Jourcal of the American Water Resources Association.June 2009: 45:3: 687 – 701.

implement watershed scale projects that achieve multiple-benefits. When evaluating watershed-scale, multiple-benefits projects, environmental, social, technical, economic, and political considerations can become intertwined to the point of intractability. These criteria need to be systematically examined through an organizing framework for rational analysis and alternative comparison. A Multi-Criterion Decision Analysis (MCDA) approach provides a flexible, rational, and transparent means to establish decision-making criteria and prioritize alternatives, assuring that projects achieve the desired multiple-benefit outcomes. Watershed scale multiple-benefit projects include projects that address water quality, water supply, flood control, habitat enhancement, open space preservation, recreation, and climate change. Once these projects are identified under Watershed Improvement Plans (Water Code §16100 et seq.), through an IRWMP process, or as part of an overall green infrastructure effort, the Permittee may impose requirements and create incentives on the site, local, and watershed scale to ensure project success.

Post-Construction BMP Condition Assessment
Permittees must understand how their actions reduce the discharge of pollutants to receiving waters. This is accomplished through an assessment of the performance of the Permittees BMPs, especially structural practices designed for specific pollutant/flow reductions. Only Renewal Permittees were required to install structural post-construction BMPs in the existing permit term. However, during MS4 audits by State and Regional Water Board staff, many of those BMP locations were unknown and not maintained causing water quality threats. In this Order, only Renewal Permittees are asked to implement a plan that contains simple and repeatable field observation and data management tools that can assist them in determining the relative condition of BMPs. The primary purpose is to inform Permittees of: 1) where the BMPs are located, 2) the relative urgency of water quality maintenance and, 3) provide a practical, consistent and reliable tool to track the condition of BMPs relative to observed condition at time of installation or immediately following complete maintenance. Permittees may implement this plan themselves or may be determined through a Self-Certification Annual Report submitted annually by an authorized party demonstrating proper maintenance and operations. Allowing an authorized party to conduct the BMP condition assessment offsets program costs and shifts responsibility to the party that should be maintaining the BMP they initially installed.

Applicability
Renewal Permittees currently listed in Attachment 4 to WQO 2003-0005-DWQ (Attachment 4) must continue to implement Attachment 4 Post-Construction Requirements up until the date when Section E.12 requirements of this Order are effective (the second year of the effective date of the Permit). All Permittees that are not subject to Attachment 4 must implement the CGP Post-Construction Requirements up until the second year of the effective date of the Permit. In the second year of the effective date of the permit, all Permittees, New and Renewal, must implement Section
E.12. Post-Construction Requirements contained within this Order.

Lastly, extensive monitoring studies conducted by the California Department of Public Health (CDPH) have documented that mosquitoes opportunistically breed in structural storm water Best Management Practices (BMPs), particularly those that hold standing water for over 96 hours. Certain Low Impact Development (LID) site design measures that hold standing water such as rainwater capture systems may similarly produce mosquitoes. These structures create a potential public health concern and increase the burden on local vector control agencies that are mandated to inspect for and abate mosquitoes and other vectors within their jurisdictional boundaries. These unintended

consequences can be lessened when structures incorporate design, construction, and maintenance principles developed specifically to minimize standing water available to mosquitoes1 while having negligible effects on the capacity of the structures to provide water quality improvements as intended. The California Health and Safety Code prohibits landowners from knowingly providing habitat for or allowing the production of mosquitoes and other vectors, and gives local vector control agencies broad inspection and abatement powers. This Order requires regulated MS4s to comply with applicable provisions of the Health and Safety Code and to cooperate and coordinate with CDPH and local mosquito and vector control agencies on vector-related issues.

Water Quality Monitoring Requirements

Legal Authority: Clean Water Act §§308(a), 402(p)(3)(b); 40 C.F.R. §§122.44(i), 122.48(b); MS4Permit Improvement Guide, U.S. EPA, April 2010, EPA 833-R-10-001; 2010 Integrated Report (Clean Water Act Section 303(d) List / 305(b) Report[33]; Ecological Condition Assessments of California's Perennial Wadeable Streams: Highlights from the Surface Water Ambient Monitoring Program's Perennial Streams Assessment (PSA) (2000-2007)[34]; National Research Council Report on Urban Storm Water in the United States, 2008[35]

The existing General Permit included requirements meant to eliminate or reduce the discharge of pollutants to receiving waters. Improved knowledge of the water quality impacts and management practices, obtained either as part of the permit requirements or from outside sources (e.g., scientific literature, studies, and expert panels), is intended to be used in an adaptive management fashion to inform requirements in subsequent permits. As such, monitoring and assessment represents a critical component in understanding the link between permit requirements, the benefits achieved due to those requirements, and the condition of receiving waters. Aside from general knowledge that storm water discharges from urbanized watersheds contribute pollutants to receiving waters, little is known about the specific conditions in such receiving waters outside of major metropolitan areas. The effectiveness of almost a decade of storm water management in Phase I MS4s has not been systematically evaluated through receiving water monitoring.

Nationwide, there are few of analyses of available data and guidance on how Permittees should be using the data to inform their storm water management decisions.

This Order prioritizes monitoring for ASBS, TMDLs, and 303d listed waterbodies. Permittees that have a population of 50,000 or greater and are part of an urbanized area are required to choose from a number of monitoring options. These larger Permittees are assumed to have the resources to undertake monitoring. For the majority of Phase II Permittees, this permit term will be the first time a monitoring program has been implemented. As such, prioritization of monitoring allows for a firm foundation from which Phase II Permittees may initiate and develop monitoring programs that will result in improvement of local knowledge of water quality impacts and implementation of storm water management practices. Any of the monitoring requirements may be conducted through participation in a regional monitoring group.

[33] 2010 Integrated Report can be found at: http://www.waterboards.ca.gov/water_issues/programs/tmdl/integrated2010.shtml

[34] Ode, P.R.1, T.M. Kincaid2, T. Fleming3 and A.C. Rehn 9. 2011. Ecological Condition Assessments of California's Perennial Wadeable Streams: Highlights from the Surface Water Ambient Monitoring Program's Perennial Streams Assessment (PSA) (2000-2007). A collaboration between the State Water Resources Control Board's Non-Point Source Pollution Control Program (NPS Program), Surface Water Ambient Monitoring Program (SWAMP), California Department of Fish and Game Aquatic Bioassessment Laboratory, and the U.S. Environmental Protection Agency.

[35] Urban Storm Water in the United States, National Research Council, 2008 can be found at: http://www.epa.gov/npdes/pubs/nrc_stormwaterreport.pdf

Regional monitoring not only allows Permittees to share costs but also facilitates monitoring data and information sharing across local regions. In effect, regional programs provide a broad-scale picture of water quality condition within a watershed.

Program Effectiveness Assessment
Legal Authority: Clean Water Act § 402(p)(3)(b); 40 C.F.R.C.F.R. § 122.34(g) 40 CFR 122.34(g)(3), CASQA Effectiveness Assessment Guide [36]; Evaluating the Effectiveness of Municipal Stormwater Programs, U.S. EPA, EPA 833-F-07-010, MS4Permit Improvement Guide, U.S. EPA, April 2010, EPA 833-R-10-001

A key requirement in the storm water Phase II rule is a report that includes "the status of compliance with permit conditions, an assessment of the appropriateness of identified [control measures] and progress towards achieving identified measurable goals for each of the minimum control measures." This assessment is critical to the storm water program framework which uses the iterative approach of implementing controls, conducting assessments, and designating refocused controls leading toward attainment of water quality standards. As a result, this Order requires a quantitative evaluation of the Permittees MS4 programs. Measurable program evaluations are critical to the development, implementation, and adaptation of effective local storm water management programs.

To date, only a small number of Phase I MS4s have provided measurable outcomes with regard to aggregate pollutant reduction achieved by their municipal storm water programs. Most Permittees, both Phase I and II, are struggling simply to organize or document their program activities and few have provided a quantitative link between program activities and water quality improvements. The few that have determined whether or not water quality is improving as a result of storm water program implementation took many years. Despite these past obstacles, the process of evaluating and understanding the relationship between the storm water program implementation and water quality needs to begin now.

Building on the monitoring and assessment program, the Permittee must conduct an annual effectiveness assessment to assess the effectiveness of prioritized BMPs, program elements and the storm water program as a whole. Prioritized BMPs include BMPs implemented based on pollutants of concern. Where pollutants of concern are unidentified, prioritized BMPs are based on common urban pollutants (i.e., sediment, bacteria, trash, nutrients). The California Stormwater Quality Association's (CASQA) Municipal Stormwater Program Effectiveness Guidance describes strategies and methods for assessing effectiveness, including examples of effectiveness assessment for each program component. The CASQA Effectiveness Guidance is available at www.casqa.org for purchase. A two-hour EPA webcast focusing on the CASQA Guide is also available (available at www.epa.gov/npdes/training under "Assessing the Effectiveness of Your Municipal Stormwater Program"). A resources document from the webcast includes a 10 page summary of the Guide and example pages from the municipal chapter:
(www.epa.gov/npdes/outreach_files/webcast/jun0408/110961/municipal_resources.pdf)

The Municipal Stormwater Program Effectiveness Assessment Guidance synthesizes information on designing and conducting program effectiveness assessments. The document also explains how to select certain methods based on programmatic outcomes and goals. The reader is led through a series of questions and case studies to demonstrate how proper assessments are selected. Techniques are related to

[36] https://www.casqa.org/casqastore/products/tabid/154/p-7-effectiveness-assessment-guide.aspx

different level of outcomes: level one – documenting activities, level two – raising awareness, level 3 – changing behavior, level 4 – reducing loads from sources, level 5 – improving runoff quality, and level 6 – protecting receiving water quality. The Guide includes fact sheets for all six NPDES program elements, outlining methods and techniques for assessing effectiveness of each program.

Annual Reporting

In general, an annual report must document and summarize implementation of the storm water program during the previous year, evaluate program results and describe planned changes towards continuous improvement. The annual report also can serve as a "state of the storm water program" report for the general public or other stakeholders in the community serving as an excellent summary document to provide about the status of storm water program.

However, lessons learned from Phase I MS4 annual reports demonstrate that many Permittees tend to submit too much information, and, as a result, Regional Water Boards receive large binders full of materials that do not provide useful information to assess compliance. As a result, this Order requires Permittees to annually submit a summary of the past year activities. For example, the Permittees should not only address "bean counting" of required task, but address such questions as:

- For illicit discharge data, what are the most prevalent sources and pollutants in the illicit discharge data, and where are these illicit discharges occurring?
- How many illicit discharges have been identified, and how many of those have been resolved?
- How many outfalls or screening points were visually screened, how many had dry weather discharges or flows, at how many were field analyses completed and for what parameters, and at how many were samples collected and analyzed?
- Does the MS4 need to conduct more inspections in these areas, or develop more specific outreach targeting these sources and pollutants?

In addition, Permittees use SMARTS to certify Annual Reports which verifies compliance with all requirements of this Order.

Nexus Between Annual Reporting and Program Effectiveness Assessment
In addition to submitting program element summaries, Permittee must analyze their yearly activities and link it to their Program Effectiveness Assessment and Improvement Plan which tracks and documents their annual and long-term effectiveness of the storm water program. For example:

- Planned Activities and Changes. The annual report should describe activities planned for the next year highlighting any changes made to improve control measures or program effectiveness.

Detailed Annual Report
Most major areas of this Order require Permittees to submit, via SMARTS, a summary annual report for the past year's activities. For certain program elements such as Water Quality Monitoring, Program Effectiveness Assessment, and TMDLs, more detailed annual report information is required to be tracked and submitted via SMARTS.

Additionally, at any time during the permit term, the Executive Officer of the applicable Regional Water Board can request a more detailed annual report. This information may be required to determine compliance or prior to targeted or comprehensive storm water

program audit. The table below shows detailed annual reporting information an Executive Officer of the applicable Regional Water Board may require:

Permit Provision	Detailed Annual Reporting Information
E.6.c.	By the third year Annual Report and annually thereafter, report on the Enforcement Response Plan summarizing all enforcement activities including inspections of chronic violators and the incentives, disincentives, or escalated enforcement responses at each site. Summarizations of enforcement activities shall include, at a minimum, the following information for each type of site or facility: (a) Number of violations, including a listing of sites or facilities with identified violations (b) Number of enforcement actions, including types (c) Other follow-up actions taken (d) Demonstration that compliance has been achieved for all violations, or a description of actions that are being taken to achieve compliance
E.7.a.	By the third year Annual Report, and annually thereafter, submit a report on the implementation and progress of the public education strategy and general program development and progress. Report on the development of education materials, methods for educational material distribution, public input, landscaping outreach, reporting of illicit discharges, proper application of pesticides, herbicides, and fertilizers, elementary school education, reduction of discharges from organized car washes, mobile cleaning and pressure washing operations, and landscape irrigation efforts. By the fifth year Annual Report, submit a report summarizing changes in public awareness and knowledge resulting from the implementation of the program and any modifications to the public outreach and education program.
E.7.b.1.	By the third year Annual Report, document and maintain records of the training provided and the staff trained annually. The annual report shall include the number and percentage of Permittee's applicable staff that were trained and summarize the knowledge assessment as specified in E.7.b.1.(ii)(d).
E.7.b.2. **Permittee Staff**	By the second year of the permit and annually thereafter, submit the following information: a. Training topics covered b. Dates of training c. Number and percentage of Permittees' staff, as identified in Sections E.7.b.2. possessing the specified credentials.
E.7.b.2. **Construction Site** **Operator Education**	By the third year Annual Report and annually thereafter, submit a report including the following information: (a) Training topics covered; (b) Dates of training; (c) Number and percentage of Permittee's operators and number of

	contractors attending each training; (d) Results of any surveys conducted to demonstrate the awareness and potential behavioral changes in the attendees.
E.7.b.3.	By the second year Annual Report and annually thereafter, submit a summary that includes oversight procedures and identifies and tracks all personnel requiring training and assessment and records. The annual report shall include the number and percentage of Permittee's applicable staff that were trained during the year and summarize the knowledge assessment as specified in E.7.b.3(ii)(b).
E.8.	By the second year Annual Report and annually thereafter, submit a description of the public involvement program and summary of the MS4s efforts related to facilitating public involvement, including efforts to engage citizen advisory groups, increase citizen participation, and involvement with the IRWMP or other watershed-level planning effort.
E.9.a.	Submit a map by the second year Annual Report, and annually thereafter submit either (a) a current updated outfall map, or (b) verification that no changes or additions were made to the Permittee's MS4.
E.9.b.	By the second year online Annual Report, submit inventory and annually thereafter an updated inventory. By the second year online Annual Report, identify the illicit discharge procedures implemented and the locations of the implementation. Also identify in each online Annual Report the remaining inventoried facilities and priority areas still requiring illicit discharge assessment over the permit term.
E.9.c.	By the second year Annual Report, submit a report summarizing the field investigation results and areas of follow up actions, including the following information: (a) The number of outfalls found to be flowing or ponding more than 72 hours after the last rain event; (b) The number of such outfalls sampled in accordance with permit conditions; (c) Sampling result in tabular form; and (d) The number of outfalls found to be in exceedance of action levels
E.9.d.	By the second year Annual Report, submit all source investigations and corrective actions. At a minimum the report shall include: (a) Brief description of each non-stormwater discharge reported or observed; (b) Date(s) the non-storm water discharge was reported or observed; (c) Brief description of any actual or potential water quality impact resulting from the discharge; (d) Description and results of steps taken to investigate the source of the discharge; (e) Description and results of all follow-up or enforcement actions taken as a result of the investigation;

	(f) Date the investigation was closed, and whether the discharge was eliminated.
E.9.e.	Within the first year of the effective date of the permit, submit a spill response plan that contains the items specified in Section E.9.e. In subsequent Annual Reports summarize any spill response activities, and any follow-up actions, as specified in the spill response plan.
E.10.a.	Submit an up to date construction site inventory enumerating items listed in this Section with each Annual Report.
E.10.b.	By the first year Annual Report, submit a summary of review procedures. The summary should clearly indicate how the procedures will achieve compliance with all requirements of this Section, and clearly delineate responsibilities for implementing, and ensuring implementation of each aspect of the procedures.
E.10.c.	By the second year Annual Report and annually thereafter, submit the following information: (a) Total number of active sites disturbing less than one acre of soil requiring inspection; (b) Number and percentage of each type of enforcement action taken as listed in each Permittee's Enforcement Response Plan; (c) Number of sites with discharges of sediment or other construction related materials, both actual and those inferred through evidence.; (d) Number and percentage of violations fully corrected prior to the next rain event but no longer than 10 business days after the violations are discovered or otherwise considered corrected in a Permittee-defined timely period. (e) Number and percentage of violations not fully corrected 30 days after the violations are discovered. (f) Number of follow-up inspections that demonstrated the operator continued to implement BMPs according to plan and the number of follow-up inspections that required further enforcement.
E.11.a.	By the second year Annual Report submit the inventory and submit annual updates thereafter.
E.11.b.	By the second year Annual Report, submit the completed map and update annually thereafter if any of the information indicated on the map has changed.
E.11.c.	By the third year Annual Report, submit the results of the Permittee's annual assessment, including the list of identified hotspots and any identified deficiencies and corrective actions taken. The Permittee shall identify designated hotspots on the facility inventory updated and submitted in each subsequent year annual report.
E.11.d.	By the fourth year Annual Report, submit a summary of SWPPPs developed for pollutant hotspots. In subsequent Annual Reports, submit a summary of SWPPPs updated.

E.11.e.	By the fifth year Annual Report and annually thereafter, submit the following information: (a) Total number of facilities required to be inspected. (b) Verification that all inspections were conducted at all facilities in accordance with the requirements of this Section (c) Summary of spills and corrective actions (d) Summary of the results of inspections, including a summary of deficiencies noted and corrective actions taken (e) Results of the quarterly visual observations of storm water discharges (f) Total number of facilities inspected (visual and comprehensive inspections) and frequency of inspections (g) All inspection records, reports, and logs (h) Records of corrective actions taken and the results of corrective actions
E.11.f.	By the second year Annual Report, submit the assessment procedures and maintenance prioritization list, including a description of the method used to identify high priority storm drain system features and catch basins and number of catch basins identified as high priority. If flood conveyance maintenance is undertaken by another entity, submit a summary report of coordination by the first year Annual Report.
E.11.g.	By the third year Annual Report, submit a summary of the following information: (a) Storm sewer maintenance schedule (b) List of storm sewer systems and the maintenance priority assigned (c) Documentation of all required storm sewer systems maintenance logs (d) Documentation of waste material disposal procedure By the third Annual Report and annually thereafter, the Permittee shall submit verification that all storm drain facilities were maintained according to the priorities, procedures, and schedules developed according to this Section. The report shall include a summary of the results of inspections, deficiencies found, corrective actions taken, and the results of corrective actions.
E.11.h.	By the third year Annual Report, submit the following: (a) List of BMPs and associated pollutants with each O&M activity (b) BMPs applied during Permittee O&M activities (c) Log of quarterly BMP evaluations. By the third Annual Report and annually thereafter, the Permittee shall submit verification that identified BMPs were effectively implemented for all O&M activities.
E.11.i.	By the third year Annual Report, submit a summary of the development and implementation process to incorporate water quality and habitat enhancement design into new or upgraded flood management projects. By the fourth year

	Annual Report and annually thereafter, submit a list of new or upgraded flood management projects, including a summary of water quality and habitat enhancement features incorporated into their design.
E.11.j.	By the second year Annual Report, submit an evaluation of materials used and activities performed for pollution prevention and source control opportunities and a list of practices implemented to minimize the use of herbicide, pesticide, and fertilizers. By the second year Annual Report and annually thereafter, submit verification that identified BMPs were effectively implemented for all landscaping design and maintenance activities. By the second year Annual Report, submit a summary identifying the measures that the Permittee will use to demonstrate reductions in the application of pesticides, herbicides, and fertilizers. In subsequent annual reports, verify implementation of this measure, and describe reductions in pesticide, herbicide, and fertilizer application.
E.12.b	By the second year Annual Report and annually thereafter, the Permittee shall submit the following information: (a) A list of all project creating or replacing 2,500 square feet or more of impervious surface, as described above; and (b) A brief description of site design measures applied to each project.
E.12.c.	For each Regulated Project approved, the following information shall be submitted by the third year Annual Report: (a) Project Name, Number, Location (cross streets), and Street Address; (b) Name of Developer, Phase No. (if project is being constructed in phases, each phase shall have a separate entry), Project Type (e.g., commercial, industrial, multiunit residential, mixed-use, public), and description; (c) Project watershed(s); (d) Total project site area and total area of land disturbed; (e) Total new impervious surface area and/or total replaced impervious surface area; (f) For a redevelopment or road widening project: total pre-project impervious surface area and total post-project impervious surface area; (g) Status of project (e.g., application date, application deemed complete date, project approval date); (h) Source control measures; (i) Site design measures; (j) All post-construction storm water treatment systems installed onsite, at a joint storm water treatment facility, and/or at an offsite location; (k) O&M responsibility mechanism for the life of the project. (l) Water quality treatment calculations used; (m) Off-site compliance measures for Regulated Project (if applicable); Additional (watershed-specific) hydromodification standards used.

E.12.h.	By the second year Annual Report and annually thereafter, for each Regulated Project inspected during the reporting period the following information shall be submitted in tabular form: (1) Name of facility/site inspected. (2) Location (street address) of facility/site inspected. (3) Name of responsible operator for installed storm water treatment systems and hydromodification management controls. (4) Inspection details including: date of inspection, type of inspection (e.g., initial, annual, follow-up, spot), type(s) of storm water treatment systems inspected (e.g., swale, bioretention unit, tree well, etc.) and an indication of whether the treatment system is an onsite, joint, or offsite system. (5) Type of hydromodification management controls inspected. (6) Inspection findings or results (e.g., proper installation, proper O&M, system not operating properly because of plugging, bypass of storm water because of improper installation, maintenance required immediately, etc.). (7) Enforcement action(s) taken, if any (e.g., verbal warning, notice of violation, administrative citation, administrative order). (8) A discussion of the inspection findings for the year and any common problems encountered with various types of treatment systems and/or hydromodification management controls. This discussion shall include a general comparison to the inspection findings from the previous year. (9) A discussion of the effectiveness of the Permittee's O&M Program and any proposed changes to improve the O&M Program (e.g., changes in prioritization plan or frequency of O&M inspections, other changes to improve effectiveness of O & M program). On an annual basis, before the wet season, provide a list of newly installed (installed within the reporting period) storm water treatment systems and hydromodification management controls to the local mosquito and vector control agency and the appropriate Regional Water Board. This list shall include the facility locations and a description of the storm water treatment measures and hydromodification management controls installed.
E.12.i.	By the third year Annual Report and subsequently thereafter, submit the post-construction best management practice condition assessment plan as required in E.12.i.(ii)a-d.
F.5.b.2.	By the third year Annual Report and annually thereafter, submit the public education strategy and general program development and progress. By the fifth year Annual Report, summarize changes in public awareness and knowledge resulting from the implementation of the program and any modifications to the public education and outreach program. If applicable, submit a report on development of education materials, methods for educational material distribution, public input, Water Efficient Landscape Ordinance, elementary school education, reduction of discharges from mobile cleaning and pressure washing operations, and landscape irrigation efforts.

F.5.b.3.	By the third year Annual Report, submit records of the training provided and the staff trained annually.
F.5.b.4.	By the second year Annual Report and annually thereafter, submit a summary of oversight procedures and identify and track all personnel requiring training and assessment and records.
F.5.c.	By the third year Annual Report and annually thereafter, submit a description of the public involvement program and summary of the MS4s efforts related to facilitating public involvement.
F.5.d.	By second year Annual Report submit the outfall inventory map, and annually thereafter submit either (a) a current updated outfall map, or (b) verification that no changes or additions were made to the Permittee's MS4.
F.5.d.1.	By the second year Annual Report, submit a report summarizing the field investigation results and areas of follow up investigations. The report shall summarize all applicable observations. By the second year of the permit term and annually thereafter, submit all source investigations and corrective actions. At a minimum the report shall include: (a) Date(s) the non-storm water discharge was observed; (b) Results of the investigation; (c) Date the investigation was closed. (d) A summary of all non-storm water discharges that were found.
F.5.e.	By the second year Annual Report, the Permittee submit an updated contract language that includes CGP compliance requirements for all projects subject to the CGP.
F.5.f.1.	By the second year Annual Report submit and annually thereafter an updated inventory.
F.5.f.2.	By the second year Annual Report and annually thereafter, submit the map.
F.5.f.3.	By the third year Annual Report, submit the results of the Permittee's annual assessment, any identified deficiencies and corrective actions taken, list of the pollutant hotspots.
F.5.f.4.	By the fourth year Annual Report and annually thereafter, submit a summary of SWPPPs developed and updated for pollutant hotspots.
F.5.f.5.	By the fifth year Annual Report and annually thereafter, the following information shall be submitted: (a) Total number of facilities required to be inspected. (b) Total number of facilities inspected (visual and comprehensive inspections) and frequency of inspections

	(c) Summary of spills and corrective actions (d) Results of the quarterly visual observations of storm water discharges
F.5.f.6	By the second year Annual Report, submit the assessment procedures and maintenance prioritization list.
F.5.f.7	By the third year Annual Report, submit a summary of the following information: (a) Storm sewer maintenance schedule (b) List of storm sewer systems and the priority assigned (c) Documentation of all required storm sewer systems maintenance logs (d) Documentation of waste material disposal procedure
F.5.f.8.	By the third year Annual Report, submit the following: (a) List of BMPs and associated pollutants with each O&M activity (b) BMPs applied during Permittee O&M activities (c) Log of annual BMP evaluations.
F.5.f.9	By the second year Annual Report, submit an evaluation of materials used and activities performed for pollution prevention and source control opportunities and a list of practices implemented to minimize the use of herbicide, pesticide, and fertilizers. By the second year Annual Report, submit a document identifying the measures that the Permittee will use to demonstrate reductions in the application of pesticides, herbicides, and fertilizers. In subsequent annual reports, use this measure to demonstrate reductions in pesticide, herbicide, and fertilizer application.
F.5.g.	By the second year Annual Report and annually thereafter, the Permittee shall submit the following information: (a) A list of all project creating or replacing 2,500 square feet or more of impervious surface, as described above; and A brief description of site design measures applied to each project. For each project approved, the following information shall be submitted by the second year Annual Report: (a) Project Name, Number, Location (cross streets), and Street Address; (b) Name of Developer, Phase No. (if project is being constructed in phases, each phase shall have a separate entry), Project Type (e.g., commercial, industrial, multiunit residential, mixed-use, public), and description; (c) Project watershed(s); (d) Total project site area and total area of land disturbed; (e) Total new impervious surface area and/or total replaced impervious surface area; (f) If a redevelopment or road widening project, total pre-project impervious surface area and total post-project impervious surface area; (g) Status of project (e.g., application date, application deemed complete

	date, project approval date); (h) Source control measures; (i) Site design measures; (j) All post-construction storm water treatment systems installed onsite, at a joint storm water treatment facility, and/or at an offsite location; (k) O&M responsibility mechanism for the life of the project. (l) Water quality treatment calculations used; (m) Off-site compliance measures (if applicable) (n) Additional (watershed-specific) hydromodification standards used (a) For each project inspected during the reporting period the following information shall be submitted in tabular form as part of each year's Annual Report: (1) Name of facility/site inspected. (2) Location (street address) of facility/site inspected. (3) Name of responsible operator for installed storm water treatment systems and hydromodification management controls. (4) Inspection details including: Date of inspection, type of inspection (e.g., initial, annual, follow-up, spot), type(s) of storm water treatment systems inspected (e.g., swale, bioretention unit, tree well, etc.) and an indication of whether the treatment system is an onsite, joint, or offsite system. (5) Type of hydromodification management controls inspected. (6) Inspection findings or results (e.g., proper installation, proper O&M, system not operating properly because of plugging, bypass of storm water because of improper installation, maintenance required immediately, etc.). (7) Enforcement action(s) taken, if any (e.g., verbal warning, notice of violation, administrative citation, administrative order). (8) A discussion of the inspection findings for the year and any common problems encountered with various types of treatment systems and/or hydromodification management controls. This discussion shall include a general comparison to the inspection findings from the previous year. (9) A discussion of the effectiveness of the Permittee's O&M Program and any proposed changes to improve the O&M Program (e.g., changes in prioritization plan or frequency of O&M inspections, other changes to improve effectiveness of program). (b) On an annual basis, before the wet season, provide a list of newly installed (installed within the reporting period) storm water treatment systems and hydromodification management controls to the local mosquito and vector control agency and the appropriate Regional Water Board. This list shall include the facility locations and a description of the storm water treatment measures and hydromodification management controls installed.

Program Management
Without the requirement of a SWMP, this section serves as the framework/backbone for the storm water program. This section is a consolidation of all of the Permittee's relevant ordinances or other regulatory requirements, the description of all programs and procedures (including standard forms to be used for reports and inspections) that will be implemented and enforced to comply with the permit and to document the selection, design, and installation of all storm water control measures.

Legal Authority
Without adequate legal authority the MS4 would be unable to perform many vital program functions such as performing inspections and requiring installation of control measures. In addition, the Permittee would not be able to penalize and/or attain remediation costs from violators.

Certification
Submittal and signature certifies Permittee will comply with this Order.

Enforcement Response Plan (ERP)
This Order requires Permittees to have an established, escalating enforcement policy identified in the ERP that clearly describes the action to be taken for common violations. The plan must describe the procedures to ensure compliance with local ordinances and standards, including the sanctions and enforcement mechanisms that will be used to ensure compliance. (See 40 CFR 122.26(d)(2)(i)). It is critical that the Permittee have the authority to initiate a range of enforcement actions to address the variability and severity of noncompliance.

IDDE and Good Housekeeping
Both these programs pose potential immediate threat to water quality without quick access to information submitted in SMARTS. For example, in order to respond to discharges, an effective IDDE program responds to complaints about illicit discharges or spills such as illegal connections to the storm sewer system, improper disposal of wastes, or dumping of used motor oil or other chemicals. In order to trace the origin of a suspected illicit discharge or connection, the Permittee must have an updated map of the storm drain system and a formal plan of how to locate illicit discharges and how to respond to them once they are located or reported.

Construction Inventory
To effectively conduct inspections, the Permittee must know where construction activity is occurring. A construction site inventory tracks information such as project size, disturbed area, distance to any waterbody or flow channel, when the erosion and sediment control/stormwater plan was approved by the Permittee, and whether the project is covered by the CGP. This inventory will allow the Permittee to track and target its inspections.

Effectiveness Assessment
Without assessing the effectiveness of the stormwater management program the Permittee will not know which parts of the program need to be modified to protect and/or improve water quality and instead will essentially be operating blindly.

XIII. TOTAL MAXIMUM DAILY LOAD (TMDL)

Section 303(d) of the Clean Water Act requires States to identify waters that do not

meet water quality standards after applying certain required technology-based effluent limitations ("impaired" waterbodies). States are required to compile this information in a list and submit the list to the U.S. EPA for review and approval. This list is known as the Section 303(d) list of impaired waters, which is incorporated into the Integrated Report.

This listing process requires States to prioritize waters/watersheds for future development of TMDLs. A TMDL is defined as the sum of the individual waste load allocations for point sources of pollution, plus the load allocations for nonpoint sources of pollution, plus the contribution from background sources of pollution. The Water Boards have ongoing efforts to monitor and assess water quality, to prepare the Section 303(d) list, and to subsequently develop TMDLs. The 2010 California 303(d) List identifies impaired receiving water bodies and their watersheds within the state.

TMDLs are developed by either the Regional Water Boards or U.S. EPA in response to Section 303(d) listings. Regional Water Board-developed TMDLs are subject to approval by the State Water Board, approval by the Office of Administrative Law, and ultimately approval by U.S. EPA. TMDLs developed by Regional Water Boards are incorporated as Basin Plan amendments and include implementation provisions. TMDLs developed by U.S. EPA typically contain the total load and waste load allocations required by Section 303(d), but do not contain comprehensive implementation provisions.

TMDLs are not self-implementing but rely on other regulatory mechanisms for implementation and enforcement. Urbanized areas typically utilize municipal storm water permits as the implementation tool. Incorporation of TMDL implementation requirements into general permits (as opposed to individual MS4 permits) is difficult. First, there are numerous Traditional MS4s (municipalities) and Non-traditional MS4s such as military bases, public campuses, prison and hospital complexes covered under this Order. Second, the waste load allocations for many TMDLs are shared among several dischargers; that is, a single waste load allocation may be assigned to multiple dischargers, making it difficult to assign responsibility. Further, individual dischargers may not be explicitly identified. For example, "urban runoff" may be listed as a source of impairment, but the individual ~~municipalities~~ MS4s responsible for the impairment may not be identified. Third, the implementation plans adopted by the Regional Water Boards often provide for phased compliance with multiple milestones and deliverables, with optional and alternative means of compliance depending on the results of monitoring and special studies.

Section C.1 of this Order requires that permittees "shall . . . reduce the discharge of pollutants . . . to achieve TMDL wasteload allocations established for discharges by the MS4s." The variance in the level of detail of TMDLs necessitates the development of TMDL-specific permit requirements to provide clarity on the Permittees' compliance responsibilities.

The Regional Water Boards submitted proposed TMDL-specific permit requirements to the State Water Board for applicable TMDLs, with statements explaining how these requirements are designed to implement the TMDLs and the corresponding wasteload allocations. (40 C.F.R. §122.44(d)(1)(vii)(B)) Sections E.15 and F.5 of this Order require permittees to comply with all applicable TMDL-based requirements listed in Attachment G; the requirements are directly enforceable through this Order. Attachment G does not restate the final applicable wasteload allocations for each TMDL; however, those wasteload allocations are specified in the Fact Sheet and this Order incorporates them by reference as appropriate.

In a few cases, the TMDL-specific requirements of Attachment G are based on a load allocation, rather than a wasteload allocation. Several TMDLs incorporated into this Order assign load allocations to storm water that may not have been regulated as NPDES discharges at the time of the TMDL adoption, but have now been determined to be subject to this Order. USEPA has issued guidance providing that in such circumstances, the "NPDES permit authority could identify an appropriate allocation share and include a corresponding limitation specific to the newly permitted stormwater source."[37]

Some TMDLs do not name specific Permittees but name a category of discharges such as "urban runoff." This Order identifies the Permittees subject to the TMDL. In most cases, the permittees subject to the TMDLs are Traditional MS4s. For some TMDLs the State Water Board has determined that the TMDL requirements are also applicable to specific Non-traditional MS4s. Attachment G specifically names such permittees and sets out how the permittees will implement the TMDL. The State Water Board or the applicable Regional Water Board may, in the future, designate additional Traditional or Non-traditional MS4s based on further determination of TMDL applicability.

~~This Order requires Permittees to comply with all applicable TMDLs approved pursuant to 40 CFR §130.7 that assign a WLA to the Permittee and that have been identified in Attachment G. However, the high variance in the level of detail and specificity of TMDLs necessitates the development of more specific permit requirements in many cases to provide clarity to the Permittees regarding responsibilities for compliance. The Regional Water Boards have submitted TMDL-specific permit requirements to the State Water Board for applicable TMDLs and all TMDL-specific permit requirements for Traditional MS4s have been incorporated into Attachment G. The Regional Water Boards have also been directed to submit statements explaining how the requirements are designed to achieve the goals of the TMDLs and these have been incorporated into the Fact Sheet where provided (see the following discussions specific to each Regional Water Board).~~

~~This Order includes Attachment G, which identifies those approved TMDLs in which storm water or urban runoff is listed as a source. Attachment G then identifies municipalities subject to a given TMDL or assigned a waste load allocation under that TMDL. Finally, Attachment G includes TMDL-specific permit requirements developed by the Regional Water Boards for compliance with the TMDL, making the requirements directly enforceable through the permit.~~

Attachment G assigns monitoring requirements to certain Permittees and section E.13.b. of this Order states that "Permittees shall implement any monitoring requirements assigned in Attachment G." Section E.13. also states, in part, "Traditional Small MS4 Permittees that are required to conduct monitoring of discharges to … TMDL… waterbodies… are not required to perform additional monitoring as specified in Sections E.13.d.1 and E.13.d.2." Therefore, a Permittee that is assigned TMDL-related monitoring in Attachment G is not required to implement monitoring in accordance with Sections E.13.d.1. or E.13.d.2.

Permittees will report compliance with TMDL permit requirements in the Annual Report required to be submitted electronically via SMARTS.

The previous General Permit, Water Quality Order 2003-0005-DWQ, relied in part on the preparation, approval, and implementation of a Storm Water Management Program to incorporate TMDL-specific requirements for Permittees. This Order does not rely on

[37] Revisions to the November 22, 2002 Memorandum 'Establishing Total Maximum Daily Load (TMDL) Wasteload Allocations (WLAs) for Storm Water Sources and NPDES Permit Requirements Based on Those WLAs,'" issued by USEPA, November 26, 2014.

preparation of a Storm Water Management Program, but rather incorporates programmatic requirements, including the TMDL-specific requirements in Attachment G, in the Order itself. In some cases, as noted in the discussion below, this Order directs the Permittee to continue implementing requirements specified in the Storm Water Management Plan required by the previous 2003 Permit. In those cases, Attachment G incorporates those specific requirements by reference.

In sum, Attachment G contains specific management practice-based planning and implementation requirements that act as BMP-based WQBELs. Attachment G also contains monitoring and other requirements. These requirements are referred to in the Order as "BMP-based WQBELs and other permit requirements," and are expected to achieve the water quality results specified by the wasteload allocations. Because the ultimate purpose of TMDL implementation is to reach the water quality results specified in the TMDL wasteload allocations in order to attain water quality standards in receiving waters that are currently impaired, Attachment G requires a demonstration of attainment of the waste load allocation at the final compliance deadline. This demonstration ensures that Attachment G incorporates BMP-based WQBELs and other permit requirements that are consistent with the assumptions and requirements of the applicable waste load allocations (40 C.F.R. § 122.44(d)(1)(vii)(B)) and implements the basin plans into which the TMDL implementation plans are incorporated (Wat. Code, §§13263, subd. (a), 13377.) Permittees are to make this demonstration consistent with criteria articulated in sections E.15.b. and F.5.i.2 of the Order.

~~Because the Permittees have not had an opportunity to meet with Regional Water Board staff to review and discuss the TMDL-specific permit requirements incorporated into this permit, the Regional Water Boards are additionally being directed through this Order to review the TMDL-specific permit requirements of Attachment G in consultation with the Permittees and propose any revisions to the State Water Board within one year of the effective date of this Order. Any such revisions will be incorporated into the permit through a reopener. To the extent they have not already done so, the Regional Water Boards will be expected during that process to prepare a statement for inclusion in the Fact Sheet explaining how the requirements are consistent with the assumptions and requirements of the TMDL WLAs and how they are designed to achieve the goals of the TMDLs.~~

~~Further, TMDL-specific permit requirements for TMDLs established in the Los Angeles Regional Water Quality Control Board's region, which apply to Non-Traditional MS4s in the region, have not been included in Attachment G. These TMDL-specific permit requirements will be developed during the one-year review period described above. The State Water Board or the Regional Water Board may designate additional Traditional or Non-traditional MS4s based on applicability of the TMDL requirements.~~

~~Permittees will report compliance with the specific TMDL permit requirements in the online Annual Report via SMARTS.~~

This Order implements TMDLs with either past deadlines or soon approaching deadlines. In precedential Order WQ 2015-0075, the State Water Board found that final TMDL attainment deadlines should not be extended through permitting actions. The State Water Board stated as follows:

Final TMDL deadlines are established and incorporated into the Basin Plans during the TMDL development process. That process invites stakeholder participation and the proposed schedule is subject to public review and comment and approval by the relevant regional water board, the State Water Board, and USEPA. The deadlines are established with consideration

of the time needed for compliance for all dischargers contributing to an impairment, including industrial and construction storm water dischargers and traditional NPDES dischargers. Although we recognize that it may not always be feasible for municipal storm water dischargers to meet final TMDL deadlines, short of amending the Basin Plan to modify the deadlines (see California Association of Sanitation Agencies v. State Water Resources Control Board (2012) 208 Cal.App.4th 1438), we find it appropriate for the dischargers to request time schedule orders rather than be granted an extension within the provisions of the [regional water board permits].

(State Water Board Order WQ 2015-0075, p. 37, fn. 110.)

Attachment G incorporates the final attainment deadlines for each TMDL; some TMDL attainment deadlines are now past. In these instances, the associated wasteload allocations are effective on the effective date of the Order, i.e. July 1, 2018. Where appropriate, the State Water Board will work with the Regional Water Boards to determine if there is any regulatory flexibility for extension of final attainment dates consistent with any particular TMDL. The State Water Board and the Regional Water Boards additionally have discretion with regard to enforcement actions and will exercise that discretion on a case-by-case basis based on all the facts underlying a violation, including how recently the Permittee was assigned TMDL-specific requirements in the permit and the Permittee's efforts, to date, to meet the TMDL-specific requirements. A permittee with a past or imminent TMDL attainment deadline may request a Time Schedule Order (TSO) from the applicable Regional Water Board in accordance with criteria established in the Order. A Regional Water Board's issuance of a TSO will establish an implementation schedule for the Permittee to comply with the TMDL requirements.

The State Water Board delayed the effective date of the Order to July 1, 2018, six months following adoption, to allow permittees additional time to demonstrate attainment of the wasteload allocations, request time schedule orders incorporating compliance schedules for the attainment of the wasteload allocations, or request consideration by the Regional Water Board Executive Officer of whether the particular regulatory language of a given TMDL allows for an extension of a deadline for attainment of the wasteload allocation.

Attachment G specifies BMP-based WQBELs and other permit requirements for attainment of the wasteload allocations even in cases where the final wasteload allocation deadline is past. These requirements are included because the Order states that it is not the intention of the State Water Board or the Regional Water Boards to take enforcement action against a permittee where (1) a permittee has applied in good faith for a time schedule order and is implementing the requirements in Attachment G pending approval of the time schedule order or (2) the Regional Board has initiated proceedings to revise the implementation schedule or other requirements of a TMDL and the permittee is implementing the requirements in Attachment G pending the outcome of the proceedings.

Unfunded Mandates Considerations Specific to TMDL Requirements in the Order

The TMDL requirements of this Order do not constitute unfunded state mandates requiring reimbursement.

The TMDL-specific requirements do not constitute a new program or higher level of service:

When a state agency requires a local government to provide "a new program or higher level of service," the state must "reimburse that local government for the costs of the program or increased level of service." (Cal. Const., art. XIII B, §6, subd. (a).) The TMDL-specific requirements of this Order, as amended on December 19, 2017, do not constitute a new program or higher level of service for two reasons.

First, the Order, as adopted on February 5, 2013 (effective July 1, 2013), requires

permittees to "reduce the discharge of pollutants . . . to achieve TMDL wasteload allocations . . . established for discharges by the MS4s." (Section C.1.) Attachment G listed the applicable TMDLs and specified requirements for implementation of the wasteload allocations. The 2017 amendments to the Order revise or clarify TMDL implementation requirements where requirements in the 2013 Order were unclear or too general. The amendments do not change the baseline requirement in Section C.1 that permittees reduce discharges of pollutants to achieve the wasteload allocations, but simply provide more clarity to the permittees in how to implement that ongoing requirement. Thus, the amendments do not constitute a new program, and do not constitute an increased level of service as permittees were already required to meet TMDL wasteload allocations by implementation of appropriate actions. Refinements of existing requirements do not constitute a higher level of service, even where there may be an increase in costs. (*See County of Los Angeles v. Comm'n on State Mandates*, 110 Cal.App.4th 1176, 1189-1195 [discussing case law on "new program" and "higher level of service"].)

Second, even where the 2013 Order has been amended to include requirements for TMDLs adopted since 2013, the TMDL-specific requirements are not a new program or higher level of service because the TMDLs are simply the mechanism to achieve compliance with water quality standards. The Order, as adopted in 2013, included receiving water limitations stating that "discharges shall not cause or contribute to an exceedance of water quality standards contained in a Statewide Water Quality Control Plan, the California Toxics Rule (CTR), or in the applicable Regional Water Board Basin Plan." (Section D.) TMDLs are the means to implement water quality standards in impaired water bodies. Incorporation of TMDL-based requirements into the MS4 permit, consistent with applicable basin plans, allows the permittee greater flexibility in achieving the water quality standards in the receiving water by allowing additional time to meet the receiving water limitations or, in some cases, permitting interim compliance through management practice implementation rather than immediate compliance with numeric limitations. The TMDL-specific requirements accordingly do not constitute a new program or higher level of service as compared with the baseline requirement of the receiving water limitations.

The TMDL-specific requirements impose requirements that are mandated by federal law:

The TMDL-specific requirements of this Order also fit under exceptions to the requirement to reimburse local government for a new program or higher level of service. Most significantly, one exception exists if "[t]he statute or executive order imposes a requirement that is mandated by a federal law or regulation and results in costs mandated by the federal government, unless the statute or executive order mandates costs that exceed the mandate in that federal law or regulation." (Gov. Code, §17556, subd.(c).)

The TMDL-specific requirements of Attachment G are mandated by federal law and federal regulations. Clean Water Act Section 303(d) states that each state "shall" identify impaired waterbodies, "shall" prioritize such waters/watersheds for future development of TMDLs, and "shall" develop TMDLs for the appropriate pollutants in accordance with the prioritization. (33 U.S.C. § 1313(d).) The TMDLs must be approved by U.S. EPA. (*Id.)* The Code of Federal Regulations provides that once U.S. EPA approves a TMDL for a waterbody, the effluent limitations in any NPDES permit "shall" be "consistent with the assumptions and requirements of any available wasteload allocations." (40 C.F.R. § 122.44(d)(1)(vii)(B).) Specific to Phase II MS4 permits, the Code of Federal Regulations states that "the permit will include… [m]ore stringent terms and conditions… based on an approved total maximum daily load…" (40 C.F.R. § 122.34(c)(1).) Federal law thus compels the State Water Board to include the TMDL-specific provisions of Attachment G in

the Phase II MS4 Permit.[38]

The California Supreme Court's 2016 decision in *Department of Finance v. Comm'n on State Mandates* (2016) 1 Cal.5th 749, *as modified on denial of rehearing* (Nov. 16, 2016) (*Department of Finance*) established a new framework for analyzing the federal mandates exception to article XIII B, section 6 of the Constitution. An agency order is not a federal mandate if (1) federal law gives the State discretion to impose the particular implementing requirement, and (2) the State exercises that discretion in imposing the requirement by virtue of a "true choice." (*Department of Finance, supra*, 1 Cal.5th at 765.) That case concerned the discretion of the Los Angeles Water Board under the MEP standard and the court held that the Board had exercised a true choice in imposing certain requirements on the permittees. Here, the discretion exercised by the State Water Board in complying with section 122.44, subdivision (d)(1)(vii)(B) of Title 40 of the federal regulations is different and more limited than under the MEP standard. Title 40, Section 122.44, subdivision (d)(1)(vii)(B) specifically directs the Board to include effluent limitations which are consistent with the assumptions of any applicable wasteload allocations. The State Water Board had no choice but to include the TMDL-specific provisions in this Order that would result in attainment of the wasteload allocation within the timeframe established in the TMDL. The only discretion the Board employed when complying with section 122.44, subdivision (d)(1)(vii)(B) was crafting provisions which were consistent with the assumptions and requirements of the applicable wasteload allocations. In exercising this limited discretion, the Board simply translated the wasteload allocations directly into effluent limitations in the form of required control actions. This involved significantly less discretion than did the provisions at issue in *Department of Finance*. Further, in instances where the State Water Board and the appropriate regional water board determined that a choice of actions is available to the permittee to achieve the wasteload allocations in the required timeframe, Attachment G provides that the permittee may propose a set of actions for approval by the relevant regional water board.

Additional federal laws and regulations mandate inclusion of portions of the TMDL-specific requirements of this Order. Under Clean Water Act section 402, subdivision (p)(3)(B)(ii), MS4 permits must effectively prohibit non-storm water discharges into MS4s. (33 U.S.C. §1342(p)(3)(B)(ii); *see also* 40 C.F.R. § 122.34(b)(3).) Several TMDLs implemented through this Order apply to dry weather discharges, i.e. non-storm water discharges, and require illicit discharge detection and elimination efforts to address non-storm water discharges. The federal regulations also require Phase II permits to incorporate an evaluation of "compliance with the terms and conditions of the permit, including the effectiveness of the components of [ ] storm water management program[s] and the status of achieving the measurable requirements in the permit" (40 C.F.R. §122.34(d)(1).) The TMDL requirements include monitoring and reporting to determine that the TMDL-specific requirements are leading to appropriate progress toward achievement of the wasteload allocations.

The MS4s have authority to levy service charges, fees, and assessments:

Another exception applies where "the local agency . . . has the authority to levy service charges, fees, or assessments sufficient to pay for the mandated program or increased level of service." (Gov't Code, § 17556, subd. (d).) The MS4 permittees have the ability to charge fees, such as inspection fees or storm water fees, to cover the cost of the TMDL-specific requirements.

[38] USEPA has similarly required attainment of applicable wasteload allocations in MS4 permits. (See, e.g., sections 1.4.2 and 4.10 of Modified NPDES Permit No. DC0000022 for the MS4 for the District of Columbia, issued October 7, 2011, modified November 9, 2012, available at https://www3.epa.gov/reg3wapd/pdf/pdf_npdes/stormwater/DCMS4/MS4FinalLimitedModDocument/FinalModifiedPermit_10-25-12.pdf and section 2.1.1 and Appendix F of the General Permit for Small MS4s in Massachusetts, issued April 4, 2016, available at https://www3.epa.gov/region1/npdes/stormwater/ma/2016fpd/final-2016-ma-sms4-gp.pdf .)

The TMDL-specific requirements are requirements of general applicability:

Finally, reimbursement to local agencies is required only for the costs involved in carrying out functions peculiar to government, not for expenses incurred by local agencies as an incidental impact of laws that apply generally to all state residents and entities. (*City of Richmond v. Comm'n on State Mandates* (1998) 64 Cal.App.4th 1190, 1199.) The Clean Water Act and the federal regulations' TMDL requirements are laws of general applicability, uniformly imposed on all NPDES permittees, including not just MS4s, but also industrial and construction storm water dischargers, as well as traditional NPDES permittees such as wastewater treatment plants.

For the foregoing reasons, the TMDL requirements of this Order do not constitute unfunded mandates requiring reimbursement.

Basis of TMDL-Related Permit Requirements

The following discussion provides the basis for the TMDL-related requirements in Attachment G of this Order.

NORTH COAST REGIONAL WATER BOARD TMDLs

Laguna de Santa Rosa Ammonia & Dissolved Oxygen TMDL

The Laguna de Santa Rosa Ammonia and Dissolved Oxygen TMDL was approved by U.S. EPA as the Waste Reduction Strategy for the Laguna de Santa Rosa, dated March 1, 1995. The Waste Reduction Strategy provided the assumptions and goals used to determine the best option to reduce impacts to the Laguna de Santa Rosa, and attain water quality goals and objectives. The Regional Water Board, however, found the Waste Reduction Strategy to be unenforceable and inadequate to address the declining dissolved oxygen issues in Laguna de Santa Rosa. In 2002, the Regional Water Board determined that dissolved oxygen objectives were being violated and that nutrient loads were on the rise. The Regional Water Board is in the process of developing a TMDL for the Laguna de Santa Rosa for nitrogen, phosphorus, dissolved oxygen, temperature and sediment. Due to the above findings and TMDL development efforts, the State Water Board has removed the Waste Reduction Strategy requirements in this Order.

Shasta River Watershed Temperature & Dissolved Oxygen TMDL

The Shasta River watershed includes all tributaries and Lake Shastina in Siskiyou County. The Shasta River Watershed Temperature and Dissolved Oxygen TMDL and Action Plan was adopted by the North Coast Regional Water Board on June 28, 2006. The Shasta River Watershed Temperature and Dissolved Oxygen TMDL was approved by U.S. EPA and became effective on January 26, 2007. The Shasta River TMDL Action Plan contains the goals and assumptions used to develop the wasteload allocations and conditions to be considered in conducting actions (in this case, storm water management) in the Shasta River watershed.

The North Coast Regional Water Board has determined that the City of Yreka, a Traditional Small MS4 permittee, is a source of "human activity" subject to this TMDL and must comply with the TMDL-requirements of this Order. The TMDL does not specify wasteload allocations for the City of Yreka, but does require the City of Yreka to develop and implement a plan to minimize and control pollutants of concern in urban storm water runoff. That plan was developed and submitted on June 24, 2013, as part of the City's Notice of Intent for this Order. Attachment G of this Order requires the City to implement this plan no later than July 1, 2017. Therefore, the City will be required to implement the plan immediately. There are no current monitoring requirements for the City related to TMDL implementation.

SAN FRANCISCO BAY REGIONAL WATER BOARD TMDLs

Napa River Sediment TMDL

The Napa River and its tributaries are listed as impaired due to excessive sediment. The river was listed on the Clean Water Act section 303(d) in response to concerns regarding adverse impacts to habitat for steelhead trout, chinook salmon, and other threatened species whose populations have declined substantially in recent decades. The Napa River Sediment TMDL and Habitat Enhancement Plan identify pollutant sources of concern, and specify actions to restore a healthy fishery in the watershed.

The Napa River Sediment TMDL identifies urban storm water runoff, specifically storm water runoff from State highways, and industrial and construction sites as a source of impairment. The Napa River Sediment TMDL names parties that should implement measures to control and/or prevent sediment discharges associated with urban storm water runoff (hereinafter referred to as Implementing Parties). Attachment G of this Order assigns requirements to the Traditional Small MS4 designees identified as Implementing Parties within the Napa River Sediment TMDL.

Wasteload Allocations (WLA): The Napa River Sediment TMDL includes a ~~wasteload allocation~~WLA of 800 metric tons/year ~~that applies to~~ for storm water runoff discharges from stream crossings and ~~stormwater~~storm water runoff discharges associated with operation of public and private roads, paved and unpaved within the watershed not otherwise covered by NPDES permits issued to Napa County and municipalities including the City of Napa, Town of Yountville, City of St. Helena, City of Calistoga, and City of American Canyon ~~(Attachment G, Region Specific Requirements)~~.

Load Allocations (LA): The Napa River Sediment TMDL ~~It~~ also includes an ~~load allocation~~ LA of 27,000 metric tons/year that applies to a roads and streams crossings source category that Napa County and the City of Napa, Town of Yountville, City of St. Helena, City of Calistoga, and City of American Canyon share with Caltrans. Caltrans is responsible for runoff from State highways and associated construction activities. Discharges from State highways are regulated ~~via~~ by the State Water Board's~~a~~ statewide municipal storm water permit issued to Caltrans; discharges of storm water from construction activities are regulated by the State Water Board's Statewide Storm Water Permit for Discharges Associated with Construction and Land Disturbance Activity.

Deliverables/Actions Required:

The TMDL-related requirements in this Order are based on the TMDL Implementation Plan. To implement the roads and stream crossings allocation, the TMDL Implementation Plan establishes a performance standard for roads as follows: road-related sediment delivery to channels should be ≤ 500 cubic yards per mile per 20 year period. The TMDL Implementation Plan also calls on entities responsible for paved roads to 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. Napa County was timely in submitting an implementation plan by October 2014.

Attainment of water quality objectives will be evaluated at the confluence of Napa River with Soda Creek, which includes the downstream boundary of freshwater habitat for salmon and steelhead. Attainment of the water quality objectives will be evaluated over a 5-to-10-year averaging period.

Sonoma Creek Sediment TMDL

The Sonoma Creek Sediment TMDL includes a wasteload allocation ~~of 600 metric tons/year~~ that applies to storm water runoff discharges from stream crossings and ~~with the operation of~~ public and private roads (~~,~~ paved and unpaved) within the watershed that are not otherwise covered by a Phase 1 NPDES MS4 permit~~s~~ issued to the County and/or City of Sonoma.

The Sonoma County Water Agency has been a voluntary participant with proactive storm water control efforts, including enrollment under the previous 2003 Small MS4 permit (Order 2003-0005-DWQ). The Sonoma County Water Agency owns and operates approximately 2,000 linear feet of stream channel within the Sonoma Creek watershed. Therefore, the Agency is subject to the TMDL, as expressed by the requirements in Attachment G. ~~(Attachment G, Region Specific Requirements). It also includes a load allocation of 2,100 metric tons/year that applies to a roads and streams crossings source category that the City and County of Sonoma share with Caltrans. Caltrans is responsible for runoff from State highways and associated construction activities. Discharges from State highways are regulated via a Statewide Stormwater Permit issued to Caltrans.~~

Phase II Entities:

The Sonoma Creek Sediment TMDL identifies urban storm water runoff from Phase II entities, State highways, and industrial and construction storm water discharges, as a source of impairment. The TMDL names parties that should implement measures to control and/or prevent sediment discharges associated with urban storm water runoff (hereinafter referred to as Implementing Parties). Attachment G of this Order assigns requirements to the designees identified as Implementing Parties within the TMDL.

Wasteload and Load Allocations:

The Sonoma Creek sediment TMDL assigns a wasteload allocation to municipal storm water and a load allocation for the roads source category. The sediment wasteload allocation is 600 tons/year and applies to storm water runoff discharges from Phase II permittees. The load allocation of 2,100 tons/year of sediment is for the road and stream crossings category and applies to stream crossings and storm water runoff discharges associated with operation of public and private roads (paved and unpaved) within the watershed not otherwise covered by an NPDES storm water permit.

Municipalities share the wasteload allocation with another entity (i.e., Caltrans). Caltrans is responsible for runoff from State highways and associated construction activities. Discharges from State highways are regulated by the State Water Board statewide municipal storm water permit issued to Caltrans; discharges of storm water from construction activities are regulated by the State Water Board Statewide Storm Water Permit for Discharges Associated with Construction and Land Disturbance Activity.

Deliverables/Actions Required:

The TMDL-related requirements in this Order are based on the TMDL Implementation Plan. To implement the roads and stream crossings allocation, the TMDL Implementation Plan establishes a performance standard for ~~roads to~~the design, construction, and ~~maintain~~ maintenance of rural roads to minimize road-related sediment delivery to streams. The Implementation Plan also ~~and~~ requires~~calls~~ on entities responsible for paved roads, such as the City and County of Sonoma, to: (1) adopt and implement best management practices for maintenance of unimproved (dirt/gravel) roads, (2) conduct a survey of stream-crossings associated with paved public roadways, (3) ~~and~~ develop a prioritized implementation plan for repair and/or replacement of high priority crossings/culverts to reduce road related erosion, and (4) protect stream-riparian habitat conditions.

TMDL compliance, and water body attainment with the sediment water quality objectives, will

be evaluated at the limit of tidal influence in the Sonoma Creek watershed, which approximates the downstream boundary of freshwater habitat for steelhead. Sonoma Creek has several tributaries that join the main stem below the tidal limit; therefore, several locations will be used to evaluate water body attainment. These locations are: (1) the main stem Sonoma Creek immediately downstream of the Fowler/Carriger Creek confluence, and (2) the freshwater portions (above tidal influence) of Schell, Ramos, Carneros, and Merazo Creeks. Attainment of the sediment water quality objectives will be evaluated over a 5-to-10-year averaging period.

This Order does not directly require the preparation and implementation of Storm Water Management Plans as required in the previous 2003 Storm Water Permit (Order 2003-0005-DWQ). However, the specific implementation actions for attenuation of peak flows and durations from new and redevelopment projects that were proposed by Permittees in the Storm Water Management Plans approved under the previous 2003 Storm Water Permit are incorporated herein by reference. The municipalities identified in this TMDL section shall continue to implement those specific actions to attenuate peak flows and durations from new and redevelopment projects as stated in Attachment G. Municipalities may propose amendments to those actions by submitting an updated proposal for attenuation of peak flows and durations to the San Francisco Bay Regional Water Board.

Napa River Pathogens TMDL

The Napa River Pathogens TMDL assigns a ~~waste load~~wasteload allocation appropriate for implementation through this Order ~~to municipal runoff~~ as specified ~~in Attachment G, Region Specific Requirements.~~below.

Phase II Entities:

The San Francisco Water Board has determined that the Cities of American Canyon, Calistoga, St. Helena and Napa, the Town of Yountville and the County of Napa, Traditional Small MS4s, are sources of "municipal runoff" subject to this Order and are responsible for implementing the requirements of this TMDL.

Load Allocations:

The Napa River pathogens TMDL assigns a load allocation to municipal storm water as follows:

E.coli (CFU/100 mL)		Fecal coliform (CFU/100 mL)		Total coliform (CFU/100 mL)	
Geometric Mean	90th percentile	Geometric Mean	90th percentile	Median	Single Sample Maximum
<113	<368	<180	<360	<216	9,000

These allocations are applicable year-round and apply to any sources (existing or future) subject to regulation by NPDES permit.

Deliverables/Actions Required:

The TMDL-related requirements in this Order are ~~based on the~~derived from the TMDL Implementation Plan that was adopted with the TMDL. The Implementation Plan for the pathogen TMDL ~~calls on~~requires parties responsible for municipal runoff (i.e., Napa County and municipalities including the City of Napa, Town of Yountville, City of St. Helena, City of Calistoga, and City of American Canyon) to comply with ~~existing stormwater~~storm water management plans previously developed. The municipalities' management plans must be ~~and to~~ updated and/or amended ~~them~~ as ~~needed~~necessary~~,~~ to include ~~requirements~~actions that will lead to compliance with the requirements of this Order. The management plans must address:~~, for a~~(1) public participation and outreach, (2~~b~~) pet waste management, (3~~c~~) illicit

sewage discharge detection and elimination to reduce and eliminate fecal coliform discharges to Sonoma Creek, and (4d) develop and implement pollution prevention strategies. The Implementation Plan also anticipates requires these parties municipalities to participate in evaluation of *E. coli* concentration trends in the Napa River and its tributaries and to report annually on water quality monitoring results and progress made on implementation of human and animal runoff reduction measures. These implementation actions would beare expected to build on extensions of existing programs. The Permittee must report on its implementation actions in the Annual Report.

Sonoma Creek Pathogens TMDL

The Sonoma Creek Pathogens TMDL assigns a waste loadwasteload allocation appropriate for implementation through this Orderto municipal runoff as specified in Attachment G, Region Specific Requirements. below.

The Sonoma County Water Agency has been a voluntary participant with early storm water control efforts, including enrollment under the previous Small MS4 permit (Order 2003-0005-DWQ). The Sonoma County Water Agency owns and operates approximately 2,000 linear feet of stream channel within its service area. The Agency is also enrolled under this Order and, as such, is subject to the TMDL, expressed as requirements in Attachment G.

Phase II Entities:

The San Francisco Water Board has determined that the City of Sonoma, the County of Sonoma, and the Sonoma County Water Agency, Traditional Small MS4 permittees, are sources of "municipal runoff" subject to this Order and are responsible for implementing the requirements of this TMDL.

Wasteload Allocations:

The Sonoma Creek pathogens TMDL assigns a wasteload allocation to municipal storm water as follows:

E.coli (CFU/100 mL)		Fecal coliform (CFU/100 mL)		Total coliform (CFU/100 mL)	
Geometric Mean	90th percentile	Geometric Mean	90th percentile	Median	Single Sample Max
<113	<368	<180	<360	<216	9,000

These allocations are applicable year-round and apply to any sources (existing or future) subject to regulation by NPDES permit.

Deliverables/Actions Required:

The TMDL-related requirements in this Order are based onderived from the TMDL Implementation Plan that was adopted with the TMDL. The Implementation Plan for the pathogen TMDL calls onrequires parties responsible for municipal runoff (i.e., City and County of Sonoma) to comply with existing stormwaterstorm water management plans previously developed. The municipalities' management plans must be and to updated and/or amended them as needednecessary, to include actions that will lead to compliance with the requirements of this Order. The management plans must address:requirements for a (1) public participation and outreach, b(2) pet waste management, c(3) illicit sewage discharge detection and elimination to reduce and eliminate fecal coliform discharges to Sonoma Creek, and d(4) develop and implement pollution prevention strategies. The Implementation Plan also anticipates requires the City and County of Sonoma will to participate in evaluation of *E. coli* concentration trends in Sonoma Creek and its tributaries and to report annually on water quality monitoring results and progress made on implementation of human and animal runoff reduction measures. These implementation actions would be extensions ofare expected to build on existing programs. The Permittee must report on its implementation actions in the

Annual Report.

For the Sonoma County Water Agency, the TMDL implementation requirements of this Order are incorporated by reference to the Storm Water Management Plan approved under the previous 2003 Storm Water Permit (Order 2003-0005-DWQ). The Sonoma County Water Agency must comply with the compliance dates established in its previously approved Storm Water Management Plans.

Tomales Bay Pathogens TMDL

The Tomales Bay Pathogens TMDL assigns a ~~waste load~~wasteload allocation appropriate for implementation through this Order~~to municipal runoff~~ as specified ~~in Attachment G, Region Specific Requirements.~~below.

Phase II Entities:

The San Francisco Water Board has determined that the County of Marin is a source of municipal runoff subject to this Order and that the County is responsible for implementing the requirements of this TMDL.

Wasteload Allocations:

The Tomales Bay Pathogens TMDL assigns a wasteload allocation to municipal storm water as follows:

Fecal Coliform[a] (MPN/100 mL)		
For Direct Discharges to Tomales Bay		For Discharges to Major Tomales Bay Tributaries
Median[b]	90th percentile[c]	Log Mean[b]
<14	<43	<200

[a] These allocations are applicable year-round and apply to any sources (existing or future) subject to regulation by NPDES permit.

[b] Based on a minimum of five consecutive samples equally spaced over a 30-day period.

[c] No more than 10% of total samples during any 30-day period may exceed this number

Deliverables/Actions Required:

The TMDL-related requirements in this ~~o~~Order are ~~based on~~derived from the TMDL Implementation Plan that was adopted with the TMDL. The Implementation Plan for the ~~p~~Pathogen TMDL ~~calls on~~requires parties responsible for municipal runoff (i.e., Marin County) to comply with ~~existing stormwater~~storm water management plans previously developed. The municipalities' management plans must be ~~and to~~ update~~d~~ and/or amend~~ed~~ ~~them~~ as ~~needed~~necessary~~,~~ to include actions that will lead to compliance with the requirements of this Order. The management plans must address:~~requirements for a~~(1) public participation and outreach, ~~b~~(2) pet waste management, ~~c~~(3) illicit sewage discharge detection and elimination to reduce and eliminate fecal coliform discharges to Tomales Bay and its tributaries including Olema, Lagunitas, and Walker~~, and San Geronimo~~ Creeks, and ~~d~~(4) ~~develop and implement~~ pollution prevention strategies. The Implementation Plan also ~~anticipates~~ requires these ~~parties~~ municipalities to participate in evaluation of *E. coli* concentration trends in Tomales Bay and its tributaries and to report annually on water quality monitoring results and progress made on implementation of human and animal runoff reduction measures. The Implementation Plan anticipates that dischargers (including Marin County) and stakeholders, in collaboration with the Water Board will conduct water quality monitoring to evaluate fecal coliform concentration trends in Tomales Bay and its tributaries.

The~~se~~ implementation actions ~~would be extensions of~~are expected to build on existing local s~~S~~torm water m~~M~~anagement ~~P~~programs and ~~would build upon previous and~~ ongoing

~~successful~~ efforts to reduce pathogen loads to Tomales Bay and its tributaries. The Permittee must report on its implementation actions in the Annual Report.

Richardson Bay Pathogens TMDL

The Richardson Bay Pathogens TMDL assigns a ~~waste load~~wasteload allocation appropriate for implementation through this Order ~~to municipal runoff~~ as specified ~~in Attachment G, Region Specific Requirements.~~below.

Phase II Entities:

The San Francisco Water Board has determined that the Cities of Belvedere, Mill Valley, Sausalito, Tiburon and the County of Marin, Traditional Small MS4s, are a source of "municipal runoff" subject to this TMDL and must comply with the requirements of the Richardson Bay Pathogens TMDL in this Order.

Wasteload Allocations:

The Richardson Bay Pathogens TMDL assigns a wasteload allocation to municipal storm water as follows:

Fecal Coliform[a] (MPN/100 mL)	
Median[b]	90th Percentile[c]
<14	<43

[a] These allocations are applicable year-round.
[b] based on a minimum of five consecutive samples equally spaced over a 30-day period
[C] No more than 10% of total samples during any 30-day period may exceed this number

Deliverables/Actions Required:

The requirements in this ~~o~~Order are ~~based on~~derived from the TMDL Implementation Plan that was adopted with the TMDL. The Implementation Plan for the pathogen TMDL ~~calls on~~ requires parties responsible for municipal runoff (i.e., Marin County, City of Mill Valley, City of Tiburon, City of Belvedere, and ~~city~~ City of Sausalito) to comply with ~~existing stormwater~~storm water management plans previously developed. The municipalities' management plans must be ~~and to~~ update~~d~~ and/or amende~~d~~ ~~them~~ as ~~needed~~necessary, to include actions that will lead to compliance with the requirements of this Order. The management plans must address:~~requirements for~~ ~~a~~(1) public participation and outreach, ~~b~~(2) pet waste management, ~~c~~(3) illicit sewage discharge detection and elimination to reduce and eliminate fecal coliform discharges to Sonoma Creek, and ~~d~~(4) ~~develop and implement~~ pollution prevention strategies. The Implementation Plan also requires these parties responsible for municipal runoff to report annually on progress made on implementation of human and animal runoff reduction measures.

The implementation actions are expected to build on existing local storm water management programs. The Permittee must report on its implementation actions in the Annual Report. ~~These implementation actions would be extensions of existing programs.~~

Urban Creeks Diazinon and Pesticide Toxicity TMDL

The Urban Creeks ~~and~~ Diazinon and Pesticide TMDL assigns a ~~waste load~~wasteload allocation appropriate for implementation through this Order ~~to municipal runoff~~ as specified ~~in Attachment G, Region Specific Requirements.~~below. This provision implements requirements of the TMDL for Diazinon and pesticide-related toxicity for Urban Creeks in the San Francisco Bay Region. Pesticides of concern include: organophosphorous pesticides (chlorpyrifos, diazinon, and malathion); pyrethroids (bifenthrin, cyfluthrin, beta-cyfluthrin, cypermethrin, deltamethrin, esfenvalerate, lambda-cyhalothrin, permethrin, and tralomethrin); carbamates

(e.g., carbaryl); and fipronil.

Phase II Entities:
The San Francisco Water Board has determined that the following municipalities are a source of "urban runoff" subject to this TMDL and must comply with the TMDL-related requirements of this Order: (1) the Cities of Belvedere, Larkspur, Mill Valley, Novato, Petaluma, San Rafael, Sausalito, and Sonoma, (2) the Towns of Corte Madera, Fairfax, Ross, San Anselmo, and Tiburon, and (3) the Counties of Marin and Sonoma, Traditional Small MS4 permittees.

Wasteload Allocations:
Diazinon: 100 nanograms/liter (ng/l) (one-hour average)
Toxicity: 1.0 Acute Toxicity Unit (TUa) and 1.0 Chronic Toxicity Unit (TUc)

Deliverables/Actions Required:
The requirements in this ~~o~~Order are ~~based on~~derived from the TMDL Implementation Plan that was adopted with the TMDL. The Implementation Plan for the Urban Creeks and Diazinon and Pesticide Toxicity TMDL ~~calls on~~requires parties responsible for municipal runoff (i.e., Marin County, ~~City of Mill Valley,~~ City of Belvedere, Town of Corte Madera, Town of Fairfax, City of Larkspur, City of Mill Valley, City of Novato, Town of Ross, Town of San Anselmo, City of San Rafael, City of Sausa~~i~~lito, Town of Tiburon, County of Sonoma, City of Sonoma, and City of Petaluma) to adopt an Integrated Pest Management Policy (IPM) or ordinance, as the basis of a Pesticide-Related Toxicity Program. Implementation actions of the Pesticide-Related Toxicity P~~p~~rogram must include: a) training of all municipal employees who use or apply pesticides in the IPM practices and policy/ordinance, b) ~~require~~ requiring contractors to implement IPM, c) keeping County Agricultural Commissioners informed of water quality issues related to pesticides, d) conducting outreach to residents and pest control applicators on less toxic methods for pest control, e) keeping records on pesticide use, and f) monitoring water and sediment for pesticides and associated toxicity in urban creeks via an individual or regional monitoring program.

The term "integrated pest management," as used for the purpose of this Order, refers to a process that includes setting action thresholds, monitoring and identifying pests, preventing pests, and controlling pests when necessary. Integrated pest management meets the following conditions:

- Pest control practices that focus on long-term pest prevention through a combination of techniques, such as biological control, habitat manipulation, and modification of cultural practices;
- Pesticides are used in response to monitoring indicating that pesticides are needed; Pesticide applications with the goal of removing only the target pest; and
- Pesticides are selected to minimize risks to human health, beneficial and non-target organisms, and the environment, including risks to aquatic habitats.

The term "less toxic pest control," as used for the purpose of this Order, refers to the use of pest control strategies selected to minimize the potential for pesticide-related toxicity in water and sediment.

Permittees are required to reduce discharges of pollutants, including pesticides, to the maximum extent practicable as required by this Order.

CENTRAL COAST REGIONAL WATER BOARD TMDLs

For All TMDLs Requiring Wasteload Allocation Attainment Programs

For TMDLs that identify municipal storm water as a contributor to water body impairment, MS4s must reduce their wasteload discharges in accordance with TMDLs. The Central Coast Regional Water Board requires MS4s to develop Wasteload Allocation Attainment Programs to achieve compliance with the TMDL. The TMDLs set forth the expectation that the MS4s achieve their wasteload allocations within specified timeframes. The Wasteload Allocation Attainment Program approach differs from the typical regulatory requirements applied to municipal storm water (BMP implementation per an iterative process of continual improvement for achieving water quality standards). The MS4s' contribution to the impairment of water bodies, combined with the TMDL expectation that municipalities achieve their wasteload allocations within specified timeframes, necessitates a systematic approach to program implementation as it relates to the discharge of pollutants associated with impairments.

Federal regulations indicate that such an approach is appropriate. The Preamble to the Phase II federal storm water regulations states: "Small MS4 permittees should modify their programs if and when available information indicates that water quality considerations warrant greater attention or prescriptiveness in specific components of the municipal program."[39]

The Central Coast Water Board developed the Wasteload Allocation Attainment Program approach as a means to systematically guide municipalities towards attainment of their wasteload allocations. Without a systematic approach of this type, attainment of wasteload allocations within an identified time period is unlikely. Local municipal storm water management programs typically include basic or minimum BMPs to be implemented to attain water quality objectives. While some BMPs provide effective treatment and management of urban runoff, the connection between BMP effectiveness and attainment of wasteload reductions is unclear. Municipalities have implemented BMPs, yet water body impairment continue due to the inability for BMPs implemented by MS4s to address all the water quality issues identified in TMDLs. The demonstration of BMP implementation in a non-systematic approach failing to address impairments indicates that a systematic approach, as represented by the Wasteload Allocation Attainment Programs, is warranted.

On a broader scale, existing storm water programs often do not provide and/or exhibit the rationale used for BMP selection, or draw connections between those BMPs selected and attainment of wasteload allocations. Without a programmatic level of planning and design, attainment of wasteload allocations within specified timeframes may not take place. The Wasteload Allocation Attainment Program requirements are expressly designed to ensure adequate planning is conducted so that MS4s' TMDL implementation efforts are effective to achieve regulatory compliance. Wasteload Allocation Attainment Program development and implementation include the following items on a TMDL-specific basis: (1) An implementation and assessment strategy; (2) source identification and prioritization; (3) BMP identification, prioritization, implementation (including schedule), analysis[40], and assessment; (4) monitoring program development and implementation (including schedule); (5) reporting and evaluation of progress towards complying with wasteload allocations; and (6) coordination with stakeholders. The United States Environmental Protection Agency (U.S. EPA) forwards similar approaches for TMDL implementation in its *Draft TMDLs to Storm Water Permits Handbook*, which discusses BMP review and selection, establishing linkages between BMP implementation and load reductions, effectiveness assessment, and BMP/outfall/receiving water monitoring.[41]

[39] 64 FR 68753

[40] This analysis must be a quantifiable numeric analysis that uses published BMP pollutant removal estimates, performance estimates, modeling, best professional judgment, and/or other available tools to demonstrate that the BMP selected for implementation achieved the MS4's wasteload allocation. This analysis will most likely incorporate modeling efforts.

[41] U.S. EPA. 2008. Draft TMDLs to Stormwater Permits Handbook. Chapters 5 and 6.

Ultimately, the Wasteload Allocation Attainment Programs place the responsibility for program development, assessment, improvement, and success on the municipalities since municipal storm water has been identified as contributing to the water quality impairment. The Regional Water Board will collectively assess the progress of the various pollutant sources towards achieving receiving water quality standards as part of its triennial Basin Planning review, but each source must be responsible for assessing its own progress towards achieving its wasteload allocation. The process of planning, assessment, and refinement outlined by the Wasteload Allocation Attainment Programs helps ensure continual improvement and ultimate attainment of water quality standards at impaired receiving waters.

This Order implements TMDLs that have either a past-due or upcoming attainment date. In such instances, the Regional Water Board may determine, based upon past and proposed future actions, that the method for a permittee to attain the wasteload allocations will include further assessment and improvement upon implementation of the Wasteload Allocation Attainment Plans. The Permittee may request a Time Schedule Order from its Regional Water Board to allow additional time for compliance with the TMDL requirements.

Central Coast TMDLs can be viewed at:
http://www.waterboards.ca.gov/centralcoast/water_issues/programs/tmdl/303d_and_tmdl_projects.shtml

Morro Bay and Chorro and Los Osos Creeks Pathogens TMDL

The Morro Bay and Chorro and Los Osos Creeks Pathogens TMDL assigns a wasteload allocation appropriate for implementation through this Order as specified below. Pennington Creek and Warden Creek are tributaries of Los Osos Creek, and are therefore included in the TMDL.

Although several waterbodies were named in the Attachment G of this Order, as adopted by the State Water Board on February 5, 2013, three waterbodies (San Bernardo, San Luisito, and Walters Creeks) have been removed (by this amendment) due to these waterbodies (and their watersheds) being outside the permitting boundary areas of the Phase II entities below.

Phase II Entities:
The Central Coast Regional Water Board has determined that the City of Morro Bay and the County of San Luis Obispo, Traditional Small MS4 permittees, are a source of "urban runoff" subject to this TMDL, and must comply with the TMDL-related requirements of this Order.

Wasteload Allocations:
The City of Morro Bay and County of San Luis Obispo are assigned the following wasteload allocations:

For discharges to Los Osos Creek, Chorro Creek, and their tributaries:

1) The fecal coliform geometric mean concentration in the receiving water (based on a minimum of five samples) for any consecutive 30-day period shall not exceed 200 MPN/100 mL, and
2) The fecal coliform concentration (of each individual sample) of more than ten percent of the total samples collected during the same 30-day period, as above, shall not exceed 400 MPN/100 mL.

For discharges to Morro Bay:

1) The fecal coliform geometric mean concentration in the receiving water (based on a minimum of five samples) for any consecutive 30-day period shall not exceed 14 MPN/100 mL, and

2) The fecal coliform concentration (of each individual sample) of more than ten percent of the total samples collected during the same 30-day period, as above, shall not exceed 43 MPN/100 mL.[42]

Deliverables/Actions Required:
The numeric targets approved in the TMDL are expressed in terms of receiving water indicators, e.g. fecal coliform density measurements. Compliance with this TMDL is achieved through development and implementation of a Wasteload Allocation Attainment Program, per the requirements in Attachment G of this Order. By February 5, 2014 the City of Morro Bay and County of San Luis Obispo were required to develop, submit, and begin implementation of a Wasteload Allocation Attainment Program that identifies the actions they will take to attain their wasteload allocations. Therefore, effective immediately, the MS4 shall implement the Wasteload Allocation Attainment Program.

The TMDL specifies that all wasteload allocations must be achieved by November 19, 2013. Since the deadline is past, the wasteload allocations are effective immediately. The Permittee may request a Time Schedule Order from its Regional Water Board to allow additional time for compliance with the TMDL requirements.

Watsonville Slough Pathogens TMDL
The Watsonville Slough Pathogens TMDL assigns a wasteload allocation appropriate for implementation through this Order as specified below.

Phase II Entities:
The Central Coast Regional Water Board has determined that the City of Watsonville and the County of Santa Cruz, Traditional Small MS4 permittees, are a source of "urban storm water" subject to this TMDL and must comply with the TMDL-related requirements of this Order.

Wasteload Allocations:
The City of Watsonville and the County of Santa Cruz are assigned the following concentration-based wasteload allocations:

1) The fecal coliform log mean concentration in the receiving water (based on a minimum of five samples) for any consecutive 30-day period shall not exceed 200 MPN/100 mL, and
2) The fecal coliform concentration (of each individual sample) of more than ten percent of the total samples collected during the same 30-day period, as above, shall not exceed 400 MPN/100 mL.

The wasteload allocations are receiving water allocations, and therefore storm water discharge shall not cause or contribute to exceedance of the allocations as measured in receiving water.

The City of Watsonville is assigned the above wasteload allocations in the following water bodies: Watsonville, Struve, Harkins, Gallighan and Hanson Sloughs.

The County of Santa Cruz is assigned the above wasteload allocation in the following water bodies: Watsonville, Struve and Harkins Sloughs.

Deliverables/Actions Required:
Compliance with this TMDL is achieved through development and implementation of a Wasteload Allocation Attainment Program, as required in Attachment G of this Order.

[42] For all Central Coast Water Board fecal indicator bacteria and pathogens TMDLs, E. coli concentrations may be used as a surrogate for fecal coliform concentrations.

The TMDL specifies that all allocation must be achieved by November 20, 2016. The Permittee may request a Time Schedule Order from its Regional Water Board to allow additional time for compliance with the TMDL requirements.

Pajaro River, San Benito River, Llagas Creek, Tequesquita Slough, San Juan Creek, Carnadero/Uvas Creek, Bird Creek, Pescadero Creek, Tres Pinos Creek, Furlong (Jones) Creek, Santa Ana Creek, and Pachecho Creek Fecal Coliform TMDL

The above-named Fecal Coliform TMDL assigns a wasteload allocation appropriate for implementation through this Order as specified below.

Phase II Entities:

The Central Coast Regional Water Board has determined that the Cities of Gilroy, Hollister, Morgan Hill, Watsonville, and the Counties of Monterey, Santa Clara, and Santa Cruz, Traditional MS4 permittees, are a source of "MS4 discharges" subject to this TMDL and must comply with the TMDL-related requirements of this Order.

Wasteload Allocations:

The Cities of Hollister, Morgan Hill, Gilroy and Watsonville and the Counties of Monterey, Santa Clara and Santa Cruz are assigned the following concentration based wasteload allocations:

The fecal coliform concentration in the receiving water (based on a minimum of five samples) for any consecutive 30-day period shall not exceed a log mean of 200 MPN per 100mL, and

The fecal coliform concentration (of each individual sample) of more than ten percent of the total samples collected during the same 30-day period, as above, shall not exceed 400 MPN per 100mL.

The wasteload allocations are receiving water allocations, and therefore storm water discharges shall not cause or contribute to exceedance of the allocations as measured in receiving water.

The Cities of Hollister, Morgan Hill, Gilroy and Watsonville and the Counties of Santa Cruz, Santa Clara and Monterey are assigned the above wasteload allocations in the following water bodies: Pajaro River, San Benito River, Llagas Creek and Tequesquita Slough.

Deliverables/Actions Required:

Compliance with this TMDL is achieved through development and implementation of a Wasteload Allocation Attainment Program, as required in Attachment G of this Order. The TMDL specifies that all allocations must be achieved by July 12, 2023.

Morro Bay Sediment TMDL

The Morro Bay Sediment TMDL assigns a wasteload allocation appropriate for implementation through this Order as specified below.

Although San Bernardo and San Luisito Creeks were named in Attachment G of this Order as adopted by the State Water Board on February 5, 2013, the requirements of this Order are not applicable to these water bodies because the water bodies (and their watersheds) are outside the permit boundary areas of the Phase II entities, below.

Phase II Entities:

The Central Coast Regional Water Board has determined that the County of San Luis Obispo, a Traditional MS4 permittee, is a source of "urban land use" subject to this TMDL and must comply with the TMDL-related requirements of this Order.

Wasteload Allocations:
The numeric targets approved in the TMDL are expressed in terms of receiving water indicators, e.g. pool residual volume, median diameter of spawning gravels, etc. The TMDL also expressed the sediment assimilative capacity and allocations required to achieve the numeric targets. The allocations require a 50% reduction of current loading (estimated in 2003) to achieve the numeric targets. The wasteload allocations assigned to the responsible parties in this permit represent a 50% reduction from 2003 loading estimates.

The County of San Luis Obispo is assigned a wasteload allocation of 5,137 tons/year of sediment. The aggregated sediment discharge from all storm water outfalls into Morro Bay, or any tributary that has the potential to discharge sediment to Morro Bay, shall not exceed the allocation.

The wasteload allocations are receiving water allocations, and therefore storm water discharge shall not cause or contribute to exceedance of the allocations as measured in receiving water.

The County of San Luis Obispo is assigned allocations in the following water bodies: Morro Bay, Los Osos Creek, Chorro Creek, Dairy Creek, Pennington Creek, and Warden Creek.

Deliverables/Actions Required:
Compliance with this TMDL is achieved through development and implementation of a Wasteload Allocation Attainment Program, laid out in detail in Attachment G of this Order.

The allocations shall be achieved by December 3, 2053.

San Lorenzo River Sediment TMDL
The San Lorenzo River Sediment TMDL assigns a wasteload allocation appropriate for implementation through this Order as specified below.

Phase II Entities:
The Central Coast Regional Water Board has determined that the Cities of Santa Cruz, Scotts Valley and the County of Santa Cruz, Traditional MS4 permittees, are a source of "Other Urban and Rural Land" and "Public and Private Roads" subject to this TMDL and must comply with the TMDL-related requirements of this Order.

Wasteload Allocations:
The numeric targets approved in the TMDL are expressed in terms of receiving water indicators, e.g. pool residual volume, median diameter of spawning gravels, etc. The TMDL also expressed the sediment assimilative capacity and allocations required to achieve the numeric targets. The allocations require reductions of 24-27 percent of current sediment loading (estimated in 2002) to achieve the numeric targets. The wasteload allocations assigned to the responsible parties in this permit represent a 24-27 percent reduction from the 2003 loading estimates.

The County of Santa Cruz, City of Santa Cruz, and City of Scotts Valley are assigned the following wasteload allocations:

- The sediment discharge loading from public roads to the San Lorenzo River shall be reduced by 27%,
- The sediment discharge loading from public roads to Lompico Creek shall be reduced by 24%,
- The sediment discharge loading from public roads to Carbonera Creek shall be reduced by 27%,
- The sediment discharge loading from public roads to Shingle Mill Creek shall be reduced by 27%.

Deliverables/Actions Required:
Compliance with this TMDL is achieved through development and implementation of a Wasteload Allocation Attainment Program as required in Attachment G of this Order. The allocations shall be achieved by December 18, 2028.

Pajaro River (including Llagas Creek, Rider Creek and San Benito River) Sediment TMDL

The Pajaro River (including Llagas Creek, Rider Creek and San Benito River) Sediment TMDL assigns a wasteload allocation appropriate for implementation through this Order as specified below. The TMDL names "urban lands within NPDES Phase II urban boundaries" as a Land Use Source Category of sediment loading to the Corralitos Creek subbasin and assigns a wasteload allocation to this category.

Phase II Entities:
The Central Coast Water Board has determined that the Cities of Gilroy, Hollister, Morgan Hill and Watsonville, Traditional MS4 permittees, are sources of "municipal runoff" and must comply with the TMDL-related requirements of this Order.

The Santa Cruz County Fairgrounds is located within the Corralitos Creek subbasin (subbasin number 4) and constitutes "urban lands within NPDES Phase II urban boundaries." The Central Coast Water Board has additionally determined that the Santa Cruz County Fairgrounds, a Non-Traditional MS4 permittee, must incorporate provisions for complying with the wasteload allocations described in the TMDL as part of its compliance with this Order.

Wasteload Allocations:
The numeric targets approved in the TMDL are expressed in terms of receiving water indicators, e.g. pool residual volume, median diameter of spawning gravel~~s~~, etc. The TMDL also ~~expressed~~ provides the sediment assimilative capacity and allocations required to achieve the numeric targets. The allocations require reductions of 90~~%~~ percent from current sediment loading (estimated in 2005) to achieve the numeric targets. The wasteload allocations assigned to the responsible parties in this permit represent a 90 percent~~%~~ reduction of the 2005 loading estimate.

The City of Morgan Hill, City of Gilroy, City of Hollister, Santa Cruz County Fairgrounds, and the City of Watsonville shall not discharge sediment to the following water bodies in excess of the values shown:

Major Subwatershed	**Metric tons per year**
Tres Pinos	1
San Benito River	100
Llagas Creek	787
Uvas Creek	139

Upper Pajaro River	161
Corralitos (including Rider Creek)	284
Mouth of Pajaro River	191

Deliverables/Actions Required:
The Central Coast Water Board has determined that compliance with Phase II MS4 permit requirements tailored to focus on reduction of sediment discharges to the affected waterbodies is sufficient to achieve the wasteload allocations. The allocations shall be achieved by November 27, 2051.

San Luis Obispo Creek Pathogens TMDL
The San Luis Obispo Creek Pathogens TMDL assigns a wasteload allocation appropriate for implementation through this Order as specified below.

Phase II Entities:
The Central Coast Regional Water Board has determined that the City of San Luis Obispo and the County of San Luis Obispo, Traditional MS4 permittees, and the California Polytechnic (Cal Poly) State University, a Non-Traditional MS4 permittee, are a source of "Urban" and "Human" sources subject to this TMDL and must comply with the TMDL-related requirements of this Order.

Wasteload Allocations:
The City of San Luis Obispo, the County of San Luis Obispo, and the Cal Poly State University-San Luis Obispo, are assigned the following concentration-based wasteload allocation for fecal coliform:

The fecal coliform concentration in the receiving water (based on a minimum of five samples) for any consecutive 30-day period shall not exceed a log mean of 200 MPN per 100mL, and

The fecal coliform concentration (of each individual sample) of more than ten percent of the total samples collected during the same 30-day period, as above, shall not exceed 400 MPN per 100mL.

The wasteload allocations are receiving water allocations and therefore storm water discharge shall not cause or contribute to exceedance of the allocations as measured in receiving water.

The City of San Luis Obispo is assigned these allocations in San Luis Obispo Creek and Stenner Creek.

The County of San Luis Obispo is assigned these allocations in the San Luis Obispo Creek.

Cal Poly State University-San Luis Obispo is assigned these allocations in Stenner Creek and Brizziola Creek.

The wasteload allocations are receiving water allocations, and therefore storm water discharge shall not cause or contribute to exceedance of the allocations as measured in receiving water.

Deliverables/Actions Required:
Compliance with this TMDL is achieved through development and implementation of a Wasteload Allocation Attainment Program per requirements in Attachment G of this Order. The TMDL specifies that all allocations must be achieved no later than July 25, 2015. The

allocations are therefore effective immediately. A permittee with a past deadline may request a Time Schedule Order from the applicable Regional Water Board. A Regional Water Board's issuance of a Time Schedule Order will establish an implementation schedule for the permittee to comply with the TMDL requirements that will supersede the deadlines referenced in this Order.

San Luis Obispo Creek Nitrate-Nitrogen TMDL

The San Luis Obispo Creek Nitrate-Nitrogen TMDL assigns a wasteload allocation appropriate for implementation through this Order as specified below.

Phase II Entities:

The Central Coast Regional Water Board has determined that the City of San Luis Obispo and the County of San Luis Obispo, Traditional MS4 permittees, and Cal Poly State University, a Non-Traditional MS4 permittee, are a source of "Residential areas" subject to this TMDL and must comply with the TMDL-related requirements of this Order.

Wasteload Allocations:

Urban storm water from the City of San Luis Obispo, County of San Luis Obispo, and Cal Poly State University shall not cause an increase in the receiving water nitrate concentration greater than the increase in nitrate concentration resulting from their discharge in 2006 (when the TMDL became effective). In 2006, the nitrate concentration of storm water discharge was 0.3 mg/L-N.

The City of San Luis Obispo, County of San Luis Obispo, and Cal Poly State University were achieving their allocations at the time the TMDL became effective; these municipalities shall implement measures to assure continued attainment of their allocations.

Deliverables/Actions Required:

The Central Coast Water Board has determined that compliance with the requirements of this Phase II MS4 permit, tailored to focus on reduction of nutrient discharges to the affected water bodies, is sufficient to achieve the wasteload allocations.

The TMDL specifies that the target date to achieve the TMDL is during or before year 2012. The allocations are therefore effective immediately. A permittee is not in need of a Time Schedule Order from the applicable Regional Water Board since these permittees were achieving their allocations at the time the TMDL became effective, and are expected to continue implementing measures to assure continued attainment of their allocations.

Corralitos and Salsipuedes Creeks Fecal Coliform TMDL

The Corralitos and Salsipuedes Creeks Fecal Coliform TMDL assigns a wasteload allocation appropriate for implementation through this Order as specified below. The TMDL also names "Owners of private sewer laterals (Private sewer laterals connected to municipal sanitary sewer collection system)" as a responsible party and assigns a wasteload allocation.

Phase II Entities:

The Central Coast Regional Water Board has determined that the City of Watsonville and the County of Santa Cruz, Traditional MS4 permittees, and the Santa Cruz County Fairgrounds, a Non-Traditional MS4 permittee, are a source of "Storm drain discharges" subject to this TMDL and must comply with the TMDL-related requirements of this Order.

Wasteload Allocations:

The County of Santa Cruz and the City of Watsonville, and the Santa Cruz County

Fairgrounds are assigned the following concentration-based wasteload allocation:

The fecal coliform concentration in the receiving water (based on a minimum of five samples) for any consecutive 30-day period shall not exceed a log mean of 200 MPN per 100mL, and

The fecal coliform concentration (of each individual sample) of more than ten percent of the total samples collected during the same 30-day period, as above, shall not exceed 400 MPN per 100mL.

The wasteload allocations are receiving water allocations, and therefore storm water discharge shall not cause or contribute to exceedance of the allocations as measured in receiving water.

The County of Santa Cruz and the City of Watsonville and the Santa Cruz County Fairgrounds, are assigned the above allocations in the following water bodies: Corralitos Creek and Salsipuedes Creek.

Deliverables/Actions Required:
Compliance with this TMDL is dependent on developing and implementing a Wasteload Allocation Attainment Program, discussed in detail in Attachment G of this Order. All allocations shall be achieved no later than September 8, 2024.

Lower Salinas River Watershed Fecal Coliform TMDL
The Lower Salinas River Watershed Fecal Coliform TMDL assigns a wasteload allocation appropriate for implementation through this Order as specified below.

Phase II Entities:
The Central Coast Regional Water Board has determined that the County of Monterey, a Traditional MS4 permittee, is a source of “Discharges from MS4s” subject to this TMDL and must comply with the TMDL-related requirements of this Order.

The County of Monterey is assigned allocations in the following water bodies:
The Lower Salinas River, the Old Salinas River Estuary, the Tembladero Slough, the Salinas Reclamation Canal, the Alisal Creek, the Gabilan Creek, the Salinas River Lagoon (North), and the Santa Rita Creek.

Wasteload Allocations:
The County of Monterey is assigned the following concentration based wasteload allocation for fecal coliform:

The fecal coliform concentration in the receiving water (based on a minimum of five samples) for any consecutive 30-day period shall not exceed a log mean of 200 MPN per 100mL, and

The fecal coliform concentration (of each individual sample) of more than ten percent of the total samples collected during the same 30-day period, as above, shall not exceed 400 MPN per 100mL.

The wasteload allocations are receiving water allocations, and therefore storm water discharge shall not cause or contribute to exceedance of the allocations as measured in receiving water.

Deliverables/Actions Required:
Compliance with this TMDL is dependent on developing and implementing a Wasteload Allocation Attainment Program per the requirements in Attachment G of this Order. All

allocations shall be achieved no later than December 20, 2024.

San Lorenzo River Estuary, San Lorenzo River, Branciforte Creek, Camp Evers Creek, Carbonera Creek and Lompico Creek Pathogens TMDL

The San Lorenzo River Estuary, San Lorenzo River, Branciforte Creek, Camp Evers Creek, Carbonera Creek and Lompico Creek Pathogens TMDL assigns a wasteload allocation appropriate for implementation through this Order as specified below.

Phase II Entities:

The Central Coast Regional Water Board has determined that the Cities of Santa Cruz and Scotts Valley and the County of Santa Cruz, Traditional MS4 permittees, are a source of "Discharges from MS4s" subject to this TMDL and must comply with the TMDL-related requirements in this Order.

Wasteload Allocations:

The City of Santa Cruz, County of Santa Cruz and the City of Scotts Valley are assigned the following concentration based wasteload allocation for fecal coliform:

The fecal coliform concentration in the receiving water (based on a minimum of five samples) for any consecutive 30-day period shall not exceed a log mean of 200 MPN per 100mL, and

The fecal coliform concentration (of each individual sample) of more than ten percent of the total samples collected during the same 30-day period, as above, shall not exceed 400 MPN per 100mL.

The wasteload allocations are receiving water allocations, and therefore storm water discharge shall not cause or contribute to exceedance of the allocations as measured in receiving water.

The City of Santa Cruz is assigned the above allocations in the San Lorenzo River Estuary, the San Lorenzo River, the Branciforte Creek, and the Carbonera Creek.

The County of Santa Cruz is assigned the above allocations in the San Lorenzo River, the Branciforte Creek, the Lompico Creek, and the Carbonera Creek,

The City of Scotts Valley is assigned above allocations in the Camp Evers Creek and the Carbonera Creek.

Deliverables/Actions Required:

Compliance with this TMDL is dependent on developing and implementing a Wasteload Allocation Attainment Program as required in detail in Attachment G of this Order. All allocations shall be achieved no later than June 8, 2024.

Soquel Lagoon, Soquel Creek and Noble Gulch Pathogens TMDL

The Soquel Lagoon, Soquel Creek and Noble Gulch Pathogens TMDL assigns a wasteload allocation appropriate for implementation through this Order as specified below.

Phase II Entities:

The Central Coast Regional Water Board has determined that the City of Capitola and the County of Santa Cruz, Traditional MS4 permittees, are a source of "Discharges from MS4s" subject to this TMDL and must comply with the TMDL-related requirements in this Order.

Wasteload Allocations:

The City of Capitola and the County of Santa Cruz are assigned the following concentration-based wasteload allocation for fecal coliform:

The fecal coliform concentration in the receiving water (based on a minimum of five samples) for any consecutive 30-day period shall not exceed a log mean of 200 MPN per 100mL, and

The fecal coliform concentration (of each individual sample) of more than ten percent of the total samples collected during the same 30-day period, as above, shall not exceed 400 MPN per 100mL.

The wasteload allocations are receiving water allocations, and therefore storm water discharge shall not cause or contribute to exceedance of the allocations as measured in receiving water.

The City of Capitola is assigned the above allocations in Soquel Lagoon.

The County of Santa Cruz is assigned the above allocations in Soquel Creek and Noble Gulch.

Deliverables/Actions Required:
Compliance with this TMDL is dependent on developing and implementing a Wasteload Allocation Attainment Program per the requirements in Attachment G of this Order. All allocations shall be achieved by September 15, 2023.

Aptos Creek, Valencia Creek and Trout Gulch Pathogens TMDL
The Aptos Creek, Valencia Creek and Trout Gulch Pathogens TMDL assigns a wasteload allocation appropriate for implementation through this Order as specified below.

Phase II Entities:
The Central Coast Regional Water Board has determined that the County of Santa Cruz, a Traditional MS4 permittee, is a source of "Discharges from MS4s" subject to this TMDL and must comply with the TMDL-related requirements of this Order.

Wasteload Allocations:
The County of Santa Cruz is assigned the following concentration based wasteload allocation for fecal coliform:

The fecal coliform concentration in the receiving water (based on a minimum of five samples) for any consecutive 30-day period shall not exceed a log mean of 200 MPN per 100mL, and

The fecal coliform concentration (of each individual sample) of more than ten percent of the total samples collected during the same 30-day period, as above, shall not exceed 400 MPN per 100mL.

The wasteload allocations are receiving water allocations, and therefore storm water discharge shall not cause or contribute to exceedance of the allocations as measured in receiving water.

The County of Santa Cruz is assigned the above allocations in Aptos Creek, Valencia Creek, and Trout Gulch.

Deliverables/Actions Required:
Compliance with this TMDL is dependent on developing and implementing a Wasteload Allocation Attainment Program per the requirements in Attachment G of this Order. All allocations shall be achieved October 29, 2023.

Santa Maria River Watershed Fecal Indicator Bacteria TMDL

The Santa Maria River Watershed Fecal Indicator Bacteria TMDL assigns a wasteload allocation appropriate for implementation through this Order as specified below.

Phase II Entities:

The Cities of Guadalupe and Santa Maria and the Counties of Santa Barbara and San Luis Obispo, Traditional MS4 permittees, and the Santa Maria Fairpark, a Non-Traditional MS4 permittee, are sources of "Discharges from MS4s" subject to this TMDL and must comply with the TMDL-related requirements in this Order. The Santa Maria Fairpark is assigned wasteload allocation in the Main Street Canal; however the Central Coast Water Board has determined that the Santa Maria Fairpark's BMPs and monitoring effectively implement a Wasteload Allocation Attainment Program; therefore, no further TMDL-related requirements in this Order are needed for the Santa Maria Fairpark.

Wasteload Allocations:

The Central Coast Water Board has determined that the City of Santa Maria, the City of Guadalupe, the County of Santa Barbara, and the County of San Luis Obispo are assigned the following concentration-based wasteload allocation:

(1) The fecal coliform concentration in the receiving water (based on a minimum of five samples) for any consecutive 30-day period shall not exceed a log mean of 200 MPN per 100mL, and

The fecal coliform concentration (of each individual sample) of more than ten percent of the total samples collected during the same 30-day period, as above, shall not exceed 400 MPN per 100mL.

(2) Based on a statistically sufficient number of samples (generally not less than five samples equally spaced over a 30-day period), the geometric mean of E. coli densities shall not exceed 126 MPN per 100 mL, and no sample shall exceed a one-sided confidence limit (C.L.) for contact recreation (90% C.L.) = 409 MPN per 100 mL.

The wasteload allocations are receiving water allocations, and therefore storm water discharge shall not cause or contribute to exceedance of the allocations as measured in receiving water.

The City of Santa Maria is assigned the above wasteload allocations in the following water bodies: the Santa Maria River, the Main Street Canal, the Blosser Channel, and the Bradley Channel.

The County of Santa Barbara is assigned the above wasteload allocations in Orcutt Creek.

The County of San Luis Obispo is assigned the above wasteload allocations in Nipomo Creek.

The City of Guadalupe is assigned the above wasteload allocations in the Santa Maria River and Estuary.

Deliverables/Actions Required:

Compliance with this TMDL is dependent on the development and implementation of a Wasteload Allocation Attainment Program, or other integrated plan, per the requirements in Attachment G of this Order.

These wasteload allocations are receiving water allocations that must be attained by February

21, 2028 in accordance with a Wasteload Allocation Attainment Plan or other integrated plan. All wasteload allocations shall be achieved by February 21, 2028.

Lower Santa Maria River Watershed and Tributaries to Oso Flaco Lake Nitrogen Compounds and Orthophosphate TMDL

The Lower Santa Maria River Watershed and Tributaries to Oso Flaco Lake Nitrogen Compounds and Orthophosphate TMDL assigns a wasteload allocation appropriate for implementation through this Order as specified below.

Phase II Entities:

The Central Coast Regional Water Board has determined that the Cities of Guadalupe and Santa Maria, and the Counties of Santa Barbara and San Luis Obispo, Traditional MS4 permittees, are sources of "Urban runoff" subject to this TMDL and must comply with the TMDL-related requirements of this TMDL.

Wasteload Allocations:

The City of Santa Maria, County of Santa Barbara, County of San Luis Obispo, and City of Guadalupe are assigned the following concentration–based wasteload allocations:

FINAL WASTELOAD ALLOCATIONS (WLAs)

Waterbody the Responsible Party is Discharging to [1, 2]	Party Responsible for Allocation & NPDES/WDR number	Receiving Water Nitrate as N WLA (mg/L)	Receiving Water Orthophosphate as P WLA (mg/L)	Receiving Water Unionized Ammonia as N WLA (mg/L)
Santa Maria River (upstream from Highway 1), Blosser Channel, Bradley Channel, Main Street Canal, North Main Street Channel	City of Santa Maria (Storm drain discharges to MS4s) NPDES No. CAS000004 City of Guadalupe (Storm drain discharges to MS4s) (NPDES No. CAS000004)	Allocation-4 *(see descriptions of allocations at bottom of this table)*	Not Applicable	Allocation-3
Santa Maria River (downstream from Highway 1)	City of Guadalupe (Storm drain discharges to MS4s) (NPDES No. CAS000004)	Allocation-1	Allocation-2	Allocation-3
Nipomo Creek	County of San Luis Obispo (Storm drain discharges to MS4s) (NPDES No. CAS000004)	Allocation-4	Not Applicable	Allocation-3
Orcutt Creek	County of Santa Barbara (Storm drain discharges to MS4s) (NPDES No. CAS000004)	Allocation-1	Allocation-2	Allocation-3

Description of Allocations:

Allocation [A]	Compound	Concentration (mg/L) [B]
Allocation 1	Nitrate as N	Dry Season (May 1-Oct. 31): **4.3** Wet Season (Nov. 1-Apr. 30): **8.0**
Allocation 2	Orthophosphate as P	Dry Season (May 1-Oct. 31): **0.19** Wet Season (Nov. 1-Apr. 30): **0.3**
Allocation 3	Unionized Ammonia as N	Year-round: **0.025**
Allocation 4	Nitrate as N	Year-round: **10**

[A] Federal and State anti-degradation requirements apply to all wasteload and load allocations.

[B] Achievement of final wasteload and load allocations to be determined on the basis of the number of measured exceedances and/or other criteria set forth in Section 4 of the *Water Quality Control Policy for Developing California's Clean Water Act Section 303(d) List* (Listing Policy - State Water Resources Control Board, Resolution No. 2004-0063, adopted September 2004) or as consistent with any relevant revisions of the Listing Policy promulgated in the future.

[1] Responsible parties shall meet allocations in all receiving surface waterbodies of the responsible parties' discharges.

[2] All reaches and tributaries unless otherwise noted.

INTERIM WASTELOAD ALLOCATIONS (WLAs)			
Waterbody the Responsible Party is Discharging to	**Party Responsible for Allocation (Source)**	**First Interim WLA**	**Second Interim WLA**
All waterbodies the responsible party is assigned wasteload allocations (WLAs) in Table IX R-1	City of Santa Maria (Storm drain discharges to MS4s) Storm Water Permit NPDES No. CA00049981 City of Guadalupe (Storm drain discharges to MS4s) (NPDES Permit Pending) County of San Luis Obispo (Storm drain discharges to MS4s) (NPDES No. CAS000004) County of Santa Barbara (Storm drain discharges to MS4s) (NPDES No. CAS000004)	Achieve MUN standard-based and Unionized Ammonia objective-based allocations: Allocation-3 Allocation-4 By May 22, 2026	Achieve Wet Season (Nov. 1 to Apr. 30) Biostimulatory target-based TMDL allocations: Allocation-1 Allocation-2 By May 22, 2034
* Responsible parties shall meet allocations in all receiving surface waterbodies of the responsible parties' discharges.			

The above wasteload allocations are receiving water allocations, and therefore storm water discharge shall not cause or contribute to exceedance of the allocations as measured in receiving water.

The TMDL includes WLAs for Permittees for controllable sources. The TMDL also includes WLAs for non-controllable sources, but are not assigned to Permittees. Therefore, the parties responsible for the allocation to controllable sources are not responsible for the allocation to natural sources. Allocations to non-controllable sources are not included in this Order.

Deliverables/Actions Required:
Compliance with this TMDL is dependent on the development and implementation of a Wasteload Allocation Attainment Program, or other integrated plan, per the requirements in Attachment G of this Order. All wasteload allocations shall be achieved by May 22, 2044.

Lower Salinas River and Reclamation Canal Basin and the Moro Cojo Slough Subwatershed Nitrogen Compounds and Orthophosphate TMDL
The Lower Salinas River and Reclamation Canal Basin and the Moro Cojo Slough Subwatershed Nitrogen Compounds and Orthophosphate TMDL assigns a wasteload allocation appropriate for implementation through this Order as specified below.

Phase II Entities:
The Central Coast Regional Water Board has determined that the County of Monterey, a Traditional MS4 permittee, is a source of "Urban runoff" subject to this TMDL and must comply with the TMDL-related requirements of this Order.

Wasteload Allocations:
The County of Monterey is assigned the following interim and final wasteload allocations:

FINAL WASTELOAD ALLOCATIONS (WLAs)			
Waterbody the responsible party is discharging to	**Receiving Water Nitrate as N WLA (mg/L)**	**Receiving Water Orthophosphate as P WLA (mg/L)**	**Receiving Water Unionized Ammonia as N WLA (mg/L)**
Lower Salinas River downstream of Spreckels, CA[1]	Allocation-1 *(see description of allocations below)*	Allocation-2	Allocation-5
Santa Rita Creek[2], Reclamation Canal[3]	Allocation-3	Allocation-4	Allocation-5
Gabilan Creek[4]	Allocation-6	Allocation-2	Allocation-5
Natividad Creek[5] Alisal Creek[6]	Allocation-6	Allocation-2	Allocation-5

[1] Lower Salinas River: all reaches from downstream of Spreckels (downstream of monitoring site 309SSP) to the confluence with the Pacific Ocean including Salinas River Lagoon (North)
[2] Santa Rita Creek: all reaches and tributaries, from the confluence with the Reclamation Canal to the uppermost reach of the waterbody.
[3] Reclamation Canal: all reaches and tributaries, which includes from confluence with Tembladero Slough, to upstream confluence with Alisal Creek.
[4] Gabilan Creek: all reaches and tributaries downstream of Crazy Horse Rd.
[5] Natividad Creek: all reaches and tributaries, from the confluence with Carr Lake to the uppermost reach of the waterbody.
[6] Alisal Creek: all reaches and tributaries from the confluence with the Reclamation Canal to the uppermost reach of the waterbody.

DESCRIPTION OF ALLOCATIONS		
Allocation [A]	***Compound***	***Concentration (mg/L)*** [B]
Allocation 1	Nitrate as N	Dry Season (May 1-Oct. 31): 1.4 Wet Season (Nov. 1-Apr. 30): 8.0
Allocation 2	Orthophosphate as P	Dry Season (May 1-Oct. 31): 0.07 Wet Season (Nov. 1-Apr. 30): 0.3
Allocation 3	Nitrate as N	Dry Season (May 1-Oct. 31): 6.4 Wet Season (Nov. 1-Apr. 30): 8.0
Allocation 4	Orthophosphate as P	Dry Season (May 1-Oct. 31): 0.13 Wet Season (Nov. 1-Apr. 30): 0.3
Allocation 5	Unionized Ammonia as N	Year-round: 0.025
Allocation 6	Nitrate as N	Dry Season (May 1-Oct. 31): 2.0 Wet Season (Nov. 1-Apr. 30): 8.0
Allocation 7	Nitrate as N	Dry Season (May 1-Oct. 31): 3.1 Wet Season (Nov. 1-Apr. 30): 8.0
Allocation 8	Total Nitrogen as N	Dry Season (May 1-Oct. 31): 1.7 Wet Season (Nov. 1-Apr. 30): 8.0
Allocation 9	Nitrate as N	Year-round: 10

[A] Federal and state anti-degradation requirements apply to all wasteload and load allocations.

[B] Achievement of final wasteload and load allocations to be determined on the basis of the number of measured exceedances and/or other criteria set forth in Section 4 of the *Water Quality Control Policy for Developing California's Clean Water Act Section 303(d) List* (Listing Policy - State Water Resources Control Board, Resolution No. 2004-0063, adopted September 2004), or as consistent with any relevant revisions of the Listing Policy promulgated in the future pursuant to Government Code section 11353.		
INTERIM WASTELOAD ALLOCATIONS (WLAs)		
Waterbody	**First Interim WLA**	**Second Interim WLA**
All waterbodies given wasteload allocations (WLAs) as identified in Final Wasteload Allocations Table	Achieve MUN standard-based and Unionized Ammonia objective-based allocations: Allocation-5 Allocation-9 12 years after effective date of the TMDL (June 7, 2026)	Achieve Wet Season (Nov. 1 to Apr. 30) Biostimulatory target-based TMDL allocations: Wet Season Allocation/Waterbody combinations as identified in Final Wasteload Allocations Table 20 years after effective date of the TMDL (June 7, 2034)

The County of Monterey shall meet the above wasteload allocations in all the receiving surface waterbodies receiving the County's municipal storm water discharges.

The TMDL includes WLAs for Permittees for controllable sources. The TMDL also includes WLAs for non-controllable sources, but are not assigned to Permittees. Therefore, the parties responsible for the allocation to controllable sources are not responsible for the allocation to natural sources. Allocations to non-controllable sources are not included in this Order.

Deliverables/Actions Required:
Compliance with this TMDL is dependent on the development and implementation of a Wasteload Allocation Attainment Program as required in Attachment G of this Order. All wasteload allocations shall be achieved by May 7, 2044.

Santa Maria River Watershed Toxicity and Pesticides TMDL
Municipalities throughout the state are challenged with controlling pesticides in their urban storm water. Urban pesticide use is regulated by the California Department of Pesticide Regulation (DPR) and U.S. EPA. MS4 permittees have minimal to no authority over commercial and residential pesticide applications. The TMDL-related requirements in Attachment G of this Order reflect this constraint.

Phase II Entities:
The Central Coast Regional Water Board has determined that the Cities of Guadalupe and Santa Maria, and the County of Santa Barbara, Traditional MS4 permittees, are sources of "Urban storm water" subject to this TMDL and must comply with the TMDL-related requirements in this Order.

Wasteload Allocations:
The City of Santa Maria, County of Santa Barbara, and City of Guadalupe are assigned the following wasteload allocations:

Wasteload Allocations		
Responsible Parties	**Source**	**Allocation**
City of Santa Maria – NPDES No. CAS000004	Urban Storm Water	3, 4 & 5
County of Santa Barbara – NPDES No. CAS000004		
City of Guadalupe		

Allocation-3: Additive Toxicity TMDL for Pyrethroid Pesticides:
Pyrethroid pesticides contribute to additive toxicity in aquatic sediments; The numeric target for additive toxicity for pyrethroid pesticides is:

$$\frac{C\ (Pyrethroid\ 1)}{NLC(Pyrethroid\ 1)} + \frac{C\ (Pyrethroid\ 2)}{NLC\ (Pyrethroid\ 2)} = S;\ where\ S\ \leq 1$$

Where:

C = the concentration of a pesticide measured in sediment.
NLC = the numeric LC50 for each pesticide present (Table 1).
S = the sum; a sum exceeding one (1.0) indicates that beneficial uses may be adversely affected.

The additive toxicity numeric target formula shall be applied when pyrethroid pesticides are present in the sediment.

Table 1 Pyrethroid Sediment LC50s[43]

Chemical	**LC50 ng/g ppb)**	**LC50 µg/g OC*(ppm)**
Bifenthrin	12.9	0.52
Cyfluthrin	13.7	1.08
Cypermethrin	14.87	0.38
Esfenvalerate	41.8	1.54
Lambda-Cyhalothrin	5.6	0.45
Permethrin	200.7	10.83

*Median lethal concentration (LC50) for amphipods (Hyalella azteca) organic carbon normalized concentrations (µg/g OC)

Allocation-4: Aquatic Toxicity TMDLs (refer to Table 2)

Table 2 Standard Aquatic Toxicity Tests

Parameter	**Test**	**Biological Endpoint Assessed**
Water Column Toxicity	Water Flea – *Ceriodaphnia (6-8 day chronic)*	Survival and reproduction
Sediment Toxicity	Hyalella azteca (10-day chronic)	Survival

[43] LC50 = a measure of toxicity representing the concentration that will kill 50 percent of the sample population of a test species.

Allocation-5: Organochlorine Pesticide TMDLs (refer to Tables 3, 4, and 5)

Table 3 DDT Sediment Chemistry TMDLs

Waterbodies Assigned TMDLs[1]	TMDL			
	DDD, 4,4-(p,p-DDD) o.c.[2]	DDE, 4,4-(p,p-DDE) o.c.[2]	DDT, 4,4-(p,p-DDT) o.c.[2]	Total DDT o.c.[2]
	µg/kg	µg/kg	µg/kg	µg/kg
Blosser Channel	9.1	5.5	6.5	10
Bradley Channel	9.1	5.5	6.5	10
Greene Valley Creek	9.1	5.5	6.5	10
Little Oso Flaco Creek	9.1	5.5	6.5	10
Main Street Canal	9.1	5.5	6.5	10
Orcutt Creek	9.1	5.5	6.5	10
Oso Flaco Creek	9.1	5.5	6.5	10
Oso Flaco Lake	9.1	5.5	6.5	10
Santa Maria River	9.1	5.5	6.5	10

[1] All reaches of all surface waters in the Santa Maria River watershed, including those listed.
[2] o.c.: organic carbon normalized concentrations.

Table 4 Additional Organochlorine Pesticide Sediment Chemistry TMDLs

Waterbodies Assigned TMDLs[1]	TMDL			
	Chlordane o.c.[2]	Dieldrin o.c.[2]	Endrin o.c.[2]	Toxaphene o.c.[2]
	µg/kg	µg/kg	µg/kg	µg/kg
Oso Flaco Lake	1.7	0.14	550[3]	20[3]
Santa Maria River	1.7	0.14	550	20
Orcutt Creek	1.7[3]	0.14	550[3]	20[3]

[1] All reaches of all surface waters in the Santa Maria River watershed, including those listed.
[2] o.c.: organic carbon normalized concentrations.
[3] Waterbody is currently achieving the TMDL.

Table 5 Fish Tissue TMDLs for Organochlorine Pesticides

Waterbodies Assigned TMDLs	Fish Tissue TMDL			
	Chlordane	DDTs	Dieldrin	Toxaphene
	ng/g* (ppb)	ng/g* (ppb)	ng/g* (ppb)	ng/g* (ppb)
Oso Flaco Lake	5.6	21	--	--
Oso Flaco Creek	5.6	21		
Santa Maria River	5.6	21	0.46	6.1
Orcutt Creek	5.6	21	0.46	6.1

*ng/g: i.e. nanograms of pollutant per grams of fish tissue (e.g. a fillet)

The wasteload allocations are receiving water allocations, and therefore storm water discharge shall not cause or contribute to exceedance of the allocations as measured in receiving water.

Deliverables/Actions Required:
Central Coast Water Board staff recognizes that attainment of the TMDL wasteload allocations

will depend on the effectiveness of statewide pesticide programs and regulations by DPR and U.S. EPA to control pesticides. The statewide program described in the California Pesticide Management Plan for Water Quality, February 1997 (California Pesticide Plan) is an implementation plan of the Management Agency Agreement between DPR and the California Water Boards. The Cities of Guadalupe and Santa Maria, and the County of Santa Barbara should describe in the Wasteload Allocation Attainment Program or integrated plan how they plan to support and engage in the statewide efforts. The Cities of Guadalupe and Santa Maria, and the County of Santa Barbara are encouraged to use mitigation measures developed in the DPR surface water regulations as storm water Best Management Practices in the Wasteload Allocation Attainment Program or integrated plan.

The target date to achieve the TMDLs for pyrethroids is November 1, 2029. This estimate is based on the widespread availability of pyrethroids, including consumer usage, and current limited regulatory oversight. The target date to achieve the TMDLs for organochlorine pesticides (DDT, DDD, DDE, chlordane, eldrin, toxaphene, dieldrin) is November 1, 2044.

~~*For All TMDLs Requiring Wasteload Allocation Attainment Programs*~~

~~In situations where MS4s must reduce their wasteload discharges in accordance with TMDLs, the Central Coast Water Board has required the MS4s to develop Wasteload Allocation Attainment Programs. Since these MS4s have been documented as sources of impairment, they must be held to a high standard to ensure they ultimately achieve their wasteload allocations and no longer contribute to the water body impairments addressed by the TMDLs. Indeed, the TMDLs set forth the expectation that the MS4s achieve their wasteload allocations within specified timeframes. This approach stands in contrast to the typical regulatory approach applied to municipal stormwater, which calls for implementation of BMPs according to an iterative process of continual improvement, with no associated timelines for achieving water quality standards. The MS4s' contribution to the impairment of water bodies, combined with the expectation that they achieve their wasteload allocations within specified timeframes, necessitates a systematic approach to program implementation as it relates to the discharge of pollutants associated with impairments.~~

~~The federal regulations indicate that such an approach is appropriate. The Preamble to the Phase II federal storm water regulations states: "Small MS4 permittees should modify their programs if and when available information indicates that water quality considerations warrant greater attention or prescriptiveness in specific components of the municipal program."[44]~~

~~Central Coast Water Board staff developed the Wasteload Allocation Attainment Programs as a means to systematically guide municipalities towards attainment of their wasteload allocations. Without a systematic approach of this type, Water Board staff believes that attainment of wasteload allocations is unlikely. This belief is supported by many MS4s' storm water management programs. For example, programs typically include basic or minimum BMPs to be implemented to attain wasteload allocations. While some of these BMPs are likely to be beneficial, the connection between others and wasteload reductions is unclear. In addition, it appears that most of these BMPs are currently implemented, yet impairments continue, indicating that greater efforts are warranted. Moreover, BMPs implemented by MS4s often do not address all of the issues identified in TMDLs. This insufficient approach to BMP implementation in light of documented impairments and approved TMDLs indicates that a more systematic approach, as represented by the Wasteload Allocation Attainment Programs, is warranted.~~

~~On a broader scale, storm water programs often do not exhibit the rationale used for BMP~~

~~[44] 64 FR 68753~~

~~selection, or draw connections between those BMPs selected and eventual wasteload allocation attainment. Without this level of planning, the significant challenge of achieving wasteload allocations within specified timeframes is not likely to be met. The Wasteload Allocation Attainment Program requirements are expressly designed to ensure adequate planning is conducted so that MS4s' TMDL implementation efforts are effective. The main steps to be followed for Wasteload Allocation Attainment Program development and implementation are activities that are basic to successfully correcting water quality problems. The Wasteload Allocation Attainment Program requirements specify that MS4s address the following items as they apply to TMDLs: (1) An implementation and assessment strategy; (2) source identification and prioritization; (3) BMP identification, prioritization, implementation (including schedule), analysis, and assessment; (4) monitoring program development and implementation (including schedule); (5) reporting and evaluation of progress towards achieving wasteload allocations; and (6) coordination with stakeholders. The United States Environmental Protection Agency (U.S. EPA) forwards similar approaches for TMDL implementation in its *Draft TMDLs to Stormwater Permits Handbook*, which discusses BMP review and selection, establishing linkages between BMP implementation and load reductions, effectiveness assessment, and BMP/outfall/receiving water monitoring.[45]~~

~~Ultimately, the Wasteload Allocation Attainment Programs place the responsibility for program development, assessment, improvement, and success on the municipalities. Placement of responsibility on the municipalities is appropriate, since the municipalities are the parties contributing to the water quality impairment. This approach is also consistent with the Water Board's approach of requiring plans for control of pollutants from other sources identified by TMDLs, such as sanitary sewer collection and treatment systems and domestic animal discharges. The Water Board will collectively assess the progress of the various sources towards achieving receiving water quality standards as part of its triennial review, but each source must be responsible for assessing its own progress towards achieving its wasteload allocation. Without progress by each responsible party, the Water Board will not be able to demonstrate progress towards correcting the impairment. The process of planning, assessment, and refinement outlined by the Wasteload Allocation Attainment Programs helps ensure continual improvement and ultimate attainment of water quality standards at impaired receiving waters. This will be especially important as the complexity of achieving wasteload allocations increases when more and more TMDLs are adopted.~~

~~The Central Coast Water Board staff believes this standardized process of development, implementation, assessment, and review of the Wasteload Allocation Attainment Programs provides the greatest likelihood for the TMDLs' wasteload allocations to be attained.~~

LOS ANGELES REGIONAL WATER BOARD TMDLs

The Los Angeles Regional Water Board has adopted two Phase I MS4 permits regulating discharges within the coastal watersheds of Los Angeles County, including 85 municipalities, Los Angeles County, and the Los Angeles Flood Control District (Order No. R4-2012-0175 as amended by State Water Board Order No. 2015-0075 and Order No. R4-2014-0024). Additionally, the Los Angeles Regional Water Board is in the process of reissuing the Phase I permit that regulates municipal storm water discharges within the coastal watersheds of Ventura County including 10 municipalities, Ventura County, and the Ventura County Watershed Protection District.

These Phase I MS4 permits regulate all traditional Small MS4 permittees within the Los Angeles Region with the exception of the City of Avalon, located on Catalina Island. The Phase I MS4 permits contain TMDL-related requirements for applicable Small MS4 permittees.

~~[45] USEPA. 2008. Draft TMDLs to Stormwater Permits Handbook. Chapters 5 and 6.~~

Therefore, with the exception of the City of Avalon, the only permittees in the jurisdiction of the Los Angeles Regional Water Board regulated under this Order are Non-traditional MS4 permittees.

To simplify this Order, TMDLs (and corresponding water bodies) that do not have Non-traditional MS4 permittee within the watershed, were removed from Attachment G. These TMDLs include the Upper Santa Clara River Chloride TMDL, the Santa Clara River Nitrogen Compounds TMDL, the Malibu Creek Bacteria TMDL, the Santa Clara River Estuary and Reaches 3, 5, 6, and 7 Bacteria TMDL, the Santa Clara Reach 3 Chloride TMDL, the Malibu Creek Nutrients TMDL, the Ballona Creek Wetlands TMDL, and the Malibu Creek Trash TMDL.

The Los Angeles Regional Water Board has determined that the stormwater and non-stormwater discharges from MS4 permittees, including those from small MS4 permittees listed in the Los Angeles Regional Water Board TMDLs below, contribute to the impairment of the water bodies subject to the TMDLs. Therefore, the designated entities listed below (and in Appendix G) are required to either: 1) develop and implement a program plan, for Regional Water Board Executive Officer approval, to reduce pollutants in its MS4 discharges to meet the WLA(s); or 2) enter into a cooperative agreement with Phase I MS4 Permittees in the watershed or subwatershed that are implementing an approved Watershed Management Program/Enhanced Watershed Management Program pursuant to one of the Los Angeles Region's Phase I MS4 permits.

The Regional Water Board determined that since these TMDL requirements, with the notable exception of the Avalon Beach TMDL, are new to the non-traditional entities, they should be given time to evaluate their programs and be allowed to make the choice of the two options presented. Therefore, a one-year timeframe was proposed to either: 1) develop and start implementing a plan; or 2) to enter into a cooperative agreement.

Avalon Beach Bacteria TMDL

This Order incorporates the MS4-specific requirements established by Cease and Desist Order R4-2012-0077, which includes implementation requirements and timelines for the City of Avalon to comply with the TMDL established for Avalon Beach.

Phase II Entities:

Through the adoption of Cease and Desist Order R4-2012-0077, the Los Angeles Regional Water Board has determined that MS4 discharges from the City of Avalon, a Traditional MS4, are a source of impairment to surface water bodies in its watershed, and must comply with the following wasteload allocations:

Wasteload Allocations:

The following WLAs are receiving water allocations. Geometric mean values shall be calculated based on a minimum of 5 samples during any 30 day period. When repeat sampling is required because of an exceedance of any one single sample limit, values from all samples collected during that 30-day period shall be used to calculate the geometric mean.

Geometric Mean Limits

- Total coliform concentration shall not exceed 1,000/100 ml
- Fecal coliform density shall not exceed 200/100 ml
- Enterococcus density shall not exceed 35/100 ml

Single Sample Limits

- Total coliform density shall not exceed 10,000/100 ml
- Fecal coliform density shall not exceed 400/100 ml
- Enterococcus density shall not exceed 104/100 ml

Total coliform density shall not exceed 1,000/100 ml, if the ratio of fecal to total coliform exceeds 0.1

For the Single Sample Limits, TMDL compliance focuses on the number of days that any single sample exceeds the limits set forth above, based on the time of year. This focus is expressed as Single Sample Allowable Exceedances, shown below.

Single Sample Allowable Exceedances

Summer Dry Weather shall not exceed 0 Allowable Exceedance Days*
Winter Dry Weather shall not exceed 9 Allowable Exceedance Days*
Wet Weather shall not exceed 17 Allowable Exceedance Days*

*= The Allowable Exceedance Day is defined as the number of days (per year) a monitoring location is allowed to exceed any of the single sample targets.

A storm year is defined as the period from November 1 through October 31. The geometric mean limits may not be exceeded.

Deliverables/Actions Required:
This Order implements some of the requirements that are stipulated in Cease and Desist Order R4-2012-0077. Cease and Desist Order R4-2012-077 is enforceable through this Order by reference, including timelines for the City of Avalon to achieve compliance with this TMDL. The Los Angeles Regional Water Board has determined that the City of Avalon's compliance with the permit requirements of this Order and compliance with the MS4-specific requirements of Cease and Desist Order R4-2012-0077 is consistent with the assumptions, and will satisfy the requirements, of the MS4-specific provisions of the TMDL.

Santa Monica Bay Beaches Bacteria TMDL

The Santa Monica Bay Beaches Bacteria TMDL assigns a wasteload allocation appropriate for implementation through this Order as specified below.

Phase II Entities:
The Los Angeles Regional Water Board has determined that the State Department of Parks and Recreation (Point Dume State Beach, Leo Carrillo State Beach, and Robert H Meyer Memorial State Beach), a Non-traditional MS4 permittee, is a source of "Storm water" and "Non-storm water discharges" subject to this TMDL and must comply with the TMDL-related requirements in this Order.

Wasteload Allocations:
The following WLAs are receiving water allocations. Geometric mean values shall be calculated based on a minimum of 5 samples during any 30 day period. When repeat sampling is required because of an exceedance of any one single sample limit, values from all samples collected during that 30-day period shall be used to calculate the geometric mean.

Geometric Mean Limits

*The rolling 30-day geometric mean of the t*otal coliform concentration shall not exceed 1,000/100 ml;
The rolling 30-day geometric mean of the Fecal coliform density shall not exceed 200/100 ml;
The rolling 30-day geometric mean of the Enterococcus density shall not exceed 35/100 ml;

Single Sample Limits

The total coliform density of a single sample shall not exceed 10,000/100 ml;
The fecal coliform concentration of a single sample shall not exceed 400/100 ml;
The enterococcus concentration of a single sample shall not exceed 104/100 ml;
The total coliform concentration of a single sample shall not exceed 1,000/100 ml, if the ratio of fecal to total coliform exceeds 0.1;

For the Single Sample Limits, TMDL compliance focuses on the number of days that any

single sample exceeds the limits set forth above, based on the time of year. This focus is expressed as Single Sample Allowable Exceedances, shown below.

Single Sample Allowable Exceedances Wasteload Allocations in the Receiving Water:*

Point Dume State Beach:

Dry weather: 0 days (based on both daily and weekly sampling),
Wet Weather: 3 days (daily sampling) or 1 day (weekly sampling).

Robert H Meyer Memorial State Beach:

Dry weather: 0 days (based on both daily and weekly sampling),
Wet Weather: 3 days (daily sampling) or 1 day (weekly sampling).

*= The Allowable Exceedance Day is defined as the number of days (per year) a monitoring location is allowed to exceed any of the single sample targets.

A storm year is defined as the period from November 1 through October 31. The geometric mean limits may not be exceeded.

Deliverables/Actions Required:

The State Department of Parks and Recreation is required to either: 1) develop and implement a program plan, for Regional Water Board Executive Officer approval, to reduce pollutants in its MS4 discharges to meet the WLA(s); or 2) enter into a cooperative agreement with Phase I MS4 Permittees in the watershed or subwatershed that are implementing an approved Watershed Management Program/Enhanced Watershed Management Program pursuant to corresponding Phase I MS4 permit.

The TMDL specifies that the target dates to achieve the wasteload allocations are July 15, 2006 (to achieve dry weather WLAs during the summer period from April 1 – October 31); November 1, 2009 (to achieve dry weather WLAs during the winter period from November 1 – March 31); and July 15, 2021 (to achieve the wet weather WLAs). The dry weather allocations are therefore effective immediately. The State Department of Parks and Recreation may request a Time Schedule Order from the Regional Water Board. A Regional Water Board's issuance of a Time Schedule Order will establish an implementation schedule for the Permittee to comply with the TMDL requirements, and will supersede the deadlines referenced in this Order.

Los Angeles River Nitrogen and Related Effects TMDL

The Los Angeles River Nitrogen and Related Effects TMDL assigns a wasteload allocation appropriate for implementation through this Order as specified below.

Phase II Entities:

The Los Angeles Regional Water Board has determined that the California State University Los Angeles and California State University Northridge, Non-traditional MS4 permittees, are dischargers of storm water and non-storm water subject to this TMDL and must comply with the TMDL-related requirements of this Order.

The California State University Los Angeles and California State University Northridge are assigned the following Wasteload Allocations (WLAs):

Waterbodies Assigned TMDLs	Ammonia		Nitrate	Nitrate	Nitrate + Nitrite
	1-hr average	30-day average	30-day average	30-day average	30-day average
	mg/L	mg/L	mg/L	mg/L	mg/L
LA River above Los Angeles-Glendale Water Reclamation	4.7	1.6	8.0	1.0	8.0

Plant (LAG)					
LA River below LAG	8.7	2.4	8.0	1.0	8.0
LA River Tributaries	10.1	2.3	8.0	1.0	8.0

Deliverables/Actions Required:
The California State University Los Angeles and California State University Northridge are required to either: 1) develop and implement a program plan, for Regional Water Board Executive Officer approval, to reduce pollutants in its MS4 discharges to meet the WLA(s); or 2) enter into a cooperative agreement with Phase I MS4 Permittees in the watershed or subwatershed that are implementing an approved Watershed Management Program/Enhanced Watershed Management Program pursuant to corresponding Phase I MS4 permit.

The TMDL specifies that the target date to achieve the wasteload allocations assigned to MS4 permittees is March 23, 2004. The allocations are therefore effective immediately. The California State University Los Angeles and/or California State University Northridge may request a Time Schedule Order from the Regional Water Board. A Regional Water Board's issuance of a Time Schedule Order will establish an implementation schedule for the Permittee to comply with the TMDL requirements, and will supersede the deadlines referenced in this Order.

Los Angeles Harbor (including Cabrillo Beach and Main Shop Channel) Bacteria TMDL
The Los Angeles Harbor (including Cabrillo Beach and Main Shop Channel) Bacteria TMDL assigns a wasteload allocation appropriate for implementation through this Order as specified below.

Phase II Entities:
The Los Angeles Regional Water Board has determined that the Federal Correctional Institution Terminal Island and California State University Dominguez Hills, Non-traditional MS4 permittees, are sources of storm water and non-storm water subject to this TMDL and must comply with the TMDL-related requirements of this Order.

Wasteload Allocations (WLAs):
The following WLAs are receiving water allocations. Geometric mean values shall be calculated based on a minimum of 5 samples during any 30 day period. When repeat sampling is required because of an exceedance of any one single sample limit, values from all samples collected during that 30-day period shall be used to calculate the geometric mean.

Rolling 30 day Geometric Mean Limits
- Total coliform density shall not exceed 1,000/100 ml
- Fecal coliform density shall not exceed 200/100 ml
- Enterococcus density shall not exceed 35/100 ml

Single Sample Limits
- Total coliform density shall not exceed 10,000/100 ml
- Fecal coliform density shall not exceed 400/100 ml
- Enterococcus density shall not exceed 104/100 ml
- Total coliform density shall not exceed 1,000/100 ml, if the ratio of fecal to total coliform exceeds 0.1

For the Single Sample Limits, TMDL compliance focuses on the number of days that any single sample exceeds the limits set forth above, based on the time of year. This focus is expressed as Single Sample Allowable Exceedances, shown below.

Single Sample Allowable Exceedances Wasteload Allocations in the Receiving Water:*

Summer Dry Weather: 0 days (based on both daily and weekly sampling)
Winter Dry Weather: 8 days (daily sampling) or 1 day (weekly sampling)
Wet Weather: 15 days (daily sampling) or 3 days (weekly sampling)

*= The Allowable Exceedance Day is defined as the number of days (per year) a monitoring location is allowed to exceed any of the single sample targets.

A storm year is defined as the period from November 1 through October 31. The geometric mean limits may not be exceeded.

Deliverables/Actions Required:
The Federal Correctional Institution Terminal Island and California State University Dominguez Hills are required to either: 1) develop and implement a program plan, for Regional Water Board Executive Officer approval, to reduce pollutants in its MS4 discharges to meet the WLA(s); or 2) enter into a cooperative agreement with Phase I MS4 Permittees in the watershed or subwatershed that are implementing an approved Watershed Management Program/Enhanced Watershed Management Program pursuant to corresponding Phase I MS4 permit.

The TMDL specifies that the target date to achieve the wasteload allocations is March 10, 2010. The allocations are therefore effective immediately. The Federal Correctional Institution Terminal Island and/or California State University Dominguez Hills may request a Time Schedule Order from the Regional Water Board. A Regional Water Board's issuance of a Time Schedule Order will establish an implementation schedule for the Permittee to comply with the TMDL requirements, and will supersede the deadlines referenced in this Order.

Calleguas Creek Watershed Toxicity TMDL

The Calleguas Creek Watershed Toxicity TMDL assigns a wasteload allocation appropriate for implementation through this Order as specified below.

Phase II Entities:
The Los Angeles Regional Water Board has determined that the Naval Base Ventura County (Point Mugu), California State University Channel Islands, and Department of Parks and Recreation (Point Mugu State Park), Non-traditional MS4 permittees, are sources of stormwater and non-stormwater discharges subject to this Order and must comply with the TMDL-related requirements in this Order.

Wasteload Allocations (WLA):
The Calleguas Creek Watershed Toxicity TMDL assigns the following WLAs as receiving water allocations.

Toxicity: 1.0 TU_c
Chlorpyrifos (Final WLA, µg/L): 0.014
Diazinon (Final WLA, µg/L): 0.10

Deliverables/Actions Required:
The Naval Base Ventura County (including Port Hueneme and Point Mugu), California State University Channel Islands, and Department of Parks and Recreation (Point Mugu State Park) are required to either: 1) develop and implement a program plan, for Regional Water Board Executive Officer approval, to reduce pollutants in its MS4 discharges to meet the WLA(s); or 2) enter into a cooperative agreement with Phase I MS4 Permittees in the watershed or subwatershed that are implementing an approved Watershed Management Program/Enhanced Watershed Management Program pursuant to corresponding Phase I MS4 permit.

The TMDL specifies that the final WLAs are to be achieved by March 24, 2008. The allocations are therefore effective immediately. The Naval Base Ventura County (including Port Hueneme and Point Mugu), California State University Channel Islands, and/or Department of Parks and Recreation (Point Mugu State Park) may request a Time Schedule Order from the Regional Water Board. A Regional Water Board's issuance of a Time Schedule Order will establish an implementation schedule for the Permittee to comply with the TMDL requirements, and will supersede the deadlines referenced in this Order.

Calleguas Creek Organochlorine Pesticides, Polychlorinated Biphenyls, and Siltation TMDL

The Calleguas Creek Organochlorine Pesticides, Polychlorinated Biphenyls, and Siltation TMDL assigns wasteload allocations appropriate for implementation through this Order as specified below.

Phase II Entities:

The Los Angeles Regional Water Board has determined that the Naval Base Ventura County (Point Mugu), California State University Channel Islands, and Department of Parks and Recreation (Point Mugu State Park), Non-traditional MS4 permittees, are sources of storm water and non-storm water discharges subject to this TMDL and must comply with the TMDL-related requirements in this Order.

Wasteload Allocations (WLA):

The Calleguas Creek Organochlorine Pesticides, Polychlorinated Biphenyls and Siltation TMDL assigns the following interim and final WLAs as receiving water allocations.

Interim WLAs (ng/g), in-stream annual average at base of watershed:

Chlordane:	17.0
4,4-DDD:	66.0
4,4-DDE:	470.0
4,4-DDT:	110.0
Dieldrin:	3.0
PCBs:	3800.0
Toxaphene:	260.0

Final WLAs (ng/g), in-stream annual average at base of watershed:

Chlordane:	3.3
4,4-DDD:	2.0
4,4-DDE:	1.4
4,4-DDT:	0.3
Dieldrin:	0.2
PCBs:	120.0
Toxaphene:	0.6

Siltation WLA: 2,496 tons/year reduction in yield to Mugu Lagoon.

Deliverables/Actions Required:

The Naval Base Ventura County (including Port Hueneme and Point Mugu), California State University Channel Islands, and Department of Parks and Recreation (Point Mugu State Park) are required to either: 1) develop and implement a program plan, for Regional Water Board Executive Officer approval, to reduce pollutants in its MS4 discharges to meet the WLA(s); or 2) enter into a cooperative agreement with Phase I MS4 Permittees in the watershed or subwatershed that are implementing an approved Watershed Management Program/Enhanced Watershed Management Program pursuant to corresponding Phase I MS4 permit.

The TMDL specifies that the final WLAs are to be achieved 20 years after the effective date of

the TMDL (March 24, 2006). Therefore, the final WLAs shall be achieved by March 24, 2026.

Calleguas Creek Metals and Selenium TMDL

The Calleguas Creek Metals and Selenium TMDL assigns wasteload allocations appropriate for implementation through this Order as specified below.

Phase II Entities:

The Los Angeles Regional Water Board has determined that the Naval Base Ventura County (Point Mugu), California State University Channel Islands, and Department of Parks and Recreation (Point Mugu State Park), Non-traditional MS4 permittees, are sources of storm water and non-storm water discharges subject to this TMDL and must comply with the TMDL-related requirements in this Order.

Wasteload Allocations (WLA):

The Calleguas Creek Metals and Selenium TMDL assigns the following interim and final WLAs as receiving water allocations.

Interim WLAs:

Calleguas and Conejo Creeks

(Total Recoverable, µg/L) (Dry CMC/Dry CCC/ Wet CMC):

Copper:	23	19	204
Nickel:	15	13	--
Selenium:	--	--	--

Revolon Slough

(Total Recoverable, µg/L) (Dry CMC/Dry CCC/ Wet CMC):

Copper:	23	19	204
Nickel:	15	13	--
Selenium:	14	13	--

Where Dry CMC/Dry CCC/ Wet CMC stands for, respectively: Dry Weather Criterion Maximum Concentrations (Acute criteria), Dry Weather Criterion Continuous Concentrations (Chronic criteria), and Wet Weather Criterion Maximum Concentrations (Acute criteria).

Final WLAs:

Calleguas and Conejo Creeks

Dry Weather (Total Recoverable, lbs/day) (Low/Average/Elevated Flows)

Copper:	0.04*WER-0.02	0.12*WER-0.02	0.18*WER-0.03
Nickel:	0.100	0.120	0.440
Selenium:	--	--	--

Revolon Slough

Dry Weather (Total Recoverable, lbs/day) (Low/Average/Elevated Flows)

Copper:	0.03*WER-0.01	0.06*WER-0.03	0.13*WER-0.02
Nickel:	0.050	0.069	0.116
Selenium:	0.004	0.003	0.004

Calleguas and Conejo Creeks

Wet Weather (Total Recoverable, lbs/day)

Copper:	(0.00054*Q^2*0.032*Q-0.17)*WER-0.06
Nickel:	0.014*Q^2+0.82*Q
Selenium:	--

Revolon Slough

Wet Weather (Total Recoverable, lbs/day)

Copper:	(0.0002*Q^2*0.0005*Q)*WER

Nickel: 0.027*Q^2+0.47*Q
Selenium: 0.027*Q^2+0.47*Q

Where: Q = Daily storm volume
WER = Water Effects Ratio

Interim Limits and Final WLAs for Mercury in Suspended Sediment
Final WLAs are set at 80% reduction of hydrologic simulation program – FORTRAN (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.

Flow Range	Calleguas Creek		Revolon Slough	
	Interim (lbs/yr)	Final (lbs/yr)	Interim (lbs/yr)	Final (lbs/yr)
0 – 15,000 million gallons per year (MG/yr)	3.3	0.4	1.7	0.1
15,000 – 25,000 MG/yr	10.5	1.6	4	0.7
Above 25,000 MG/yr	64.6	9.3	10.2	1.8

Deliverables/Actions Required:
The Naval Base Ventura County (including Port Hueneme and Point Mugu), California State University Channel Islands, and Department of Parks and Recreation (Point Mugu State Park) are required to either: 1) develop and implement a program plan, for Regional Water Board Executive Officer approval, to reduce pollutants in its MS4 discharges to meet the WLA(s); or 2) enter into a cooperative agreement with Phase I MS4 Permittees in the watershed or subwatershed that are implementing an approved Watershed Management Program/Enhanced Watershed Management Program pursuant to corresponding Phase I MS4 permit.

The TMDL specifies that the final WLAs are to be achieved 15 years after the effective date of the TMDL (March 26, 2007). Therefore, the final WLAs shall be achieved by March 26, 2022.

Ballona Creek Bacteria TMDL
The Ballona Creek Bacteria TMDL assigns wasteload allocations appropriate for implementation through this Order as specified below.

Phase II Entities:
The Los Angeles Regional Water Board has determined that the University of California Los Angeles and Veteran Affairs of the Greater Los Angeles Healthcare System, Non-traditional MS4 permittees, are sources of non-storm water and storm water discharges subject to this TMDL and must comply with the TMDL-related requirements in this Order.

Wasteload Allocations (WLAs):
The following WLAs are receiving water allocations. Geometric mean values shall be calculated based on a minimum of 5 samples during any 30 day period. When repeat sampling is required because of an exceedance of any one single sample limit, values from all samples collected during that 30-day period shall be used to calculate the geometric mean.

Rolling 30-day Geometric Mean Limits
Total coliform density shall not exceed 1,000/100 ml
Fecal coliform density shall not exceed 200/100 ml
Enterococcus density shall not exceed 35/100 ml

Single Sample Limits

Total coliform density shall not exceed 10,000/100 ml
Fecal coliform density shall not exceed 400/100 ml
Enterococcus density shall not exceed 104/100 ml
Total coliform density shall not exceed 1,000/100 ml, if the ratio of fecal to total coliform exceeds 0.1

For the Single Sample Limits, TMDL compliance focuses on the number of days that any single sample exceeds the limits set forth above, based on the time of year. This focus is expressed as Single Sample Allowable Exceedances, shown below.

Single Sample Allowable Exceedances Wasteload Allocations in the Receiving Water:*
Dry weather: 5 days (based on daily sampling) or 1 day (based on weekly sampling)
Wet Weather: 15 days (based on daily sampling) or 2 days (based on weekly sampling)

*= The Allowable Exceedance Day is defined as the number of days (per year) a monitoring location is allowed to exceed any of the single sample targets.

A storm year is defined as the period from November 1 through October 31. The geometric mean limits may not be exceeded

Deliverables/Actions Required:
The University of California Los Angeles and Veteran Affairs of the Greater Los Angeles Healthcare System are required to either: 1) develop and implement a program plan, for Regional Water Board Executive Officer approval, to reduce pollutants in its MS4 discharges to meet the WLA(s); or 2) enter into a cooperative agreement with Phase I MS4 Permittees in the watershed or subwatershed that are implementing an approved Watershed Management Program/Enhanced Watershed Management Program pursuant to corresponding Phase I MS4 permit.

The TMDL specifies that the final WLAs are to be achieved during dry weather by April 27, 2013, while the final WLAs during wet weather are to be achieved by July 15, 2021. Therefore, the final WLAs for dry weather are effective immediately. The University of California Los Angeles and/or Veteran Affairs of the Greater Los Angeles Healthcare System may request a Time Schedule Order from the Regional Water Board. A Regional Water Board's issuance of a Time Schedule Order will establish an implementation schedule for the Permittee to comply with the TMDL requirements, and will supersede the deadlines referenced in this Order.

Santa Monica Bay Marine Debris TMDL
The Santa Monica Bay Marine Debris TMDL assigns a load allocation appropriate for implementation through this Order as specified below.

Phase II Entities:
The Los Angeles Regional Water Board has determined that the Department of Parks and Recreation (Point Dume State Beach and Robert H. Meyer Memorial State Beach), a Non-traditional MS4 permittee, is a source of storm water and non-storm water discharges subject to this TMDL and must comply with the TMDL-related requirements in this Order.

Load Allocations (LA):
The following LA is a receiving water allocation.
Trash = 0
Zero trash is defined as no trash (debris greater than 5mm in size) discharged into waterbodies within the Santa Monica Bay Watershed Management Area (WMA) and then into Santa Monica Bay or on the shoreline of Santa Monica Bay.

Deliverables/Actions Required:
The Los Angeles Regional Board has determined that dischargers may achieve the Load Allocations by implementing a Minimum Frequency of Assessment and Collection Program (MFAC)/BMP program approved by the Executive Officer. Responsible entities will be deemed in compliance with the LAs if an MFAC/BMP program, approved by the Executive Officer, demonstrates that there is no accumulation of trash, as defined by the LA.

The Department of Parks and Recreation (Point Dume State Beach and Robert H. Meyer Memorial State Beach) shall develop a Trash Monitoring and Reporting Plan (TMRP) for Executive Officer approval that describes the methodologies that will be used to assess and monitor trash in their responsible areas within the Santa Monica Bay WMA or along Santa Monica Bay.

The TMDL specifies that the final LAs are to be achieved 5 years after the effective date of the TMDL (March 20, 2012). Therefore, the final LAs shall be achieved by March 20, 2017. The Department of Parks and Recreation (Point Dume State Beach and Robert H. Meyer Memorial State Beach) may request a Time Schedule Order from the Regional Water Board. A Regional Water Board's issuance of a Time Schedule Order will establish an implementation schedule for the Permittee to comply with the TMDL requirements, and will supersede the deadlines referenced in this Order.

Los Angeles and Long Beach Harbors Toxics and Metals TMDL
The Los Angeles and Long Beach Harbors Toxics and Metals TMDL assigns a wasteload allocation appropriate for implementation through this Order as specified below.

Phase II Entities:
The Los Angeles Regional Water Board has determined that the Federal Correctional Institution Terminal Island, Community Corrections Management Long Beach, and California State University Dominguez Hills, Non-traditional MS4 permittees, are sources of storm water and non-storm water discharges subject to this TMDL and must comply with the TMDL-related requirements in this Order.

Wasteload Allocations (WLA):
The Federal Correctional Institution Terminal Island, Community Corrections Management Long Beach are assigned the following (receiving water) wasteload allocations:

Toxicity WLA: 1 TU_c

Metals WLAs for Dominguez Channel (wet weather only) (g/day):
Mass-based WLA is shared and divided between MS4 permittees and Caltrans.
- Total Copper: 1485.1
- Total Lead: 6548.8
- Total Zinc: 10685.5

Metals and PAH Compounds WLAs for Greater Harbor Waters:

Waterbodies Assigned TMDLs	TMDL			
	Total Copper	Total Lead	Total Zinc	Total PAHs
	Kg/year	Kg/year	Kg/year	Kg/year
Dominguez Channel Estuary	22.4	54.2	271.8	0.134
Consolidated Slip	2.73	3.63	28.7	0.0058
Inner Harbor	1.7	34.0	115.9	0.088
Outer Harbor	0.91	26.1	81.5	0.105

Fish Harbor	0.00017	0.54	1.62	0.007
Cabrillo Marina	0.0196	0.289	0.74	0.00016
San Pedro Bay	20.3	54.7	213.1	1.76
LA River Estuary	35.3	65.7	242.0	2.31

Sediment Wasteload Allocations for Dominguez Channel Estuary, Consolidated Slip and Fish Harbor (mg/kg dry sediment):

Cadmium: 1.2
Chromium: 81
Mercury: 0.15

Bioaccumulative Compounds Wasteload Allocations:

Waterbodies Assigned TMDLs	TMDL	
	DDT Total	PCBs Total
	g/year	g/year
Dominguez Channel Estuary	0.250	0.207
Consolidated Slip	0.009	0.004
Inner Harbor	0.051	0.059
Outer Harbor	0.005	0.020
Fish Harbor	0.0003	0.0019
Cabrillo Marina	0.000028	0.000025
Inner Cabrillo Beach	0.0001	0.0003
San Pedro Bay	0.049	0.44
LA River Estuary	0.100	0.324

Deliverables/Actions Required:
The Federal Correctional Institution Terminal Island, Community Corrections Management Long Beach, and California State University Dominguez Hills are required to either: 1) develop and implement a program plan, for Regional Water Board Executive Officer approval, to reduce pollutants in its MS4 discharges to meet the WLA(s); or 2) enter into a cooperative agreement with Phase I MS4 Permittees in the watershed or subwatershed that are implementing an approved Watershed Management Program/Enhanced Watershed Management Program pursuant to corresponding Phase I MS4 permit.

The TMDL specifies that the final WLAs are to be achieved 20 years after the effective date of the TMDL (March 23, 2012). Therefore, the final WLAs shall be achieved by March 23, 2032.

Los Angeles River Bacteria TMDL

The Los Angeles Regional Board has determined that the Los Angeles River Bacteria TMDL assigns wasteload allocations appropriate for implementation through this Order as specified below.

Phase II Entities:
The Los Angeles Regional Water Board has determined that the California State University Los Angeles and California State University Northridge, Non-traditional MS4 permittees, are sources of storm water and non-storm water discharges subject to this TMDL and must comply with the TMDL-related requirements in this Order.

Wasteload Allocations (WLA):
The following WLAs are receiving water allocations. Geometric mean values shall be calculated based on a minimum of 5 samples during any 30 day period. When repeat sampling is required because of an exceedance of any one single sample limit, values from all

samples collected during that 30-day period shall be used to calculate the geometric mean.

Geometric Mean Limits

E. coli density shall not exceed 126/100 ml

Single Sample Limits

E. coli density shall not exceed 235/100 ml

For the Single Sample Limits, TMDL compliance focuses on the number of days that any single sample exceeds the limits set forth above, based on the time of year. This focus is expressed as Single Sample Allowable Exceedances, shown below.

Single Sample Allowable Exceedances Wasteload Allocations in the Receiving Water:*

Summer Dry Weather: 5 days (based on daily sampling), or 1 day (based on weekly sampling)

Waters not subject to the High Flow Suspension:

Wet Weather: 15 days (daily sampling), or 2 days (weekly sampling)

Waters subject to the High Flow Suspension:

Wet Weather: 10 days (daily sampling), or 2 (weekly sampling)

*= The Allowable Exceedance Day is defined as the number of days (per year) a monitoring location is allowed to exceed any of the single sample targets.

A storm year is defined as the period from November 1 through October 31. The geometric mean limits may not be exceeded

Deliverables/Actions Required:

The California State University Los Angeles and California State University Northridge are required to either: 1) develop and implement a program plan, for Regional Water Board Executive Officer approval, to reduce pollutants in its MS4 discharges to meet the WLA(s); or 2) enter into a cooperative agreement with Phase I MS4 Permittees in the watershed or subwatershed that are implementing an approved Watershed Management Program/Enhanced Watershed Management Program pursuant to corresponding Phase I MS4 permit.

The TMDL specifies that the final wet-weather WLAs are to be achieved 25 years after the effective date of the TMDL. Therefore, the final wet weather WLAs are to be achieved by March 23, 2037. The TMDL also specifies several final dry weather achievement dates based upon where in the watershed the discharge(s) occur. Therefore, the final dry weather WLAs are to be achieved according to the table below.

Waterbody Segment	Achieve Final dry weather WLA by:
Segment B (upper and middle Reach 2)	March 23, 2022
Segment B Tributaries (Rio Hondo & Arroyo Seco)	September 23, 2023
Segment A (lower Reach 2 and Reach 1)	March 23, 2024
Segment A Tributaries (Compton Creek)	September 23, 2025
Segment E (Reach 6)	March 23, 2025
Segment E Tributaries (Dry Canyon, McCoy and Bell Creeks, and Aliso Canyon Wash)	March 23, 2029
Segment C (lower Reach 4 and Reach 3)	September 23, 2030
Segment C Tributaries (Tujunga Wash, Burbank Western Channel and Verdugo Wash)	September 23, 2030
Segment D (Reach 5 and upper Reach 4)	September 23, 2030
Segment D Tributaries (Bull Creek)	September 23, 2030

Los Angeles River and Tributaries Metals TMDL

The Los Angeles River and Tributaries Metals TMDL assigns wasteload allocations appropriate for implementation through this Order as specified below.

Phase II Entities:
The Los Angeles Regional Water Board has determined that the California State University Los Angeles and California State University Northridge, Non-traditional MS4 permittees, are sources of storm water and non-storm subject to this TMDL and must comply with the TMDL-related requirements in this Order.

Wasteload Allocations (WLA):
Dry-Weather WLAs (total recoverable metals)

Waterbodies Assigned TMDLs	TMDL			
	Copper	Lead	Zinc	Selenium
	µg/L	µg/L	µg/L	µg/L
LA River Reach 5,6 and Bell Creek	30	170	--	5
LA River Reach 4	103	83	--	--
Tujunga Wash	166	83	--	--
LA River Reach 3 above LA-Glendale WRP	91	102	--	--
Verdugo Wash	50	102	--	--
LA River Reach 3 below LA-Glendale WRP	103	100	--	--
Burbank Western Channel (above WRP)	124	126	--	--
Burbank Western Channel (below WRP)	90	75	--	--
LA River Reach 2	87	94	--	--
Arroyo Seco	29	94	--	--
LA River Reach 1	91	102	--	--
Compton Creek	64	73	--	--
Rio Hondo Reach 1	126	37	131	--
Monrovia Canyon	--	--	66	--

Wet-Weather WLAs (total recoverable metals) (µg/L):
Cadmium = 3.1
Copper = 67.5
Lead = 94
Zinc = 159
Selenium = 5

Deliverables/Actions Required:
The California State University Los Angeles and California State University Northridge are required to either: 1) develop and implement a program plan, for Regional Water Board Executive Officer approval, to reduce pollutants in its MS4 discharges to meet the WLA(s); or 2) enter into a cooperative agreement with Phase I MS4 Permittees in the watershed or subwatershed that are implementing an approved Watershed Management Program/Enhanced Watershed Management Program pursuant to corresponding Phase I MS4 permit.

The TMDL specifies that the final dry weather WLAs shall be achieved by January 11, 2024, and the final wet weather WLAs shall be achieved by January 11, 2028.

Ballona Creek Metals TMDL
The Ballona Creek Metals TMDL assigns wasteload allocations appropriate for implementation through this Order as specified below.

Phase II Entities:
The Los Angeles Regional Water Board has determined that the University of California Los Angeles and the Veteran Affairs of the Greater Los Angeles Healthcare System, Non-traditional MS4s, are sources of storm water and non-storm discharges subject to this Order and are responsible for implementing the requirements of this TMDL.

Wasteload Allocations (WLA):
Dry-Weather WLAs (total recoverable metals) (shared) (g/day):
Ballona Creek: Copper: 1,457.6 Lead: 805.0 Zinc: 18,302.1
Sepulveda Channel: Copper: 540.6 Lead: 298.7 Zinc: 6,790.8
Wet-Weather WLAs (total recoverable metals) (shared) (g/day):
Copper: $1.297 \times 10^{-5} \times L$
Lead: $7.265 \times 10^{-5} \times L$
Zinc: $9.917 \times 10^{-5} \times L$
Where L = daily storm volume (liters)

Deliverables/Actions Required:
The University of California Los Angeles and the Veteran Affairs of the Greater Los Angeles Healthcare System are required to either: 1) develop and implement a program plan, for Regional Water Board Executive Officer approval, to reduce pollutants in its MS4 discharges to meet the WLA(s); or 2) enter into a cooperative agreement with Phase I MS4 Permittees in the watershed or subwatershed that are implementing an approved Watershed Management Program/Enhanced Watershed Management Program pursuant to corresponding Phase I MS4 permit.

The TMDL specifies that the final WLAs during dry weather are to be achieved by January 11, 2016. The final WLAs during wet weather shall be achieved by January 11, 2021. The final WLAs during dry weather are therefore effective immediately. The University of California Los Angeles and/or the Veteran Affairs of the Greater Los Angeles Healthcare System may request a Time Schedule Order from the Regional Water Board. A Regional Water Board's issuance of a Time Schedule Order will establish an implementation schedule for the Permittee to comply with the TMDL requirements, and will supersede the deadlines referenced in this Order.

San Gabriel River Metals and Selenium TMDL
The San Gabriel River Metals and Selenium TMDL assigns a wasteload allocation appropriate for implementation through this Order as specified below.

Phase II Entities:
The Los Angeles Regional Water Board has determined that the California State Polytechnic University, Pomona, a Non-traditional MS4, is a source of urban runoff subject to this Order and is responsible for implementing the requirements of this TMDL.

Wasteload Allocations (WLA):
The San Gabriel River Metals and Selenium TMDL assigns WLAs to urban runoff in Walnut and San Jose Creeks, tributaries to the San Gabriel River for entities within the city of Pomona, which includes California State Polytechnic University, Pomona. Therefore, only WLAs assigned to Walnut and San Jose Creeks will be included in this Order.

Selenium allocation for San Jose Creek Reach 1 and Reach 2 (total recoverable metals):

Point Sources	**Waste Load Allocation**
Municipal Stormwater	5 µg/L

Deliverables/Actions Required:
The California State Polytechnic University, Pomona is required to either: 1) develop and implement a program plan, for Regional Water Board Executive Officer approval, to reduce pollutants in its MS4 discharges to meet the WLA; or 2) enter into a cooperative agreement with Phase I MS4 Permittees in the watershed or subwatershed that are implementing an approved Watershed Management Program/Enhanced Watershed Management Program pursuant to corresponding Phase I MS4 permit.

The TMDL does not specify a final attainment date.

San Gabriel River Indicator Bacteria TMDL

The San Gabriel River Indicator Bacteria TMDL assigns a wasteload allocation appropriate for implementation through this Order as specified below.

Phase II Entities:
The Los Angeles Regional Water Board has determined that the California State Polytechnic University, Pomona, a Non-traditional MS4, is a source of wet- and dry-weather discharges from MS4s subject to this Order and is responsible for implementing the requirements of this TMDL.

Wasteload Allocations (WLA):
The San Gabriel River Indicator Bacteria TMDL assigns WLAs to urban runoff in the San Gabriel River and its tributaries.

The following WLAs are receiving water allocations. Geometric mean values shall be calculated weekly as a rolling geometric mean using a minimum of 5 samples, for six week periods starting all calculation weeks on Sunday. Geometric mean limits may not be exceeded at any time.

Geometric Mean Limits
E. coli density shall not exceed 126/100 ml
Single Sample Limits
E. coli density shall not exceed 235/100 ml

For the Single Sample Limits, TMDL compliance focuses on the number of days that any single sample exceeds the limits set forth above, based on the time of year. This focus is expressed as Single Sample Allowable Exceedances, shown below.

Single Sample Allowable Exceedances Wasteload Allocations in the Receiving Water:*
Summer Dry Weather: 5 days (based on daily sampling), or 1 day (based on weekly sampling)
Waters not subject to the High Flow Suspension:
Wet Weather: 17 days (daily sampling), or 3 days (weekly sampling)
Waters subject to the High Flow Suspension:
Wet Weather: 11 days (daily sampling), or 2 (weekly sampling)
*= The Allowable Exceedance Day is defined as the number of days (per year) a monitoring location is allowed to exceed any of the single sample limits.

A storm year is defined as the period from November 1 through October 31.

Deliverables/Actions Required:
The California State Polytechnic University, Pomona is required to either: 1) develop and implement a program plan, for Regional Water Board Executive Officer approval, to reduce pollutants in its MS4 discharges to meet the WLA; or 2) enter into a cooperative agreement

with Phase I MS4 Permittees in the watershed or subwatershed that are implementing an approved Watershed Management Program/Enhanced Watershed Management Program pursuant to corresponding Phase I MS4 permit.

The TMDL specifies that the final WLAs are to be achieved for single sample objectives and during dry weather by June 14, 2026, while the final WLAs during wet weather are to be achieved by June 14, 2036.

Los Cerritos Channel Metals TMDL

The Los Cerritos Channel Metals TMDL assigns wasteload allocations appropriate for implementation through this Order as specified below.

Phase II Entities:

The Los Angeles Regional Water Board has determined that the California State University Long Beach and Long Beach Veterans' Affairs Medical Center, Non-traditional MS4s, are sources of storm water and non-storm water discharges subject to this Order and are responsible for implementing the requirements of this TMDL.

Wasteload Allocations (WLA):

Dry-Weather WLA (total recoverable metals) (shared) (g/day):

Copper: 67.2

Wet-Weather WLAs (total recoverable metals) (shared) (g/day based on flow of 40 cfs):

Copper: 461.4

Lead: 2,631.5

Zinc: 4,510.7

Deliverables/Actions Required:

The California State University Long Beach and Long Beach Veterans' Affairs Medical Center are required to either: 1) develop and implement a program plan, for Regional Water Board Executive Officer approval, to reduce pollutants in its MS4 discharges to meet the WLA(s); or 2) enter into a cooperative agreement with Phase I MS4 Permittees in the watershed or subwatershed that are implementing an approved Watershed Management Program/Enhanced Watershed Management Program pursuant to corresponding Phase I MS4 permit.

The TMDL specifies that the final WLAs during dry weather shall be achieved by September 30, 2023. The final WLAs during wet weather shall be achieved by September 30, 2026.

Ballona Creek Estuary Toxic Pollutants TMDL

The Ballona Creek Estuary Toxic Pollutants TMDL assigns wasteload allocations appropriate for implementation through this Order as specified below.

Phase II Entities:

The Los Angeles Regional Water Board has determined that the University of California Los Angeles and the Veteran Affairs of the Greater Los Angeles Healthcare System, Non-traditional MS4s, are sources of storm water and non-storm water discharges subject to this Order and are responsible for implementing the requirements of this TMDL.

Wasteload Allocations (WLA):

WLAs are expressed as shared allocations amongst the MS4 permittees in the Ballona Creek watershed.

Cadmium: 8.0 kg/yr

Copper: 227.3 kg/yr
Lead: 312.3 kg/yr
Silver: 6.69 kg/yr
Zinc: 1003 kg/yr
Chlordane: 8.69 g/yr
DDTs: 12.70 g/yr
Total PCBs: 21.40 g/yr

Deliverables/Actions Required:
The University of California Los Angeles and the Veteran Affairs of the Greater Los Angeles Healthcare System are required to either: 1) develop and implement a program plan, for Regional Water Board Executive Officer approval, to reduce pollutants in its MS4 discharges to meet the WLA(s); or 2) enter into a cooperative agreement with Phase I MS4 Permittees in the watershed or subwatershed that are implementing an approved Watershed Management Program/Enhanced Watershed Management Program pursuant to corresponding Phase I MS4 permit.

The TMDL specifies that the final WLAs shall be achieved by January 11, 2021.

Ballona Creek Trash TMDL
The Ballona Creek Trash TMDL assigns a wasteload allocation appropriate for implementation through this Order as specified below.

Phase II Entities:
The Los Angeles Regional Water Board has determined that the University of California Los Angeles and the Veteran Affairs of the Greater Los Angeles Healthcare System, Non-traditional MS4s, are sources of storm water discharges subject to this Order and are responsible for implementing the requirements of this TMDL.

Wasteload Allocations (WLA):
Final WLA is zero trash.

Deliverables/Actions Required:
The Los Angeles Regional Water Board has determined that the contribution by these non-traditional MS4s is significant. In order for the permittees to meet their obligation to ensure that the WLA is met, the permittees will be required to implement either 1) Full Capture Systems, 2) partial capture devices and the application of institutional controls, or 3) a scientifically based alternative attainment approach.

1) A Full Capture System is any device or series of devices that traps all particles retained by a 5 mm mesh screen and has a design treatment capacity of not less than the peak flow rate (Q) resulting from a one-year, one hour, storm in the subdrainage area. The Rational Equation is used to compute the peak flow rate:
   Q = C x I x A
   Where:
   Q = design flow rate (cfs)
   C = runoff coefficient
   I = design rainfall intensity (in/hr)
   A = subdrainage area (acres)

2) Permittees employing partial capture devices or institutional controls shall use a mass balance approach based on the trash daily generation rate (DGR)[46], to demonstrate compliance.

The DGR shall be reassessed annually. Permittees may request a less frequent assessment of its DGR when the final WLA has been met (as described below) and the responsible jurisdiction continues to implement at the same level of effort partial capture devices and institutional controls for Executive Officer approval. A return to annual DGR calculation shall be required for a period of years to be determined by the Executive Officer after significant land use changes.

Permittees employing institutional controls or a combination of full capture systems, partial capture devices, and institutional controls shall be deemed in attainment of the final WLAs when the reduction of trash from the jurisdiction's baseline load, is between 99% and 100% as calculated using a mass balance approach, and the full capture systems and partial capture devices are properly sized, operated, and maintained.

Alternatively, permittees may request that the Executive Officer make a determination that a 97% to 98% reduction of the baseline load as calculated using a mass balance approach, constitutes full attainment of the final WLA if all of the following criteria are met:

a. The agency submits to the Regional Board a report for Executive Officer approval, including, two or more consecutive years of data showing that the Permittee's attainment was at or above a 97% reduction in its baseline trash load;

b. An evaluation of institutional controls in the jurisdiction demonstrating continued effectiveness and any potential enhancements; and

c. Demonstration that opportunities to implement partial capture devices have been fully exploited.

3) Permittees employing an alternative attainment approach shall conduct studies of institutional controls and partial capture devices for their particular subwatershed(s) or demonstrate that existing studies are representative and transferable to the implementing area for Executive Officer approval. Permittees shall also provide a schedule for periodic, compliance effectiveness demonstration and evaluation. Full capture systems and partial capture devices shall be properly sized, operated, and maintained consistent with sizing, operation, and maintenance schedules used to determine their effectiveness.

The TMDL specifies that the final WLA (0% of the baseload discharged) is to be achieved by September 30, 2015. The WLA is therefore effective immediately.

Los Angeles River Trash TMDL

The Los Angeles River Trash TMDL assigns a wasteload allocation appropriate for implementation through this Order as specified below.

Phase II Entities:

The Los Angeles Regional Water Board has determined that the California State University Los Angeles and California State University Northridge, Non-traditional MS4s, are sources of storm water discharges subject to this Order and are responsible for implementing the requirements of this TMDL.

[46] The DGR is the average amount of trash deposited during a 24-hour period, as measured in a specified drainage area.

Wasteload Allocations (WLA):
Final WLA is zero trash.

Deliverables/Actions Required:
The Los Angeles Regional Water Board has determined that the contribution by these non-traditional MS4s is significant. In order for the permittees to meet their obligation to ensure that the WLA is met, the permittees will be required to implement either 1) Full Capture Systems, 2) partial capture devices and the application of institutional controls, or 3) a scientifically based alternative attainment approach.

1) A Full Capture device is any device that traps all particles retained by a 5 mm mesh screen and has a design treatment capacity of not less than the peak flow rate (Q) resulting from a one-year, one hour, storm in the subdrainage area. The Rational Equation is used to compute the peak flow rate:

   Q = C x I x A

   Where:

   Q = design flow rate (cfs)
   C = runoff coefficient
   I = design rainfall intensity (in/hr)
   A = subdrainage area (acres)

2) Permittees employing partial capture devices or institutional controls shall use a mass balance approach based on the trash daily generation rate (DGR)[47], to demonstrate compliance.

   The DGR shall be reassessed annually. Permittees may request a less frequent assessment of its DGR when the final WLA has been met (as described below) and the responsible jurisdiction continues to implement at the same level of effort partial capture devices and institutional controls for Executive Officer approval. A return to annual DGR calculation shall be required for a period of years to be determined by the Executive Officer after significant land use changes.

   Permittees employing institutional controls or a combination of full capture systems, partial capture devices, and institutional controls shall be deemed in attainment of the final WLAs when the reduction of trash from the jurisdiction's baseline load, is between 99% and 100% as calculated using a mass balance approach, and the full capture systems and partial capture devices are properly sized, operated, and maintained.

   Alternatively, permittees may request that the Executive Officer make a determination that a 97% to 98% reduction of the baseline load as calculated using a mass balance approach, constitutes full attainment of the final WLA if all of the following criteria are met:

   a. The agency submits to the Regional Board a report for Executive Officer approval, including, two or more consecutive years of data showing that the Permittee's attainment was at or above a 97% reduction in its baseline trash load;
   b. An evaluation of institutional controls in the jurisdiction demonstrating continued effectiveness and any potential enhancements; and
   c. Demonstration that opportunities to implement partial capture devices have been fully exploited.

[47] The DGR is the average amount of trash deposited during a 24-hour period, as measured in a specified drainage area.

3) Permittees employing an alternative attainment approach shall conduct studies of institutional controls and partial capture devices for their particular subwatershed(s) or demonstrate that existing studies are representative and transferable to the implementing area for Executive Officer approval. Permittees shall also provide a schedule for periodic, compliance effectiveness demonstration and evaluation. Full capture systems and partial capture devices shall be properly sized, operated, and maintained consistent with sizing, operation, and maintenance schedules used to determine their effectiveness.

The TMDL specifies that the final WLA (0% of the baseload discharged) is to be achieved by September 30, 2016. The WLA is therefore effective immediately.

Ventura River Estuary Trash TMDL

The Ventura River Estuary Trash TMDL assigns a wasteload allocation appropriate for implementation through this Order as specified below.

Phase II Entities:

The Los Angeles Regional Water Board has determined that the Ventura County Fairgrounds (Seaside Park and Ventura County Fairgrounds), a Non-traditional MS4, is a source of storm water discharges subject to this Order and are responsible for implementing the requirements of this TMDL.

Wasteload Allocations (WLA):

Final WLA is zero trash.

Deliverables/Actions Required:

The Los Angeles Regional Water Board has determined that the contribution by these non-traditional MS4s is significant. In order for the permittees to meet their obligation to ensure that the WLA is met, the permittees will be required to implement one of two options for the control of trash. The TMDL allows permittees to meet the WLA by either: 1) installing and maintaining Full Capture Systems, or 2) with Regional Water Board Executive Officer approval, implement a program for minimum frequency of assessment and collection (MFAC) in conjunction with BMPs.

1) A Full Capture device is any device that traps all particles retained by a 5 mm mesh screen and has a design treatment capacity of not less than the peak flow rate (Q) resulting from a one-year, one hour, storm in the subdrainage area. The Rational Equation is used to compute the peak flow rate:

$$Q = C \times I \times A$$

Where:

Q = design flow rate (cfs)
C = runoff coefficient
I = design rainfall intensity (in/hr)
A = subdrainage area (acres)

2) Attainment of the WLA through the MFAC program in conjunction with BMPs may be proposed to the Regional Water Board's Executive Officer for approval. The MFAC program must include requirements equivalent to those described in the Conditional Waiver set forth in the TMDL. The due date for submittal of the required information to select this option was October 2008. Therefore, this option is no longer available for permittees under this Order and was included only for completeness.

The TMDL specifies that the final WLA is to be achieved by March 6, 2016. The final WLA therefore is effective immediately.

CENTRAL VALLEY REGIONAL WATER BOARD TMDLS

Lower San Joaquin River Diazinon & Chlorpyrifos TMDL

The Lower San Joaquin River Diazinon & Chlorpyrifos TMDL assigns a wasteload allocation appropriate for implementation through this Order as specified below.

Phase II Entities:

The Central Valley Regional Water Board has determined that the City of Patterson, a Traditional MS4, is a source of "NPDES permitted discharges" subject to this Order and is responsible for implementing the requirements of this TMDL.

Many of the permittees listed in Attachment G of the permit adopted on February 5, 2013, have been removed. These permittees are not specifically assigned allocations in the TMDL adopted by the Central Valley Regional Water Board. The removed permittees do not discharge directly to the San Joaquin River. An impaired water body segment must have TMDL-specific requirements under the TMDL. Through development of this Amendment the Central Valley Water Board has determined that only the City of Patterson, which discharges directly to the San Joaquin River, is responsible for implementing the requirements of this TMDL.

Wasteload Allocations:

The wasteload allocations for NPDES permitted municipal storm water Permittees shall not exceed the sum (S) of one (1) as defined below:

$$S = \frac{C_D}{WQO_D} + \frac{C_C}{WQO_C} \leq 1.0$$

Where:

C_D = diazinon concentration in µg/L of point source discharge

C_C = chlorpyrifos concentration in µg/L of point source discharge

WQO_D = acute or chronic diazinon water quality objective (0.160 and 0.100 µg/L, respectively)

WQO_C = acute or chronic chlorpyrifos water quality objective. (0.025 and 0.015 µg/L, respectively)

For the purpose of calculating the sum (S) above, non-detectable concentrations are considered to be zero. In determining compliance with the effluent limitations in Section C.1 of this Order related to the attainment of these wasteload allocations, the Central Valley Regional Water Board will consider data or information submitted by the Permittee regarding diazinon and chlorpyrifos inputs from sources that are outside of the jurisdiction of the permitted discharge, and any applicable provisions in this Order requiring the Permittee to reduce the discharge of pollutants to the maximum extent practicable.

Deliverables/Actions Required:

To create a path towards compliance with this TMDL, the permittees are being directed to conduct an assessment of the waterbody. The assessment will be used to ascertain the loads from urban runoff, whether the waterbody is meeting its objectives, whether or not an alternative constituent is the cause of impairment and whether a synergistic effect is present. As an alternative, the permittees may participate in the Bay Delta Regional Monitoring Program, upon the Central Valley Regional Water Board Executive Officer approval.

The deadline for attainment of WLAs was December 1, 2010. Therefore, the WLA is to be achieved immediately.

Sacramento and San Joaquin Delta Diazinon & Chlorpyrifos TMDL

The Sacramento and San Joaquin Delta Diazinon & Chlorpyrifos TMDL assigns a wasteload allocation appropriate for implementation through this Order as specified below.

Phase II Entities:

The Central Valley Regional Water Board has determined that the Cities of Lathrop, Lodi, Manteca, Rio Vista, Tracy, and West Sacramento and the County of San Joaquin, Traditional MS4s, are sources of "NPDES permitted dischargers" subject to this Order and are responsible for implementing the requirements of this TMDL.

The Cities of Davis, Dixon, French Camp, Morada, Vacaville, and Woodland, listed in the original permit adopted on February 5, 2013, have been removed from this TMDL. These permittees are not specifically assigned allocations in the TMDL adopted by the Central Valley Regional Water Board. The Central Valley Water Board determined that they were erroneously listed since they do not discharge directly to the Sacramento and San Joaquin Delta. The Cities of Lathrop, Lodi, Manteca, Rio Vista, Tracy and West Sacramento and the County of San Joaquin discharge directly to the Sacramento and San Joaquin Delta.

Wasteload Allocations:

The wasteload allocations for NPDES permitted municipal storm water Permittees shall not exceed the sum (S) of one (1) as defined below:

$$S = \frac{C_D}{WQO_D} + \frac{C_C}{WQO_C} \leq 1.0$$

Where:

C_D = diazinon concentration in µg/L of point source discharge

C_C = chlorpyrifos concentration in µg/L of point source discharge

WQO_D = acute or chronic diazinon water quality objective (0.160 and 0.100 µg/L, respectively)

WQO_C = acute or chronic chlorpyrifos water quality objective. (0.025 and 0.015 µg/L, respectively)

For the purpose of calculating the sum (S) above, non-detectable concentrations are considered to be zero. In determining compliance with the effluent limitations in Section C.1 of this Order related to the attainment of these wasteload allocations, the Central Valley Regional Water Board will consider data or information submitted by the Permittee regarding diazinon and chlorpyrifos inputs from sources that are outside of the jurisdiction of the permitted discharge, and any applicable provisions in this Order requiring the Permittee to reduce the discharge of pollutants to the maximum extent practicable.

Deliverables/Actions Required:

To create a path towards compliance with this TMDL, the permittees are being directed to conduct an assessment of the waterbody. The assessment will be used to ascertain the loads from urban runoff, whether the waterbody is meeting its objectives, whether or not an alternative constituent is the cause of impairment and whether a synergistic effect is present. As an alternative, the permittees may participate in the Bay Delta Regional Monitoring Program, upon Executive Officer approval.

The deadline for attainment of WLAs was December 1, 2011. Therefore, the WLA is to be

achieved immediately.

Sacramento and Feather Rivers Diazinon & Chlorpyrifos TMDL

The Sacramento and Feather Rivers Diazinon & Chlorpyrifos TMDL assigns a wasteload allocation appropriate for implementation through this Order as specified below.

Phase II Entities:

The Central Valley Regional Water Board has determined that the Cities of Anderson, Marysville, Red Bluff, Redding and Yuba City, the Counties of Colusa, Shasta, Sutter and Yuba, Traditional MS4s, are sources of "Urban storm water runoff" subject to this Order and are responsible for implementing the requirements of this TMDL.

The Cities of Chico, Live Oak, Lincoln, Loomis, Roseville and Rocklin and the County of Butte, listed in the original permit adopted on February 5, 2013, have been removed from this TMDL. These permittees are not specifically assigned allocations in the TMDL adopted by the Central Valley Regional Water Board. The Central Valley Water Board determined that they were erroneously listed since they do not discharge directly to the Sacramento and/or Feather rivers. The Cities of Anderson, Colusa, Marysville, Red Bluff, Redding and Yuba City, and the Counties of Colusa, Shasta and Sutter discharge directly to the Sacramento and/or Feather rivers.

Wasteload Allocations:

The wasteload allocations for NPDES permitted municipal storm water Permittees shall not exceed the sum (S) of one (1) as defined below:

$$S = \frac{C_D}{WQO_D} + \frac{C_C}{WQO_C} \leq 1.0$$

Where:

C_D = diazinon concentration in µg/L of point source discharge

C_C = chlorpyrifos concentration in µg/L of point source discharge

WQO_D = acute or chronic diazinon water quality objective (0.160 and 0.100 µg/L, respectively)

WQO_C = acute or chronic chlorpyrifos water quality objective. (0.025 and 0.015 µg/L, respectively)

For the purpose of calculating the sum (S) above, non-detectable concentrations are considered to be zero. In determining compliance with the effluent limitations in Section C.1 of this Order related to the attainment of these wasteload allocations, the Central Valley Regional Water Board will consider data or information submitted by the Permittee regarding diazinon and chlorpyrifos inputs from sources that are outside of the jurisdiction of the permitted discharge, and any applicable provisions in this Order requiring the Permittee to reduce the discharge of pollutants to the maximum extent practicable.

Deliverables/Actions Required:

To create a path towards compliance with this TMDL, the permittees are being directed to conduct an assessment of the waterbody. The assessment will be used to ascertain the loads from urban runoff, whether the waterbody is meeting its objectives, whether or not an alternative constituent is the cause of impairment and whether a synergistic effect is present. As an alternative, the permittees may participate in the Bay Delta Regional Monitoring Program, upon Executive Officer approval.

The deadline for attainment of WLAs was August 11, 2008. Therefore, the WLA is to be

achieved immediately.

Demonstration of Attainment of Diazinon and Chlorpyrifos Wasteload Allocations for ALL Diazinon and Chlorpyrifos TMDLs
Attainment of the diazinon and chlorpyrifos wasteload allocations may be demonstrated by any one of the following methods:

a. Submission of receiving water monitoring and/or other information, as authorized by the Executive Officer, that reasonably demonstrates attainment with the WLA.
b. Attainment of WLAs within the discharge (monitoring representative of the MS4 discharge may be used with Executive Officer approval).
c. Permanent cessation of discharges from the Permittee's MS4 to receiving waters.

For those Permittees that have not demonstrated achievement of WLA by the attainment date (shown above), implementation of BMPs consistent with an Executive Officer-approved Management Plan that outlines BMPs and a schedule to reduce discharges of diazinon and chlorpyrifos and that are capable of ultimately attaining the WLA is required. Management Plans shall be developed pursuant to the implementation schedules stated in Attachment G.

Lower San Joaquin River, San Joaquin River and Stockton Deep Water Ship Channel (DWSC) Organic Enrichment and Low Dissolved Oxygen TMDL
The Lower San Joaquin River, San Joaquin River and Stockton DWSC Organic Enrichment and Low Dissolved Oxygen TMDL assigns a wasteload allocation appropriate for implementation through this Order as specified below.

Phase II Entities:
The Central Valley Regional Water Board has determined that the Cities of Atwater, Ceres, Delhi, Hughson, Lathrop, Livingston, Los Banos, Manteca, Merced, Oakdale, Patterson, Ripon, Riverbank and Turlock, the Counties of Merced, San Joaquin and Stanislaus, Traditional MS4s, are sources of "Storm water discharges" subject to this Order and are responsible for implementing the requirements of this TMDL.

The CDPs of French Camp and Winton, listed in the originally adopted permit, have been removed from this TMDL. These permittees were removed because they exist within existing MS4 areas subject to this permit (i.e. the counties they are located in). Therefore, it was determined that these permittees should not have been included in Appendix G under this TMDL and thus have been removed.

Wasteload Allocations:
The San Joaquin River Dissolved Oxygen Control Program set the wasteload allocations for NPDES-permitted discharges of oxygen demanding substances and their precursors as the effluent limitations that were applicable on 28 January 2005. On 28 January 2005, the 2003 Phase II MS4 permit stated the following for effluent limitations in section C.1. Effluent Limitations: Permittees must implement BMPs that reduce pollutants in storm water to the technology-based standard of MEP. This Order applies these limitations to discharges from MS4s maintained by the Phase II Entities listed above. In determining compliance with permit requirements related to attainment of these wasteload allocations, credit will be given for control measures implemented after 12 July 2004.

The San Joaquin River Dissolved Oxygen Control Program defines oxygen demanding substances and their precursors as any substance or substances that consume, have the potential to consume, or contribute to the growth or formation of substances that consume or have the potential to consume oxygen from the water column.

Deliverables/Actions Required:
To comply with the WLAs established in this TMDL, the Phase II entities shall comply with the provisions of this Order. Specific actions taken to comply with this TMDL will be documented in the Annual Report along with a discussion on the effectiveness of the BMPs implemented and actions taken to improve the effectiveness in meeting the WLAs.

The permittees will also conduct monitoring to show compliance with the TMDL based upon a submitted Monitoring Plan. As an alternative, the permittees may participate in the Bay Delta Regional Monitoring Program, upon Central Valley Regional Water Board Executive Officer approval.

The deadline for attainment of WLAs was December 31, 2011. Therefore, the WLA is to be achieved immediately.

Demonstration of Compliance with Effluent Limitations Associated with Wasteload Allocations for Oxygen Demanding Substances and Their Precursors
Compliance with the effluent limitations in Section C.1 of this permit associated with the wasteload allocations for oxygen demanding substances and their precursors may be demonstrated by any one of the following methods:

a. Receiving water monitoring and/or other information, as authorized by the Executive Officer, that reasonably demonstrates attainment with the WLA.
b. Permanent cessation of discharges from the Permittee's MS4 to receiving waters.

For those Permittees that have not demonstrated achievement of WLA by the attainment date (shown above), implementation of BMPs consistent with an Executive Officer-approved Management Plan that outlines BMPs and a schedule to reduce discharges of oxygen demanding substances and their precursors to attain the WLA is required. Management Plans shall be developed within twelve months after adoption of this Attachment G. It is not the intention of the State Water Board or the Central Valley Water Board to take enforcement action against Permittees for violation of Section C.1 effluent limitations related to the WLA while the Plan is being developed and implemented, provided the Permittee develops the Plan in accordance with applicable implementation schedules. The Permittee may also request a time schedule order incorporating the implementation measures and compliance schedule of the Management Plan.

Delta Methylmercury TMDL

On April 22, 2010, the Central Valley Regional Water ~~Quality Control~~ Board ~~(Central Valley Water Board)~~ adopted Resolution No. R5-2010-0043 to amend the Water Quality Control Plan for the Sacramento River and San Joaquin River Basins (Basin Plan) to include a methylmercury TMDL and an implementation plan for the control of methylmercury and total mercury in the Sacramento-San Joaquin Delta Estuary (Delta Mercury Control Program). The Basin Plan amendment includes the addition of: (1) site-specific numeric fish tissue objectives for methylmercury; (2) the commercial and sport fishing (COMM) beneficial use designation for the Delta and Yolo Bypass; (3) methylmercury load allocations for non-point sources and ~~waste load~~wasteload allocations for point sources; and (4) an implementation plan that includes adaptive management to address mercury and methylmercury in the Delta and Yolo Bypass.

The Delta TMDL covers the Counties of Alameda, Contra Costa, Sacramento, San Joaquin, Solano and Yolo both within legal Delta boundary defined by California Water

Code Section 12220 and the Yolo Bypass, a 73,300-acre floodplain on the west side of the lower Sacramento River.

The Delta is on the Clean Water Act Section 303(d) List of Impaired Water Bodies because of elevated levels of mercury in fish. Beneficial uses of the Delta that are impaired due to the elevated methylmercury levels in fish are wildlife habitat (WILD) and human consumption of aquatic organisms. The Delta provides habitat for warm and cold-water species of fish and their associated aquatic communities. Additionally, the Delta and its riparian areas provide valuable wildlife habitat. There is significant use of the Delta for fishing and collection of aquatic organisms for human consumption. Further, water is diverted from the Delta for statewide municipal (MUN) and agricultural (AGR) use.

Mercury in the Central Valley comes primarily from historic mercury and gold mines and from resuspension of contaminated material in stream beds and banks downstream of the mines, as well as from modern sources such as atmospheric deposition from local and global sources, waste water treatment plants, and urban runoff. Methylmercury, the most toxic form of mercury, forms primarily by sulfate reducing bacteria methylating inorganic mercury. Sources of methylmercury include methylmercury flux from sediment in open water and wetland habitats, urban runoff, irrigated agriculture, and waste water treatment plants. Water management activities, including water storage, conveyance, and flood control, can affect the transport of mercury and the production and transport of methylmercury.

Phase II Entities:
The Delta Mercury Control Program assigns mass~~ed~~-based methylmercury TMDL allocations to all sources of methylmercury in the Delta and Yolo Bypass, including urban runoff from Phase ~~1~~ I and Phase ~~2~~ II MS4s. In the Delta and Yolo Bypass, the TMDL assigns individual methylmercury ~~waste load~~wasteload allocations to the following small urban runoff agencies:

City of Lathrop
City of Lodi
City of Rio Vista
County of San Joaquin
~~County of Solano~~
City of West Sacramento
County of Yolo
City of Tracy

The County of Solano is being removed from this TMDL. The Delta TMDL was based on information available at the time of its development. The Delta Methylmercury TMDL Staff Report calculated urban runoff methylmercury allocations using the Department of Water Resources' land use designations for urban and other land uses within the legal Delta boundary. A recent review of Solano County's 2003 Storm Water Management Plan, which is relevant because this plan was in effect when the Delta TMDL was developed, revealed a discrepancy between the acreages used to assess urban areas. The County's Storm Water Management Plan indicated that the MS4 permit jurisdiction only applied to the County's urbanized areas defined by the 2000 Census. The County's maps indicate there are no urbanized areas within the legal Delta boundaries.

While methylmercury from urbanized areas covered by the County's Phase II MS4 program does discharge to the Delta, the methylmercury allocations included in the TMDL should have

been assigned only to the County's MS4 urbanized areas within the Delta and Yolo Bypass. Based on the 2003 Storm Water Management Plan, the urban acreage is zero and subsequently there should not be an allocation assigned to this area. This discrepancy will be corrected when the Central Valley Regional Water Board conducts a full review of the TMDL in 2020.

Therefore, at this time the Solano County MS4 program is not subject to the Delta Mercury Control Program requirements, including attainment of the allocations or compliance with mercury exposure reduction program (MERP) requirements.

Wasteload Allocations:
The methylmercury wasteload allocations are as follows:

Municipality	**Wasteload Allocations,** Methylmercury (grams/year)
City of Lathrop	0.097
City of Lodi	0.053
City of Rio Vista	0.0078
City of Tracy	0.65
City of West Sacramento (Sacramento River subarea)	0.36
City of West Sacramento (Yolo Bypass subarea)	0.28
County of San Joaquin (Central Delta subarea)	0.57
County of San Joaquin (Mokelumne River subarea)	0.016
County of San Joaquin (Sacramento River subarea)	0.11
County of San Joaquin (San Joaquin River subarea)	0.79
County of Yolo (Sacramento River subarea)	0.041
County of Yolo (Yolo Bypass subarea)	0.083

~~**Wasteload Allocations (methylmercury g/yr):**~~
~~Lodi (City of) 0.053~~
~~San Joaquin (County of) 1.486~~
~~Rio Vista (City of) 0.0078~~
~~Solano (County of) 0.062~~
~~West Sacramento (City of) 0.64~~
~~Yolo (County of) 0.124~~
~~Lathrop (City of) 0.097~~
~~Tracy (City of) 0.65~~

Deliverables/Actions Required:
Mercury is often attached to sediment, and the formation of methylmercury is linked in part to the concentration of mercury concentrations in sediment. Reductions in mercury concentrations will result in methylmercury reductions and subsequently methylmercury levels in fish. To comply with the TMDL, the agencies are required to implement best management practices to control erosion and sediment discharges with the goal of reducing mercury discharges. Methylmercury wasteload allocations for MS4 dischargers in the Delta and Yolo Bypass shall be met as soon as possible, but no later than December 31, 2030, unless the Central Valley Regional Water Board modifies the implementation schedule and final attainment date. Compliance will be determined by the method(s) described further in this document.

Demonstration of Attainment of Methylmercury Wasteload Allocations:
Compliance with the effluent limitations in Section C.1 of this permit associated with methylmercury wasteload allocations may be demonstrated by any one of the following methods:

a. Management Plans shall be developed within one year after the Central Valley Regional Water Board's review of the Delta Mercury Control Program or October 20, 2022, whichever date occurs first. For those MS4 Permittees that have not demonstrated achievement of WLA by December 31, 2030, the MS4s shall implement BMPs consistent with an approved updated Management Plan that shall outline BMPs and schedule to reduce discharges of methylmercury to ultimately attain the WLA.
b. Receiving water monitoring and/or other information, as authorized by the Executive Officer, that reasonably demonstrates attainment with the WLA.
c. Attainment of WLAs within the discharge (monitoring representative of the MS4 discharge may be used with Executive Officer approval).
d. Permanent cessation of discharges from the Permittee's MS4 to receiving waters.

Clear Lake Nutrients TMDL

The Clear Lake Nutrients TMDL assigns a wasteload allocation appropriate for implementation through this Order as specified below.

Phase II Entities:

The Central Valley Regional Water Board has determined that the Cities of Clearlake and Lakeport, and the County of Lake, Traditional MS4s, are sources of "storm water" subject to this Order and are responsible for implementing the requirements of this TMDL.

Wasteload Allocations:

The County of Lake, City of Clearlake and City of Lakeport have a combined wasteload allocation of 2,000 kg phosphorus/yr, as an average annual load (five year rolling average).

Deliverables/Actions Required:

To comply with the WLAs established in this TMDL, the Phase II entities shall comply with the provisions of this Order. Specific actions taken to comply with this TMDL will be documented in the Annual Report along with a discussion on the effectiveness of the BMPs implemented and actions taken to improve the effectiveness in meeting the WLAs.

The permittees will also conduct monitoring to show compliance with the TMDL based upon a submitted Monitoring Plan. As an alternative, the permittees may participate in a regional monitoring program, upon Executive Officer approval.

The deadline for attainment of WLAs is June 19, 2017. Therefore, the WLA are effective immediately.

Demonstration of Compliance with Effluent Limitations Associated with Phosphorus Wasteload Allocations

Compliance with the effluent limitations in Section C.1 of this permit associated with the phosphorus wasteload allocation may be demonstrated by any one of the following methods:

a. Receiving water monitoring and/or other information, as authorized by the Executive Officer, that reasonably demonstrates attainment with the WLA.
b. Attainment of WLA within the discharge (monitoring representative of the MS4 discharge may be used with Executive Officer approval).
c. Permanent cessation of discharges from the Permittee's MS4 to receiving waters.
d. For those Permittees that have not demonstrated achievement of WLA by the attainment date (shown above), implementation of BMPs consistent with an Executive Officer-approved Management Plan that outlines BMPs and a schedule to reduce discharges of phosphorus to ultimately attain the WLA is required. Management Plans shall be

developed by December 31, 2018. The Central Valley Regional Water Board Executive Officer may require revisions to the Management Plan if the Management Plan is not likely to attain the waste load allocations.

LAHONTAN REGIONAL WATER BOARD TMDLs

Middle Truckee River Watershed and Placer, Nevada and Sierra Counties Sediment TMDL

The Middle Truckee River Watershed and Placer, Nevada and Sierra Counties Sediment TMDL assigns a wasteload allocation appropriate for implementation through this Order as specified below.

Phase II Entities:
The Lahontan Regional Water Board has determined that the City of Truckee and the County of Placer, Traditional MS4s, are sources of "Urban areas" subject to this Order and are responsible for implementing the requirements of this TMDL.

Wasteload Allocations:
The following wasteload allocations are applicable:

Urban Areas Wasteload Allocations:
4,936 tons per year of total suspended sediment load.

Non-urban Wasteload Allocations:
35,392 tons per year of total suspended sediment load.

Deliverables/Actions Required:
To comply with the WLAs of this TMDL, the permittees will be required to track and report on the amount of road sand, used for de-icing, used and recovered. The permittees will also rehabilitate old dirt roads to control erosion and to prevent erosion from legacy sites. They will also implement an Education and Outreach program for ski areas within their jurisdiction for sediment and erosion control. They will also be required to continue implementation of their municipal monitoring program.

Attainment of wasteload allocations will be determined based on a target of 25 milligrams per liter, or less, of suspended sediment. The estimated time frame for meeting the numeric targets and achieving the TMDL is 20 years (i.e. 2028).

SANTA ANA REGIONAL WATER BOARD TMDLs

San Diego Creek, Upper and Lower Newport Bay Organochlorine Compounds TMDL

The Newport Bay watershed is a highly urbanized watershed. The two nontraditional MS4s in this watershed, Orange County Fairgrounds and University of California - Irvine, are both tributary to traditional MS4s that discharge to the Santa Ana Delhi Channel and San Diego Creek Reach 1, respectively. The implementation requirements and wasteload allocations assigned to the traditional MS4s in the TMDLs that have been established for the Newport Bay watershed, including both Regional Board adopted and USEPA promulgated TMDLs that are still in effect, therefore apply to these two nontraditional MS4s.

Phase II Entities:

The Santa Ana Regional Water Board has determined that the University of California, Irvine and the Orange County Fairgrounds, Non-Traditional MS4s, are sources of "Urban runoff" subject to this Order and are responsible for implementing the requirements of this TMDL.

Wasteload Allocations:
Not Applicable

Deliverables/Actions Required:
The Santa Ana Regional Board has determined that the contribution by these non-traditional MS4s into the MS4 systems currently owned and operated by agencies implementing storm water programs regulated by Phase I permits are minimal in comparison. Therefore, the Santa Ana Regional Water Board has determined that for these non-traditional entities, consultation with Regional Water Board staff is needed to determine proposed actions and evaluations that will satisfy the goals and assumptions of the TMDL.

The TMDL specifies that the final WLAs are to be achieved by December 31, 2020.

Lake Elsinore and Canyon Lake Nutrients TMDL

The former March Air Reserve Base was downsized and became known as March ARB. March ARB is an active military base that covers 2,300 acres. Activities in the base proper includes military activities such as air refueling, air cargo, air reconnaissance, military interceptors, military housing, recreational and dining facilities, commercial air cargo, training facilities, schools, operations centers for troop transport and industrial, including airport operations. Land use activities are under Base commander authority. The Base is currently covered under an individual industrial storm water permit for their industrial operations and is a stakeholder under the Lake Elsinore/Canyon Lake TMDL. In addition to industrial permit monitoring, the Base monitors their compliance with the TMDL. Regional Water Board staff determined that Phase II permit coverage is an appropriate permit to address the pollutants and flows generated from Base operations. Development and redevelopment post construction controls are of particular importance to be incorporated into the base's storm water program through Phase II permit coverage.

Phase II Entities:
The Santa Ana Regional Water Board has determined that the March ARB, a Non-Traditional MS4, is a source of "Urban discharges" subject to this Order and is responsible for implementing the requirements of this TMDL.

Wasteload Allocations: (shared for all Urban discharges)
Final WLA for Total Phosphorus (expressed as 10 year rolling average): 124 kg/yr
Final WLA for Total Nitrogen (expressed as 10 year rolling average): 349 kg/yr

Deliverables/Actions Required:
March ARB has already committed to cooperative implementation actions, monitoring actions, special studies and implementation actions jointly with other responsible agencies as an active paying member of the Lake Elsinore/Canyon Lake TMDL Task Force. Therefore, continuation of this commitment will be required as part of this TMDL.

The TMDL specifies that the final WLAs are to be achieved by December 31, 2020.

Middle Santa Ana River Bacterial Indicator TMDL

The Middle Santa Ana River Bacterial Indicator TMDL assigns a wasteload allocation appropriate for implementation through this Order as specified below.

The University of California, Riverside, the California Institute for Women and the California Institute for Men are nontraditional MS4s that are tributary to traditional MS4s that discharge to the Middle Santa Ana River (MSAR). The Regional Board adopted a Total Maximum Daily Load for bacterial indicators (E. coli) in 2005 that requires the Cities' and Counties' MS4 systems tributary to the MSAR to develop and implement Comprehensive Bacterial Reduction Plans (CBRP) to achieve attainment of the Wasteload allocations contained in the TMDL. A wide variety of entities, from traditional MS4s, to dairies, Caltrans and water and wastewater agencies have formed a stakeholder group that conduct the Regional TMDL compliance monitoring and conduct studies on the effectiveness of the BMPs implemented through the CBRP.

Phase II Entities:
The Santa Ana Regional Water Board has determined that the California State Polytechnic University, Pomona, the University of California, Riverside, the California Institute for Men, the California Institute for Women, and the California Rehab Center, Non-Traditional MS4s, are sources of "Urban runoff" subject to this Order and are responsible for implementing the requirements of this TMDL.

Wasteload Allocations:
The following are receiving water allocations. Logarithmic mean values shall be calculated based on a minimum of 5 samples during any 30 day period.

Dry Season (April 1 through October 31) to be achieved by December 31, 2015:
E. coli
5–sample/30–day Logarithmic Mean less than 113 organisms/100mL, and not more than 10% of the samples exceed 212 organisms/100mL for any 30–day period.

Wet Season (November 1 through March 31) to be achieved by December 31, 2025:
E. coli
5–sample/30–day Logarithmic Mean less than 113 organisms/100mL, and not more than 10% of the samples exceed 212 organisms/100mL for any 30–day period.

Deliverables/Actions Required:
In order to meet the goals and assumptions of this TMDL, Regional Water Board staff has determined that the entities listed may either: 1) develop and implement a facility-specific CBRP or 2) participate in an updated watershed-based CBRP. The CBRP will discuss the various BMPs that will be employed and whether or not they are effective in meeting the WLA for both the dry and wet seasons.

The implementation of a Regional Water Board approved facility-specific or watershed-based CBRP will constitute compliance with the TMDL.

SAN DIEGO REGIONAL WATER BOARD TMDLs

Attachment G provides specific provisions for implementing the load allocations (LAs) and wasteload allocations (WLAs) of Total Maximum Daily Loads (TMDLs) adopted by the San Diego Water Board and approved by OAL and USEPA in which Phase II dischargers are identified as responsible for discharges and subject to the requirements of the TMDLs. Each TMDL for which Phase II dischargers are identified as responsible for discharges was publicly noticed as part of the TMDL development and adoption. Additionally, San Diego Water Board staff met with each enrolled Phase II discharger to discuss the requirements of the Phase II

permit and their responsibilities for compliance with the TMDLs. Therefore, Phase II dischargers were informed that their responsibilities for compliance with the TMDL will be implemented through their enrollment in the Phase II Permit.

The following requirements for implementing the TMDLs in this Order are based on and consistent with the assumptions and requirements of any available adopted and approved TMDLs that have been incorporated into the San Diego Regional Water Board's Basin Plan.

A modification to a TMDL in the Basin Plan requires a Basin Plan amendment, which includes a separate public process. If and when the TMDLs are modified in the Basin Plan, the San Diego Regional Water Board will notify the State Water Board of the need to revise the requirements of Order 2013-0001-DWQ in accordance with the Basin Plan amendment as soon as possible.

The Chollas Creek Dissolved Metals TMDL was removed from this Order because all named entities in Attachment G, as adopted, were Phase I entities and thus not subject to the requirements of this Order.

Bacteria Project I -TMDL – Twenty Beaches and Creeks in the San Diego Region (Including Tecolote Creek)

The Bacteria Project I Total Maximum Daily Load (Bacteria I TMDL) addresses the Clean Water Act section 303(d) bacteria impairment listings for 20 impaired water quality limited segments within the following watersheds or portions of watersheds: Laguna/San Joaquin, San Juan, San Clemente, San Luis Rey, San Marcos, San Dieguito River, Miramar Creek, Scripps HA, Tecolate HA, San Diego River, and Chollas Creek.

The greatest causes of waterbody impairments in the San Diego Region in 2002 were elevated bacteria levels and subsequent beach closures. The presence of pathogens and the probability of disease are directly correlated with the presence of human waste sources and currently measured by the density of indicator bacteria (fecal coliform, total coliform, and enterococcus) in waters used for recreation. When the Bacteria I TMDL wasteload allocations (WLAs) are achieved, health risks associated with pathogens are expected to be minimal.

Phase I and Phase II municipal dischargers are the most significant controllable sources of bacteria. With respect to Phase II dischargers, the Bacteria I TMDL is "implemented primarily by requiring compliance with the existing general WDRs and NPDES requirements that have been issued for Phase II MS4 discharges." Section F.5 of this Order requires dischargers within the impaired water quality segments identified in the Bacteria I TMDL to develop and/or implement a Storm Water Pollution Prevention Plans (SWPPP). This Order also requires enrolled Phase II dischargers to identify all potential bacteria contributions from their site and implement pollutant control strategies and BMPs to reduce bacteria. Non-storm water discharges are not authorized unless they meet the requirements as set forth in section B of this Order.

Because Phase II dischargers are required to develop SWPPPs with BMP implementation strategies to reduce the bacteria loads in accordance with the TMDL implementation schedule, Phase II MS4 dischargers that are enrolled and in compliance with the provisions of this Order are deemed in compliance with the Bacteria I TMDL unless they are identified as a significant source of bacteria as discussed below. The legally responsible parties (LRPs) must demonstrate that the discharges from the Phase II facility do not contribute to the bacteria wet and dry mass load impairments through monitoring data. The Regional Water Boards retain the authority to require Phase II MS4 dischargers to revise their SWPPPs, EPA Reports, or monitoring programs as well as to direct a discharger to obtain an individual NPDES permit if additional controls are necessary.

Phase II Entities:
The Bacteria Project I TMDL identifies responsible dischargers contributing to indicator bacteria exceedances in REC-1 designated receiving waters for 20 listings of beaches and inland water bodies. The specific Phase II entities within the impaired water quality segments identified in the Bacteria I TMDL are: the United States Marine Corps Base Camp Pendleton, the University of California, San Diego, San Diego State University, California State University, San Marcos, the 22nd Agricultural Association, the Marine Corps Air Station Miramar, the North County Transit District and the San Diego Veterans Administration Medical Center, all Non-Traditional MS4s.

Wasteload Allocations:
The Bacteria Project I TMDL basin plan amendment assigned the total WLA for each indicator bacteria for wet and dry mass loading to receiving waters to all identified Phase II dischargers.

The allowable load consists of two parts: 1) the bacteria load that is calculated based on the San Diego Regional Water Board's REC-1 WQOs and, 2) the bacteria load that is associated with the allowable exceedance frequency (i.e. allowable exceedance days). Allowable exceedance days are calculated based on the allowable exceedance frequency and total number of wet days in a year.

Dry Weather WLA
The Bacteria I TMDL assumes no discharge of surface runoff or bacteria from agricultural, open space, and CalTrans land uses. As such, the dry weather WLA was assigned entirely to the Municipal MS4s (Phase I and Phase II). Table 1, below, excerpts the dry weather WLAs assigned for Municipal MS4s (Phase I and Phase II) within the impaired water quality segments identified in the Bacteria I TMDL.

Wet Weather WLA
The Wet Weather TMDL discharges of surface runoff and bacteria was assigned to all land use allocations. The WLAs for Caltrans, agricultural, and open space were set to the existing bacteria loads predicted for wet weather. The remainder of the wasteload allocation was assigned to Municipal MS4s (Phase I and Phase II). Table 1, below, excerpts the wet weather WLAs assigned for Municipal MS4s (Phase I and Phase II) within the impaired water quality segments identified in the Bacteria I TMDL.

Table 1 – Excerpts of Wasteload Allocations

Watershed	Fecal Coliform WLA		Enterococcus WLA		Total Coliform WLA	
	Wet Weather Billion MPN/year	Dry Weather Billion MPN/Month	Wet Weather Billion MPN/year	Dry Weather Billion MPN/Month	Wet Weather Billion MPN/year	Dry Weather Billion MPN/Month
San Joaquin Hills / Laguna Beach HSAs (901.11 and 901.12)	37,167	227	66,417	40	880,652	1,134
Aliso HSA (901.13)	477,069	242	735,490	40	8,923,264	1,208
Dana Point HSA (901.14)	152,446	92	219,528	16	3,404,008	462
Lower San Juan HSA (901.27)	1,156,419	1,665	1,385,094	275	16,093,160	8,342
San Clemente HA (901.30)	192,653	192	295,668	33	3,477,739	958
San Luis Rey HU (903.00)	914,026	1,058	1,300,235	185	14,373,954	5,289
San Marcos HA (904.50)	6,558	26	23,771	5	298,430	129
San Dieguito HU (905.50)	798,175	1,293	1,763,603	226	16,660,538	6,468

Watershed	Fecal Coliform WLA		Enterococcus WLA		Total Coliform WLA	
	Wet Weather Billion MPN/year	Dry Weather Billion MPN/Month	Wet Weather Billion MPN/year	Dry Weather Billion MPN/Month	Wet Weather Billion MPN/year	Dry Weather Billion MPN/Month
Miramar Reservoir HA (906.10)	6,703	7	8,109	1	171,436	36
Scripps HA (906.30)	101,253	119	232,035	21	3,447,764	594
Tecolote HA (906.5)	126,806	234	471,211	39	5,136,598	1,171
Mission San Diego/Santee HSAs (907.11 and 907.12)	221,117	1,506	890,617	248	10,790,520	7,529
Chollas HSA(908.22)	252,479	398	802,918	66	9,880,784	1,991

Deliverables/Actions Required:
Implementation actions applicable to Phase II dischargers and the relevant attainment deadlines set forth in the TMDL are provided below.

Implementation Action	Responsible Party	Date
Submit annual progress reports or Update SWPPPs/SWMPS/LRPS in accordance with RB Accepted LRPs	Phase II Permittees	Upon Enrollment in General Permit
Meet Wet and Dry Weather Frequency Exceedance Milestones	Phase II MS4s	
50% Reductions[1,3] – Priority[2] 1		April 4, 2016
50% Reductions[1,3] – Priority[2] 2		April 4, 2017
50% Reductions[1,3] – Priority[2] 3		April 4, 2018
100% Reductions[1,3] – Priority[2] 1,2,3		April 2, 2021+

Notes:
[1] Wet: single sample maximum REC-1 WQOs Dry: 30-day geometric mean REC-1 WQOs. The percent reduction for each compliance year applies to the total number of samples taken that comply with Resolution No. R9-2010-0001. The maximum allowable percent exceedance frequency for the single sample maximum (wet weather days only) is 22% (Resolution No. R9-2010-0001, Finding 10). For dry weather days, there is no maximum allowable exceedance and it is set at 0%. The Compliance Year percent reductions are based on the total number of samples taken. For Example: If in Year 5 of the compliance schedule, 100 samples are taken, only 50% of those samples can exceed the single sample maximum for wet weather by 22% of the maximum allowable percent exceedance frequency for the single sample maximum. By Year 10+, no samples can exceed the Exceedance Frequency. Baseline years for wet and dry days shall be as identified in Order No R9 2015-0001 Attachment E for the Bacteria I TMDL.
[2] Priorities are defined in Resolution No. R9-2010-0001, Attachment A, pg. 63-65.
[3] Phase II MS4 enrolled under the State General Permit for Small MS4s or issued an individual NPDES permit, are considered a Municipal Discharger along with Phase I MS4s in this Implementation Milestone item.

The Bacteria I TMDL also requires Phase II dischargers to take other actions to control their risk of bacteria discharges such as monitoring. Because Phase I MS4s often discharge directly into the receiving waters addressed by the TMDL, the Bacteria I TMDL states that Phase I MS4s are primarily responsible for conducting the TMDL compliance monitoring. However, Phase II MS4s are also responsible for monitoring to identify sources that may need additional controls to reduce bacteria loads. Enrollment in this Order satisfies these monitoring obligations because all Phase II MS4 dischargers assigned a WLA in a TMDL are required to conduct the monitoring in Attachment G pursuant to section F.5.i.

The Phase II Entities, listed above, must be in compliance with the final TMDL requirements according to the following attainment dates:

Constituent	Dry Weather TMDL Attainment Date	Wet Weather TMDL Attainment Date*
Total Coliform		April 4, 2031

Fecal Coliform	April 4, 2021	(April 4, 2021)
Enterococcus		

* The Wet Weather TMDL Attainment Date in parenthesis applies if the applicable Storm Water Pollution Prevention Plan does not include load reduction programs for other constituents (e.g. metals, pesticides, trash, nutrients, sediment, etc.) together with bacteria load reduction requirements of this TMDL.

A Storm Water Pollution Prevention Plan that includes a bacteria load reduction program is expected to include information similar to what is described in the section called Bacteria Load Reduction Plan Outline in Appendix P of the Final Technical Report to Order No. 2010-0001. A Storm Water Pollution Prevention Plan that includes a load reduction program for multiple constituents together with bacteria load controls is expected to include information similar to what is described in the section called Comprehensive Load Reduction Plan Outline in Appendix P of the Final Technical Report to Order No. 2010-0001. Some of the components described in both outlines may be satisfied through collaboration with the Phase I MS4 dischargers, as their efforts to comply with the Bacteria TMDL include implementing controls, monitoring, and reporting.

Los Peñasquitos Lagoon Sediment TMDL

The Los Peñasquitos watershed area (Hydrologic Unit (HU) 906.00) includes the Los Peñasquitos Lagoon, the Carroll Canyon Creek, Los Peñasquitos Creek, and Carmel Creek. The Los Peñasquitos Lagoon Sediment TMDL addresses the Clean Water Act section 303(d) sediment impairment for the lagoon for impacts resulting from rapid sedimentation and habitat loss.

Sediment is particulate organic and inorganic matter that is mobilized by erosion due to wind, precipitation or anthropogenic causes and carried by water. Sediment is a natural occurrence found in runoff from all locations in the watershed in varying concentrations. Concentrated flow with intensified velocities or volumes has the capability to magnify erosion rates resulting in rill erosion, gully erosion, and channel incision which correlates to an increased sediment supply into the Lagoon. Impacts from sediment in the Lagoon include reduced tidal mixing in lagoon channels, degraded and/or net loss of salt marsh vegetation, increased potential for flooding surrounding areas, increased turbidity, and constricted wildlife corridors.

Reducing erosion and concentrated flows by utilizing Best Management Practices (BMPs) that stabilize loose soil sources and/or retaining storm water onsite will decrease the impacts from excessive and rapid sediment transport into the lagoon.

Phase II Entities:

The San Diego Regional Water Board has determined that the Marine Corps Air Station, Miramar, the North County Transit District, the San Diego Veterans Administration Medical Center and the University of California, San Diego, Non-Traditional MS4s, are “Phase II MS4 permittees” subject to this Order and are responsible for implementing the requirements of this TMDL.

Wasteload Allocations:

The Los Peñasquitos Lagoon TMDL basin plan amendment assigned interim and final WLAs to all identified responsible parties. WLAs are expressed in effluent limitations. Interim effluent limitations are described in Table 1 with a final effluent limitation of 2,580 tons/year assigned to all identified responsible parties. Responsible parties are jointly responsible for meeting these wasteload reduction allocations. As such, Phase II dischargers within the Los Peñasquitos watershed are required to either reduce site sediment loads to the receiving water body or demonstrating that the site discharges are not causing exceedances of the water quality based effluent limitations in Table 1 (interim WQBELs) and the final WQBEL of 2,580 tons/year. Phase II dischargers are also required to sample for total suspended solids

(TSS) concentrations and representative, or estimated, flow rates from discharge locations in addition to quantify contributions of sediment loads from their sites that cause or threaten to cause an exceedance of the effluent limitations in Table 1 or the final WLA.

Interim WLAs:

Table 1: Interim Water Quality Based Effluent Limitations Expressed as a Wet Season Load in MS4 Discharges from the Watershed to Los Peñasquitos Lagoon

Constituent	Interim Effluent Limitations	
Sediment	Interim Effluent Limitation #1	6,691 tons/wet season
	Interim Effluent Limitation #2	5,663 tons/wet season
	Interim Effluent Limitation #3	4,636 tons/wet season
	Interim Effluent Limitation #4	3,608 tons/wet season

*Phase I MS4s, Phase II MS4s, Caltrans, and general construction and industrial permit dischargers are jointly responsible for achieving the interim and final effluent limitations.

Final WLAs:

The final Watershed Wasteload Allocation (Watershed WLA) of 2,580 tons/year is assigned collectively to all of the responsible parties identified in the TMDL and represents all current point and nonpoint sources of sediment from the watershed to the Lagoon. Attainment of the Final Watershed WLA requires a 67% total load reduction of sediment from the watershed.

Deliverables/Actions Required:

The implementation actions applicable to Phase II dischargers and the relevant compliance deadlines set forth in the TMDL are provided below.

Implementation Action	Responsible Party	Date
Revision of SWPPPs	Construction, Industrial, and Phase II Permittees	July 14, 2015
Meet Additional Monitoring Requirements: • Provide total suspended solids (TSS) concentrations and estimate of a representative flow rate from their facility discharge points during each wet season for one storm event of 0.5 inches or greater	Phase II MS4s, and general construction and industrial NPDES enrollees, and other WDR and NPDES permittees in the watershed.	July 14, 2015
Meet Additional Reporting Requirements: • Submit TSS concentrations and the representative flow estimate as a PDF attachment to SMARTS entitled *Los Peñasquitos Lagoon Sediment TMDL Monitoring* annually on July 14	All Phase II MS4s, general construction and industrial NPDES enrollees, and other WDR and NPDES permittees in the watershed.	July 14, 2015
Meet Interim Milestones: • 6,691 tons/wet season • 5,663 tons/wet season • 4,636 tons/wet season • 3,608 tons/wet season	All Phase I, Phase II MS4s, Caltrans, and general construction and industrial NPDES enrollees, and other WDR and NPDES permittees in the watershed.	 December 31, 2019 December 31, 2023 December 31, 2027 December 31, 2029

Implementation Action	Responsible Party	Date
Meet Final Milestone: • 2,580 tons/wet season	All Phase I, Phase II MS4s, Caltrans, and general construction and industrial NPDES enrollees, and other WDR and NPDES permittees in the watershed.	July 14, 2034

The Los Peñasquitos Lagoon Sediment TMDL requires all responsible parties to submit a Load Reduction Plan. All enrolled dischargers must identify all potential sediment contributions from their site, implement BMPs to reduce sediment and erosion, and sample discharges for flow rate and total suspended solids (TSS) to assess the facility's effect on the receiving water body and to inform the Phase I Watershed Management Area Water Quality Improvement Plan. A discharger's development or an update of a SWPPP in accordance with section F.5.f.4 satisfies the TMDL requirement to prepare a Load Reduction Plan because this Order requires enrolled dischargers to take actions to control their risk of sediment discharges. Additionally, non-storm water discharges are not authorized unless they meet the requirements as set forth in section B of this Order.

In addition to the monitoring requirements in sections E.13 (b) and E.15 (d) of the Order, Phase II dischargers are required to provide TSS concentrations and an estimate of a representative flow rate from their facility during each wet season for one storm event of 0.5 inches or greater. The Phase II discharger shall submit the TSS concentrations and representative flow estimates as a PDF attachment to SMARTS entitled *Los Peñasquitos Lagoon Sediment TMDL Monitoring* annually on July 14.

Monitoring and Reporting
The Los Peñasquitos Lagoon Sediment TMDL requires all Responsible Parties to contribute information regarding the amount of sediment discharged from their facilities.[48] This monitoring must address, at a minimum, representative flow rates and TSS concentrations whenever long-term discharges[49] occur. The monitoring program set forth in sections E.13 (b) and E.15 (d) of the General Permit only partially meets these requirements because the General Permit does not require dischargers to monitor for representative flow rates. Therefore, dischargers must conduct additional monitoring to that required in sections E.13 (b) and E.15 (d) of the General Permit to be in compliance with the Los Peñasquitos Lagoon Sediment TMDL.

Representative flow rate can be determined by using one of the following methods: 1) flow meter or 2) the float method. The float method is a field calculated estimate in accordance with the US EPA's NPDES Storm Water Sampling Guidance Document[50] for estimating flow rates.[51] To conduct the float method, the Discharger determines the cross sectional area of the representative discharge by estimating the flow depth and flow width in feet. The flow path must be a minimum of five feet in length. For ponded or no flow, a discharger shall record a flow rate of zero. The velocity[52] is estimated by measuring the time it takes the float (e.g. a

[48] Resolution No. R9-2012-0033, Technical Report, p. A-9

[49] The TMDL does not define the duration of a rainfall event that would result in a "long term discharge" that is required to be monitored. Based on the TMDL's findings and source identification, increased flow and sedimentation impact the lagoon primarily during wet weather rainfall events. The San Diego Water Board has determined that the definition of "a long term discharge" is equivalent to a storm event that is 0.5 inches or greater because this size of a rain event is likely to result in the type of discharge that impacts the lagoon.

[50] USEPA. NPDES Storm Water Sampling Guidance Document, EPA 833-8-92-001, July 1992, pp.49-50, sections 3.2.2 - 3.2.4, Estimating Total Flow Volumes for the Sampled Rain Event, exhibits 3-8,3-9, http://www3.epa.gov/npdes/pubs/owm0093.pdf, Estimating Flow Rates – Float Method

[51] Flow rate (cfs) = velocity (ft/sec) x Area (sf); cfs = cubic feet per second; sf = square feet; Area = flow depth (ft) by flow width (ft).

[52] Velocity = length from point A to point B/time of travel

floatable object, such as an orange peel or similar object), to float between point A and point B.[53] The flow rate shall be estimated for two 15 minute intervals.

The purpose of determining the flow rate is to calculate[54] the amount (i.e. load) of sediment being discharged from the site and informing a discharger as to whether their discharge is in compliance with the watershed WQBEL. Determination of the TSS concentrations and flow rate shall be conducted at a discharger's site during the wet season (October 1 through April 30) during one storm event of 0.5 inches or greater. Regardless of the method used to determine a representative flow rate, flow rates shall be completed concurrently with the TMDL's required TSS sampling.

Dischargers shall report results of all required monitoring annually as part of their Annual Report. Specifically, flow and TSS data shall be reported as a PDF attachment to SMARTS with the Annual Report entitled *Los Peñasquitos Lagoon Sediment TMDL Monitoring*. Pursuant to section E.16, as amended, of this General Permit, Annual Reports are due on or before October 15. Submittal of the General Permit Annual Report meets the TMDL requirement to inform the Phase I MS4s in the Los Peñasquitos Watershed Management Area their efforts to achieve attainment of the watershed WLA and support restoration of the Lagoon salt marsh.

Compliance Determination

The Los Peñasquitos Lagoon Sediment TMDL includes interim attainment milestones for Phase II dischargers, in addition to the final attainment milestone date of July 14, 2034. The Los Peñasquitos Lagoon TMDL staff report states that "it is the responsibility of the Phase I MS4 Copermittees to assume the lead role in coordinating and carrying out the necessary actions, compliance monitoring requirements, and successful implementation of the adaptive management framework required as part of this TMDL." Therefore, Phase II MS4 dischargers in the Los Peñasquitos watershed "are assumed to be in compliance with the TMDL and their contribution to the total WLA if they:

1) Are enrolled in this Order; and
2) Have updated their SWPPP to include the BMPS to be implemented with monitoring required to assess the facility or property effects on the WLA; and
3) Are in compliance with this Order, and
4) Are conducting facility and monitoring assessments as required by this Order and that monitoring shows the Phase II MS4 responsible party discharges are not contributing to the sediment impairment in the Lagoon.

Phase II dischargers are encouraged to coordinate with Phase I Copermittees to meet the applicable TMDL load reduction requirements in Attachment G using an adaptive framework approach. Phase I Copermittees described the adaptive framework approach for each Watershed Management Area in the San Diego Region in a watershed specific Water Quality Improvement Plan. Coordinated efforts by both Phase I and Phase II dischargers will accomplish the wasteload reductions required in the TMDLs faster and achieve the ultimate goal of improving water quality as soon as possible.

Moreover, the San Diego Regional Water Board retains the authority to require Phase II dischargers within the Los Peñasquitos watershed to revise their SWPPPs, ERA Reports, or monitoring programs as well as to direct a discharger to obtain an individual NPDES permit if

[53] Example: flow length = 5 feet; time of travel from point A to point B = 30 seconds. Flow depth is equal to 0.5 feet. Flow width = 1 foot. V= 5 feet/30 seconds = 0.17 ft/sec. Area=0.5 ft X 1.0 ft = .5 sf. Flow rate = Q = 0.17 ft/sec x 0.5 sf = 0.085 cfs

[54] Load, or mass of a pollutant, is calculated by multiplying flow (Q) cfs x pollutant concentration (mg/L); US EPA NPDES Permit Writer's Manual, pp. 6.24 -6.25

additional controls are necessary to meet the requirements of this TMDL.

XIII. STORM WATER MANAGEMENT PROGRAM FOR NON-TRADITIONAL MS4s

Differences between Traditional and Non-traditional MS4s

Because of the differences between Traditional and Non-traditional MS4s this Order includes Section F to address their specific management structure.

Non-Traditional Small MS4s required to comply with this Order are identified in Attachment B.

Non-traditional MS4s differ from cities and counties, because most potential sources of illicit discharges and storm water pollution are associated with activities under their direct operational control.

Some Non-traditional MS4s may also lack the legal authority or employ a different type of enforcement mechanism than a city/county government to implement their storm water program.

Certain Non-traditional Small MS4s such as Department of Defense and Department of Corrections and Rehabilitation Permittees required exemption from certain provisions due to security risks and/or compromised facility security.

Program Management – Applicable to all Non-traditional MS4 Categories
Legal Authority: Clean Water Act § 40 CFR 122.26(d)(2)(i) and 40 CFR 122.34(b)(3)(ii)(B), (b)(4)(ii)(A), and (b)(5)(ii)(B).
MS4 Permit Improvement Guide, U.S. EPA, April 2010, EPA 833-R-10-001; MS4 Program Evaluation Guidance, U.S. EPA , EPA-833-R-07-003

Program Management

Program Management is essential to ensure that all elements of the storm water program are implemented on schedule and consistent with the Order requirements.

See Online Annual Reporting for further discussion later in this section.

Legal Authority

Legal authority to control discharges into a Permittee's storm sewer system is critical for compliance. Most Non-traditional MS4s lack the legal authority or employ a different type of enforcement mechanism than a city or county government to implement its storm water program. To the extent allowable under State and federal law, this Order requires each Non-traditional MS4 to operate with sufficient legal authority to control discharges into and from its MS4. The legal authority may be demonstrated by a combination of statutes, permits, contracts, orders, and interagency agreements. Non-traditional MS4 Permittees also do not generally have the authority to impose a monetary penalty. Although these differences exist, just like Traditional MS4s, Non-traditional MS4s must have the legal authority to develop, implement, and enforce the program.

Coordination

This Order allows Non-traditional MS4s to coordinate their storm water programs with other entities within or adjacent to their MS4 and allows the concept of a Separate

Implementing Entity. A Separate Implementing Entity allows Permittees to leverage resources and skills. Additional information regarding SIEs is discussed later in this section.

Education and Outreach Program
Legal Authority: Clean Water Act § 40 CFR 122.34(b)(1).
MS4 Permit Improvement Guide, U.S. EPA, April 2010, EPA 833-R-10-001

Because the population served by most Non-traditional MS4s will generally be served by the public education and outreach efforts of the local jurisdiction, the most useful supplement to those education and outreach efforts would be to label the Non-traditional MS4 catch basins. However, some Non-traditional MS4s such as universities have tenants and residents that may not be as effectively served by the local jurisdiction's public education and outreach program, therefore a separate education and outreach program may be needed. Where the local jurisdiction's public education and outreach efforts do effectively target and reach these tenant and resident populations, the Non-traditional MS4s are not expected to duplicate those efforts.

Some Non-traditional MS4s are well suited for regional education and outreach. For example, school districts often have several schools located with a watershed or regional boundary. This Order allows Non-traditional MS4s to comply with the Education and Outreach provisions through a regional collaborative effort.

Regional outreach and collaboration requires the Permittees to define a uniform and consistent message, deciding how best to communicate the message, and how to facilitate behavioral changes.

Public Involvement and Participation
Legal Authority: Clean Water Act § 40 CFR 122.34(b)(2)).
MS4 Permit Improvement Guide, U.S. EPA, April 2010, EPA 833-R-10-001

Non-traditional MS4s have the same responsibilities as Traditional MS4s to ensure the storm water program is publicized and must involve the population they serve in the development of the program. However, the most effective BMP for Non-traditional MS4s is to provide up-to-date information about the storm water program online if the Non-traditional MS4 maintains a website, or the Non-traditional MS4 Permittee may choose to post information about their program on the local jurisdiction's website.

Illicit Discharge Detection and Elimination Program
Legal Authority: Clean Water Act § 40 CFR 122.26(d)(2)(iv)(B)
MS4 Permit Improvement Guide, U.S. EPA, April 2010, EPA 833-R-10-001

The federal Phase II regulations require all MS4s to develop a process to trace the source of illicit discharges and eliminate them. The regulations also state that appropriate enforcement procedures and actions must be included in this process.

Unlike Traditional MS4s, Non-traditional MS4s have direct control of their own staff and contractors. Therefore, the enforcement provisions identified in the Illicit Discharge Detection and Elimination program are often not applicable to Non-traditional MS4 Permittees. Non-traditional MS4 Permittees should address illicit non-storm water discharges through the implementation of a Spill Response Plan However, Non-traditional MS4 Permittees often comply with existing state/federal regulations that required a Spill Response Plan or Hazardous Materials plan that identifies notification procedures for other operators or local agencies and includes details that are similar if

not the same as a Spill Response Plan. Therefore, to leverage resources and maximize efficiencies the requirements in this Order recommend utilizing existing documents if that document contains the same information.

Construction Site Storm Water Runoff Control and Outreach Program
The purpose of this program component is to prevent sediment and other pollutants from entering the Non-traditional MS4 during the construction phase of development projects. In general, Non-traditional MS4 Permittees will obtain coverage under, and comply with, the CGP for their own construction projects. To the extent that they have the legal authority, Non-traditional MS4s must also require other entities discharging to their MS4 to obtain coverage under and comply with the CGP during the construction phase of their projects.

This Order relieves Non-traditional MS4 Permittees from development and implementation of a complete construction storm water runoff control program. This Order does require education and outreach to staff, construction site operators and contractors on how to control construction storm water runoff.

The CGP is inherently a robust permit with stringent reporting requirement for any construction project disturbing one acre or more in California. Often, Non-traditional MS4s have a few construction projects occurring at once such as those in a City or County. There are, however, very few Non-tradtional MS4s that have dozens of active construction sites. Further, Non-traditional MS4 Permittees are often both the owner and contractor of a construction project. Finally, municipal governments must review and approve erosion and sediment control plans prior to the issuance of grading permits. Most all Non-traditional MS4s do not require approval from local municipalities prior to construction activity. Conditioning of a construction project is usually conducted in-house by Non-traditional MS4 Permittee staff. If contractors are brought in to conduct construction activity, this Order requires Non-traditional MS4 Permittees to include "bullet proof" contract language ensuring construction operators or contractors comply with the CGP and implement appropriate BMPs.

Pollution Prevention and Good Housekeeping Program
Legal Authority: Clean Water Act § 40 CFR 122.34(b)(6)

MS4 Permit Improvement Guide, U.S. EPA, April 2010, EPA 833-R-10-001

Non-traditional MS4s have the same responsibilities as Traditional MS4s to prevent or reduce storm water pollution generated by their own operations, to train employees about pollution prevention/good housekeeping practices, and to identify appropriate measures to prevent or reduce the amount of storm water generated by their operations.

Post-Construction Storm Water Management Program
Legal Authority: Clean Water Act § 402(p)(3)(b); 40 C.F.R. § 122.34(b)(5).
MS4 Permit Improvement Guide, U.S. EPA, April 2010, EPA 833-R-10-001; U.S. EPA Incorporating Environmentally Sensitive Development into Municipal Stormwater Programs, EPA 833-F-07-011

This Order has specific site design and LID requirements for all projects. The LID requirements emphasize landscape-based site design features that are already required elsewhere (e.g., the California Water Efficient Landscape Ordinance). The goal during this permit term is to develop runoff retention and hydromodification control criteria that are keyed to watershed processes. Watershed management zones will be delineated

by the State Board during this permit term. The Watershed management zones will be used to identify applicable areas and appropriate criteria for runoff retention and hydromodification control. Regional Boards that have approved watershed process-based criteria for post-construction will be permitted to continue requiring Permittees to implement these criteria.

Total Maximum Daily Load (TMDL)
The Order includes Attachment G, which identifies only those approved TMDLs in which storm water or urban run-off is listed as a source. In addition, Attachment G identifies Permittees subject to TMDLs or assigned waste load allocation. If Non-traditional MS4 Permittees have been identified in Attachment G, they must implement the specific TMDL permit requirements.

Program Effectiveness Assessment
Non-traditional MS4s have the same responsibilities as Traditional MS4s to conduct quantitative evaluation of their storm water program.

Online Annual Reporting
Non-traditional MS4s have the same responsibilities as Traditional MS4s to submit online Annual Reports via SMARTS.

Separate Implementing Entity
Legal Authority: Clean Water Act § 40 CFR 122.35

This Order allows a Regulated MS4s to rely on a Separate Implementing Entity to meet permit requirements, as allowed by U.S. EPA in the Phase II regulations. Reliance on Separate Implementing Entity may be particularly beneficial for Non-Traditional MS4s. An example is a community service district that is charged with creating and implementing a municipal storm water program.

Co-application and cooperative implementation of the storm water program by any Permittee with another Permittee can maximize efficiency and reduce overall costs. Non-traditional MS4s are encouraged to co-apply with local jurisdictions and utilize shared resources to implement the storm water program. Additionally, co-application and cooperative storm water program implementation can achieve watershed-wide consistency.

A Permittee may rely on a Separate Implementing Entity to implement one or more program elements, if the Separate Implementing Entity can appropriately and adequately address the storm water issues of the Permittee. To do this, both entities must agree to the arrangement, and the Permittee must comply with the applicable parts of the Separate Implementing Entity's program.

In accordance with 40 Code of Federal Regulations, section 122.35(a)(3), the Permittee remains responsible for compliance with its permit obligations if the Separate Implementing Entity fails to implement the control measure(s) or any component thereof. Therefore, the entities are encouraged to enter into a legally binding agreement to minimize any uncertainty about compliance with the permit.

If the Non-traditional MS4 Permittee relies on a Separate Implementing Entity to implement all program elements and the Separate Implementing Entity also has a storm water permit, the Permittee relying on Separate Implementing Entity must still file an NOI via SMARTS, submit the appropriate fee and file online Annual Reports. Both parties must also submit to the appropriate Regional Water Board a certification of the arrangement. The arrangement is subject to the approval of the Regional Water Board

Executive Officer prior to filing an electronic NOI via SMARTS.

School districts present an example of where a Separate Implementing Entity arrangement may be appropriate, either by forming an agreement with a city or with an umbrella agency, such as the County Office of Education. Because schools provide a large audience for storm water education the two entities may coordinate an education program. An individual school or a school district may agree to provide a one-hour slot for all second and fifth grade classes during which the city would make its own storm water presentation. Alternatively, the school could agree to teach a lesson in conjunction with an outdoor education science project, which may also incorporate a public involvement component. Additionally, the school and the city or Office of Education may arrange to have the school's maintenance staff attend the other entity's training sessions.

XIV. RELATIONSHIP BETWEEN THE ORDER AND THE STATEWIDE GENERAL PERMIT FOR DISCHARGES OF STORM WATER ASSOCIATED WITH INDUSTRIAL ACTIVITY

In some cases, certain Non-traditional MS4s will be subject to both this Order and the IGP. The intent of both of these permits is to reduce pollutants in storm water, but neither permit's requirements totally encompass the other. This Order requires that Non-traditional MS4 operators address storm water program elements, while the IGP requires the development and implementation of a SWPPP for certain "industrial" activities as well as requiring specific visual and chemical monitoring.

In the Preamble to the Phase II regulations, U.S. EPA notes that for a combination permit to be acceptable, it must contain all of the requirements for each permit. Further, "when viewed in its entirety, a combination permit, which by necessity would need to contain all elements of otherwise separate industrial and MS4 permit requirements, and require NOI information for each separate industrial activity, may have few advantages when compared to obtaining separate MS4 and industrial general permit coverage." (64 Fed. Reg. 68781.) Where the permits do overlap, one program may reference the other. More specifically, the Good Housekeeping for Permittee Operations program element requires evaluation of Permittee operations, some of which may be covered under the IGP. The development and implementation of the SWPPP under the IGP will likely satisfy the Good Housekeeping requirements for those industrial activities. The Non-traditional MS4 storm water program may incorporate by reference the appropriate SWPPP.

There may be instances where a Non-traditional MS4 has, under the IGP, obtained coverage for the entire facility (rather than only those areas where industrial activities occur) and has developed a SWPPP that addresses all the program elements required by this Order. In these instances, the Non-traditional MS4 is not required to obtain coverage under this Order. The entity should, in such cases, provide to the appropriate Regional Water Board documentation that its SWPPP addresses all program elements.

XV. USE OF PARTNERSHIPS IN MS4 PERMITS

Since the Phase II Rule applies to all small MS4s within an urbanized area regardless of political boundaries it is very likely that multiple governments and agencies within a single geographic area are subject to NPDES permitting requirements. For example, a city government that operates a small MS4 within an urbanized area may obtain permit coverage under this Order while other MS4s in the same vicinity (such as a County, other cities, public university, or military facility) may also be covered under this Order.

All MS4s are responsible for permit compliance within their jurisdiction.

Given the potential for overlapping activities in close proximity, the State Water Board encourages MS4s in a geographic area to establish cooperative agreements in implementing their storm water programs, especially with receiving water monitoring. Partnerships and agreements between Permittees and/or other agencies can minimize unnecessary duplication of effort and result in efficient use of available resources. Sharing resources can allow MS4s to focus their efforts on high priority program components. By forming partnerships, water quality can be examined and improved on a consolidated, efficient, watershed-wide scale rather than on a piece-meal, site-by-site basis.

XVI. REGIONAL BOARD DESIGNATIONS

Designation of additional Small MS4s outside of Urbanized Areas as Regulated Small MS4s may be made by the Regional Water Boards on a case by case basis. Case by case determinations of designation are based on the potential of a Small MS4's discharges to result in exceedances of water quality standards, including impairment of designated uses, or other significant water quality impacts, including habitat and biological impacts. The tables below includes designations recommend by the Regional Water Boards prior to adoption of this Order. The Regional Water Boards may continue to make case by case determinations of designation during the permit term by notification to the discharger (which shall include a statement of reasons for the designation) and following an opportunity for public review and comment.

Traditional Small MS4s

Place name	County	Regional Board	Justification
Crescent City	Del Norte	1	7500 population and in urbanized area
Bayview CDP	Humboldt	1	Adjacent to, but outside of Eureka city limits located in southern Humboldt Bay, in unincorporated Humboldt County. Designation of these areas is needed to address pollutant sources of urbanized and urbanizing areas within 303(d) listed watersheds
Cutten CDP	Humboldt	1	Adjacent to, but outside of Eureka city limits located in southern Humboldt Bay, in unincorporated Humboldt County. Designation of this area is needed to address pollutant sources of urbanized and urbanizing areas within 303(d) listed watersheds

Humboldt Hill CDP	Humboldt	1	Adjacent to, but outside of Eureka city limits located in southern Humboldt Bay, in unincorporated Humboldt County. Designation of this area is needed to address pollutant sources of urbanized and urbanizing areas within 303(d) listed watersheds
Myrtletown CDP	Humboldt	1	Adjacent to, but outside of Eureka city limits located in southern Humboldt Bay, in unincorporated Humboldt County. Designation of this area is needed to address pollutant sources of urbanized and urbanizing areas within 303(d) listed watersheds
Pine Hills CDP	Humboldt	1	Adjacent to, but outside of Eureka city limits located in southern Humboldt Bay, in unincorporated Humboldt County. Designation of this area is needed to address pollutant sources of urbanized and urbanizing areas within 303(d) listed watersheds
Ridgewood Heights USSA	Humboldt	1	Adjacent to, but outside of Eureka city limits located in southern Humboldt Bay, in unincorporated Humboldt County. Designation of these areas is needed to address pollutant sources of urbanized and urbanizing areas within 303(d) listed watersheds
Rosewood USSA	Humboldt	1	Adjacent to, but outside of Eureka city limits located in southern Humboldt Bay, in unincorporated Humboldt County. Designation of this area is needed to address pollutant sources of urbanized and urbanizing areas within 303(d) listed watersheds
Cloverdale CDP	Sonoma	1	There are urbanized areas within the County of Sonoma not covered under the Phase I Permit. These areas are located within the Russian River watershed, a 303(d) listed watershed. Currently, there is only limited storm water management in these areas, allowing the discharge of pollutants to the impacted water body. Storm water management is needed in these areas to reduce the pollutant loads and for early TMDL implementation
Forestville CDP	Sonoma	1	There are urbanized areas within the County of Sonoma not covered under the Phase I Permit. These areas are located within the Russian River watershed, a 303(d) listed watershed. Currently, there is only limited storm water management in these areas, allowing the discharge of pollutants to the impacted water body. Storm water management is needed in these areas to reduce the pollutant loads and for early TMDL implementation

Guerneville CDP	Sonoma	1	There are urbanized areas within the County of Sonoma not covered under the Phase I Permit. These areas are located within the Russian River watershed, a 303(d) listed watershed. Currently, there is only limited storm water management in these areas, allowing the discharge of pollutants to the impacted water body. Storm water management is needed in these areas to reduce the pollutant loads and for early TMDL implementation
Monte Rio	Sonoma	1	There are urbanized areas within the County of Sonoma not covered under the Phase I Permit. These areas are located within the Russian River watershed, a 303(d) listed watershed. Currently, there is only limited storm water management in these areas, allowing the discharge of pollutants to the impacted water body. Storm water management is needed in these areas to reduce the pollutant loads and for early TMDL implementation
Occidental CDP	Sonoma	1	There are urbanized areas within the County of Sonoma not covered under the Phase I Permit. These areas are located within the Russian River watershed, a 303(d) listed watershed. Currently, there is only limited storm water management in these areas, allowing the discharge of pollutants to the impacted water body. Storm water management is needed in these areas to reduce the pollutant loads and for early TMDL implementation
Yreka City	Siskiyou	1	Discharges to a TMDL listed waterbody and identified on Attachment G
Gonzalez City	Monterey	3	Greater than 5,000 population
Moss Landing CDP	Monterey	3	Proximity to ocean areas (Monterey Bay National Marine Sanctuary, including Elkhorn slough)
Blacklake CDP	San Luis Obispo	3	Proximity to urbanized area (Oceano, Arroyo Grande, Grover Beach and Nipomo)

Cayucos CDP	San Luis Obispo	3	Greater than 2,000 population and proximity to Pacific Ocean
Lake Nacimiento CDP	San Luis Obispo	3	Greater than 2,000 population and proximity to Lake Nacimiento (drinking water source)
San Miguel	San Luis Obispo	3	Greater than 2,000 population High Growth Rate (16.8%)
Shandon CDP	San Luis Obispo	3	High Growth Rate (31.3%)
Guadalupe City	Santa Barbara	3	Incorporated area exceeding 5,000 population
Hope Ranch CDP	Santa Barbara	3	Proximity to urbanized area
Mission Canyon CDP	Santa Barbara	3	Proximity to urbanized area
Mission Hills CDP	Santa Barbara	3	Proximity to urbanized area
Toro Canyon CDP	Santa Barbara	3	Proximity to urbanized area

Live Oak CDP	Santa Cruz	3	Greater than 5,000 population Discharges to a TMDL listed waterbody and identified on Attachment G
City of Avalon	Los Angeles	4	Proximity to sensitive water body
Colusa County	Colusa	5S	Discharges to a TMDL listed waterbody and identified on Attachment G
Amador County	Amador	5S	Currently, there is only limited storm water management in this area, allowing discharge of pollutants to waters of the State already impacted with multiple constituents and parameters. Storm water management is needed in these areas to reduce the pollutant loads prior to adoption of any TMDLs, which are typically not estimated to be completed until 2020 or thereafter in many cases. Additionally, several waterbodies or waterbody segments within or bounding Amador County are 303(d) listed for invasive species (Cosumnes River, above Michigan Bar), mercury (Pardee Reservoir, Camanche Reservoir), pH - High (Amador Lake, Bear River from Allen to Upper Bear River Reservoir), copper (Camanche Reservoir), and zinc (Camanche Reservoir) according to the 2010 CWA 303(d) list. Camanche Reservoir drains to Lower Mokelumne River. The Lower Mokelumne River (in Delta Waterways, eastern portion) is 303(d) listed for chlorpyrifos, copper, mercury, dissolved oxygen, unknown toxicity, and zinc. Both the Cosumnes and Mokelumne Rivers drain to the San Joaquin River, which is 303(d) listed for these same constituents and parameters. Many of these constituents are known to bind to various size sediment particles migrating into surface waters.

Non-Traditional Small MS4s

Place name	Category	Regional Board	Justification
Petaluma Coast Guard Training Center	Defense, Department of	1	Activities that could impact water quality, fueling, maintenance. Personnel that should be educated on how their activities effect water quality.
Alameda-Contra Costa Transit District (AC Transit)	Special District	2	The Alameda-Contra Costa Transit District (AC Transit) is a large special transit district like the Valley Transit Authority (VTA) and BART which are both already designated. In order to fully regulate both large bus storage and maintenance facilities and new development related to bus stops and plazas they need to be fully regulated under the Phase II stormwater permit, as they do not fall under the local city regulatory jurisdiction for all aspects of their operations.
AMTRAK	Special District	2	Within urbanized area
Bay Area Rapid	Special District	2	Within urbanized area
CalTrain	Special District	2	Within urbanized area
Golden Gate Bridge, Highway and Transportation	Special District	2	Within urbanized area
Valley Transit	Special District	2	Within urbanized area
Port of Oakland	Port	2	Within urbanized area
Port of Redwood City	Port	2	Within urbanized area
San Jose Airport	Airport	2	Within urbanized area
Oceano Community	Community Services	3	Within urbanized area
Fort Ord Reuse Authority	Local Agency	3	Adjacent to urbanized area, Planned annexation into urbanized area
Fort Hunter Ligget, Army	Defense, Department of	3	Within urbanized area
March Air Reserve Base	Defense, Department of	8	The former March Air Reserve Base was downsized and became known as March ARB. March ARB is an active military base that covers 2,300 acres. Activities in the base proper includes military activities such as air refueling, air cargo, air reconnaissance, military

			interceptors, military housing, recreational and dining facilities, commercial air cargo, training facilities, schools, operations centers for troop transport and industrial, including airport operations. Land use activities are under Base commander authority. The base is currently covered under an individual industrial storm water permit for their industrial operations and is a stakeholder under the Lake Elsinore/Canyon Lake TMDL. In addition to industrial permit monitoring, the Base monitors their compliance with the TMDL. We believe Phase II permit coverage is an appropriate permit to address the pollutants and flows generated from Base operations. Development and redevelopment post construction controls are of particular importance to be incorporated into the base's storm water program through Phase II permit coverage.
March Joint Powers Authority	March Joint Powers Commission	8	The March JPA is a federally recognized reuse authority for the former March Air Force base. It encompasses most of the 6, 500 acres of the former active duty March Air Force Base area and approximately 450 acres adjacent to the base in the industrial area of the City of Moreno Valley. March JPA also assumed the following authorities: 1 - Land Use Authority - Land use authority was transferred to March JPA from the County of Riverside, City of Riverside, and City of Moreno Valley. The March JPA has adopted development and building codes and standards. The March JPA General Plan has been developed by the March JPA in accordance with state statutes, as well as the associated Master Environmental Impact Report.

			The March JPA General Plan is designed to implement the March Final Reuse Plan and related activities. 2 - Airport Authority - March Inland Port Airport Authority (MIPAA), is a governing body under the governance umbrella of the March JPA. MIPAA is responsible for the development and operation of the March Inland Port (MIP), a joint use aviation facility targeted for air cargo operations. The developments approved by the March JPA to date included residential, commercial and industrial sources of pollutants. About 1/8th of the area has been developed. March JPA has the authority to develop its own MS4s within their jurisdiction and connect to MS4s owned/operated by Phase 1 permittees. Many of the functions resemble that of a local agency. Therefore, March JPA should be subject to the Phase II (or they can join our Phase 1).
Miramar Marine Corps Air Station	Defense, Department of	9	Within urbanized area
General Services Administration Facilities (GSA)	Federal Facility	9	The site is the General Services Administration Facilities (GSA), located at 801 E. San Ysidro Blvd., San Ysidro, CA 92173 and is a federal facility. They are the owner and operator of a series of lateral drains which tie into a main open- trunk running and discharging along the border fence. They are responsible for the storm drains, including the new trunk slated for construction, and the entire system acts as a MS4. Additionally, GSA is the landlord of the world's busiest Land Port of Entry (LPOE). Located between San Diego and Tijuana, the San Ysidro LPOE supports 24 northbound vehicle lanes into the United States and

			six southbound lanes into Mexico. Every day, this land port serves over 50,000 northbound vehicles and 25,000 northbound pedestrians. GSA maintains border crossing services, as well as increasing efficiency, security, and safety for federal agencies and the traveling public. Looking to the future, the San Ysidro LPOE is undergoing a major expansion that will include a new northbound inspection facility, primary vehicle inspection booths, secondary inspection area, administration space, and a pedestrian processing facility. A new southbound inspection facility will also be developed, and Interstate 5 will be shifted to the west to align with Mexico's planned use of a reconstructed entry facility at the vacant Virginia Avenue/El Chaparral commercial facility.
Metropolitan Transit System (MTS)	Transportation Agency	9	The Metropolitan Transit Development Board (MTDB) was created in 1975 by the passage of California Senate Bill 101 and came into existence on January 1, 1976. In 2005, MTDB changed its name to the Metropolitan Transit System (MTS). MTS licenses and regulates taxicabs, jitneys, and other private for-hire passenger transportation services by contract with the cities of San Diego, El Cajon, Imperial Beach, La Mesa, Lemon Grove, Poway, and Santee. MTS provides bus and rail services directly or by contract with public or private operators. MTS determines the routing, stops, frequency of service, and hours of operation for its existing services. MTS does a significant amount of their vehicles maintenance.
North County Transit District (NCTD)	Transportation Agency	9	North county Transit district (NCTD) owns and operates the

			Sprinter Rail located along 22 miles of the rail corridor (see attached file) and adjacent staging areas within the Cities of Oceanside, Vista, San Marcos and Escondido and within the County of San Diego. The project's totaldisturbed acreage is approximately 280 acres. Storm water runoff from the project discharges directly into Waters of the State, the Municipal Separate Storm Sewer System (MS4) and, ultimately discharging to Loma Alta Creek, Buena Vista Creek, Buena Creek, San Marcos Creek, Escondido Creek and unmanned tributaries. Beginning October 2007, during construction, the San Diego Water Board hadidentified significant violations of the Stormwater Permit (99-08-DWQ). NCTD threatens to continue to discharge waste (e.g. sediment and sediment-laden water) in violation of the Basin Plan Prohibitions.

ATTACHMENT G
Region-Specific Requirements for Implementation of Total Maximum Daily Loads (TMDLs)

The following pages include amendments in accordance with Order WQ 2017-0031-DWQ amending Order 2013-0001-DWQ, Phase II General Permit for Storm Water Discharges from Small Municipal Separate Storm Sewer Systems (Phase II Small MS4s), NPDES Permit CAS000004.

All changes are shown in Underline / ~~Strikeout~~ to show additions and deletions, respectively. The following exceptions apply:

- The order of Permittees in this document has been revised to alphabetize the Permittees according to name, under each specific TMDL. To aid in readability, changes in the listing order of the Permittees included in this Order, as adopted in 2013, are not shown in Underline/Strikeout.
- Formatting changes are not shown in Underline/Strikeout.

ATTACHMENT G – Region-Specific Requirements
Regional Water Board-Approved TMDLs with urban runoff listed as a source

TMDL Effective Date of Basin Plan Amendment (BPA) Water Board Resolution No.	~~Municipality~~Phase II Entities	Impaired Water Body	Deliverables/Actions Required~~/Waste Load Allocations~~
Region 1: North Coast Regional Water Board			
~~**Laguna de Santa Rosa**~~ ~~*Ammonia & Dissolved Oxygen*~~ ~~Effective Date:~~ ~~May 4, 1995~~ ~~BPA: none~~ ~~Resolution No.:~~ ~~none~~	~~City of~~ ~~Cotati~~ ~~City of~~ ~~Rohnert Park~~ ~~City of~~ ~~Sebastopol~~ ~~Town of~~ ~~Windsor~~	~~Laguna de Santa Rosa~~	~~**Purpose of Provisions**~~ ~~The purpose of these provisions is to implement the requirements of the Waste Reduction Strategy for the Laguna de Santa Rosa which includes TMDLs for nitrogen and ammonia to address low dissolved oxygen and high ammonia impairments.~~ ~~**Requirements for Implementing the Waste Reduction Strategy for the Laguna de Santa Rosa**~~ ~~Implement a storm water runoff program that is aimed at nutrient load reduction and pollution control through the execution of the provisions of this Phase II Small MS4 General Permit.~~
TMDL for Shasta River Watershed *Temperature & Dissolved Oxygen* Effective Date: January 26, 2007 BPA: Action Plan for the Shasta River Watershed Temperature and Dissolved Oxygen Total Maximum Daily Loads Resolution R1-2006-0052	City of Yreka	Shasta River	~~**Purpose of Provisions**~~ ~~The purpose of these provisions is to implement the requirements of the Action Plan for the Shasta River Watershed Temperature and Dissolved Oxygen TMDLs.~~ **Requirements for Implementing the ~~Action Plan for the Shasta River Watershed Temperature and Dissolved Oxygen~~ TMDL~~s~~** ~~Within one year of approval of the Phase II Small MS4 General Permit, t~~The City of Yreka ~~shall~~ develop<u>ed</u> a Plan to minimize, control, and preferably prevent discharges of fine sediment, nutrients and other oxygen-consuming materials, and elevated water temperature waste discharge from affecting waters of the Shasta River and its tributaries. The ~~Plan shall be submitted to the~~ Regional Water Board Executive Officer ~~for review, comment, and~~ approv~~a~~led the City of Yreka's Plan. <u>No later than</u> ~~Within four years of approval of the Phase II Small MS4 General Permit~~ <u>July 1, 2018</u>, the City of Yreka shall begin implementing the Plan. <u>The TMDL does not specify a wasteload or load allocation for the City of Yreka.</u>

ATTACHMENT G – Region-Specific Requirements
Regional Water Board-Approved TMDLs with urban runoff listed as a source

TMDL Effective Date Basin Plan Amendment (BPA) Water Board Res. No.	Phase II ~~Municipality~~ Entities	Impaired Water Body	Deliverables/Actions Required/~~Waste Load Allocations~~
Region 2: San Francisco Regional Water Board			
TMDL for Napa River *Sediment* Effective Date: January 20, 2011 BPA: Chapter 7, Water Quality Attainment Strategies including TMDLs Resolution R2-2009-0064	City of American Canyon City of Calistoga City of St. Helena City of Napa Napa County Town of Yountville	Napa River	~~**Purpose of Provisions**~~ ~~The purpose of these provisions is to implement the requirements of the Napa River sediment TMDL.~~ ~~**TMDL Wasteload and Load Allocations**~~ ~~The Napa River sediment TMDL assigns to municipal storm water a wasteload allocation and load allocation for the roads source category.~~ ~~The sediment wasteload allocation is 600 tons/year and applies to storm water runoff discharges from municipalities' facilities associated with construction and/or maintenance activities.~~ ~~The load allocation 27,000 metric tons/year of sediment is for the road and stream crossings category and applies to stream crossings and storm water runoff discharges associated with operation of public and private roads, paved and unpaved, within the watershed not otherwise covered by NPDES permits. Municipalities share this allocation with another entity (i.e., Caltrans)~~ **Requirements for Implementing the ~~Napa River Sediment~~ TMDL ~~Wasteload and Load Allocations~~** **A. Implementation of Sediment Wasteload Allocations (WLAs)** i. To attain the wasteload allocation, municipalities identified in this TMDL section shall comply with the ~~construction and maintenance~~requirements in this TMDL section and the Order. **B. Implementation of Sediment Load Allocations (LAs)** i. To attain the shared load allocation of 27,000 metric tons/year, ~~municipalities~~ Napa County shall ~~determine~~ implement ~~opportunities~~ measures to ~~retrofit~~ repair and/or reconstruction ~~of~~ road crossings to minimize road-related sediment delivery (≤500 cubic yards/mile per 20-year period) to stream channels. Specifically, to reduce road-related erosion and protect stream-riparian habitat conditions, ~~municipalities~~Napa County shall by July 1, 2018~~October 31, 2014~~: • ~~Adopt and implement~~Update best management practices for maintenance of unimproved (dirt/gravel) roads to ensure that the LA will be met, and implement these best management practices, • ~~Conduct~~Finalize a survey of stream-crossings associated with paved public roadways, and • ~~Develop~~ By December 31, 2018 submit a schedule ~~a prioritized implementation plan~~ for the maintenance of unpaved roads and implementation of BMPs to ensure attainment of the LA and the ~~repair~~repair and/or replacement of high priority crossings/culverts identified in the survey, to the Regional Water Board Executive Officer for approval.

ATTACHMENT G – Region-Specific Requirements
Regional Water Board-Approved TMDLs with urban runoff listed as a source

TMDL Effective Date Basin Plan Amendment (BPA) Water Board Res. No.	Phase II ~~Municipality~~ Entities	Impaired Water Body	Deliverables/Actions Required/~~Waste Load Allocations~~
Region 2: San Francisco Regional Water Board			
			For paved roads, erosion and sediment control actions shall primarily focus on road crossings to meet the sediment load allocation. The final deadline for attainment of the WLA and LA is not specified in the TMDL. Therefore, municipalities identified in this TMDL section shall propose a timeline to attain the WLAs and LAs in the shortest practicable time, subject to Regional Water Board Executive Officer approval. Attainment of the WLA and LA shall be demonstrated as specified in Section E.15.a.(ii)/Section F.5.i.1.(ii). of this Order.
TMDL for Sonoma Creek *Sediment* Effective Date: September 8, 2010 BPA: Chapter 7, Water Quality Attainment Strategies including TMDLs Resolution ~~No.~~ R2-2008-0103	City of Sonoma County of Sonoma	Sonoma Creek	~~**Purpose of Provisions**~~ ~~The purpose of these provisions is to implement the requirements of the Sonoma Creek sediment TMDL.~~ ~~**TMDL Wasteload and Load Allocations**~~ ~~The Sonoma Creek sediment TMDL assigns to municipal storm water a wasteload allocation and load allocation for the roads source category.~~ ~~The sediment wasteload allocation is 600 tons/year and applies to storm water runoff discharges from municipalities' facilities associated with construction and/or maintenance activities.~~ ~~The load allocation 2,100 tons/year of sediment is for the road and stream crossings category and applies to stream crossings and storm water runoff discharges associated with operation of public and private roads, paved and upaved, within the watershed not otherwise covered by NPDES permits. Municipalities share this allocation with another entity (i.e., Caltrans).~~ **Requirements for Implementing the ~~Sonoma Creek Sediment~~ TMDL ~~Wasteload and Load Allocations~~** **A. Implementation of Sediment Wasteload Allocations** i. To attain the wasteload allocation, ~~municipalities~~ Phase II entities identified in this TMDL section shall comply with the construction and maintenance requirements, sections E.10 and E.11, of this Order. ~~i.~~ii. The municipalities identified in this TMDL section shall continue to implement actions proposed in their Storm Water Management Plans approved under the 2003 Permit[1] to attenuate peak flows and durations from new and redevelopment projects. Implementation requirements for implementation actions are incorporated herein by reference. Municipalities may propose amendments to those Implementation Actions by submitting an updated Storm Water Management Plan to the Regional Water Board.

[1] State Water Board Order 2003-0005-DWQ

ATTACHMENT G – Region-Specific Requirements
Regional Water Board-Approved TMDLs with urban runoff listed as a source

TMDL Effective Date Basin Plan Amendment (BPA) Water Board Res. No.	Phase II ~~Municipality~~ Entities	Impaired Water Body	Deliverables/Actions Required/~~Waste Load Allocations~~
Region 2: San Francisco Regional Water Board			
TMDL for Sonoma Creek *Sediment* (Continued)			**B. Implementation of Sediment Load Allocations** i. To attain the shared load allocation of 2,100 tons/year, municipalities identified in this TMDL section shall ~~determine~~ implement opportunities to retrofit and/or reconstruct~~ion of~~ road crossings to minimize road-related sediment delivery to stream channels. ~~Specifically, t~~To reduce road-related erosion and protect stream-riparian habitat conditions, the municipalities shall implement by July 1, 2018 the following actions: • ~~Adopt and~~ Continue to ~~i~~Implement best management practices for maintenance of unimproved (dirt/gravel) roads, • ~~Conduct~~ Finalize a survey of stream-crossings associated with paved public roadways, and • ~~Develop~~ By December 31, 2018, submit a schedule ~~a prioritized implementation plan~~ for the ~~repair~~retrofit and/or replacement of high priority crossings/culverts to the Regional Water Board Executive Officer for approval. For paved roads, erosion and sediment control actions shall primarily focus on road crossings to meet the sediment load allocation. The final deadline for attainment of the wasteload allocations and load allocations is not specified in the TMDL. Therefore, municipalities identified in this TMDL section shall propose a timeline to attain the WLAs and LAs in the shortest practicable time, subject to Regional Water Board Executive Officer approval. Attainment of the WLA and LA shall be demonstrated as specified in Section E.15.a.(ii)/Section F.5.i.1.(ii) of this Order. Municipalities identified in this section shall attenuate peak flows and durations from new and redevelopment projects by July 1, 2018.
	Sonoma County Water Agency	Sonoma Creek	**Requirements for Sonoma County Water Agency for Implementing TMDL** 1. The Sonoma County Water Agency shall continue to implement actions as specified in the Storm Water Management Plan approved under the prior 2003 General Permit[2]. Implementation requirements for implementation actions are incorporated herein by reference. The Sonoma County Water Agency may propose amendments to those Implementation Actions by submitting an updated Storm Water Management Plan to the Regional Water Board. 2. Report progress on TMDL implementation measures in the Annual Report. The final deadline for attainment of the WLA and LA is not specified in the TMDL. Therefore, Sonoma County Water Agency shall propose a timeline to attain the WLAs and LAs in the shortest practicable time, subject to Regional Water Board Executive Officer approval. Attainment of the WLA and LA shall be demonstrated as specified in Section E.15.a.(ii)/Section F.5.i.1.(ii) of this Order.

[2] State Water Board Order 2003-0005-DWQ

ATTACHMENT G – Region-Specific Requirements
Regional Water Board-Approved TMDLs with urban runoff listed as a source

<table>
<tr><th>TMDL
Effective Date
Basin Plan Amendment (BPA)
Water Board Res. No.</th><th>Phase II ~~Municipality~~ Entities</th><th>Impaired Water Body</th><th>Deliverables/Actions Required/~~Waste Load Allocations~~</th></tr>
<tr><td colspan="4">Region 2: San Francisco Regional Water Board</td></tr>
<tr><td>TMDL for Napa River
Pathogens

Effective Date: February 29, 2008

BPA: Chapter 7, Water Quality Attainment Strategies including TMDLs

Resolution No. R2-2006-0079</td><td>City of American Canyon

City of Calistoga

City of St. Helena

City of Napa

Napa County

Town of Yountville</td><td>Napa River</td><td>
~~Purpose of Provisions~~
~~The purpose of these provisions is to implement the requirements of the Napa River pathogens TMDL.~~

~~TMDL Wasteload Allocations~~
~~The Napa River pathogens TMDL assigns a wasteload allocation to municipal storm water as follows:~~

<table>
<tr><td colspan="2">~~*E.coli* (CFU/100 mL)~~</td><td colspan="2">~~Fecal coliform (CFU/100 mL)~~</td><td colspan="2">~~Total coliform (CFU/100 mL)~~</td></tr>
<tr><td>~~Geometric Mean~~</td><td>~~90th percentile~~</td><td>~~Geometric Mean~~</td><td>~~90th percentile~~</td><td>~~Geometric Mean~~</td><td>~~90th percentile~~</td></tr>
<tr><td>~~<113~~</td><td>~~<368~~</td><td>~~<180~~</td><td>~~<360~~</td><td>~~<216~~</td><td>~~<9,000~~</td></tr>
</table>
~~These allocations are applicable year-round and apply to any sources (existing or future) subject to regulation by NPDES permit.~~

Requirements for Implementing the ~~Napa River Pathogens~~ TMDL ~~Wasteload Allocations~~
~~Municipalities~~The Phase II entities identified in this TMDL section shall implement the following actions by July 1, 2018~~, within 18 months of permit adoption~~:
i. Public Participation and Outreach. Educate the public regarding sources of fecal coliform and associated health risks of fecal coliform in surface waters. Educate the public regarding actions that individuals can take to reduce pathogen loading.
ii. Pet Waste Management. ~~Develop and i~~Implement enforceable means of reducing/eliminating fecal coliform loading from pet waste.
iii. Illicit Discharge Detection and Elimination. ~~Develop and i~~Implement strategies to detect and eliminate illicit discharges (whether mistaken or deliberate) of sewage to the Napa River.
iv. Pollution Prevention and Good Housekeeping. ~~Develop and i~~Implement strategies to reduce/eliminate fecal coliform loading from streets, parking lots, sidewalks, and other urban areas that potentially collect and discharge fecal coliform to the Napa River.
~~iv.~~v. As indicated in the TMDL, participate in the Regional Water Board's stakeholder effort to conduct water quality monitoring at baseline monitoring sites.
~~v.~~vi. Conduct baseline water quality monitoring to evaluate *E.coli* concentration trends in the Napa River and its tributaries. Table 7-g in Chapter 7, Water Quality Attainment Strategies, presents locations and frequency for the required baseline water quality monitoring.
vii. Report ~~annually~~yearly, in the Annual Report, (~~on water quality monitoring results and~~ participation in the stakeholder group and progress made on implementation of human and animal runoff reduction measures.

A final deadline for attainment of the LA is not specified in the TMDL. Therefore, municipalities identified in this TMDL section shall propose a timeline to attain the LA in the shortest practicable time,
</td></tr>
</table>

ATTACHMENT G – Region-Specific Requirements
Regional Water Board-Approved TMDLs with urban runoff listed as a source

<table>
<tr><th>TMDL
Effective Date
Basin Plan Amendment (BPA)
Water Board Res. No.</th><th><u>Phase II</u> ~~Municipality~~ <u>Entities</u></th><th>Impaired Water Body</th><th>Deliverables/Actions Required/~~Waste Load Allocations~~</th></tr>
<tr><td colspan="4">Region 2: San Francisco Regional Water Board</td></tr>
<tr><td></td><td></td><td></td><td><u>subject to Regional Water Board Executive Officer approval. Attainment of the LA shall be demonstrated as specified in Section E.15.a.(ii)/Section F.5.i.1.(ii) of this Order.</u></td></tr>
<tr><td><u>TMDL for</u> Sonoma Creek
Pathogens

Effective Date: February 29, 2008

<u>TMDL for Sonoma Creek</u>
Pathogens
<u>(Continued)</u>

BPA: Chapter 7, Water Quality Attainment Strategies including TMDLs

Resolution No. R2-2006-0042</td><td>City of Sonoma

County of Sonoma</td><td>Sonoma Creek</td><td>~~Purpose of Provisions
The purpose of these provisions is to implement the requirements of the Sonoma Creek pathogens TMDL.~~

~~TMDL Wasteload Allocations
The Sonoma Creek pathogens TMDL assigns a wasteload allocation to municipal storm water as follows:~~

<table>
<tr><th colspan="2">~~E.coli (CFU/100 mL)~~</th><th colspan="2">~~Fecal coliform (CFU/100 mL)~~</th><th colspan="2">~~Total coliform (CFU/100 mL)~~</th></tr>
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~~These allocations are applicable year-round and apply to any sources (existing or future) subject to regulation by NPDES permit.~~
Requirements for Implementing the ~~Sonoma Creek Pathogens~~ TMDL ~~Wasteload Allocations~~
<u>The Phase II entities identified in this TMDL section</u> ~~Municipalities~~ shall <u>implement the following actions</u>~~, by July 1, 2018:, within 18 months of permit adoption:~~
i. Public Participation and Outreach. Educate the public regarding sources of fecal coliform and associated health risks of fecal coliform in surface waters. Educate the public regarding actions that individuals can take to reduce pathogen loading.
ii. Pet Waste Management. ~~Develop and i~~<u>I</u>mplement enforceable means of reducing/eliminating fecal coliform loading from pet waste.
iii. Illicit Discharge Detection and Elimination. ~~Develop and i~~<u>I</u>mplement strategies to detect and eliminate illicit discharges (whether mistaken or deliberate) of sewage to Sonoma Creek.
iv. Pollution Prevention and Good Housekeeping. ~~Develop and~~<u>i</u>Implement strategies to reduce/eliminate fecal coliform loading from streets, parking lots, sidewalks, and other urban areas that potentially collect and discharge fecal coliform to Sonoma Creek.
v. Conduct baseline water quality monitoring to evaluate E.coli concentration trends in Sonoma Creek and its tributaries. Table 7-n in Chapter 7, Water Quality Attainment Strategies, presents locations and frequency for the required baseline water quality monitoring.
<u>vi.</u> Report ~~annually~~ <u>yearly in the Annual Report</u> on water quality monitoring results and progress made on implementation of human and animal runoff reduction measures.

<u>A final deadline for attainment of the WLA is not specified in the TMDL. Therefore, municipalities identified in this TMDL section shall propose a timeline to attain the WLA in the shortest practicable</u></td></tr>
</table>

ATTACHMENT G – Region-Specific Requirements
Regional Water Board-Approved TMDLs with urban runoff listed as a source

<table>
<tr><th>TMDL
Effective Date
Basin Plan Amendment (BPA)
Water Board Res. No.</th><th><u>Phase II</u> ~~Municipality~~ <u>Entities</u></th><th>Impaired Water Body</th><th>Deliverables/Actions Required/~~Waste Load Allocations~~</th></tr>
<tr><td colspan="4">Region 2: San Francisco Regional Water Board</td></tr>
<tr><td></td><td></td><td></td><td><u>time, subject to Regional Water Board Executive Officer approval. Attainment of the WLA shall be demonstrated as specified in Section E.15.a.(ii)/Section F.5.i.1.(ii) of this Order.</u></td></tr>
<tr><td></td><td><u>Sonoma County Water Agency</u></td><td><u>Sonoma Creek</u></td><td><u>Requirements for Sonoma County Water Agency for Implementing TMDL</u>
<u>The Sonoma County Water Agency shall:</u>
<u>1. Continue to implement actions as specified in the Storm Water Management Plan approved under the 2003 General Permit[3].</u>
<u>2. Review annually and update the TMDL attainment actions-, as necessary.</u>
<u>3. Report progress on TMDL implementation measures in the Annual Report.</u>

<u>A final deadline for attainment of the WLA is not specified in the TMDL. Therefore, Sonoma County Water Agency shall propose a timeline to attain the WLA in the shortest practicable time, subject to Regional Water Board Executive Officer approval. Attainment of the WLA shall be demonstrated as specified in Section E.15.a.(ii)/Section F.5.i.1.(ii) of this Order.</u></td></tr>
<tr><td><u>TMDL for</u> Tomales Bay
Pathogens
Effective Date: February 8, 2007
BPA: Chapter 4, Surface Water Protection and Management, Nonpoint Source Control

Resolution No. R2-2005-0046

<u>TMDL for Tomales Bay</u>
Pathogens
<u>(Continued)</u></td><td>Marin County</td><td>Tomales Bay

Lagunitas Creek

Walker Creek

Olema Creek</td><td>~~Purpose of Provisions~~
~~The purpose of these provisions is to implement the requirements of the Tomales Bay pathogens TMDL.~~

~~TMDL Wasteload Allocations~~
~~The Tomales Bay pathogens TMDL assigns a wasteload allocation to municipal storm water as follows:~~
<table><tr><td colspan="3">~~Fecal Coliform[a] (MPN/100 mL)~~</td></tr><tr><td colspan="2">~~For Direct Discharges to Tomales Bay~~</td><td>~~For Discharges to Major Tomales Bay Tributaries~~</td></tr><tr><td>~~Median[b]~~</td><td>~~90th percentile[c]~~</td><td>~~Log Mean[b]~~</td></tr><tr><td>~~<14~~</td><td>~~<43~~</td><td>~~<200~~</td></tr></table>
~~[a] These allocations are applicable year-round and apply to any sources (existing or future) subject to regulation by NPDES permit.~~
~~[b] Based on a minimum of five consecutive samples equally spaced over a 30-day period.~~
~~[c] No more than 10% of total samples during any 30-day period may exceed this number~~

Requirements for Implementing the ~~Tomales Bay Pathogens~~TMDL ~~Wasteload Allocations~~
The ~~Municipalities~~Phase II entities identified in this TMDL section shall implement the following actions by July 1, 2018:~~, by within 18 months of permit adoption,~~:</td></tr>
</table>

[3] State Water Board Order 2003-0005-DWQ

ATTACHMENT G – Region-Specific Requirements
Regional Water Board-Approved TMDLs with urban runoff listed as a source

<table>
<tr><th>TMDL
Effective Date
Basin Plan Amendment (BPA)
Water Board Res. No.</th><th>Phase II ~~Municipality~~ Entities</th><th>Impaired Water Body</th><th>Deliverables/Actions Required/~~Waste Load Allocations~~</th></tr>
<tr><td colspan="4">Region 2: San Francisco Regional Water Board</td></tr>
<tr><td></td><td></td><td></td><td>i. Public Participation and Outreach. Educate the public regarding sources of fecal coliform and associated health risks of fecal coliform in surface waters. Educate the public regarding actions that individuals can take to reduce pathogen loading.
ii. Pet Waste Management. ~~Develop and i~~Implement enforceable means of reducing/eliminating fecal coliform loading from pet waste.
iii. Illicit Discharge Detection and Elimination. ~~Develop and i~~Implement strategies to detect and eliminate illicit discharges (whether mistaken or deliberate) of sewage to Tomales Bay.
iv. Pollution Prevention and Good Housekeeping. ~~Develop and i~~Implement strategies to reduce/eliminate fecal coliform loading from streets, parking lots, sidewalks, and other urban areas that potentially collect and discharge fecal coliform to Tomales Bay.
v. Report ~~annually~~yearly in the Annual Report on water quality monitoring results and progress made on implementation of human and animal runoff reduction measures.

A final deadline for attainment of the WLA is not specified in the TMDL. Therefore, municipalities identified in this TMDL section shall propose a timeline to attain the WLA in the shortest practicable time, subject to Regional Water Board Executive Officer approval. Attainment of the WLA shall be demonstrated as specified in Section E.15.a.(ii)/Section F.5.i.1.(ii) of this Order.</td></tr>
<tr><td>TMDL for Richardson Bay
Pathogens

Effective Date: December 18, 2009

BPA: Chapter 7, Water Quality Attainment Strategies including TMDLs

Resolution No. R2-2008-0061</td><td>City of Belvedere

Marin County

City of Mill Valley

City of Sausalito

City of Tiburon</td><td>Richardson Bay</td><td>~~Purpose of Provisions~~
~~The purpose of these provisions is to implement the requirements of the Richardson Bay pathogens TMDL.~~

~~TMDL Wasteload Allocations~~
~~The Richardson Bay pathogens TMDL assigns a wasteload allocation to municipal storm water as follows:~~

~~Fecal Coliform[a] (MPN/100 mL)~~
~~Median[b]~~ | ~~90th Percentile[c]~~
~~<14~~ | ~~<43~~
~~[a] These allocations are applicable year round.~~
~~[b] based on a minimum of five consecutive samples equally spaced over a 30-day period~~
~~[C] No more than 10% of total samples during any 30-day period may exceed this number~~

Requirements for Implementing the ~~Richardson Bay Pathogens~~TMDL ~~Wasteload Allocations~~
The ~~municipalities~~ Phase II entities identified in this TMDL section shall implement the following actions by July 1, 2018: ~~by within 18 months of permit adoption:~~
i. Public Participation and Outreach. Educate the public regarding sources of fecal coliform and associated health risks of fecal coliform in surface waters. Educate the public regarding actions that individuals can take to reduce pathogen loading.</td></tr>
</table>

ATTACHMENT G – Region-Specific Requirements
Regional Water Board-Approved TMDLs with urban runoff listed as a source

TMDL Effective Date Basin Plan Amendment (BPA) Water Board Res. No.	Phase II ~~Municipality~~ Entities	Impaired Water Body	Deliverables/Actions Required/~~Waste Load Allocations~~
Region 2: San Francisco Regional Water Board			
			ii. Pet Waste Management. ~~Develop and i~~Implement enforceable means of reducing/eliminating fecal coliform loading from pet waste. iii. Illicit Discharge Detection and Elimination. ~~Develop and i~~Implement strategies to detect and eliminate illicit discharges (whether mistaken or deliberate) of sewage to Richardson Bay. iv. Pollution Prevention and Good Housekeeping. ~~Develop and i~~Implement strategies to reduce/eliminate fecal coliform loading from streets, parking lots, sidewalks, and other urban areas that potentially collect and discharge fecal coliform to Richardson Bay. v. Report ~~annually~~yearly in the Annual Report on progress made on implementation of pathogen reduction measures. A final deadline for attainment of the WLA is not specified in the TMDL. Therefore, municipalities identified in this TMDL section shall propose a timeline to attain the WLA in the shortest practicable time, subject to Regional Water Board Executive Officer approval. Attainment of the WLA shall be demonstrated as specified in Section E.15.a.(ii)/Section F.5.i.1.(ii) of this Order.
TMDL for Urban Creeks *Diazinon & Pesticide Toxicity* Effective Date: May 16, 2007 BPA: BPA – Chapter 3, Toxicity Resolution No. R2-2005-0063 ~~**Urban Creek**~~ ~~*Diazinon & Pesticide Toxicity*~~ ~~(continued)~~	City of Belvedere Town of Corte Madera Town of Fairfax City of Larkspur Marin County City of Mill Valley City of Novato City of Petaluma Town of Ross Town of San Anselmo City of San Rafael City of Sausalito City of Sonoma	Arroyo Corte Madera del Presidio Corte Madera Creek Coyote Creek (Marin Co.) Gallinas Creek Miller Creek Novato Creek San Antonio Creek	~~**Purpose of Provision**~~ ~~The purpose of the following provisions is to prevent the impairment of urban streams by pesticide-related toxicity. This provision implements requirements of the TMDL for Diazinon and Pesticide Related Toxicity for Urban Creeks in the San Francisco Bay Region. Pesticides of concern include: organophosphorous pesticides (chlorpyrifos, diazinon, and malathion); pyrethroids (bifenthrin, cyfluthrin, beta-cyfluthrin, cypermethrin, deltamethrin, esfenvalerate, lambda-cyhalothrin, permethrin, and tralomethrin); carbamates (e.g., carbaryl); and fipronil.~~ ~~**Wasteload Allocations**~~ ~~Diazinon: 100 ng/l~~ ~~Toxicity: 1.0 TUa (acute toxicity units) and 1.0 TUc (chronic toxicity units)~~ **Requirements for Implementing the TMDL ~~Wasteload Allocations~~** Urban runoff management agencies' responsibilities for addressing the allocations set ~~above~~ in the TMDL will be satisfied by complying with the requirements set forth below. Permittees identified in this TMDL section may coordinate with the Bay Area Storm ~~w~~Water Management Agencies Association, the Urban Pesticide Pollution Prevention Project, the Urban Pesticide Committee, and other agencies and organizations in carrying out these activities. **A. ~~Adopt~~ Implement ~~a~~the Pesticide-Related Toxicity Control Program** To prevent the impairment of urban streams by pesticide-related toxicity, the Phase II entities identified in this TMDL section shall ~~adopt~~ implement an Integrated Pest Management Policy (IPM) or Ordinance, applicable to all the permittees' operations and property, as described in the ~~Basin Plan amendment (Implementation Section) for this TMDL~~ Fact Sheet of this Order.

ATTACHMENT G – Region-Specific Requirements
Regional Water Board-Approved TMDLs with urban runoff listed as a source

TMDL Effective Date Basin Plan Amendment (BPA) Water Board Res. No.	Phase II ~~Municipality~~ Entities	Impaired Water Body	Deliverables/Actions Required/~~Waste Load Allocations~~
Region 2: San Francisco Regional Water Board			
	County of Sonoma Town of Tiburon	San Rafael Creek Petaluma River Calabazas Creek	~~The IPM Policy or Ordinance shall be adopted by the permittee's governing body within 18 months of permit adoption~~ ~~**B. Implement the Pesticide-Related Toxicity Control Program**~~ Implementation actions shall include: • Ensure all municipal employees who apply or use pesticides within the scope of their duties are trained in the IPM practices and policy/ordinance. • Require all contractors to implement the IPM policy/ordinance. • Keep the County Agricultural Commissioners informed of water quality issues related to pesticides and of violations of pesticides regulations (e.g., illegal handling) associated with storm water management. • Conduct outreach to residents and pest control applicators on less toxic methods of pest control. • Keep records of the permittees' own use of pesticides of concern and the pesticide use by the permittees' hired contractors. Report on pesticide use when requested by the Regional Water Board. • Monitor water and sediment for pesticides and associated toxicity in urban creeks via an individual or regional program designed to answer the following questions: o Are the TMDL toxicity targets being met? o Is toxicity observed in urban creeks caused by a pesticide? o Is urban runoff the source of any observed toxicity in urban creeks? o How does observed pesticide-related toxicity in urban creeks (or pesticide concentrations contributing to such toxicity) vary in time and magnitude across urban creek watersheds, and what types of pest control practices contribute to such toxicity? o Are actions already being taken to reduce pesticide discharges sufficient to meet the targets, and if not, what should be done differently? A final deadline for attainment of the WLA is not specified in the TMDL. Therefore, municipalities identified in this TMDL section shall propose a timeline to meet the WLA in the shortest practicable time, subject to Regional Water Board Executive Officer approval. Attainment of the WLA shall be demonstrated as specified in Section E.15.a.(ii)/Section F.5.i.1.(ii) of this Order.

ATTACHMENT G – Region-Specific Requirements
Regional Water Board-Approved TMDLs with urban runoff listed as a source

TMDL Effective Date Basin Plan Amendment (BPA) Water Board Resolution No.	Phase II Entities~~Municipality~~	Impaired Water Body	Deliverables/Actions Required/~~Waste Load Allocations~~
Region 3: Central Coast Regional Water Board			
TMDL and Implementation Plan ~~for Pathogens~~ for Morro Bay and Chorro and Los Osos Creeks *Pathogens* Effective Date: 11/19/2003 BPA: Chapter 4 Resolution No. R3-2003-0060	City of Morro Bay County of San Luis Obispo	Morro Bay Chorro Creek Los Osos Creek Pennington Creek ~~San Bernardo Creek~~ ~~San Luisito Creek~~ ~~Walters Creek~~ Warden Creek	~~**Purpose of Provisions**~~ ~~The purpose of these provisions is to implement the requirements of the Morro Bay (Chorro and Los Osos Creeks) Pathogen TMDL.~~ ~~**TMDL Wasteload Allocations**~~ ~~The City of Morro Bay and County of San Luis Obispo are assigned the following wasteload allocations: 1) for discharges to Los Osos Creek, Chorro Creek, and their tributaries, the fecal coliform geometric mean concentration shall not exceed 200 MPN/100 mL over a 30 day period nor shall 10% of the samples exceed 400 MPN/100 mL over any 30 day period. 2) For discharges to Morro Bay, the fecal coliform geometric mean concentration of 14 MPN/100 mL must be achieved and no more than 10% of the samples may be over 43 MPN/100 mL.~~ **~~Provisions~~Requirements for Implementing the TMDL** ~~Within one year of adoption of this Order~~ BY July 1, 2018, the Phase II entities identified in this TMDL section~~City of Morro Bay and County of San Luis Obispo~~ (hereafter referred to in this TMDL section as "the MS4") shall each ~~develop, submit, and begin implementation~~implement ~~of~~ a Wasteload Allocation Attainment Program that identifies the actions they will take to attain their wasteload allocations. The Wasteload Allocation Attainment Programs shall include: 1. A detailed description of the strategy the MS4 will use to guide BMP selection, assessment, and implementation, to ensure that BMPs implemented will be effective at abating pollutant sources, reducing pollutant discharges, and achieving wasteload allocations according to the TMDL schedule. 2. Identification of sources of the impairment within the MS4's jurisdiction, including specific information on various source locations and their magnitude within the jurisdiction. 3. Prioritization of sources within the MS4's jurisdiction, based on suspected contribution to the impairment, ability to control the source, and other pertinent factors. 4. Identification of BMPs that will address the sources of impairing pollutants and reduce the discharge of impairing pollutants. 5. Prioritization of BMPs, based on suspected effectiveness at abating sources and reducing impairing pollutant discharges, as well as other pertinent factors. 6. Identification of BMPs the MS4 will implement, including a detailed implementation schedule. For each BMP, identify milestones the MS4 will use for tracking implementation, measurable goals the MS4 will use to assess implementation efforts, and measures and targets the MS4 will use to assess effectiveness. MS4s shall include expected BMP implementation for future implementation years, with the understanding that future BMP implementation plans may change as new information is obtained. 7. ~~A quantifiable numeric analysis demonstrating the BMPs selected for implementation will likely achieve, based on modeling, published BMP pollutant removal performance estimates, best professional judgment, and/or other available tools, the MS4's wasteload allocation according to~~

ATTACHMENT G – Region-Specific Requirements
Regional Water Board-Approved TMDLs with urban runoff listed as a source

TMDL Effective Date Basin Plan Amendment (BPA) Water Board Resolution No.	Phase II Entities~~Municipality~~	Impaired Water Body	Deliverables/Actions Required/~~Waste Load Allocations~~
Region 3: Central Coast Regional Water Board			
TMDL and Implementation Plan ~~for Pathogens~~ for Morro Bay and Chorro and Los Osos Creeks *Pathogens* (Continued)			~~the schedule identified in the TMDL~~A quantifiable numeric analysis that uses published BMP pollutant removal estimates, performance estimates, modeling, best professional judgment, and/or other available tools to demonstrate that the BMP selected for implementation achieved the MS4's wasteload allocation. This analysis will most likely incorporate modeling efforts. The MS4 shall conduct repeat numeric analyses as the BMP implementation plans evolve and information on BMP effectiveness is generated. ~~7.~~ Once the MS4 has water quality data from its monitoring program, the MS4 shall incorporate water quality data into the numeric analyses to validate BMP implementation plans. 8. A detailed description, including a schedule, of a monitoring program the MS4 will implement to assess discharge and receiving water quality, BMP effectiveness, and progress towards any interim targets and ultimate attainment of the MS4's wasteload allocation. The monitoring program shall be designed to validate BMP implementation efforts and quantitatively demonstrate attainment interim targets and wasteload allocations. ~~8.~~9. If the approved TMDL does not explicitly include interim targets, the MS4 shall establish interim targets (and dates when stormwater discharge conditions will be evaluated) that are equally spaced in time over the TMDL attainment~~compliance~~ schedule and represent measurable, continually decreasing MS4 discharge concentrations or other appropriate interim measures of pollution reduction and progress towards the wasteload allocation. Where TMDL attainment schedules have passed, but Wasteload Allocations have not been achieved by December 31, 2017, the MS4 shall consult with the Regional Water Board to establish dates to meet new interim targets and to achieve wasteload allocations. At least one interim target and date must occur during the five -years ~~term of this Order~~commencing on December 31, 2017. The MS4 shall achieve its interim targets by the date it specifies in the Wasteload Allocation Attainment Program. If the MS4 does not achieve its interim target by the date specified, the MS4 shall develop and implement more effective BMPs that it can quantitatively demonstrate will achieve the next interim target. ~~9.~~10.A detailed description of how the MS4 will assess BMP and program effectiveness. The description shall incorporate the assessment methods described in the CASQA Municipal Storm W~~w~~ater Program Effectiveness Assessment Guide. ~~10.~~11.A detailed description of how the MS4 will modify the program to improve upon BMPs determined to be ineffective during the effectiveness assessment. ~~11.~~12.A detailed description of information the MS4 will include in annual reports to demonstrate adequate progress towards attainment of wasteload allocations according to the TMDL schedule. ~~12.~~13.A detailed description of how the MS4 will collaborate with other agencies, stakeholders, and the public to develop and implement the Wasteload Allocation Attainment Program. ~~13.~~14Any other items identified by Integrated Report fact sheets, TMDL Project Reports, TMDL Resolutions, or that are currently being implemented by the MS4 to control its contribution to the impairment.

ATTACHMENT G – Region-Specific Requirements
Regional Water Board-Approved TMDLs with urban runoff listed as a source

TMDL Effective Date Basin Plan Amendment (BPA) Water Board Resolution No.	Phase II Entities~~Municipality~~	Impaired Water Body	Deliverables/Actions Required~~/Waste Load Allocations~~
Region 3: Central Coast Regional Water Board			
			~~All allocations shall be achieved by November 19, 2013.~~ By July 1, 2018, the permittees shall demonstrate attainment of the TMDL WLA as specified in Section E.15.a.2 or F.5.i.1.b. of this Order.
TMDL and Implementation Plan for Watsonville Slough *Pathogens* Effective Date: 11/20/2006 BPA: Chapter 4 Resolution No. R3-2006-0025	County of Santa Cruz City of Watsonville	Watsonville Slough Struve Slough Harkins Slough Gallighan Slough Hanson Slough	**~~Provisions~~ Requirements for Implementing the TMDL** ~~The City and County public participation and outreach efforts must include the following tasks: a) Educating the public about sources of fecal coliform and its associated health risks in surface waters; and b) Identifying and promoting specific actions that responsible parties can implement to reduce pathogen loading from sources such as homeless encampments, agricultural field workers, and homeowners who contribute waste from domestic pets.~~ By July 1, 2018, the Phase II entities identified in this TMDL section~~County of Santa Cruz and City of Watsonville~~ shall implement practices that will assure their allocation is achieved. The Phase II entities identified in this TMDL section~~he County of Santa Cruz and City of Watsonville~~ (hereafter referred to in this TMDL section as "the MS4") shall each implement a Wasteload Allocation Attainment Program that identifies the actions they will take to attain their wasteload allocations. The Wasteload Allocation Attainment Programs shall include: 1. A detailed description of the strategy the MS4 will use to guide BMP selection, assessment, and implementation, to ensure that BMPs implemented will be effective at abating pollutant sources, reducing pollutant discharges, and achieving wasteload allocations according to the TMDL schedule. 2. Identification of sources of the impairment within the MS4's jurisdiction, including specific information on various source locations and their magnitude within the jurisdiction. 3. Prioritization of sources within the MS4's jurisdiction, based on suspected contribution to the impairment, ability to control the source, and other pertinent factors. 4. Identification of BMPs that will address the sources of impairing pollutants and reduce the discharge of impairing pollutants. 5. Prioritization of BMPs, based on suspected effectiveness at abating sources and reducing impairing pollutant discharges, as well as other pertinent factors.

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Regional Water Board-Approved TMDLs with urban runoff listed as a source

TMDL Effective Date Basin Plan Amendment (BPA) Water Board Resolution No.	Phase II Entities~~Municipality~~	Impaired Water Body	Deliverables/Actions Required/~~Waste Load Allocations~~
Region 3: Central Coast Regional Water Board			
TMDL and Implementation Plan for Watsonville Slough *Pathogens* (Ceontinued)			6. Identification of BMPs the MS4 will implement, including a detailed implementation schedule. For each BMP, identify milestones the MS4 will use for tracking implementation, measurable goals the MS4 will use to assess implementation efforts, and measures and targets the MS4 will use to assess effectiveness. MS4s shall include expected BMP implementation for future implementation years, with the understanding that future BMP implementation plans may change as new information is obtained. 7. A quantifiable numeric analysis that uses published BMP pollutant removal estimates, performance estimates, modeling, best professional judgment, and/or other available tools to demonstrate that the BMP selected for implementation will likely achieve the MS4's wasteload allocation by the schedule identified in the TMDL. This analysis will most likely incorporate modeling efforts. The MS4 shall conduct repeat numeric analyses as the BMP implementation plans evolve and information on BMP effectiveness is generated. Once the MS4 has water quality data from its monitoring program, the MS4 shall incorporate water quality data into the numeric analyses to validate BMP implementation plans. 8. A detailed description, including a schedule, of a monitoring program the MS4 will implement to assess discharge and receiving water quality, BMP effectiveness, and progress towards any interim targets and ultimate attainment of the MS4s' wasteload allocation. The monitoring program shall be designed to validate BMP implementation efforts and quantitatively demonstrate attainment of interim targets and wasteload allocations. ~~8.~~9. If the approved TMDL does not explicitly include interim targets, the MS4 shall establish interim targets (and dates when stormwater discharge conditions will be evaluated) that are equally spaced in time over the TMDL attainment~~compliance~~ schedule and represent measurable, continually decreasing MS4 discharge concentrations or other appropriate interim measures of pollution reduction and progress towards the wasteload allocation. Where TMDL attainment schedules have passed, but Wasteload Allocations have not been achieved by December 31, 2017, the MS4 shall consult with the Regional Water Board to establish dates to meet new interim targets and to achieve wasteload allocations. At least one interim target and date must occur during the five~~–~~years~~ term of this Order~~ commencing on December 31, 2017. The MS4 shall achieve its interim targets by the date it specifies in the Wasteload Allocation Attainment Program. If the MS4 does not achieve its interim target by the date specified, the MS4 shall develop and implement more effective BMPs that it can quantitatively demonstrate will achieve the next interim target. ~~9.~~10. A detailed description of how the MS4 will assess BMP and program effectiveness. The description shall incorporate the assessment methods described in the CASQA Municipal Storm ~~w~~Water Program Effectiveness Assessment Guide. ~~10.~~11. A detailed description of how the MS4 will modify the program to improve upon BMPs determined to be ineffective during the effectiveness assessment. ~~11.~~12. A detailed description of information the MS4 will include in annual reports to demonstrate adequate progress towards attainment of wasteload allocations according to the TMDL schedule.

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TMDL Effective Date Basin Plan Amendment (BPA) Water Board Resolution No.	Phase II Entities~~Municipality~~	Impaired Water Body	Deliverables/Actions Required/~~Waste Load Allocations~~
Region 3: Central Coast Regional Water Board			
TMDL and Implementation Plan for Watsonville Slough *Pathogens* (Continued)			~~12.~~13.A detailed description of how the MS4 will collaborate with other agencies, stakeholders, and the public to develop and implement the Wasteload Allocation Attainment Program. 14. Any other items identified by Integrated Report fact sheets, TMDL Project Reports, TMDL Resolutions, or that are currently being implemented by the MS4 to control its contribution to the impairment, including public education and participation~~ items identified above~~. The MS4 public participation and outreach efforts must include the following tasks: a) Educating the public about sources of fecal coliform and its associated health risks in surface waters; and b) Identifying and promoting specific actions that responsible parties can implement to reduce pathogen loading from sources such as homeless encampments, agricultural field workers, and homeowners who contribute waste from domestic pets. By July 1, 2018, the permittees shall demonstrate attainment of the TMDL WLA as specified in Section E.15.a.2. or F.5.i.1.b. of this Order.
TMDL for ~~Fecal Coliform in~~ Pajaro River, San Benito River, Llagas Creek, Tequesquita Slough, San Juan Creek, Carnadero/Uvas Creek, Bird Creek, Pescadero Creek, Tres Pinos Creek, Furlong (Jones) Creek, Santa Ana Creek, Pachecho Creek *Fecal Coliform* Effective Date: 07/12/2010 BPA: Chapter 4 Resolution No. RB3-2009-0008	City of Gilroy City of Hollister County of Monterey City of Morgan Hill County of Santa Clara County of Santa Cruz City of Watsonville	Pajaro River San Benito River Llagas Creek Tequesquita Slough San Juan Creek Carnadero/Uvas Creek Bird Creek Pescadero Creek Tres Pinos Creek Furlong (Jones) Creek	~~**Purpose of Provisions**~~ ~~The purpose of these provisions is to implement the requirements of the Pajaro River, San Benito River, Llagas Creek, Tequesquita Slough, San Juan Creek, Carnadero/Uvas Creek, Bird Creek, Pescadero Creek, Tres Pinos Creek, Furlong (Jones) Creek, Santa Ana Creek, and Pachecho Creek Fecal Coliform TMDL.~~ ~~**TMDL Wasteload Allocations**~~ ~~The Cities of Hollister, Morgan Hill, Gilroy and Watsonville and the Counties of Monterey, Santa Clara and Santa Cruz are assigned the following concentration based wasteload allocation: Fecal coliform concentration, based on a minimum of five samples for any 30-day period, shall not exceed a log mean of 200 MPN per 100mL, nor shall more than ten percent of total samples collected during any 30-day period exceed 400 MPN per 100mL.~~ ~~These wasteload allocations are receiving water allocations; storm water discharge cannot cause or contribute to exceedance of the allocations as measured in receiving water.~~ ~~The Counties of Santa Cruz, Santa Clara and Monterey and the Cities of Hollister, Morgan Hill, Gilroy and Watsonville are assigned allocations in the following water bodies: Pajaro River, San Benito River, Llagas Creek and Tequisquita Slough.~~ **Requirements~~Provisions~~ for Implementing the TMDL** By July 1, 2018, ~~Within one year of adoption of this Order~~ the Phase II entities identified in this TMDL section~~Cities of Hollister, Morgan Hill, Gilroy and Watsonville and the Counties of Monterey, Santa Clara and Santa Cruz~~ (hereafter referred to in this TMDL section as "the MS4") shall each ~~develop, submit, and begin implementation of~~implement a Wasteload Allocation Attainment Program that

ATTACHMENT G – Region-Specific Requirements
Regional Water Board-Approved TMDLs with urban runoff listed as a source

TMDL Effective Date Basin Plan Amendment (BPA) Water Board Resolution No.	Phase II Entities~~Municipality~~	Impaired Water Body	Deliverables/Actions Required~~/Waste Load Allocations~~
Region 3: Central Coast Regional Water Board			
TMDL for ~~Fecal Coliform in~~ Pajaro River, San Benito River, Llagas Creek, Tequesquita Slough, San Juan Creek, Carnadero/Uvas Creek, Bird Creek, Pescadero Creek, Tres Pinos Creek, Furlong (Jones) Creek, Santa Ana Creek, Pachecho Creek *Fecal Coliform* (Ceontinued)		Santa Ana Creek Pachecho Creek	identifies the actions they will take to attain their wasteload allocations. The Wasteload Allocation Attainment Programs shall include: 1. A detailed description of the strategy the MS4 will use to guide BMP selection, assessment, and implementation, to ensure that BMPs implemented will be effective at abating pollutant sources, reducing pollutant discharges, and achieving wasteload allocations according to the TMDL schedule. 2. Identification of sources of the impairment within the MS4's jurisdiction, including specific information on various source locations and their magnitude within the jurisdiction. 3. Prioritization of sources within the MS4's jurisdiction, based on suspected contribution to the impairment, ability to control the source, and other pertinent factors. 4. Identification of BMPs that will address the sources of impairing pollutants and reduce the discharge of impairing pollutants. 5. Prioritization of BMPs, based on suspected effectiveness at abating sources and reducing impairing pollutant discharges, as well as other pertinent factors. 6. Identification of BMPs the MS4 will implement, including a detailed implementation schedule. For each BMP, identify milestones the MS4 will use for tracking implementation, measurable goals the MS4 will use to assess implementation efforts, and measures and targets the MS4 will use to assess effectiveness. MS4s shall include expected BMP implementation for future implementation years, with the understanding that future BMP implementation plans may change as new information is obtained. ~~6.~~7. A quantifiable numeric analysis that uses published BMP pollutant removal estimates, performance estimates, modeling, best professional judgment, and/or other available tools to demonstrate that the BMP selected for implementation will likely achieve the MS4's wasteload allocation by the schedule identified in the TMDL.~~eric analysis demonstrating the BMPs selected for implementation will likely achieve, based on modeling, published BMP pollutant removal performance estimates, best professional judgment, and/or other available tools, the MS4's wasteload allocation according to the schedule identified in the TMDL.~~ This analysis will most likely incorporate modeling efforts. The MS4 shall conduct repeat numeric analyses as the BMP implementation plans evolve and information on BMP effectiveness is generated. Once the MS4 has water quality data from its monitoring program, the MS4 shall incorporate water quality data into the numeric analyses to validate BMP implementation plans. ~~7.~~8. A detailed description, including a schedule, of a monitoring program the MS4 will implement to assess discharge and receiving water quality, BMP effectiveness, and progress towards any interim targets and ultimate attainment of the MS4s' wasteload allocation. The monitoring program shall be designed to validate BMP implementation efforts and quantitatively demonstrate attainment of interim targets and wasteload allocations. ~~8.~~9. If the approved TMDL does not explicitly include interim targets, the MS4 shall establish interim targets (and dates when stormwater discharge conditions will be evaluated) that are equally spaced in time over the TMDL attainment~~compliance~~ schedule and represent measurable,

ATTACHMENT G – Region-Specific Requirements
Regional Water Board-Approved TMDLs with urban runoff listed as a source

TMDL Effective Date Basin Plan Amendment (BPA) Water Board Resolution No.	Phase II Entities~~Municipality~~	Impaired Water Body	Deliverables/Actions Required/~~Waste Load Allocations~~
Region 3: Central Coast Regional Water Board			
			continually decreasing MS4 discharge concentrations or other appropriate interim measures of pollution reduction and progress towards the wasteload allocation. At least one interim target and date must occur during the first five years commencing on December 31, 2017. ~~At least one interim target and date must occur during the five-year term of this Order.~~ The MS4 shall achieve its interim targets by the date it specifies in the Wasteload Allocation Attainment Program. If the MS4 does not achieve its interim target by the date specified, the MS4 shall develop and implement more effective BMPs that it can quantitatively demonstrate will achieve the next interim target. ~~9.~~10. A detailed description of how the MS4 will assess BMP and program effectiveness. The description shall incorporate the assessment methods described in the CASQA Municipal Storm ~~w~~Water Program Effectiveness Assessment Guide. ~~10.~~11. A detailed description of how the MS4 will modify the program to improve upon BMPs determined to be ineffective during the effectiveness assessment. ~~11.~~12. A detailed description of information the MS4 will include in annual reports to demonstrate adequate progress towards attainment of wasteload allocations according to the TMDL schedule. ~~12.~~13. A detailed description of how the MS4 will collaborate with other agencies, stakeholders, and the public to develop and implement the Wasteload Allocation Attainment Program. ~~13.~~14. Any other items identified by Integrated Report fact sheets, TMDL Project Reports, TMDL Resolutions, or that are currently being implemented by the MS4 to control its contribution to the impairment. ~~All allocations shall be achieved b~~By July 12, 2023, the permittees shall demonstrate attainment of the TMDL WLA as specified in Section E.15.a.(ii). or F.5.i.1.(ii). of this Order.
~~**Morro Bay** **TMDL for Morro Bay Sediment** **(including Chorro Creek, Los Osos Creek, and the Morro Bay Estuary)**~~ *Sediment* Effective Date: 12/3/2003 BPA: Chapter 4 Resolution No. R3-2002-0051	County of San Luis Obispo	Morro Bay Los Osos Creek Chorro Creek Dairy Creek Pennington Creek ~~San Luisito Creek~~ ~~San Bernardo Creek~~	~~**Purpose of Provisions**~~ ~~The purpose of these provisions is to implement the requirements of the Morro Bay TMDL for sediment.~~ ~~**TMDL Wasteload and Load Allocations**~~ ~~The County of San Luis Obispo is assigned a wasteload allocation of 5,137 tones/year of sediment. This allocation represents a 50% reduction in sediment loading relative to 2003 levels. The aggregated sediment discharge from all storm water outfalls into Morro Bay, or any tributary that has the potential to discharge sediment to Morro Bay, shall not exceed the allocation.~~ **Requirements~~Provisions~~ for Implementing the TMDL** By July 1, 2018, ~~T~~the County of San Luis Obispo shall implement practices that will assure their allocation is achieved, including identifying and implementing specific road sediment control measures. ~~Within one year of adoption of this Order~~T~~,~~ the County of San Luis Obispo (hereafter referred to in this TMDL section as "the MS4") shall ~~develop, submit, and begin implementation of~~implement a Wasteload Allocation Attainment Program that identifies the actions it will take to attain its wasteload allocation. The Wasteload Allocation Attainment Program shall include:

ATTACHMENT G – Region-Specific Requirements
Regional Water Board-Approved TMDLs with urban runoff listed as a source

TMDL Effective Date Basin Plan Amendment (BPA) Water Board Resolution No.	Phase II Entities~~Municipality~~	Impaired Water Body	Deliverables/Actions Required~~/Waste Load Allocations~~
Region 3: Central Coast Regional Water Board			
~~Morro Bay~~ TMDL for Morro Bay ~~Sediment~~ (including Chorro Creek, Los Osos Creek, and the Morro Bay Estuary) *Sediment* (C~~c~~ontinued)		Warden Creek	1. A detailed description of the strategy the MS4 will use to guide BMP selection, assessment, and implementation, to ensure that BMPs implemented will be effective at abating pollutant sources, reducing pollutant discharges, and achieving wasteload allocations according to the TMDL schedule. 2. Identification of sources of the impairment within the MS4's jurisdiction, including specific information on various source locations and their magnitude within the jurisdiction. 3. Prioritization of sources within the MS4's jurisdiction, based on suspected contribution to the impairment, ability to control the source, and other pertinent factors. 4. Identification of BMPs that will address the sources of impairing pollutants and reduce the discharge of impairing pollutants. 5. Prioritization of BMPs, based on suspected effectiveness at abating sources and reducing impairing pollutant discharges, as well as other pertinent factors. 6. Identification of BMPs the MS4 will implement, including a detailed implementation schedule. For each BMP, identify milestones the MS4 will use for tracking implementation, measurable goals the MS4 will use to assess implementation efforts, and measures and targets the MS4 will use to assess effectiveness. MS4s shall include expected BMP implementation for future implementation years, with the understanding that future BMP implementation plans may change as new information is obtained. 7. A quantifiable numeric analysis that uses published BMP pollutant removal estimates, performance estimates, modeling, best professional judgment, and/or other available tools to demonstrate that the BMP selected for implementation will likely achieve the MS4's wasteload allocation by the schedule identified in the TMDL.~~A quantifiable numeric analysis demonstrating the BMPs selected for implementation will likely achieve, based on modeling, published BMP pollutant removal performance estimates, best professional judgment, and/or other available tools, the MS4's wasteload allocation according to the schedule identified in the TMDL.~~ This analysis will most likely incorporate modeling efforts. The MS4 shall conduct repeat numeric analyses as the BMP implementation plans evolve and information on BMP effectiveness is generated. Once the MS4 has water quality data from its monitoring program, the MS4 shall incorporate water quality data into the numeric analyses to validate BMP implementation plans. 8. A detailed description, including a schedule, of a monitoring program the MS4 will implement to assess discharge and receiving water quality, BMP effectiveness, and progress towards any interim targets and ultimate attainment of the MS4s' wasteload allocation. The monitoring program shall be designed to validate BMP implementation efforts and quantitatively demonstrate attainment of interim targets and wasteload allocations. - ~~8.~~9. If the approved TMDL does not explicitly include interim targets, the MS4 shall establish interim targets (and dates when stormwater discharge conditions will be evaluated) that are equally spaced in time over the TMDL attainment~~compliance~~ schedule and represent measurable, continually decreasing MS4 discharge concentrations or other appropriate interim measures of pollution reduction and progress towards the wasteload allocation. At least one interim target and

ATTACHMENT G – Region-Specific Requirements
Regional Water Board-Approved TMDLs with urban runoff listed as a source

TMDL Effective Date Basin Plan Amendment (BPA) Water Board Resolution No.	Phase II Entities~~Municipality~~	Impaired Water Body	Deliverables/Actions Required~~/Waste Load Allocations~~
Region 3: Central Coast Regional Water Board			
			date must occur during the first five years commencing on December 31, 2017.~~At least one interim target and date must occur during the five year term of this Order.~~ The MS4 shall achieve its interim targets by the date it specifies in the Wasteload Allocation Attainment Program. If the MS4 does not achieve its interim target by the date specified, the MS4 shall develop and implement more effective BMPs that it can quantitatively demonstrate will achieve the next interim target. ~~9.~~10.A detailed description of how the MS4 will assess BMP and program effectiveness. The description shall incorporate the assessment methods described in the CASQA Municipal Storm ~~w~~Water Program Effectiveness Assessment Guide. ~~10.~~11.A detailed description of how the MS4 will modify the program to improve upon BMPs determined to be ineffective during the effectiveness assessment. ~~11.~~12.A detailed description of information the MS4 will include in annual reports to demonstrate adequate progress towards attainment of wasteload allocations according to the TMDL schedule. ~~12.~~13.A detailed description of how the MS4 will collaborate with other agencies, stakeholders, and the public to develop and implement the Wasteload Allocation Attainment Program. ~~13.~~14.Any other items identified by Integrated Report fact sheets, TMDL Project Reports, TMDL Resolutions, or that are currently being implemented by the MS4 to control its contribution to the impairment. ~~The allocations shall be achieved b~~By December 3, 2053, the permittees shall demonstrate attainment of the TMDL WLA as specified in Section E.15.a.(ii). or F.5.i.1.(ii). of this Order.
~~San Lorenzo River~~ TMDL for San Lorenzo River ~~Sediment~~(Including Carbonera Creek, Lompico Creek, and Shingle Mill Creek) *Sediment* Effective Date: 12/18/2003 BPA: Chapter 4 Resolution No. R3-2002-0063 **~~San Lorenzo River~~ TMDL for San Lorenzo River ~~Sediment~~**	City of Santa Cruz County of Santa Cruz City of Scotts Valley	San Lorenzo River Carbonera Creek Lompico~~ and~~ Creek Shingle Mill Creek~~s~~	**~~Purpose of Provisions~~** ~~The purpose of these provisions is to implement the requirements of the San Lorenzo River TMDL for sediment.~~ **~~TMDL Wasteload and Load Allocations~~** ~~The County of Santa Cruz, City of Santa Cruz, and City of Scotts Valley are assigned the following wasteload allocations: sediment discharges from public roads to the San Lorenzo River shall be reduced by 27%, sediment discharges from public roads to Lompico Creek shall be reduced by 24%, sediment discharges from public roads to Carbonera Creek shall be reduced by 27%, sediment discharges from public roads to Shingle Mill Creek shall be reduced by 27%.~~ **Requirements~~Provisions~~ for Implementing the TMDL** By July 1, 2018, ~~T~~the Phase II entities identified in this TMDL section~~County of Santa Cruz, City of Santa Cruz, and City of Scotts Valley~~ shall implement practices that will assure their allocation is achieved, including identifying and implementing specific road sediment control measures. ~~By June 30, 2013, t~~The Phase II entities identified in this TMDL section~~County of Santa Cruz, City of Santa Cruz, and City of Scotts Valley~~ (hereafter referred to in this TMDL section as "the MS4") shall each ~~develop, submit, and begin implementation of~~implement a Wasteload Allocation Attainment Program that

ATTACHMENT G – Region-Specific Requirements
Regional Water Board-Approved TMDLs with urban runoff listed as a source

TMDL Effective Date Basin Plan Amendment (BPA) Water Board Resolution No.	Phase II Entities~~Municipality~~	Impaired Water Body	Deliverables/Actions Required~~Waste Load Allocations~~
Region 3: Central Coast Regional Water Board			
(Including Carbonera Creek, Lompico Creek, and Shingle Mill Creek) *Sediment* (Ceontinued)			identifies the actions they will take to attain their wasteload allocations. The Wasteload Allocation Attainment Programs shall include: 1. A detailed description of the strategy the MS4 will use to guide BMP selection, assessment, and implementation, to ensure that BMPs implemented will be effective at abating pollutant sources, reducing pollutant discharges, and achieving wasteload allocations according to the TMDL schedule. 2. Identification of sources of the impairment within the MS4's jurisdiction, including specific information on various source locations and their magnitude within the jurisdiction. 3. Prioritization of sources within the MS4's jurisdiction, based on suspected contribution to the impairment, ability to control the source, and other pertinent factors. 4. Identification of BMPs that will address the sources of impairing pollutants and reduce the discharge of impairing pollutants. 5. Prioritization of BMPs, based on suspected effectiveness at abating sources and reducing impairing pollutant discharges, as well as other pertinent factors. 6. Identification of BMPs the MS4 will implement, including a detailed implementation schedule. For each BMP, identify milestones the MS4 will use for tracking implementation, measurable goals the MS4 will use to assess implementation efforts, and measures and targets the MS4 will use to assess effectiveness. MS4s shall include expected BMP implementation for future implementation years, with the understanding that future BMP implementation plans may change as new information is obtained. 7. A quantifiable numeric analysis that uses published BMP pollutant removal estimates, performance estimates, modeling, best professional judgment, and/or other available tools to demonstrate that the BMP selected for implementation will likely achieve the MS4's wasteload allocation by the schedule identified in the TMDL.~~A quantifiable numeric analysis demonstrating the BMPs selected for implementation will likely achieve, based on modeling, published BMP pollutant removal performance estimates, best professional judgment, and/or other available tools, the MS4's wasteload allocation according to the schedule identified in the TMDL.~~ This analysis will most likely incorporate modeling efforts. The MS4 shall conduct repeat numeric analyses as the BMP implementation plans evolve and information on BMP effectiveness is generated. Once the MS4 has water quality data from its monitoring program, the MS4 shall incorporate water quality data into the numeric analyses to validate BMP implementation plans. 8. A detailed description, including a schedule, of a monitoring program the MS4 will implement to assess discharge and receiving water quality, BMP effectiveness, and progress towards any interim targets and ultimate attainment of the MS4s' wasteload allocation. The monitoring program shall be designed to validate BMP implementation efforts and quantitatively demonstrate attainment of interim targets and wasteload allocations. ~~8.~~9. If the approved TMDL does not explicitly include interim targets, the MS4 shall establish interim targets (and dates when stormwater discharge conditions will be evaluated) that are equally spaced in time over the TMDL attainment~~compliance~~ schedule and represent measurable,

ATTACHMENT G – Region-Specific Requirements
Regional Water Board-Approved TMDLs with urban runoff listed as a source

TMDL Effective Date Basin Plan Amendment (BPA) Water Board Resolution No.	Phase II Entities~~Municipality~~	Impaired Water Body	Deliverables/Actions Required~~/Waste Load Allocations~~
Region 3: Central Coast Regional Water Board			
TMDL for San Lorenzo River (Including Carbonera Creek, Lompico Creek, and Shingle Mill Creek) *Sediment* (Continued) ~~**San Lorenzo River TMDL for Sediment (Including Carbonera Creek, Lompico Creek, and Shingle Mill Creek)**~~ ~~continued~~			continually decreasing MS4 discharge concentrations or other appropriate interim measures of pollution reduction and progress towards the wasteload allocation. At least one interim target and date must occur during the first five years commencing on December 31, 2017.~~At least one interim target and date must occur during the five-year term of this Order.~~ The MS4 shall achieve its interim targets by the date it specifies in the Wasteload Allocation Attainment Program. If the MS4 does not achieve its interim target by the date specified, the MS4 shall develop and implement more effective BMPs that it can quantitatively demonstrate will achieve the next interim target. ~~9.~~10.A detailed description of how the MS4 will assess BMP and program effectiveness. The description shall incorporate the assessment methods described in the CASQA Municipal Storm ~~w~~Water Program Effectiveness Assessment Guide. ~~10.~~11.A detailed description of how the MS4 will modify the program to improve upon BMPs determined to be ineffective during the effectiveness assessment. ~~11.~~12.A detailed description of information the MS4 will include in annual reports to demonstrate adequate progress towards attainment of wasteload allocations according to the TMDL schedule. ~~12.~~13.A detailed description of how the MS4 will collaborate with other agencies, stakeholders, and the public to develop and implement the Wasteload Allocation Attainment Program. ~~13.~~14.Any other items identified by Integrated Report fact sheets, TMDL Project Reports, TMDL Resolutions, or that are currently being implemented by the MS4 to control its contribution to the impairment. ~~The allocations shall be achieved b~~By December 18, 2028, the permittees shall demonstrate attainment of the TMDL WLA as specified in Section E.15.a.(ii). or F.5.i.1.(ii). of this Order.

ATTACHMENT G – Region-Specific Requirements
Regional Water Board-Approved TMDLs with urban runoff listed as a source

<table>
<tr><th>TMDL
Effective Date
Basin Plan Amendment (BPA)
Water Board Resolution No.</th><th>Phase II Entities~~Municipality~~</th><th>Impaired Water Body</th><th>Deliverables/Actions Required/~~Waste Load Allocations~~</th></tr>
<tr><td colspan="4">Region 3: Central Coast Regional Water Board</td></tr>
<tr>
<td>~~Pajaro River~~ TMDL and Implementation Plan for Pajaro River ~~Sediment~~ including Llagas Creek, Rider Creek, and San Benito River
Sediment

Effective Date: 11/27/2006

BPA: Chapter 4

Resolution No. R3-2005-0132</td>
<td>City of Gilroy

City of Hollister

City of Morgan Hill

Santa Cruz County Fairgrounds

City of Watsonville</td>
<td>Tres Pinos

San Benito River

Llagas Creek

Uvas Creek

Upper Pajaro River

Corralitos Creek (including Rider Creek),

Mouth of Pajaro River</td>
<td>~~Purpose of Provisions~~
~~The purpose of these provisions is to implement the requirements of the San Lorenzo River TMDL for sediment.~~

~~TMDL Wasteload and Load Allocations~~
~~The City of Morgan Hill, City of Gilroy, City of Hollister, and the City of Watsonville shall not discharge sediment to the following water bodies in excess of the values shown:~~
<table>
<tr><th>~~Major Subwatershed~~</th><th>~~Metric tons per year~~</th></tr>
<tr><td>~~Tres Pinos~~</td><td>~~1~~</td></tr>
<tr><td>~~San Benito~~</td><td>~~100~~</td></tr>
<tr><td>~~Llagas~~</td><td>~~787~~</td></tr>
<tr><td>~~Uvas~~</td><td>~~139~~</td></tr>
<tr><td>~~Upper Pajaro~~</td><td>~~161~~</td></tr>
<tr><td>~~Corralitos (including Rider Creek)~~</td><td>~~284~~</td></tr>
<tr><td>~~Mouth of Pajaro River~~</td><td>~~191~~</td></tr>
</table>
~~The allocations represent a 90% reduction in sediment loading to each water body from urban roads.~~

Requirements~~Provisions~~ for Implementing the TMDL
The Phase II entities identified in this TMDL section~~Cities of Morgan Hill, Gilroy, Hollister, and Watsonville~~ shall implement the practices specified in this Order, tailored to focus on reduction of sediment discharges to the affected waterbodies, to ~~that will assure~~ ensure ~~their allocation is achieved.~~achievement of the wasteload allocations.

~~The allocations shall be achieved b~~By November 27, 2051, the permittees shall demonstrate attainment of the TMDL WLA as specified in Section E.15.a.(ii). or F.5.i.1.(ii). of this Order.</td>
</tr>
</table>

ATTACHMENT G – Region-Specific Requirements
Regional Water Board-Approved TMDLs with urban runoff listed as a source

TMDL Effective Date Basin Plan Amendment (BPA) Water Board Resolution No.	Phase II Entities~~Municipality~~	Impaired Water Body	Deliverables/Actions Required/~~Waste Load Allocations~~
Region 3: Central Coast Regional Water Board			
~~**San Luis Obispo Creek Total Maximum Daily Load**~~ **TMDL and Implementation Plan for San Luis Obispo Creek** *Pathogens* Effective Date: 7/25/2005 BPA: Chapter 4 Resolution No. R3-2004-0142	Cal Poly State University City of San Luis Obispo County of San Luis Obispo	San Luis Obispo Creek Stenner Creek Brizziolari Creek	~~**Purpose of Provisions**~~ ~~The purpose of these provisions is to implement the requirements of the San Luis Obispo Creek TMDL for Pathogens.~~ ~~**TMDL Wasteload Allocations**~~ ~~The City of San Luis Obispo, the County of San Luis Obispo, and Cal Poly State University San Luis Obispo, are assigned a concentration based wasteload allocation for fecal coliform equal to 200 MPN/100mL, measured as a log mean of five samples taken in a 30-day period from impaired water body receiving waters, nor shall more than 10% of the total samples during any 30-day period exceed 400 MPN per 100mL in receiving waters; storm water discharge cannot cause or contribute to exceedance of the allocations.~~ ~~The City of San Luis Obispo is assigned these allocations in the following water bodies: San Luis Obispo Creek, Stenner Creek.~~ ~~The County of San Luis Obispo is assigned these allocations in the following water bodies: San Luis Obispo Creek.~~ ~~Cal Poly State University San Luis Obispo is assigned these allocations in the following water bodies: Stenner Creek, Brizziola~~ **Requirements~~Provisions~~ for Implementing the TMDL** The Phase II entities identified in this TMDL section~~City of San Luis Obispo, County of San Luis Obispo, and Cal Poly State University~~ are required to implement best management practices specifically targeting fecal coliform loading. Required actions include development and implementation of: public education regarding fecal coliform sources and associated health risk, enforceable means of addressing pet waste and wild animals that are attracted to storm water infrastructure, and elimination of illicit discharges. By July 1, 2018, ~~Within one year of adoption of this Order,~~ the Phase II entities identified in this TMDL section~~City of San Luis Obispo, County of San Luis Obispo, and Cal Poly State University~~ (hereafter referred to in this TMDL section as "the MS4") shall each ~~develop, submit, and begin implementation of~~implement a Wasteload Allocation Attainment Program that identifies the actions they will take to attain their wasteload allocations. The Wasteload Allocation Attainment Programs shall include: 1. A detailed description of the strategy the MS4 will use to guide BMP selection, assessment, and implementation, to ensure that BMPs implemented will be effective at abating pollutant sources, reducing pollutant discharges, and achieving wasteload allocations according to the TMDL schedule.

ATTACHMENT G – Region-Specific Requirements
Regional Water Board-Approved TMDLs with urban runoff listed as a source

TMDL Effective Date Basin Plan Amendment (BPA) Water Board Resolution No.	Phase II Entities~~Municipality~~	Impaired Water Body	Deliverables/Actions Required/~~Waste Load Allocations~~
Region 3: Central Coast Regional Water Board			
~~San Luis Obispo Creek Total Maximum Daily Load~~TMDL and Implementation Plan for San Luis Obispo Creek *Pathogens* (Ceontinued)			2. Identification of sources of the impairment within the MS4's jurisdiction, including specific information on various source locations and their magnitude within the jurisdiction. 3. Prioritization of sources within the MS4's jurisdiction, based on suspected contribution to the impairment, ability to control the source, and other pertinent factors. 4. Identification of BMPs that will address the sources of impairing pollutants and reduce the discharge of impairing pollutants. 5. Prioritization of BMPs, based on suspected effectiveness at abating sources and reducing impairing pollutant discharges, as well as other pertinent factors. 6. Identification of BMPs the MS4 will implement, including a detailed implementation schedule. For each BMP, identify milestones the MS4 will use for tracking implementation, measurable goals the MS4 will use to assess implementation efforts, and measures and targets the MS4 will use to assess effectiveness. MS4s shall include expected BMP implementation for future implementation years, with the understanding that future BMP implementation plans may change as new information is obtained. 7. A quantifiable numeric analysis that uses published BMP pollutant removal estimates, performance estimates, modeling, best professional judgment, and/or other available tools to demonstrate that the BMP selected for implementation will likely achieve the MS4's wasteload allocation by the schedule identified in the TMDL.~~A quantifiable numeric analysis demonstrating the BMPs selected for implementation will likely achieve, based on modeling, published BMP pollutant removal performance estimates, best professional judgment, and/or other available tools, the MS4's wasteload allocation according to the schedule identified in the TMDL.~~ This analysis will most likely incorporate modeling efforts. The MS4 shall conduct repeat numeric analyses as the BMP implementation plans evolve and information on BMP effectiveness is generated. Once the MS4 has water quality data from its monitoring program, the MS4 shall incorporate water quality data into the numeric analyses to validate BMP implementation plans. 8. A detailed description, including a schedule, of a monitoring program the MS4 will implement to assess discharge and receiving water quality, BMP effectiveness, and progress towards any interim targets and ultimate attainment of the MS4s' wasteload allocation. The monitoring program shall be designed to validate BMP implementation efforts and quantitatively demonstrate attainment of interim targets and wasteload allocations. ~~8.~~9. If the approved TMDL does not explicitly include interim targets, the MS4 shall establish interim targets (and dates when stormwater discharge conditions will be evaluated) that are equally spaced in time over the TMDL attainment~~compliance~~ schedule and represent measurable, continually decreasing MS4 discharge concentrations or other appropriate interim measures of pollution reduction and progress towards the wasteload allocation. Where TMDL attainment schedules have passed, but Wasteload Allocations have not been achieved by December 31, 2017, the MS4 shall consult with the Regional Water Board to establish dates to meet new interim targets and to achieve wasteload allocations. At least one interim target and date must occur during the five- years ~~term of this Order~~ commencing on December 31, 2017. The MS4 shall achieve its interim targets by the date it specifies in the Wasteload Allocation Attainment

ATTACHMENT G – Region-Specific Requirements
Regional Water Board-Approved TMDLs with urban runoff listed as a source

TMDL Effective Date Basin Plan Amendment (BPA) Water Board Resolution No.	Phase II Entities~~Municipality~~	Impaired Water Body	Deliverables/Actions Required/~~Waste Load Allocations~~
Region 3: Central Coast Regional Water Board			
			Program. If the MS4 does not achieve its interim target by the date specified, the MS4 shall develop and implement more effective BMPs that it can quantitatively demonstrate will achieve the next interim target. ~~9.~~10.A detailed description of how the MS4 will assess BMP and program effectiveness. The description shall incorporate the assessment methods described in the CASQA Municipal Storm ~~w~~Water Program Effectiveness Assessment Guide. ~~10.~~11.A detailed description of how the MS4 will modify the program to improve upon BMPs determined to be ineffective during the effectiveness assessment. ~~11.~~12.A detailed description of information the MS4 will include in annual reports to demonstrate adequate progress towards attainment of wasteload allocations according to the TMDL Schedule. ~~12.~~13.A dtailed description of how the MS4 will collaborate with other agencies, stakeholders, and the public to develop and implement the Wasteload Allocation Attainment Program. ~~13.~~14.Any other items identified by Integrated Report fact sheets, TMDL Project Reports, TMDL Resolutions, or that are currently being implemented by the MS4 to control its contribution to the impairment. ~~All allocations shall be achieved no later than July 25, 2015.~~By July 1, 2018, the permittees shall demonstrate attainment of the TMDL WLA as specified in Section E.15.a.2. or F.5.i.1.b. of this Order.
~~San Luis Obispo Creek~~ **TMDL and Implementation Plan for San Luis Obispo Creek** *Nitrate-Nitrogen* **TMDL and Implementation Plan for San Luis Obispo Creek** *Nitrate-Nitrogen* (Continued) Effective Date: 8/04/2006 BPA: Chapter 4 Resolution No. R3-2005-0106	Cal Poly State University City of San Luis Obispo County of San Luis Obispo	San Luis Obispo Creek	**~~Purpose of Provisions~~** ~~The purpose of these provisions is to implement the requirements of the San Luis Obispo Creek TMDL for Nitrate.~~ **~~TMDL Wasteload Allocations~~** ~~Urban storm water from the City of San Luis Obispo, County of San Luis Obispo, and Cal Poly State University shall not cause an increase in receiving water nitrate concentration greater than the increase in nitrate concentration resulting from their discharge in 2006 (when the TMDL became effective). In 2006, the nitrate concentration of storm water discharge was 0.3 mg/L N.~~ ~~The City of San Luis Obispo, County of San Luis Obispo, and Cal Poly State University were achieving their allocations at the time the TMDL became effective; these municipalities shall implement measures to assure continued compliance with their allocations.~~ **Requirements~~Provisions~~ for Implementing the TMDL** By July 1, 2018, ~~T~~the Phase II entities identified in this TMDL section ~~City of San Luis Obispo, County of San Luis Obispo, and Cal Poly State University~~ shall implement best management practices that specifically address the reduction or elimination of nutrient loading. The Phase II entities identified in this TMDL section ~~City of San Luis Obispo, County of San Luis Obispo, and Cal Poly State University~~ shall submit reports required by this~~eir storm water permits~~Order

ATTACHMENT G – Region-Specific Requirements
Regional Water Board-Approved TMDLs with urban runoff listed as a source

TMDL Effective Date Basin Plan Amendment (BPA) Water Board Resolution No.	Phase II Entities~~Municipality~~	Impaired Water Body	Deliverables/Actions Required/~~Waste Load Allocations~~
Region 3: Central Coast Regional Water Board			
			and in those reports outline best management practices implemented to assure ongoing attainment of~~compliance with~~ their allocation. By July 1, 2018, the permittees shall demonstrate attainment of the TMDL WLA as specified in Section E.15.a.2. or F.5.i.1.b. of this Order.
TMDL for ~~Fecal Coliform in~~ Corralitos and Salsipuedes Creeks *Fecal Coliform* Effective Date: ~~OAL approval anticipated early 2011~~9/8/2011 BPA: Chapter 4 Resolution No. R3-2009-0009	County of Santa Cruz Santa Cruz County Fairgrounds City of Watsonville	Corralitos Creek Salsipuedes Creek	~~**Purpose of Provisions**~~ ~~The purpose of these provisions is to implement the requirements of the TMDL for Fecal Coliform in Corralitos/Salsipuedes Creeks~~ ~~**TMDL Wasteload Allocations**~~ ~~The County of Santa Cruz and the City of Watsonville are assigned the following concentration based wasteload allocation: Fecal coliform concentration, based on a minimum of not less than five samples for any 30-day period, shall not exceed a log mean of 200 MPN per 100 mL, nor shall more than 10 percent of samples collected during any 30-day period exceed 400 MPN per 100 mL.~~ ~~These wasteload allocations are receiving water allocations; storm water discharge cannot cause or contribute to exceedance of the allocations as measured in receiving water.~~ ~~The County of Santa Cruz and the City of Watsonville are assigned allocations in the following water bodies: Corralitos Creek and Salsipuedes Creek.~~ **Requirements~~Provisions~~ for Implementing the TMDL** By July 1, 2018, ~~Within one year of adoption of this order,~~ the County of Santa Cruz and the City of Watsonville (hereafter referred to in this TMDL section as MS4) shall each ~~develop, submit, and begin implementation of~~implement a Wasteload Allocation Attainment Program that identifies the actions they will take to attain their wasteload allocations. By December 31, 2018 the Santa Cruz County Fairgrounds (hereafter referred to in this TMDL section as "the MS4") shall develop, submit, and begin implementation of a Wasteload Allocation Attainment Program that identifies the actions they will take to attain their waste load allocations. The Wasteload Allocation Attainment Programs shall include: 1. A detailed description of the strategy the MS4 will use to guide BMP selection, assessment, and implementation, to ensure that BMPs implemented will be effective at abating pollutant sources, reducing pollutant discharges, and achieving wasteload allocations according to the TMDL schedule. 2. Identification of sources of the impairment within the MS4's jurisdiction, including specific information on various source locations and their magnitude within the jurisdiction. 3. Prioritization of sources within the MS4's jurisdiction, based on suspected contribution to the impairment, ability to control the source, and other pertinent factors.

ATTACHMENT G – Region-Specific Requirements
Regional Water Board-Approved TMDLs with urban runoff listed as a source

TMDL Effective Date Basin Plan Amendment (BPA) Water Board Resolution No.	Phase II Entities~~Municipality~~	Impaired Water Body	Deliverables/Actions Required~~/Waste Load Allocations~~
Region 3: Central Coast Regional Water Board			
TMDL for ~~Fecal Coliform in~~ Corralitos and Salsipuedes Creeks *Fecal Coliform* (Ceontinued)			4. Identification of BMPs that will address the sources of impairing pollutants and reduce the discharge of impairing pollutants. 5. Prioritization of BMPs, based on suspected effectiveness at abating sources and reducing impairing pollutant discharges, as well as other pertinent factors. 6. Identification of BMPs the MS4 will implement, including a detailed implementation schedule. For each BMP, identify milestones the MS4 will use for tracking implementation, measurable goals the MS4 will use to assess implementation efforts, and measures and targets the MS4 will use to assess effectiveness. MS4s shall include expected BMP implementation for future implementation years, with the understanding that future BMP implementation plans may change as new information is obtained. 7. A quantifiable numeric analysis that uses published BMP pollutant removal estimates, performance estimates, modeling, best professional judgment, and/or other available tools to demonstrate that the BMP selected for implementation will likely achieve the MS4's wasteload allocation by the schedule identified in the TMDL.~~A quantifiable numeric analysis demonstrating the BMPs selected for implementation will likely achieve, based on modeling, published BMP pollutant removal performance estimates, best professional judgment, and/or other available tools, the MS4's wasteload allocation according to the schedule identified in the TMDL.~~ This analysis will most likely incorporate modeling efforts. The MS4 shall conduct repeat numeric analyses as the BMP implementation plans evolve and information on BMP effectiveness is generated. Once the MS4 has water quality data from its monitoring program, the MS4 shall incorporate water quality data into the numeric analyses to validate BMP implementation plans. 8. A detailed description, including a schedule, of a monitoring program the MS4 will implement to assess discharge and receiving water quality, BMP effectiveness, and progress towards any interim targets and ultimate attainment of the MS4s' wasteload allocation. The monitoring program shall be designed to validate BMP implementation efforts and quantitatively demonstrate attainment of interim targets and wasteload allocations. ~~8.~~9. If the approved TMDL does not explicitly include interim targets, the MS4 shall establish interim targets (and dates when stormwater discharge conditions will be evaluated) that are equally spaced in time over the TMDL attainment~~compliance~~ schedule and represent measurable, continually decreasing MS4 discharge concentrations or other appropriate interim measures of pollution reduction and progress towards the wasteload allocation. At least one interim target and date must occur during the first five years commencing on December 31, 2017.~~At least one interim target and date must occur during the five-year term of this Order.~~ The MS4 shall achieve its interim targets by the date it specifies in the Wasteload Allocation Attainment Program. If the MS4 does not achieve its interim target by the date specified, the MS4 shall develop and implement more effective BMPs that it can quantitatively demonstrate will achieve the next interim target. ~~9.~~10. A detailed description of how the MS4 will assess BMP and program effectiveness. The description shall incorporate the assessment methods described in the CASQA Municipal Storm ~~w~~Water Program Effectiveness Assessment Guide.

ATTACHMENT G – Region-Specific Requirements
Regional Water Board-Approved TMDLs with urban runoff listed as a source

TMDL Effective Date Basin Plan Amendment (BPA) Water Board Resolution No.	Phase II Entities~~Municipality~~	Impaired Water Body	Deliverables/Actions Required/~~Waste Load Allocations~~
Region 3: Central Coast Regional Water Board			
			~~10.~~11.A detailed description of how the MS4 will modify the program to improve upon BMPs determined to be ineffective during the effectiveness assessment. ~~11.~~12.A detailed description of information the MS4 will include in annual reports to demonstrate adequate progress towards attainment of wasteload allocations according to the TMDL schedule. ~~12.~~13.A detailed description of how the MS4 will collaborate with other agencies, stakeholders, and the public to develop and implement the Wasteload Allocation Attainment Program. ~~13.~~14.Any other items identified by Integrated Report fact sheets, TMDL Project Reports, TMDL Resolutions, or that are currently being implemented by the MS4 to control its contribution to the impairment. ~~All allocations shall be achieved no later than~~By September 8, 2024, the permittees shall demonstrate attainment of the TMDL WLA as specified in Section E.15.a.(ii). or F.5.i.1.(ii). of this Order.
TMDL for ~~Fecal Coliform in~~ the Lower Salinas River Watershed *Fecal Coliform* Effective Date: ~~OAL approval anticipated in 2011~~12/20/2011 BPA: Chapter 4 Resolution No. R3-2010-0017	County of Monterey	Lower Salinas River Old Salinas River Estuary Tembladero Slough Salinas Reclamation Canal Alisal Creek Gabilan Creek Salinas River Lagoon (North)	**~~Purpose of Provisions~~** ~~The purpose of these provisions is to implement the requirements of the TMDL for fecal coliform in the Lower Salinas River Watershed.~~ **~~TMDL Wasteload Allocations~~** ~~The County of Monterey is assigned the following concentration based wasteload allocation for fecal coliform:~~ ~~Fecal coliform concentration, based on a minimum of five samples for any 30-day period, shall not exceed a log mean of 200 MPN per 100mL, nor shall more than ten percent of total samples collected during any 30-day period exceed 400 MPN per 100mL.~~ ~~These wasteload allocations are receiving water allocations; storm water discharge cannot cause or contribute to exceedance of the allocation as measured in receiving water.~~ **Requirements~~Provisions~~ for Implementing the TMDL** By July 1, 2018, ~~Within one year of adoption of this Order,~~ the County of Monterey (hereafter referred to in this TMDL section as "the MS4") shall ~~develop, submit, and begin implementation of~~implement a Wasteload Allocation Attainment Program that identifies the actions it will take to attain its wasteload allocation. The Wasteload Allocation Attainment Program shall include: 1. A detailed description of the strategy the MS4 will use to guide BMP selection, assessment, and implementation, to ensure that BMPs implemented will be effective at abating pollutant sources, reducing pollutant discharges, and achieving wasteload allocations according to the TMDL schedule. 2. Identification of sources of the impairment within the MS4's jurisdiction, including specific information on various source locations and their magnitude within the jurisdiction.

ATTACHMENT G – Region-Specific Requirements
Regional Water Board-Approved TMDLs with urban runoff listed as a source

TMDL Effective Date Basin Plan Amendment (BPA) Water Board Resolution No.	Phase II Entities~~Municipality~~	Impaired Water Body	Deliverables/Actions Required/~~Waste Load Allocations~~
Region 3: Central Coast Regional Water Board			
TMDL for ~~Fecal Coliform in~~ the Lower Salinas River Watershed *Fecal Coliform* (Ccontinued)		Santa Rita Creek ~~Quail Creek~~ ~~Towne Creek~~	3. Prioritization of sources within the MS4's jurisdiction, based on suspected contribution to the impairment, ability to control the source, and other pertinent factors. ~~3.~~4. Identification of BMPs that will address the sources of impairing pollutants and reduce the discharge of impairing pollutants. ~~4.~~5. Prioritization of BMPs, based on suspected effectiveness at abating sources and reducing impairing pollutant discharges, as well as other pertinent factors. ~~5.~~6. Identification of BMPs the MS4 will implement, including a detailed implementation schedule. For each BMP, identify milestones the MS4 will use for tracking implementation, measurable goals the MS4 will use to assess implementation efforts, and measures and targets the MS4 will use to assess effectiveness. MS4s shall include expected BMP implementation for future implementation years, with the understanding that future BMP implementation plans may change as new information is obtained. ~~6.~~7. A quantifiable numeric analysis that uses published BMP pollutant removal estimates, performance estimates, modeling, best professional judgment, and/or other available tools to demonstrate that the BMP selected for implementation will likely achieve the MS4's wasteload allocation by the schedule identified in the TMDL.~~A quantifiable numeric analysis demonstrating the BMPs selected for implementation will likely achieve, based on modeling, published BMP pollutant removal performance estimates, best professional judgment, and/or other available tools, the MS4's wasteload allocation according to the schedule identified in the TMDL.~~ This analysis will most likely incorporate modeling efforts. The MS4 shall conduct repeat numeric analyses as the BMP implementation plans evolve and information on BMP effectiveness is generated. Once the MS4 has water quality data from its monitoring program, the MS4 shall incorporate water quality data into the numeric analyses to validate BMP implementation plans. 8. A detailed description, including a schedule, of a monitoring program the MS4 will implement to assess discharge and receiving water quality, BMP effectiveness, and progress towards any interim targets and ultimate attainment of the MS4s' wasteload allocation. The monitoring program shall be designed to validate BMP implementation efforts and quantitatively demonstrate attainment of interim targets and wasteload allocations. ~~7.~~9. If the approved TMDL does not explicitly include interim targets, the MS4 shall establish interim targets (and dates when stormwater discharge conditions will be evaluated) that are equally spaced in time over the TMDL attainment~~compliance~~ schedule and represent measurable, continually decreasing MS4 discharge concentrations or other appropriate interim measures of pollution reduction and progress towards the wasteload allocation. At least one interim target and date must occur during the first five years commencing on December 31, 2017.~~At least one interim target and date must occur during the five-year term of this Order.~~ The MS4 shall achieve its interim targets by the date it specifies in the Wasteload Allocation Attainment Program. If the MS4 does not achieve its interim target by the date specified, the MS4 shall develop and implement more effective BMPs that it can quantitatively demonstrate will achieve the next interim target.

ATTACHMENT G – Region-Specific Requirements
Regional Water Board-Approved TMDLs with urban runoff listed as a source

TMDL Effective Date Basin Plan Amendment (BPA) Water Board Resolution No.	Phase II Entities~~Municipality~~	Impaired Water Body	Deliverables/Actions Required/~~Waste Load Allocations~~
Region 3: Central Coast Regional Water Board			
			~~8.~~10.A detailed description of how the MS4 will assess BMP and program effectiveness. The description shall incorporate the assessment methods described in the CASQA Municipal Storm ~~w~~Water Program Effectiveness Assessment Guide. ~~9.~~11.A detailed description of how the MS4 will modify the program to improve upon BMPs determined to be ineffective during the effectiveness assessment. ~~10.~~12.A detailed description of information the MS4 will include in annual reports to demonstrate adequate progress towards attainment of wasteload allocations according to the TMDL schedule. ~~11.~~13.A detailed description of how the MS4 will collaborate with other agencies, stakeholders, and the public to develop and implement the Wasteload Allocation Attainment Program. ~~12.~~14.Any other items identified by Integrated Report fact sheets, TMDL Project Reports, TMDL Resolutions, or that are currently being implemented by the MS4 to control its contribution to the impairment. ~~All allocations shall be achieved no later than~~By December 20, 2024, the permittees shall demonstrate attainment of the TMDL WLA as specified in Section E.15.a.(ii). or F.5.i.1.(ii). of this Order.
TMDL for the ~~Pathogens in San in~~ San Lorenzo River Estuary, San Lorenzo River, Branciforte Creek, Camp Evers Creek, Carbonera Creek, and Lompico Creek *Pathogens* Effective Date: ~~OAL approval pending; anticipated March 2011~~6/8/2011 BPA: Chapter 4 Resolution No. R3-2009-0023	City of Santa Cruz County of Santa Cruz City of Scotts Valley	San Lorenzo River Estuary San Lorenzo River Branciforte Creek Camp Evers Creek Carbonera Creek Lompico Creek	~~**Purpose of Provisions**~~ ~~The purpose of these provisions is to implement the requirements of the TMDL for Pathogens in San Lorenzo River Estuary, San Lorenzo River, Branciforte Creek, Camp Evers Creek, Carbonera Creek, and Lompico Creek.~~ ~~**TMDL Wasteload Allocations**~~ ~~The City of Santa Cruz, County of Santa Cruz and the City of Scotts Valley are assigned the following concentration based wasteload allocation for fecal coliform: based on a minimum of not less than five samples for any 30-day period, fecal coliform shall not exceed a log mean of 200 MPN per 100 mL, nor shall more than 10 percent of samples collected during any 30-day period exceed 400 MPN per 100 mL.~~ ~~These wasteload allocations are receiving water allocations; storm water discharge cannot cause or contribute to exceedance of the allocations as measured in receiving water.~~ ~~The City of Santa Cruz is assigned allocations in San Lorenzo River Estuary, San Lorenzo River, Branciforte Creek, and Carbonera Creek.~~ ~~The County of Santa Cruz is assigned allocations in San Lorenzo River, Branciforte Creek, Lompico Creek, and Carbonera Creek,~~ ~~The City of Scotts Valley is assigned allocations in Camp Evers Creek and Carbonera Creek.~~ ~~**Provision**~~**Requirements for Implementing the TMDL**

ATTACHMENT G – Region-Specific Requirements
Regional Water Board-Approved TMDLs with urban runoff listed as a source

TMDL Effective Date Basin Plan Amendment (BPA) Water Board Resolution No.	Phase II Entities~~Municipality~~	Impaired Water Body	Deliverables/Actions Required~~Waste Load Allocations~~
Region 3: Central Coast Regional Water Board			
TMDL for the ~~Pathogens in San in~~ San Lorenzo River Estuary, San Lorenzo River, Branciforte Creek, Camp Evers Creek, Carbonera Creek, and Lompico Creek *Pathogens* (Ceontinued)			By July 1, 2018, ~~By June 30, 2013 ,~~ the Phase II entities identified in this TMDL section~~County of Santa Cruz and the Cities of Santa Cruz and Scotts Valley~~ (hereafter referred to in this TMDL section as "the MS4") shall each ~~develop, submit, and begin implementation of~~implement a Wasteload Allocation Attainment Program that identifies the actions they will take to attain their wasteload allocations. The Wasteload Allocation Attainment Programs shall include: 1. A detailed description of the strategy the MS4 will use to guide BMP selection, assessment, and implementation, to ensure that BMPs implemented will be effective at abating pollutant sources, reducing pollutant discharges, and achieving wasteload allocations according to the TMDL schedule. 2. Identification of sources of the impairment within the MS4's jurisdiction, including specific information on various source locations and their magnitude within the jurisdiction. 3. Prioritization of sources within the MS4's jurisdiction, based on suspected contribution to the impairment, ability to control the source, and other pertinent factors. 4. Identification of BMPs that will address the sources of impairing pollutants and reduce the discharge of impairing pollutants. 5. Prioritization of BMPs, based on suspected effectiveness at abating sources and reducing impairing pollutant discharges, as well as other pertinent factors. 6. Identification of BMPs the MS4 will implement, including a detailed implementation schedule. For each BMP, identify milestones the MS4 will use for tracking implementation, measurable goals the MS4 will use to assess implementation efforts, and measures and targets the MS4 will use to assess effectiveness. MS4s shall include expected BMP implementation for future implementation years, with the understanding that future BMP implementation plans may change as new information is obtained. 7. A quantifiable numeric analysis that uses published BMP pollutant removal estimates, performance estimates, modeling, best professional judgment, and/or other available tools to demonstrate that the BMP selected for implementation will likely achieve the MS4's wasteload allocation by the schedule identified in the TMDL.~~A quantifiable numeric analysis demonstrating the BMPs selected for implementation will likely achieve, based on modeling, published BMP pollutant removal performance estimates, best professional judgment, and/or other available tools, the MS4's wasteload allocation according to the schedule identified in the TMDL.~~ This analysis will most likely incorporate modeling efforts. The MS4 shall conduct repeat numeric analyses as the BMP implementation plans evolve and information on BMP effectiveness is generated. Once the MS4 has water quality data from its monitoring program, the MS4 shall incorporate water quality data into the numeric analyses to validate BMP implementation plans. 8. A detailed description, including a schedule, of a monitoring program the MS4 will implement to assess discharge and receiving water quality, BMP effectiveness, and progress towards any interim targets and ultimate attainment of the MS4s' wasteload allocation. The monitoring program shall be designed to validate BMP implementation efforts and quantitatively demonstrate attainment of interim targets and wasteload allocations.

ATTACHMENT G – Region-Specific Requirements
Regional Water Board-Approved TMDLs with urban runoff listed as a source

TMDL Effective Date Basin Plan Amendment (BPA) Water Board Resolution No.	Phase II Entities~~Municipality~~	Impaired Water Body	Deliverables/Actions Required/~~Waste Load Allocations~~
Region 3: Central Coast Regional Water Board			
TMDL for the ~~Pathogens in San in~~ San Lorenzo River Estuary, San Lorenzo River, Branciforte Creek, Camp Evers Creek, Carbonera Creek, and Lompico Creek *Pathogens* (Ceontinued)			~~8.~~9. If the approved TMDL does not explicitly include interim targets, the MS4 shall establish interim targets (and dates when stormwater discharge conditions will be evaluated) that are equally spaced in time over the TMDL attainment~~compliance~~ schedule and represent measurable, continually decreasing MS4 discharge concentrations or other appropriate interim measures of pollution reduction and progress towards the wasteload allocation. At least one interim target and date must occur during the first five years commencing on December 31, 2017.~~At least one interim target and date must occur during the five-year term of this Order.~~ The MS4 shall achieve its interim targets by the date it specifies in the Wasteload Allocation Attainment Program. If the MS4 does not achieve its interim target by the date specified, the MS4 shall develop and implement more effective BMPs that it can quantitatively demonstrate will achieve the next interim target. ~~9.~~10.A detailed description of how the MS4 will assess BMP and program effectiveness. The description shall incorporate the assessment methods described in the CASQA Municipal Storm ~~w~~Water Program Effectiveness Assessment Guide. ~~10.~~11.A detailed description of how the MS4 will modify the program to improve upon BMPs determined to be ineffective during the effectiveness assessment. ~~11.~~12.A detailed description of information the MS4 will include in annual reports to demonstrate adequate progress towards attainment of wasteload allocations according to the TMDL schedule. ~~12.~~13.A detailed description of how the MS4 will collaborate with other agencies, stakeholders, and the public to develop and implement the Wasteload Allocation Attainment Program. ~~13.~~14.Any other items identified by Integrated Report fact sheets, TMDL Project Reports, TMDL Resolutions, or that are currently being implemented by the MS4 to control its contribution to the impairment. ~~All allocations shall be achieved no later than~~By June 8, 2024, the permittees shall demonstrate attainment of the TMDL WLA as specified in Section E.15.a.(ii). or F.5.i.1.(ii). of this Order.
TMDL for ~~Pathogens in~~ Soquel Lagoon, Soquel Creek, and Noble Gulch *Pathogens* Effective Date: 9/15/2010 BPA: Chapter 4 Resolution No. R3-2009-0024	City of Capitola County of Santa Cruz	Soquel Lagoon Soquel Creek Noble Gulch	~~**Purpose of Provisions**~~ ~~The purpose of these provisions is to implement the requirements of the TMDL for Pathogens in Soquel Lagoon, Soquel Creek, and Noble Gulch.~~ ~~**TMDL Wasteload Allocations**~~ ~~The City of Capitola and the County of Santa Cruz are assigned the following concentration based wasteload allocation for fecal coliform: based on a minimum of not less than five samples for any 30-day period, fecal coliform shall not exceed a log mean of 200 MPN per 100 mL, nor shall more than 10 percent of samples collected during any 30-day period exceed 400 MPN per 100 mL.~~ ~~These wasteload allocations are receiving water allocations; storm water discharge cannot cause or contribute to exceedance of the allocations as measured in receiving water.~~ ~~The City of Capitola is assigned allocations in Soquel Lagoon.~~

ATTACHMENT G – Region-Specific Requirements
Regional Water Board-Approved TMDLs with urban runoff listed as a source

TMDL Effective Date Basin Plan Amendment (BPA) Water Board Resolution No.	Phase II Entities~~Municipality~~	Impaired Water Body	Deliverables/Actions Required~~/Waste Load Allocations~~
Region 3: Central Coast Regional Water Board			
TMDL for ~~Pathogens in~~ Soquel Lagoon, Soquel Creek, and Noble Gulch *Pathogens* (C~~c~~ontinued)			~~The County of Santa Cruz is assigned allocations in Soquel Creek and Noble Gulch.~~ **~~Provision~~Requirements for Implementing the TMDL** By July 1, 2018, ~~By June 30, 2013,~~ the Phase II entities identified in this TMDL section~~City of Capitola and the County of Santa Cruz~~ (hereafter referred to in this TMDL section as "the MS4") shall each ~~develop, submit, and begin implementation of~~ implement a Wasteload Allocation Attainment Program that identifies the actions they will take to attain their wasteload allocations. The Wasteload Allocation Attainment Programs shall include: 1. A detailed description of the strategy the MS4 will use to guide BMP selection, assessment, and implementation, to ensure that BMPs implemented will be effective at abating pollutant sources, reducing pollutant discharges, and achieving wasteload allocations according to the TMDL Schedule. 2. Identification of sources of the impairment within the MS4's jurisdiction, including specific information on various source locations and their magnitude within the jurisdiction. 3. Prioritization of sources within the MS4's jurisdiction, based on suspected contribution to the impairment, ability to control the source, and other pertinent factors. 4. Identification of BMPs that will address the sources of impairing pollutants and reduce the discharge of impairing pollutants. 5. Prioritization of BMPs, based on suspected effectiveness at abating sources and reducing impairing pollutant discharges, as well as other pertinent factors. 6. Identification of BMPs the MS4 will implement, including a detailed implementation schedule. For each BMP, identify milestones the MS4 will use for tracking implementation, measurable goals the MS4 will use to assess implementation efforts, and measures and targets the MS4 will use to assess effectiveness. MS4s shall include expected BMP implementation for future implementation years, with the understanding that future BMP implementation plans may change as new information is obtained. 7. A quantifiable numeric analysis that uses published BMP pollutant removal estimates, performance estimates, modeling, best professional judgment, and/or other available tools to demonstrate that the BMP selected for implementation will likely achieve the MS4's wasteload allocation by the schedule identified in the TMDL.~~A quantifiable numeric analysis demonstrating the BMPs selected for implementation will likely achieve, based on modeling, published BMP pollutant removal performance estimates, best professional judgment, and/or other available tools, the MS4's wasteload allocation according to the schedule identified in the TMDL.~~ This analysis will most likely incorporate modeling efforts. The MS4 shall conduct repeat numeric analyses as the BMP implementation plans evolve and information on BMP effectiveness is generated. Once the MS4 has water quality data from its monitoring program, the MS4 shall incorporate water quality data into the numeric analyses to validate BMP implementation plans.

ATTACHMENT G – Region-Specific Requirements
Regional Water Board-Approved TMDLs with urban runoff listed as a source

TMDL Effective Date Basin Plan Amendment (BPA) Water Board Resolution No.	Phase II Entities~~Municipality~~	Impaired Water Body	Deliverables/Actions Required~~Waste Load Allocations~~
Region 3: Central Coast Regional Water Board			
			~~7.~~8. A detailed description, including a schedule, of a monitoring program the MS4 will implement to assess discharge and receiving water quality, BMP effectiveness, and progress towards any interim targets and ultimate attainment of the MS4s' wasteload allocation. The monitoring program shall be designed to validate BMP implementation efforts and quantitatively demonstrate attainment of interim targets and wasteload allocations. ~~8.~~9. If the approved TMDL does not explicitly include interim targets, the MS4 shall establish interim targets (and dates when stormwater discharge conditions will be evaluated) that are equally spaced in time over the TMDL attainment~~compliance~~ schedule and represent measurable, continually decreasing MS4 discharge concentrations or other appropriate interim measures of pollution reduction and progress towards the wasteload allocation. At least one interim target and date must occur during the first five years commencing on December 31, 2017.~~At least one interim target and date must occur during the five year term of this Order.~~ The MS4 shall achieve its interim targets by the date it specifies in the Wasteload Allocation Attainment Program. If the MS4 does not achieve its interim target by the date specified, the MS4 shall develop and implement more effective BMPs that it can quantitatively demonstrate will achieve the next interim target. ~~9.~~10.A detailed description of how the MS4 will assess BMP and program effectiveness. The description shall incorporate the assessment methods described in the CASQA Municipal Storm - ater Program Effectiveness Assessment Guide. ~~10.~~11.A detailed description of how the MS4 will modify the program to improve upon BMPs determined to be ineffective during the effectiveness assessment. ~~11.~~12.A detailed description of information the MS4 will include in annual reports to demonstrate adequate progress towards attainment of wasteload allocations according to the TMDL schedule. ~~12.~~13.A detailed description of how the MS4 will collaborate with other agencies, stakeholders, and the public to develop and implement the Wasteload Allocation Attainment Program. ~~13.~~14.Any other items identified by Integrated Report fact sheets, TMDL Project Reports, TMDL Resolutions, or that are currently being implemented by the MS4 to control its contribution to the impairment. ~~All allocations shall be achieved~~ By September 15, 2023, the permittees shall demonstrate attainment of the TMDL WLA as specified in Section E.15.a.(ii). or F.5.i.1.(ii). of this Order.
TMDL for ~~Pathogens in~~ Aptos Creek, Valencia Creek, and Trout Gulch *Pathogens* Effective Date: 10/29/2010 BPA: Chapter 4 Resolution No. R3-2009-0025	County of Santa Cruz	Aptos Creek Valencia Creek Trout Gulch	~~**Purpose of Provisions**~~ ~~The purpose of these provisions is to implement the requirements of the TMDL for Pathogens in Aptos Creek, Valencia Creek, and Trout Gulch.~~ ~~**TMDL Wasteload Allocations**~~ ~~The County of Santa Cruz is assigned the following concentration based wasteload allocation for fecal coliform: based on a minimum of not less than five samples for any 30-day period, fecal coliform shall~~

ATTACHMENT G – Region-Specific Requirements
Regional Water Board-Approved TMDLs with urban runoff listed as a source

TMDL Effective Date Basin Plan Amendment (BPA) Water Board Resolution No.	Phase II Entities~~Municipality~~	Impaired Water Body	Deliverables/Actions Required/~~Waste Load Allocations~~
Region 3: Central Coast Regional Water Board			
TMDL for Aptos Creek, Valencia Creek, and Trout Gulch *Pathogens* (Continued)			~~not exceed a log mean of 200 MPN per 100 mL, nor shall more than 10 percent of samples collected during any 30-day period exceed 400 MPN per 100 mL.~~ ~~These wasteload allocations are receiving water allocations; storm water discharge cannot cause or contribute to exceedance of the allocations as measured in receiving water.~~ ~~The County of Santa Cruz is assigned allocations in Aptos Creek, Valencia Creek, and Trout Gulch.~~ **~~Provision~~Requirements for Implementing the TMDL** By July 1, 2018, ~~By June 30, 2013 ,~~ the County of Santa Cruz (hereafter referred to in this TMDL section as "the MS4") shall ~~develop, submit, and begin implementation of~~implement a Wasteload Allocation Attainment Program that identifies the actions it will take to attain its wasteload allocation. The Wasteload Allocation Attainment Program shall include: 1. A detailed description of the strategy the MS4 will use to guide BMP selection, assessment, and implementation, to ensure that BMPs implemented will be effective at abating pollutant sources, reducing pollutant discharges, and achieving wasteload allocations according to the TMDL schedule. 2. Identification of sources of the impairment within the MS4's jurisdiction, including specific information on various source locations and their magnitude within the jurisdiction. 3. Prioritization of sources within the MS4's jurisdiction, based on suspected contribution to the impairment, ability to control the source, and other pertinent factors. 4. Identification of BMPs that will address the sources of impairing pollutants and reduce the discharge of impairing pollutants. 5. Prioritization of BMPs, based on suspected effectiveness at abating sources and reducing impairing pollutant discharges, as well as other pertinent factors. 6. Identification of BMPs the MS4 will implement, including a detailed implementation schedule. For each BMP, identify milestones the MS4 will use for tracking implementation, measurable goals the MS4 will use to assess implementation efforts, and measures and targets the MS4 will use to assess effectiveness. MS4s shall include expected BMP implementation for future implementation years, with the understanding that future BMP implementation plans may change as new information is obtained. 7. A quantifiable numeric analysis that uses published BMP pollutant removal estimates, performance estimates, modeling, best professional judgment, and/or other available tools to demonstrate that the BMP selected for implementation will likely achieve the MS4's wasteload allocation by the schedule identified in the TMDL.~~A quantifiable numeric analysis demonstrating the BMPs selected for implementation will likely achieve, based on modeling, published BMP pollutant removal performance estimates, best professional judgment, and/or other available tools, the MS4's wasteload allocation according to the schedule identified in the TMDL.~~ This analysis will most likely incorporate modeling efforts. The MS4 shall conduct repeat numeric

ATTACHMENT G – Region-Specific Requirements
Regional Water Board-Approved TMDLs with urban runoff listed as a source

TMDL Effective Date Basin Plan Amendment (BPA) Water Board Resolution No.	Phase II Entities~~Municipality~~	Impaired Water Body	Deliverables/Actions Required~~Waste Load Allocations~~
Region 3: Central Coast Regional Water Board			
TMDL for ~~Pathogens in~~ Aptos Creek, Valencia Creek, and Trout Gulch *Pathogens* (C~~e~~ontinued)			analyses as the BMP implementation plans evolve and information on BMP effectiveness is generated. Once the MS4 has water quality data from its monitoring program, the MS4 shall incorporate water quality data into the numeric analyses to validate BMP implementation plans. ~~7.~~8. A detailed description, including a schedule, of a monitoring program the MS4 will implement to assess discharge and receiving water quality, BMP effectiveness, and progress towards any interim targets and ultimate attainment of the MS4s' wasteload allocation. The monitoring program shall be designed to validate BMP implementation efforts and quantitatively demonstrate attainment of interim targets and wasteload allocations. 8.9. If the approved TMDL does not explicitly include interim targets, the MS4 shall establish interim targets (and dates when stormwater discharge conditions will be evaluated) that are equally spaced in time over the TMDL attainment~~compliance~~ schedule and represent measurable, continually decreasing MS4 discharge concentrations or other appropriate interim measures of pollution reduction and progress towards the wasteload allocation. At least one interim target and date must occur during the first five years commencing on December 31, 2017.~~At least one interim target and date must occur during the five-year term of this Order.~~ The MS4 shall achieve its interim targets by the date it specifies in the Wasteload Allocation Attainment Program. If the MS4 does not achieve its interim target by the date specified, the MS4 shall develop and implement more effective BMPs that it can quantitatively demonstrate will achieve the next interim target. ~~9.~~10.A detailed description of how the MS4 will assess BMP and program effectiveness. The description shall incorporate the assessment methods described in the CASQA Municipal Storm ~~w~~Water Program Effectiveness Assessment Guide. ~~10.~~11.A detailed description of how the MS4 will modify the program to improve upon BMPs determined to be ineffective during the effectiveness assessment. ~~11.~~12.A detailed description of information the MS4 will include in annual reports to demonstrate adequate progress towards attainment of wasteload allocations according to the TMDL schedule. ~~12.~~13.A detailed description of how the MS4 will collaborate with other agencies, stakeholders, and the public to develop and implement the Wasteload Allocation Attainment Program. ~~13.~~14.Any other items identified by Integrated Report fact sheets, TMDL Project Reports, TMDL Resolutions, or that are currently being implemented by the MS4 to control its contribution to the impairment. ~~All allocations shall be achieved~~By October 29, 2023, the permittees shall demonstrate attainment of the TMDL WLA as specified in Section E.15.a.(ii). or F.5.i.1.(ii). of this Order.
TMDLs for the Santa Maria River Watershed *Fecal Indicator Bacteria* Effective Date: 2/21/2013	City of Guadalupe County of San Luis Obispo	Water Bodies in the Santa Maria River Watershed, including:	**Requirements for Implementing the TMDL** By July 1, 2018, the Phase II entities identified in this TMDL section (hereafter referred to in this TMDL section as "the MS4") shall each develop, submit, and begin implementation of a Wasteload Allocation Attainment Program, or an integrated plan, that identifies the actions they will take to attain their wasteload allocations. The Wasteload Allocation Attainment Programs or integrated plans shall include:

ATTACHMENT G – Region-Specific Requirements
Regional Water Board-Approved TMDLs with urban runoff listed as a source

TMDL Effective Date Basin Plan Amendment (BPA) Water Board Resolution No.	Phase II Entities~~Municipality~~	Impaired Water Body	Deliverables/Actions Required~~Waste Load Allocations~~
Region 3: Central Coast Regional Water Board			
BPA: Chapter 4 Resolution No. R3-2012-0055 **TMDLs for the Santa Maria River Watershed** *Fecal Indicator Bacteria* (Continued)	County of Santa Barbara City of Santa Maria	Blosser Channel Bradley Channel Main Street Canal Nipomo Creek Orcutt Creek Santa Maria River Estuary Santa Maria River	1. A detailed description of the strategy the MS4 will use to guide BMP selection, assessment, and implementation, to ensure that BMPs implemented will be effective at abating pollutant sources, reducing pollutant discharges, and achieving wasteload allocations according to the TMDL schedule. 2. Identification of sources of the impairment within the MS4's jurisdiction, including specific information on various source locations and their magnitude within the jurisdiction. 3. Prioritization of sources within the MS4's jurisdiction, based on suspected contribution to the impairment, ability to control the source, and other pertinent factors. 4. Identification of BMPs that will address the sources of impairing pollutants and reduce the discharge of impairing pollutants. 5. Prioritization of BMPs, based on suspected effectiveness at abating sources and reducing impairing pollutant discharges, as well as other pertinent factors. 6. Identification of BMPs the MS4 will implement, including a detailed implementation schedule. For each BMP, identify milestones the MS4 will use for tracking implementation, measurable goals the MS4 will use to assess implementation efforts, and measures and targets the MS4 will use to assess effectiveness. MS4s shall include expected BMP implementation for future implementation years, with the understanding that future BMP implementation plans may change as new information is obtained. 7. A quantifiable numeric analysis that uses published BMP pollutant removal estimates, performance estimates, modeling, best professional judgment, and/or other available tools to demonstrate that the BMP selected for implementation will likely achieve the MS4's wasteload allocation by the schedule identified in the TMDL. This analysis will most likely incorporate modeling efforts. The MS4 shall conduct repeat numeric analyses as the BMP implementation plans evolve and information on BMP effectiveness is generated. Once the MS4 has water quality data from its monitoring program, the MS4 shall incorporate water quality data into the numeric analyses to validate BMP implementation plans. 8. A detailed description, including a schedule, of a monitoring program the MS4 will implement to assess discharge and receiving water quality, BMP effectiveness, and progress towards any interim targets and ultimate attainment of the MS4s' wasteload allocations. The monitoring program shall be designed to validate BMP implementation efforts and quantitatively demonstrate attainment of interim targets and wasteload allocations. 9. The MS4 shall establish interim targets (and dates when stormwater discharge conditions will be evaluated) that are equally spaced in time over the TMDL attainment schedule and represent measurable, continually decreasing MS4 discharge concentrations or other appropriate interim measures of pollution reduction and progress towards the wasteload allocation. At least one interim target and date must occur during the first five years commencing on December 31, 2017. The MS4 shall achieve its interim targets by the date it specifies in the Wasteload Allocation Attainment Program. If the MS4 does not specify interim targets as described above in its Wasteload Allocation Attainment Program, the interim targets identified in the TMDL apply. If the

ATTACHMENT G – Region-Specific Requirements
Regional Water Board-Approved TMDLs with urban runoff listed as a source

TMDL Effective Date Basin Plan Amendment (BPA) Water Board Resolution No.	Phase II Entities~~Municipality~~	Impaired Water Body	Deliverables/Actions Required/~~Waste Load Allocations~~
Region 3: Central Coast Regional Water Board			
			MS4 does not achieve any interim target by the date specified, the MS4 shall develop and implement more effective BMPs that it can quantitatively demonstrate will achieve the next interim target. 10. A detailed description of how the MS4 will assess BMP and program effectiveness. The description shall incorporate the assessment methods described in the CASQA Municipal Storm Water Program Effectiveness Assessment Guide. 11. A detailed description of how the MS4 proposes to assess its attainment of interim targets and the final wasteload allocation. 12. A detailed description of how the MS4 will modify the program to improve upon BMPs determined to be ineffective during the effectiveness assessment. 13. A detailed description of information the MS4 will include in annual reports to demonstrate adequate progress towards attainment of wasteload allocations according to the TMDL schedule. 14. A detailed description of how the MS4 will collaborate with other agencies, stakeholders, and the public to develop and implement the Wasteload Allocation Attainment Program or integrated plan. 15. Any other items identified by Integrated Report fact sheets, TMDL Project Reports, TMDL Resolutions, or that are currently being implemented by the MS4 to control its contribution to the impairment, including public education and participation items identified above. By February 21, 2028, the permittees shall demonstrate attainment of the TMDL WLA as specified in Section E.15.a.(ii). or F.5.i.1.(ii). of this Order.
TMDLs for the Lower Santa Maria River Watershed and Tributaries to Oso Flaco Lake *Nitrogen Compounds and Orthophosphate* Effective Date: 5/22/2014 BPA: Chapter 4 Resolution No. R3-2013-0013	City of Guadalupe County of San Luis Obispo County of Santa Barbara City of Santa Maria	Water Bodies in the Lower Santa Maria River Watershed and Tributaries to Oso Flaco Lake, including: Blosser Channel Bradley Channel Greene Valley Creek	**Requirements for Implementing the TMDL** By July 1, 2018, the Phase II entities identified in this TMDL section (hereafter referred to in this TMDL section as "the MS4") shall each develop, submit, and begin implementation of a Wasteload Allocation Attainment Program, or an integrated plan, that identifies the actions they will take to attain their wasteload allocations. The Wasteload Allocation Attainment Programs or integrated plans shall include: 1. A detailed description of the strategy the MS4 will use to guide BMP selection, assessment, and implementation, to ensure that BMPs implemented will be effective at abating pollutant sources, reducing pollutant discharges, and achieving wasteload allocations according to the TMDL schedule. 2. Identification of sources of the impairment within the MS4's jurisdiction, including specific information on various source locations and their magnitude within the jurisdiction. 3. Prioritization of sources within the MS4's jurisdiction, based on suspected contribution to the impairment, ability to control the source, and other pertinent factors. 4. Identification of BMPs that will address the sources of impairing pollutants and reduce the discharge of impairing pollutants. 5. Prioritization of BMPs, based on suspected effectiveness at abating sources and reducing impairing pollutant discharges, as well as other pertinent factors.

ATTACHMENT G – Region-Specific Requirements
Regional Water Board-Approved TMDLs with urban runoff listed as a source

TMDL Effective Date Basin Plan Amendment (BPA) Water Board Resolution No.	Phase II Entities~~Municipality~~	Impaired Water Body	Deliverables/Actions Required~~Waste Load Allocations~~
Region 3: Central Coast Regional Water Board			
TMDL for the Lower Santa Maria River Watershed and Tributaries to Oso Flaco Lake *Nitrogen Compounds and Orthophosphate* (Continued)		Main Street Canal North Main Street Channel Orcutt Creek Nipomo Creek Santa Maria River Santa Maria River Estuary	6. Identification of BMPs the MS4 will implement, including a detailed implementation schedule. For each BMP, identify milestones the MS4 will use for tracking implementation, measurable goals the MS4 will use to assess implementation efforts, and measures and targets the MS4 will use to assess effectiveness. MS4s shall include expected BMP implementation for future implementation years, with the understanding that future BMP implementation plans may change as new information is obtained. 7. A quantifiable numeric analysis that uses published BMP pollutant removal estimates, performance estimates, modeling, best professional judgment, and/or other available tools to demonstrate that the BMP selected for implementation will likely achieve the MS4's wasteload allocation by the schedule identified in the TMDL. This analysis will most likely incorporate modeling efforts. The MS4 shall conduct repeat numeric analyses as the BMP implementation plans evolve and information on BMP effectiveness is generated. Once the MS4 has water quality data from its monitoring program, the MS4 shall incorporate water quality data into the numeric analyses to validate BMP implementation plans. 8. A detailed description, including a schedule, of a monitoring program the MS4 will implement to assess discharge and receiving water quality, BMP effectiveness, and progress towards any interim targets and ultimate attainment of the MS4s' wasteload allocations. The monitoring program shall be designed to validate BMP implementation efforts and quantitatively demonstrate attainment of interim and final wasteload allocations. 9. A detailed description of how the MS4 will assess BMP and program effectiveness. The description shall incorporate the assessment methods described in the CASQA Municipal Storm Water Program Effectiveness Assessment Guide. 10. A detailed description of how the MS4 proposes to assess its attainment of interim targets and the final wasteload allocation. 11. A detailed description of how the MS4 will modify the program to improve upon BMPs determined to be ineffective during the effectiveness assessment. 12. A detailed description of information the MS4 will include in annual reports to demonstrate adequate progress towards attainment of wasteload allocations according to the TMDL schedule. 13. A detailed description of how the MS4 will collaborate with other agencies, stakeholders, and the public to develop and implement the Wasteload Allocation Attainment Program or integrated plan. 14. Any other items identified by Integrated Report fact sheets, TMDL Project Reports, TMDL Resolutions, or that are currently being implemented by the MS4 to control its contribution to the impairment, including public education and participation items identified above. Waste load allocations will be achieved through implementation of management practices and strategies to reduce Nitrogen compound and Orthophosphate loading. Implementation can be conducted by MS4s specifically and/or through statewide programs addressing urban water pollution. The MS4 shall achieve its interim wasteload allocations as specified in the Fact Sheet. If the MS4 does not achieve any interim wasteload allocation by the date specified, the MS4 shall develop and

ATTACHMENT G – Region-Specific Requirements
Regional Water Board-Approved TMDLs with urban runoff listed as a source

TMDL Effective Date Basin Plan Amendment (BPA) Water Board Resolution No.	Phase II Entities~~Municipality~~	Impaired Water Body	Deliverables/Actions Required~~Waste Load Allocations~~
Region 3: Central Coast Regional Water Board			
			implement more effective BMPs that it can quantitatively demonstrate will achieve the next interim or final wasteload allocations. By May 22, 2044, the permittees shall demonstrate attainment of the TMDL WLA as specified in Section E.15.a.(ii). or F.5.i.1.(ii). of this Order.
TMDL for the Lower Salinas River and Reclamation Canal Basin and the Moro Cojo Slough Subwatershed *Nitrogen Compounds and Orthophosphate* Effective Date: 6/7/2014 BPA: Chapter 4 Resolution No. R3-2013-0008 **TMDL for the Lower Salinas River and Reclamation Canal Basin and the Moro Cojo Slough Subwatershed** *Nitrogen Compounds and Orthophosphate* (Continued)	County of Monterey	Lower Salinas River Santa Rita Creek Reclamation Canal Gabilan Creek Natividad Creek Alisal Creek	**Requirements for Implementing the TMDL** By July 1, 2018, the County of Monterey (hereafter referred to in this TMDL section as "the MS4") shall develop, submit, and begin implementation of a Wasteload Allocation Attainment Program that identifies the actions it will take to attain its wasteload allocations. The Wasteload Allocation Attainment Program shall include: 1. A detailed description of the strategy the MS4 will use to guide BMP selection, assessment, and implementation, to ensure that BMPs implemented will be effective at abating pollutant sources, reducing pollutant discharges, and achieving wasteload allocations according to the TMDL schedule. 2. Identification of sources of the impairment within the MS4's jurisdiction, including specific information on various source locations and their magnitude within the jurisdiction. 3. Prioritization of sources within the MS4's jurisdiction, based on suspected contribution to the impairment, ability to control the source, and other pertinent factors. 4. Identification of BMPs that will address the sources of impairing pollutants and reduce the discharge of impairing pollutants. 5. Prioritization of BMPs, based on suspected effectiveness at abating sources and reducing impairing pollutant discharges, as well as other pertinent factors. 6. Identification of BMPs the MS4 will implement, including a detailed implementation schedule. For each BMP, identify milestones the MS4 will use for tracking implementation, measurable goals the MS4 will use to assess implementation efforts, and measures and targets the MS4 will use to assess effectiveness. MS4s shall include expected BMP implementation for future implementation years, with the understanding that future BMP implementation plans may change as new information is obtained. 7. A quantifiable numeric analysis that uses published BMP pollutant removal estimates, performance estimates, modeling, best professional judgment, and/or other available tools to demonstrate that the BMP selected for implementation will likely achieve the MS4's wasteload allocation by the schedule identified in the TMDL. This analysis will most likely incorporate modeling efforts. The MS4 shall conduct repeat numeric analyses as the BMP implementation plans evolve and information on BMP effectiveness is generated. Once the MS4 has water quality data from its monitoring program, the MS4 shall incorporate water quality data into the numeric analyses to validate BMP implementation plans. 8. A detailed description, including a schedule, of a monitoring program the MS4 will implement to assess discharge and receiving water quality, BMP effectiveness, and progress towards any

ATTACHMENT G – Region-Specific Requirements
Regional Water Board-Approved TMDLs with urban runoff listed as a source

TMDL Effective Date Basin Plan Amendment (BPA) Water Board Resolution No.	Phase II Entities~~Municipality~~	Impaired Water Body	Deliverables/Actions Required~~/Waste Load Allocations~~
Region 3: Central Coast Regional Water Board			
TMDL for the Lower Salinas River and Reclamation Canal Basin and the Moro Cojo Slough Subwatershed *Nitrogen Compounds and Orthophosphate* (Continued)			interim targets and ultimate attainment of the MS4s' wasteload allocations. The monitoring program shall be designed to validate BMP implementation efforts and quantitatively demonstrate attainment of interim and final wasteload allocations. 9. A detailed description of how the MS4 will assess BMP and program effectiveness. The description shall incorporate the assessment methods described in the CASQA Municipal Storm Water Program Effectiveness Assessment Guide. 10. A detailed description of how the MS4 proposes to assess its attainment of interim targets and the final wasteload allocation. 11. A detailed description of how the MS4 will modify the program to improve upon BMPs determined to be ineffective during the effectiveness assessment. 12. A detailed description of information the MS4 will include in annual reports to demonstrate adequate progress towards attainment of wasteload allocations according to the TMDL schedule. 13. A detailed description of how the MS4 will collaborate with other agencies, stakeholders, and the public to develop and implement the Wasteload Allocation Attainment Program or integrated plan. 14. Any other items identified by Integrated Report fact sheets, TMDL Project Reports, TMDL Resolutions, or that are currently being implemented by the MS4 to control its contribution to the impairment. The MS4 shall achieve its interim wasteload allocations as specified in the Fact Sheet. If the MS4 does not achieve any interim wasteload allocation by the date specified, the MS4 shall develop and implement more effective BMPs that it can quantitatively demonstrate will achieve the next interim or final wasteload allocations. By May 7, 2044, the permittees shall demonstrate attainment of the TMDL WLA as specified in Section E.15.a.(ii). or F.5.i.1.(ii). of this Order.

ATTACHMENT G – Region-Specific Requirements
Regional Water Board-Approved TMDLs with urban runoff listed as a source

TMDL Effective Date Basin Plan Amendment (BPA) Water Board Resolution No.	Phase II Entities~~Municipality~~	Impaired Water Body	Deliverables/Actions Required~~/Waste Load Allocations~~
Region 3: Central Coast Regional Water Board			
TMDL for the Santa Maria River Watershed *Toxicity and Pesticides* Effective Date: 10/29/2014 BPA: Chapter 4 Resolution No. R3-2014-0009 **TMDL for the Santa Maria River Watershed** *Toxicity and Pesticides* (Continued)	City of Guadalupe City of Santa Maria County of Santa Barbara	Blosser Channel Bradley Channel Greene Valley Creek Main Street Canal, Orcutt Creek Santa Maria River	**Requirements for Implementing the TMDL** By July 1, 2018, the Phase II entities identified in this TMDL section (hereafter referred to in this TMDL section as "the MS4") shall each develop, submit, and begin implementation of a Wasteload Allocation Attainment Program, or an integrated plan, that identifies the actions they will take to attain their wasteload allocations. The Wasteload Allocation Attainment Programs or integrated plans shall include: 1. A detailed description of the strategy the MS4 will use to guide BMP selection, assessment, and implementation, to ensure that BMPs implemented will be effective at abating pollutant sources, reducing pollutant discharges, and achieving wasteload allocations according to the TMDL schedule. 2. Identification of sources of the impairment within the MS4's jurisdiction, including specific information on various source locations and their magnitude within the jurisdiction. 3. Prioritization of sources within the MS4's jurisdiction, based on suspected contribution to the impairment, ability to control the source, and other pertinent factors. 4. Identification of BMPs that will address the sources of impairing pollutants and reduce the discharge of impairing pollutants. 5. Prioritization of BMPs, based on suspected effectiveness at abating sources and reducing impairing pollutant discharges, as well as other pertinent factors. 6. Identification of BMPs the MS4 will implement, including a detailed implementation schedule. For each BMP, identify milestones the MS4 will use for tracking implementation, measurable goals the MS4 will use to assess implementation efforts, and measures and targets the MS4 will use to assess effectiveness. MS4s shall include expected BMP implementation for future implementation years, with the understanding that future BMP implementation plans may change as new information is obtained. 7. A quantifiable numeric analysis that uses published BMP pollutant removal estimates, performance estimates, modeling, best professional judgment, and/or other available tools to demonstrate that the BMP selected for implementation will likely achieve the MS4's wasteload allocation by the schedule identified in the TMDL. This analysis may incorporate modeling efforts. The MS4 shall conduct repeat numeric analyses as the BMP implementation plans evolve and information on BMP effectiveness is generated. Once the MS4 has water quality data from its monitoring program, the MS4 shall incorporate water quality data into the numeric analyses to validate BMP implementation plans. 8. A detailed description, including a schedule, of a monitoring program the MS4 will implement to assess discharge and receiving water quality, BMP effectiveness, and progress towards any interim targets and ultimate attainment of the MS4s' wasteload allocations. The monitoring program shall be designed to validate BMP implementation efforts and quantitatively demonstrate attainment of interim and final wasteload allocations. The Central Coast Water Board may approve participation in statewide or regional monitoring programs as meeting all, or a portion of monitoring requirements.

ATTACHMENT G – Region-Specific Requirements
Regional Water Board-Approved TMDLs with urban runoff listed as a source

TMDL Effective Date Basin Plan Amendment (BPA) Water Board Resolution No.	Phase II Entities~~Municipality~~	Impaired Water Body	Deliverables/Actions Required/~~Waste Load Allocations~~
Region 3: Central Coast Regional Water Board			
			9. A detailed description of how the MS4 will assess BMP and program effectiveness. The description shall incorporate the assessment methods described in the CASQA Municipal Storm Water Program Effectiveness Assessment Guide. 10. A detailed description of how the MS4 proposes to assess its attainment of interim targets and the final wasteload allocation. 11. A detailed description of how the MS4 will modify the program to improve upon BMPs determined to be ineffective during the effectiveness assessment. 12. A detailed description of information the MS4 will include in annual reports to demonstrate adequate progress towards attainment of wasteload allocations according to the TMDL schedule. 13. A detailed description of how the MS4 will collaborate with other agencies, stakeholders, and the public to develop and implement the Wasteload Allocation Attainment Program or integrated plan. 14. Any other items identified by Integrated Report fact sheets, TMDL Project Reports, TMDL Resolutions, or that are currently being implemented by the MS4 to control its contribution to the impairment, including public education and participation items identified above. Waste load allocations will be achieved through implementation of management practices and strategies to reduce pesticide loading, and wasteload allocation attainment will be demonstrated through water quality monitoring. Implementation can be conducted by MS4s specifically and/or through statewide programs addressing urban pesticide water pollution. The Wasteload Allocation Attainment Program may include participation in statewide efforts, by organizations such as California Stormwater Quality Association (CASQA), that coordinate with Department of Pesticide Regulation and other organizations taking actions to protect water quality from the use of pesticides in the urban environment. By November 1, 2029, the permittees shall demonstrate attainment of the pyrethroids WLA as specified in Section E.15.a.(ii). or F.5.i.1. (ii). of this Order. This estimate is based on the widespread availability of pyrethroids, including consumer usage, and current limited regulatory oversight. By November 1, 2044, the permittees shall demonstrate attainment of the organochlorine pesticides (DDT, DDD, DDE, chlordane, eldrin, toxaphene, dieldrin) WLA as specified in Section E.15.a.(ii). or F.5.i.1.(ii). of this Order.

ATTACHMENT G – Region-Specific Requirements
Regional Water Board-Approved TMDLs with urban runoff listed as a source

TMDL Effective Date Basin Plan Amendment (BPA) Water Board Resolution No	~~Municipality~~Phase II Entities	Impaired Water Body	Deliverables/Actions Required~~/Waste Load Allocations~~
Region 4: Los Angeles Regional Water Board			
TMDL for Avalon Beach~~Bacteria TMDL~~ *Bacteria* Effective Date: April 5, 2012 ~~Cease and Disist Order No.~~ BPA: N/A (Issued through R4-2012-0077)	City of Avalon	Avalon Beach	**Requirements for Implementing the TMDL** City of Avalon's compliance with the MS4-specific provisions of Cease and Desist Order No. R4-2012-0077 and the applicable implementation requirements and timelines therein, In addition to compliance with all requirements of this Order, shall constitute compliance with the requirements of this Attachment.
TMDL for Santa Monica Bay Beaches *Bacteria* Effective Date: July 15, 2003 BPA: Chapter 7-4 Resolution Nos.: 2002-04 (dry weather) 2002-022 (wet weather) R12-007 revision	Department of Parks and Recreation (Point Dume State Beach, Leo Carrillo State Beach, Robert H Meyer Memorial State Beach)	Santa Monica Bay	**Requirements for Implementing the TMDL:** The Department of Parks and Recreation (specifically, Point Dume State Beach, Leo Carrillo State Beach, and Robert H Meyer Memorial State Beach) must take either of the following actions to meet the requirements of this TMDL: 1. Enter in a cooperative agreement with Phase I MS4 Permittees, in the watershed or subwatershed of the impaired water body of this Section, to participate in a Watershed Management Program (WMP) or Enhanced Watershed Management Program (EWMP) developed and approved pursuant to one of the Los Angeles Region's Phase I MS4 permits. A Permittee shall notify the Regional Water Board of its intent to enter into a cooperative agreement with Phase I MS4 Permittees. Such notification shall be provided by July 1, 2018, and shall identify the Phase I MS4 Permittee(s) and the WMP or EWMP that the Permittee intends to participate in. The cooperative agreement shall be finalized by December 31, 2018, and shall be submitted to the Executive Officer upon finalization. or alternatively, 2. Propose a program plan for attaining the wasteload allocation(s). The Program Plan must identify the currently used and planned BMPs and any other planned actions to attain the wasteload allocation(s), which may include, but is not limited to, retaining the volume of runoff associated with the 85th percentile, 24-hour storm event on-site. The Program Plan must provide a technical demonstration (using modeling and/or empirical data) that there is a reasonable assurance that by implementing the

ATTACHMENT G – Region-Specific Requirements
Regional Water Board-Approved TMDLs with urban runoff listed as a source

TMDL Effective Date Basin Plan Amendment (BPA) Water Board Resolution No	~~Municipality~~Phase II Entities	Impaired Water Body	Deliverables/Actions Required~~/Waste Load Allocations~~
Region 4: Los Angeles Regional Water Board			
TMDL for Santa Monica Bay Beaches *Bacteria* (Continued)			BMPs and other planned actions in the Program Plan, the Permittee's MS4 discharges will achieve the wasteload allocation(s) by the attainment schedule deadline(s) identified within this specific TMDL section. The Program Plan must also include monitoring of the Permittee's MS4 discharges to track progress toward achieving the wasteload allocation(s) and validate the reasonable assurance demonstration. The Program Plan is subject to approval by the Los Angeles Regional Water Board Executive Officer. The Program Plan must be submitted for Los Angeles Regional Water Board Executive Officer approval by December 31, 2018. Once approved, the Permittees must implement the Program Plan and are responsible for attaining applicable wasteload allocations and demonstrating such attainment with monitoring data. By July 1, 2018, the permittees shall demonstrate attainment of the summer period Dry Weather WLA as specified in Section E.15.a.2. or F.5.i.1.b. of this Order. By July 1, 2018, the permittees shall demonstrate attainment of the winter period Dry Weather WLA as specified in Section E.15.a.2. or F.5.i.1.b. of this Order. By July 15, 2021, the permittees shall demonstrate attainment of the Wet Weather WLA as specified in Section E.15.a.(ii). or F.5.i.1.(ii). of this Order.
~~**Upper Santa Clara River Chloride TMDL**~~ ~~Effective Date: May 4, 2005~~ ~~BPA Chapter 7-6~~ ~~Resolution Nos.: R04-004, R06-016 revision, and R08-012 revision~~			
TMDL for Los Angeles River *Nitrogen and Related Effects* ~~TMDL~~ Effective Date: March 23, 2004 BPA Chapter 7-8	California State University Los Angeles California State University Northridge	Los Angeles River	**Requirements for Implementing the TMDL:** The Phase II entities identified in this TMDL section must take either of the following actions to meet the requirements of this TMDL: 1. Enter in a cooperative agreement with Phase I MS4 Permittees, in the watershed or subwatershed of the impaired water body of this Section, to participate in a Watershed Management Program (WMP) or Enhanced Watershed Management Program (EWMP) developed and approved pursuant to one of the Los Angeles Region's Phase I MS4 permits. A Permittee shall notify the Regional Water Board of its

ATTACHMENT G – Region-Specific Requirements
Regional Water Board-Approved TMDLs with urban runoff listed as a source

TMDL Effective Date Basin Plan Amendment (BPA) Water Board Resolution No	~~Municipality~~Phase II Entities	Impaired Water Body	Deliverables/Actions Required~~/Waste Load Allocations~~
Region 4: Los Angeles Regional Water Board			
Resolution Nos.: R03-009 (amended by R03-016, R05-014, R07-005, & R12-010) **TMDL for Los Angeles River** *Nitrogen and Related Effects* (Continued)~~and R03-016 revision~~			intent to enter into a cooperative agreement with Phase I MS4 Permittees. Such notification shall be provided by July 1, 2018, and shall identify the Phase I MS4 Permittee(s) and the WMP or EWMP that the Permittee intends to participate in. The cooperative agreement shall be finalized by December 31, 2018, and shall be submitted to the Los Angeles Regional Water Board Executive Officer upon finalization. or alternatively, 2. Propose a program plan for attaining the wasteload allocation(s). The Program Plan must identify the currently used and planned BMPs and any other planned actions to attain the wasteload allocation(s), which may include, but is not limited to, retaining the volume of runoff associated with the 85th percentile, 24-hour storm event on-site. The Program Plan must provide a technical demonstration (using modeling and/or empirical data) that there is a reasonable assurance that by implementing the BMPs and other planned actions in the Program Plan, the Permittee's MS4 discharges will achieve the wasteload allocation(s) by the attainment schedule deadline(s) identified within this specific TMDL section. The Program Plan must also include monitoring of the Permittee's MS4 discharges to track progress toward achieving the wasteload allocation(s) and validate the reasonable assurance demonstration. The Program Plan is subject to approval by the Los Angeles Regional Water Board Executive Officer. The Program Plan must be submitted for Los Angeles Regional Water Board Executive Officer approval by December 31, 2018. Once approved, the Permittees must implement the Program Plan and are responsible for attaining applicable wasteload allocations and demonstrating such attainment with monitoring data. By July 1, 2018, the permittees shall demonstrate attainment of the TMDL WLA as specified in Section E.15.a.2. or F.5.i.1.b. of this Order.
~~**Santa Clara River Nitrogen Compounds TMDL**~~ ~~Effective Date: March 23, 2004~~ ~~BPA Chapter 7-9~~		~~Santa Clara River~~	

ATTACHMENT G – Region-Specific Requirements
Regional Water Board-Approved TMDLs with urban runoff listed as a source

TMDL Effective Date Basin Plan Amendment (BPA) Water Board Resolution No	~~Municipality~~Phase II Entities	Impaired Water Body	Deliverables/Actions Required~~/Waste Load Allocations~~
Region 4: Los Angeles Regional Water Board			
~~Resolution No.: R03-11~~			
~~**Malibu Creek Bacteria TMDL**~~ ~~Effective Date: January 24, 2006~~ ~~BPA Chapter 7-10~~ ~~Resolution Nos.: 2004-019R R12-009 revision~~		~~Marina del Rey~~	
TMDL for Los Angeles Harbor ~~Bacteria TMDL~~ (Inner Cabrillo Beach and Main ~~Shiop~~ Channel) *Bacteria* Effective Date: March 10, 2005 BPA Chapter 7-11 Resolution No.: 2004-011; R12-007 (revised)	Federal Correctional Institution (FCI), Terminal Island California State University Dominguez Hills	Dominguez Channel Watershed Management Area	**Requirements for Implementing the TMDL:** The Phase II entities identified in this TMDL section must take either of the following actions to meet the requirements of this TMDL: 1. Enter in a cooperative agreement with Phase I MS4 Permittees, in the watershed or subwatershed of the impaired water body of this Section, to participate in a Watershed Management Program (WMP) or Enhanced Watershed Management Program (EWMP) developed and approved pursuant to one of the Los Angeles Region's Phase I MS4 permits. A Permittee shall notify the Regional Water Board of its intent to enter into a cooperative agreement with Phase I MS4 Permittees. Such notification shall be provided by July 1, 2018, and shall identify the Phase I MS4 Permittee(s) and the WMP or EWMP that the Permittee intends to participate in. The cooperative agreement shall be finalized by December 31, 2018, and shall be submitted to the Los Angeles Regional Water Board Executive Officer upon finalization. or alternatively, 2. Propose a program plan for attaining the wasteload allocation(s). The Program Plan must identify the currently used and planned BMPs and any other planned actions to attain the wasteload allocation(s), which may include, but is not limited to, retaining the volume of runoff associated with the 85th percentile, 24-hour storm event on-site. The Program Plan must provide a technical demonstration

ATTACHMENT G – Region-Specific Requirements
Regional Water Board-Approved TMDLs with urban runoff listed as a source

TMDL Effective Date Basin Plan Amendment (BPA) Water Board Resolution No	~~Municipality~~Phase II Entities	Impaired Water Body	Deliverables/Actions Required~~/Waste Load Allocations~~
Region 4: Los Angeles Regional Water Board			
TMDL for Los Angeles Harbor (Inner Cabrillo Beach and Main Ship Channel) *Bacteria* (Continued)			(using modeling and/or empirical data) that there is a reasonable assurance that by implementing the BMPs and other planned actions in the Program Plan, the Permittee's MS4 discharges will achieve the wasteload allocation(s) by the attainment schedule deadline(s) identified within this specific TMDL section. The Program Plan must also include monitoring of the Permittee's MS4 discharges to track progress toward achieving the wasteload allocation(s) and validate the reasonable assurance demonstration. The Program Plan is subject to approval by the Los Angeles Regional Water Board Executive Officer. The Program Plan must be submitted for Los Angeles Regional Water Board Executive Officer approval by December 31, 2018. Once approved, the Permittees must implement the Program Plan and are responsible for attaining applicable wasteload allocations and demonstrating such attainment with monitoring data. By July 1, 2018, the permittees shall demonstrate attainment of the TMDL WLA as specified in Section E.15.a.2. or F.5.i.1.b. of this Order.
TMDL for Calleguas Creek Watershed *Toxicity~~TMDL~~* Effective Date: March 24, 2006 BPA Chapter 7-17 Resolution No.: 2005-010	Naval Base Ventura County (Point Mugu) Department of Parks and Recreation (Point Mugu State Park) California State University, Channel Islands	Calleguas Creek	**Requirements for Implementing the TMDL:** The Phase II entities identified in this TMDL section must take either of the following actions to meet the requirements of this TMDL: 1. Enter in a cooperative agreement with Phase I MS4 Permittees, in the watershed or subwatershed of the impaired water body of this Section, to participate in a Watershed Management Program (WMP) or Enhanced Watershed Management Program (EWMP) developed and approved pursuant to one of the Los Angeles Region's Phase I MS4 permits. A Permittee shall notify the Regional Water Board of its intent to enter into a cooperative agreement with Phase I MS4 Permittees. Such notification shall be provided by July 1, 2018, and shall identify the Phase I MS4 Permittee(s) and the WMP or EWMP that the Permittee intends to participate in. The cooperative agreement shall be finalized by December 31, 2018, and shall be submitted to the Los Angeles Regional Water Board Executive Officer upon finalization. or alternatively, 2. Propose a program plan for attaining the wasteload allocation(s). The Program Plan must identify the currently used and planned BMPs and any other planned actions to attain the wasteload allocation(s),

ATTACHMENT G – Region-Specific Requirements
Regional Water Board-Approved TMDLs with urban runoff listed as a source

TMDL Effective Date Basin Plan Amendment (BPA) Water Board Resolution No	~~Municipality~~Phase II Entities	Impaired Water Body	Deliverables/Actions Required~~/Waste Load Allocations~~
Region 4: Los Angeles Regional Water Board			
TMDL for Calleguas Creek Watershed *Toxicity* (Continued)			which may include, but is not limited to, retaining the volume of runoff associated with the 85th percentile, 24-hour storm event on-site. The Program Plan must provide a technical demonstration (using modeling and/or empirical data) that there is a reasonable assurance that by implementing the BMPs and other planned actions in the Program Plan, the Permittee's MS4 discharges will achieve the wasteload allocation(s) by the attainment schedule deadline(s) identified within this specific TMDL section. The Program Plan must also include monitoring of the Permittee's MS4 discharges to track progress toward achieving the wasteload allocation(s) and validate the reasonable assurance demonstration. The Program Plan is subject to approval by the Los Angeles Regional Water Board Executive Officer. The Program Plan must be submitted for Los Angeles Regional Water Board Executive Officer approval by December 31, 2018. Once approved, the Permittees must implement the Program Plan and are responsible for attaining applicable wasteload allocations and demonstrating such attainment with monitoring data. By July 1, 2018, the permittees shall demonstrate attainment of the TMDL WLA as specified in Section E.15.a.2. or F.5.i.1.b. of this Order.
TMDL for Calleguas Creek *Organochlorine Pesticides, Polychlorinated Biphenyls, and Siltation* Effective Date: March 24, 2006 BPA Chapter 7-16 Resolution No.: 2005-009	Naval Base Ventura County (~~includes Port Hueneme &~~ Point Mugu) Department of Parks and Recreation (Point Mugu State Park) California State University, Channel Islands	Calleguas Creek	**Requirements for Implementing the TMDL:** The Phase II entities identified in this TMDL section must take either of the following actions to meet the requirements of this TMDL: 1. Enter in a cooperative agreement with Phase I MS4 Permittees, in the watershed or subwatershed of the impaired water body of this Section, to participate in a Watershed Management Program (WMP) or Enhanced Watershed Management Program (EWMP) developed and approved pursuant to one of the Los Angeles Region's Phase I MS4 permits. A Permittee shall notify the Regional Water Board of its intent to enter into a cooperative agreement with Phase I MS4 Permittees. Such notification shall be provided by July 1, 2018, and shall identify the Phase I MS4 Permittee(s) and the WMP or EWMP that the Permittee intends to participate in. The cooperative agreement shall be finalized by December 31, 2018, and shall be submitted to the Los Angeles Regional Water Board Executive Officer upon finalization. or alternatively,

ATTACHMENT G – Region-Specific Requirements
Regional Water Board-Approved TMDLs with urban runoff listed as a source

TMDL Effective Date Basin Plan Amendment (BPA) Water Board Resolution No	~~Municipality~~Phase II Entities	Impaired Water Body	Deliverables/Actions Required~~/Waste Load Allocations~~
Region 4: Los Angeles Regional Water Board			
TMDL for Calleguas Creek *Organochlorine Pesticides, Polychlorinated Biphenyls, and Siltation* (Continued)			2. Propose a program plan for attaining the wasteload allocation(s). The Program Plan must identify the currently used and planned BMPs and any other planned actions to attain the wasteload allocation(s), which may include, but is not limited to, retaining the volume of runoff associated with the 85th percentile, 24-hour storm event on-site. The Program Plan must provide a technical demonstration (using modeling and/or empirical data) that there is a reasonable assurance that by implementing the BMPs and other planned actions in the Program Plan, the Permittee's MS4 discharges will achieve the wasteload allocation(s) by the attainment schedule deadline(s) identified within this specific TMDL section. The Program Plan must also include monitoring of the Permittee's MS4 discharges to track progress toward achieving the wasteload allocation(s) and validate the reasonable assurance demonstration. The Program Plan is subject to approval by the Los Angeles Regional Water Board Executive Officer. The Program Plan must be submitted for Los Angeles Regional Water Board Executive Officer approval by December 31, 2018. Once approved, the Permittees must implement the Program Plan and are responsible for attaining applicable wasteload allocations and demonstrating such attainment with monitoring data. By March 24, 2026, the permittees shall demonstrate attainment of the TMDL WLA as specified in Section E.15.a.(ii). or F.5.i.1.(ii). of this Order.
TMDL for Calleguas Creek ***Metals and Selenium~~ TMDL~~*** Effective Date: ~~3/~~March 26,~~/~~ 2007 BPA Chapter 7-19 Resolution No.: 2006-012	Naval Base Ventura County (~~includes Port Hueneme &~~ Point Mugu) Department of Parks and Recreation (Point Mugu State Park) California State University, Channel Islands	Calleguas Creek	**Requirements for Implementing the TMDL:** The Phase II entities identified in this TMDL section must take either of the following actions to meet the requirements of this TMDL: 1. Enter in a cooperative agreement with Phase I MS4 Permittees, in the watershed or subwatershed of the impaired water body of this Section, to participate in a Watershed Management Program (WMP) or Enhanced Watershed Management Program (EWMP) developed and approved pursuant to one of the Los Angeles Region's Phase I MS4 permits. A Permittee shall notify the Regional Water Board of its intent to enter into a cooperative agreement with Phase I MS4 Permittees. Such notification shall be provided by July 1, 2018, and shall identify the Phase I MS4 Permittee(s) and the WMP or EWMP that the Permittee intends to participate in. The cooperative agreement shall be finalized by December 31, 2018, and shall be submitted to the Regional Water Board Executive Officer upon finalization. or alternatively,

ATTACHMENT G – Region-Specific Requirements
Regional Water Board-Approved TMDLs with urban runoff listed as a source

TMDL Effective Date Basin Plan Amendment (BPA) Water Board Resolution No	~~Municipality~~Phase II Entities	Impaired Water Body	Deliverables/Actions Required~~/Waste Load Allocations~~
Region 4: Los Angeles Regional Water Board			
TMDL for Calleguas Creek *Metals and Selenium* (Continued)			2. Propose a program plan for attaining the wasteload allocation(s). The Program Plan must identify the currently used and planned BMPs and any other planned actions to attain the wasteload allocation(s), which may include, but is not limited to, retaining the volume of runoff associated with the 85th percentile, 24-hour storm event on-site. The Program Plan must provide a technical demonstration (using modeling and/or empirical data) that there is a reasonable assurance that by implementing the BMPs and other planned actions in the Program Plan, the Permittee's MS4 discharges will achieve the wasteload allocation(s) by the attainment schedule deadline(s) identified within this specific TMDL section. The Program Plan must also include monitoring of the Permittee's MS4 discharges to track progress toward achieving the wasteload allocation(s) and validate the reasonable assurance demonstration. The Program Plan is subject to approval by the Los Angeles Regional Water Board Executive Officer. The Program Plan must be submitted for Los Angeles Regional Water Board Executive Officer approval by December 31, 2018. Once approved, the Permittees must implement the Program Plan and are responsible for attaining applicable wasteload allocations and demonstrating such attainment with monitoring data. By March 26, 2022, the permittees shall demonstrate attainment of the TMDL WLA as specified in Section E.15.a.(ii). or F.5.i.1.(ii). of this Order.
TMDL for Ballona Creek *Bacteria~~TMDL~~* Effective Date: April 27, 2007 BPA Chapter 7-21 Resolution Nos.: 2006-11, R12-008 revision	University of California Los Angeles Veteran Affairs, Greater Los Angeles Healthcare System	Ballona Creek	**Requirements for Implementing the TMDL:** The Phase II entities identified in this TMDL section must take either of the following actions to meet the requirements of this TMDL: 1. Enter in a cooperative agreement with Phase I MS4 Permittees, in the watershed or subwatershed of the impaired water body of this Section, to participate in a Watershed Management Program (WMP) or Enhanced Watershed Management Program (EWMP) developed and approved pursuant to one of the Los Angeles Region's Phase I MS4 permits. A Permittee shall notify the Regional Water Board of its intent to enter into a cooperative agreement with Phase I MS4 Permittees. Such notification shall be provided by July 1, 2018, and shall identify the Phase I MS4 Permittee(s) and the WMP or EWMP that the Permittee intends to participate in. The cooperative agreement shall be finalized by December 31, 2018, and shall be submitted to the Los Angeles Regional Water Board Executive Officer upon finalization.

ATTACHMENT G – Region-Specific Requirements
Regional Water Board-Approved TMDLs with urban runoff listed as a source

TMDL Effective Date Basin Plan Amendment (BPA) Water Board Resolution No	~~Municipality~~Phase II Entities	Impaired Water Body	Deliverables/Actions Required~~/Waste Load Allocations~~
Region 4: Los Angeles Regional Water Board			
TMDL for Ballona Creek *Bacteria* (Continued)			or alternatively, 2. Propose a program plan for attaining the wasteload allocation(s). The Program Plan must identify the currently used and planned BMPs and any other planned actions to attain the wasteload allocation(s), which may include, but is not limited to, retaining the volume of runoff associated with the 85th percentile, 24-hour storm event on-site. The Program Plan must provide a technical demonstration (using modeling and/or empirical data) that there is a reasonable assurance that by implementing the BMPs and other planned actions in the Program Plan, the Permittee's MS4 discharges will achieve the wasteload allocation(s) by the attainment schedule deadline(s) identified within this specific TMDL section. The Program Plan must also include monitoring of the Permittee's MS4 discharges to track progress toward achieving the wasteload allocation(s) and validate the reasonable assurance demonstration. The Program Plan is subject to approval by the Los Angeles Regional Water Board Executive Officer. The Program Plan must be submitted for Los Angeles Regional Water Board Executive Officer approval by December 31, 2018. Once approved, the Permittees must implement the Program Plan and are responsible for attaining applicable wasteload allocations and demonstrating such attainment with monitoring data. By July 1, 2018, the permittees shall demonstrate attainment of the Dry Weather WLA as specified in Section E.15.a.(ii). or F.5.i.1.(ii). of this Order. By July 15, 2021, the permittees shall demonstrate attainment of the Wet Weather WLA as specified in Section E.15.a.(ii). or F.5.i.1.(ii). of this Order.
TMDL for Santa Monica Bay *Marine Debris ~~TMDL~~* Effective Date: March 20, 2012 BPA Chapter 7-34 Resolution No.: 2010-010	Department of Parks and Recreation (Point Dume State Beach, Robert H Meyer Memorial State Beach)	Santa Monica Bay Watershed Management Area	**Requirements for Implementing the TMDL:** By July 1, 2018, the Department of Parks and Recreation (at Point Dume State Beach and Robert H. Meyer Memorial State Beach) must submit for Los Angeles Regional Water Board Executive Officer approval, a Minimum Frequency of Assessment and Collection Program (MFAC)/BMP Program that meets the following criteria: a) The MFAC/BMP Program includes an initial minimum frequency of trash assessment and collection and suite of structural and/or nonstructural BMPs. The MFAC/BMP Program shall include collection and disposal of all trash found in the source areas and along the shoreline. Responsible jurisdictions shall implement an initial suite of BMPs based on current trash management practices

ATTACHMENT G – Region-Specific Requirements
Regional Water Board-Approved TMDLs with urban runoff listed as a source

TMDL Effective Date Basin Plan Amendment (BPA) Water Board Resolution No	~~Municipality~~Phase II Entities	Impaired Water Body	Deliverables/Actions Required~~/Waste Load Allocations~~
Region 4: Los Angeles Regional Water Board			
TMDL for Santa Monica Bay *Marine Debris* (Continued)			in land areas that are found to be sources of trash to waterbodies within the Santa Monica Bay Watershed Management Area and to Santa Monica Bay. Beaches and Harbors along Santa Monica Bay For beaches and harbors along Santa Monica Bay, the initial minimum frequency shall be set as follows: 1. The trash source areas of beaches and harbors shall be cleaned on a daily basis year round. 2. Trash on Santa Monica Bay shorelines shall be collected daily. An assessment shall immediately follow at the frequency specified in the Trash Monitoring and Reporting Plan (TMRP). 3. The assessment performed immediately after the collection events shall focus on the shorelines or interface along Santa Monica Bay. 4. The protocol for conducting the assessment immediately after the collection event shall include methods and frequencies of assessment, specific locations on the beaches and harbors, in the TMRP. 5. Responsible jurisdictions for beaches and harbors shall conduct routine trash generation rate evaluation on the nonpoint source areas at selected beaches or harbors under their management. Protocols, as specified in the TMRP, for this evaluation include: i) The evaluation shall be performed in the late afternoon before dusk. Data collected may represent the daily trash quantity littered or deposited on the nonpoint source areas. ii) Methods, locations and frequencies of evaluation on the beaches and harbors shall be included in the TMRP. 6. Water in harbors shall be inspected and all trash found on the water shall be removed at a frequency and during critical conditions as defined in the approved TMRP. 7. Compliance for jurisdictions responsible for nonpoint source trash at areas where daily cleanup is implemented, is determined by the following conditions: i) The assessment conducted immediately after cleanup shall demonstrate that all trash on the shoreline or harbor is 100% removed and no trash remains. ii) Responsible jurisdictions for beaches and harbors where daily cleanup is performed, shall demonstrate that the trash generation rate of the source areas does not show an increasing trend and does not exceed the benchmark of 310 pounds (lbs) per mile of beach/harbor per day, or 113,150 lbs/mile/year.

ATTACHMENT G – Region-Specific Requirements
Regional Water Board-Approved TMDLs with urban runoff listed as a source

TMDL Effective Date Basin Plan Amendment (BPA) Water Board Resolution No	~~Municipality~~Phase II Entities	Impaired Water Body	Deliverables/Actions Required~~/Waste Load Allocations~~
Region 4: Los Angeles Regional Water Board			
			8. Should trash amounts collected during evaluation at the source areas exceed 113,150 lbs/mile/year, or not indicate a decreasing trend, the responsible jurisdictions shall immediately initiate additional BMPs as specified in the TMRP, 9. By January 1, 2019, responsible agencies and jurisdictions shall also develop a Trash Monitoring and Reporting Plan (TMRP) for Los Angeles Regional Water Board Executive Officer approval that describes the methodologies that will be used to assess and monitor trash in their responsible areas within the Santa Monica Bay Watershed Management Area or along Santa Monica Bay. By July 1, 2018, the permittees shall demonstrate attainment of the TMDL WLA as specified in Section E.15.a.2. or F.5.i.1.b. of this Order.
TMDL for Los Angeles and Long Beach Harbors ~~and~~ *Toxics and Metals* ~~TMDL~~ Effective Date: March 23, 2012 BPA Chapter 7-40 Resolution No.:2011-008	Federal Correction Institution (FCI), Terminal Island Community Corrections Management (CCM), Long Beach California State University Dominguez Hills	Dominguez Channel Watershed	**Requirements for Implementing the TMDL:** The Phase II entities identified in this TMDL section must take either of the following actions to meet the requirements of this TMDL: 1. Enter in a cooperative agreement with Phase I MS4 Permittees, in the watershed or subwatershed of the impaired water body of this Section, to participate in a Watershed Management Program (WMP) or Enhanced Watershed Management Program (EWMP) developed and approved pursuant to one of the Los Angeles Region's Phase I MS4 permits. A Permittee shall notify the Regional Water Board of its intent to enter into a cooperative agreement with Phase I MS4 Permittees. Such notification shall be provided by July 1, 2018, and shall identify the Phase I MS4 Permittee(s) and the WMP or EWMP that the Permittee intends to participate in. The cooperative agreement shall be finalized by December 31, 2018, and shall be submitted to the Los Angeles Regional Water Board Executive Officer upon finalization. or alternatively, 2. Propose a program plan for attaining the wasteload allocation(s). The Program Plan must identify the currently used and planned BMPs and any other planned actions to attain the wasteload allocation(s), which may include, but is not limited to, retaining the volume of runoff associated with the 85th percentile, 24-hour storm event on-site. The Program Plan must provide a technical demonstration

ATTACHMENT G – Region-Specific Requirements
Regional Water Board-Approved TMDLs with urban runoff listed as a source

TMDL Effective Date Basin Plan Amendment (BPA) Water Board Resolution No	~~Municipality~~Phase II Entities	Impaired Water Body	Deliverables/Actions Required~~/Waste Load Allocations~~
Region 4: Los Angeles Regional Water Board			
~~**TMDL for Los Angeles and Long Beach Harbors**~~ ~~*Toxics and Metals*~~ ~~(Continued)~~			(using modeling and/or empirical data) that there is a reasonable assurance that by implementing the BMPs and other planned actions in the Program Plan, the Permittee's MS4 discharges will achieve the wasteload allocation(s) by the attainment schedule deadline(s) identified within this specific TMDL section. The Program Plan must also include monitoring of the Permittee's MS4 discharges to track progress toward achieving the wasteload allocation(s) and validate the reasonable assurance demonstration. The Program Plan is subject to approval by the Los Angeles Regional Water Board Executive Officer. The Program Plan must be submitted for Los Angeles Regional Water Board Executive Officer approval by December 31, 2018. Once approved, the Permittees must implement the Program Plan and are responsible for attaining applicable wasteload allocations and demonstrating such attainment with monitoring data. By March 23, 2032, the permittees shall demonstrate attainment of the TMDL WLA as specified in Section E.15.a.(ii). or F.5.i.1.(ii). of this Order.
TMDL for Los Angeles River *Bacteria* ~~**TMDL**~~ Effective Date: March 23, 2012 BPA Chapter 7-39 Resolution No.: R10-007	California State University Los Angeles California State University Northridge	Los Angeles River	**Requirements for Implementing the TMDL:** The Phase II entities identified in this TMDL section must take either of the following actions to meet the requirements of this TMDL: 1. Enter in a cooperative agreement with Phase I MS4 Permittees, in the watershed or subwatershed of the impaired water body of this Section, to participate in a Watershed Management Program (WMP) or Enhanced Watershed Management Program (EWMP) developed and approved pursuant to one of the Los Angeles Region's Phase I MS4 permits. A Permittee shall notify the Regional Water Board of its intent to enter into a cooperative agreement with Phase I MS4 Permittees. Such notification shall be provided by July 1, 2018, and shall identify the Phase I MS4 Permittee(s) and the WMP or EWMP that the Permittee intends to participate in. The cooperative agreement shall be finalized by December 31, 2018, and shall be submitted to the Los Angeles Regional Water Board Executive Officer upon finalization. or alternatively,

ATTACHMENT G – Region-Specific Requirements
Regional Water Board-Approved TMDLs with urban runoff listed as a source

<table>
<tr><th>TMDL
Effective Date
Basin Plan Amendment (BPA)
Water Board Resolution No</th><th>~~Municipality~~Phase II Entities</th><th>Impaired Water Body</th><th>Deliverables/Actions Required~~/Waste Load Allocations~~</th></tr>
<tr><td colspan="4">Region 4: Los Angeles Regional Water Board</td></tr>
<tr><td>TMDL for Los Angeles River
Bacteria
(Continued)</td><td></td><td></td><td>2. Propose a program plan for attaining the wasteload allocation(s). The Program Plan must identify the currently used and planned BMPs and any other planned actions to attain the wasteload allocation(s), which may include, but is not limited to, retaining the volume of runoff associated with the 85th percentile, 24-hour storm event on-site. The Program Plan must provide a technical demonstration (using modeling and/or empirical data) that there is a reasonable assurance that by implementing the BMPs and other planned actions in the Program Plan, the Permittee's MS4 discharges will achieve the wasteload allocation(s) by the attainment schedule deadline(s) identified within this specific TMDL section. The Program Plan must also include monitoring of the Permittee's MS4 discharges to track progress toward achieving the wasteload allocation(s) and validate the reasonable assurance demonstration. The Program Plan is subject to approval by the Los Angeles Regional Water Board Executive Officer. The Program Plan must be submitted for Los Angeles Regional Water Board Executive Officer approval by December 31, 2018. Once approved, the Permittees must implement the Program Plan and are responsible for attaining applicable wasteload allocations and demonstrating such attainment with monitoring data.

By March 23, 2037, the permittees shall demonstrate attainment of the Wet Weather WLA as specified in Section E.15.a.(ii). or F.5.i.1.(ii). of this Order. By March 23, 2022 to September 23, 2030, according to the following table, the permittees shall demonstrate attainment of the Dry Weather WLA, for the indicated waterbody segment, as specified in Section E.15.a.(ii). or F.5.i.1.(ii). of this Order.
<table>
<tr><th>Waterbody Segment</th><th>Achieve Final dry weather WLA by:</th></tr>
<tr><td>Segment B (upper and middle Reach 2)</td><td>March 23, 2022</td></tr>
<tr><td>Segment B Tributaries (Rio Hondo & Arroyo Seco)</td><td>September 23, 2023</td></tr>
<tr><td>Segment A (lower Reach 2 and Reach 1)</td><td>March 23, 2024</td></tr>
<tr><td>Segment A Tributaries (Compton Creek)</td><td>September 23, 2025</td></tr>
<tr><td>Segment E (Reach 6)</td><td>March 23, 2025</td></tr>
<tr><td>Segment E Tributaries (Dry Canyon, McCoy and Bell Creeks, and Aliso Canyon Wash)</td><td>March 23, 2029</td></tr>
<tr><td>Segment C (lower Reach 4 and Reach 3)</td><td>September 23, 2030</td></tr>
<tr><td>Segment C Tributaries (Tujunga Wash, Burbank Western Channel and Verdugo Wash)</td><td>September 23, 2030</td></tr>
<tr><td>Segment D (Reach 5 and upper Reach 4)</td><td>September 23, 2030</td></tr>
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ATTACHMENT G – Region-Specific Requirements
Regional Water Board-Approved TMDLs with urban runoff listed as a source

TMDL Effective Date Basin Plan Amendment (BPA) Water Board Resolution No	~~Municipality~~Phase II Entities	Impaired Water Body	Deliverables/Actions Required~~/Waste Load Allocations~~	
Region 4: Los Angeles Regional Water Board				
			Segment D Tributaries (Bull Creek)	September 23, 2030
~~**Santa Clara River Esturay and Reaches 3, 5, 6 and 7 Bacteria** Effective Date:3/21/2012 BPA Chapter 7-36 Resolution No. R10-006~~		~~Santa Clara River~~		
~~**Santa Clara Reach 3 Chloride TMDL** Effective Date : June 18, 2003 Established by USEPA~~		~~Santa Clara River~~		
~~**Malibu Creek Nutrients TMDL** Effective Date : March 21, 2003 Established by USEPA~~		~~Malibu Creek~~		
~~**Ballona Creek Wetlands TMDL for** *Sediment and Invasive Exotic Vegetation* **TMDL** Effective Date : March 26, 2012 Established by USEPA~~		~~Ballona Creek~~		
~~**Santa Monica Bay TMDL for***DDTs and PCBs*~~				

ATTACHMENT G – Region-Specific Requirements
Regional Water Board-Approved TMDLs with urban runoff listed as a source

TMDL Effective Date Basin Plan Amendment (BPA) Water Board Resolution No	~~Municipality~~Phase II Entities	Impaired Water Body	Deliverables/Actions Required~~/Waste Load Allocations~~
Region 4: Los Angeles Regional Water Board			
~~Effective Date : March 26, 2012~~ ~~Established by USEPA~~			
TMDL for Los Angeles River and Tributaries *Metals* **~~TMDL~~** Effective Date: November 3, 2011 BPA: Chapter 7-13 Resolution No.: R07-014; R10-003 (revised); R15-004 (revised) **TMDL for Los Angeles River and Tributaries** *Metals* (Continued)	California State University Los Angeles California State University Northridge	Los Angeles River	**Requirements for Implementing the TMDL:** The Phase II entities identified in this TMDL section must take either of the following actions to meet the requirements of this TMDL: 1. Enter in a cooperative agreement with Phase I MS4 Permittees, in the watershed or subwatershed of the impaired water body of this Section, to participate in a Watershed Management Program (WMP) or Enhanced Watershed Management Program (EWMP) developed and approved pursuant to one of the Los Angeles Region's Phase I MS4 permits. A Permittee shall notify the Regional Water Board of its intent to enter into a cooperative agreement with Phase I MS4 Permittees. Such notification shall be provided by July 1, 2018, and shall identify the Phase I MS4 Permittee(s) and the WMP or EWMP that the Permittee intends to participate in. The cooperative agreement shall be finalized by December 31, 2018, and shall be submitted to the Los Angeles Regional Water Board Executive Officer upon finalization. or alternatively, 2. Propose a program plan for attaining the wasteload allocation(s). The Program Plan must identify the currently used and planned BMPs and any other planned actions to attain the wasteload allocation(s), which may include, but is not limited to, retaining the volume of runoff associated with the 85th percentile, 24-hour storm event on-site. The Program Plan must provide a technical demonstration (using modeling and/or empirical data) that there is a reasonable assurance that by implementing the BMPs and other planned actions in the Program Plan, the Permittee's MS4 discharges will achieve the wasteload allocation(s) by the attainment schedule deadline(s) identified within this specific TMDL section. The Program Plan must also include monitoring of the Permittee's MS4 discharges to track progress toward achieving the wasteload allocation(s) and validate the reasonable assurance demonstration. The Program Plan is subject to approval by the Los Angeles Regional Water Board Executive Officer. The Program Plan must be submitted for Los Angeles Regional Water Board

ATTACHMENT G – Region-Specific Requirements
Regional Water Board-Approved TMDLs with urban runoff listed as a source

TMDL Effective Date Basin Plan Amendment (BPA) Water Board Resolution No	~~Municipality~~Phase II Entities	Impaired Water Body	Deliverables/Actions Required~~/Waste Load Allocations~~
Region 4: Los Angeles Regional Water Board			
			Executive Officer approval by December 31, 2018. Once approved, the Permittees must implement the Program Plan and are responsible for attaining applicable wasteload allocations and demonstrating such attainment with monitoring data. By January 11, 2024, the permittees shall demonstrate attainment of the Dry Weather WLA as specified in Section E.15.a.(ii). or F.5.i.1.(ii). of this Order. By January 11, 2028, the permittees shall demonstrate attainment of the Wet Weather WLA as specified in Section E.15.a.(ii). or F.5.i.1.(ii). of this Order.
TMDL for Ballona Creek *Metals* ~~**TMDL**~~ Effective Date: October 29, 2008 BPA: Chapter 7-12 Resolution No.: 2007-015; R13-010 (revised) **TMDL for Ballona Creek** *Metals* (Continued)	Veteran Affairs, Greater Los Angeles Healthcare System University of California Los Angeles	Ballona Creek	**Requirements for Implementing the TMDL:** The Phase II entities identified in this TMDL section must take either of the following actions to meet the requirements of this TMDL: 1. Enter in a cooperative agreement with Phase I MS4 Permittees, in the watershed or subwatershed of the impaired water body of this Section, to participate in a Watershed Management Program (WMP) or Enhanced Watershed Management Program (EWMP) developed and approved pursuant to one of the Los Angeles Region's Phase I MS4 permits. A Permittee shall notify the Regional Water Board of its intent to enter into a cooperative agreement with Phase I MS4 Permittees. Such notification shall be provided by July 1, 2018, and shall identify the Phase I MS4 Permittee(s) and the WMP or EWMP that the Permittee intends to participate in. The cooperative agreement shall be finalized by December 31, 2018, and shall be submitted to the Los Angeles Regional Water Board Executive Officer upon finalization. or alternatively, 2. Propose a program plan for attaining the wasteload allocation(s). The Program Plan must identify the currently used and planned BMPs and any other planned actions to attain the wasteload allocation(s), which may include, but is not limited to, retaining the volume of runoff associated with the 85th percentile, 24-hour storm event on-site. The Program Plan must provide a technical demonstration (using modeling and/or empirical data) that there is a reasonable assurance that by implementing the BMPs and other planned actions in the Program Plan, the Permittee's MS4 discharges will achieve the wasteload allocation(s) by the attainment schedule deadline(s) identified within this specific TMDL section. The Program Plan must also include monitoring of the Permittee's MS4 discharges to track

ATTACHMENT G – Region-Specific Requirements
Regional Water Board-Approved TMDLs with urban runoff listed as a source

TMDL Effective Date Basin Plan Amendment (BPA) Water Board Resolution No	~~Municipality~~Phase II Entities	Impaired Water Body	Deliverables/Actions Required~~/Waste Load Allocations~~
Region 4: Los Angeles Regional Water Board			
			progress toward achieving the wasteload allocation(s) and validate the reasonable assurance demonstration. The Program Plan is subject to approval by the Los Angeles Regional Water Board Executive Officer. The Program Plan must be submitted for Los Angeles Regional Water Board Executive Officer approval by December 31, 2018. Once approved, the Permittees must implement the Program Plan and are responsible for attaining applicable wasteload allocations and demonstrating such attainment with monitoring data. By July 1, 2018, the permittees shall demonstrate attainment of the Dry Weather WLA as specified in Section E.15.a.(ii). or F.5.i.1.(ii). of this Order. By January 11, 2021, the permittees shall demonstrate attainment of the Wet Weather WLA as specified in Section E.15.a.(ii). or F.5.i.1.(ii). of this Order.
TMDL for San Gabriel River and Impaired Tributaries *Metals and Selenium ~~TMDL~~* Effective Date: March 26, 2007 USEPA Established **TMDL for San Gabriel River and Impaired Tributaries** *Metals and Selenium* (Continued)	California State Polytechnic University, Pomona	San Gabriel River and Tributaries	**Requirements for Implementing the TMDL:** The Phase II entities identified in this TMDL section must take either of the following actions to meet the requirements of this TMDL: 1. Enter in a cooperative agreement with Phase I MS4 Permittees, in the watershed or subwatershed of the impaired water body of this Section, to participate in a Watershed Management Program (WMP) or Enhanced Watershed Management Program (EWMP) developed and approved pursuant to one of the Los Angeles Region's Phase I MS4 permits. A Permittee shall notify the Regional Water Board of its intent to enter into a cooperative agreement with Phase I MS4 Permittees. Such notification shall be provided by July 1, 2018, and shall identify the Phase I MS4 Permittee(s) and the WMP or EWMP that the Permittee intends to participate in. The cooperative agreement shall be finalized by December 31, 2018, and shall be submitted to the Los Angeles Regional Water Board Executive Officer upon finalization. or alternatively, 2. Propose a program plan for attaining the wasteload allocation(s). The Program Plan must identify the currently used and planned BMPs and any other planned actions to attain the wasteload allocation(s), which may include, but is not limited to, retaining the volume of runoff associated with the 85th percentile, 24-hour storm event on-site. The Program Plan must provide a technical demonstration (using modeling and/or empirical data) that there is a reasonable assurance that by implementing the

ATTACHMENT G – Region-Specific Requirements
Regional Water Board-Approved TMDLs with urban runoff listed as a source

TMDL Effective Date Basin Plan Amendment (BPA) Water Board Resolution No	~~Municipality~~Phase II Entities	Impaired Water Body	Deliverables/Actions Required~~/Waste Load Allocations~~
Region 4: Los Angeles Regional Water Board			
			BMPs and other planned actions in the Program Plan, the Permittee's MS4 discharges will achieve the wasteload allocation(s) by the attainment schedule deadline(s) identified within this specific TMDL section. The Program Plan must also include monitoring of the Permittee's MS4 discharges to track progress toward achieving the wasteload allocation(s) and validate the reasonable assurance demonstration. The Program Plan is subject to approval by the Los Angeles Regional Water Board Executive Officer. The Program Plan must be submitted for Los Angeles Regional Water Board Executive Officer approval by December 31, 2018. Once approved, the Permittees must implement the Program Plan and are responsible for attaining applicable wasteload allocations and demonstrating such attainment with monitoring data. The final deadline for attainment of the WLA is not specified in the TMDL. Therefore, municipalities identified in this TMDL section shall propose a timeline to attain the WLA in the shortest practicable time, subject to Regional Water Board Executive Officer approval. Attainment of the WLA shall be demonstrated as specified in Section E.15.a.(ii)/Section F.5.i.1.(ii) of this Order.
TMDL for San Gabriel River and Impaired Tributaries *Indicator Bacteria* Effective Date: June 14, 2016 BPA: Chapter 7-41 Resolution No.: R15-005 **TMDL for San Gabriel River and Impaired Tributaries**	California State Polytechnic University, Pomona	San Gabriel River and Tributaries	**Requirements for Implementing the TMDL:** The Phase II entities identified in this TMDL section must take either of the following actions to meet the requirements of this TMDL: 1. Enter in a cooperative agreement with Phase I MS4 Permittees, in the watershed or subwatershed of the impaired water body of this Section, to participate in a Watershed Management Program (WMP) or Enhanced Watershed Management Program (EWMP) developed and approved pursuant to one of the Los Angeles Region's Phase I MS4 permits. A Permittee shall notify the Regional Water Board of its intent to enter into a cooperative agreement with Phase I MS4 Permittees. Such notification shall be provided by July 1, 2018, and shall identify the Phase I MS4 Permittee(s) and the WMP or EWMP that the Permittee intends to participate in. The cooperative agreement shall be finalized by December 31, 2018, and shall be submitted to the Los Angeles Regional Water Board Executive Officer upon finalization. or alternatively, 2. Propose a program plan for attaining the wasteload allocation(s). The Program Plan must identify the currently used and planned BMPs and any other planned actions to attain the wasteload allocation(s),

ATTACHMENT G – Region-Specific Requirements
Regional Water Board-Approved TMDLs with urban runoff listed as a source

TMDL Effective Date Basin Plan Amendment (BPA) Water Board Resolution No	~~Municipality~~Phase II Entities	Impaired Water Body	Deliverables/Actions Required~~/Waste Load Allocations~~
Region 4: Los Angeles Regional Water Board			
Indicator Bacteria (Continued)			which may include, but is not limited to, retaining the volume of runoff associated with the 85th percentile, 24-hour storm event on-site. The Program Plan must provide a technical demonstration (using modeling and/or empirical data) that there is a reasonable assurance that by implementing the BMPs and other planned actions in the Program Plan, the Permittee's MS4 discharges will achieve the wasteload allocation(s) by the attainment schedule deadline(s) identified within this specific TMDL section. The Program Plan must also include monitoring of the Permittee's MS4 discharges to track progress toward achieving the wasteload allocation(s) and validate the reasonable assurance demonstration. The Program Plan is subject to approval by the Los Angeles Regional Water Board Executive Officer. The Program Plan must be submitted for Los Angeles Regional Water Board Executive Officer approval by December 31, 2018. Once approved, the Permittees must implement the Program Plan and are responsible for attaining applicable wasteload allocations and demonstrating such attainment with monitoring data. By June 14, 2026, the permittees shall demonstrate attainment of the Dry Weather WLA as specified in Section E.15.a.(ii). or F.5.i.1.(ii). of this Order. By June 14, 2036, the permittees shall demonstrate attainment of the TMDL WLA as specified in Section E.15.a.(ii). or F.5.i.1.(ii). of this Order.
TMDL for Los Cerritos Channel *Metals* ~~**TMDL**~~ Effective Date: March 17, 2010 USEPA Established **TMDL for Los Cerritos Channel** *Metals*	California State University Long Beach Long Beach Veterans Affairs Medical Center	Los Cerritos Channel	**Requirements for Implementing the TMDL:** The Phase II entities identified in this TMDL section must take either of the following actions to meet the requirements of this TMDL: 1. Enter in a cooperative agreement with Phase I MS4 Permittees, in the watershed or subwatershed of the impaired water body of this Section, to participate in a Watershed Management Program (WMP) or Enhanced Watershed Management Program (EWMP) developed and approved pursuant to one of the Los Angeles Region's Phase I MS4 permits. A Permittee shall notify the Regional Water Board of its intent to enter into a cooperative agreement with Phase I MS4 Permittees. Such notification shall be provided by July 1, 2018, and shall identify the Phase I MS4 Permittee(s) and the WMP or EWMP that the Permittee intends to participate in. The cooperative agreement shall be finalized by December 31, 2018, and shall be submitted to the Los Angeles Regional Water Board Executive Officer upon finalization. or alternatively,

ATTACHMENT G – Region-Specific Requirements
Regional Water Board-Approved TMDLs with urban runoff listed as a source

TMDL Effective Date Basin Plan Amendment (BPA) Water Board Resolution No	~~Municipality~~Phase II Entities	Impaired Water Body	Deliverables/Actions Required~~/Waste Load Allocations~~
Region 4: Los Angeles Regional Water Board			
(Continued)			2. Propose a program plan for attaining the wasteload allocation(s). The Program Plan must identify the currently used and planned BMPs and any other planned actions to attain the wasteload allocation(s), which may include, but is not limited to, retaining the volume of runoff associated with the 85th percentile, 24-hour storm event on-site. The Program Plan must provide a technical demonstration (using modeling and/or empirical data) that there is a reasonable assurance that by implementing the BMPs and other planned actions in the Program Plan, the Permittee's MS4 discharges will achieve the wasteload allocation(s) by the attainment schedule deadline(s) identified within this specific TMDL section. The Program Plan must also include monitoring of the Permittee's MS4 discharges to track progress toward achieving the wasteload allocation(s) and validate the reasonable assurance demonstration. The Program Plan is subject to approval by the Los Angeles Regional Water Board Executive Officer. The Program Plan must be submitted for Los Angeles Regional Water Board Executive Officer approval by December 31, 2018. Once approved, the Permittees must implement the Program Plan and are responsible for attaining applicable wasteload allocations and demonstrating such attainment with monitoring data. By September 30, 2023, the permittees shall demonstrate attainment of the Dry Weather WLA as specified in Section E.15.a.(ii). or F.5.i.1.(ii). of this Order. By September 30, 2026, the permittees shall demonstrate attainment of the Wet Weather WLA as specified in Section E.15.a.(ii). or F.5.i.1.(ii). of this Order.
TMDL for Ballona Creek Estuary *Toxic Pollutants* ~~**TMDL**~~ Effective Date: January 11, 2006 BPA: Chapter 7-14 Resolution No.: 2005-008; R13-010 (revised)	Veteran Affairs, Greater Los Angeles Healthcare System University of California Los Angeles	Ballona Creek	**Requirements for Implementing the TMDL:** The Phase II entities identified in this TMDL section must take either of the following actions to meet the requirements of this TMDL: 1. Enter in a cooperative agreement with Phase I MS4 Permittees, in the watershed or subwatershed of the impaired water body of this Section, to participate in a Watershed Management Program (WMP) or Enhanced Watershed Management Program (EWMP) developed and approved pursuant to one of the Los Angeles Region's Phase I MS4 permits. A Permittee shall notify the Regional Water Board of its intent to enter into a cooperative agreement with Phase I MS4 Permittees. Such notification shall be provided by July 1, 2018 and shall identify the Phase I MS4 Permittee(s) and the WMP or EWMP that the Permittee intends to participate in. The cooperative agreement shall be finalized by December 31,

ATTACHMENT G – Region-Specific Requirements
Regional Water Board-Approved TMDLs with urban runoff listed as a source

TMDL Effective Date Basin Plan Amendment (BPA) Water Board Resolution No	~~Municipality~~Phase II Entities	Impaired Water Body	Deliverables/Actions Required~~/Waste Load Allocations~~
Region 4: Los Angeles Regional Water Board			
TMDL for Ballona Creek Estuary *Toxic Pollutants* (Continued)			2018, and shall be submitted to the Los Angeles Regional Water Board Executive Officer upon finalization. or alternatively, 2. Propose a program plan for attaining the wasteload allocation(s). The Program Plan must identify the currently used and planned BMPs and any other planned actions to attain the wasteload allocation(s), which may include, but is not limited to, retaining the volume of runoff associated with the 85th percentile, 24-hour storm event on-site. The Program Plan must provide a technical demonstration (using modeling and/or empirical data) that there is a reasonable assurance that by implementing the BMPs and other planned actions in the Program Plan, the Permittee's MS4 discharges will achieve the wasteload allocation(s) by the attainment schedule deadline(s) identified within this specific TMDL section. The Program Plan must also include monitoring of the Permittee's MS4 discharges to track progress toward achieving the wasteload allocation(s) and validate the reasonable assurance demonstration. The Program Plan is subject to approval by the Los Angeles Regional Water Board Executive Officer. The Program Plan must be submitted for Los Angeles Regional Water Board Executive Officer approval by December 31, 2018. Once approved, the Permittees must implement the Program Plan and are responsible for attaining applicable wasteload allocations and demonstrating such attainment with monitoring data. By January 11, 2021, the permittees shall demonstrate attainment of the TMDL WLA as specified in Section E.15.a.(ii). or F.5.i.1.(ii). of this Order.
TMDL for Ballona Creek *Trash* Effective Date: ~~8/~~August 28, ~~/~~2002 BPA: Chapter 7.3 Resolution No.:2001-014 2004-023 (revision), R15-006 (revision)	Veteran Affairs, Greater Los Angeles Healthcare System University of California Los Angeles	Ballona Creek	**Requirements for Implementing the TMDL:** The Phase II entities identified in this TMDL section shall implement either 1) Full Capture Systems, 2) partial capture devices and the application of institutional controls, or 3) a scientifically based alternative attainment approach. A Full Capture System is any device or series of devices that traps all particles retained by a 5 mm mesh screen and has a design treatment capacity of not less than the peak flow rate (Q) resulting from a one year, one hour, storm event. The Rational Equation is used to compute the peak flow rate (See Fact Sheet for Rational Equation).

ATTACHMENT G – Region-Specific Requirements
Regional Water Board-Approved TMDLs with urban runoff listed as a source

TMDL Effective Date Basin Plan Amendment (BPA) Water Board Resolution No	~~Municipality~~Phase II Entities	Impaired Water Body	Deliverables/Actions Required~~/Waste Load Allocations~~
Region 4: Los Angeles Regional Water Board			
TMDL for Ballona Creek *Trash* (Continued)			A partial capture device does not meet the definition of a Full Capture System; a partial capture device may not trap all particles 5 mm or greater or may not have the minimum design treatment capacity of a one year, one hour, storm event. Thus, a MS4 Permittee must implement institutional controls in combination with the partial capture device to comply with the wasteload allocations. MS4 Permittees employing partial capture devices and institutional controls shall use a mass balance approach based on the trash daily generation rate, assessed annually, to demonstrate attainment. (See Fact Sheet for attainment determination information) An alternative attainment approach to implementing either 1) a Full Capture System or 2) partial capture devices and the application of institutional controls must be submitted for approval by the Los Angeles Regional Water Board Executive Officer. By December 31, 2018, MS4 Permittees seeking approval of an alternative attainment approach, shall include in their submittal any proposed studies of institutional controls and partial capture devices for their particular subwatershed(s) or demonstrate that existing studies are representative and transferable to the implementing area. Permittees shall also provide a schedule for periodic, attainment effectiveness demonstration and evaluation. By July 1, 2018, the permittees shall demonstrate attainment of the TMDL WLA as specified in Section E.15.a.2. or F.5.i.1.b. of this Order.
TMDL for Los Angeles River *T~~t~~rash* Effective Date: ~~9~~September~~/~~ 23, ~~/~~2008 BPA Chapter 7-2 Resolution No.:07-012, R15-006 (revision)	California State University Los Angeles California State University Northridge	Los Angeles River	**Requirements for Implementing the TMDL:** The Phase II entities identified in this TMDL section shall implement either 1) Full Capture Systems, 2) partial capture devices and the application of institutional controls, or 3) a scientifically based alternative attainment approach. A Full Capture System is any device or series of devices that traps all particles retained by a 5 mm mesh screen and has a design treatment capacity of not less than the peak flow rate (Q) resulting from a one year, one hour, storm event. The Rational Equation is used to compute the peak flow rate (See Fact Sheet for Rational Equation). A partial capture device does not meet the definition of a Full Capture System; a partial capture device may not trap all particles 5 mm or greater or may not have the minimum design treatment capacity of a one year, one hour, storm event. Thus, a MS4 Permittee must implement institutional controls in combination with the

ATTACHMENT G – Region-Specific Requirements
Regional Water Board-Approved TMDLs with urban runoff listed as a source

TMDL Effective Date Basin Plan Amendment (BPA) Water Board Resolution No	~~Municipality~~Phase II Entities	Impaired Water Body	Deliverables/Actions Required~~/Waste Load Allocations~~
Region 4: Los Angeles Regional Water Board			
TMDL for Los Angeles River *Trash* (Continued)			partial capture device to comply with the wasteload allocations. MS4 Permittees employing partial capture devices or institutional controls shall use a mass balance approach based on the trash daily generation rate, assessed annually, to demonstrate attainment. (See Fact Sheet for attainment determination information) An alternative attainment approach to implementing either 1) a Full Capture System or 2) partial capture devices and the application of institutional controls must be submitted for approval by the Los Angeles Regional Water Board Executive Officer. By December 31, 2018, MS4 Permittees seeking approval of an alternative attainment approach, shall include in their submittal any proposed studies of institutional controls and partial capture devices for their particular subwatershed(s) or demonstrate that existing studies are representative and transferable to the implementing area. Permittees shall also provide a schedule for periodic, attainment effectiveness demonstration and evaluation. By July 1, 2018, the permittees shall demonstrate attainment of the TMDL WLA as specified in Section E.15.a.2. or F.5.i.1.b. of this Order.
TMDL for Ventura River Estuary *Trash* Effective Date: ~~3~~March~~/~~ 6, ~~/~~2008 BPA Chapter 7-25 Resolution No.:07-008	Ventura County Fairgrounds (Seaside Park and Ventura County Fairgrounds)	Ventura River	**Requirements for Implementing the TMDL:** The Ventura County Fairgrounds (including Seaside Park and Ventura County Fairgrounds) shall implement Full Capture Systems. A Full Capture System is any device or series of devices that traps all particles retained by a 5 mm mesh screen and has a design treatment capacity of not less than the peak flow rate (Q) resulting from a one year, one hour, storm event. The Rational Equation is used to compute the peak flow rate (See Fact Sheet for Rational Equation). By July 1, 2018, the permittees shall demonstrate attainment of the TMDL WLA as specified in Section E.15.a.2. or F.5.i.1.b. of this Order.
~~**Malibu Creek Trash**~~ ~~Effective Date:7/7/2009~~ ~~BPA Chapter 7-30~~ ~~Resolution No.:R4-2008-007~~			

ATTACHMENT G – Region-Specific Requirements
Regional Water Board-Approved TMDLs with urban runoff listed as a source

TMDL Effective Date Basin Plan Amendment (BPA) Water Board Resolution No.	~~Municipality~~Phase II Entities	Impaired Water Body	Deliverables/Actions Required/~~Waste Load Allocations~~
Region 5: Central Valley Regional Water Board			
TMDL for Lower San Joaquin River *Diazinon & Chlorpyrifos* Effective Date: December 20,2006 BPA: Chapter 3 Resolution No.: R5-2005-0138	~~City of Atwater~~ ~~City of Ceres~~ ~~City of Delhi~~ ~~City of Hughson~~ ~~City of Keyes~~ ~~City of Livingston~~ ~~City of Los Banos~~ ~~City of Madera (including the area known as Bonadelle Ranchos-Ma and Madera Acres)~~ ~~County of Madera~~ ~~City of Merced~~ ~~County of Merced~~ ~~City of Oakdale~~ City of Patterson ~~City of Ripon~~ ~~City of Riverbank~~ ~~City of Salida~~ ~~County of San Joaquin~~ ~~County of Stanislaus~~	San Joaquin River from Mendota Dam to Vernalis	~~**Purpose of Provisions:**~~ ~~The purpose of these provisions is to implement the Lower San Joaquin River Diazinon and Chlorpyrifos Control Program~~ ~~**Waste Load Allocations:**~~ ~~The wasteload allocations for NPDES permitted municipal storm water Permittee shall not exceed the sum (S) of one (1) as defined below:~~ ~~$S = \frac{C_D}{WQO_D} + \frac{C_C}{WQO_C} \leq 1.0$~~ ~~where~~ ~~$C_D$ = diazinon concentration~~ ~~C_C = chlorpyrifos concentration~~ ~~WQO_D = acute or chronic diazinon water quality objective (0.160 and 0.100 ug/L, respectively)~~ ~~WQO_C = acute or chronic chlorpyrifos water quality objective. (0.025 and 0.015 ug/L, respectively)~~ ~~For the purpose of calculating the sum (S) above, non-detectable concentrations are considered to be zero.~~ ~~**Provisions**~~ **Requirements for ~~i~~Implementing the ~~Control Program~~TMDL and Monitoring Requirements:** The Phase II entities identified in this TMDL section (hereinafter referred to as Permittees in this TMDL section) shall implement the following actions by July 1, 2018: 1. a. Conduct an assessment: By December 31, 2019, the Permittees shall complete and submit to the Central Valley Regional Water Board Executive Officer an assessment to, at a minimum: determine the diazinon and chlorpyrifos levels and attainment of waste load allocations in urban discharge; and evaluate attainment of established water quality objectives applicable to diazinon and chlorpyrifos for the receiving water. Assessment monitoring may be done in coordination or conjunction with other municipalities and/or Permittees. The Permittees are responsible for providing the assessment and necessary information related to the assessment to the Central Valley Regional Water Board Executive Officer for review and approval. The assessment information may come from the Permittee's monitoring efforts; monitoring

ATTACHMENT G – Region-Specific Requirements
Regional Water Board-Approved TMDLs with urban runoff listed as a source

TMDL Effective Date Basin Plan Amendment (BPA) Water Board Resolution No.	~~Municipality~~Phase II Entities	Impaired Water Body	Deliverables/Actions Required~~/Waste Load Allocations~~
Region 5: Central Valley Regional Water Board			
TMDL for Lower San Joaquin River *Diazinon & Chlorpyrifos* (continued)	~~City of Turlock~~ ~~City of Winton~~		programs conducted by State or federal agencies or collaborative watershed efforts; or from special studies that evaluate the effectiveness of management practices. ~~1.~~ b. With Central Valley Regional Water Board Executive Officer approval, the Permittees may participate in the Delta Regional Monitoring Program or other collective monitoring efforts in lieu of some or all of the individual monitoring requirements required by this section. c. Permittees that implement individual water quality monitoring pursuant to 1.a., above, must submit a Monitoring Plan and Quality Assurance Project Plan (QAPP) to the Executive Officer for review and approval. i) Monitoring Plan – at a minimum, the Monitoring Plan must include the following information: 1) Management questions to be answered by the Monitoring Plan, 2) Constituents to be monitored, analytical methods, and reporting limits, 3) Sampling site(s) locations, including latitude and longitude coordinates, water body name and water body segment if applicable, 4) Other monitoring efforts that will provide supplemental data for the local water quality monitoring program and assessment (if any), 5) Proposed schedule and level of detail for monitoring reports. If a more comprehensive report is necessary every few years, the Monitoring Plan shall propose a schedule and description of the level of detail (consistent with the information described below) that will be included within the Annual Reports. ii) Quality Assurance Project Plan (QAPP) consistent with Surface Water Ambient Monitoring Program (SWAMP). All samples shall be collected and analyzed according to the QAPP. Monitoring Reports shall be submitted with the Annual Report and include the following information (consistent with the approved Monitoring Plan): 1) The purpose of the monitoring, brief contextual background, and a brief description of the study design and rationale; 2) Methods used for sample collection: list methods used for sample collection, sample or data collection identification, collection date, and media if applicable; 3) Identification of and rationale for any deviations from the QAPP; 4) Results of data collection, including concentration detected, measurement units, reporting limits, and detection limits, if applicable; 5) Quantifiable assessment, analysis and interpretation of data for each monitoring parameter;

ATTACHMENT G – Region-Specific Requirements
Regional Water Board-Approved TMDLs with urban runoff listed as a source

TMDL Effective Date Basin Plan Amendment (BPA) Water Board Resolution No.	~~Municipality~~Phase II Entities	Impaired Water Body	Deliverables/Actions Required~~/Waste Load Allocations~~
Region 5: Central Valley Regional Water Board			
TMDL for Lower San Joaquin River *Diazinon & Chlorpyrifos* (continued)			6) Comparison to reference sites (if applicable), guidelines or targets; 7) Discussion of whether data collected addresses the objective(s) or question(s) of study design; 8) Quantifiable discussion of program/study pollutant reduction effectiveness. 2. Pesticide Management Plans: Unless the Permittees can demonstrate attainment of the waste load allocations, the Permittee shall prepare a Pesticide Management Plan which includes a description of actions that will be taken to reduce diazinon and chlorpyrifos discharges to meet the applicable allocations. Pesticide Management Plan provisions addressing diazinon and chlorpyrifos can be included in the pesticide management plans covering current use pesticides with the goal of reducing the discharge of pesticides from municipal storm water to receiving water. Pesticide Management Plans shall address the Permittee's own use of pesticides, and to the extent authorized by law, the use of such pesticides by other sources within their jurisdictions. Pesticide Management Plans shall include identifying and promoting, within the context of integrated pest management (IPM) programs, the use of pest management practices that minimize the risk of pesticide impacts on surface water quality resulting from urban runoff discharges. Additionally, the plan shall include the integration of IPM into the Permittee's municipal operations and be promoted to residents, businesses, and public agencies within each Permittee's jurisdiction through public outreach. The Central Valley Regional Water Board Executive Officer may require revisions to the Pest Management Plans if the Central Valley Regional Water Board Executive Officer determines that the Pest Management Plan is not likely to attain the waste load allocations. Pest Management Plans may be submitted by individual Permittee or Permittee groups and may refer to actions required by other agencies or actions required elsewhere in this permit. Pest Management Plans may include actions to reduce MS4 pesticide discharges through participation or support of a regional or statewide pesticide reduction program. To receive credit toward compliance for such participation, the Permittees must demonstrate that they have participated in the implementation of the program (i.e., contributing materially and in proportion in the size of a Permittee's service area, including, but not limited to, implementation of reduction program measures, membership, contribution of resources, etc.). Examples of programs that could be eligible include Our Water Our World (outreach), a recognized regional monitoring program, and California Stormwater Quality Association's (CASQA) pesticide regulatory initiative. In developing the monitoring and reporting programs for the Permittee, the Central Valley Water Board will, in coordination with the DPR,

ATTACHMENT G – Region-Specific Requirements
Regional Water Board-Approved TMDLs with urban runoff listed as a source

TMDL Effective Date Basin Plan Amendment (BPA) Water Board Resolution No.	~~Municipality~~Phase II Entities	Impaired Water Body	Deliverables/Actions Required/~~Waste Load Allocations~~
Region 5: Central Valley Regional Water Board			
			assist the Permittee in identifying diazinon and chlorpyrifos alternatives for which monitoring may be necessary. By July 1, 2018, the permittees shall demonstrate attainment of the TMDL WLA as specified in Section E.15.a.2. or F.5.i.1.b. of this Order. ~~Dischargers not meeting wasteload allocations will be required by the Executive Officer to submit a management plan describing actions that will be taken to reduce diazinon and chlorpyrifos discharges to meet the applicable allocations. The Executive Officer may require revisions to the management plans if compliance with wasteload allocations are not attained or the management plan is not likely to attain compliance. Management plans may be submitted by individual dischargers or discharger groups.~~ ~~In determining compliance dates for wasteload allocations, the Regional Water Board will consider data or information submitted by the discharger regarding diazinon and chlorpyrifos inputs from sources outside of the jurisdiction of the permitted discharge.~~ ~~Dischargers must consider weather a proposed alternative to diazinon or chlorpyrifos has the potential to degrade ground or surface water. If the alternative has the potential to degrade groundwater, alternative pest control methods must be considered. If the alternative has the potential to degrade surface water, control measures must be implemented to ensure the applicable water quality objectives and State and Regional Water Boards' policies are not violated, including State Water Resources Control Board Resolution 68-16.~~ ~~**Compliance with Waste Load Allocations:**~~ ~~**01 December 2010**~~
TMDL for Sacramento and San Joaquin Delta Diazinon & Chlorpyrifos Effective Date: October 10, 2006 BPA: Chapter 31 Resolution No.: R5-2006-0061	City of Lathrop City of Lodi ~~City of Davis~~ ~~City of Dixon~~ ~~City of Franch Camp~~	Sacramento-San Joaquin Delta Waterways	~~**Purpose of Provisions:**~~ ~~The purpose of these provisions is to implement the Control Program for Diazinon and Chlorpyrifos Runoff into the Sacramento-San Joaquin Delta Waterways~~ ~~**Waste Load Allocations:**~~ ~~The wasteload allocations for NPDES permitted municipal storm water Permittee shall not exceed the sum (S) of one (1) as defined below:~~ $\frac{C_D}{WQO_D} + \frac{C_C}{WQO_C} \leq 1.0$ ~~where~~

ATTACHMENT G – Region-Specific Requirements
Regional Water Board-Approved TMDLs with urban runoff listed as a source

TMDL Effective Date Basin Plan Amendment (BPA) Water Board Resolution No.	~~Municipality~~Phase II Entities	Impaired Water Body	Deliverables/Actions Required/~~Waste Load Allocations~~
Region 5: Central Valley Regional Water Board			
TMDL for Sacramento and San Joaquin Delta Diazinon & Chlorpyrifos (continued)	City of Manteca ~~City of Morada~~ ~~City of Vacaville~~ City of Rio Vista County of San Joaquin City of Tracy City of West Sacramento ~~City of Woodland~~		~~C_D = diazinon concentration~~ ~~C_C = chlorpyrifos concentration~~ ~~WQO_D = acute or chronic diazinon water quality objective (0.160 and 0.100 ug/L, respectively)~~ ~~WQO_C = acute or chronic chlorpyrifos water quality objective. (0.025 and 0.015 ug/L, respectively)~~ ~~For the purpose of calculating the sum (S) above, non-detectable concentrations are considered to be zero.~~ **~~Provisions~~ Requirements for Monitoring and ~~i~~Implementing the ~~Control Program~~TMDL:** The Phase II entities identified in this TMDL section (hereinafter referred to as Permittees in this TMDL section) shall implement the following actions, by July 1, 2018: 1. a. Conduct an assessment: By December 31, 2019, the Permittees shall complete and submit to the Central Valley Regional Water Board Executive Officer an assessment to, at a minimum: determine the diazinon and chlorpyrifos levels and attainment of waste load allocations in urban discharge; and evaluate attainment of established water quality objectives applicable to diazinon and chlorpyrifos for the receiving water. Assessment monitoring may be done in coordination or conjunction with other municipalities and/or Permittees. Permittees are responsible for providing the assessment and necessary information related to the assessment to the Central Valley Regional Water Board Executive Officer for review and approval. The assessment information may come from the Permittee's monitoring efforts; monitoring programs conducted by State or federal agencies or collaborative watershed efforts; or from special studies that evaluate the effectiveness of management practices. b. With Central Valley Regional Water Board Executive Officer approval, the Permittees may participate in the Delta Regional Monitoring Program or other collective monitoring efforts in lieu of some or all of the individual monitoring requirements required by this section. c. Permittees that implement individual water quality monitoring pursuant to 1.a., above, must submit a Monitoring Plan and Quality Assurance Project Plan (QAPP) to the Executive Officer for review and approval. i) Monitoring Plan – at a minimum-, the Monitoring Plan must include the following information: 1) Management questions to be answered by the Monitoring Plan, 2) Constituents to be monitored, analytical methods, and reporting limits, 3) Sampling site(s) locations, including latitude and longitude coordinates, water body name and water body segment if applicable,

ATTACHMENT G – Region-Specific Requirements
Regional Water Board-Approved TMDLs with urban runoff listed as a source

TMDL Effective Date Basin Plan Amendment (BPA) Water Board Resolution No.	~~Municipality~~Phase II Entities	Impaired Water Body	Deliverables/Actions Required~~/Waste Load Allocations~~
Region 5: Central Valley Regional Water Board			
TMDL for Sacramento and San Joaquin Delta Diazinon & Chlorpyrifos (continued)			4) Other monitoring efforts that will provide supplemental data for the local water quality monitoring program and assessment (if any), 5) Proposed schedule and level of detail for monitoring reports. If a more comprehensive report is necessary every few years, the Monitoring Plan shall propose a schedule and description of the level of detail (consistent with the information described below) that will be included within the Annual Reports. ii) Quality Assurance Project Plan (QAPP) consistent with Surface Water Ambient Monitoring Program (SWAMP). All samples shall be collected and analyzed according to the QAPP. Monitoring Reports shall be submitted with the Annual Report and include the following information (consistent with the approved Monitoring Plan): 1) The purpose of the monitoring, brief contextual background, and a brief description of the study design and rationale; 2) Methods used for sample collection: list methods used for sample collection, sample or data collection identification, collection date, and media if applicable; 3) Identification of and rationale for any deviations from the QAPP; 4) Results of data collection, including concentration detected, measurement units, reporting limits, and detection limits, if applicable; 5) Quantifiable assessment, analysis and interpretation of data for each monitoring parameter; 6) Comparison to reference sites (if applicable), guidelines or targets; 7) Discussion of whether data collected addresses the objective(s) or question(s) of study design; 8) Quantifiable discussion of program/study pollutant reduction effectiveness. 2. Pesticide Management Plans: Unless Permittees can demonstrate attainment of the waste load allocations, Permittees shall prepare a Pesticide Management Plan which include a description of actions that will be taken to reduce diazinon and chlorpyrifos discharges to meet the applicable allocations. Pesticide Management Plan provisions addressing diazinon and chlorpyrifos can be included in pesticide management plans covering current use pesticides with the goal of reducing the discharge of pesticides from municipal storm water to receiving water. Pesticide Management Plans shall address the Permittee's own use of pesticides, and to the extent authorized by law, the use of such pesticides by other sources within their jurisdictions. Pesticide Management Plans shall include identifying and promoting, within the context of integrated pest management (IPM) programs, the use of pest management practices that minimize the risk of pesticide impacts on surface water quality resulting from

ATTACHMENT G – Region-Specific Requirements
Regional Water Board-Approved TMDLs with urban runoff listed as a source

TMDL Effective Date Basin Plan Amendment (BPA) Water Board Resolution No.	~~Municipality~~Phase II Entities	Impaired Water Body	Deliverables/Actions Required~~/Waste Load Allocations~~
Region 5: Central Valley Regional Water Board			
TMDL for Sacramento and San Joaquin Delta Diazinon & Chlorpyrifos (continued)			urban runoff discharges. Additionally, the Pesticide Management Plan shall include the integration of IPM into the Permittee's municipal operations and be promoted to residents, businesses, and public agencies within each Permittee's jurisdiction through public outreach. The Central Valley Regional Water Board Executive Officer may require revisions to the Pesticide Management Plans if the plan is not likely to attain the waste load allocations. Pesticide Management Plans may be submitted by individual Permittee or Permittee groups and may refer to actions required by other agencies or actions required elsewhere in this permit. Pesticide Management Plans may include actions to reduce MS4 pesticide discharges through participation or support of a regional or statewide pesticide reduction programs. To receive credit toward compliance for such participation, the Permittees must demonstrate that they have participated in the implementation of the program (i.e., contributing materially and in proportion in the size of a Permittee's service area, including, but not limited to, implementation of reduction program measures, membership, contribution of resources, etc.). Examples of programs that could be eligible include Our Water Our World (outreach), a recognized regional monitoring program, and California Stormwater Quality Association's (CASQA's) pesticide regulatory initiative. In developing the monitoring and reporting programs for specific Permittees, the Central Valley Water Board will, in coordination with DPR, assist the Permittee in identifying diazinon and chlorpyrifos alternatives for which monitoring may be necessary. By July 1, 2018, the permittees shall demonstrate attainment of the TMDL WLA as specified in Section E.15.a.2. or F.5.i.1.b. of this Order. ~~Dischargers not meeting wasteload allocations will be required by the Executive Officer to submit a management plan describing actions that will be taken to reduce diazinon and chlorpyrifos discharges to meet the applicable allocations. The Executive Officer may require revisions to the management plans if compliance with wasteload allocations are not attained or the management plan is not likely to attain compliance. Management plans may be submitted by individual dischargers or discharger groups.~~ ~~In determining compliance dates for wasteload allocations, the Regional Water Board will consider data or information submitted by the discharger regarding diazinon and chlorpyrifos inputs from sources outside of the jurisdiction of the permitted discharge.~~ ~~To address pesticide impairment of receiving waters, Permittees shall create and implement a Regional Board-approved Pesticide Plan that addresses their own use of pesticides including diazinon and chlorpyrifos, and to the extent authorized by law, the use of such pesticides by other sources within~~
~~**TMDL for Sacramento and San Joaquin Delta**~~ ~~Diazinon & Chlorpyrifos~~ ~~(continued)~~			

ATTACHMENT G – Region-Specific Requirements
Regional Water Board-Approved TMDLs with urban runoff listed as a source

TMDL Effective Date Basin Plan Amendment (BPA) Water Board Resolution No.	~~Municipality~~Phase II Entities	Impaired Water Body	Deliverables/Actions Required/~~Waste Load Allocations~~
Region 5: Central Valley Regional Water Board			
			~~their jurisdictions. The goal of the Pesticides Plan is to reduce the discharge of pesticides from municipal storm water systems to receiving waters. The Permittees shall identify and promote within the context of integrated pest management (IPM) programs, the use of pest management practices that minimize the risk of pesticide impacts on surface water quality resulting from urban runoff discharges. IPM shall be integrated into the Permittee municipal operations and promoted to residents, businesses, and public agencies through the public outreach program.~~ ~~Permittees shall complete an assessment to determine the diazinon and chlorpyrifos levels in receiving waters. Monitoring may be done in conjunctions with other municipalities and/or discharges in the Central Valley. Permittees are responsible for providing the necessary information. The information may come from the dischargers' monitoring efforts; monitoring programs conducted by State or federal agencies or collaborative watershed efforts; or from special studies that evaluate the effectiveness of management practices. The purposes of the study are to evaluate compliance with established water quality objectives applicable to diazinon and chlorpyrifos for the receiving water and to determine compliance with wasteload allocations. In cases where the Permittees are not in compliance with the wasteload allocations, the Regional Water Board may request additional assessments and documentation of control program effectiveness. Assessment shall also consider whether alternatives to diazinon and chlorpyrifos are causing surface water quality impacts and if toxicity impairment is being caused or contributed to due to synergistic effects of multiple pollutants.~~ ~~Modifications to these requirements may be made through approval from the Executive Officer in order to facilitate discharger participation in the Delta Regional Monitoring Program.~~ ~~**Deadline for Compliance withWaste Load Allocations:**~~ ~~01 December 2010~~
TMDL for Sacramento and Feather Rivers *Diazinon & Chlorpyrifos* Effective Date: May 3, 2007 BPA: Attachment 1 Resolution No.: R5-2007-0034	City of Anderson ~~County of Butte~~ County of Colusa ~~City of Linda CDP~~ ~~City of Chico~~ City of Marysville ~~Olivehurst CDP~~	Sacramento River from Shasta Dam to I Street Bridge Feather River from Fish Barrier Dam to Sacramento River	~~**Purpose of Provisions:**~~ ~~The purpose of these provisions is to implement the Control Program for Diazinon and Chlorpyrifos Runoff into the Sacramento and Feather Rivers~~ ~~**Waste Load Allocations:**~~ ~~The wasteload allocations for NPDES permitted municipal storm water Permittee shall not exceed the sum (S) of one (1) as defined below:~~ $$S = \frac{C_D}{WQO_D} + \frac{C_C}{WQO_C} \leq 1.0$$ ~~where~~ ~~C_D = diazinon concentration~~

ATTACHMENT G – Region-Specific Requirements
Regional Water Board-Approved TMDLs with urban runoff listed as a source

TMDL Effective Date Basin Plan Amendment (BPA) Water Board Resolution No.	~~Municipality~~Phase II Entities	Impaired Water Body	Deliverables/Actions Required/~~Waste Load Allocations~~
Region 5: Central Valley Regional Water Board			
TMDL for Sacramento and Feather Rivers *Diazinon & Chlorpyrifos* (continued)	City of Red Bluff ~~City of Live Oak~~ ~~City of Lincoln~~ ~~City of Loomis~~ City of Redding County of Shasta County of Sutter ~~South~~ City of Yuba City ~~City of Roseville~~ ~~City of Rocklin~~ County of Yuba		~~C_C = chlorpyrifos concentration~~ ~~WQO_D = acute or chronic diazinon water quality objective (0.160 and 0.100 ug/L, respectively)~~ ~~WQO_C = acute or chronic chlorpyrifos water quality objective. (0.025 and 0.015 ug/L, respectively)~~ ~~For the purpose of calculating the sum (S) above, non-detectable concentrations are considered to be zero.~~ **Requirements for Monitoring and Implementing the TMDL:** The Phase II entities identified in this TMDL section (hereinafter referred to as Permittees in this TMDL section) shall implement the following actions by July 1, 2018: 1. a. Conduct an assessment: By December 31, 2019, the Permittees shall complete and submit to the Central Valley Regional Water Board Executive Officer an assessment to, at a minimum: determine the diazinon and chlorpyrifos levels and attainment of waste load allocations in urban discharge; and evaluate attainment of established water quality objectives applicable to diazinon and chlorpyrifos for the receiving water. Assessment monitoring may be done in coordination or conjunction with other municipalities and/or Permittees. Permittees are responsible for providing the assessment and necessary information related to the assessment to the Central Valley Regional Water Board Executive Officer for review and approval. The assessment information may come from the Permittee's monitoring efforts; monitoring programs conducted by State or federal agencies or collaborative watershed efforts; or from special studies that evaluate the effectiveness of management practices. b. With Central Valley Regional Water Board Executive Officer approval, the Permittees may participate in the Delta Regional Monitoring Program or other collective monitoring efforts in lieu of some or all of the individual monitoring requirements required by this section. c. Permittees that implement individual water quality monitoring pursuant to 1.a., above, must submit a Monitoring Plan and Quality Assurance Project Plan (QAPP) to the Executive Officer for review and approval. i) Monitoring Plan – at a minimum, the Monitoring Plan must include the following information: 1) Management questions to be answered by the Monitoring Plan, 2) Constituents to be monitored, analytical methods, and reporting limits, 3) Sampling site(s) locations, including latitude and longitude coordinates, water body name and water body segment if applicable,

ATTACHMENT G – Region-Specific Requirements
Regional Water Board-Approved TMDLs with urban runoff listed as a source

TMDL Effective Date Basin Plan Amendment (BPA) Water Board Resolution No.	~~Municipality~~Phase II Entities	Impaired Water Body	Deliverables/Actions Required~~/Waste Load Allocations~~
Region 5: Central Valley Regional Water Board			
TMDL for Sacramento and Feather Rivers *Diazinon & Chlorpyrifos* (continued)			4) Other monitoring efforts that will provide supplemental data for the local water quality monitoring program and assessment (if any), 5) Proposed schedule and level of detail for monitoring reports. If a more comprehensive report is necessary every few years, the Monitoring Plan shall propose a schedule and description of the level of detail (consistent with the information described below) that will be included within the Annual Reports. ii) Quality Assurance Project Plan (QAPP) consistent with Surface Water Ambient Monitoring Program (SWAMP). All samples shall be collected and analyzed according to the QAPP. Monitoring Reports shall be submitted with the Annual Report and include the following information (consistent with the approved Monitoring Plan): i) The purpose of the monitoring, brief contextual background, and a brief description of the study design and rationale; ii) Methods used for sample collection: list methods used for sample collection, sample or data collection identification, collection date, and media if applicable; iii) Identification of and rationale for any deviations from the QAPP; iv) Results of data collection, including concentration detected, measurement units, reporting limits, and detection limits, if applicable; v) Quantifiable assessment, analysis and interpretation of data for each monitoring parameter; vi) Comparison to reference sites (if applicable), guidelines or targets; vii) Discussion of whether data collected addresses the objective(s) or question(s) of study design; viii) Quantifiable discussion of program/study pollutant reduction effectiveness. 2. Pesticide Management Plans: Unless Permittees can demonstrate attainment of the waste load allocations, Permittees shall prepare a Pesticide Management Plan which include a description of actions that will be taken to reduce diazinon and chlorpyrifos discharges to meet the applicable allocations. Pesticide Management Plan provisions addressing diazinon and chlorpyrifos can be included in pesticide management plans covering current use pesticides with the goal of reducing the discharge of pesticides from municipal storm water to receiving water. Pesticide Management Plans shall address the Permittee's own use of pesticides, and to the extent authorized by law, the use of such pesticides by other sources within their jurisdictions. Pesticide Management Plans shall include identifying and promoting, within the context of integrated pest management (IPM) programs, the use of pest management practices that minimize the risk of pesticide impacts on surface water quality resulting from urban runoff discharges. Additionally, the plan shall include the integration of IPM into the

ATTACHMENT G – Region-Specific Requirements
Regional Water Board-Approved TMDLs with urban runoff listed as a source

TMDL Effective Date Basin Plan Amendment (BPA) Water Board Resolution No.	~~Municipality~~Phase II Entities	Impaired Water Body	Deliverables/Actions Required~~/Waste Load Allocations~~
Region 5: Central Valley Regional Water Board			
~~**Sacramento and Feather Rivers**~~ ~~*Diazinon & Chlorpyrifos*~~ ~~(continued)~~			Permittee's municipal operations and be promoted to residents, businesses, and public agencies within each Permittee's jurisdiction through public outreach. The Central Valley Regional Water Board Executive Officer may require revisions to the Pesticide Management Plans if the management plan is not likely to attain the waste load allocations. Pesticide Management Plans may be submitted by individual Permittee or Permittee groups and may refer to actions required by other agencies or actions required elsewhere in this permit. Management plans for pesticides may include actions to reduce MS4 pesticide discharges through participation or support of a regional or statewide pesticide reduction program. To receive credit toward compliance for such participation, the Permittees must demonstrate that they have participated in the implementation of the program (i.e., contributing materially and in proportion in the size of a Permittee's service area, including, but not limited to, implementation of reduction program measures, membership, contribution of resources, etc.). Examples of programs that could be eligible include Our Water Our World (outreach), a recognized regional monitoring program, and California Stormwater Quality Association's (CASQA) pesticide regulatory initiative. In developing the monitoring and reporting programs for Permittees, the Central Valley Water Board will, in coordination with the DPR, assist the Permittee in identifying diazinon and chlorpyrifos alternatives for which monitoring may be necessary. By July 1, 2018, the permittees shall demonstrate attainment of the TMDL WLA as specified in Section E.15.a.2. or F.5.i.1.b. of this Order. ~~Dischargers not meeting wasteload allocations will be required by the Executive Officer to submit a management plan describing actions that will be taken to reduce diazinon and chlorpyrifos discharges to meet the applicable allocations. The Executive Officer may require revisions to the management plans if compliance with wasteload allocations are not attained or the management plan is not likely to attain compliance. Management plans may be submitted by individual dischargers or discharger groups.~~ ~~In determining compliance with the waste load allocations, the Regional Water Board will consider data or information submitted by the discharger regarding diazinon and chlorpyrifos inputs from sources outside of the jurisdiction of the permitted discharge.~~ ~~Dischargers must consider weather a proposed alternative to diazinon or chlorpyrifos has the potential to degrade ground or surface water. If the alternative has the potential to degrade groundwater, alternative pest control methods must be considered. If the alternative has the potential to degrade~~

ATTACHMENT G – Region-Specific Requirements
Regional Water Board-Approved TMDLs with urban runoff listed as a source

TMDL Effective Date Basin Plan Amendment (BPA) Water Board Resolution No.	~~Municipality~~Phase II Entities	Impaired Water Body	Deliverables/Actions Required/~~Waste Load Allocations~~
Region 5: Central Valley Regional Water Board			
~~**Sacramento and Feather Rivers**~~ ~~*Diazinon & Chlorpyrifos*~~ ~~(continued)~~			~~surface water, control measures must be implemented to ensure the applicable water quality objectives and State and Regional Water Boards' policies are not violated, including State Water Resources Control Board Resolution 68-16.~~ ~~**Deadline for Compliance with Waste Load Allocations**:~~ ~~11 August 2008~~
TMDL for Lower San Joaquin River, San Joaquin River, Stockton Deep Water Ship Channel TMDL *Organic Enrichment and Low Dissolved Oxygen* Effective Date: February 27, 2007 BPA: Chapter IV-37.01 Resolution No.: R5-2005-005 **TMDL for Lower San Joaquin River, San Joaquin River, Stockton DWSC** *Organic Enrichment and Low Dissolved Oxygen* (Continued)	Atwater City ~~City of French Camp~~ ~~City of~~ Ceres City Escalon City Hughson City Lathrop City Livingston City Los Banos City Manteca City Merced City Merced County Newman City ~~City of~~ Oakdale City ~~City of~~ Patterson City Ripon City ~~City of~~ Riverbank City	Lower San Joaquin River (Stockton Deep Water Ship Channel, DWSC)	~~**Purpose of Provisions:**~~ ~~The purpose of these provisions is to implement the requirements of the San Joaquin River Dissolved Oxygen TMDL.~~ ~~**Wasteload Allocations:**~~ ~~Waste load allocations for all NPDES permitted discharges of oxygen demanding substances were set at the corresponding effluent limitations applicable on 28 January 2005.~~ **~~Provision~~Requirements for Implementing the ~~Control Program~~TMDL:** The Phase II Entities identified within this TMDL section (hereinafter referred to as Permittees in this TMDL section) shall implement best management practices (BMPs) to control the discharge of oxygen demanding substances and their precursors in their urban discharge. This will be implemented through compliance with the following Small MS4 Permit requirements: • Discharge Prohibitions B.4 • Section E.6.a. Legal Authority • Section E.9. Illicit Discharge Detection and Elimination • Section E.10. Construction Site Storm Water Runoff Control Program • Section E.11. Pollution Prevention/Good Housekeeping • Section E.12. Post-Construction • Section E.13. Monitoring • Section E.14. Program Effectiveness • Section E.15 Compliance with Implementation Process ~~Waste load allocations and permit conditions for new or expanded point source discharges in the SJR Basin upstream of the DWSC, including NPDES and storm water, will be based on the discharger demonstrating that the discharge will have no reasonable potential to cause or contribute to a negative impact on the dissolved oxygen impairment in the DWSC.~~ In measuring compliance with permit requirements related to attainment of these wasteload allocations (WLAs), credit will be given for control measures implemented after July 12, 2004.

ATTACHMENT G – Region-Specific Requirements
Regional Water Board-Approved TMDLs with urban runoff listed as a source

TMDL Effective Date Basin Plan Amendment (BPA) Water Board Resolution No.	~~Municipality~~Phase II Entities	Impaired Water Body	Deliverables/Actions Required/~~Waste Load Allocations~~
Region 5: Central Valley Regional Water Board			
TMDL for Lower San Joaquin River, San Joaquin River, Stockton DWSC *Organic Enrichment and Low Dissolved Oxygen* (Continued)	San Joaquin County ~~County of~~ Stanislaus County ~~City of Winton~~Turlock City		The Permittees shall document, in their Annual Reports, the implementation of BMPs to control the discharge of oxygen demanding substances and precursors in their urban discharge. Each Annual Report shall include documentation of compliance with the Permit requirements and a discussion of the effectiveness of the BMPs. The Permittees shall use the information gained from the Program Effectiveness Assessments to improve their program and identify new BMPs or modifications of existing BMPs to ensure that they are meeting applicable WLAs. The Program Effectiveness Assessment information may come from the Permittees' monitoring efforts; monitoring programs conducted by State or federal agencies or collaborative watershed efforts; or from special studies that evaluate the effectiveness of management practices. **Monitoring Provisions:** 1. By July 1, 2019, Permittees shall submit the Monitoring and Reporting Plan consistent with E.13 for Central Valley Regional Water Board Executive Officer approval; 2. With Central Valley Regional Water Board Executive Officer approval, the Permittees may participate in the Delta Regional Monitoring Program or other collective monitoring efforts in lieu of some or all of the individual monitoring requirements required by this section. 3. Permittees that implement individual water quality monitoring pursuant to this provision must submit a Monitoring Plan and Quality Assurance Project Plan (QAPP) to the Executive Officer for review and approval. a) Monitoring Plan – at a minimum, the Monitoring Plan must include the following information: i) Management questions to be answered by the Monitoring Plan, ii) Constituents to be monitored, analytical methods, and reporting limits, iii) Sampling site(s) locations, including latitude and longitude coordinates, water body name and water body segment if applicable, iv) Other monitoring efforts that will provide supplemental data for the local water quality monitoring program and assessment (if any), v) Proposed schedule and level of detail for monitoring reports. If a more comprehensive report is necessary every few years, the Monitoring Plan shall propose a schedule and description of the level of detail (consistent with the information described below) that will be included within the Annual Reports. b) Quality Assurance Project Plan (QAPP) consistent with Surface Water Ambient Monitoring Program (SWAMP). All samples shall be collected and analyzed according to the QAPP. Monitoring Reports shall be submitted with the Annual Report and include the following information (consistent with the approved Monitoring Plan): i) The purpose of the monitoring, brief contextual background, and a brief description of the study design and rationale;

ATTACHMENT G – Region-Specific Requirements
Regional Water Board-Approved TMDLs with urban runoff listed as a source

TMDL Effective Date Basin Plan Amendment (BPA) Water Board Resolution No.	~~Municipality~~Phase II Entities	Impaired Water Body	Deliverables/Actions Required/~~Waste Load Allocations~~
Region 5: Central Valley Regional Water Board			
			ii) Methods used for sample collection: list methods used for sample collection, sample or data collection identification, collection date, and media if applicable; iii) Identification of and rationale for any deviations from the QAPP; iv) Results of data collection, including concentration detected, measurement units, reporting limits, and detection limits, if applicable; v) Quantifiable assessment, analysis and interpretation of data for each monitoring parameter; vi) Comparison to reference sites (if applicable), guidelines or targets; vii) Discussion of whether data collected addresses the objective(s) or question(s) of study design; viii) Quantifiable discussion of program/study pollutant reduction effectiveness. 4. Progress toward attainment of the WLA shall be documented in the Annual Report. By July 1, 2018, the permittees shall demonstrate attainment of the TMDL WLA as specified in Section E.15.a.2. or F.5.i.1.b. of this Order. ~~**Compliance with waste load allocations:**~~ ~~December 31, 2011~~ ~~**Compliance with implementation provisions:**~~ ~~Ongoing~~
TMDL for the Delta ~~TMDL~~ *Methylmercury* Effective Date: ~~Pending~~October 20, 2011 Resolution No.: R5-2010-0043	City of Lathrop City of Lodi City of Rio Vista City of Tracy ~~County of Solano~~ City of West Sacramento County of San Joaquin County of Yolo	Sacramento-San Joaquin Delta ~~Waterways~~and Yolo Bypass waterways listed in Appendix 43 of the Basin Plan – Table A43-1	~~**Purpose of Provisions:**~~ ~~The purpose of these provisions is to implement the requirements of the Delta methylmercury TMDL.~~ ~~**Wasteload Allocations (methylmercury g/yr):**~~ ~~Lodi (City of) 0.053~~ ~~San Joaquin (County of) 1.486~~ ~~Rio Vista (City of) 0.0078~~ ~~Solano (County of) 0.062~~ ~~West Sacramento (City of) 0.64~~ ~~Yolo (County of) 0.124~~ ~~Lathrop (City of) 0.097~~ ~~Tracy (City of) 0.65~~ ~~**Provision**~~**Requirements for Implementing the ~~Control Program~~TMDL:** 1. The Phase II entities identified in this TMDL section (hereinafter referred to as Permittees in this TMDL section) shall implement best management practices (BMPs) to control erosion and

ATTACHMENT G – Region-Specific Requirements
Regional Water Board-Approved TMDLs with urban runoff listed as a source

TMDL Effective Date Basin Plan Amendment (BPA) Water Board Resolution No.	~~Municipality~~Phase II Entities	Impaired Water Body	Deliverables/Actions Required/~~Waste Load Allocations~~
Region 5: Central Valley Regional Water Board			
TMDL for the Delta *Methylmercury* (Continued)			sediment discharges with the goal of reducing mercury discharges. This will be implemented through compliance with the following Small MS4 Permit requirements: • Discharge Prohibitions B.4 • Section E.6.a Legal Authority • Section E.9 Illicit Discharge Detection and Elimination • Section E.10 Construction Site Storm Water Runoff Control Program • Section E.11 Pollution Prevention/Good Housekeeping • Section E.12 Post-Construction • Section E.13 Monitoring • Section E.14 Program Effectiveness • Section E.15 Compliance with Implementation Provisions 2. Between 2014 and 2020 (Phase 1 of the Delta Mercury Control Program), the large MS4 permittees (not part of this permit) in the Delta are developing and evaluating BMPs to control methylmercury discharges in storm water. During this period, the Permittees should implement methylmercury management practices identified by the large MS4 permittees or other management practices identified by the Delta Mercury Control Program studies that are reasonable and feasible. 3. The Permittees shall implement the Delta Mercury Exposure Reduction Program (see *Water Quality Control Plan for the Sacramento River and San Joaquin River Basins, Chapter IV*). This requirement may be met by ongoing participation in the collective Mercury Exposure Reduction Program work plan, dated October 2013 (available at http://www.waterboards.ca.gov/centralvalley/water_issues/tmdl/central_valley_projects/delta_hg/hg_exposure_reduction/2013oct_merp_wrkpln.pdf). Participation can include financial contributions and in-kind services that directly support exposure reduction activities. 4. The Permittees shall document in their annual report, compliance with erosion and sediment control requirements in this Order, including a discussion of effectiveness of BMPs. The Permittees shall submit a Program Effectiveness Assessment as specified in Section E.14. of the Permit. 5. As specified in section E.15.d, the Permittees shall document implementation of any methylmercury controls or best management practices in their Annual Reports. **Monitoring Provisions:** The following monitoring requirements apply after the Central Valley Water Board's review of Delta Mercury Control Program, (see the Delta Mercury Control Program in the Basin Plan) or 20 October 2022, whichever date occurs first. –

ATTACHMENT G – Region-Specific Requirements
Regional Water Board-Approved TMDLs with urban runoff listed as a source

TMDL Effective Date Basin Plan Amendment (BPA) Water Board Resolution No.	~~Municipality~~Phase II Entities	Impaired Water Body	Deliverables/Actions Required/~~Waste Load Allocations~~
Region 5: Central Valley Regional Water Board			
TMDL for the Delta *Methylmercury* (Continued)			1. a. The Permittees shall begin monitoring methylmercury loads and concentrations in storm water discharges to assess attainment with the TMDL allocations. Within one year of the Delta Mercury Control Program review, (or 20 October 2022, whichever date occurs first), the Permittees shall submit a plan, for Central Valley Regional Water Board Executive Officer approval, describing the locations and frequency of methylmercury monitoring. The Plan shall be representative of the MS4 service area. The sampling locations, frequencies, and reporting may be the same as the requirements in this Order. The Permittees shall implement the monitoring plan within six (6) months of Central Valley Regional Water Board Executive Officer approval. b. With Central Valley Regional Water Board Executive Officer approval, the Permittees may participate in the Delta Regional Monitoring Program or other collective monitoring efforts in lieu of some or all of the individual monitoring requirements required by this section. c. Permittees that implement individual water quality monitoring pursuant to 1.a., above, must submit a Monitoring Plan and Quality Assurance Project Plan (QAPP) to the Executive Officer for review and approval. i) Monitoring Plan – at a minimum, the Monitoring Plan must include the following information: 1) Management questions to be answered by the Monitoring Plan, 2) Constituents to be monitored, analytical methods, and reporting limits, 3) Sampling site(s) locations, including latitude and longitude coordinates, water body name and water body segment if applicable, 4) Other monitoring efforts that will provide supplemental data for the local water quality monitoring program and assessment (if any), 5) Proposed schedule and level of detail for monitoring reports. If a more comprehensive report is necessary every few years, the Monitoring Plan shall propose a schedule and description of the level of detail (consistent with the information described below) that will be included within the Annual Reports. ii) Quality Assurance Project Plan (QAPP) consistent with Surface Water Ambient Monitoring Program (SWAMP). All samples shall be collected and analyzed according to the QAPP. Monitoring Reports shall be submitted with the Annual Report and include the following information (consistent with the approved Monitoring Plan): a. The purpose of the monitoring, brief contextual background, and a brief description of the study design and rationale; b. Methods used for sample collection: list methods used for sample collection, sample or data collection identification, collection date, and media if applicable;

ATTACHMENT G – Region-Specific Requirements
Regional Water Board-Approved TMDLs with urban runoff listed as a source

TMDL Effective Date Basin Plan Amendment (BPA) Water Board Resolution No.	~~Municipality~~Phase II Entities	Impaired Water Body	Deliverables/Actions Required~~/Waste Load Allocations~~
Region 5: Central Valley Regional Water Board			
TMDL for the Delta *Methylmercury* (Continued) ~~**TMDL for the Delta**~~ ~~*Methylmercury*~~ ~~(Continued)~~			c. Identification of and rationale for any deviations from the QAPP; d. Results of data collection, including concentration detected, measurement units, reporting limits, and detection limits, if applicable; e. Quantifiable assessment, analysis and interpretation of data for each monitoring parameter; f. Comparison to reference sites (if applicable), guidelines or targets; g. Discussion of whether data collected addresses the objective(s) or question(s) of study design; h. Quantifiable discussion of program/study pollutant reduction effectiveness. 2. Progress toward attainment of the waste load allocations (WLA) shall be documented in the Annual Report by monitoring methylmercury loads from the MS4 or by quantifying the annual average methylmercury load reduced by implementing pollution prevention activities and source and treatment controls. The Delta Mercury Control Program (see *Water Quality Control Plan for the Sacramento River and San* Joaquin *River Basins, Chapter IV*) provides guidance for the calculation of methylmercury loading from urban areas and determination of attainment. The assessment information may come from the Permittee's monitoring efforts, monitoring programs conducted by State or federal agencies or collaborative watershed efforts, or from special studies that evaluate the effectiveness of management practices, as approved by the Central Valley Regional Water Board Executive Officer. By December 31, 2030, the permittees shall demonstrate attainment of the TMDL WLA as specified in Section E.15.a.(ii). or F.5.i.1.(ii). of this Order. ~~Implement BMPs to control erosion and sediment discharges with the goal of reducing mercury discharges.~~ ~~**Compliance with implementation provisions:**~~ ~~Ongoing~~
TMDL for Clear Lake ~~TMDL~~ *Nutrients* Effective Date: ~~6/23/06~~ September 21, 2007 BPA: Chapter IV-37.04 Resolution No.:	City of Clearlake County of Lake City of Lakeport	Clear Lake	~~**Purpose of Provisions:**~~ ~~The purpose of these provisions is to implement the requirements of the Clear Lake TMDL.~~ ~~**Waste Load Allocations:**~~ ~~County of Lake, City of Clearlake and City of Lakeport combined 2,000 kg phosphorus/yr~~ ~~**Provision**~~**Requirements for Implementing the ~~Control Program~~TMDL:** The Phase II entities identified in this TMDL section (hereinafter referred to as Permittees in this TMDL section) shall implement best management practices (BMPs) to control erosion and sediment

ATTACHMENT G – Region-Specific Requirements
Regional Water Board-Approved TMDLs with urban runoff listed as a source

TMDL Effective Date Basin Plan Amendment (BPA) Water Board Resolution No.	~~Municipality~~Phase II Entities	Impaired Water Body	Deliverables/Actions Required/~~Waste Load Allocations~~
Region 5: Central Valley Regional Water Board			
R5-2006-0060 **TMDL for Clear Lake ~~TMDL~~** *Nutrients* (Continued)			discharges as a means of controlling phosphorous. These will be implemented through compliance with the following Small MS4 Permit requirements: • Discharge Prohibitions B.4 • Section E.6.a. Legal Authority • Section E.9. Illicit Discharge Detection and Elimination • Section E.10. Construction Site Storm Water Runoff Control Program • Section E.11. Pollution Prevention/Good Housekeeping • Section E.12. Post-Construction • Section E.13. Monitoring • Section E.14. Program Effectiveness • Section E.15 Compliance with Implementation Provisions The Permittees shall document implementation of erosion and sediment BMPs in their Annual Reports as specified in Section E.15.d of this Order. Each Annual Report shall include documentation of compliance with the above Permit requirements. Permittees shall complete and submit Program Effectiveness Assessments as specified in Section E.14 of this Order. The Permittees shall use the information gained from the Program Effectiveness Assessments to improve their program and identify new BMPs or modifications of existing BMPs. **Monitoring Provisions:** 1. By December 31, 2018, each Permittee shall incorporate individual monitoring and reporting plans, or the Permittees can collectively incorporate a single monitoring plan, into their respective Storm Water Management Plans approved under the previous 2003 Permit[5]. The monitoring plans shall enable the Central Valley Water Board to evaluate the MS4 Permittee's progress toward attainment of the WLAs and shall be representative of the respective MS4 service area. 2. With Central Valley Regional Water Board Executive Officer approval, the Permittees may participate in a regional monitoring program or other collective monitoring efforts in lieu of some or all of the individual monitoring requirements required by this section. 3. Permittees that implement individual water quality monitoring pursuant to this provision must submit a Monitoring Plan and Quality Assurance Project Plan (QAPP) to the Executive Officer for review and approval. a) Monitoring Plan – at a minimum, the Monitoring Plan must include the following information: i) Management questions to be answered by the Monitoring Plan, ii) Constituents to be monitored, analytical methods, and reporting limits,

[5] State Water Board Order 2003-0005-DWQ

ATTACHMENT G – Region-Specific Requirements
Regional Water Board-Approved TMDLs with urban runoff listed as a source

TMDL Effective Date Basin Plan Amendment (BPA) Water Board Resolution No.	~~Municipality~~Phase II Entities	Impaired Water Body	Deliverables/Actions Required/~~Waste Load Allocations~~
Region 5: Central Valley Regional Water Board			
			iii) Sampling site(s) locations, including latitude and longitude coordinates, water body name and water body segment if applicable, iv) Other monitoring efforts that will provide supplemental data for the local water quality monitoring program and assessment (if any), v) Proposed schedule and level of detail for monitoring reports. If a more comprehensive report is necessary every few years, the Monitoring Plan shall propose a schedule and description of the level of detail (consistent with the information described below) that will be included within the Annual Reports. b) Quality Assurance Project Plan (QAPP) consistent with Surface Water Ambient Monitoring Program (SWAMP). All samples shall be collected and analyzed according to the QAPP. Monitoring Reports shall be submitted with the Annual Report and include the following information (consistent with the approved Monitoring Plan): i) The purpose of the monitoring, brief contextual background, and a brief description of the study design and rationale; ii) Methods used for sample collection: list methods used for sample collection, sample or data collection identification, collection date, and media if applicable; iii) Identification of and rationale for any deviations from the QAPP; iv) Results of data collection, including concentration detected, measurement units, reporting limits, and detection limits, if applicable; v) Quantifiable assessment, analysis and interpretation of data for each monitoring parameter; vi) Comparison to reference sites (if applicable), guidelines or targets; vii) Discussion of whether data collected addresses the objective(s) or question(s) of study design; viii) Quantifiable discussion of program/study pollutant reduction effectiveness 4. Progress toward attainment of the WLA shall be documented in the Annual Report. Permittees may work with Central Valley Regional Water Board staff to estimate nutrient loadings from activities in the watershed. Loading estimates can be conducted using either water quality monitoring or computer modeling or a combination of the two. By July 1, 2018, the permittees shall demonstrate attainment of the TMDL WLA as specified in Section E.15.a.2. or F.5.i.1.b. of this Order.~~Storm water permittees will work with staff to develop and implement a plan to collect the information needed to determine what factors are important in controlling nuisance blooms and to recommend what control strategy should be implemented. Plan was submitted in 2008.~~ **~~Compliance with Waste Load Allocations:~~**

ATTACHMENT G – Region-Specific Requirements
Regional Water Board-Approved TMDLs with urban runoff listed as a source

TMDL Effective Date Basin Plan Amendment (BPA) Water Board Resolution No.	~~Municipality~~Phase II Entities	Impaired Water Body	Deliverables/Actions Required~~/Waste Load Allocations~~
Region 5: Central Valley Regional Water Board			
			~~June 2017~~

ATTACHMENT G – Region-Specific Requirements
Regional Water Board-Approved TMDLs with urban runoff listed as a source

TMDL Effective Date Basin Plan Amendment (BPA) Water Board Resolution No.	~~Municipality~~Phase II Entities	Impaired Water Body	Deliverables/Actions Required~~/Waste Load Allocations~~
Region 6: Lahontan Regional Water Board			
TMDL for Middle Truckee River Watershed, Placer, Nevada and Sierra Counties *Sediment* Effective Date: May 14, 2008 BPA: Section 4.13 Resolution No.: R6T-2008-0019	County of Placer City of Truckee	Truckee River	~~**Purpose of Provisions:**~~ ~~The purpose of these provisions is to implement the requirements of the Middle Truckee River Watershed TMDL.~~ ~~**Urban Areas Wasteload Allocations:**~~ ~~4,936 tons per year of total suspended sediment load.~~ ~~**Non-urban Wasteload Allocations:**~~ ~~35,392 tons per year of total suspended sediment load.~~ ~~**Provision**~~**Requirements for Implementing the ~~Control Program~~TMDL:** The Phase II entities identified in this TMDL section (hereinafter referred to as Permittees in this TMDL section) shall develop, implement, and report best management practices (BMPs) as follows: 1. Road sand application ~~best management practices (~~BMPs~~)~~ and recovery tracking - Road sand ~~is~~ shall be applied using BMPs and recovered to the maximum extent practicable. Amounts of road abrasives and de-icing agents applied and recovered must be monitored and reported annually. 2. Dirt roads maintained or decommissioned - Identified dirt roads with inadequate erosion control structures ~~are~~ shall be rehabilitated and maintained, or decommissioned. Permittees shall ~~F~~focus on dirt roads with high potential for sediment delivery to surface waters (e.g., within 200 feet of watercourse). 3. Legacy sites restoration and best management practices implementation - Identified legacy sites shall be~~are~~ restored or storm water BMPs ~~are~~ shall be implemented to prevent erosion and sedimentation to surface waters. 4. Implement an Education and Outreach program, consistent with Section E.7. of the Order, for the targeted audience of ski areas within the jurisdictional boundaries of the permittees, focusing on sediment and erosion control for those facilities. ~~3.~~5. Continue to implement the most recent municipal monitoring program as approved by the Regional Water Board or it's designee. By May 14, 2028, the permittees shall demonstrate attainment of the TMDL WLA as specified in Section E.15.a.(ii). or F.5.i.1.(ii). of this Order. ~~**Compliance with waste load allocations:**~~ ~~target of 25 milligrams per liter, or less, of suspended sediment is estimated for 2028 (i.e., 20 years after the adoption of the TMDL in 2008).~~

ATTACHMENT G – Region-Specific Requirements
Regional Water Board-Approved TMDLs with urban runoff listed as a source

TMDL Effective Date Basin Plan Amendment (BPA) Water Board Resolution No.	Phase II Entities	Impaired Water Body	Deliverables/Actions Required
Region 8: Santa Ana Regional Water Board			
TMDL for San Diego Creek, Upper and Lower Newport Bay *Organochlorine Compounds* Effective date: July 2013 Resolution No.: 2011-0037	Orange County Fairgrounds University of California, Irvine	San Diego Creek, Upper Newport Bay, Lower Newport Bay	**Requirements for Implementing the TMDL:** The Orange County Fairgrounds and the University of California, Irvine shall: 1. Per the Small MS4 Monitoring Flow Chart in this Order, the Permittees are: a. Not covered under an Ocean Plan Exception; b. Are identified in Attachment G (as noted under Phase II Entities here); c. Are not required to conduct Water Quality Monitoring; and d. Do discharge to a waterbody/waterbodies impaired (on 303(d) list for organochlorine compounds) by urban runoff. Therefore, the Permittees must initiate consultation with Regional Water Board staff by August 1, 2018 to determine the implementation and monitoring requirements (contained in a TMDL Attainment Plan) for San Diego Creek, Upper Newport Bay, and Lower Newport Bay. 2. As a result of the consultation with Regional Water Board staff, the Permittees shall submit their final TMDL Attainment Plan by August 1, 2019 to the Regional Water Board's Executive Officer. The Permittees shall implement the TMDL Attainment Plan immediately upon submittal. By December 31, 2020, the permittees shall demonstrate attainment of the TMDL WLA as specified in Section E.15.a.(ii). or F.5.i.1.(ii). of this Order.
TMDL for Lake Elsinore/Canyon Lake *Nutrients* Resolution No.: R8-2004-0037 Effective date: July 26, 2005	March Air Reserve Base (ARB)	Lake Elsinore, Canyon Lake	**Lake Elsinore/Canyon Lake Nutrient TMDL Joint Responsibility Option** March ARB shall implement the following actions: a. March ARB has already committed to cooperative implementation actions, monitoring actions, special studies and implementation actions jointly with other responsible agencies as an active paying member of the Lake Elsinore/Canyon Lake TMDL Task Force. March ARB shall continue with those actions in accordance with paragraph I.H. of the Agreement to Form the Lake Elsinore and Canyon Lake TMDL Task Force, dated June 18, 2012. b. If the Regional Water Board is notified that March ARB is not fulfilling its Lake Elsinore/Canyon Lake Task Force obligations or if March ARB chooses to opt out of the cooperative approach with the TMDL Task Force for implementation actions, monitoring actions, and/or special studies, March ARB shall provide formal notification to the Regional Water Board. March ARB will then be required to conduct the following activities: 1. Within 30 days of such notification, submit a proposed update of the March ARB SWPPP to address nutrient discharges; 2. Within 30 days of such notification, submit a proposed March ARB specific nutrient monitoring program. This monitoring program must be prepared and executed in a manner that attainment of waste load allocations will be determined. The monitoring program must be consistent with the most current, Regional Water Board approved, Lake Elsinore/Canyon Lake TMDL Task Force monitoring plan;

ATTACHMENT G – Region-Specific Requirements
Regional Water Board-Approved TMDLs with urban runoff listed as a source

TMDL Effective Date Basin Plan Amendment (BPA) Water Board Resolution No.	Phase II Entities	Impaired Water Body	Deliverables/Actions Required
Region 8: Santa Ana Regional Water Board			
TMDL for Lake Elsinore/Canyon Lake *Nutrients* (Continued)			3. Within 60 days of such notification, submit a proposed water quality monitoring program to evaluate the impairment status of Lake Elsinore and Canyon Lake. 4. Submit an annual report by August 15th of each year. By December 31, 2020, the permittees shall demonstrate attainment of the TMDL WLA as specified in Section E.15.a.(ii). or F.5.i.1.(ii). of this Order.
TMDL for Middle Santa Ana River *Bacterial Indicator* Effective date: September 1, 2006 Resolution No.: R8-2005-0001	CA Institute for Men CA Institute for Women CA Rehab Center University of California, Riverside	Santa Ana River, Reach 3, Chino Creek, Mill Creek, Prado Park Lake	**Requirements for Implementing the TMDL** The Phase II entities identified in this TMDL section (hereinafter referred to as Permittees in this TMDL section) shall: 1. Monitoring Program: By July 1, 2018, submit for approval by the Regional Water Board or its designee a watershed-wide attainment monitoring and facility specific bacterial indicator monitoring program that is adequate to determine attainment with the dry and wet season waste load allocation. The Permittees may alternatively participate in a stakeholder group monitoring program for the same purpose. The monitoring program must be consistent with the existing Santa Ana River Watershed Bacteria Monitoring Program – Monitoring Plan, approved by the Regional Water Board on March 11, 2016 (or the most current, Regional Water Board approved revision). 2. By July 1, 2018, either a) develop a facility-specific Bacterial Indicator Reduction Plan or b) join an updated watershed-based Bacterial Indicator Reduction Plan (within the Santa Ana River watershed). For those entities that choose to develop facility-specific Bacterial Indicator Reduction Plans, the following applies: 1. Dry Season Bacterial Indicator Reduction Plan – Develop a facility specific Bacterial Reduction Plan that details the plan and schedule for achieving the Dry Season Bacterial Indicator WLA as soon as feasible. 2. Wet Season Bacterial Indicator Reduction Plan –-Develop a facility specific Bacterial Reduction Plan that details the plan and schedule for achieving the Wet Season Bacterial Indicator WLA by December 31, 2025. The Dry Season and Wet Season Bacterial Indicator Reduction Plans should include the following: 1. The specific Best Management Practices (BMPs) implemented to reduce the concentration of indicator bacteria from the facility and the water quality improvements expected to result from these BMPs. 2. Any specific regional treatment facilities and the locations where such facilities will be built to reduce the concentration of indicator bacteria discharged from the facility and the expected water quality improvements to result when complete.

ATTACHMENT G – Region-Specific Requirements
Regional Water Board-Approved TMDLs with urban runoff listed as a source

TMDL Effective Date Basin Plan Amendment (BPA) Water Board Resolution No.	Phase II Entities	Impaired Water Body	Deliverables/Actions Required
Region 8: Santa Ana Regional Water Board			
TMDL for Middle Santa Ana River *Bacterial Indicator* (Continued)			3. The technical documentation used to conclude that the Bacterial Indicator Reduction Plan, once fully implemented, is expected to achieve attainment of either the dry season or wet season urban wasteload allocation for indicator bacteria by the specified attainment date. 4. A detailed schedule for implementing the Bacterial Indicator Reduction Plan. The schedule must identify measurable and verifiable milestones to assess satisfactory progress toward meeting the dry and wet season wasteload allocations. 5. The specific metric(s) that will be established to demonstrate the effectiveness of the Bacterial Indicator Reduction Plan. 6. Detailed descriptions of any additional BMPs planned, and the time required to implement those BMPs, in the event that data from the watershed-wide water quality monitoring program indicate that water quality objectives for indicator bacteria are still being exceeded after the Bacterial Indicator Reduction Plan is fully implemented. By July 1, 2018, the permittees shall demonstrate attainment of the Dry Weather WLA as specified in Section E.15.a.2. or F.5.i.1.b. of this Order. By December 31, 2025, the permittees shall demonstrate attainment of the Wet Weather WLA as specified in Section E.15.a.(ii). or F.5.i.1.(ii). of this Order.

ATTACHMENT G – Region-Specific Requirements

Regional Water Board-Approved TMDLs with urban runoff listed as a source

TMDL Effective Date Basin Plan Amendment (BPA) Water Board Resolution No.	Phase II Entities~~Municipality~~	Impaired Water Body	Deliverables/Actions Required~~/Waste Load Allocations~~
Region 9: San Diego Regional Water Board			
~~**Chollas Creek**~~ ~~*Dissolved Copper, Lead, and Zinc*~~ ~~Effective Date: October 22, 2008~~ ~~Resolution No. R9-2007-0043~~	~~City of San Diego~~ ~~City of Lemon Grove~~ ~~City of La Mesa~~ ~~County of San Diego~~	~~Chollas Creek~~	~~***WLA***~~ ~~WLA for point sources is concentration-based, equals to 90% of Numeric Target value (generated from the CTR equations) after applying 10% of Margin of Safety.~~ ~~TMDLs = WLAs = CTR WQOs * 0.9~~ ~~*Wasteload Allocations for dissolved copper, lead, and zinc*~~ ~~WLAs are regulated through San Diego Municipal Storm Water Permit (MS4 Permit) under Order No. R9-2007-0001. The municipal Copermittees regulated by this permit that have jurisdiction in the Chollas Creek watershed are the City of San Diego, the City of Lemon Grove, the City of La Mesa, County of San Diego, and the San Diego Unified Port District. These municipal Copermittees have responsibility for virtually all discharges to and from the municipal storm water conveyance system in the watershed through mechanisms such as enforcing existing or adopting new local ordinances, implementing waste load reduction plans and conducting public outreach/education programs.~~ ~~Over a 20 year compliance period:~~ ~~Years Allowable Exceedance (% above)~~ ~~1 100~~ ~~10 20~~ ~~20 0~~

~~Metal~~	~~WLA for Acute Conditions – One Hour Average = Loading Capacity* MOS~~	~~WLA for Chronic Conditions – Four Day Average =Loading Capacity*MOS~~
~~Copper~~	~~(0.96) * {e^ [0.9422 * ln (hardness) – 1.700]}*0.9~~	~~(0.96) * {e^[0.8545 * ln (hardness) – 1.702]}*0.9~~
~~Lead~~	~~[1.46203 – 0.145712 * ln (hardness)] * {e^ [1.273 * ln (hardness) – 1.460]} * 0.9~~	~~[1.46203 – 0.145712 * ln (hardness)] * {e^[{1.273 * ln (hardness)} – 4.705]} * 0.9~~
~~Zinc~~	~~(0.978) * {e^ [0.8473 * ln (hardness) + 0.884]} * 0.9~~	~~(0.986) * {e^[0.8473 * ln (hardness) + 0.884]} * 0.9~~

ATTACHMENT G – Region-Specific Requirements

Regional Water Board-Approved TMDLs with urban runoff listed as a source

TMDL Effective Date Basin Plan Amendment (BPA) Water Board Resolution No.	Phase II Entities~~Municipality~~	Impaired Water Body	Deliverables/Actions Required~~Waste Load Allocations~~
Region 9: San Diego Regional Water Board			
Bacteria Project I – Twenty Beaches and Creeks in the San Diego Region (Including Tecolote Creek) *Indicator Bacteria* Effective Date: April 4, 2011 Resolution No. R9-2010-0001	22nd District Agricultural Association California State University at San Marcos Marine Corps Air Station Miramar Marine Corps Base Camp Pendleton North County Transit District San Diego State University San Diego Veterans Administration Medical Center University of California San Diego	20 impaired water quality limited segments within the following watersheds or portions of watersheds: Laguna/San Joaquin, San Juan, San Clemente, San Luis Rey, San Marcos, San Dieguito River, Miramar Creek, Scripps HA, Tecolate HA, San Diego River, and Chollas Creek.	~~*Waste Load Allocations for Municipal MS4*~~

~~Watershed~~	~~Fecal Coliform WLA (Billion MPN/year)~~		~~Enterococcus WLA (Billion MPN/year)~~		~~Total Coliform WLA (Billion MPN/year)~~	
	~~Wet Weather~~	~~Dry Weather~~	~~Wet Weather~~	~~Dry Weather~~	~~Wet Weather~~	~~Dry Weather~~
~~San Joaquin Hills / Laguna Hills HSAs (901.11 and 901.12)~~	~~37,167~~	~~227~~	~~66,417~~	~~40~~	~~880,652~~	~~1,134~~
~~Aliso HAS (901.13)~~	~~477,069~~	~~242~~	~~735,490~~	~~40~~	~~8,923,264~~	~~1,208~~
~~Dana Point HAS ((01.14)~~	~~152,446~~	~~92~~	~~219,528~~	~~16~~	~~3,404,008~~	~~462~~
~~Lower San Juan HAS (901.27)~~	~~1,156,419~~	~~1,665~~	~~1,385,094~~	~~275~~	~~16,093,160~~	~~8,342~~
~~San Clemente HA (901.30)~~	~~192,653~~	~~192~~	~~295,668~~	~~33~~	~~3,477,739~~	~~958~~
~~San Luis Rey HU (901.00)~~	~~914,026~~	~~1,058~~	~~1,300,235~~	~~185~~	~~14,373,954~~	~~5,289~~
~~San Marcos HA (904.50)~~	~~6,558~~	~~26~~	~~23,771~~	~~5~~	~~298,430~~	~~129~~
~~San Dieguito HU (905.50)~~	~~798,175~~	~~1,293~~	~~1,763,603~~	~~226~~	~~16,660,538~~	~~6,468~~
~~Miramar Reservoir HA (906.10)~~	~~6,703~~	~~7~~	~~8,109~~	~~1~~	~~171,436~~	~~36~~
~~Scripps HA (906.30)~~	~~101,253~~	~~119~~	~~232,035~~	~~21~~	~~3,447,764~~	~~594~~
~~Tecolote HA (906.5)~~	~~126,806~~	~~234~~	~~471,211~~	~~39~~	~~5,136,598~~	~~1,171~~
~~Mission San Diego/Santee HSAs (907.11 and 907.12)~~	~~221,117~~	~~1,506~~	~~890,617~~	~~248~~	~~10,790,520~~	~~7,529~~

ATTACHMENT G – Region-Specific Requirements

Regional Water Board-Approved TMDLs with urban runoff listed as a source

TMDL Effective Date Basin Plan Amendment (BPA) Water Board Resolution No.	Phase II Entities~~Municipality~~	Impaired Water Body	Deliverables/Actions Required~~/Waste Load Allocations~~
Region 9: San Diego Regional Water Board			
			~~**Chollas HAS (908.22)** **252,479** **398** **802,918** **66** **9,880,784** **1,991**~~ ~~Over a 10+ year compliance period~~ ~~Years Exceedance Frequency Reduction (%)*~~ ~~P1 P2 P3~~ ~~5 50~~ ~~6 50~~ ~~7 50~~ ~~10+ 100 100 100~~ ~~P1 = Priority 1~~ ~~P2 = Priority 2~~ ~~P3 = Priority 3~~ ~~*For both dry & wet weathers~~ **Requirements for Implementing the Bacteria Project I – Twenty Beaches and Creeks TMDL** The Phase II entities identified in this TMDL section (hereinafter referred to as Permittees in this TMDL section) must take the following actions to meet the requirements of this TMDL: 1. Develop and implement the Storm Water Pollution Prevention Plan (SWPPP) as required by section F.5.f.4 of this Order including additional measures necessary to achieve reductions in fecal coliform, enterococcus, and total coliform by the final attainment dates as required by the TMDL. The SWPPP must include short term and long-term Best Management Practices (BMPs) strategies appropriate for the prioritization schedule in Attachment A, pages A-63 through A-65 of Resolution No. R9-2010-0001. 2. By December 1, 2018, monitor discharges from their facilities including MS4 discharge locations to demonstrate progress towards attainment with final waste load allocations. The monitoring and assessment results must be submitted as part of the Annual Reports required under section F.5.j. of this Order. 3. The Permittees are encouraged to collaborate and coordinate with Phase I MS4s and other responsible parties to the Bacteria I TMDL using an adaptive framework approach as part of the waste load reduction planning and implementation strategies in the required SWPPP pursuant to section F of this Order and monitoring required pursuant to section F.5.i.4. Coordinated efforts by all responsible

ATTACHMENT G – Region-Specific Requirements

Regional Water Board-Approved TMDLs with urban runoff listed as a source

TMDL Effective Date Basin Plan Amendment (BPA) Water Board Resolution No.	Phase II Entities~~Municipality~~	Impaired Water Body	Deliverables/Actions Required~~/Waste Load Allocations~~
Region 9: San Diego Regional Water Board			
			parties will accomplish the waste load reductions required in the TMDLs faster and achieve the ultimate goal of improving water quality as soon as possible. By April 4, 2021, the permittees shall demonstrate attainment of the Dry Weather WLA as specified in Section E.15.a.(ii). or F.5.i.1.(ii). of this Order. By April 4, 2031 (or April 4, 2021 if SWPPP does not contain load reduction programs for other pollutants), the permittees shall demonstrate attainment of the Wet Weather WLA as specified in Section E.15.a.(ii). or F.5.i.1.(ii). of this Order.
TMDL for Los Peñasquitos Lagoon *Sediment* Effective Date: July 14, 2014 Resolution No. R9-2012-0033 **TMDL for Los Peñasquitos Lagoon** *Sediment* (Continued)	Marine Corps Air Station Miramar San Diego Veterans Administration Medical Center University of California San Diego North County Transit District	Los Peñasquitos Lagoon	**Requirements for Implementing the TMDL** The Phase II entities identified in this TMDL section (hereinafter referred to as Permittees in this TMDL section) must take the following actions to meet the requirements of this TMDL: 1. Develop and implement the Storm Water Pollution Prevention Plan (SWPPP) required by Provision F.5.f.4 of this Order to achieve reductions in sediment by the final TMDL attainment date. The development of a SWPPP to address the TMDL fulfills the responsibility for Phase II Copermittees to prepare a Load Reduction Plan (LRP). The SWPPP must be updated by December 31, 2018 with any additional BMPs, monitoring, or other measures needed to account for the Phase II site's potential to impact the receiving water body with respect to sediment. Permittees are responsible for reducing their sediment loads to the receiving water body or demonstrate that their discharges are not causing exceedances of the wasteload allocation. 2. By July 1, 2018 monitor sediment discharges from their facilities including MS4 discharge locations to demonstrate progress towards attainment of final waste load allocations. The monitoring, at a minimum, shall include representative flow rates and total suspended solids concentrations from individual discharger's facilities. The monitoring and assessment results must be submitted as part of the Annual Reports required under section E.16 of this Order. 3. The Permittees are encouraged to collaborate and coordinate with Phase I MS4s and other responsible parties to the Los Peñasquitos Lagoon Sediment TMDL using an adaptive framework approach as part of the waste load reduction planning and implementation strategies in the required SWPPP pursuant to section F of this Order. Coordinated efforts by all responsible parties will accomplish the waste load reductions required in the TMDLs faster and achieve the ultimate goal of improving water quality as soon as possible. By July 14, 2034, the permittees shall demonstrate attainment of the TMDL WLA as specified in Section E.15.a.(ii). or F.5.i.1.(ii). of this Order.

CHANGE SHEET #1 FOR THE ADOPTION HEARING OF AN ORDER AMENDING THE GENERAL PERMIT FOR STORM WATER DISCHARGES FROM SMALL MUNICIPAL SEPARATE STORM SEWER SYSTEMS

The following changes are shown in underline [blue] and strikeout [~~red~~]. The revisions made in the main amendment are shown in underline/strikeout. Highlighting was removed for readability.

FRONT PAGE

This Order amends Order 2013-0001-DWQ and becomes effective on:	~~July 1, 2018~~January 1, 2019

ORDER

The revisions below mostly correct formatting errors in the draft released on December 7, 2017, or change the Effective Date (i.e., January 1, 2019) of the Boards Order to amend Order 2013-0001-DWQ.

On page 5 of the revised Order:

~~E.15.a.~~ Attachment G contains a list of TMDL-specific, BMP-based water quality based effluent limitations (WQBELs) and other permit requirements, applicable to identified permittees, consistent with the assumptions and requirements of the applicable wasteload allocations of the TMDLs.

E.15.~~b~~ a. ~~WLA, Load Allocations (LA), effluent limitations,~~[…] Permittees shall comply […]

On page 6 of the revised Order:

~~1)~~(i) Prior to the deadline to attain the final wasteload allocation, a permittee is deemed in compliance with the requirement in Section C.1 to *reduce the discharge of pollutants to achieve applicable TMDL wasteload allocations*, if the permittee is timely implementing all BMP-based WQBELs and other requirements specified in Attachment G for that TMDL. The permittee may alternatively make a demonstration in accordance with section E.15.a.~~2~~ (ii). below.

~~2)~~(ii) On or after the deadline to attain the final wasteload allocation, a permittee is deemed in compliance with the requirement in Section C.1 to *reduce the discharge of pollutants to achieve applicable TMDL wasteload allocations* if the permittee meets one or more of the criteria in subsections (a)-(g) below. For purposes of this section only, the wasteload allocations specified in the applicable TMDLs (as ~~listed~~ identified in the Fact Sheet) are incorporated by reference.

(a) Receiving water monitoring and analysis […]

(b) Receiving water monitoring does not demonstrate […]

(c) Where the wasteload allocation is expressed as a concentration […]

(d) Where a mass-based wasteload has been allocated to an individual […]

On page 7 of the revised Order:

(e) Where a wasteload allocation is expressed as the number of allowable […]

(f) The permittee demonstrates, in a manner approved by the Regional […]

(g) The permittee demonstrates the attainment of the wasteload […]

~~3)~~(iii) Pursuant to Section D, a permittee deemed in compliance with Section C.1 in accordance with subsections 1) and 2) of this section is also deemed in compliance with the Section D requirement to *not cause or contribute to an exceedance of water quality standards* for the specific pollutants and water bodies addressed.

~~E.1~~E.15.b. In some cases, Attachment G includes dates […]

On Page 8 of the revised Order:

~~1)~~(i) If the Regional Water Board Executive Officer makes a determination, […]

Where a final deadline to attain a wasteload allocation is past and the permittee has not demonstrated compliance as specified in Section E.15.a.(ii). above, the permittee may seek a time schedule order pursuant to Water Code section 13300 from the Regional Water Board. […]

A request to the applicable Regional Water Board for a time schedule order shall include the following information:

(a) Any available data demonstrating the current quality […]

(b) A description and chronology of structural controls and […]

(c) Justification of the need for additional time to achieve the requirements;

(d) The specific actions the Permittee will take in order to meet […]

(e) A demonstration that the time schedule requested is as […]

On Page 9 of the revised Order:

~~2)~~(ii) It is not the intention of the State Water Board or the Regional Water Boards to bring an enforcement action for non-attainment of the wasteload allocation where:

(a) A permittee is in compliance with a time schedule order's […]

(b) A permittee has in good faith requested a time schedule order […]

(c) A Regional Water Board has initiated proceedings to revise […]

~~E.15.c.~~E.15.c ~~The Regional Water Boards are directed to review,~~ […] The State Water Board may ~~additionally~~ revise this Order[…]

On Page 10 of the revised Order:

E.15.d. The Permittee shall complete and report […]

~~1)~~(i) A description of BMPs implemented, including types, number, and locations

~~2)~~(ii) All supplemental information and reports required under […]

~~3)~~ (iii) An assessment of the effectiveness of implemented BMPs […]

~~4)~~(iv) All monitoring data, including a statistical analysis of the data […]

~~5)~~(v) Based on results of the effectiveness assessment and monitoring[…]

On Page 11 of the revised Order:

~~F.5.i.~~F.5.i.1~~).~~ ~~2. Waste Load Allocations (WLA), Load Allocations (LA), effluent limitations~~[…]

Attachment G contains a list of TMDL-specific[…]

~~Permittees shall comply with~~ Permittees shall comply with the requirement in Section C.1.'s requirement to reduce the discharge of pollutants […]

~~a)~~(i) Prior to the deadline to attain the final wasteload allocation, a permittee is deemed in compliance with the requirement in Section C.1 *to reduce the discharge of pollutants to*

achieve applicable TMDL wasteload allocations~~,~~ if the permittee is timely implementing all BMP-based WQBELs and other requirements specified in Attachment G for that TMDL. The permittee may alternatively make a demonstration in accordance with section F.5.i.1.~~b)~~(ii) below.

~~b)~~ (ii) On or after the deadline to attain the final wasteload allocation, a permittee is deemed in compliance with the requirement in Section C.1 *to reduce the discharge of pollutants to achieve applicable TMDL wasteload allocations* if the permittee meets one or more of the criteria in subsections ~~i) vii)~~(a)-(g) below. For purposes of this section only, the wasteload allocations specified in the applicable TMDLs (as ~~listed~~ identified in the Fact Sheet) are incorporated by reference.

On page 12 of the revised Order:

~~i)~~(a) Receiving water monitoring and analysis by the permittee […]

~~ii)~~ (b) Receiving water monitoring does not demonstrate attainment […]

~~iii)~~(c) Where the wasteload allocation is expressed as a concentration […]

~~iv)~~(d) Where a mass-based wasteload has been allocated to an individual […]

~~v)~~(e) Where a wasteload allocation is expressed as the number of […]

~~vi)~~(f) The permittee demonstrates, in a manner approved by the Regional […]

~~vii)~~(g) The permittee demonstrates the attainment of the wasteload […]

On page 13 of the revised Order:

~~c)~~(iii) Pursuant to Section D, a permittee deemed in compliance with […]

~~These requirements are an enforceable component of this Order.~~

~~F.5.i.2~~F.5.i.2.~~)~~ In some cases, ~~dates are given~~ Attachment G includes dates that fall outside[…]

~~a)~~(i) If the Regional Water Board Executive Officer makes a determination […]

Where a final deadline to attain a wasteload allocation is past and the permittee has not demonstrated compliance as specified in Section F.5.i.1~~).b~~(ii) above, the permittee may seek a time schedule order pursuant to Water Code section 13300 from the Regional Water Board. […]

On page 14 of the revised Order:

A request to the applicable Regional Water Board for a time schedule order shall include the following information:

~~i)~~(a) Any available data demonstrating the current quality of the MS4 […]

~~ii)~~(b) A description and chronology of structural controls and source […]

~~iii)~~(c) Justification of the need for additional time to achieve the requirements;

~~iv)~~(d) The specific actions the Permittee will take in order to meet the TMDL […]

~~v)~~(e) A demonstration that the time schedule requested is as short […]

~~b)~~(ii) It is not the intention of the State Water Board or the Regional Water Boards to bring an enforcement action for non-attainment of the wasteload allocation where:

~~i)~~(a) A permittee is in compliance with a time schedule order's implementation […]

~~ii)~~(b) A permittee has in good faith requested a time schedule order from […]

~~iii)~~(c) A Regional Water Board has initiated proceedings to revise the […]

On page 15 of the revised Order:

~~F.5.i.3.~~F.5.i.3.~~)~~ ~~The Regional Water Boards are directed to review~~ […]The State Water Board may ~~additionally~~ revise this Order […]

F.5.i.4.~~)~~. The Permittee shall complete and have available a report that includes the status […]

~~a)~~(i) A description of BMPs implemented, including types, number, and locations

~~b)~~(ii) All supplemental information and reports required under the specific TMDL implementation requirements in Attachment G

On page 16 of the revised Order:

~~c)~~(iii) An assessment of the effectiveness of implemented BMPs in […]

~~d)~~(iv) All monitoring data, including a statistical analysis of the data to assess progress towards attainment of wasteload allocations within the TMDLs' specified timeframes

~~e)~~(v) Based on results of the effectiveness assessment and monitoring, a description of the additional BMPs that will be implemented to attain wasteload allocations within the TMDLs/ specified timeframes

FACT SHEET

The following revisions reflect the new Effective Date (i.e., January 1, 2019) of the Boards Order to amend Order 2013-0001-DWQ.

On Page 55:

Attachment G incorporates the final attainment~~compliance~~ deadlines for each TMDL; some TMDL attainment~~compliance~~ deadlines are now past. In these instances, the associated wasteload allocations are effective immediately on the effective date of the Order, i.e. ~~July~~ January 1, 2019~~8~~. […]

The State Water Board delayed the effective date of the Order to ~~July~~ January 1, 2019~~8~~, ~~six months~~ one year following adoption, to allow permittees […]

On Page 59:

Attachment G of this Order requires the City to ~~develop a plan to control and/or prevent discharges of fine sediment, nutrients, and other oxygen consuming materials~~ implement this plan no later than ~~July~~ January 1, 2019~~7~~. […]

On Page 102:

"Wasteload Allocations (WLA):

The Federal Correctional Institution Terminal Island, Community Corrections Management Long Beach, and California State University Dominguez Hills, are assigned the following (receiving water) wasteload allocations:[…]"

ATTACHMENT G

The following revisions reflect the new Effective Date (i.e., January 1, 2019) of the Boards Order to amend Order 2013-0001-DWQ.

Page 2, Shasta River Watershed, Temperature & Dissolved Oxygen TMDL
The City of Yreka developed a Plan to minimize, […] No later than ~~Within four years of approval of the Phase II Small MS4 General Permit~~~~July 1, 2018~~January 1, 2019, the City of Yreka shall begin implementing the Plan.

Page 3, Napa River, Sediment TMDL

B. Implementation of Sediment Load Allocations (LAs)

i. To attain the shared load allocation of 27,000 metric tons/year, […] Specifically, to reduce road-related erosion and protect stream-riparian habitat conditions, ~~the municipalities~~Napa County shall by ~~September 30, 2017~~~~July 1, 2018~~~~October 31, 2014~~January 1, 2019:

- […]
- Develop By ~~[Hard Date: one year from adoption date],December 3~~July 1, 2019~~8~~ submit a schedule […]

Page 4-5, Sonoma Creek Sediment TMDL

B. Implementation of Sediment Load Allocations

i. To attain the shared load allocation of 2,100 tons/year, […] To reduce road-related erosion and protect stream-riparian habitat conditions, the municipalities shall implement by ~~July 1, 2018~~ January 1, 2019 the following actions:

- […]
- ~~Develop~~By ~~[Hard Date: one year from adoption date]~~~~December 31, 2018~~July 1, 2019, submit a […]

Page 6, Napa River Pathogens TMDL

Requirements for Implementing the ~~Napa River Pathogens~~ TMDL ~~Wasteload Allocations~~

~~Municipalities~~ The Phase II entities identified in this TMDL section shall implement the following actions~~, effective immediately~~ ~~by July 1, 2018~~January 1, 2019~~, within 18 months of permit adoption :~~

Page 7-8, Sonoma Creek Pathogens TMDL

Requirements for Implementing the ~~Sonoma Creek Pathogens~~ TMDL ~~Wasteload Allocations~~

The Phase II entities identified in this TMDL section ~~Municipalities~~ shall implement the following actions~~, effective immediately~~ by ~~July 1, 2018~~January 1, 2019:~~, within 18 months of permit adoption:~~

Page 9, Tomales Bay Pathogens TMDL

Requirements for Implementing the ~~Tomales Bay Pathogens~~ TMDL ~~Wasteload Allocations~~

The Phase II entities identified in this TMDL section ~~Municipalities~~ shall implement the following actions~~, effective immediately~~ by ~~July 1, 2018~~January 1, 2019:~~, within 18 months of permit adoption:~~

Page 10, Richardson Bay Pathogens TMDL

Requirements for Implementing the ~~Richardson Bay Pathogens~~ TMDL ~~Wasteload Allocations~~

The Phase II entities identified in this TMDL section ~~Municipalities~~ shall implement the following actions~~, effective immediately~~ by ~~July 1, 2018~~January 1, 2019:~~, within 18 months of permit adoption:~~

Page 14-16, Morro Bay and Chorro and Los Osos Creeks Pathogens TMDL

~~Provisions~~Requirements for Implementing the TMDL

~~Within one year of adoption of this Order~~~~Effective immediately~~By~~Y July 1, 2018~~January 1, 2019, the Phase II entities identified in this TMDL section[…]

> 9. If the approved TMDL does not explicitly[…] Where TMDL attainmentcompliance schedules have passed, but Wasteload Allocations have not been achieved by ~~[Hard Date, date of adoption]~~~~December 3~~January 1, 2019~~7~~, the MS4 shall […] At least one interim target and date must occur during the ~~first~~ five years ~~term of this Order~~commencing on ~~December 3~~January 1, 201~~87~~. […]

~~All allocations shall be achieved by November 19, 2013. The wasteload allocations identified in the Fact Sheet of this Order are incorporated by reference. The wasteload allocations were required to be achieved by November 19, 2013, and are effective immediately.~~ By ~~July~~ January 1, 2019~~8~~, the permittees shall demonstrate attainment of the TMDL WLA as specified in Section E.15.a.2. or F.5.i.1.b. of this Order.

Page 16-17, Watsonville Slough Pathogen TMDL

~~Effective immediately~~By ~~July~~January 1, 2019~~8~~, the Phase II entities identified in this TMDL section[…]

> 9. If the approved TMDL does not explicitly[…] Where TMDL attainment~~compliance~~ schedules have passed, but Wasteload Allocations have not been achieved by ~~[Hard Date, date of adoption]~~~~December 3~~January 1, 2019~~7~~, the MS4 shall […] At least one interim target and date must occur during the ~~first~~ five years ~~term of this Order~~commencing on ~~December 3~~January 1, 2019~~7~~. […]

~~The wasteload allocations identified in the Fact Sheet of this Order are incorporated by reference. The wasteload allocations were required to be achieved by November 19, 2013, and are effective immediately.~~ By ~~July~~ January 1, 2019~~8~~, the permittees shall demonstrate attainment of the TMDL WLA as specified in Section E.15.a.2. or F.5.i.1.b. of this Order.

Pages 18-20, Pajaro River, et al, Fecal Coliform TMDL

Requirements~~Provisions~~ for Implementing the TMDL

~~Effective immediately~~By ~~July~~January 1, 2019~~8~~, ~~Within one year of adoption of this Order the~~ Phase II entities identified in this TMDL section[…]

9. If the approved TMDL does not explicitly[…] At least one interim target and date must occur during the ~~first~~ five years ~~term of this Order~~commencing on ~~December 3~~January 1, 2019~~7~~. […]

Pages 21-23, Morro Bay, Sediment TMDL
Requirements~~Provisions~~ for Implementing the TMDL
~~Effective immediately~~By ~~July~~January 1, 2019~~8~~, ~~T~~the County of San Luis Obispo shall implement practices […]

~~8.~~9. If the approved TMDL does not explicitly […]At least one interim target and date must occur during the first five-years commencing on~~period or by~~~~December 3~~January 1, 2019~~21~~17, whichever is sooner. […]

Pages 23-25, San Lorenzo River, Sediment TMDL
Requirements~~Provisions~~ for Implementing the TMDL
~~Effective immediately~~By ~~July~~ January 1, 2019~~8~~, ~~T~~the Phase II entities identified in this TMDL section[…]

~~8.~~9. If the approved TMDL does not explicitly […]At least one interim target and date must occur during the first five-years commencing on~~period or by~~~~December 3~~January 1, 2019~~21~~17, whichever is sooner. […]

Pages 27-29, San Luis Obispo Creek, Pathogen TMDL
Requirements~~Provisions~~ for Implementing the TMDL
[…]
~~Effective immediately~~By ~~July~~ January 1, 2019~~8~~, ~~Within one year of adoption of this Order,~~ the Phase II entities identified in this TMDL section[…]

~~8.~~9. If the approved TMDL does not explicitly […]Where TMDL attainment~~compliance~~ schedules have passed, but Wasteload Allocations have not been achieved by ~~[Hard Date, date of adoption]~~ ~~December 3~~January 1, 2019~~17~~, the MS4 shall consult with the Regional Water Board to establish dates to meet new interim targets and to achieve wasteload allocations. At least one interim target and date must occur during the first five-years ~~term of this Order~~ commencing on ~~December 3~~January 1, 2019~~21~~17. […]

~~The wasteload allocations identified in the Fact Sheet of this Order are incorporated by reference. The wasteload allocations were required to be achieved by July 25, 2015, and are therefore effective immediately. All allocations shall be achieved no later than July 25, 2015.~~ By ~~July~~January 1, 2019~~8~~, the permittees shall demonstrate attainment of the TMDL WLA as specified in Section E.15.a.2. or F.5.i.1.b. of this Order.

Pages 29-30, San Luis Obispo Creek, Nitrate-Nitrogen TMDL
Requirements~~Provisions~~ for Implementing the TMDL

~~Effective immediately~~By ~~July~~ January 1, 201~~8~~, ~~T~~the Phase II entities identified in this TMDL section[…]

~~The wasteload allocations identified in the Fact Sheet of this Order are incorporated by reference. The TMDL specifies that the target date to achieve the TMDL is during or before year 2012. The allocations are therefore effective immediately.~~ By ~~July~~January 1, 201~~8~~, the permittees shall demonstrate attainment of the TMDL WLA as specified in Section E.15.a.2. or F.5.i.1.b. of this Order.

Pages 30-32, Corralitos and Salsipuedes Creeks, Fecal Coliform TMDL
Requirements~~Provisions~~ for Implementing the TMDL
~~Effective immediately~~ By ~~July~~ January 1, 201~~8~~, ~~Within one year of adoption of this order,~~ the County of Santa Cruz and the City of Watsonville (hereafter referred to in this TMDL section as MS4) shall each ~~develop, submit, and begin implementation of~~ implement a Wasteload Allocation Attainment Program that identifies the actions they will take to attain their wasteload allocations. By ~~[Hard Date: one year from adoption], December 3~~January 1, 201~~918~~ the Santa Cruz County Fairgrounds (hereafter referred to in this TMDL section as "the MS4")shall develop, submit, and begin implementation of a Wasteload Allocation Attainment Program that identifies the actions they will take to attain their waste load allocations. The Wasteload Allocation Attainment Programs shall include: […]

~~8.~~9. If the approved TMDL does not explicitly […]At least one interim target and date must occur during the first five-yearsperiod or by commencing on~~December 3~~January 1, 2019~~21~~17, whichever is sooner. […]

Pages 32-34, Lower Salinas River Watershed, Fecal Coliform TMDL
Requirements~~Provisions~~ for Implementing the TMDL
~~Effective immediately~~ By ~~July~~ January 1, 201~~8~~, ~~Within one year of adoption of this Order,~~ the County of Monterey (hereafter referred to in this TMDL section as "the MS4")[…]

~~7.~~9. If the approved TMDL does not explicitly […]At least one interim target and date must occur during the first five-years ~~period or by~~commencing on ~~December 3~~January 1, 2019~~21~~17. […]

Pages 34-36, San Lorenzo River Estuary, et al, Pathogens TMDL
~~Provisions~~Requirements for Implementing the TMDL
~~Effective immediately~~By ~~July~~ January 1, 201~~8~~, ~~By June 30, 2013,~~ the Phase II entities identified in this TMDL section[…]

~~8.~~9. If the approved TMDL does not explicitly […]At least one interim target and date must occur during the first five-years ~~period or by~~commencing on ~~December 3~~January 1, 2019~~21~~17.
[…]

Pages 36-38, Soquel Lagoon, Soquel Creek and Noble Gulch, Pathogens TMDL
~~Provisions~~Requirements for Implementing the TMDL

~~Effective immediately~~By ~~July~~ January 1, 201~~9~~8, ~~By June 30, 2013,~~ the Phase II entities identified in this TMDL section[…]

~~8.~~9. If the approved TMDL does not explicitly […]At least one interim target and date must occur during the first five-years ~~period or by~~commencing on ~~December 3~~January 1, 2019~~21~~17. […]

Pages 39-41, Aptos Creek, Valencia Creek and Trout Gulch, Pathogens TMDL
~~Provisions~~Requirements for Implementing the TMDL
~~Effective immediately~~By ~~July~~ January 1, 201~~9~~8, ~~By June 30, 2013,~~ the County of Santa Cruz (hereafter referred to in this TMDL section as "the MS4") […]

~~8.~~9. If the approved TMDL does not explicitly […]At least one interim target and date must occur during the first five-years ~~period or by~~commencing on ~~December 3~~January 1, 2019~~21~~17. […]

Pages 41-42, Santa Maria River Watershed, Fecal Indicator Bacteria TMDL
Requirements for Implementing the TMDL
By ~~[Hard Date: four months from adoption]~~ ~~July~~ January 1, 201~~9~~8, the Phase II entities identified in this TMDL section (hereafter referred to in this TMDL section as "the MS4") […]

9. The MS4 shall establish interim targets […] At least one interim target and date must occur during the first five-years ~~period or by~~commencing on ~~December 3~~January 1, 2019~~21~~17, whichever is sooner.

Page 43-44, Lower Santa Maria River Watershed and Tributaries to Oso Flaco Lake, Nitrogen Compounds and Orthophosphate TMDL
Requirements for Implementing the TMDL
By ~~[Hard Date: four months from adoption]~~ ~~July~~ January 1, 201~~9~~8, the Phase II entities identified in this TMDL section (hereafter referred to in this TMDL section as "the MS4") […]

Pages 45-46, Lower Salinas River and Reclamation Canal Basin and the Moro Cojo Slough Subwatershed, Nitrogen Compounds and Orthophosphate TMDL
Requirements for Implementing the TMDL
By ~~[Hard Date:Withinfour months from adoption]~~ ~~July~~ January 1, 201~~9~~8, the County of Monterey (hereafter referred to in this TMDL section as "the MS4") […]

Pages 46-48, Santa Maria River Watershed, Toxicity and Pesticides TMDL
Requirements for Implementing the TMDL
By ~~[Hard Date: four months from adoption]~~ ~~July~~ January 1, 201~~9~~8, the Phase II entities identified in this TMDL section (hereafter referred to in this TMDL section as "the MS4") […]

Page 49-50, Santa Monica Bay Beaches, Bacteria TMDL
Requirements for Implementing the TMDL:
[…]

1. Enter in a cooperative agreement with Phase I MS4 Permittees, […] Such notification shall be provided by ~~[Hard Date: 6 Months from adoption] July~~ January 1, 2019~~8~~, and shall identify the Phase I MS4 Permittee(s) and the WMP or EWMP that the Permittee intends to participate in. The cooperative agreement shall be finalized ~~within one year of adoption of these permit amendments~~ by ~~December 3~~July 1, 2019~~18~~, and shall be submitted to the Executive Officer upon finalization.

or alternatively,

2. Propose a program plan for attaining the wasteload allocation(s). […]
The Program Plan must be submitted for Los Angeles Regional Water Board Executive Officer approval by ~~[Hard Date: 12 months from adoption] December 3~~July 1, 2019~~18~~.
[…]
~~The wasteload allocations identified in the Fact Sheet of this Order are incorporated by reference. The TMDL specifies that the target dates to achieve the final wasteload allocations is July 15, 2006 (to achieve dry weather wasteload allocations during the summer period from April 1 – October 31); By July~~ January 1, 2019~~8~~, the permittees shall demonstrate attainment of the summer period Dry Weather WLA as specified in Section E.15.a.2. or F.5.i.1.b. of this Order. ~~November 1, 2009 (to achieve dry weather wasteload allocations during the winter period from November 1 – March 31); By July~~ January 1, 2019~~8~~, the permittees shall demonstrate attainment of the winter period Dry Weather WLA as specified in Section E.15.a.2. or F.5.i.1.b. of this Order. […]

Pages 51-52, Los Angeles River, Nitrogen and Related Effects TMDL
Requirements for Implementing the TMDL:
[…]
1. Enter in a cooperative agreement with Phase I MS4 Permittees, […] Such notification shall be provided by ~~[Hard Date: 6 Months from adoption] July~~ January 1, 2019~~8~~, and shall identify the Phase I MS4 Permittee(s) and the WMP or EWMP that the Permittee intends to participate in. The cooperative agreement shall be finalized ~~within one year of adoption of these permit amendments~~ by ~~December 3~~July 1, 2019~~18~~, and shall be submitted to the Los Angeles Regional Water Board Executive Officer upon finalization.

or alternatively,

2. Propose a program plan for attaining the wasteload allocation(s). […]
The Program Plan must be submitted for Los Angeles Regional Water Board Executive Officer approval by ~~[Hard Date: 12 months from adoption] December 3~~July 1, 2019~~18~~.
[…]

~~The wasteload allocations identified in the Fact Sheet of this Order are incorporated by reference. The TMDL specifies that the final wasteload allocations are to be achieved byMarch 23, 2004. The allocations are therefore effective immediately.~~By ~~July~~ January 1, 2019~~8~~, the

permittees shall demonstrate attainment of the TMDL WLA as specified in Section E.15.a.2. or F.5.i.1.b. of this Order.

Pages 52-53, Los Angeles Harbor, Bacteria TMDL

Requirements for Implementing the TMDL:

[…]

1. Enter in a cooperative agreement with Phase I MS4 Permittees, […] Such notification shall be provided by ~~[Hard Date: 6 Months from adoption] July~~ January 1, 2019~~8~~, and shall identify the Phase I MS4 Permittee(s) and the WMP or EWMP that the Permittee intends to participate in. The cooperative agreement shall be finalized ~~within one year of adoption of these permit amendments~~ by ~~December 3~~July 1, 2019~~18~~, and shall be submitted to the Los Angeles Regional Water Board Executive Officer upon finalization.

or alternatively,

2. Propose a program plan for attaining the wasteload allocation(s). […]
The Program Plan must be submitted for Los Angeles Regional Water Board Executive Officer approval by ~~[Hard Date: 12 months from adoption] December 3~~July 1, 2019~~18~~. […]

~~The wasteload allocations identified in the Fact Sheet of this Order are incorporated by reference. The TMDL specifies that the final wasteload allocations are to be achieved by March 10, 2010. The allocations are therefore effective immediately.~~By ~~[Hard Date: Effective date]July~~ January 1, 2019~~8~~, the permittees shall demonstrate attainment of the TMDL WLA as specified in Section E.15.a.2. or F.5.i.1.b. of this Order.

Pages 53-54, Calleguas Creek Watershed, Toxicity TMDL

Requirements for Implementing the TMDL:

[…]

1. Enter in a cooperative agreement with Phase I MS4 Permittees, […] Such notification shall be provided by ~~[Hard Date: 6 Months from adoption] July~~ January 1, 2019~~8~~, and shall identify the Phase I MS4 Permittee(s) and the WMP or EWMP that the Permittee intends to participate in. The cooperative agreement shall be finalized ~~within one year of adoption of these permit amendments~~ by ~~December 3~~July 1, 2019~~18~~, and shall be submitted to the Los Angeles Regional Water Board Executive Officer upon finalization.

or alternatively,

2. Propose a program plan for attaining the wasteload allocation(s). […]
The Program Plan must be submitted for Los Angeles Regional Water Board Executive Officer approval by ~~[Hard Date: 12 months from adoption] December 3~~July 1, 2019~~18~~.
[…]

~~The wasteload allocations identified in the Fact Sheet of this Order are incorporated by reference. The TMDL specifies that the final wasteload allocations are to be achieved byMarch~~

~~24, 2008. The allocations are therefore effective immediately.~~By ~~July~~ January 1, 201~~9~~8, the permittees shall demonstrate attainment of the TMDL WLA as specified in Section E.15.a.2. or F.5.i.1.b. of this Order.

Pages 54-55, Calleguas Creek, Organochlorine Pesticides, Polychlorinated Biphenyls, and Siltation TMDL

Requirements for Implementing the TMDL:

[…]

1. Enter in a cooperative agreement with Phase I MS4 Permittees, […] Such notification shall be provided by ~~[Hard Date: 6 Months from adoption]~~ ~~July~~ January 1, 201~~9~~8, and shall identify the Phase I MS4 Permittee(s) and the WMP or EWMP that the Permittee intends to participate in. The cooperative agreement shall be finalized ~~within one year of adoption of these permit amendments~~ by ~~December 3~~July 1, 201~~9~~1~~8~~, and shall be submitted to the Los Angeles Regional Water Board Executive Officer upon finalization.

or alternatively,

2. Propose a program plan for attaining the wasteload allocation(s). […]
The Program Plan must be submitted for Los Angeles Regional Water Board Executive Officer approval by ~~[Hard Date: 12 months from adoption]~~ ~~December 3~~July 1, 201~~9~~1~~8~~.

Pages 56-57, Calleguas Creek, Metals and Selenium TMDL

Requirements for Implementing the TMDL:

[…]

1. Enter in a cooperative agreement with Phase I MS4 Permittees, […] Such notification shall be provided by ~~[Hard Date: 6 Months from adoption]~~ ~~July~~ January 1, 201~~9~~8, and shall identify the Phase I MS4 Permittee(s) and the WMP or EWMP that the Permittee intends to participate in. The cooperative agreement shall be finalized ~~within one year of adoption of these permit amendments~~ by ~~December 3~~July 1, 201~~9~~1~~8~~, and shall be submitted to the Regional Water Board Executive Officer upon finalization.

or alternatively,

2. Propose a program plan for attaining the wasteload allocation(s). […]
The Program Plan must be submitted for Los Angeles Regional Water Board Executive Officer approval by ~~[Hard Date: 12 months from adoption]~~ ~~December 3~~July 1, 201~~9~~1~~8~~.

Pages 57-58, Ballona Creek, Bacteria TMDL

Requirements for Implementing the TMDL:

[…]

1. Enter in a cooperative agreement with Phase I MS4 Permittees, […] Such notification shall be provided by ~~[Hard Date: 6 Months from adoption]~~ ~~July~~ January 1, 201~~9~~8, and shall identify the Phase I MS4 Permittee(s) and the WMP or EWMP that the Permittee intends to participate in. The cooperative agreement shall be finalized ~~within one year of adoption of these permit~~

~~amendments~~ by ~~December 3~~July 1, 201918, and shall be submitted to the Los Angeles Regional Water Board Executive Officer upon finalization.

or alternatively,

2. Propose a program plan for attaining the wasteload allocation(s). […]
The Program Plan must be submitted for Los Angeles Regional Water Board Executive Officer approval by ~~[Hard Date: 12 months from adoption] December 3~~July 1, 201918.
[…]
~~The wasteload allocations identified in the Fact Sheet of this Order are incorporated by reference. The TMDL specifies that the final wasteload allocations during dry weather are to be achieved by April 27, 2013;~~By~~[Hard Date: effective date] July~~ January 1, 20198, the permittees shall demonstrate[…]

Pages 58-59, Santa Monica Bay, Marine Debris TMDL
Requirements for Implementing the TMDL:
By ~~[Hard Date: six months from adoption] July~~ January 1, 20198, the Department of Parks and Recreation (at Point Dume State Beach and Robert H. Meyer Memorial State Beach) […]

~~The wasteload allocations identified in the Fact Sheet of this Order are incorporated by reference. The final wasteload allocations The TMDL specifies that all wasteload allocations shall be achieved by March 20, 2017.~~By ~~July~~ January 1, 20198, the permittees shall demonstrate attainment of the TMDL WLA as specified in Section E.15.a.2. or F.5.i.1.b. of this Order.

Pages 60-61, Los Angeles and Long Beach Harbors, Toxics and Metals TMDL
Requirements for Implementing the TMDL:
[…]
1. Enter in a cooperative agreement with Phase I MS4 Permittees, […] Such notification shall be provided by ~~[Hard Date: 6 Months from adoption] July~~ January 1, 20198, and shall identify the Phase I MS4 Permittee(s) and the WMP or EWMP that the Permittee intends to participate in. The cooperative agreement shall be finalized ~~within one year of adoption of these permit amendments~~ by ~~December 3~~July 1, 201918, and shall be submitted to the Los Angeles Regional Water Board Executive Officer upon finalization.

or alternatively,

2. Propose a program plan for attaining the wasteload allocation(s). […]
The Program Plan must be submitted for Los Angeles Regional Water Board Executive Officer approval by ~~[Hard Date: 12 months from adoption] December 3~~July 1, 201918.

Pages 61-62, Los Angeles River, Bacteria TMDL
Requirements for Implementing the TMDL:
[…]

1. Enter in a cooperative agreement with Phase I MS4 Permittees, […] Such notification shall be provided by ~~[Hard Date: 6 Months from adoption] July~~ January 1, 201~~9~~8, and shall identify the Phase I MS4 Permittee(s) and the WMP or EWMP that the Permittee intends to participate in. The cooperative agreement shall be finalized ~~within one year of adoption of these permit amendments~~ by ~~December 3~~July 1, 201~~9~~18, and shall be submitted to the Los Angeles Regional Water Board Executive Officer upon finalization.

or alternatively,

2. Propose a program plan for attaining the wasteload allocation(s). […]

The Program Plan must be submitted for Los Angeles Regional Water Board Executive Officer approval by ~~[Hard Date: 12 months from adoption] December 3~~July 1, 201~~9~~18.

Pages 64-65, Los Angeles River and Tributaries, Metals TMDL

Requirements for Implementing the TMDL:

[…]

1. Enter in a cooperative agreement with Phase I MS4 Permittees, […] Such notification shall be provided by ~~[Hard Date: 6 Months from adoption] July~~ January 1, 201~~9~~8, and shall identify the Phase I MS4 Permittee(s) and the WMP or EWMP that the Permittee intends to participate in. The cooperative agreement shall be finalized ~~within one year of adoption of these permit amendments~~ by ~~December 3~~July 1, 201~~9~~18, and shall be submitted to the Los Angeles Regional Water Board Executive Officer upon finalization.

or alternatively,

2. Propose a program plan for attaining the wasteload allocation(s). […]

The Program Plan must be submitted for Los Angeles Regional Water Board Executive Officer approval by ~~[Hard Date: 12 months from adoption] December 3~~July 1, 201~~9~~18.

Pages 65-66, Ballona Creek, Metals TMDL

Requirements for Implementing the TMDL:

[…]

1. Enter in a cooperative agreement with Phase I MS4 Permittees, […] Such notification shall be provided by ~~[Hard Date: 6 Months from adoption] July~~ January 1, 201~~9~~8, and shall identify the Phase I MS4 Permittee(s) and the WMP or EWMP that the Permittee intends to participate in. The cooperative agreement shall be finalized ~~within one year of adoption of these permit amendments~~ by ~~December 3~~July 1, 201~~9~~18, and shall be submitted to the Los Angeles Regional Water Board Executive Officer upon finalization.

or alternatively,

2. Propose a program plan for attaining the wasteload allocation(s). […]

The Program Plan must be submitted for Los Angeles Regional Water Board Executive Officer approval by ~~[Hard Date: 12 months from adoption]~~ ~~December 3~~July 1, 2019~~18~~.
[…]
~~The wasteload allocations identified in the Fact Sheet of this Order are incorporated by reference. The final wasteload allocations during wet weather shall be achieved b~~ By ~~January 11, 2016~~ ~~July~~ January 1, 2019~~8~~, the permittees shall demonstrate[…]

Pages 66-67, San Gabriel River and Impaired Tributaries, Metals and Selenium TMDL
Requirements for Implementing the TMDL:
[…]
1. Enter in a cooperative agreement with Phase I MS4 Permittees, […] Such notification shall be provided by ~~July~~ January 1, 2019~~8~~, and shall identify the Phase I MS4 Permittee(s) and the WMP or EWMP that the Permittee intends to participate in. The cooperative agreement shall be finalized by ~~December 3~~July 1, 2019~~18~~, and shall be submitted to the Los Angeles Regional Water Board Executive Officer upon finalization.

or alternatively,

2. Propose a program plan for attaining the wasteload allocation(s). […]
The Program Plan must be submitted for Los Angeles Regional Water Board Executive Officer approval by ~~December 3~~July 1, 2019~~18~~.

Pages 67-68, San Gabriel River and Impaired Tributaries, Indicator Bacteria TMDL
Requirements for Implementing the TMDL:
[…]
1. Enter in a cooperative agreement with Phase I MS4 Permittees, […] Such notification shall be provided by ~~July~~ January 1, 2019~~8~~, and shall identify the Phase I MS4 Permittee(s) and the WMP or EWMP that the Permittee intends to participate in. The cooperative agreement shall be finalized by ~~December 3~~July 1, 2019~~18~~, and shall be submitted to the Los Angeles Regional Water Board Executive Officer upon finalization.

or alternatively,

2. Propose a program plan for attaining the wasteload allocation(s). […]
The Program Plan must be submitted for Los Angeles Regional Water Board Executive Officer approval by ~~December 3~~July 1, 2019~~18~~.

Pages 68-69, Los Cerritos Channel, Metals TMDL
Requirements for Implementing the TMDL:
[…]
1. Enter in a cooperative agreement with Phase I MS4 Permittees, […] Such notification shall be provided by ~~[Hard Date: 6 Months from adoption]~~ ~~July~~ January 1, 2019~~8~~, and shall identify the Phase I MS4 Permittee(s) and the WMP or EWMP that the Permittee intends to participate in. The cooperative agreement shall be finalized ~~within one year of adoption of these permit~~

~~amendments~~ by ~~December 3~~July 1, 201918, and shall be submitted to the Los Angeles Regional Water Board Executive Officer upon finalization.

or alternatively,

2. Propose a program plan for attaining the wasteload allocation(s). […]
The Program Plan must be submitted for Los Angeles Regional Water Board Executive Officer approval by ~~[Hard Date: 12 months from adoption]~~ ~~December 3~~July 1, 201918.

Pages 70-71, Ballona Creek Estuary, Toxic Pollutants TMDL
Requirements for Implementing the TMDL:
[…]
1. Enter in a cooperative agreement with Phase I MS4 Permittees, […] Such notification shall be provided by ~~[Hard Date: 6 Months from adoption]~~ ~~July~~ January 1, 20198, and shall identify the Phase I MS4 Permittee(s) and the WMP or EWMP that the Permittee intends to participate in. The cooperative agreement shall be finalized ~~within one year of adoption of these permit amendments~~ by ~~December 3~~July 1, 201918, and shall be submitted to the Los Angeles Regional Water Board Executive Officer upon finalization.

or alternatively,

2. Propose a program plan for attaining the wasteload allocation(s). […]
The Program Plan must be submitted for Los Angeles Regional Water Board Executive Officer approval by ~~[Hard Date: 12 months from adoption]~~ ~~December 3~~July 1, 201918.

Pages 71-72, Ballona Creek, Trash TMDL
Requirements for Implementing the TMDL:
[…]
An alternative attainment~~compliance~~ approach to implementing either 1) a Full Capture System or 2) partial capture devices and the application of institutional controls must be submitted for approval by the Los Angeles Regional Water Board Executive Officer. By ~~[Hard Date: 1 year from adoption]~~ ~~December 3~~July 1, 201918, MS4 Permittees […]

~~The wasteload allocations identified in the Fact Sheet of this Order are incorporated by reference. The TMDL specifies that the final WLA (0% of baseload discharged) is to be achieved by September 30, 2015. The allocations are therefore effective immediately.~~By ~~July~~ January 1, 20198, the permittees shall demonstrate attainment of the TMDL WLA as specified in Section E.15.a.2. or F.5.i.1.b. of this Order.

Pages 72-73, Los Angeles River, Trash TMDL
Requirements for Implementing the TMDL:
[…]
An alternative attainment~~compliance~~ approach to implementing either 1) a Full Capture System or 2) partial capture devices and the application of institutional controls must be submitted for

approval by the Los Angeles Regional Water Board Executive Officer. By ~~[Hard Date: 1 year from adoption]~~ ~~December 3~~July 1, 2019~~18~~, MS4 Permittees […]

~~The wasteload allocations identified in the Fact Sheet of this Order are incorporated by reference. The TMDL specifies that the final WLA (0% of baseload discharged) are to be achieved by September 30, 2016. The allocations are therefore effective immediately.~~By ~~July~~ January 1, 2019~~8~~, the permittees shall demonstrate attainment of the TMDL WLA as specified in Section E.15.a.2. or F.5.i.1.b. of this Order.

Page 73, Ventura River Estuary, Trash TMDL

Requirements for Implementing the TMDL:

[…]

~~The wasteload allocations identified in the Fact Sheet of this Order are incorporated by reference. The TMDL specifies that the final wasteload allocations are to be achieved by March 6, 2016. The allocations are therefore effective immediately.~~By ~~July~~ January 1, 2019~~8~~, the permittees shall demonstrate attainment of the TMDL WLA as specified in Section E.15.a.2. or F.5.i.1.b. of this Order.

Pages74-77, San Joaquin River, Diazinon & Chlorpyrifos TMDL

~~**Provisions**~~ **Requirements for ~~i~~Implementing the ~~Control Program~~TMDL and Monitoring Requirements:**

The Phase II entities identified in this TMDL section (hereinafter referred to as Permittees in this TMDL section) shall implement the following actions, ~~effective immediately~~ by ~~July~~ January 1, 2019~~8~~:

1.a. Conduct an assessment: By~~[Hard Date: onetwo year from effective date]~~ ~~December 3~~July 1, 2020~~19~~,the Permittees shall complete and submit to the Central Valley Regional Water Board Executive Officer

[…]

~~The wasteload allocations identified in the Fact Sheet of this Order are incorporated by reference. The TMDL specifies that the final WLAs are to be achieved bBy December 1, 2010. The allocations are therefore effective immediately.~~ ~~July~~ January 1, 2019~~8~~, the permittees shall demonstrate attainment of the TMDL WLA as specified in Section E.15.a.2. or F.5.i.1.b. of this Order.

Pages 77-81, Sacramento and San Joaquin Delta, Diazinon and Chlorpyrifos TMDL

~~**Provisions**~~ **Requirements for Monitoring and ~~i~~Implementing the ~~Control Program~~TMDL:**

The Phase II entities identified in this TMDL section (hereinafter referred to as Permittees in this TMDL section) shall implement the following actions, ~~effective immediately~~ by ~~July~~ January 1, 2019~~8~~:

1.a. Conduct an assessment: ~~By[Hard Date: onetwo year from effective date]~~ ~~December 3~~July 1, 2020~~19~~,the Permittees shall complete and submit to the Central Valley Regional Water Board Executive Officer

[…]

~~The wasteload allocations identified in the Fact Sheet of this Order are incorporated by reference. The TMDL specifies that the final WLAs are to be achieved bBy December 1, 2011. The allocations are therefore effective immediately.~~ ~~July~~ January 1, 201~~9~~8, the permittees shall demonstrate attainment of the TMDL WLA as specified in Section E.15.a.2. or F.5.i.1.b. of this Order.

Pages 82-86, Sacramento and Feather Rivers, Diazinon and Chlorpyrifos TMDL

~~Provisions~~ Requirements for Monitoring and Implementing the TMDL:

The Phase II entities identified in this TMDL section (hereinafter referred to as Permittees in this TMDL section) shall implement the following actions, ~~effective immediately~~ by ~~July~~ January 1, 201~~9~~8:

1.a. Conduct an assessment: By~~[Hard Date: onetwo year from effective date] December 3~~July 1, 2020~~19~~,the Permittees shall complete and submit to the Central Valley Regional Water Board Executive Officer

[…]

~~The wasteload allocations identified in the Fact Sheet of this Order are incorporated by reference. The TMDL specifies that the final WLAs are to be achieved bBy December 1, 2011. The allocations are therefore effective immediately.~~ ~~July~~ January 1, 201~~9~~8, the permittees shall demonstrate attainment of the TMDL WLA as specified in Section E.15.a.2. or F.5.i.1.b. of this Order.

Pages 86-89, Lower San Joaquin River, San Joaquin River, Stockton Deep Water Ship Channel, Organic Enrichment and Low Dissolved Oxygen TMDL

~~Provisions~~ Requirements for Implementing the ~~Control Program~~TMDL:

[…]

Monitoring Provisions:

1. By ~~[Hard Date: one year from the effective date] July~~ January 1, 2020~~19~~, ~~Renewal Permittees, as identified within the Designation Criteria~~ […]

[…]

~~The wasteload allocations identified in the Fact Sheet of this Order are incorporated by reference. The TMDL specifies that the final WLAs are to be achieved bBy December 31, 2011. The allocations are therefore effective immediately.~~ ~~July~~ January 1, 201~~9~~8, the permittees shall demonstrate attainment of the TMDL WLA as specified in Section E.15.a.2. or F.5.i.1.b. of this Order.

Pages 94-96, Clear Lake, Nutrients TMDL

~~Provisions~~ Requirements for Implementing the ~~Control Program~~TMDL:

[…]

Monitoring Provisions:

1. By ~~[Hard Date: 6 months from the effective date] December 3~~July 1, 201~~918~~, each Permittee shall incorporate individual monitoring […]

[…]

~~The wasteload allocations identified in the Fact Sheet of this Order are incorporated by reference. The TMDL specifies that the final WLAs are to be achieved bBy June 19, 2017 July~~

January 1, 20198, the permittees shall demonstrate attainment of the TMDL WLA as specified in Section E.15.a.2. or F.5.i.1.b. of this Order.[…]

Page 99, San Diego Creek, Upper and Lower Newport Bay, Organochlorine Compounds TMDL

Requirements for Implementing the TMDL:

1. Per the Small MS4[…]

   Therefore, the Permittees must initiate consultation with Regional Water Board staff by ~~[Hard Date: 1 month from effective date]August~~ February 1, 20198 to determine the[…]

2. As a result […] the Permittees shall submit their final TMDL Attainment ~~Compliance~~ Plan by ~~[Hard Date: 13 months from effective date] August~~ February 1, 2020~~19~~[…]

Pages 100-101, Middle Santa Ana River, Bacterial Indicator TMDL

Requirements for Implementing the TMDL:

[…]

1. Monitoring Program: By ~~[Hard Date: 6 months from adoption] July~~ January 1, 20198 submit for approval by the Regional Water Board […]

2. By ~~[Hard Date: 6 moths from adoption]J July~~ January 1, 20198, either a) develop a facility-specific […]

[…]

~~The wasteload allocations identified in the Fact Sheet of this Order are incorporated by reference. The TMDL specifies that the final WLAs for Dry Weather are to be achieved b~~By ~~December 31, 2015. July~~ January 1, 20198, the permittees shall demonstrate attainment of the Dry Weather WLA as specified in Section E.15.a.2. or F.5.i.1.b. of this Order.[…]

Pages104-106, Twenty Beaches and Creeks in San Diego Region, Indicator Bacteria TMDL

Requirements for Implementing the Bacteria Project I –Twenty Beaches and Creeks TMDL

[…]

2. By ~~[Hard Date: 3 months from adoption date] December~~ July 1, 201918 monitor discharges from their facilities […]

Pages 106-107, Los Penasquitos Lagoon, Sediment TMDL

Requirements for Implementing the TMDL:

[…]

1. Develop and implement […]The SWPPP must be updated by ~~[Hard Date: 12 months from adoption] December 3~~July 1, 201918 with any additional BMPs, […]

2. By ~~[Hard Date: 3 months from adoption date] July~~ March 1, 201918 monitor sediment discharges from their facilities […]

CHANGE SHEET #2 FOR THE ADOPTION HEARING OF AN ORDER AMENDING THE GENERAL PERMIT FOR STORM WATER DISCHARGES FROM SMALL MUNICIPAL SEPARATE STORM SEWER SYSTEMS

1. Revise E.15 as indicated below
2. Make corresponding revisions to the identical language in section F.5.i.
3. Make any conforming changes to the Fact Sheet

The changes are shown in underline [underline] and strikeout [~~strikeout~~].

E.15. TOTAL MAXIMUM DAILY LOADS COMPLIANCE REQUIREMENTS

E.15.a.

Attachment G contains a list of TMDL-specific, BMP-based water quality based effluent limitations (WQBELs) and other permit requirements, applicable to identified permittees, consistent with the assumptions and requirements of the applicable wasteload allocations of the TMDLs.

a. Permittees shall comply with the requirement in Section C.1 to reduce the discharge of pollutants to achieve applicable TMDL wasteload allocations as follows:

1) Prior to the deadline to attain the final wasteload allocation, a permittee is deemed in compliance with the requirement in Section C.1 to *reduce the discharge of pollutants to achieve applicable TMDL wasteload allocations*, if the permittee is timely implementing all BMP-based WQBELs and other requirements specified in Attachment G for that TMDL. The permittee may alternatively make a demonstration in accordance with section E.15.a.2 below.

2) On or after the deadline to attain the final wasteload allocation, a permittee is deemed in compliance with the requirement in Section C.1 to *reduce the discharge of pollutants to achieve applicable TMDL wasteload allocations* if the permittee meets one or more of the criteria in subsections a-g below. For purposes of this section only, the wasteload allocations specified in the applicable TMDLs (as listed in the Fact Sheet) are incorporated by reference.

a) Receiving water monitoring and analysis by the permittee or other responsible parties under the TMDL, as approved by the Regional Water Board or its designee, demonstrates attainment of the applicable receiving water limitation in the waterbody as determined at the TMDL monitoring attainment locations or as determined at or immediately downstream of the permittee's discharge; or
b) Receiving water monitoring does not demonstrate attainment of the applicable receiving water limitation in the waterbody, but the permittee demonstrates, through an approach approved by the Regional Water Board or its designee, that

exceedances of the receiving water limitations for the receiving water are due to loads from other sources and pollutant loads from the permittee are not causing or contributing to the exceedances; or

c) Where the wasteload allocation is expressed as a concentration, sampling of the permittee's discharge, as approved by the Regional Water Board or its designee, indicates that the discharge has attained the applicable wasteload; or

d) Where a mass-based wasteload has been allocated to an individual or jointly to a group or is expressed as a percent reduction in load, the permittee demonstrates, through an approach approved by the Regional Water Board or its designee, that the permittee's discharge is attaining the individual or ~~appropriate share of the~~ joint allocation or the percent reduction; or

e) Where a wasteload allocation is expressed as the number of allowable exceedance days, the permittee demonstrates, through an approach approved by the Regional Water Board or its designee, that the permittee's discharge conforms to the allowable exceedance days;

f) The permittee demonstrates, in a manner approved by the Regional Water Board or its designee, that no discharges, either directly or indirectly, from the permittee's MS4 to the applicable water body occurred during the relevant time period; or

g) The permittee demonstrates the attainment of the wasteload allocation through other factors as described by the specific TMDL(s)[1] and as approved by the Regional Water Board or its designee.

3) Pursuant to Section D, a permittee deemed in compliance with Section C.1 in accordance with subsections 1) and 2) of this section is also deemed in compliance with the Section D requirement to *not cause or contribute to an exceedance of water quality standards* for the specific pollutants and water bodies addressed.

5.b. In some cases, Attachment G includes dates ~~are given~~ that fall outside the term of this Order. ~~Compliance~~ Attainment dates for BMP-based WQBELs and other permit requirements that exceed the term of this Order are included for reference, and become enforceable in the event that this Order is administratively extended.

Wasteload allocation attainment dates that have already passed are enforceable on the effective date of this Order and have been assigned a due date of July 1, 2018.

1) If the Regional Water Board Executive Officer makes a determination, on a case by case basis, that the language of a particular TMDL allows flexibility to extend a final deadline

[1] As an example, the TMDL for Sacramento and San Joaquin Delta – Diazinon and Chlorpyrifos states "In determining compliance with the wasteload allocations, the Regional Water Board will consider any data or information submitted by the discharger regarding diazinon and chlorpyrifos inputs from sources outside of the jurisdiction of the permitted discharger, including any diazinon and chlorpyrifos present in precipitation and other available relevant information, and any applicable provisions In the discharger's NPDES permit requiring the discharger to reduce the discharge of pollutants to the maximum extent possible.", Resolution No. R5-2006-0061, Attachment 1, #11, Page 4.

to attain a wasteload allocation, the State Water Board Executive Director may amend Attachment G to provide an extended deadline following public notice and comment.

Where a final deadline to attain a wasteload allocation is past and the permittee has not demonstrated compliance as specified in Section E.15.a above, the permittee may seek a time schedule order pursuant to Water Code section 13300 from the Regional Water Board. Permittees may either individually request a time schedule order or may jointly request a time schedule order with all Permittees subject to the TMDL in Attachment G. Permittees may also request time schedule orders where the permittee has not timely complied with a BMP-based WQBEL or other permit requirement in Attachment G.

A request to the applicable Regional Water Board for a time schedule order shall include the following information:

a) Any available data demonstrating the current quality of the MS4 discharge(s) in terms of the applicable wasteload allocation units (i.e. concentration and/or load) of the target pollutant(s) to the receiving waters subject to the TMDL;
b) A description and chronology of structural controls and source control efforts carried out by the permittee since the effective date of the TMDL to reduce the pollutant load in the MS4 discharges to the receiving waters subject to the TMDL;
c) Justification of the need for additional time to achieve the requirements;
d) The specific actions the Permittee will take in order to meet the TMDL requirements and a time schedule of interim and final deadlines proposed to implement those actions. The actions will reflect the requirements specified for the TMDL in Attachment G;
e) A demonstration that the time schedule requested is as short as possible, taking into account the technological, operational, and economic factors that affect the design, development, and implementation of the control measures that are necessary to comply with the TMDL requirements.

2) It is not the intention of the State Water Board or the Regional Water Boards to bring an enforcement action for non-attainment of the wasteload allocation where:

a) A permittee is in compliance with a time schedule order's implementation requirements and compliance schedule;
b) A permittee has in good faith requested a time schedule order from the Regional Water Board and is in compliance with all BMP-based WQBELs and other permit requirements of Attachment G, except the requirement to attain the applicable wasteload allocation by the final attainment deadline;
c) A Regional Water Board has initiated proceedings to revise the TMDL to provide additional time for ~~compliance~~ attainment or to modify TMDL wasteload allocations and the permittee is in compliance with all BMP-based WQBELs and other permit requirements in Attachment G, except the requirement to attain the applicable wasteload allocation by the final attainment deadline.

The State Water Board may revise this Order through a reopener to incorporate any modifications or revisions to the TMDLs in Attachment G, or to incorporate any new TMDLs adopted during the term of this Order that assign a wasteload allocation to a Regulated Small MS4 or that identify a Regulated Small MS4 as a responsible party. In revising Attachment G, the State Water Board will allow adequate notice and public review.

E.15.d. The Permittee shall complete and report the status of its implementation of the specific TMDL implementation requirements that have been incorporated into the permit with each Annual Report via SMARTS. Reporting on TMDL implementation shall include the following information:

1) A description of BMPs implemented, including types, number, and locations

2) All supplemental information and reports required under the specific TMDL implementation requirements in Attachment G.

3) An assessment of the effectiveness of implemented BMPs in progressing towards attainment of wasteload allocations within the TMDLs' specified timeframes

4) All monitoring data, including a statistical analysis of the data to assess progress towards attainment of wasteload allocations within the TMDLs' specified timeframes

5) Based on results of the effectiveness assessment and monitoring, a description of the additional BMPs that will be implemented to attain wasteload allocations within the TMDLs specified timeframes

FACT SHEET

Staff reviewed the Fact Sheet to determine whether any changes were necessary to conform it to the changes made by the adoption of this Change Sheet and determined that no such conforming changes were needed.