



GAIL FARBER, Director

COUNTY OF LOS ANGELES

DEPARTMENT OF PUBLIC WORKS

"To Enrich Lives Through Effective and Caring Service"

900 SOUTH FREMONT AVENUE
ALHAMBRA, CALIFORNIA 91803-1331
Telephone: (626) 458-5100
<http://dpw.lacounty.gov>

ADDRESS ALL CORRESPONDENCE TO:
P.O. BOX 1460
ALHAMBRA, CALIFORNIA 91802-1460

IN REPLY PLEASE
REFER TO FILE: **WM-6**

June 24, 2013

Mr. Samuel Unger, P.E.
Executive Officer
California Regional Water Quality
Control Board – Los Angeles Region
320 West 4th Street, Suite 200
Los Angeles, California 90013

Attention Ms. Renee Purdy

Dear Mr. Unger:

**NOTICE OF INTENT FOR THE DEVELOPMENT OF A
WATERSHED MANAGEMENT PROGRAM AND
COORDINATED INTEGRATED MONITORING PROGRAM FOR THE
ALAMITOS BAY/LOS CERRITOS CHANNEL WATERSHED MANAGEMENT AREA**

The County of Los Angeles and Los Angeles County Flood Control District, collectively the Alamitos Bay/Los Cerritos Channel Group (Alamitos Bay/LCC Group), is submitting the enclosed Notice of Intent to notify the California Regional Water Quality Control Board of the Alamitos Bay/LCC Group's commitment to develop a Watershed Management Program (WMP) and Coordinated Integrated Monitoring Program (CIMP). The Alamitos Bay/LCC Group agrees to this approach in fulfilling the requirements of Order No. R4-2012-0175 (Municipal Separate Storm Sewer System (MS4) Permit).

The enclosed Notice of Intent fulfills the WMP notifications requirements provided in Section VI.C.4.b of the MS4 Permit and the CIMP notification requirements provided in Attachment E Section IV.C.1 of the MS4 Permit. The Alamitos Bay/LCC Group looks forward to developing the WMP and CIMP in collaboration with the Technical Advisory Committee and other stakeholders within the Alamitos Bay and Los Cerritos Channel Watershed Management Area.

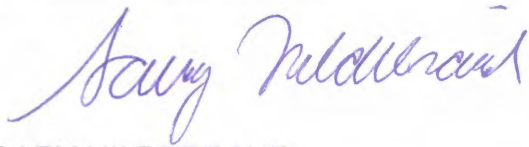
RB-AR2675

Mr. Samuel Unger
June 24, 2013
Page 2

If you have any questions, please contact me at (626) 458-4300 or ghildeb@dpw.lacounty.gov or your staff may contact Ms. Angela George at (626) 458-4325 or ageorge@dpw.lacounty.gov.

Very truly yours,

GAIL FARBER
Director of Public Works



GARY HILDEBRAND
Assistant Deputy Director
Watershed Management Division

JD:jht
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Enc.

RB-AR2676

NOTICE OF INTENT

Alamitos Bay/Los Cerritos Channel Watershed Management Area Watershed Management Program and Coordinated Integrated Monitoring Program

Submitted to:

California Regional Water Quality
Control Board – Los Angeles Region
320 West 4th Street, Suite 200
Los Angeles, CA 90013

Submitted by:

County of Los Angeles
Los Angeles County Flood Control District

June 28, 2013



1. Introduction

The County of Los Angeles (County) and the Los Angeles County Flood Control District (LACFCD), collectively the Alamitos Bay/Los Cerritos Channel Group (Alamitos Bay/LCC Group), respectfully submit this Notification of Intent (NOI) to develop a Watershed Management Program (WMP) for certain portions of the Alamitos Bay and Los Cerritos Channel Watershed Management Area (Alamitos Bay/LCC WMA) per Section VI.C.4.b.i of Order No. R4-2012-0175 (Municipal Separate Storm Sewer System (MS4) Permit). Additionally, the Alamitos Bay/LCC Group submits this NOI to develop a Coordinated Integrated Monitoring Program (CIMP).

The following sections are to satisfy the requirements for NOI submittal as provided by Section VI.C.4.b of the MS4 Permit and to provide the California Regional Water Quality Control Board, Los Angeles Region (LARWQCB) with additional information on the approach that the Alamitos Bay/LCC Group intends to follow for the WMP development. The Alamitos Bay/LCC Group is committed to coordinating with adjacent agencies throughout the preparation and implementation of the WMP and CIMP.

2. NOI (Section VI.C.4.b.i and Attachment E Section IV.C.1.)

The Alamitos Bay/LCC Group hereby notifies the LARWQCB by this NOI of its intention to develop a WMP for certain portions of the Alamitos Bay/LCC WMA, and to submit the draft WMP no later than 18 months after the effective date of the MS4 Permit (June 28, 2014).

In addition, the Alamitos Bay/LCC Group also notifies the LARWQCB by this NOI of its intention to develop a CIMP for certain portions of the Alamitos Bay/LCC WMA, and to submit the draft CIMP no later than 18 months after the effective date of the MS4 Permit (June 28, 2014).

3. Interim and Final TMDL Compliance Deadlines (Section VI.C.4.b.ii)

Table 1 lists Total Maximum Daily Loads (TMDLs) that apply to the Alamitos Bay/LCC WMA. There are no trash TMDLs associated with the Alamitos Bay/LCC WMA, and there are no final compliance milestones or deadlines of other TMDLs occurring prior to the anticipated approval date of the WMP (April 28, 2015).

Table 1. TMDLs applicable to the Alamitos Bay/Los Cerritos Channel WMA

TMDL	Resolution Number	Effective Date	EPA Approval Date
Los Cerritos Channel Metals TMDL	NA	NA	3/17/2010
Colorado Lagoon OC Pesticides, PCBs, Sediment Toxicity, PAHs, and Metals TMDL ¹	R09-005	7/28/2011	6/14/2011
Dominguez Channel and Greater Los Angeles and Long Beach Harbor Waters Toxic Pollutants TMDL	R11-008	3/23/2012	3/23/2012

¹ Although the Colorado Lagoon OC Pesticides, PCBs, Sediment Toxicity, PAHs, and Metals TMDL applies to the Alamitos Bay/Los Cerritos Channel WMA, the County of Los Angeles is not designated as responsible for this TMDL per Table K-7 of the MS4 Permit

4. Geographical Scope

The Alamitos Bay/LCC WMA is approximately 24,000 acres (37.5 square miles) and consists of portions of the cities of Bellflower, Cerritos, Downey, Lakewood, Long Beach, Paramount, and Signal Hill, as well as the unincorporated County. As shown in Enclosure A, the Alamitos Bay/LCC WMA can be divided into three subwatersheds: the Los Cerritos Channel Freshwater watershed, the Los Cerritos Channel Estuary watershed, and the Alamitos Bay watershed. The LACFCD has facilities throughout the entire Alamitos Bay/LCC WMA. The unincorporated County area in the WMA comprises of one island near the middle of the Los Cerritos Channel Freshwater watershed. This unincorporated County island totals 95 acres (0.7 square miles) of the WMA and is completely surrounded by the City of Long Beach. The majority (91 percent) of the island's land use is high density, single-family residential, as shown in Enclosure B.

The Alamitos Bay/LCC Group will develop a WMP for certain portions of the Alamitos Bay/LCC WMA. The areas that will be included in this WMP are the unincorporated County island, the LACFCD facilities within the unincorporated County island, the LACFCD facilities within the Los Cerritos Channel Estuary watershed, and the LACFCD facilities within the Alamitos Bay watershed. There is no unincorporated County area in the Alamitos Bay watershed or Los Cerritos Channel Estuary watershed.

5. Cost Estimate

It is estimated that the cost will be \$80,000 for the development of the CIMP and WMP.

6. Low Impact Development Ordinance (Section VI.C.4.b.iii.(6) and VI.C.4.c.ii.(1))

Table 2 summarizes the Alamitos Bay/LCC Group's Low Impact Development (LID) Ordinance status. As Table 2 shows, more than 50 percent of the land area within the Alamitos Bay/LCC WMA WMP Group is addressed by an LID ordinance.

Table 2. LID Ordinances

WMP Agency	Percent WMP Area	Status LID Ordinance
County	100 percent	Draft Ordinance
LACFCD	NA	NA
Total MS4 Watershed Area Covered by LID Ordinances	100 percent	

Status Description:

- Draft Ordinance – Permittee has completed or will complete by June 28, 2013, the development of a draft LID Ordinance that is in compliance with the MS4 Permit for its portion in the watershed.

7. Green Street Policy (Section VI.C.4.b.iii.(6) and VI.C.4.c.ii.(2))

Table 3 summarizes the Alamitos Bay/LCC Group's Green Street Policy status. As Table 3 shows, more than 50 percent of the land area within the Alamitos Bay/LCC WMA WMP Group is addressed by a Green Street Policy that is in place or under development.

Table 3. Green Street Policy

WMP Agency	Percent WMP Area	Status Green Street Policy
County	100 percent	Draft Policy
LACFCD	NA	NA
Total MS4 Watershed Area Covered by Green Street Policy	100 percent	

Status Description:

- Draft Policy – Permittee has completed or will complete by June 28, 2013, the development of a draft Green Street Policy that is in compliance with the MS4 Permit for its portion in the watershed.

8. Implementation of Watershed Control Measures During Plan Development (Section VI.C.4.b.ii and VI.C.4.d)

No TMDLs have interim and/or final compliance milestones prior to the final approval of the WMP (April 28, 2015), and no TMDL Implementation Plans have been developed to date for the Alamitos Bay/LCC WMA.

SUMMARY

This NOI for the Alamitos Bay/LCC Group WMP was developed by the County and LACFCD. Both agencies have reviewed and agreed to this NOI as evidenced by each agency's Letter of Intent. The Alamitos Bay/LCC Group believes that this NOI satisfies the requirements of the MS4 Permit, and we look forward to developing the

Alamitos Bay/LCC WMA WMP in collaboration with the Technical Advisory Committee and other watershed stakeholders.

**ENCLOSURE A –
GEOGRAPHICAL SCOPE OF
THE COUNTY OF LOS ANGELES AND LACFCD IN THE
ALAMITOS BAY/LCC WMA WMP**

RB-AR2682



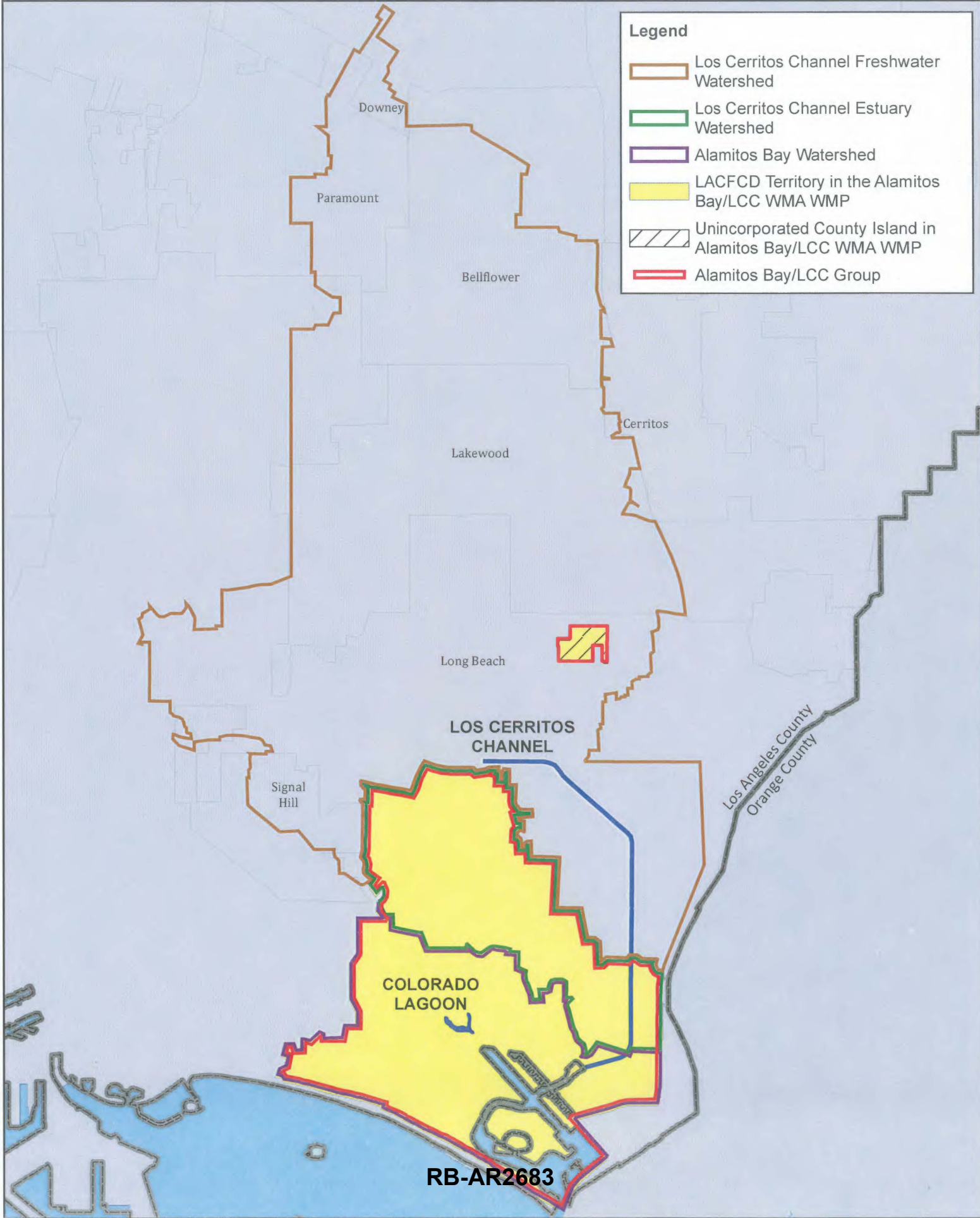
ENCLOSURE A

Geographical Scope of the County of Los Angeles and LACFCD in the Alamitos Bay/LCC WMA

0 0.5 1 Miles

Legend

- Los Cerritos Channel Freshwater Watershed
- Los Cerritos Channel Estuary Watershed
- Alamitos Bay Watershed
- LACFCD Territory in the Alamitos Bay/LCC WMA WMP
- Unincorporated County Island in Alamitos Bay/LCC WMA WMP
- Alamitos Bay/LCC Group



ENCLOSURE B –
COUNTY OF LOS ANGELES UNINCORPORATED ISLAND IN
THE ALAMITOS BAY/LCC WMA

RB-AR2684

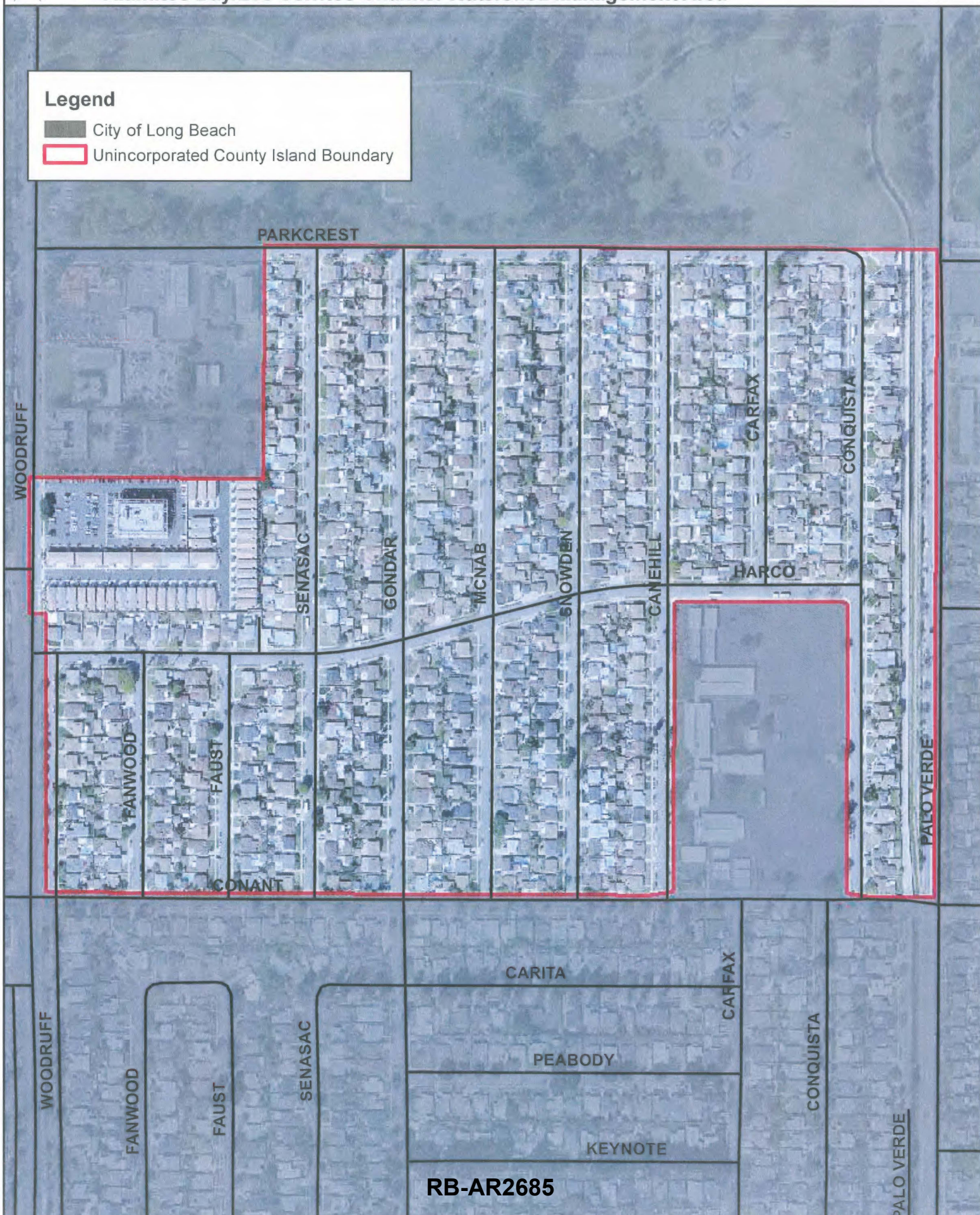


ENCLOSURE B
Unincorporated County Island in
Alamitos Bay/Los Cerritos Channel Watershed Management Area

0 190 380
Feet

Legend

-  City of Long Beach
-  Unincorporated County Island Boundary



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**ENCLOSURE C –
LETTERS OF INTENT**



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RB-AR2686



GAIL FARBER, Director

COUNTY OF LOS ANGELES

DEPARTMENT OF PUBLIC WORKS

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P.O. BOX 1460
ALHAMBRA, CALIFORNIA 91802-1460

June 24, 2013

IN REPLY PLEASE

REFER TO FILE: **WM-7**

Mr. Samuel Unger, P.E., Executive Officer
California Regional Water Quality
Control Board – Los Angeles Region
320 West 4th Street, Suite 200
Los Angeles, CA 90013

Attention Ms. Renee Purdy

Dear Mr. Unger:

**LETTER OF INTENT – COUNTY OF LOS ANGELES
ALAMITOS BAY/LOS CERRITOS CHANNEL WATERSHED MANAGEMENT AREA
WATERSHED MANAGEMENT PROGRAM
AND COORDINATED INTEGRATED MONITORING PROGRAM**

The County of Los Angeles submits this Letter of Intent to participate in and share the cost of the development of a Watershed Management Program (WMP) and a Coordinated Integrated Monitoring Program (CIMP) with the Alamitos Bay/Los Cerritos Channel Group. This Letter of Intent serves to satisfy the WMP notification requirements of Section VI.C.4.b of Order No. R4-2012-0175 (Municipal Separate Storm Sewer System Permit) and the CIMP requirements of Section IV.C.1 of Attachment E of the Municipal Separate Storm Sewer System Permit.

The Alamitos Bay/Los Cerritos Channel Group consists of the following agencies: County of Los Angeles as the coordinating agency for WMP and CIMP development and Los Angeles County Flood Control District.

If you have any questions, please contact Ms. Angela George at (626) 458-4325 or ageorge@dpw.lacounty.gov.

Very truly yours,

GAIL FARBER
Director of Public Works

JD:jht

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RB-AR2687



GAIL FARBER, Director

COUNTY OF LOS ANGELES

DEPARTMENT OF PUBLIC WORKS

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June 24, 2013

IN REPLY PLEASE

REFER TO FILE: **WM-7**

Mr. Samuel Unger, P.E., Executive Officer
California Regional Water Quality
Control Board – Los Angeles Region
320 West 4th Street, Suite 200
Los Angeles, CA 90013

Attention Ms. Renee Purdy

Dear Mr. Unger:

**LETTER OF INTENT – LOS ANGELES COUNTY FLOOD CONTROL DISTRICT
ALAMITOS BAY/LOS CERRITOS CHANNEL WATERSHED MANAGEMENT AREA
WATERSHED MANAGEMENT PROGRAM
AND COORDINATED INTEGRATED MONITORING PROGRAM**

The Los Angeles County Flood Control District (LACFCD) submits this Letter of Intent to participate in and share the cost of the development of a Watershed Management Program (WMP) and a Coordinated Integrated Monitoring Program (CIMP) with the Alamitos Bay/Los Cerritos Channel Group. This Letter of Intent serves to satisfy the WMP notification requirements of Section VI.C.4.b of Order No. R4-2012-0175 (Municipal Separate Storm Sewer System Permit) and the CIMP requirements of Section IV.C.1 of Attachment E of the Municipal Separate Storm Sewer System Permit.

The Alamitos Bay/Los Cerritos Channel Group consists of the following agencies: County of Los Angeles as the coordinating agency for WMP and CIMP development and LACFCD.

If you have any questions, please contact Ms. Terri Grant at (626) 458-4309 or tgrant@dpw.lacounty.gov.

Very truly yours,

GAIL FARBER
Chief Engineer of the Los Angeles County Flood Control District

JD:jht

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RB-AR2688

MEMORANDUM OF UNDERSTANDING
BETWEEN
THE LOS ANGELES COUNTY FLOOD CONTROL DISTRICT AND THE COUNTY OF
LOS ANGELES
REGARDING THE ADMINISTRATION AND COST SHARING FOR DEVELOPMENT
OF THE WATERSHED MANAGEMENT PROGRAM FOR THE ALAMITOS BAY/LOS
CERRITOS CHANNEL GROUP AGENCIES

This Memorandum of Understanding (MOU), is made and entered into as of the date of the last signature set forth below by and between LOS ANGELES COUNTY FLOOD CONTROL DISTRICT (LACFCD), a body corporate and politic, and THE COUNTY OF LOS ANGELES (LA COUNTY), a political subdivision of the State of California. Collectively, these entities shall be known herein as "PARTIES" or individually as "PARTY."

WITNESSETH

WHEREAS, the Regional Water Quality Control Board, Los Angeles Region (Regional Board) adopted the National Pollutant Discharge Elimination System Municipal Separate Storm Sewer System Permit Order No. R4-2012-0175 (MS4 Permit); and

WHEREAS, the MS4 Permit became effective on December 28, 2012 and requires that the LACFCD, LA COUNTY, and 84 of the 88 cities (excluding Avalon, Lancaster, Long Beach, and Palmdale) within the County of Los Angeles comply with the prescribed elements of the MS4 Permit; and

WHEREAS, the MS4 Permit identified the PARTIES as the MS4 permittees that are responsible for compliance with the MS4 Permit requirements pertaining to the Alamitos Bay and Los Cerritos Channel Watershed Management Area; and

WHEREAS, the PARTIES, have agreed to collaborate on the compliance of certain elements of the MS4 Permit for the areas shown in Exhibit C; and

WHEREAS, the PARTIES collaboratively prepared a final Scope of Work as shown in Exhibit D to achieve compliance with certain elements of the MS4 Permit; and

WHEREAS, the PARTIES propose to prepare and deliver a Draft and Final Watershed Management Program (WMP) and Draft and Final Coordinated Integrated Monitoring Program (CIMP) in compliance with certain elements of the MS4 Permit, at a total cost of approximately eighty thousand dollars (\$80,000) as shown in Table 1 of Exhibit A; and

WHEREAS, the PARTIES have determined that LA COUNTY will prepare and deliver the WMP and CIMP and LA COUNTY may hire a Consultant or Consultants to

assist LA COUNTY in the preparation and delivery of the WMP and CIMP, LACFCD desires to participate and will provide funding in accordance with the cost allocation in Table 1 of Exhibit A; and

WHEREAS, the PARTIES agree that each shall assume full and independent responsibility for ensuring its own compliance with the MS4 Permit despite the collaborative approach of the MOU.

NOW, THEREFORE, in consideration of the mutual benefits to be derived by the PARTIES, and of the promises contained in this MOU, it is hereby agreed as follows:

Section 1. Recitals: The recitals set forth above are fully incorporated as part of this MOU.

Section 2. Purpose: The purpose of this MOU is to cooperatively fund the preparation and submittal of the WMP and CIMP to the Regional Board.

Section 3. Cooperation: the PARTIES shall fully cooperate with one another to attain the purpose of this MOU.

Section 4. Voluntary: This MOU is voluntarily entered into for the purpose of preparing and submitting the WMP and CIMP to the Regional Board.

Section 5. Terms: This MOU shall become effective on the latest date of execution by a PARTY or December 28, 2013, whichever comes first, and shall remain in effect until the Regional Board has given final approval to the last outstanding portion of the WMP, LA COUNTY has provided the LACFCD with an accounting as set forth in Section 7(c), and LACFCD has paid all outstanding invoices.

Section 6. Assessment for Proportional Cost for WMP and CIMP: LACFCD agrees to pay LA COUNTY for preparation and delivery of the WMP and CIMP in the amounts shown in Table 1 of Exhibit A, attached hereto and made part of this MOU by this reference. LA COUNTY will invoice LACFCD upon execution of this MOU as shown in Table 2 of Exhibit A, based on the allocated costs for developing the Plan. At the end of each fiscal year, LA COUNTY will provide the LACFCD with a statement with the actual contracted expenditures. Unexpended cost at the termination of this MOU will be reimbursed to the LACFCD.

Section 7. LA COUNTY Agrees:

- a. To utilize the funds deposited by the LACFCD only for the preparation and completion of the WMP and CIMP.

- b. To provide LACFCD with an electronic copy of the draft and final WMP as submitted to the Regional Board at least 5 business days prior to submission to the Regional Board.
- c. To provide an accounting upon the early termination of this MOU pursuant to Section 11 or 60 days after the date the Regional Board gives final approval to the last outstanding portion of the PLANS, whichever comes first. At the completion of the accounting, LA COUNTY shall return the unused portion of all funds deposited with LA COUNTY in accordance with the cost allocation formula set forth in Table 1 of Exhibit A.
- d. To notify the LACFCD if the actual cost of the preparation of the WMP and CIMP will exceed the cost estimates shown in Exhibit A and obtain approval of the increase from the LACFCD. Upon written approval, the LACFCD agrees to reimburse LA COUNTY for their proportional share of these additional expenditures at an amount not to exceed 10 percent of the original cost estimate as shown in Table 1 of Exhibit A. This 10 percent contingency will not be invoiced unless actual expenditures exceed the original cost estimate. Expenditures that exceed the 10 percent contingency will require an amendment of this MOU.
- e. To not submit any PLANS to the Regional Board unless and until the PLANS have been approved, in writing, for submittal by the LACFCD.

Section 8. The PARTIES Further Agree:

- a. To make a full faith effort to cooperate with one another to achieve the purposes of this MOU by providing information about project opportunities, reviewing deliverables in a timely manner, and informing their respective administration, agency heads, and/or governing body.
- b. To fund the cost of the preparation and delivery of the WMP and CIMP and to pay LA COUNTY for the preparation and delivery of the WMP and CIMP based on the cost allocation shown in Table 1 of Exhibit A within 60 days of receiving an invoice.
- c. To grant reasonable access rights and entry to LA COUNTY, on an as-needed basis during the terms of this MOU to the LACFCD'S storm drains, channels, catch basins, and similar properties (FACILITIES) to achieve the purposes of this MOU, provided, however that prior to entering LACFCD'S FACILITIES, LA COUNTY shall provide written notice to LACFCD at least 72 hours in advance. For the purposes of this provision, written notice shall include notice delivered via e-mail that has been delivered to LACFCD's representative identified on Exhibit B. LA COUNTY shall agree to indemnify, defend and hold harmless LACFCD, its special districts, their elected and

appointed officers, employees, and agents, from and against any and all liability, including but not limited to demands, claims, actions, fees, costs, and expenses (including attorney and expert fees), arising from or connected with LA COUNTY's performance. In addition, LA COUNTY shall carry, maintain, and keep in full force and effect an insurance policy or policies, and LACFCD, its officers, employees, attorneys, and designated volunteers shall be named as additional insureds on the policy(ies) with respect to liabilities arising out of LA COUNTY's work. These requirements will also apply to any subcontractors hired by LA COUNTY. This indemnification is in addition to the other indemnities made herein.

Section 9. Invoice and Payment

- a. Payment: LACFCD shall reimburse LA COUNTY for their proportional share cost for preparation and delivery of the WMP and CIMP as shown in Table 2 of Exhibit A within thirty (30) days of the invoice from LA COUNTY.
- b. Invoice: LA COUNTY will invoice LACFCD as shown in Table 2 of Exhibit A.
- c. Late Payment Penalty: Any payment that is late shall be subject to interest on the original amount due from the date that the payment first became due. The interest rate shall be equal to the Prime Rate in effect when the payment first became due plus one percent for any payment that is made from 1 to 30 days after the due date. The Prime Rate in effect when the payment first became due plus five (5) percent shall apply for any payment that is made from 31 to 60 days after the due date. The Prime Rate in effect when the payment first became due plus ten (10) percent shall apply for any payment that is made more than 60 days after the due date. The rates shall, nevertheless, not exceed the maximum allowed by law. If LACFCD remains delinquent after the above procedures, then LA COUNTY may notify the Regional Board that the LACFCD is no longer a participating member of the PLANS, and LACFCD shall then be deemed to have terminated its participation as a PARTY to this MOU ("EXCLUDED PARTY") and their name may be removed from the PLANS. Any EXCLUDED PARTY'S delinquent amount(s) will be paid in accordance with the remaining PARTY's pro-rata share pursuant to Table 1 of Exhibit A, as adjusted to remove the EXCLUDED PARTY from the allocation. LA COUNTY will revise Table 1 of Exhibit A to show the recalculated costs for the remaining participating PARTY. LA COUNTY shall retain all contractual, legal, and equitable rights and causes of action to recover any delinquent amounts paid that were owed by an EXCLUDED PARTY or PARTIES who failed to make such payments.

Section 10: Indemnification

- a. To the fullest extent permitted by law, each PARTY shall indemnify, defend, and hold harmless each other, including its special districts, elected and appointed officers, employees, agents, attorneys, and designated volunteers from and against any and all liability, including, but not limited to demands, claims, actions, fees, costs, and expenses (including reasonable attorney's and expert witness fees), arising from or connected with the respective acts of each PARTY arising from or related to this MOU; provided, however, that no PARTY shall indemnify another PARTY for that PARTY'S own negligence or willful misconduct.
- b. In light of the provisions of Section 895.2 of the Government Code of the State of California imposing certain tort liability jointly upon public entities solely by reason of such entities being parties to an agreement (as defined in Section 895 of said Code), each of the PARTIES hereto, pursuant to the authorization contained in Section 895.4 and 895.6 of said Code, shall assume the full liability imposed upon it or any of its officers, agents, or employees, by law for injury caused by any act or omission occurring in the performance of this MOU to the same extent such liability would be imposed in the absence of Section 895.2 of said Code. To achieve the above stated purpose, each PARTY indemnifies, defends, and holds harmless each other PARTY for any liability, cost, or expense that may be imposed upon such other PARTY solely by virtue of said Section 895.2. The provisions of Section 2778 of the California Civil Code are made a part hereof as if incorporated herein.

Section 11. Termination or Withdrawal

- a. This MOU may be terminated upon the express written agreement of both PARTIES. If this MOU is terminated, then both PARTIES must agree on the equitable redistribution of remaining funds deposited, if there are any, or payment of invoices due at the time of termination. Completed work shall be owned by both PARTIES. Rights to uncompleted work will be held by the PARTY or PARTIES who fund the completion of such work.
- b. A PARTY may withdraw from this MOU upon 60 days written notice to the other PARTY, subject to payment of any invoice received from LA COUNTY prior to or during the 60-day notice period for its share of the cost of the work completed as of the date of its notice of withdrawal, calculated in accordance with the cost-sharing percentages set forth in Table 1 of Exhibit A. The effective withdrawal date shall be the sixtieth (60th) day after LA COUNTY receives the withdrawing PARTY's notice to withdraw from this MOU. LA COUNTY shall refund to the withdrawing PARTY any uncommitted and unused funds paid by the withdrawing PARTY's effective withdrawal date. All PARTIES understand, acknowledge, and agree that withdrawal from this MOU will terminate any responsibility, liability, or obligation of the withdrawing

PARTY under this MOU commencing on the effective withdrawal date and that the withdrawing PARTY shall remain liable for its share of any loss, debt or liability incurred prior to the withdrawal date, and for any work which could not be suspended. Withdrawal from this MOU does not release any PARTY from the obligations set forth in MS4 Permit.

- c. If a PARTY fails to substantially comply with any of the terms or conditions of this MOU, that PARTY shall forfeit its rights to work completed through this MOU, but no such forfeiture shall occur unless and until the defaulting PARTY has first been given notice of its default and a reasonable opportunity to cure the alleged default.

Section 12. General Provisions

- a. Notices. Any notices, bills, invoices, or reports relating to this MOU, and any request, demand, statement or other communication required or permitted hereunder shall be in writing and shall be delivered to the Representative of the PARTY at the address set forth in Exhibit B. PARTIES shall promptly notify each other of any change of contact information, including personnel changes, provided in Exhibit B. Written notice shall include notice delivered via email or fax. A notice shall be deemed to have been received on (a) the date of delivery, if delivered by hand during regular business hours, or by confirmed facsimile or by email; or (b) on the third (3) business day following mailing by registered or certified mail (return receipt requested) to the addresses set forth in Exhibit B.
- b. Administration. For the purpose of this MOU, the PARTIES hereby designate as their respective Party Representatives the persons named in Exhibit B. The designated Party Representatives, or their respective designees, shall administer the terms and conditions of this MOU on behalf of their respective PARTY. Each of the persons signing below on behalf of a PARTY represents and warrants that they are authorized to sign this MOU on behalf of such PARTY.
- c. Relationship of Parties. The PARTIES are and shall remain at all times as to each other, wholly independent entities. No PARTY to this MOU shall have power to incur any debt, obligation, or liability on behalf of another PARTY unless expressly provided to the contrary by this MOU. No employee, agent, or officer of a PARTY shall be deemed for any purpose whatsoever to be an agent, employee or officer of another PARTY.
- d. Binding Effect. This MOU shall be binding upon and inure to the benefit of each PARTY to this MOU and their respective heirs, administrators, representatives, successors and assigns.

- e. Amendment. The terms and provisions of this MOU may not be amended, modified or waived, except by an instrument in writing signed by both PARTIES.
- f. Waiver. Waiver by any PARTY to this MOU of any term, condition, or covenant of this MOU shall not constitute a waiver of any other term, condition, or covenant. Waiver by any PARTY to any breach of the provisions of this MOU shall not constitute a waiver of any other provision, nor a waiver of any subsequent breach or violation of any provision of this MOU.
- g. Law to Govern; Venue. This MOU shall be interpreted, construed and governed according to the laws of the State of California. In the event of litigation between the PARTIES, venue in the state trial courts shall lie exclusively in the County of Los Angeles.
- h. No Presumption in Drafting. The PARTIES to this MOU agree that the general rule that an MOU is to be interpreted against the party drafting it, or causing it to be prepared shall not apply.
- i. Entire MOU. This MOU constitutes the entire agreement of the PARTIES with respect to the subject matter hereof and supersedes all prior or contemporaneous agreements, whether written or oral, with respect thereto.
- j. Severability. If any term, provision, condition or covenant of this MOU is declared or determined by any court or competent jurisdiction to be invalid, void, or unenforceable, the remaining provisions of this Agreement shall not be affected thereby and this MOU shall be read and constructed without the invalid, void, or unenforceable provision(s).
- k. Counterparts. This MOU may be executed in any number of counterparts, each of which shall be an original, but all of which taken together shall constitute but one and the same instrument, provided, however, that such counterparts shall have been delivered to all PARTIES to this MOU.
- l. All PARTIES have been represented by counsel in the preparation and negotiation of this MOU. Accordingly, this MOU shall be construed according to its fair language.

IN WITNESS WHEREOF, the PARTIES hereto have caused this MOU to be executed by their duly authorized representatives and affixed as of the date of signature of the PARTIES:

LOS ANGELES COUNTY FLOOD CONTROL DISTRICT

By _____
GAIL FARBER

Date

APPROVED AS TO FORM:

John F. Krattli
County Counsel

By _____
Deputy

Date

DRAFT

COUNTY OF LOS ANGELES

By _____
GAIL FARBER

Date

APPROVED AS TO FORM:

John F. Krattli
County Counsel

By _____
Deputy

Date

DRAFT

EXHIBIT A

ALAMITOS BAY/LOS CERRITOS CHANNEL WMP AGENCIES
Funding Contributions

Table 1: Total Cost Estimate.

Item	Total Cost
ESTIMATED WMP & CIMP PREPARATION COST	\$80,000
LACFCD (10%) ¹	\$8,000
County of LA COUNTY (90%)	\$72,000

¹ The Los Angeles County Flood Control District (LACFCD) has committed to contributing 10% of the preparation cost for their share in the development of the WMP and CIMP.

Table 2: Invoice Schedule.

Agency	Total Cost	Invoice Schedule
		January 1, 2014
LA COUNTY	\$72,000	\$72,000
LACFCD	\$8,000	\$8,000
TOTAL	\$80,000	\$80,000

EXHIBIT B

ALAMITOS BAY/LOS CERRITOS CHANNEL WMP AGENCIES Agencies Representatives

1. Los Angeles County Flood Control District
Department of Public Works
Watershed Management Division, 11th Floor
900 South Fremont Avenue
Alhambra, CA 91803-1331

Party Representative: Gary Hildebrand
E-mail: GHILDEB@dpw.lacounty.gov
Phone: (626) 458-4300
Fax: (626) 457-1526

2. County of Los Angeles
Department of Public Works
Watershed Management Division, 11th Floor
900 South Fremont Avenue
Alhambra, CA 91803-1331

Party Representative: Angela George
E-mail: AGEORGE@dpw.lacounty.gov
Phone: (626) 458-4304
Fax: (626) 457-1526

EXHIBIT C
ALAMITOS BAY/LOS CERRITOS CHANNEL WMP AGENCIES MAP

DRAFT









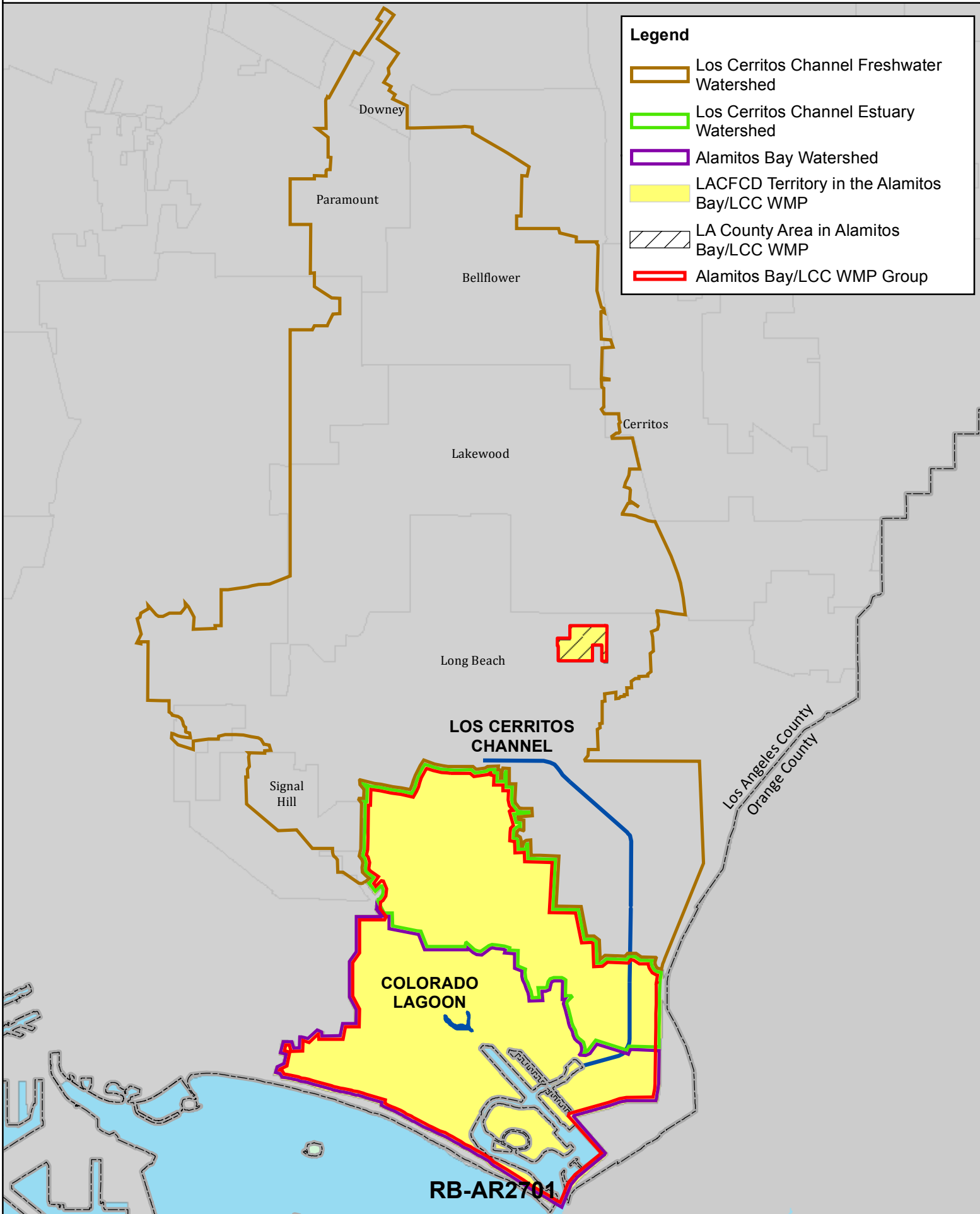
EXHIBIT C

Alamitos Bay/Los Cerritos Channel WMP Group

0 0.5 1 Miles

Legend

-  Los Cerritos Channel Freshwater Watershed
-  Los Cerritos Channel Estuary Watershed
-  Alamitos Bay Watershed
-  LACFCD Territory in the Alamitos Bay/LCC WMP
-  LA County Area in Alamitos Bay/LCC WMP
-  Alamitos Bay/LCC WMP Group



RB-AR2701

EXHIBIT D
ALAMITOS BAY/LOS CERRITOS CHANNEL WMP SCOPE OF WORK

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Scope of Work:

Alamitos Bay/Los Cerritos Channel Watershed Management Program and Coordinated Integrated Monitoring Program

The County of Los Angeles (County) will undertake and complete the following tasks to the satisfaction of the Alamitos Bay/Los Cerritos Channel (Alamitos Bay/LCC) Group and acceptance of the Regional Board:

1. Prepare a Reasonable Assurance Analysis (RAA)

Develop a GIS based hydrology and pollutant analysis model, compatible with MS4 Permit objectives, based on available data, assumptions and parameters. Based on MS4 Permit identified MCMs, defensible assumptions, and strategy recommendations from the Alamitos Bay/LCC WMA, the model will be used to assess potential alternative strategies for achieving MS4 Permit water quality objectives.

2. Prepare Watershed Management Program (WMP)

Based on discussions with the Alamitos Bay/LCC Group, the MS4 Permit TAC, and previously completed work tasks, a Draft and Final WMP will be developed to guide the Alamitos Bay/LCC Group in complying with the MS4 Permit water quality objectives.

3. Prepare Coordinated Integrated Monitoring Program (CIMP)

Prepare a draft CIMP to accompany the draft WMP plan and a final CIMP for attachment to the final Alamitos Bay/LCC WMP. The CIMP shall address MS4 Permit related monitoring requirements including:

- Receiving Water and Catchment monitoring
- Stormwater and non-stormwater outfall monitoring
- New development/redevelopment effectiveness tracking
- Coordination with other Regional Monitoring Efforts

ANALYSIS

This ordinance amends Chapter 12.84 of Title 12 – Environmental Protection of the Los Angeles County Code, related to low impact development water quality and hydromodification standards applicable to new development and redevelopment, as follows:

- Changes low impact development water quality and hydromodification standards and requirements on certain new development and redevelopment projects to conform to requirements imposed on the County by the California Regional Water Quality Control Board in the County's stormwater discharge permit under the Federal Clean Water Act.

JOHN F. KRATTLI
County Counsel

By

MARK T. YANAI
Principal Deputy County Counsel
Public Works Division

MTY:jjj

Requested:

Revised:

ORDINANCE NO.

An ordinance amending Chapter 12.84 of Title 12 – Environmental Protection of the Los Angeles County Code, relating to low impact development water quality and hydromodification standards for property development.

The Board of Supervisors of the County of Los Angeles ordains as follows:

SECTION 1. Section 12.84.410 is hereby amended to read as follows:

12.84.410 Purpose.

The purposes of this chapter are as follows:

A. Lessen the water quality impacts of development and minimize the adverse impacts from storm water runoff from development on the biological integrity of Natural Drainage Systems and the beneficial uses of water bodies.

B. Minimize pollutant loadings from impervious surfaces through the use of properly designed, technically appropriate BMPs and other LID strategies.

C. The provisions in this Chapter 12.84 shall be construed to augment any county, state, or federal ordinance, statute, regulation, or other requirement governing the same or related matter, and where a conflict exists between a provision in this Chapter 12.84 and such other ordinance, statute, regulation, or requirement, the stricter provision shall apply to the extent permitted by law.

SECTION 2. Section 12.84.420 is hereby amended to read as follows:

12.84.420 Definitions.

The following definitions shall apply to this chapter:

A. "Basin Plan" means the Water Quality Control Plan, Los Angeles Region, Basin Plan for Coastal Watersheds of Los Angeles and Ventura Counties, adopted by

the Regional Water Board on June 13, 1994 and subsequent amendments.

B. "Beneficial Use" means the existing or potential use of receiving waters as designated by the Los Angeles or Lahontan Regional Water Quality Control Boards in their respective basin plans for the County.

C. "Best management practices (BMPs)" are practices or physical devices or systems designed to prevent or reduce pollutant loading from storm water or non-storm water discharges to receiving waters, or designed to reduce the volume of storm water or non-storm water discharged to the receiving water.

D. "Capital Flood" means the runoff produced by a 50-year frequency design storm falling on a saturated watershed (soil moisture at field capacity). A 50-year frequency design storm has a probability of 1/50 of being equaled or exceeded in any year.

E. "County" means the County of Los Angeles.

F. "Designated project" means any development project described in subsection A of Section 12.84.430.

G. "Development" means activity requiring discretionary or non-discretionary land use or construction approval from the County that results in the creation, addition, modification, or replacement of impervious surface area, which replacement is not part of routine maintenance activity. Development includes, but is not limited to, land subdivisions; the construction, installation, addition, or replacement of a building or structure; expansion of a building footprint; and land-disturbing activities related to structural or impervious surfaces. Development shall not include routine maintenance of original lines and grades and/or hydraulic capacity.

H. "Director" means the Director of Public Works.

I. "Drainage system" means a conveyance or system of conveyances, including paths, drives, roads, streets, alleys, catch basins, curbs, gutters, ditches, man-made channels, or storm drains designed or used to collect or convey urban runoff and stormwater.

J. "Excess Volume" means the additional volume of stormwater caused by development; excess volume is determined by calculating the difference in the volume of runoff under undeveloped and post-developed conditions, using the water quality design storm event.

K. "Hardscape" means any durable pervious or impervious surface material, including paving for pedestrians and vehicles.

L. "Hydromodification" means the alteration of a natural drainage system through a change in the system's flow characteristics.

M. "Low impact development ("LID")" means technologies and practices that are part of a sustainable stormwater management strategy that controls stormwater and urban runoff on site.

N. "Natural drainage system" means any unlined or unimproved (not engineered) creek, stream, river, or similar waterway.

O. "Non-designated project" means any development project that is not included in subsection A of Section 12.84.430.

P. "Pollutants of concern" means chemical, physical, or biological components of stormwater that impair the beneficial uses of receiving waters, including those defined in the federal Clean Water Act Section 502(6) (33 United States Code

Section 1362(6)), and incorporated by reference into California Water Code Section 13373.

Q. "Public Works" means the Los Angeles County Department of Public Works.

R. "Receiving water" means a "water of the United States" (as defined 33 C.F.R. 328.3(a)(7)) into which waste and/or pollutants are or may be discharged.

S. "Regional Water Board" means the California Regional Water Quality Control Board, Los Angeles Region.

T. "Softscape" means the horticultural elements of a landscape, such as soil and plants.

U. "Stormwater" means runoff that occurs as the result of rainfall.

V. "Stormwater Quality Design Volume (SQDv)" means the runoff generated by a water quality design storm event.

W. "Urban runoff" means dry weather surface flows emanating from urban development.

X. "Water quality design storm event" means any of the volumetric or flow rate based design storm events for water quality BMPs identified in the National Pollutant Discharge Elimination System Municipal Stormwater Permit for the County of Los Angeles.

SECTION 3. Section 12.84.430 is hereby amended to read as follows:

12.84.430 Applicability.

A. Designated projects. The following development projects shall comply with the provisions of subsection C of Section 12.84.440, below:

1. All new development projects equal to 1 acre or greater of disturbed area and adding more than 10,000 square feet of impervious surface area;
2. Industrial parks with 10,000 square feet or more of surface area;
3. Commercial malls with 10,000 square feet or more surface area;
4. Retail gasoline outlets with 5,000 square feet or more of surface area;
5. Restaurants (SIC 5812) with 5,000 square feet or more of surface area;
6. Parking lots with 5,000 square feet or more of impervious surface area, or with 25 or more parking spaces;
7. Automotive service facilities (SIC 5013, 5014, 5511, 5541, 7532-7534 and 7536-7539) with 5,000 square feet or more of surface area;
8. Development located in or directly adjacent to or discharging directly to a Significant Ecological Area (SEA), as defined in Section 22.08.190 of Title 22 of this Code, where the development will discharge storm water runoff that is likely to impact a sensitive biological species or habitat and create 2,500 square feet or more of impervious surface area;
9. Redevelopment projects. Development that results in the creation or addition or replacement of either: (i) 5,000 square feet or more of impervious surface area on a site that has been previously developed as described in subsections 1-8, above; or (ii) 10,000 square feet or more of impervious surface area on a site that has been previously developed with a single family home.
 - a. Where more than fifty percent of impervious surfaces of a

previously developed site is proposed to be altered, and the previous development project was not subject to post-construction storm water quality control requirements, the entire development site (i.e., both the existing development and the proposed alteration) shall comply with the provisions of subsection C of Section 12.84.440, below.

b. Where less than fifty percent of impervious surfaces of a previously developed site is proposed to be altered, and the previous development project was not subject to post-construction storm water quality control requirements, only the proposed alteration shall comply with the provisions of subsection C of Section 12.84.440, and not the entire development site.

c. Redevelopment does not include routine maintenance activities that are conducted to maintain original line and grade, hydraulic capacity, original purpose of facility or emergency redevelopment activity required to protect public health and safety. Impervious surface replacement, such as the reconstruction of parking lots and roadways which does not disturb additional area and maintains the original grade and alignment, is considered a routine maintenance activity. Redevelopment does not include the repaving of existing roads to maintain original line and grade.

B. Non-designated projects. Any development project that is not included in subsection A, shall comply with the provisions of subsection D of Section 12.84.440, below.

1. Where the development project involves a previously undeveloped site or results in an addition or alteration of at least fifty (50) percent of the impervious surfaces of an existing developed site, the entire site shall be brought into compliance

with the provisions of subsection D of Section 12.84.440.

2. Where the development project results in an addition or alteration of less than fifty (50) percent of the impervious surfaces of an existing developed site, only such incremental development shall comply with the provisions of subsection D of Section 12.84.440.

C. Street and Road Construction. In addition to complying with all other applicable provisions of Section 12.84.440, development projects involving street and road construction of 10,000 square feet or more of impervious surface area shall follow USEPA guidance regarding Managing Wet Weather with Green Infrastructure: Green Streets 26 (December 2008 EPA-833-F-08-009) to the maximum extent practicable. This subsection applies to standalone streets, roads, highways, and freeway projects, and also applies to streets within larger projects.

D. Single Family Hillside Homes. In addition to the complying with all other applicable provisions of Section 12.84.440, development projects involving the construction of a single-family home in a hillside management area (as defined in Section 22.08.080 of Title 22 of this Code) shall implement the following measures:

1. Conserve natural areas;
2. Protect slopes and channels;
3. Provide storm drain system stenciling and signage;
4. Divert roof runoff to vegetated areas before discharge unless the diversion would result in slope instability;
5. Direct surface flow to vegetated areas before discharge unless the diversion would result in slope instability.

E. Exemptions. This Chapter shall not apply to any of the following development projects:

1. Any Non-designated project that results in an addition or alteration of less than fifty (50) percent of the impervious surfaces of an existing developed site consisting of four (4) or fewer residential units.

2. Any project for which a complete discretionary or non-discretionary permit application was filed with the Los Angeles County Department of Regional Planning, Public Works, or any County-controlled design control board, prior to January 1, 2009.

SECTION 4. Section 12.84.440 is hereby amended to read as follows:

12.84.440 Low Impact Development Standards.

A. The LID standards of this Chapter are:

1. Mimic undeveloped stormwater and urban runoff rates and volumes in any storm event up to and including the Capital Flood;

2. Prevent pollutants of concern from leaving the development site in stormwater as the result of storms, up to and including a water quality design storm event; and

3. Minimize hydromodification impacts to natural drainage systems.

B. The Director shall prepare, maintain, and update, as deemed necessary and appropriate, a manual ("Stormwater Quality Post-Construction BMP Manual"), which shall include urban and stormwater runoff quantity and quality control development principles and technologies for achieving compliance with the provisions of this Section. The Stormwater Quality Post-Construction BMP Manual shall also include

technical feasibility and implementation parameters, as well as other rules, requirements and procedures as the Director deems necessary, for implementing the provisions of this Chapter 12.84.

C. Designated projects. To meet the standards described in subsection A of this Section, development projects described in subsection A of Section 12.84.430 shall comply with the following requirements:

1. The project shall retain 100% of the Stormwater Quality Design Volume (SWQDv) on-site, through infiltration, evapotranspiration, rainfall harvest and use or a combination thereof, unless the Director determines that it would be technically infeasible to do so.

2. If the Director determines that it would be technically infeasible to retain 100% of the SWQDv on-site, the project shall comply with one of the following alternative compliance measures:

a. The project shall provide for on-site biofiltration of 1.5 times the portion of the SWQDv that is not retained on-site.

b. The project shall include infiltration or bioretention BMPs to intercept the portion of the SWQDv that is not retained on-site at an offsite location, as approved by the Director. The project shall also provide for treatment of the portion of the SWQDv discharged from the project site, as approved by the Director.

c. The project shall provide for the replenishment of ground water supplies that have a designated beneficial use in the Basin Plan.

(i) Ground water replenishment projects shall include infiltration, or bioretention BMPs to intercept the portion of the SWQDv that is not

retained on-site at an offsite location, as approved by the Director.

(ii) Ground water replenishment projects shall also provide for treatment of the portion of the SWQDv discharged from the project site, as approved by the Director.

d. The project shall include infiltration, bioretention, or rainfall harvest and use BMPs to retrofit an existing development, with similar land uses as the project, to intercept the portion of the SWQDv that is not retained on-site.

e. The County, independently or in conjunction with one or more cities, may apply to the Regional Water Board for approval of a regional or sub-regional storm water mitigation program to substitute in part or wholly for the provisions of this Chapter for the area covered by the regional or sub-regional storm water mitigation program. If the Regional Water Board approves the program, the provisions of the program shall apply in lieu of any conflicting provisions of this Chapter.

D. Non-designated projects. To meet the standards described in subsection A of this Section, any development project described in subsection B of Section 12.84.430, above, shall comply with the following requirements:

1. A development project consisting of four (4) or fewer residential units shall implement at least two LID BMP alternatives listed in the Stormwater Quality Post-Construction BMP Manual, which alternatives include, but are not limited to, disconnecting impervious surfaces, using porous pavement, downspout routing, a dry well, landscaping and irrigation requirements, and a green roof.

2. A development project consisting of five (5) or more residential units, or a nonresidential development project, shall comply with the following

requirements:

a. The excess volume from each lot upon which such development is occurring shall be infiltrated at the lot level, or in the alternative, the excess volume from the entire development site, including streets and public right-of-way, shall be infiltrated in sub-regional facilities. The tributary area of a sub-regional facility shall be limited to five (5) acres, but may be exceeded with approval of the Director. When the Director determines that infiltration of all excess volume is not technically feasible, on-site storage, reuse, or other water conservation uses of the excess volume is required and shall be implemented as authorized by the Director in accordance with the requirements and provisions specified in the Stormwater Quality Post-Construction BMP Manual.

b. The runoff from the water quality design storm event associated with the developed site hydrology must be treated to the satisfaction of the Director before discharge.

SECTION 5. Section 12.84.445 is hereby added to read as follows:

12.84.445 Hydromodification Control

A. Exemptions. The Director may grant exemptions from the provisions of this Section 12.80.445 for the following types of development projects where the Director determines that downstream channel conditions and proposed discharge hydrology indicate that adverse hydromodification effects to beneficial uses of natural drainage systems are unlikely:

1. The replacement, maintenance or repair of existing, publicly-maintained flood control facilities, storm drains, or transportation networks.

2. Development of a previously developed site in the an urbanized area that does not increase the effective impervious area or decrease the infiltration capacity of pervious areas compared to the pre-project conditions.

3. Projects that have any increased discharge directly or through a storm drain to a sump, lake, area under tidal influence, into a waterway that has an estimated 100-year peak flow of 25,000 cubic feet per second (c.f.s.) or more, or other receiving water that is not susceptible to hydromodification impacts.

4. Projects that discharge directly or through a storm drain into concrete or other engineered channels (e.g., channelized or armored with rip rap, shotcrete, etc.), which, in turn, discharge into receiving water that is not susceptible to hydromodification impacts.

5. Non-designated projects disturbing an area less than one acre or creating less than 10,000 square feet of new impervious area.

6. LID BMPs implemented on single family homes shall be deemed sufficient compliance with the provisions of this Section 12.84.445.

B. The Stormwater Quality Post-Construction BMP Manual shall include .hydromodification control development principles and technologies for achieving compliance with the provisions of this Section as well as other rules, requirements and procedures as the Director deems necessary, for implementing the provisions of this Section 12.84.445.

C. Unless excluded by subsection A above, development projects must fully mitigate off-site drainage impacts caused by hydromodification and changes in water quality, flow velocity, flow volume, and depth/width of flow, as determined by the

Director in accordance with the requirements and provisions specified in the Stormwater Quality Post-Construction BMP Manual.

1. Sediment transport analysis shall be required when the project is tributary to any natural drainage system with a Capital Flood flow rate greater than 5,000 c.f.s.

D. If the Director determines that it would be infeasible for a development project to comply with the provisions of subsection C of this Section, and the project disturbs an area greater than 1 acre but less than 50 acres, written consent to the unmitigated impacts shall be obtained from the owner of every impacted downstream property. In addition, the development project shall comply with one of the following alternative requirements:

1. The project shall retain on-site, 100% of the stormwater volume from the runoff of the 95th percentile, 24-hour storm, through infiltration, evapotranspiration, and/or harvest and use; or

2. The runoff flow rate, volume, velocity, and duration for the project's post-development condition shall not exceed the pre-development condition for the 2-year, 24-hour rainfall event; or

3. The Erosion Potential (E_p) in the receiving water channel shall approximate 1, as demonstrated by a hydromodification analysis study approved by the Director.

E. If the Director determines that it would be infeasible for a development project to comply with the provisions of subsection C of this Section, and the project disturbs an area 50 acres or more, written consent to the unmitigated impacts shall be

obtained from the owner of every impacted downstream property. In addition, the development project shall comply with one of the following alternative requirements:

1. The project shall infiltrate on-site at least the runoff from a 2-year, 24-hour storm event; or
2. The runoff flow rate, volume, velocity, and duration for the project's post-development condition shall not exceed the pre-development condition for the 2-year, 24-hour rainfall events; or
3. The Erosion Potential (E_p) in the receiving water channel shall approximate 1, as demonstrated by a hydromodification analysis study approved by the Director.

SECTION 6. Section 12.84.450 is hereby amended to read as follows:

12.84.450 LID Plan Review.

A. Compliance with the LID and hydromodification control standards of this Chapter 12.84 shall be shown through a LID plan review described in subsection B, below.

B. The applicant for any development project shall submit a LID plan to the Director for review and approval that provides a comprehensive, technical discussion of how the development project will comply with this Chapter 12.84 and the applicable provisions specified in the Stormwater Quality Post-Construction BMP Manual. A deposit and fee to recover the costs associated with LID plan review shall be required. The time for obtaining LID plan approval shall be as follows:

1. For subdivisions, the LID plan shall be approved prior to the tentative map approval;

2. For any development project requiring a conditional use permit (“CUP”) or other discretionary entitlement required under Title 22 of the Los Angeles County Code, the LID plan shall be approved prior to the issuance of any such CUP or other discretionary entitlement; and

3. For all other development projects, the LID plan shall be approved prior to issuance of a grading permit for such development project, or when no grading permit is required, prior to the issuance of a building permit for such development project, or when no building permit is required, prior to the commencement of any development activity or as otherwise indicated in the non-discretionary land use approval.

SECTION 7. Section 12.84.460 is hereby amended to read as follows:

12.84.460 Additional Requirements.

Except as specifically exempted therein, all development projects described in Section 12.84.430 shall comply with the following:

A. All grading and/or site drainage plans for the development shall incorporate the features of the approved LID plan described in subsection B of Section 12.84.450.

B. Ongoing Maintenance.

1. The development project's LID and hydromodification control features shall be maintained and shall remain operable at all times and shall not be removed from the project site unless and until such features have been replaced with other LID or hydromodification control features in accordance with this Chapter 12.84.

2. Unless excused by the Director in his or her discretion, the owner of

the subject development project site shall prepare and obtain the Director's approval of an operation and maintenance plan and monitoring plan for all LID practices and LID and hydromodification control features incorporated into the project.

3. The owner of the subject development project site shall record a covenant or agreement, approved as to form and content by the Director, in the office of the Los Angeles County Registrar-Recorder/County Clerk indicating that the owner of the subject development project site is aware of and agrees to the requirements in this subsection B. The covenant or agreement shall also include a diagram of the development project site indicating the location and type of each LID and hydromodification control feature incorporated into the development project. The time to record such covenant or agreement shall be as follows:

- a. For any subdivision, prior to final map approval; and
- b. For any other development project, prior to issuance of a grading plan approval for the development project, and when no grading plan approval is required, prior to the issuance of building plan approval for the development project.



Approved _____
Gail Farber

DRAFT

**COUNTY OF LOS ANGELES
DEPARTMENT OF PUBLIC WORKS
GREEN STREET POLICY**

Recognizing the importance of the long-term health and well-being of the communities we serve, we consistently seek a balanced approach to deliver multi-benefit projects, programs, and services in an economically, environmentally, and socially responsible way. Therefore, consistent with Public Works' Strategic Focus Area of "Invest in Sustainability", it is the policy of this Department to incorporate Green Street design approaches as described in the Green Infrastructure Guidelines, June 2011 (or updated), in all applicable Public Works road projects as described below.

DEFINITIONS

GREEN STREET

Green streets are improvements within the transportation corridor designed to reduce greenhouse gases (GHG), energy consumption during construction, promote recycling of our natural resources, provide source control of stormwater, limit its transport and pollutant conveyance to the collection system, restore predevelopment hydrology to the extent possible, and provide environmentally enhanced roads. Effectively incorporating green street design into our existing transportation network can help achieve multiple benefits, such as improved water quality, reduce GHG emissions, and help support sustainable communities. Green streets can incorporate a wide variety of design elements including but not limited to, street trees, sustainable pavements, bioretention, and swales. A number of green street features are listed and described in the Green Infrastructure Guidelines. The Guidelines detail the design of these features as well as the anticipated maintenance needs.

TRANSPORTATION CORRIDOR

Transportation corridor is defined as any designated route within public right-of-way including, but not limited to, sidewalks, roadways, and alley ways.

APPLICATION

Public Works shall incorporate green street design elements as specified in the Green Infrastructure Guidelines, June 2011 (or updated), for new construction, reconstruction, and/or rehabilitation of existing public infrastructure conducted within the transportation corridor.

EXCEPTIONS

Public Works maintenance and repair projects or emergency projects are exempt from the watershed-based approaches but will comply with sustainable approaches that reduce greenhouse gas during construction. Maintenance and repair projects shall include, but not limited to, road resurfacing, chip seal, slurry seal, curb and gutter, sidewalk repair, minor shoulder paving, and overlays.

Recommended by _____

Rossana G. D'Antonio, Assistant Deputy Director

_____ Date

Los Angeles Regional Water Quality Control Board

September 25, 2013

Alamitos Bay/Los Cerritos Channel Watershed Management Group
Gail Farber, Chief Engineer
Los Angeles County Flood Control District
900 South Freemont Ave
Alhambra, CA 91803

APPROVAL OF NOTIFICATION OF INTENT (NOI) TO DEVELOP A WATERSHED MANAGEMENT PROGRAM (WMP), PURSUANT TO THE LOS ANGELES COUNTY MUNICIPAL SEPARATE STORM SEWER SYSTEM (MS4) PERMIT (NPDES PERMIT NO. CAS004001; ORDER NO. R4-2012-0175)

Dear Alamitos Bay/Los Cerritos Channel Watershed Management Group Participants:

Regional Board staff received and reviewed the NOI to prepare a WMP that the Alamitos Bay/Los Cerritos Channel Watershed Management Group submitted to the Regional Board on June 27, 2013; according to the NOI, the participants in the Alamitos Bay/Los Cerritos Channel Watershed Management Group are the Los Angeles County Flood Control District, and the County of Los Angeles. Upon review, Regional Board staff determined the NOI meets the notification requirements of Part VI.C of Order No. R4-2012-0175, *Waste Discharge Requirements for MS4 Discharges within the Coastal Watersheds of Los Angeles County, except those Discharges Originating from the City of Long Beach* (hereafter, Order).

As you are aware, the Order allows permittees the option to submit to the Regional Board for approval an NOI to prepare a WMP. Preparing a WMP allows permittees to implement the requirements of the Order on a watershed scale through customized strategies, control measures, and best management practices (BMPs). Implementing a WMP allows permittees to address the highest watershed priorities, including complying with the requirements of Part V.A (Receiving Water Limitations), Part VI.E (Total Maximum Daily Load Provisions) and Attachments L through R, by customizing the control measures in Parts III.A (Prohibitions – Non-Storm Water Discharges) and VI.D (Minimum Control Measures) of the Order.

The Alamitos Bay/Los Cerritos Channel Watershed Management Group must submit to the Regional Board for review and approval a draft WMP for the Alamitos Bay/Los Cerritos Channel watershed no later than June 28, 2014. Until Regional Board staff approves the Alamitos Bay/Los Cerritos Channel Watershed Management Group WMP,

each Alamitos Bay/Los Cerritos Channel Watershed Management Group participant must do the following:

1. Continue to implement all the watershed control measures in their corresponding storm water management programs, including actions within each of the six categories of minimum control measures consistent with Title 40 Code of Federal Regulations Section 122.26(d)(2)(iv) and Part VI.C.4.d.i of the Order.
2. Continue to implement watershed control measures to eliminate non-storm water discharges through the MS4 that are a source of pollutants to receiving waters consistent with Clean Water Act Section 402(p)(3)(B)(ii) and Part VI.C.4.d.ii of the Order.
3. Target implementation of watershed control measures listed above to address known contributions of pollutants from MS4 discharges to receiving waters.
4. Meet all interim and final deadlines for development of a WMP.

Additionally, the Regional Board exhorts both Los Angeles County and the Los Angeles County Flood Control District to closely collaborate with other MS4 Permittees in the Los Cerritos Channel freshwater watershed when developing their WMP and when planning and implementing watershed control measures as described above.

If you have any questions, please contact Ms. Pavlova Vitale of the Storm Water Permitting Unit by electronic mail at Pavlova.Vitale@waterboards.ca.gov or by phone at (213) 576-6761. Alternatively, you may also contact Mr. Ivar Ridgeway, Chief of the Storm Water Permitting Unit, by electronic mail at Ivar.Ridgeway@waterboards.ca.gov or by phone at (213) 620-2150.

Sincerely,



Samuel Unger, P.E.
Executive Officer

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ECM#

RB-AR2724

Alamitos Bay/Los Cerritos Channel Watershed Management Area

Watershed Management Program

Submitted to:

**California Regional Water
Quality Control Board
Los Angeles Region**
320 West 4th Street, Suite 200
Los Angeles, CA 90013-2343

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June 28, 2014

RB-AR2725

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List of Abbreviations

AB/LCC	Alamitos Bay/Los Cerritos Channel
BPA	Basin Plan Amendment
BMP	Best Management Practice
CIMP	Coordinated Integrated Monitoring Program
CPS	Connector Pipe Screen
EPA	Environmental Protection Agency
EWMP	Enhanced Watershed Management Program
GIS	Geographic Information System
HRU	Hydrologic Response Unit
IC/ID	Illicit Connections and Illicit Discharges
LACFCD	Los Angeles County Flood Control District
LARWCQB	Los Angeles Regional Water Quality Control Board
LID	Low Impact Development
LLCWG	Los Cerritos Channel Watershed Group
MCM	Minimum Control Measure
MS4	Municipal Separate Storm Sewer System
MRP	Monitoring and Reporting Program
NPDES	National Pollutant Discharge Elimination System
PCBs	Polychlorinated Biphenyls
PIPP	Public Information and Participation Program
QA/QC	Quality Assurance/Quality Control
RAA	Reasonable Assurance Analysis
TMDL	Total Maximum Daily Load
USEPA	United State Environmental Protection Agency
WLA	Waste Load Allocation
WMMS	Watershed Management Modeling System
WQDS	Water Quality Design Storm

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Section 1. Introduction

1.1 BACKGROUND

The Alamitos Bay/Los Cerritos Channel (AB/LCC) Watershed Management Program (WMP) is a collaborative effort between the County of Los Angeles (County) and the Los Angeles County Flood Control District (LACFCD). The geographic scope of this WMP is focused on the 95 acre County Island located within the 37.5 square-mile AB/LCC Watershed Management Area (WMA). As shown in Figure 1, the County and the LACFCD, collectively the Alamitos Bay/Los Cerritos Channel Group (AB/LCC Group), make up a very small portion of the overall Watershed Management Area (WMA).

This WMP is being submitted to meet the requirements outlined in section VI.C of the National Pollutant Discharge Elimination System (NPDES) Municipal Separate Storm Sewer System (MS4) Permit No. R4-2012-0178 (Permit). The Permit was adopted on November 8, 2012 and became effective December 28, 2012.

Section VI.C.1.f of the Permit requires that the WMP shall:

- Be consistent with Part VI.C.5-C.8 of the Permit (see below),
- Prioritize water quality issues resulting from storm water and non-storm water discharges from the MS4 to receiving waters within each WMA,
- Identify and implement strategies, control measures, and BMPs to achieve the outcomes specified in Part VI.C.1.d of the Permit,
- Execute an integrated monitoring program and assessment program pursuant to Attachment E, Part IV of the Permit to determine progress towards achieving applicable limitations and/or action levels in Attachment G of the Permit, (See Coordinated Integrated Monitoring Program (CIMP) for the AB/LCC Group)
- Modify strategies, control measures, and Best Management Practices (BMPs) as necessary based on analysis of monitoring data collected pursuant to the Monitoring and Reporting Plan to ensure that applicable water quality-based effluent limitations and receiving water limitations and other milestones set forth in the WMP are achieved in the required timeframes,
- Provide appropriate opportunity for meaningful stakeholder input, including but not limited to, a permit-wide WMP technical advisory committee (TAC) that will advise and participate in the development of the WMPs and enhanced WMPs from month 6 through the date of program approval.

Part VI.C.5-C.8 of the Permit requires the WMP contain:

- Identification of Water Quality Priorities
- Selection of Watershed Control Measures including
 - Minimum control measures
 - Non-storm water discharge measures
 - TMDL Control measures
 - Identification of specify structural and non-structural BMPs
 - Reasonable assurance analysis

- Compliance schedules
- Integrated watershed monitoring and assessment (See CIMP for the AB/LCC Group)
- Adaptive management process

This WMP utilizes planned efforts in the AB/LCC WMA and identifies potential efforts to meet the objectives of the Permit.

1.2 AB/LCC WATERSHED MANAGEMENT AREA

The AB/LCC WMA is located in southern Los Angeles County and has a drainage area of approximately 37.5 square miles. The AB/LCC WMA encompasses the Los Cerritos Channel freshwater watershed, the Los Cerritos Channel estuary watershed and the Alamitos Bay watershed. It is important to note that the AB/LCC Group has very limited jurisdiction in the overall WMA.

Within the AB/LCC WMA, the County has jurisdiction of a 95 acres County Island. The LACFCD operates and maintains storm drains and other appurtenant drainage infrastructure within the AB/LCC WMA. Further description of the LACFCD can be found in Attachment A. This WMP's geographical scope includes the County Island, the LACFCD infrastructure within that island as well as the LACFCD infrastructure within the Los Cerritos Channel estuary and Alamitos Bay watersheds. These watersheds and the areas covered in this WMP are shown in Figure 1.

The LACFCD's drainage infrastructure serves as a conveyance for waters within the watershed and the LACFCD has no jurisdiction over the land uses within the watershed that generate the pollutants of concern. Further description of the LACFCD and its functions is provided in Appendix A.

A detailed description of the Los Cerritos Channel freshwater watershed, the Los Cerritos Channel estuary watershed and the Alamitos Bay watershed can be found in the AB/LCC Group's CIMP.

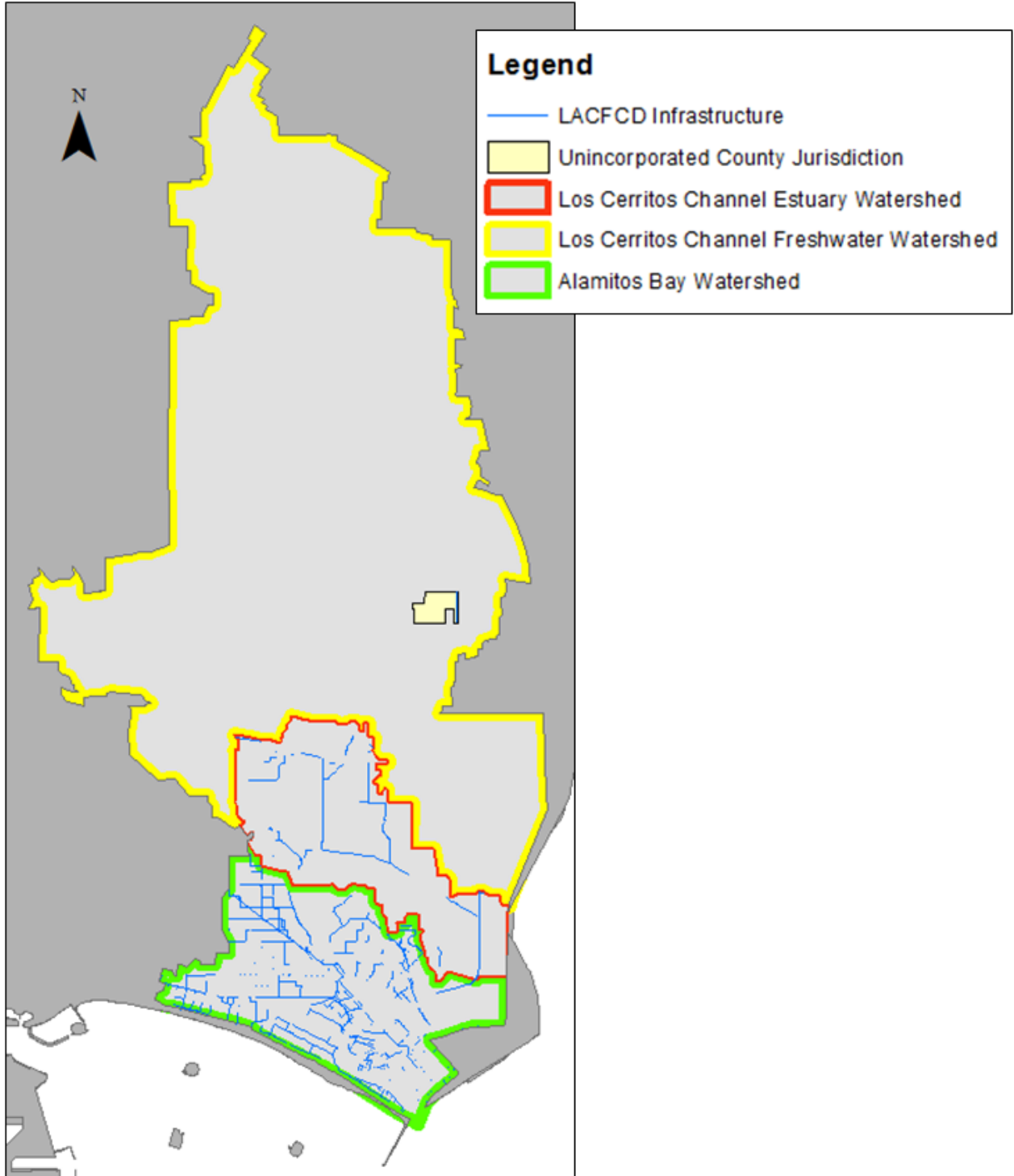


Figure 1: Three Subwatersheds with Alamos Bay/LCC Group Limits

1.3 COUNTY ISLAND

Within the AB/LCC WMA, the County Island is known as the “North Long Beach Island”. The County Island is landlocked by the City of Long Beach (Figure 2). The County Island is 95 acres (0.15 square miles) and is predominantly High-Density Single Family Residential Land Use.



Figure 2: Unincorporated County Island

Within the County Island, is the LACFCD maintained Palo Verde Drain. The Palo Verde Drain is an open channel, rectangular storm drain which discharges into the Los Cerritos Channel.

1.4 WMP GEOGRAPHIC SCOPE

This WMP is focused on areas in which the County has jurisdiction of the land use. The LACFCD does not have jurisdiction over the land uses which its storm drains and other appurtenant drainage infrastructure serve. Those areas will be addressed through other WMPs/Enhanced WMPs.

Section 2. Existing TMDLs Applicable to County Island

Within the AB/LCC WMA, there are 2 existing TMDLs which apply to the County Island.

2.1 LOS CERRITOS CHANNEL METALS TMDL

The Total Maximum Daily Load for Metals in Los Cerritos Channel (LCC Metals TMDL) was approved by the United States Environmental Protection Agency (USEPA) on March 17, 2010. The Metals TMDL was developed to address beneficial use impairments due to Copper, Zinc and Lead in the freshwater portion of the Los Cerritos Channel. The freshwater portion of Los Cerritos Channel has the existing beneficial use of Wildlife Habitat (WILD), the potential beneficial uses of Municipal and Domestic Supply (MUN), Water Contact Recreation (REC1) and the intermittent beneficial uses of Warm Freshwater Habitat (WARM), and Non-contact Water Recreation (REC2).

On June 6, 2013, the Los Angeles Regional Water Quality Control Board (LARWQCB) adopted a resolution which includes an Implementation Schedule for the LCC Metals TMDL. The Implementation Schedule states that MS4 permittees “shall provide a written report to the Regional Los Angeles Water Board outlining how they will achieve compliance with the WLAs. The report shall include implementation methods, an implementation schedule, proposed milestones, and any revisions to the TMDL monitoring plan. An Enhanced Watershed Management Program or Watershed Management Program, including the Reasonable Assurance Analysis, submitted in fulfillment of requirements in Order No. R4-2012-0175 may be used by permittees subject to that Order to satisfy the TMDL implementation plan requirements.” The AB/LCC Group is submitting this WMP to satisfy the Implementation Plan requirements of the LCC Metals TMDL.

2.2 DOMINGUEZ CHANNEL TOXICS TMDL

The Total Maximum Daily Load for Toxic Pollutants in Dominguez Channel and Greater Los Angeles and Long Beach Harbor Waters (DC Toxics TMDL) was adopted by the LARWQCB on May 5, 2011. The DC Toxics TMDL became effective on March 23, 2012. The goal of the TMDL is to protect and restore fish tissue, water and sediment quality in Dominguez Channel and Greater Los Angeles and Long Beach Harbor waters by remediating contaminated sediment and controlling the sediment loading and accumulation of contaminated sediment in the Harbors.

The County and the LACFCD are both listed as responsible parties for the Greater Harbors waterbody. An Implementation Plan is not required for parties tributary to the Greater Harbors, however this WMP will help improve the quality of water discharged to the Greater Harbors.

As recognized by the footnote in Attachment K-7 of the Permit, the County and the LACFCD have entered into an Amended Consent Decree with the United States and the State of California, including the LARWQCB, pursuant to which the LARWQCB has released the County and the LACFCD from responsibility for Toxic pollutants in the Dominguez Channel and the Greater Harbors. Accordingly, no inference should be drawn from the submission of this WMP or from any action or implementation taken pursuant to it that the County or the LACFCD is obligated to implement the DC Toxics TMDL, including this WMP or any of the DC Toxics TMDL’s other

obligations or plans, or that the County or the LACFCD have waived any rights under the Amended Consent Decree.

2.3 BENEFICIAL USES

The County Island is tributary to the freshwater portion of the Los Cerritos Channel, which has beneficial uses identified in Table 1.

Table 1: Beneficial Uses in AB/LCC WMA

Water Body	Beneficial Uses	
Los Cerritos Channel Freshwater Portion	Existing	Wildlife Habitat (WILD)
	Potential	Municipal and Domestic Supply (MUN) Water Contact Recreation (REC1)
	Intermittent	Warm Freshwater Habitat (WARM) Non-contact Water Recreation (REC2)

Section 3. Water Quality Priorities

3.1 OBJECTIVE

Per Section VI.C.5 of the Permit, three categories of pollutants are identified to aid in the evaluation of existing water quality conditions. These classifications consist of:

- Category 1 (Highest Priority): Water body-pollutant combinations for which water quality-based effluent limitations and/or receiving water limitations are established in Part VI.E and Attachments L through R of this Order.
- Category 2 (High Priority): Pollutants for which data indicate water quality impairment in the receiving water according to the State's Water Quality Control Policy for Developing California's Clean Water Act Section 303(d) List (State Listing Policy) and for which MS4 discharges may be causing or contributing to the impairment.
- Category 3 (Medium Priority): Pollutants for which there are insufficient data to indicate water quality impairment in the receiving water according to the State's Listing Policy, but which exceed applicable receiving water limitations contained in this Order and for which MS4 discharges may be causing or contributing to the exceedance"

The AB/LCC Group is coordinating portions of its monitoring efforts, where feasible with the Los Cerritos Channel Watershed Group (LCCWG). The LCCWG consists of the cities of Bellflower, Cerritos, Downey, Lakewood, Long Beach, Paramount and Signal Hill. Additionally, the LCCWG contains the LACFCD's infrastructure within these cities' jurisdiction. See Figure 3 for the geographical boundaries of the LCCWG.

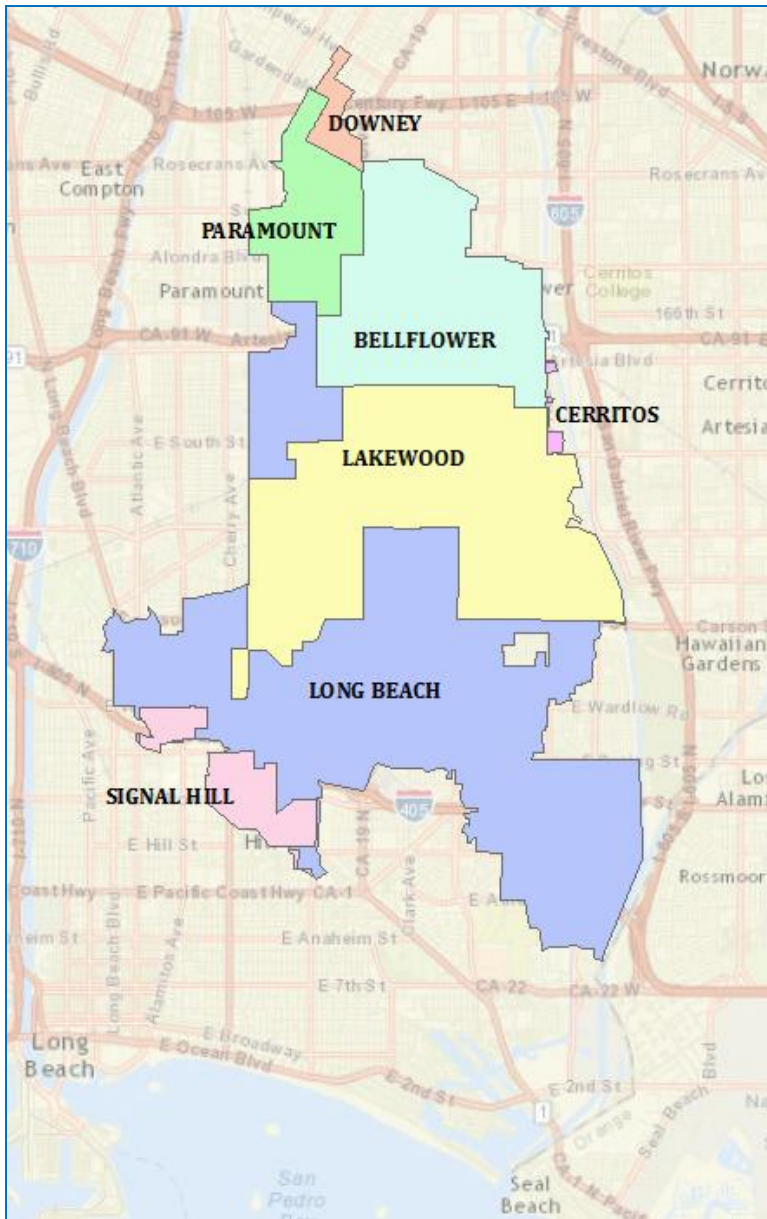


Figure 3: Los Cerritos Channel Watershed Group (LCCWG)

For consistency with the LCCWG, the AB/LCC Group has also identified Low Priority Pollutants. These pollutants fall below the requirements of Category 3, however there has been at least one exceedance of these pollutants within the past 10 years. Consistent with the requirements of the Permit, existing TMDLs and the 303(d) list were used to determine Category 1 and 2 pollutants. Historic monitoring data collected from the Stearns Street Station (Figure 4) was used to determine Category 3 and low priority pollutants. Table 2 lists the pollutants of concern for the freshwater portion of the Los Cerritos Channel.

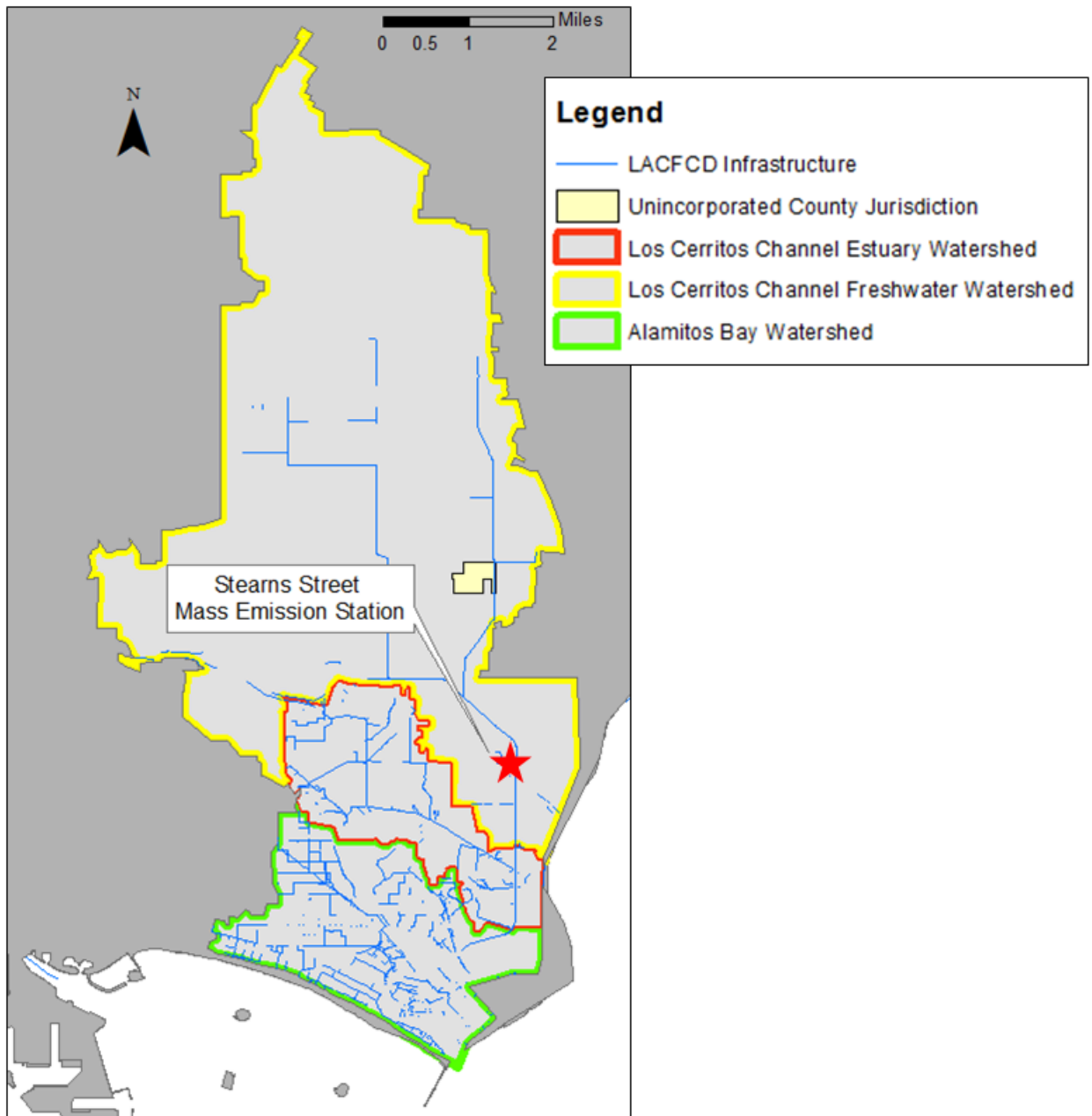


Figure 4: Stearns Street Mass Emission Station Location

3.2 STEARNS STREET MASS EMISSION SITE

The AB/LCC Group has completed a detailed review of monitoring data from the Stearns Street Mass Emission Stations. The City of Long Beach has maintained this mass emission station since 2000. Upon implementation of the LCCWG and the AB/LCC Group’s CIMPs, the City of Long Beach will coordinate with other agencies for the operation and maintenance of the Stearns Street Site. Figure 4 shows the location of the Stearns Street station within the Los Cerritos Channel Watershed. The County Island’s along with other Permittees’ discharge is comingled at this location. Appendix B summarizes the subject data from the past 10 years.

3.3 CATEGORY 1 (HIGHEST PRIORITY)

For the County Island, the highest priority pollutants are identified in the Los Cerritos Channel Total Maximum Daily Loads for Metals (LCC Metals TMDL) and the Total Maximum Daily Load for Toxic Pollutants in Dominguez Channel and Greater Los Angeles and Long Beach Harbor Waters (DC Toxics TMDL). A complete list can be found in Table 3.

3.4 CATEGORY 2 (HIGH PRIORITY)

The high priority pollutants are those identified on the 303(d) list for Los Cerritos Channel. Note that the Unincorporated County Island is tributary to the Los Cerritos Channel via the Palo Verde Drain. Category 2 pollutants are identified in Table 2. Copper, Lead and Zinc have been promulgated and are considered Category 1 pollutants per their listing in the LCC Metals TMDL.

Table 2: Category 2: High Priority Pollutants- Freshwater Portion of Los Cerritos Channel

Water Body	Category 2 (High Priority)
Los Cerritos Channel	Ammonia Bis(2ethylhexyl) phthalate (DEHP) Chlordane (Sediment) Coliform Bacteria Copper* Lead* Trash Zinc*

* Indicates that a TMDL has been promulgated for this pollutant.

3.5 CATEGORY 3 (MEDIUM PRIORITY)

A thorough analysis was conducted on data from 2003 to 2013 from the Stearns Street Mass Emission Station. The Permit defines Category 3 pollutants as those “for which there are insufficient data to indicate water quality impairment in the receiving water according to the State’s Listing Policy, but which exceed applicable receiving water limitations contained in this Order and for which MS4 discharges may be causing or contributing to the exceedance.” The pollutants that meet the criteria for Category 3 are methylene blue active substances (MBAS) and enterococcus. For a detailed analysis see Appendix B

3.6 LOW PRIORITY POLLUTANTS

Low Priority pollutants of concern for the freshwater portion of the Los Cerritos Channel are identified as those that fall below the requirements of Category 3, however there has been at least one exceedance of these pollutants within the past 10 years. In review of the data from the Stearns Street Site, Cadmium, Chlorpyrifos, Chromium and Dissolved Silver meet this criteria for wet weather and Diazinon meets this criteria for wet and dry weather.

3.7 SUMMARY

In summary, Table 3 lists all pollutant categories applicable to the County Island.

Table 3: Water Quality Priorities for the Freshwater Portion of the Los Cerritos Channel

Waterbody	Category 1 (Highest Priority)		Category 2 (High Priority) Pollutants	Category 3 (Medium Priority) Pollutants	Low Priority Pollutants
	Pollutant	TMDL			
Los Cerritos Channel	Copper (wet and dry)	LCC Metals	Ammonia	MBAS	Cadmium (wet)
	Lead	LCC Metals/DC Toxics	Bis(2ethylhexyl) phthalate (DEHP)	Enterococcus	Chlorpyrifos (wet)
	Zinc	LCC Metals/DC Toxics	Chlordane (Sediment)		Chromium (wet)
	DDT (fish tissue)	DC Toxics	Coliform Bacteria		Diazinon (wet and dry)
	PCBs (fish tissue)	DC Toxics	Trash		Dissolved Silver (wet)
	Chlordane (fish tissue)	DC Toxics	pH		
	PAHs (sediment)	DC Toxics			
	Toxicity (sediment)	DC Toxics			

Section 4. Watershed Control Measures

4.1 OBJECTIVE

Per Section VI.C.5 of the Permit, permittees shall provide documentation that they have the necessary legal authority to implement the Watershed Control Measures identified in the plan, or that other legal authority exists to compel implementation of the Watershed Control Measures. The legal authority for the County and LACFCD to implement Watershed Control Measures can be found in Appendix C and D respectively.

Additionally, Section VI.5.b.i of the Permit requires Permittees to identify strategies, control measures, and to implement BMPs through their individual storm water management programs, and collectively on a watershed scale, with the goal of creating an efficient program to focus individual and collective resources on watershed priorities. The objectives of the Watershed Control Measures include:

- (1) Prevent or eliminate non-storm water discharges to the MS4 that are a source of pollutants from the MS4 to receiving waters.
- (2) Implement pollutant controls necessary to achieve all applicable interim and final water quality-based effluent limitations and/or receiving water limitations pursuant to corresponding compliance schedules.
- (3) Ensure that discharges from the MS4 do not cause or contribute to exceedances of receiving water limitations

4.2 CONTROL MEASURES

The AB/LCC Group has identified numerous control measures, or BMPs for the County Island. Due to the limited area of the County Island there is little room for large-scale BMPs although the AB/LCC Group will investigate opportunities to collaborate with other permittees. Potential non-structural BMPs applicable to the County Island include enhanced street sweeping, and increased catch basin cleanouts. Potential structural BMPs would be those that require a small footprint such as pervious catch basins and full capture devices. A detailed evaluation of potential BMPs for the County Island can be found in the Section 5 of this WMP.

4.3 MINIMUM CONTROL MEASURES

Section VI.D.4 of the Permit provides requirements for minimum control measures for the LACFCD and Section VI.D.5-10 provides requirements for each permittee.

4.3.1 MCM Requirements for the LACFCD

In general, the requirements for the LACFCD involve:

- Implementing a Public Information and Participation Program (PIPP)
- For LACFCD Industrial or Commercial Facilities, comply with section VI.D.6 of the Permit
- Implementing a Public Agency Activities Program
- Continuing to implement an Illicit Connection and Illicit Discharge Program

The LACFCD is currently implementing all of these requirements and will continue to do so for the duration of this Permit.

4.3.2 MCM Requirements for the County of Los Angeles

In general, the requirements for each permittee involve:

- Implementing a Public Information and Participation Program (PIPP)
- For each Permittee's Industrial or Commercial Facilities, comply with section VI.D.6 of the Permit
- Implementing a Planning and Land Development Program pursuant to Section VI.D.7.b for all New Development and Redevelopment projects subject to the Permit
- Developing a Construction Program subject to Section VI.D.8 of the Permit
- Implementing a Public Agency Activities Program
- Continuing to implement an Illicit Connection and Illicit Discharge Program

The County will implement all of these requirements upon approval of this WMP and will continue to do so for the duration of this Permit.

Section 5. Reasonable Assurance Analysis

5.1 OBJECTIVE

Per Section VI.C.5.b.iv.5 of the Permit the AB/LCC Group has conducted a Reasonable Assurance Analysis (RAA) for the areas in which it has jurisdiction of the land use. The Permit requires:

- A RAA shall be quantitative and performed using a peer-reviewed model in the public domain.
- The RAA shall commence with assembly of all available, relevant subwatershed data collected within the last 10 years, including land use and pollutant loading data, establishment of quality assurance/quality control (QA/QC) criteria, QA/QC checks of the data, and identification of the data set meeting the criteria for use in the analysis.
- Data on performance of watershed control measures needed as model input shall be drawn only from peer-reviewed sources. These data shall be statistically analyzed to determine the best estimate of performance and the confidence limits on that estimate for the pollutants to be evaluated.
- The objective of the RAA shall be to demonstrate the ability of Watershed Management Programs and EWMPs to ensure that Permittees' MS4 discharges achieve applicable water quality based effluent limitations and do not cause or contribute to exceedances of receiving water limitations.

Additionally, the LARWQCB has released "Guidelines for Conducting Reasonable Assurance Analysis in Watershed Management Program, including an Enhanced Watershed Management Program dated March 25, 2014" (RAA Guidelines). The RAA Guidelines were prepared to provide clarification of the permit requirements regarding the RAA, along with recommended criteria for the permittees to prepare an appropriate RAA for LARWQCB approval.

This section documents the analysis and results of the RAA effort to address discharges originating from the County Island. Further, a comprehensive phased approach of BMP implementation is provided. The benefits of BMPs are estimated, in terms of pollutant load reductions, to meet applicable wasteload allocations (WLAs) within the Alamitos Bay/LCC WMA.

5.2 WATER QUALITY MODEL/APPROACH

The AB/LCC Group utilized the Watershed Management Modeling System (WMMS) to model flows and pollutant loading originating from the County Island. WMMS is a LARWQCB approved model developed as a comprehensive decision support system to help select BMPs, to aid watershed planning and development of strategic TMDL compliance plans.

The following approach was used for conducting the RAA:

1. Identify land area for analysis
2. Run WMMS for identified land area for a 10 year period (October 15, 2000 to April 15, 2011)

3. Select Critical Condition storm
4. Determine Critical Condition Daily Pollutant Load
5. Compare Critical Condition Daily Pollutant Loads to WLA limits
6. Identify non-structural and structural BMPs
7. Develop schedule to meet needed percent reductions

5.2.1 Land Area Identification

The RAA was conducted for areas in which the AB/LCC Group has jurisdiction over the land use. Accordingly, the 95 acre County Island was modeled. The County Island is located completely within WMMS sub basin 5505. The WMMS model was prepared to isolate only those land uses of the County Island.

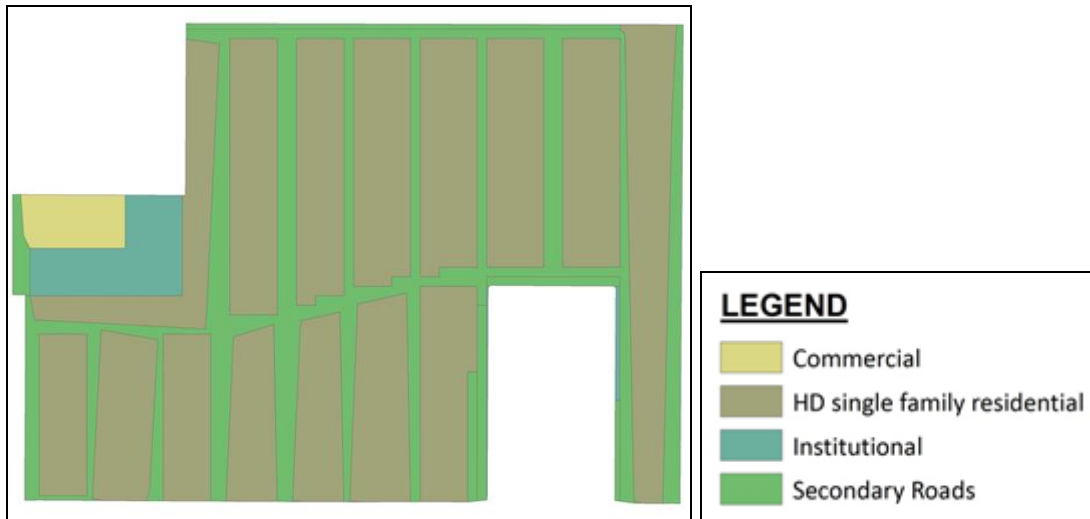


Figure 5: Unincorporated County Island HRU Map

The Unincorporated County Island Hydrologic Response Units (HRU) and associated Impervious Area distribution is presented in Figure 5 and Table 4.

Table 4: HRU Breakdown for County Island

HRU ID	HRU Description	Area (acre)	Impervious Area (acre)	Impervious Area (acre)
1	High Density, Single Family Residential	63.27	42%	26.57
5	Commercial	1.98	96%	1.90
6	Institutional	4.01	75%	3.01
9	Secondary Roads	25.39	44%	11.17

5.2.2 WMMS Analysis

WMMS was populated with the most current information available for input into model. At the time of analysis, data from the 2000-2001 to the 2000-2011 Storm Seasons (October 15, 2001 to April 15, 2011) was available. As there is no specific monitoring data for the County Island, WMMS analysis was conducted utilizing built-in parameters. The WMMS output utilizing the built-in parameters included hourly/daily storm volumes as well hourly/daily pollutant loading. The WMMS input files used for analysis are included as a CD-ROM attachment to this document.

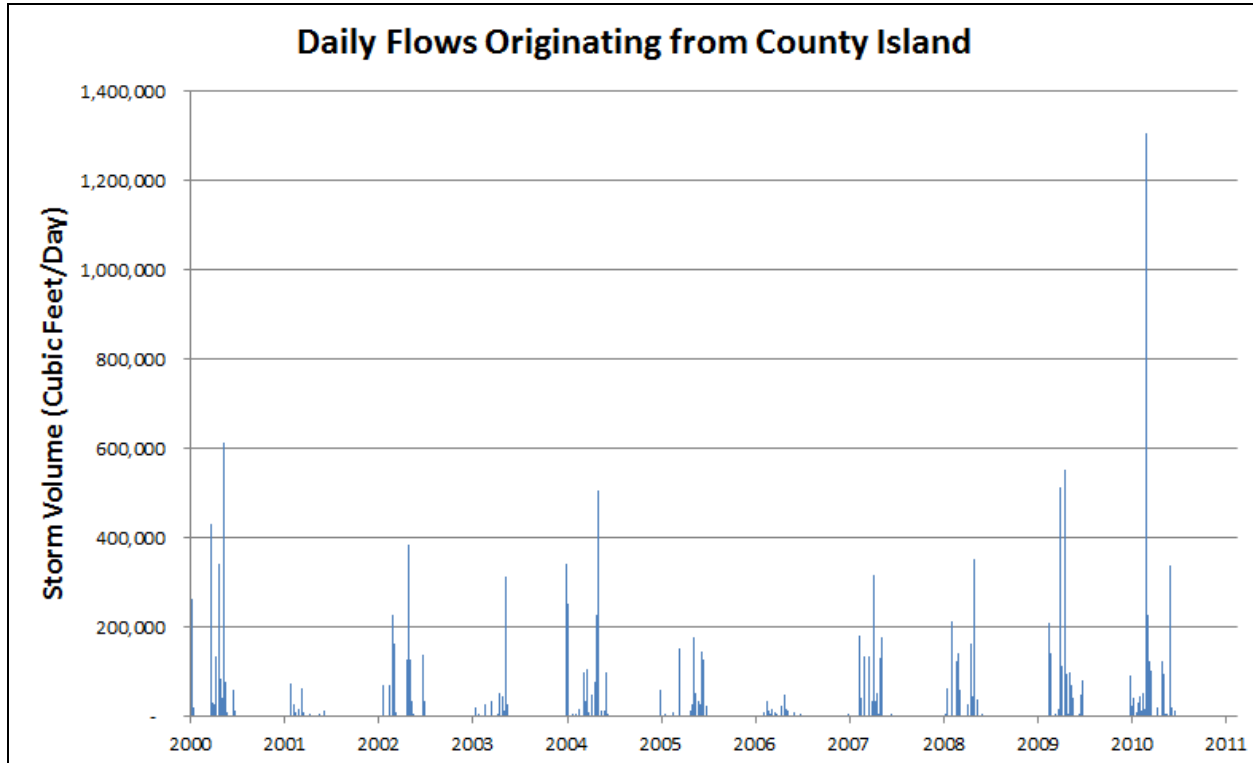


Figure 6: Daily Flows Originating from County Island

5.2.3 Critical Storm

Per the RAA Guidelines, the 90th percentile flow volume was to be determined. Accordingly all storms occurring between October 15, 2001 to April 15th 2011 were ordered based on the magnitude of their storm volume (Figure 7). The 90th percentile (Critical Condition) storm was then selected. For the County Island the Critical Condition storm was selected as a storm event which occurred on February 5, 2009.

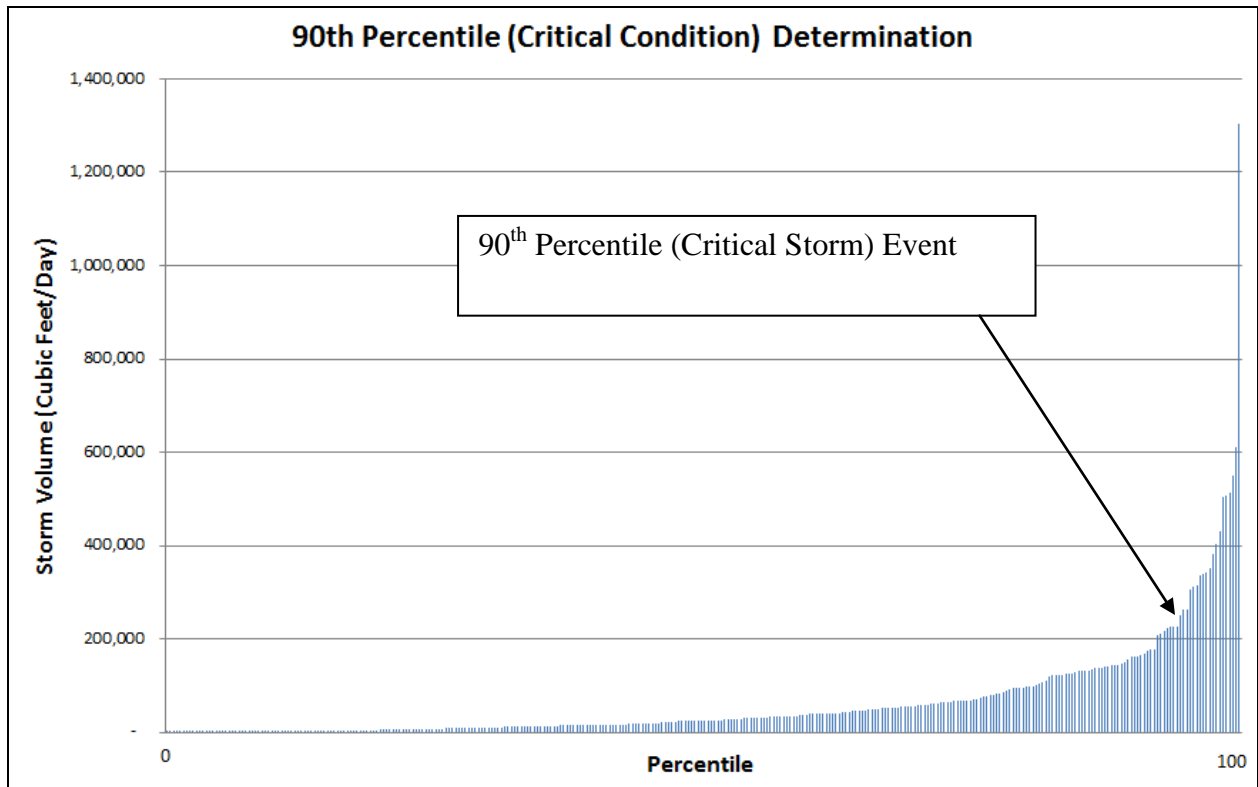


Figure 7: County Island Storms Ordered by Storm Volume

5.2.4 Critical Condition Daily Pollutant Load

The WMMS output was then analyzed and the Critical Condition Daily Pollutant Loading was identified. Daily Loads of Copper, Lead and Zinc were selected:

- Critical Condition Daily Pollutant Copper Loading: 0.08 kg
- Critical Condition Daily Pollutant Lead Loading: 0.078 kg
- Critical Condition Daily Pollutant Zinc Loading: 0.764 kg

For the February 5, 2009 Critical Storm event, the 24-hour volume was determined to be 3.7 acre-feet. Utilizing the BMP Selection module of WMMS, by utilizing stormwater capture BMPs, an approximate 40% reduction in flow would be needed.

5.2.4.1 Comparison of Daily Pollutant Loads to WLA Limits

WLA for Copper, Lead and Zinc were identified in the LCC Metals TMDL. Limits in DC Toxics TMDL were also identified however due to the County’s minimal land area tributary to the San Pedro Bay (less than 0.5% of the watershed) reasonable allocations could not be determined. The County Island’s contribution to the San Pedro Bay will be determined based on actual monitoring results from implementation of the AB/LCC Group’s CIMP. The Critical Condition Daily Pollutant Loads from WMMS were then compared to the WLA from the LCC Metals TMDL (Table 5).

Table 5: Analysis Based on WMMS Results

Critical Condition Storm	Copper			Lead			Zinc		
	Daily Pollutant Load (kg)	TMDL Allowable Daily Load (kg)	Required Load Reduction (kg)	Daily Pollutant Load (kg)	TMDL Allowable Annual Load (kg)	Required Annual Load Reduction (kg)	Daily Pollutant Load (kg)	TMDL Allowable Annual Load (kg)	Required Annual Load Reduction (kg)
February 5, 2009 (3.7 acre-feet)	0.080	0.022	0.059	0.078	0.123	0.000	0.764	0.211	0.552
% Reduction Required	73%			0%			72%		

Key conclusions from the comparison are:

- Lead is within the required TMDL limits
- Copper requires the highest reduction however based on an analysis of SB 346 will not be the controlling agent (see Section 5.1.5.2 for more information)
- Zinc will be the controlling agent

The RAA is conducted under the assumption that if the controlling agent is reduced to the required WLA, all other metals will also be in compliance.

5.2.5 Identification of Potential Non-Structural and Structural BMPs

The implementation of non-structural and structural BMPs aims to build a reasonable approach to achieve the required percent reduction of the controlling agent. For the AB/LCC Group the controlling agent is Zinc, which requires a 72% reduction. The AB/LCC Group plans to achieve this reduction through a combination of existing and planned control measures, then, if necessary through additional BMP implementation. It should be noted that the LCC Metals TMDL has a final compliance milestone of September 2026; accordingly the implementation of BMPs will rely heavily on the results of monitoring data provided by the AB/LCC Group’s CIMP.

The sections below list existing and planned BMPs as well as identify potential BMPs for the AB/LCC Group.

5.2.5.1 Low Impact Development (Existing Non-Structural BMP)

The County’s revised Low Impact Development (LID) Ordinance was adopted by the Los Angeles County Board of Supervisors in November 2013. Shortly after the adoption of the Ordinance the County developed a LID Manual .

The LID Manual details two types of projects, Designated Projects and Non-Designated Projects. Designated Projects must infiltrate the entire volume of the Water Quality Design Storm

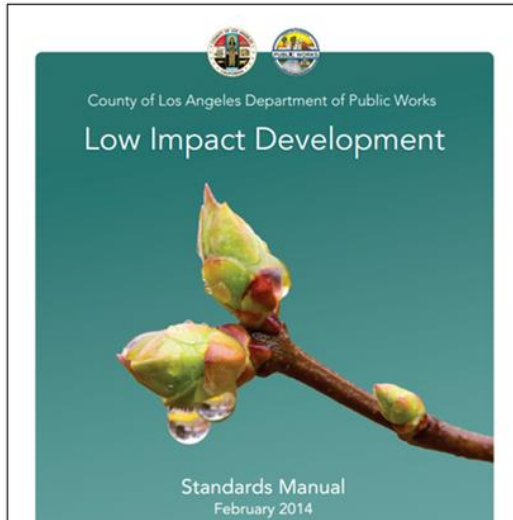


Figure 8: County's Low Impact Development Manual

(WQDS). The WQDS is calculated to be either the 0.75 inch storm or the 85th percentile storm, whichever is greater. The WQDS is intended to be design storm which provides the maximum benefit for minimal cost. Designated projects include:

- Sites disturbing 1 acre or more and adding 10,000 sq ft + impervious area
- Industrial parks 10,000 sq ft + impervious area
- Commercial malls 10,000 sq ft + impervious area
- Gas outlets 5,000 sq ft + impervious area
- Restaurants 5,000 sq ft + impervious area
- Parking lots 5,000 sq ft + impervious area or 25 + parking spaces
- Auto facilities 5,000 sq ft + impervious area
- Redevelopment projects adding, replacing, creating 5,000 sq ft + impervious area
- Sites within Significant Ecological Area that impact sensitive species or habitat and create 2,500 sq ft + impervious area

If infiltration is not feasible at the designated projects sites, the LID Manual provides other options for meeting compliance.

The LID Manual also provides requirements for Non-Designated Projects. These requirements are residential projects of 4 units or less that do not fall under the designated project thresholds. The property developer must choose 2 of the following BMPs:

- Porous Pavement
- Cistern/Rain Barrel
- Rain Garden/Planter Box
- Disconnect Impervious Surfaces
- Dry Well
- Landscaping and Landscape Irrigation
- Green Roof

Non-Designated Projects that are residential projects of 5 units or more or a non-residential project must infiltrate the post-development WQDS runoff minus pre-development WQDS runoff. The LID Manual also provides additional compliance requirements for special cases such as single family hillside homes. Further details can be found in the County of Los Angeles' Low Impact Development Manual, dated February 2014.

A majority of the County Island is high-density single family residential. The County's LID Ordinance requires:

- Redevelopment of an existing single family house would be a "non-designated project". LID would be required if there is "addition or alteration" of impervious surfaces.
- If a property owner adds or alters 50% of the impervious surface, then property owner would have to treat the WQDS for the entire site.
- If the property owner adds or alters less than 50% of their site, then the property owner would need LID only for the portion that has been altered
- Redevelopment of a property over 5,000 square would be a "designated project". The property owner would need to infiltrate the volume of runoff created. If they are unable to infiltrate the proper owner would be subject to other mitigation options.

Assuming a limited rate of implementation for the County Island a 1% reduction for Zinc is applied to the Critical Condition Daily Pollutant Load.

5.2.5.2 Senate Bill 346 (Existing Non-Structural BMP)

In 2010, California Senate Bill SB 346 (SB 346) was enacted to nearly eliminate the use of copper in brake pads. In 2012 TDC Environmental LLC prepared a draft detailed memo (TDC memo) describing the expected percent reduction of copper reductions. The TDC memo identifies 3 possible implementation scenarios:

- One Step Reduction
 - All new vehicles and replacement brake pads are reformulated to contain less than 0.5% copper by January 1, 2021 (first SB 346 compliance deadline).
- Two Step Reduction
 - New vehicle brake pads are reformulated to contain less than 5% copper by January 1, 2021 and less than 0.5% copper by 2025. It would be assumed that all higher copper replacement brakes would be sold within two years of each compliance date.
- Aftermarket Exemption
 - New vehicle brake pads are reformulated to contain less than 5% copper by January 1, 2021 and less than 0.5% copper by 2025. This scenario assumes that higher copper replacement brakes would continue to be sold indefinitely.

Of these cases, Scenario 1 is considered to be the most optimistic. All scenarios were then analyzed to over a fourteen year period. The TDC memo determines the following copper reductions by the year 2032:

- Scenario 1: 61% copper reduction
- Scenario 2: 61% copper reduction
- Scenario 3: 55% copper reduction

5.2.5.3 Enhanced Street Sweeping (Planned Non-Structural BMP)

Street sweeping is well-known non-structural BMP, which removes trash, natural debris and sediment from roads and parking lots. Street sweeping can improve the quality of stormwater runoff by reducing the amount of sediment-bound pollutants that enter catch basins, storm drains and eventually receiving waters.

The County Island is currently swept once a week, mostly by mechanical broom sweepers. The County currently maintains a fleet of 48 street sweepers, 38 of which are mechanical broom sweepers and 10 are regenerative-air sweepers. The AB/LCC Group reviewed numerous studies related to street sweeping including:

- Potential Effects of Structural Controls and Street Sweeping on Stormwater Loads to the Lower Charles River, Massachusetts Study
- City of San Diego, Targeted Aggressive Street Sweeping Pilot Study

These studies note that efficient street sweepers such as assisted-vacuum or regenerative-air sweepers are the best machines when it comes to removing finer grained contaminants bound to sediment. Also the City of San Diego Study found that the assisted vacuum sweeper outperformed the regenerative-air sweeper.

Over the next few years, the County will upgrade a portion of its mechanical broom street sweepers with new high efficiency vacuum street sweepers. Additionally, the County will be conducting a special study to demonstrate the High-Efficiency Vacuum Street Sweepers effect on water quality.

Based on thorough literature review the AB/LCC Group has assumed a 5% reduction of Zinc for its efforts in upgrading its fleet to high efficiency vacuum sweepers. This reduction considers the fact that the County Island has very little slope and it is assumed that sediment is retained in the curb and gutter of the County Island. Accordingly, it is expected that the vacuum sweeper will collect a large amount of sediment that would otherwise be mobilized into the receiving water during a storm event.

5.2.5.4 Irrigation Ordinance (Existing/Potential Non-Structural BMP)

On October 7, 2008 the County of Los Angeles Board of Supervisors adopted Ordinance No. 2008-00052U, which states that:

- “No person shall hose water or wash down any sidewalks, walkways, driveways, parking areas of other paved surfaces, except as is required for the benefit of public health and safety.”
- “No person shall water or cause to be watered any lawn or landscaping to such an extent that runoff into adjoining streets, parking lots or alleys occurs due to incorrectly directed or maintained sprinklers or excessive watering.”
- “No motor vehicle, boat, trailer, or other type of mobile equipment may be washed, except at a commercial carwash or with reclaimed water, unless such vehicle is washed by using a hand-held bucket or a water-hose equipped with an automatic shutoff nozzle.”

Violations of the subject ordinance are subject to fines. This is an existing BMP however depending on budgetary needs the County may allocate additional resources to increase enforcement of this ordinance.

5.2.5.5 Full Capture Devices (Planned Structural BMP)

In April 2007, after extensive research, testing, and development, the County submitted a Full-Capture Device Technical Report for the connector pipe screen (CPS) device to the LARWCQB. The CPS device was subsequently certified by the LARWCQB as an approved full-capture device on August 1, 2007. The LARWCQB has stated “a full-capture system is any single device or series of devices that traps all particles retained by a 5-millimeter mesh screen (100 percent trash removal) and has a design treatment capacity of not less than the peak-flow rate resulting from a one-year, one-hour, storm in the subdrainage area.” CPS devices are designed to reduce trash but also provide the ancillary benefit of reducing sediment from entering the storm drain system.

The County has successfully implemented CPS units in many of unincorporated County Islands. The County plans to implement CPS devices on the 4 catch basins within its jurisdiction in the AB/LCC WMA by July of 2017. Construction of the CPS devices is contingent upon appropriate field conditions and a thorough design review. CPS devices cannot be installed in areas where they may adversely affect flood protection or in catch basins that are too shallow to house CPS devices.

After a review of the County of Los Angeles’s “Multi-Pollutant TMDL Implementation Plan for the Unincorporated County Area of Ballona Creek” a 2% reduction of Zinc has been assumed.

5.2.5.5.1 Increased Catch Basin Cleanout (Planned Non-Structural BMP)

As a function of installing CPS devices the County will increase its cleaning frequency of the catch basins in this County Island. Currently catch basins within this County Island are cleaned on a yearly basis. Once CPS devices are installed the County maintenance will be increased to:

- Monthly inspection during Storm Season (October 1 to April 30)
- Inspection after Major Storms
- Cleanouts will be done as needed following up these inspections
- 1 inspection/cleanout during Dry Season (May 1 to September 30)

Based on this increase frequency a 2% of Zinc reduction has been assumed.

5.2.5.6 Biofiltration System (Potential Structural BMP)

If needed, the County has identified Biofiltration Systems as potential structural BMPs that would benefit water quality in this County Island. These systems would be installed in road parkways upstream of existing catch basins. The Biofiltration system utilizes screening, hydrodynamic separation, media filtration and bio retention to treat storm water and dry weather flows.

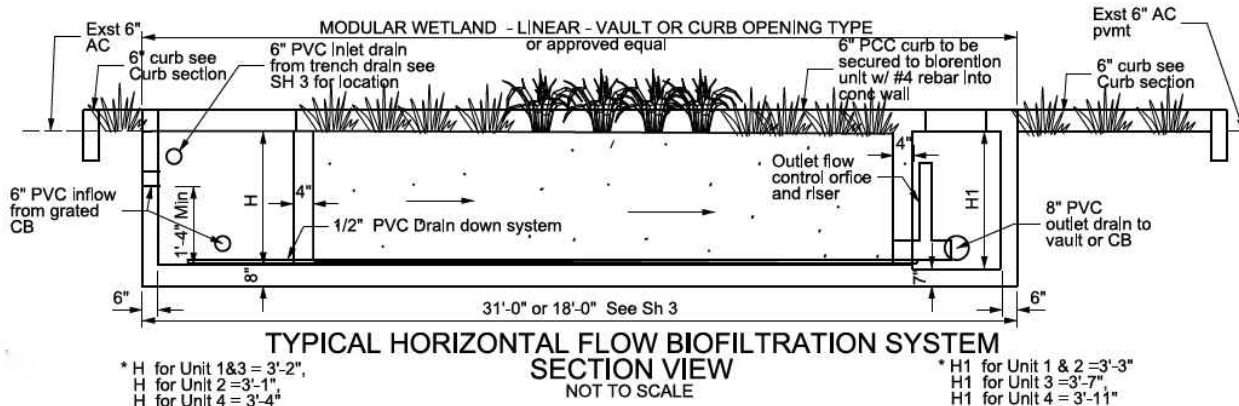


Figure 9: Typical Biofiltration System

Biofiltration Systems have demonstrated 79% efficiency in Zinc removal (Modular Wetlands). The County is currently installing these systems as part of water quality projects in other watersheds, and is evaluating their effectiveness.



Figure 10: Potential Biofiltration System Location

The County has identified the need for appropriate water quality monitoring data in the AB/LCC WMA before determining the number and location of Biofiltration Systems to be installed. This schedule is outlined in Section 5.2.6.

5.2.5.7 Drainage Filtration Catch Basin (Potential Structural BMP)

Drainage Filtration Catch Basins may potentially be used to reduce the amount of runoff which leaves the County Island.

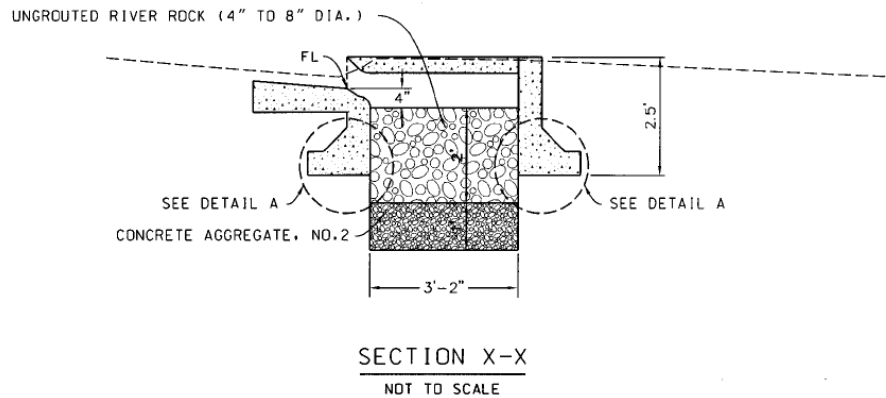


Figure 11: Drainage Filtration Catch Basin Typical Section

Drainage Filtration Catch Basin Systems have been utilized in numerous locations around the County. Their implementation is dependent on the local soils infiltration capacity as well as available space in the public road parkway. Preliminary analysis of nearby groundwater wells shows adequate infiltration depths may be available. However, before feasibility is determined a site-specific analysis is required on soil infiltration rates.



Figure 12: Potential Drainage Filtration Catch Basin Locations

The County has identified the need for appropriate water quality monitoring data before determining the number and location of Drainage Filtration Catch Basins to be installed. A schedule of monitoring and BMP implementation is presented in in Section 5.2.6.

5.2.5.8 LACFCD Right of Way Infiltration (Potential BMP)

The AB/LCC Group has identified a potential project along the Palo Verde Drain.



Figure 13: Potential Right of Way Project along Palo Verde Drain

The LACFCD's right of way along the Palo Verde Drain is frequently used by pedestrians. A potential greenway project incorporating habitat, water quality and recreation features could be implemented at this location. Implementation of all BMPs including this potential right of way project is contingent upon the results of monitoring from the AB/LCC Group's CIMP as well as budgetary considerations. If results of monitoring determine the need for additional BMPs the LACFCD and the County will collaboratively investigate the feasibility of this project.

5.2.6 Schedule to Meet Needed Percent Reductions

By September 2026, an estimated 72% reduction of Zinc is needed to meet the appropriate WLAs. The following reductions are assumed for existing and planned BMPs:

- Low Impact Development Ordinance 1%
- Enhanced Street Sweeping 5%
- Full Capture Devices 2%
- Increased Catch Basin Cleanout 2%

After considering existing and planned BMPs the RAA suggests a remaining 62% reduction of Zinc is required.

Utilizing the 90th Percentile Day Volume of 3.7 acre feet, an approximate 40% reduction in flow would need to be mitigated or treated through a flow through BMP system. The AB/LCC Group

will determine the need for a potential structural BMP based on the results of monitoring identified in the AB/LCC Group’s CIMP. The CIMP presents a phased monitoring approach of:

1. Identifying receiving water quality of commingled discharges
2. If commingled discharges lead to exceedances of WLAs, then a County specific monitoring program will be implemented
3. If County specific discharges produce exceedances of WLAs, structural BMPs will be planned and implemented contingent upon available funding.
4. Upon effectiveness monitoring of potential BMPs, monitoring of the County Island would cease.

Figure 14 presents a flow chart outlining the AB/LCC Group’s approach. Implementation of the future monitoring is dependent upon LARWQCB approval of appropriate CIMPs and is subject to change.

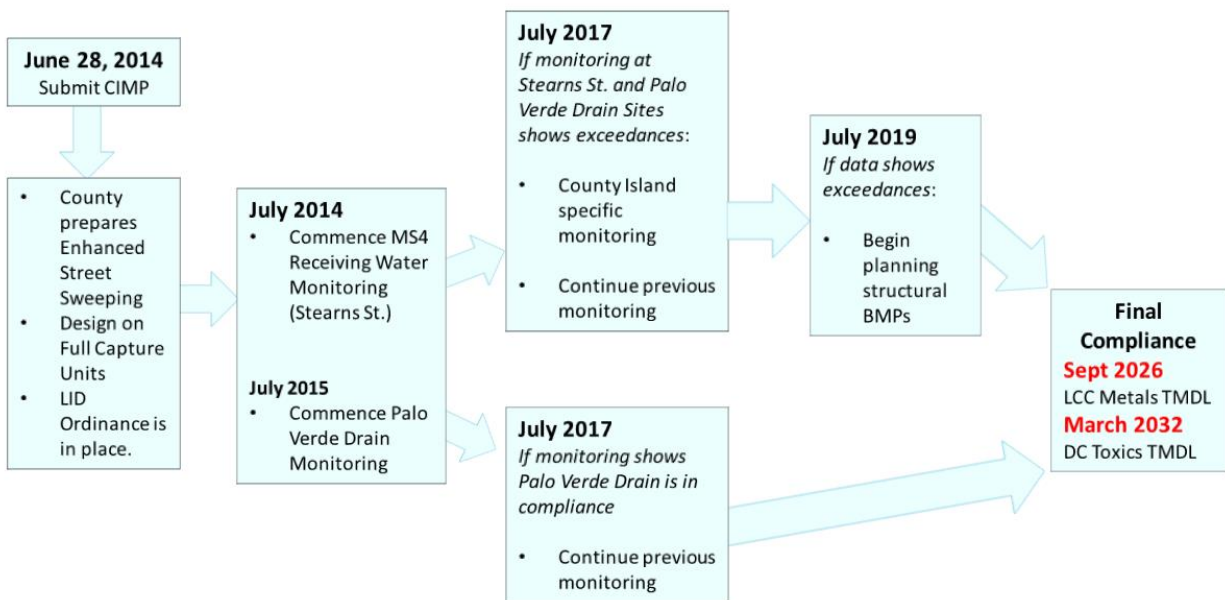


Figure 14: County’s Compliance Approach

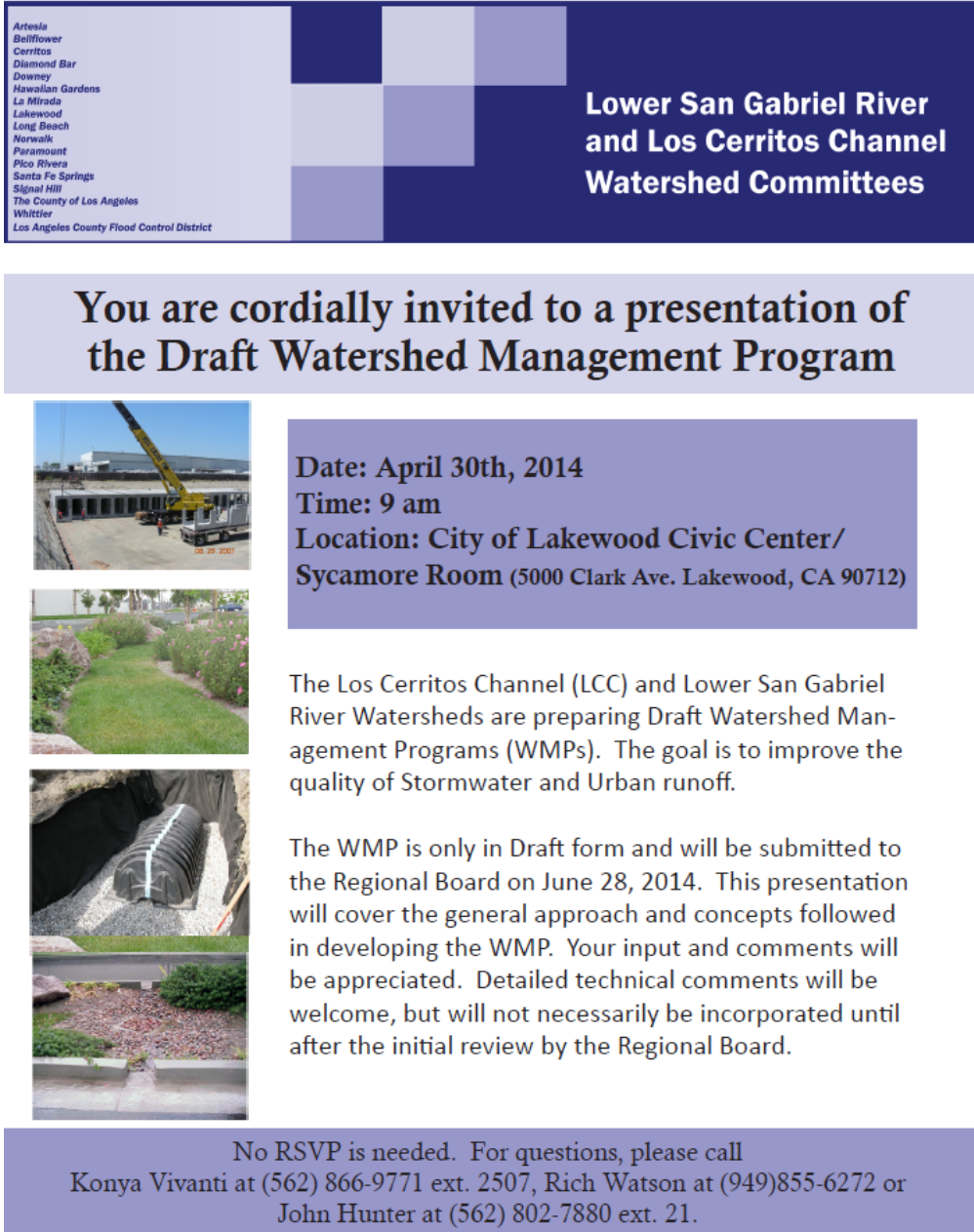
Notable compliance milestones are presented below:

- September 2017: 30% dry weather, 10% wet weather reduction (LCC Metals TMDL)
- September 2020: 70% dry weather, 35% wet weather (LCC Metals TMDL)
- September 2026 Final Compliance (LCC Metals TMDL)
- March 2032 Final Compliance (DC Toxics TMDL)

Through the RAA process the AB/LCC Group has identified potential structural BMPs locations including roadway parkways and the LACFCD’s right of way along the Palo Verde Drain. The implementation of a selected structural BMP is subject to its necessity based on water quality monitoring as well as the availability of adequate funding.

Section 6. Stakeholder Input

On April 30, 2013 the AB/LCC Group partnered with the Lower San Gabriel River and Los Cerritos Channel Groups to host a stakeholder outreach meeting. The purpose of the meeting was to provide Stakeholders an update on the WMP/CIMP planning process and allow Stakeholders to provide input on the plans. In general, the three watershed groups received positive remarks from the Stakeholders. The notification which was sent to appropriate stakeholders is shown in figure 15.



The graphic is a stakeholder outreach notification for a presentation of the Draft Watershed Management Program. It features a dark blue header with the title 'Lower San Gabriel River and Los Cerritos Channel Watershed Committees' and a list of member communities. Below the header is a light blue banner with the invitation text. The main body contains three photographs: a construction site with a crane, a landscaped garden, and a stormwater management structure. To the right of the photos is a purple box with the event details. At the bottom is another purple box with contact information.

Artesia
Bellflower
Cerritos
Diamond Bar
Downey
Hawthorn Gardens
La Mirada
Lakewood
Long Beach
Norwalk
Paramount
Pico Rivera
Santa Fe Springs
Signal Hill
The County of Los Angeles
Whittier
Los Angeles County Flood Control District

Lower San Gabriel River and Los Cerritos Channel Watershed Committees

You are cordially invited to a presentation of the Draft Watershed Management Program

Date: April 30th, 2014
Time: 9 am
Location: City of Lakewood Civic Center/ Sycamore Room (5000 Clark Ave. Lakewood, CA 90712)

The Los Cerritos Channel (LCC) and Lower San Gabriel River Watersheds are preparing Draft Watershed Management Programs (WMPs). The goal is to improve the quality of Stormwater and Urban runoff.

The WMP is only in Draft form and will be submitted to the Regional Board on June 28, 2014. This presentation will cover the general approach and concepts followed in developing the WMP. Your input and comments will be appreciated. Detailed technical comments will be welcome, but will not necessarily be incorporated until after the initial review by the Regional Board.

No RSVP is needed. For questions, please call Konya Vivanti at (562) 866-9771 ext. 2507, Rich Watson at (949)855-6272 or John Hunter at (562) 802-7880 ext. 21.

Figure 15: Stakeholder Outreach Notification

Section 7. Adaptive Management Process

7.1 OBJECTIVE

Per Section VI.C.8 of the Permit, the AB/LCC Group will implement an adaptive management process every two years from the approval date of the WMP. The adaptive management process will allow the WMP to become more effective and is based on upon consideration such as:

- Progress toward achieving interim and/or final water-quality based effluent limitations and/or receiving water limitations, according to established compliance schedules
- Progress towards achieving improved water quality in MS4 discharges and achieving receiving water limitations through implementation of the watershed control measures based on an evaluation of outfall-based monitoring data and receiving water monitoring data
- Achievement of interim milestones
- Re-evaluation of the water quality priorities based on more recent water quality data
- Availability of new information from other sources
- Recommendations from the LARWQCB
- Recommendations made during the public participation process for the WMP

A key component of adaptive management is the results from the AB/LCC Group's CIMP. This process will be implemented every two years and any modifications to the WMP will be reported in the permittees' Annual Report.

Section 8. Reporting

8.1 ANNUAL MONITORING REPORT

Monitoring results for the AB/LCC Group's CIMP will be reported semi-annually to the LARWCB. On December 15th of each year, an annual report will be submitted to the LARWCQB summarizing the monitoring through June 30th. Details of the Annual Monitoring Report can be found the AB/LCC Group's CIMP.

Section 9. References

Los Angeles Regional Water Quality Control Board, “Final Waste Discharge Requirements for Municipal Separate Storm Sewer System (MS4) Discharges within the Coastal Watersheds of Los Angeles County, Except Those Discharges Originating from the City of Long Beach MS4 (posted December 5, 2012)”. Final Order R4-2012-0175, http://www.waterboards.ca.gov/losangeles/water_issues/programs/stormwater/municipal/index.shtml (November 2013)

State of California Water Resources Control Board. “2010 Integrated Report (Clean Water Act Section 303(d) List)” April 2010, http://www.waterboards.ca.gov/water_issues/programs/tmdl/integrated2010.shtml. (January 2014)

Los Angeles Regional Water Quality Control Board, “Total Maximum Daily Load for Toxic Pollutants in Dominguez Channel and Greater Los Angeles and Long Beach Harbor Waters”. Resolution No. R11-008, Effective Date: March 23, 2012, http://www.waterboards.ca.gov/losangeles/board_decisions/basin_plan_amendments/technical_documents/bpa_66_R11-008_td.shtml (June 2013)

Anchor QEA, L.P., “Coordinated Compliance, Monitoring, and Reporting Plan Incorporating Quality Assurance Project Plan Components” June, 2013, http://www.waterboards.ca.gov/losangeles/board_decisions/basin_plan_amendments/technical_documents/66_New/09232013/1aDraftCCMRP62413.pdf (January 2014)

United States Environmental Protection Agency, “Los Cerritos Channel Total Maximum Daily Loads for Metals”. March 2010

Los Angeles Regional Water Quality Control Board, “Total Maximum Daily Load for Organochlorine (OC) Pesticides, Polychlorinated Biphenyls (PCBs), Sediment Toxicity, Polycyclic Aromatic Hydrocarbons (PAHs), and Metals for Colorado Lagoon”. Resolution No. R09-05, Adopted Date: October 1, 2009, http://www.waterboards.ca.gov/losangeles/board_decisions/basin_plan_amendments/technical_documents/bpa_65_R09-005_td.shtml (January 2014)

Kinnetic Laboratories, Inc., “Final Colorado Lagoon TMDL Monitoring Plan (CLTMP) Colorado Lagoon Organochlorine Pesticides, PCBs, Sediment Toxicity, PAHs, and Metals TMDL” December, 2012

Los Cerritos Channel Watershed Group, “Coordinated Integrated Monitoring Plan for the Los Cerritos Channel Watershed Monitoring Group” June 2014

County of Los Angeles, “Multi-Pollutant TMDL Implementation Plan for the Unincorporated County Area of Ballona Creek” October 2010

County of Los Angeles Department of Public Works, “Low Impact Development Standards Manual” February 2014,

<http://dpw.lacounty.gov/idd/lib/fp/Hydrology/Low%20Impact%20Development%20Standards%20Manual.pdf> (May 2014)

APPENIDX A. LACFCD Background Information

In 1915, the Los Angeles County Flood Control Act established the LACFCD and empowered it to manage flood risk and conserve stormwater for groundwater recharge. In coordination with the United States Army Corps of Engineers the LACFCD developed and constructed a comprehensive system that provides for the regulation and control of flood waters through the use of reservoirs and flood channels. The system also controls debris, collects surface storm water from streets, and replenishes groundwater with storm water and imported and recycled waters. The LACFCD covers the 2,753 square-mile portion of Los Angeles County south of the east-west projection of Avenue S, excluding Catalina Island. It is a special district governed by the County of Los Angeles Board of Supervisors, and its functions are carried out by the Los Angeles County Department of Public Works. The LACFCD service area is shown in **Figure A-1**.

Unlike cities and counties, the LACFCD does not own or operate any municipal sanitary sewer systems, public streets, roads, or highways. The LACFCD operates and maintains storm drains and other appurtenant drainage infrastructure within its service area. The LACFCD has no planning, zoning, development permitting, or other land use authority within its service area. The permittees that have such land use authority are responsible under the Permit for inspecting and controlling pollutants from industrial and commercial facilities, development projects, and development construction sites. (Permit, Part II.E, p. 17.)

The MS4 Permit language clarifies the unique role of the LACFCD in storm water management programs: “[g]iven the LACFCD’s limited land use authority, it is appropriate for the LACFCD to have a separate and uniquely-tailored storm water management program. Accordingly, the storm water management program minimum control measures imposed on the LACFCD in Part VI.D of this Order differ in some ways from the minimum control measures imposed on other Permittees. Namely, aside from its own properties and facilities, the LACFCD is not subject to the Industrial/Commercial Facilities Program, the Planning and Land Development Program, and the Development Construction Program. However, as a discharger of storm and non-storm water, the LACFCD remains subject to the Public Information and Participation Program and the Illicit Connections and Illicit Discharges Elimination Program. Further, as the owner and operator of certain properties, facilities and infrastructure, the LACFCD remains subject to requirements of a Public Agency Activities Program.” (Permit, Part II.F, p. 18.)

Consistent with the role and responsibilities of the LACFCD under the Permit, the [E]WMPs and CIMPs reflect the opportunities that are available for the LACFCD to collaborate with permittees having land use authority over the subject watershed area. In some instances, the opportunities are minimal, however the LACFCD remains responsible for compliance with certain aspects of the MS4 permit as discussed above.

As part of the WMP planning process, LACFCD infrastructure was considered for potential project opportunities. However, because of the LACFCD's limited land use authority discussed above, the responsible jurisdictions with land use jurisdiction over the WMP area will be the lead for the development of any structural controls.

In some instances, in recognition of the increased efficiency of implementing certain programs regionally, the LACFCD has committed to responsibilities above and beyond its obligations under the 2012 Permit. For example, although under the 2012 Permit the Public Information and Participation Program is a responsibility of each Permittee, the LACFCD is committed to implementing certain regional elements of the PIPP on behalf of all Permittees at no cost to the Permittees. These regional elements include:

- Maintaining a countywide hotline (888-CLEAN-LA) and website (www.888cleanla.com) for public reporting and general stormwater management information at an estimated annual cost of \$250,000. Each Permittee can utilize this hotline and website for public reporting within its jurisdiction.
- Broadcasting public service announcements and conducting regional advertising campaigns at an estimated annual cost of \$750,000.
- Facilitating the dissemination of public education and activity specific stormwater pollution prevention materials at an estimated annual cost of \$100,000.
- Maintaining a stormwater website at an estimated annual cost of \$10,000.

The LACFCD will implement these elements on behalf of all Permittees starting July 2015 and through the Permit term. With the LACFCD handling these elements regionally, Permittees can better focus on implementing local or watershed-specific programs, including student education and community events, to fully satisfy the PIPP requirements of the 2012 Permit.

Similarly, although water quality monitoring is a responsibility of each Permittee under the 2012 Permit, the LACFCD is committed to implement certain regional elements of the monitoring program. Specifically, the LACFCD will continue to conduct monitoring at the seven existing mass emissions stations required under the previous Permit. The LACFCD will also participate in the Southern California Stormwater Monitoring Coalition's Regional Bioassessment Program on behalf of all Permittees. By taking on these additional responsibilities, the LACFCD wishes to increase the efficiency and effectiveness of these programs.



Figure A-1 Los Angeles County Flood Control District Service Area

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APPENIDX B. Water Qualities Priorities

SUMMARY

Wet weather and dry weather samples between 2003 and 2013 at the Stearns Street Mass Emission Station were compared to applicable numeric limits in the Los Angeles Basin Plan, California Ocean Plan, California Toxics Rule or California Fish and Game. The Permit states that parameters in Table E-2 shall be monitored in the first year of monitoring and if a parameter is not detected at the MDL or if the result is below the lowest applicable water quality objective, it need not be further analyzed. It's important to note that some of the laboratory reporting limits (RLs) were above the limits used for a number of constituents. Those samples were not counted as being above the numeric limits in this analysis.

TABLE 1 – WET WEATHER SAMPLES ABOVE NUMERIC TARGETS

CONSTITUENTS	NO. OF SAMPLES ABOVE ML	TOTAL NO. OF SAMPLES
Aroclors		
Aroclor 1016	0	34
Aroclor 1221	0	34
Aroclor 1232	0	34
Aroclor 1242	0	34
Aroclor 1248	0	34
Aroclor 1254	0	26
Aroclor 1260	0	34
Chlorinated Pesticides		
4,4'-DDT	0	34
Aldrin	0	34
Dieldrin	0	34
Endosulfan I	0	34
Endosulfan II	0	34
Endrin	0	34
gamma-BHC (Lindane)	0	34
Heptachlor	0	34
Heptachlor epoxide	0	34
Total Chlordane ¹	--	34
Toxaphene	0	34
Conventionals		
MBAS	3	34
Nitrate (as N)	0	33
Nitrite (as N)	0	33
Total Ammonia (as N) ¹	--	34
Dissolved Metals (CTR Fresh CMC)*		
Arsenic	0	34
Cadmium	0	34
Copper	31	34
Lead	0	34
Nickel	0	34
Silver	1	34
Zinc	24	34
Microbiology		
Enterococcus	32	32

CONSTITUENTS	NO. OF SAMPLES ABOVE ML	TOTAL NO. OF SAMPLES
Fecal Coliform	31	32
Total Coliform	30	32
Organophosphates (CFG FRESH CMC)		
Chlorpyrifos	2	34
Total Metals		
Aluminum	30	34
Arsenic	0	34
Cadmium	1	34
Chromium	1	34
Nickel	0	34
Selenium	0	34

TABLE 2 – DRY WEATHER SAMPLES ABOVE NUMERIC TARGETS

CONSTITUENTS	NO. OF SAMPLES ABOVE ML	TOTAL NO. OF SAMPLES
Aroclors		
Aroclor 1016	0	20
Aroclor 1221	0	20
Aroclor 1232	0	20
Aroclor 1242	0	20
Aroclor 1248	0	20
Aroclor 1254	0	20
Aroclor 1260	0	20
Chlorinated Pesticides		
4,4'-DDT	0	20
Aldrin	0	20
Dieldrin	0	20
Endosulfan I	0	20
Endosulfan II	0	20
Endrin	0	20
gamma-BHC (Lindane)	0	20
Heptachlor	0	20
Heptachlor epoxide	0	20
Total Chlordane ¹	--	20
Toxaphene	0	20
Conventionals		
MBAS	1	20
Nitrate (as N)	0	20
Nitrite (as N)	0	20
Total Ammonia (as N) ¹	--	20
Dissolved Metals (CTR Fresh CMC)		
Arsenic	0	20
Cadmium	0	20
Copper	8	20
Lead	0	20

CONSTITUENTS	NO. OF SAMPLES ABOVE ML	TOTAL NO. OF SAMPLES
Nickel	0	20
Silver	0	20
Zinc	0	20
Microbiology		
Enterococcus	18	20
Fecal Coliform	12	20
Total Coliform	9	20
Organophosphates (CFG FRESH CMC)		
Chlorpyrifos	0	20
Diazinon	2	20
Total Metals		
Aluminum	1	20
Arsenic	0	20
Cadmium	0	20
Chromium	0	20
Nickel	0	20
Selenium	0	20

¹ Refer to the Los Cerritos Channel Watershed Management Group CIMP for analysis of exceedances.

APPENIDX C. County of Los Angeles Legal Authority



COUNTY OF LOS ANGELES
OFFICE OF THE COUNTY COUNSEL

648 KENNETH HAHN HALL OF ADMINISTRATION
500 WEST TEMPLE STREET
LOS ANGELES, CALIFORNIA 90012-2713

JOHN F. KRATTLI
County Counsel

December 16, 2013

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Mr. Samuel Unger, P.E., Executive Officer
California Regional Water Quality Control Board – Los Angeles Region
320 West 4th Street, Suite 200
Los Angeles, CA 90013-2343

Attention: Mr. Ivar Ridgeway

**Re: Certification By Legal Counsel For County of Los Angeles'
Annual Report**

Dear Mr. Unger:

Pursuant to the requirements of Part VI(A)(2)(b) of Order No. R4-2012-0175 (the "Order"), the Office of the County Counsel of the County of Los Angeles makes the following certification in support of the Annual Report of the County of Los Angeles ("County"):

Certification Pursuant To Order Part VI(A)(2)(b)

"Each Permittee must submit a statement certified by its chief legal counsel that the Permittee has the legal authority within its jurisdiction to implement and enforce the requirements contained in 40 CFR §122.26(d)(2)(i)(A-F) and this Order."

The County has the legal authority within its jurisdiction to implement and enforce each of the requirements contained in 40 CFR §122.26(d)(2)(i)(A-F) and the Order.

Order Part VI(A)(2)(b)(i)

"Citation of applicable municipal ordinances or other appropriate legal authorities and their relationship to the requirements of 40 CFR §122.26(d)(2)(i)(A-F) and this Order"

Citations Of Applicable Ordinances Or Other Legal Authorities

Although many portions of State law, the Charter of the County of Los Angeles and the Los Angeles County Code are potentially applicable to the implementation and enforcement of these requirements, the primary applicable laws and ordinances are as follows:

Los Angeles County Code, Title 12, Chapter 12.80 STORMWATER AND RUNOFF POLLUTION CONTROL, including:

§12.80.010 - §12.80.360 Definitions

§12.80.370 Short title.

§12.80.380 Purpose and intent.

§12.80.390 Applicability of this chapter.

§12.80.400 Standards, guidelines and criteria.

§12.80.410 Illicit discharges prohibited.

§12.80.420 Installation or use of illicit connections prohibited.

§12.80.430 Removal of illicit connection from the storm drain system.

§12.80.440 Littering and other discharge of polluting or damaging substances prohibited.

§12.80.450 Stormwater and runoff pollution mitigation for construction activity.

§12.80.460 Prohibited discharges from industrial or commercial activity.

§12.80.470 Industrial/commercial facility sources required to obtain a NPDES permit.

§12.80.480 Public facility sources required to obtain a NPDES permit.

§12.80.490 Notification of uncontrolled discharges required.

§12.80.500 Good housekeeping provisions.

§12.80.510 Best management practices for construction activity.

- §12.80.520 Best management practices for industrial and commercial facilities.
- §12.80.530 Installation of structural BMPs.
- §12.80.540 BMPs to be consistent with environmental goals.
- §12.80.550 Enforcement—Director's powers and duties.
- §12.80.560 Identification for inspectors and maintenance personnel.
- §12.80.570 Obstructing access to facilities prohibited.
- §12.80.580 Inspection to ascertain compliance—Access required.
- §12.80.590 Interference with inspector prohibited.
- §12.80.600 Notice to correct violations—Director may take action.
- §12.80.610 Violation a public nuisance.
- §12.80.620 Nuisance abatement—Director to perform work when—Costs.
- §12.80.630 Violation—Penalty.
- §12.80.635 Administrative fines.
- §12.80.640 Penalties not exclusive.
- §12.80.650 Conflicts with other code sections.
- §12.80.660 Severability.
- §12.80.700 Purpose.
- §12.80.710 Applicability.
- §12.80.720 Registration required.
- §12.80.730 Exempt facilities.
- §12.80.740 Certificate of inspection—Issuance by the director.
- §12.80.750 Certificate of inspection—Suspension or revocation.

§12.80.760 Certificate of inspection—Termination.

§12.80.770 Service fees.

§12.80.780 Fee schedule.

§12.80.790 Credit for overlapping inspection programs.

§12.80.800 Annual review of fees.

Los Angeles County Code, Title 12, Chapter 12.84 LOW IMPACT
DEVELOPMENT STANDARDS, including:

§12.84.410 Purpose.

§12.84.420 Definitions.

§12.84.430 Applicability.

§12.84.440 Low Impact Development Standards.

§12.84.445 Hydromodification Control.

§12.84.450 LID Plan Review.

§12.84.460 Additional Requirements.

Los Angeles County Code, Title 22 PLANNING AND ZONING, Part 6
ENFORCEMENT PROCEDURES, including:

§22.60.330 General prohibitions.

§22.60.340 Violations.

§22.60.350 Public nuisance.

§22.60.360 Infractions.

§22.60.370 Injunction.

§22.60.380 Enforcement.

§22.60.390 Zoning enforcement order and noncompliance fee.

Los Angeles County Code, Title 26 BUILDING CODE, including:

§26.103 Violations And Penalties

§26.104 Organization And Enforcement

§26.105 Appeals Boards

§26.106 Permits

§26.107 Fees

§26.108 Inspections

California Government Code §6502

California Government Code §23004

Relationship Of Applicable Ordinances Or Other Legal Authorities To
 The Requirements of 40 CFR §122.26(d)(2)(i)(A-F) And The Order

Although, depending upon the particular issue, there may be multiple ways in which particular sections of the County's ordinances and State law relate to the requirements contained in 40 CFR §122.26(d)(2)(i)(A-F) and the Order, the table below indicates the basic relationship with Part VI(A)(2)(a) of the Order:

Order Part VI(A)(2)(a) Items	Primary Applicable Ordinance/Statute
i. Control the contribution of pollutants to its MS4 from storm water discharges associated with industrial and construction activity and control the quality of storm water discharged from industrial and construction sites. This requirement applies both to industrial and construction sites with coverage under an NPDES permit, as well as to those sites that do not have coverage under an NPDES permit.	§12.80.410 [illicit discharge prohibited]; §12.80.450 [construction] §12.80.460 [industrial and commercial] §12.80.470 and .480 [industrial and commercial NPDES requirements] §12.84.440 [LID standards] §12.84.445 [hydromodification control] §12.84.450 [LID Plan Review] §22.60.330 [general prohibitions]

Order Part VI(A)(2)(a) Items	Primary Applicable Ordinance/Statute
	§22.60.340 [violations] §22.60.350 [public nuisance] §22.60.360 [infractions] §22.60.370 [injunction] §22.60.380 [enforcement.] §22.60.390 [zoning enforcement order] §26.103 [violations and penalties] §26.104 [enforcement] §26.106 [permits] §26.108 [inspections]
ii. Prohibit all non-storm water discharges through the MS4 to receiving waters not otherwise authorized or conditionally exempt pursuant to Part III.A.	§12.80.410 [illicit discharge prohibited]
iii. Prohibit and eliminate illicit discharges and illicit connections to the MS4.	§12.80.410 [illicit discharge prohibited]; §12.80.420 [illicit connections prohibited]
iv. Control the discharge of spills, dumping, or disposal of materials other than storm water to its MS4.	§12.80.410 [illicit discharge prohibited]; §12.80.440 [littering and other polluting prohibited]

Order Part VI(A)(2)(a) Items	Primary Applicable Ordinance/Statute
v. Require compliance with conditions in Permittee ordinances, permits, contracts or orders (i.e., hold dischargers to its MS4 accountable for their contributions of pollutants and flows).	§12.80.490 [notification of uncontrolled discharge] §12.80.570 [obstructing access to facilities] §12.80.580 [compliance inspection] §12.80.610 [violation a nuisance] §12.620 [nuisance abatement] §12.80.635 [violation penalty] §12.80.640 [penalties not exclusive] §12.84.440 [LID standards] §12.84.445 [hydromodification control] §12.84.450 [LID Plan Review] §22.60.330 [general prohibitions] §22.60.340 [violations] §22.60.350 [public nuisance] §22.60.360 [infractions] §22.60.370 [injunction] §22.60.380 [enforcement.] §22.60.390 [zoning enforcement order] §26.103 [violations and penalties] §26.104 [enforcement] §26.106 [permits] §26.108 [inspections]
vi. Utilize enforcement mechanisms to require compliance with applicable ordinances, permits, contracts, or orders.	Same as item v., above

Order Part VI(A)(2)(a) Items	Primary Applicable Ordinance/Statute
vii. Control the contribution of pollutants from one portion of the shared MS4 to another portion of the MS4 through interagency agreements among Copermittees.	California Government Code §6502 and §23004
viii. Control of the contribution of pollutants from one portion of the shared MS4 to another portion of the MS4 through interagency agreements with other owners of the MS4 such as the State of California Department of Transportation.	California Government Code §6502 and §23004
ix. Carry out all inspections, surveillance, and monitoring procedures necessary to determine compliance and noncompliance with applicable municipal ordinances, permits, contracts and orders, and with the provisions of this Order, including the prohibition of non-storm water discharges into the MS4 and receiving waters. This means the Permittee must have authority to enter, monitor, inspect, take measurements, review and copy records, and require regular reports from entities discharging into its MS4.	§12.80.490 [notification of uncontrolled discharge] §12.80.570 [obstructing access to facilities] §12.80.580 [compliance inspection] §12.80.610 [violation a nuisance] §12.80.620 [nuisance abatement] §12.80.635 [violation penalty] §12.80.640 [penalties not exclusive] §22.60.380 [enforcement.] §26.106 [permits] §26.108 [inspections]

Order Part VI(A)(2)(a) Items	Primary Applicable Ordinance/Statute
x. Require the use of control measures to prevent or reduce the discharge of pollutants to achieve water quality standards/receiving water limitations.	§12.80.450 [construction mitigation] §12.80.500 [good housekeeping practices] §12.80.510 [construction BMPs] §12.80.520 [industrial/commercial BMPs] §12.84.440 [LID standards] §12.84.450 [LID Plan Review] §22.60.330 [general prohibitions] §22.60.380 [enforcement.] §22.60.390 [zoning enforcement order] §26.106 [permits] §26.108 [inspections]
xi. Require that structural BMPs are properly operated and maintained.	§12.80.530 [installation of structural BMPs] §22.60.380 [enforcement.] §22.60.390 [zoning enforcement order] §26.106 [permits] §26.108 [inspections]
xii. Require documentation on the operation and maintenance of structural BMPs and their effectiveness in reducing the discharge of pollutants to the MS4.	§12.80.530 [installation of structural BMPs] §22.60.380 [enforcement.] §22.60.390 [zoning enforcement order] §26.106 [permits] §26.108 [inspections]

Order Part VI(A)(2)(b)(ii)

"Identification of the local administrative and legal procedures available to mandate compliance with applicable municipal ordinances identified in subsection (i) above and therefore with the conditions of this Order, and a statement as to whether enforcement actions can be completed administratively or whether they must be commenced and completed in the judicial system."

The local administrative and legal procedures available to mandate compliance with the above ordinances are specified in those ordinances, particularly in:

§12.80.550 Enforcement—Director's powers and duties.

§12.80.600 Notice to correct violations—Director may take action.

§12.80.610 Violation a public nuisance.

§12.80.620 Nuisance abatement—Director to perform work when—Costs.

§12.80.630 Violation—Penalty.

§12.80.635 Administrative fines.

§12.80.640 Penalties not exclusive.

§12.84.450 LID Plan Review.

§12.84.460 Additional Requirements.

Title 26, §103 Violations And Penalties

Title 26, §104 Organization And Enforcement

Title 26, §105 Appeals Boards

Title 26, §106 Permits

Title 22 PLANNING AND ZONING, Part 6 ENFORCEMENT PROCEDURES, including:

§22.60.330 General prohibitions.

§22.60.340 Violations.

§22.60.350 Public nuisance.

§22.60.360 Infractions.

§22.60.370 Injunction.


§22.60.380 Enforcement.

§22.60.390 Zoning enforcement order and noncompliance fee.

The County attempts to first resolve each enforcement action administratively. However, the above cited ordinances also provide the County with the authority to pursue such actions in the judicial system as necessary.

Very truly yours,

JOHN F. KRATTLI
County Counsel

By 
JUDITH A. FRIES
Principal Deputy County Counsel
Public Works Division

JAF:jjj

APPENIDX D. LACFCD Legal Authority



COUNTY OF LOS ANGELES
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JOHN F. KRATTLI
County Counsel

December 16, 2013

Mr. Samuel Unger, P.E., Executive Officer
California Regional Water Quality Control Board – Los Angeles Region
320 West 4th Street, Suite 200
Los Angeles, CA 90013-2343

Attention: Mr. Ivar Ridgeway

**Re: Certification By Legal Counsel For Los Angeles County Flood
Control District's Annual Report**

Dear Mr. Unger:

Pursuant to the requirements of Part VI(A)(2)(b) of Order No. R4-2012-0175 (the "Order"), the Office of the County Counsel of the County of Los Angeles makes the following certification in support of the Annual Report of the Los Angeles County Flood Control District ("LACFCD"):

Certification Pursuant To Order Part VI(A)(2)(b)

"Each Permittee must submit a statement certified by its chief legal counsel that the Permittee has the legal authority within its jurisdiction to implement and enforce the requirements contained in 40 CFR §122.26(d)(2)(i)(A-F) and this Order."

LACFCD has the legal authority within its jurisdiction to implement and enforce each of the requirements contained in 40 CFR §122.26(d)(2)(i)(A-F) and the Order.

Order Part VI(A)(2)(b)(i)

"Citation of applicable municipal ordinances or other appropriate legal authorities and their relationship to the requirements of 40 CFR §122.26(d)(2)(i)(A-F) and this Order"

Citations Of Applicable Ordinances Or Other Legal Authorities

Although many portions of State law, the Charter of the County of Los Angeles, the Los Angeles County Code and LACFCD's Flood Control District Code ("Code") are potentially applicable to the implementation and enforcement of these requirements, the primary applicable laws and ordinances are as follows:

Los Angeles County Code, Title 12, Chapter 12.80 STORMWATER AND RUNOFF POLLUTION CONTROL, including:

§12.80.010 - §12.80.360 Definitions

§12.80.370 Short title.

§12.80.380 Purpose and intent.

§12.80.390 Applicability of this chapter.

§12.80.400 Standards, guidelines and criteria.

§12.80.410 Illicit discharges prohibited.

§12.80.420 Installation or use of illicit connections prohibited.

§12.80.430 Removal of illicit connection from the storm drain system.

§12.80.440 Littering and other discharge of polluting or damaging substances prohibited.

§12.80.450 Stormwater and runoff pollution mitigation for construction activity.

§12.80.460 Prohibited discharges from industrial or commercial activity.

§12.80.470 Industrial/commercial facility sources required to obtain a NPDES permit.

§12.80.480 Public facility sources required to obtain a NPDES permit.

§12.80.490 Notification of uncontrolled discharges required.

§12.80.500 Good housekeeping provisions.

§12.80.510 Best management practices for construction activity.

- §12.80.520 Best management practices for industrial and commercial facilities.
- §12.80.530 Installation of structural BMPs.
- §12.80.540 BMPs to be consistent with environmental goals.
- §12.80.550 Enforcement—Director's powers and duties.
- §12.80.560 Identification for inspectors and maintenance personnel.
- §12.80.570 Obstructing access to facilities prohibited.
- §12.80.580 Inspection to ascertain compliance—Access required.
- §12.80.590 Interference with inspector prohibited.
- §12.80.600 Notice to correct violations—Director may take action.
- §12.80.610 Violation a public nuisance.
- §12.80.620 Nuisance abatement—Director to perform work when—Costs.
- §12.80.630 Violation—Penalty.
- §12.80.635 Administrative fines.
- §12.80.640 Penalties not exclusive.
- §12.80.650 Conflicts with other code sections.
- §12.80.660 Severability.
- §12.80.700 Purpose.
- §12.80.710 Applicability.
- §12.80.720 Registration required.
- §12.80.730 Exempt facilities.
- §12.80.740 Certificate of inspection—Issuance by the director.
- §12.80.750 Certificate of inspection—Suspension or revocation.

§12.80.760 Certificate of inspection—Termination.

§12.80.770 Service fees.

§12.80.780 Fee schedule.

§12.80.790 Credit for overlapping inspection programs.

§12.80.800 Annual review of fees.

Los Angeles County Code, Title 12, Chapter 12.84 LOW IMPACT DEVELOPMENT STANDARDS, including:

§12.84.410 Purpose.

§12.84.420 Definitions.

§12.84.430 Applicability.

§12.84.440 Low Impact Development Standards.

§12.84.445 Hydromodification Control.

§12.84.450 LID Plan Review.

§12.84.460 Additional Requirements.

Los Angeles County Code, Title 22 PLANNING AND ZONING, Part 6 ENFORCEMENT PROCEDURES, including:

§22.60.330 General prohibitions.

§22.60.340 Violations.

§22.60.350 Public nuisance.

§22.60.360 Infractions.

§22.60.370 Injunction.

§22.60.380 Enforcement.

§22.60.390 Zoning enforcement order and noncompliance fee.

Los Angeles County Code, Title 26 BUILDING CODE, including:

§26.103 Violations And Penalties

§26.104 Organization And Enforcement

§26.105 Appeals Boards

§26.106 Permits

§26.107 Fees

§26.108 Inspections

LACFCD Code Chapter 21 - STORMWATER AND RUNOFF
POLLUTION CONTROL including:

§21.01 Purpose and Intent

§21.03 Definitions

§21.05 Standards, Guidelines, and Criteria

§21.07 Prohibited Discharges

§21.09 Installation or Use of Illicit Connections Prohibited

§21.11 Littering Prohibited

§21.13 Evidence of Compliance With Permit Requirements for Industrial
or Commercial Activity

§21.15 Notification of Uncontrolled Discharges Required

§21.17 Requirement to Monitor and Analyze

§21.19 Conflicts With Other Code Sections

§21.21 Severability

§21.23 Violation a Public Nuisance

California Government Code §6502

California Government Code §23004

California Water Code §8100 *et. seq.*

Relationship Of Applicable Ordinances Or Other Legal Authorities To
 The Requirements of 40 CFR §122.26(d)(2)(i)(A-F) And The Order

Although, depending upon the particular issue, there may be multiple ways in which particular sections of the County of Los Angeles' ordinances, LACFCD's ordinances, and statutes relate to the requirements contained in 40 CFR §122.26(d)(2)(i)(A-F) and the Order, the table below indicates the basic relationship with Part VI(A)(2)(a) of the Order:

Order Part VI(A)(2)(a) Items	Primary Applicable Ordinance/Statute
<p>i. Control the contribution of pollutants to its MS4 from storm water discharges associated with industrial and construction activity and control the quality of storm water discharged from industrial and construction sites. This requirement applies both to industrial and construction sites with coverage under an NPDES permit, as well as to those sites that do not have coverage under an NPDES permit.</p>	<p>Los Angeles County Code: §12.80.410 [illicit discharge prohibited]; §12.80.450 [construction] §12.80.460 [industrial and commercial] §12.80.470 and .480 [industrial and commercial NPDES requirements] §12.84.440 [LID standards] §12.84.445 [hydromodification control] §12.84.450 [LID Plan Review] §22.60.330 [general prohibitions] §22.60.340 [violations] §22.60.350 [public nuisance] §22.60.360 [infractions] §22.60.370 [injunction] §22.60.380 [enforcement.] §22.60.390 [zoning enforcement order] §26.103 [violations and penalties]</p>

Order Part VI(A)(2)(a) Items	Primary Applicable Ordinance/Statute
	§26.104 [enforcement] §26.106 [permits] §26.108 [inspections] LACFCD Code: §21.05 Standards, Guidelines, and Criteria §21.07 Prohibited Discharges §21.13 Evidence of Compliance With Permit Requirements for Industrial or Commercial Activity §21.15 Notification of Uncontrolled Discharges Required §21.17 Requirement to Monitor and Analyze §21.23 Violation a Public Nuisance
ii. Prohibit all non-storm water discharges through the MS4 to receiving waters not otherwise authorized or conditionally exempt pursuant to Part III.A.	Los Angeles County Code: §12.80.410 [illicit discharge prohibited] LACFCD Code: §21.07 Prohibited Discharges
iii. Prohibit and eliminate illicit discharges and illicit connections to the MS4.	Los Angeles County Code: §12.80.410 [illicit discharge prohibited]; §12.80.420 [illicit connections prohibited] LACFCD Code: §21.05 Standards, Guidelines, and Criteria §21.07 Prohibited Discharges §21.09 Installation or Use of Illicit Connections Prohibited §21.23 Violation a Public Nuisance

Order Part VI(A)(2)(a) Items	Primary Applicable Ordinance/Statute
<p>iv. Control the discharge of spills, dumping, or disposal of materials other than storm water to its MS4.</p>	<p>Los Angeles County Code: §12.80.410 [illicit discharge prohibited]; §12.80.440 [littering and other polluting prohibited] LACFCD Code: §19.07 Interference With or Placing Obstructions, Refuse, Contaminating Substances, or Invasive Species in Facilities Prohibited §21.05 Standards, Guidelines, and Criteria §21.07 Prohibited Discharges §21.09 Installation or Use of Illicit Connections Prohibited §21.11 Littering Prohibited §21.13 Evidence of Compliance With Permit Requirements for Industrial or Commercial Activity §21.15 Notification of Uncontrolled Discharges Required §21.17 Requirement to Monitor and Analyze §21.23 Violation a Public Nuisance</p>
<p>v. Require compliance with conditions in Permittee ordinances, permits, contracts or orders (i.e., hold dischargers to its MS4 accountable for their contributions of pollutants and flows).</p>	<p>Los Angeles County Code: §12.80.490 [notification of uncontrolled discharge] §12.80.570 [obstructing access to facilities] §12.80.580 [compliance inspection] §12.80.610 [violation a nuisance] §12.620 [nuisance abatement] §12.80.635 [violation penalty]</p>

Order Part VI(A)(2)(a) Items	Primary Applicable Ordinance/Statute
	§12.80.640 [penalties not exclusive] §12.84.440 [LID standards] §12.84.445 [hydromodification control] §12.84.450 [LID Plan Review] §22.60.330 [general prohibitions] §22.60.340 [violations] §22.60.350 [public nuisance] §22.60.360 [infractions] §22.60.370 [injunction] §22.60.380 [enforcement.] §22.60.390 [zoning enforcement order] §26.103 [violations and penalties] §26.104 [enforcement] §26.106 [permits] §26.108 [inspections] LACFCD Code: §19.11 Violation a Public Nuisance §21.05 Standards, Guidelines, and Criteria §21.07 Prohibited Discharges §21.09 Installation or Use of Illicit Connections Prohibited §21.11 Littering Prohibited §21.13 Evidence of Compliance With Permit Requirements for Industrial or Commercial Activity §21.15 Notification of Uncontrolled Discharges Required §21.17 Requirement to Monitor and Analyze

Order Part VI(A)(2)(a) Items	Primary Applicable Ordinance/Statute
	§21.19 Conflicts With Other Code Sections §21.23 Violation a Public Nuisance
vi. Utilize enforcement mechanisms to require compliance with applicable ordinances, permits, contracts, or orders.	Same as item v., above
vii. Control the contribution of pollutants from one portion of the shared MS4 to another portion of the MS4 through interagency agreements among Copermittees.	California Government Code §6502 California Government Code §23004
viii. Control of the contribution of pollutants from one portion of the shared MS4 to another portion of the MS4 through interagency agreements with other owners of the MS4 such as the State of California Department of Transportation.	California Government Code §6502 California Government Code §23004
ix. Carry out all inspections, surveillance, and monitoring procedures necessary to determine compliance and noncompliance with applicable municipal ordinances, permits, contracts and orders, and with the provisions of this Order, including the prohibition of non-storm water discharges into the MS4 and receiving waters. This means the Permittee must have authority to enter, monitor, inspect, take measurements, review and copy records, and require regular reports from entities discharging into its MS4.	Los Angeles County Code: §12.80.490 [notification of uncontrolled discharge] §12.80.570 [obstructing access to facilities] §12.80.580 [compliance inspection] §12.80.610 [violation a nuisance] §12.80.620 [nuisance abatement] §12.80.635 [violation penalty] §12.80.640 [penalties not exclusive] §22.60.380 [enforcement.] §26.106 [permits] §26.108 [inspections]

Order Part VI(A)(2)(a) Items	Primary Applicable Ordinance/Statute
	LACFCD Code: §21.05 Standards, Guidelines, and Criteria §21.07 Prohibited Discharges §21.09 Installation or Use of Illicit Connections Prohibited §21.11 Littering Prohibited §21.13 Evidence of Compliance With Permit Requirements for Industrial or Commercial Activity §21.15 Notification of Uncontrolled Discharges Required §21.17 Requirement to Monitor and Analyze §21.23 Violation a Public Nuisance
x. Require the use of control measures to prevent or reduce the discharge of pollutants to achieve water quality standards/receiving water limitations.	Los Angeles County Code: §12.80.450 [construction mitigation] §12.80.500 [good housekeeping practices] §12.80.510 [construction BMPs] §12.80.520 [industrial/commercial BMPs] §12.84.440 [LID standards] §12.84.450 [LID Plan Review] §22.60.330 [general prohibitions] §22.60.380 [enforcement.] §22.60.390 [zoning enforcement order] §26.106 [permits] §26.108 [inspections] LACFCD Code: §21.05 Standards, Guidelines, and Criteria

Order Part VI(A)(2)(a) Items	Primary Applicable Ordinance/Statute
	§21.07 Prohibited Discharges §21.09 Installation or Use of Illicit Connections Prohibited §21.11 Littering Prohibited §21.13 Evidence of Compliance With Permit Requirements for Industrial or Commercial Activity §21.15 Notification of Uncontrolled Discharges Required §21.17 Requirement to Monitor and Analyze §21.23 Violation a Public Nuisance
xi. Require that structural BMPs are properly operated and maintained.	Los Angeles County Code: §12.80.530 [installation of structural BMPs] §22.60.380 [enforcement.] §22.60.390 [zoning enforcement order] §26.106 [permits] §26.108 [inspections] LACFCD Code: §21.05 Standards, Guidelines, and Criteria §21.07 Prohibited Discharges §21.09 Installation or Use of Illicit Connections Prohibited §21.11 Littering Prohibited §21.13 Evidence of Compliance With Permit Requirements for Industrial or Commercial Activity §21.15 Notification of Uncontrolled Discharges Required §21.17 Requirement to Monitor and Analyze

Order Part VI(A)(2)(a) Items	Primary Applicable Ordinance/Statute
	§21.23 Violation a Public Nuisance
xii. Require documentation on the operation and maintenance of structural BMPs and their effectiveness in reducing the discharge of pollutants to the MS4.	Los Angeles County Code: §12.80.530 [installation of structural BMPs] §22.60.380 [enforcement.] §22.60.390 [zoning enforcement order] §26.106 [permits] §26.108 [inspections] LACFCD Code: §21.05 Standards, Guidelines, and Criteria §21.07 Prohibited Discharges §21.09 Installation or Use of Illicit Connections Prohibited §21.11 Littering Prohibited §21.13 Evidence of Compliance With Permit Requirements for Industrial or Commercial Activity §21.15 Notification of Uncontrolled Discharges Required §21.17 Requirement to Monitor and Analyze §21.23 Violation a Public Nuisance

Order Part VI(A)(2)(b)(ii)

"Identification of the local administrative and legal procedures available to mandate compliance with applicable municipal ordinances identified in subsection (i) above and therefore with the conditions of this Order, and a statement as to whether enforcement actions can be completed administratively or whether they must be commenced and completed in the judicial system."

The local administrative and legal procedures available to mandate compliance with the above ordinances are specified in those ordinances, particularly in:

Los Angeles County Code:

§12.80.550 Enforcement—Director's powers and duties.

§12.80.600 Notice to correct violations—Director may take action.

§12.80.610 Violation a public nuisance.

§12.80.620 Nuisance abatement—Director to perform work when—Costs.

§12.80.630 Violation—Penalty.

§12.80.635 Administrative fines.

§12.80.640 Penalties not exclusive.

§12.84.450 LID Plan Review.

§12.84.460 Additional Requirements.

Title 26, §103 Violations And Penalties

Title 26, §104 Organization And Enforcement

Title 26, §105 Appeals Boards

Title 26, §106 Permits

§22.60.330 General prohibitions.

§22.60.340 Violations.

§22.60.350 Public nuisance.

§22.60.360 Infractions.

§22.60.370 Injunction.

§22.60.380 Enforcement.

§22.60.390 Zoning enforcement order and noncompliance fee.

LACFCD Code:

§21.05 Standards, Guidelines, and Criteria

§21.07 Prohibited Discharges

§21.09 Installation or Use of Illicit Connections Prohibited

§21.11 Littering Prohibited

§21.13 Evidence of Compliance With Permit Requirements for Industrial
or Commercial Activity

§21.15 Notification of Uncontrolled Discharges Required

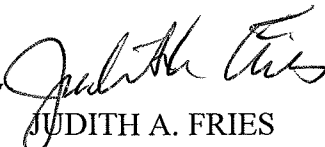
§21.17 Requirement to Monitor and Analyze

§21.23 Violation a Public Nuisance

LACFCD attempts to first resolve each enforcement action
administratively. However, the above cited ordinances also provide LACFCD
with the authority to pursue such actions in the judicial system as necessary.

Very truly yours,

JOHN F. KRATTLI
County Counsel

By 

JUDITH A. FRIES
Principal Deputy County Counsel
Public Works Division

JAF:jjj

Alamitos Bay/Los Cerritos Channel Watershed Management Area

Coordinated Integrated Monitoring Program

Submitted to:

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Quality Control Board
Los Angeles Region**
320 West 4th Street, Suite 200
Los Angeles, CA 90013-2343

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June 28, 2014

RB-AR2801

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List of Abbreviations

AB/LCC	Alamitos Bay/Los Cerritos Channel
BPA	Basin Plan Amendment
BMP	Best Management Practice
CIMP	Coordinated Integrated Monitoring Program
CLTMP	Colorado Lagoon TMDL Monitoring Plan
DDT	Dichlorodiphenyltrichloroethane
EPA	Environmental Protection Agency
GIS	Geographic Information System
HRU	Hydrologic Response Unit
IC/ID	Illicit Connections and Illicit Discharges
LACFCD	Los Angeles County Flood Control District
LARWCQB	Los Angeles Regional Water Quality Control Board
LCCWG	Los Cerritos Channel Watershed Group
LID	Low Impact Development
MAL	Municipal Action Level
MCM	Minimum Control Measure
MS4	Municipal Separate Storm Sewer System
MRP	Monitoring and Reporting Program
N	Nitrogen
NPDES	National Pollutant Discharge Elimination System
NSW	Non Stormwater
PCBs	Polychlorinated Biphenyls
PIPP	Public Information and Participation Program
QA/QC	Quality Assurance/Quality Control
RAA	Reasonable Assurance Analysis
RMC	Regional Monitoring Coalition
RWL	Receiving Water Limitations
SMC	Southern California Stormwater Monitoring Coalition
TMDL	Total Maximum Daily Load
TN	Total Nitrogen
TP	Total Phosphorus
USEPA	United State Environmental Protection Agency
WLA	Waste Load Allocation
WMA	Watershed Management Area
WQBELs	Water Quality Based Effluent Limitations

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Section 1. Introduction

1.1 BACKGROUND

The Alamos Bay/Los Cerritos Channel (AB/LCC) Coordinated Integrated Monitoring Program (CIMP) is a collaborative effort between the County of Los Angeles (County) and the Los Angeles County Flood Control District (LACFCD). The geographic scope of this CIMP includes the County's jurisdiction and certain LACFCD infrastructure within the 37.5 square-mile AB/LCC Watershed Management Area (WMA). In particular the following areas are covered in this CIMP:

- 95-acre County Island
- LACFCD's infrastructure within the County Island, the Los Cerritos Channel Estuary watershed and the Alamos Bay watershed.

As shown in Figure 1, the County and the LACFCD, collectively the Alamos Bay/Los Cerritos Channel Group (AB/LCC Group), make up a very small portion of the overall WMA. The AB/LCC CIMP is being submitted to meet the Monitoring and Reporting Program requirements outlined in Attachment E of the National Pollutant Discharge Elimination System (NPDES) Municipal Separate Storm Sewer System (MS4) Permit No. R4-2012-0178 (Permit). The Permit was adopted on November 8, 2012 and became effective December 28, 2012.

1.2 OBJECTIVE

Section II of Attachment E of the Permit states the primary objectives of the Monitoring Program are to:

- Assess the chemical, physical, and biological impacts of discharges from the MS4 on receiving waters.
- Assess compliance with receiving water limitations and water quality-based effluent limitations (WQBELs) established to implement Total Maximum Daily Load (TMDL) wet weather and dry weather wasteload allocations (WLAs).
- Characterize pollutant loads in MS4 discharges.
- Identify sources of pollutants in MS4 discharges.
- Measure and improve the effectiveness of pollutant controls implemented under the Permit

1.3 APPROACH

This CIMP utilizes existing monitoring efforts in the AB/LCC WMA and proposes additional efforts to meet the objectives of the Permit. Additionally, this CIMP maximizes coordination opportunities with other CIMPs in the AB/LCC WMA.

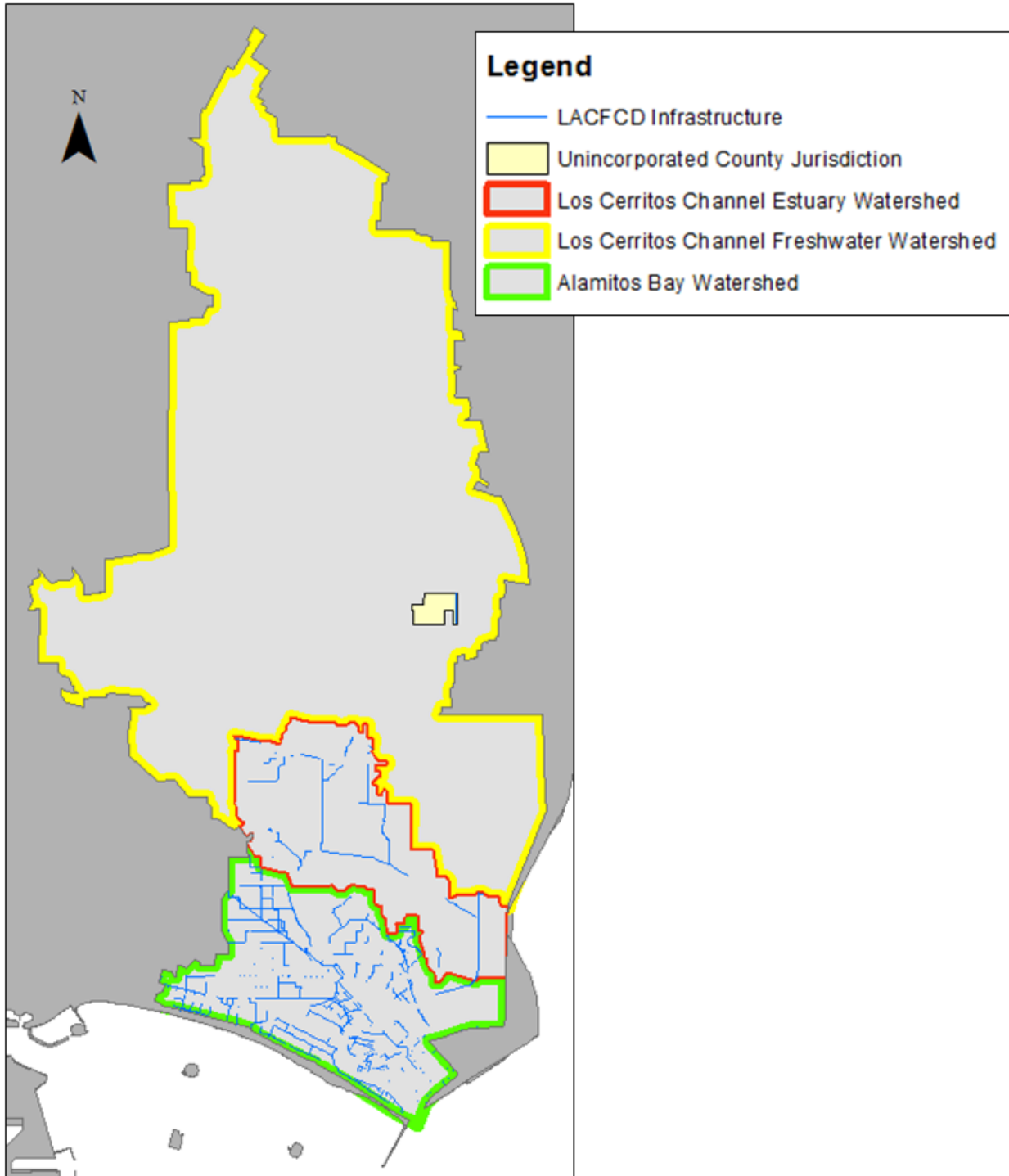


Figure 1: Three Subwatersheds within Alamos Bay/LCC Group Limits

1.4 AB/LCC WATERSHED MANAGEMENT AREA

The Alamitos Bay/Los Cerritos Channel Watershed Management Area (AB/LCC WMA) is located in southern Los Angeles County and has a drainage area of approximately 37.5 square miles. The AB/LCC WMA encompasses the Los Cerritos Channel freshwater watershed, the Los Cerritos Channel estuary watershed and the Alamitos Bay watershed. These watersheds and the areas covered in this CIMP are shown in Figure 1. It should be noted that within the AB/LCC WMA there are multiple existing monitoring programs as well as parallel CIMP efforts. The AB/LCC Group has made significant efforts to coordinate this CIMP with other programs in the AB/LCC WMA.

Within the AB/LCC WMA, there is a 95 acre unincorporated area of the County of Los Angeles (County Island). Additionally, the LACFCD operates and maintains storm drains and other appurtenant drainage infrastructure within the AB/LCC WMA. This drainage infrastructure serves as a conveyance for waters within the watershed and the LACFCD has no jurisdiction over the land uses within the watershed that generate the pollutants of concern. Further description of the LACFCD and its functions is provided in Appendix A.

1.4.1 Los Cerritos Channel Freshwater Watershed

The Los Cerritos Channel freshwater watershed has a total drainage area of approximately 27.7 square miles. The Los Cerritos Channel freshwater watershed drains to a concrete lined channel which is operated and maintained by the LACFCD. Generally, the downstream limit of the freshwater watershed is considered to be just south of Atherton Street as shown in Figure 2. It should be noted that high tides can push tidal surges upstream of Atherton Street. The drainage area of the freshwater watershed is within the jurisdiction of the County, CALTRANS and several cities including Bellflower, Cerritos, Downey, Lakewood, Long Beach, Paramount and Signal Hill.



Figure 2: Los Cerritos Channel Freshwater/Estuary Transition

1.4.2 Los Cerritos Channel Estuary Watershed

The Los Cerritos Channel Estuary (Estuary) is approximately 1.5 miles long and extends from just south of Atherton St. to the Alamitos Bay. The Estuary is under tidal influence (Figure 3) and is characterized by a trapezoidal geometry with rip-rap sides and a natural bottom. The drainage area directly tributary to the Estuary is approximately 4.1 square miles. The Estuary is under the jurisdiction of the LACFCD while the drainage area consists entirely of the City of Long Beach and CALTRANS.



Figure 3: Los Cerritos Channel Estuary

1.4.3 Alamitos Bay Watershed

The Alamitos Bay Watershed has a total drainage area of approximately 5.7 square miles. This area includes the Colorado Lagoon which is situated at the northwestern end of Alamitos Bay. The Colorado Lagoon subwatershed is approximately 1.8 square miles. Alamitos Bay and Colorado Lagoon are hydraulically connected via an underground culvert which connects Colorado Lagoon to the Marine Stadium portion of Alamitos Bay. The Alamitos Bay watershed's drainage area is completely within the jurisdiction of the City of Long Beach and CALTRANS.



Figure 4: Colorado Lagoon

1.4.4 County Island

Within the AB/LCC WMA is the County Island is known as the “North Long Beach Island”. The County Island is landlocked by the City of Long Beach (Figure 5). The County Island is 95 acres (0.15 square miles) and is predominantly High-Density Single Family Residential Land Use.

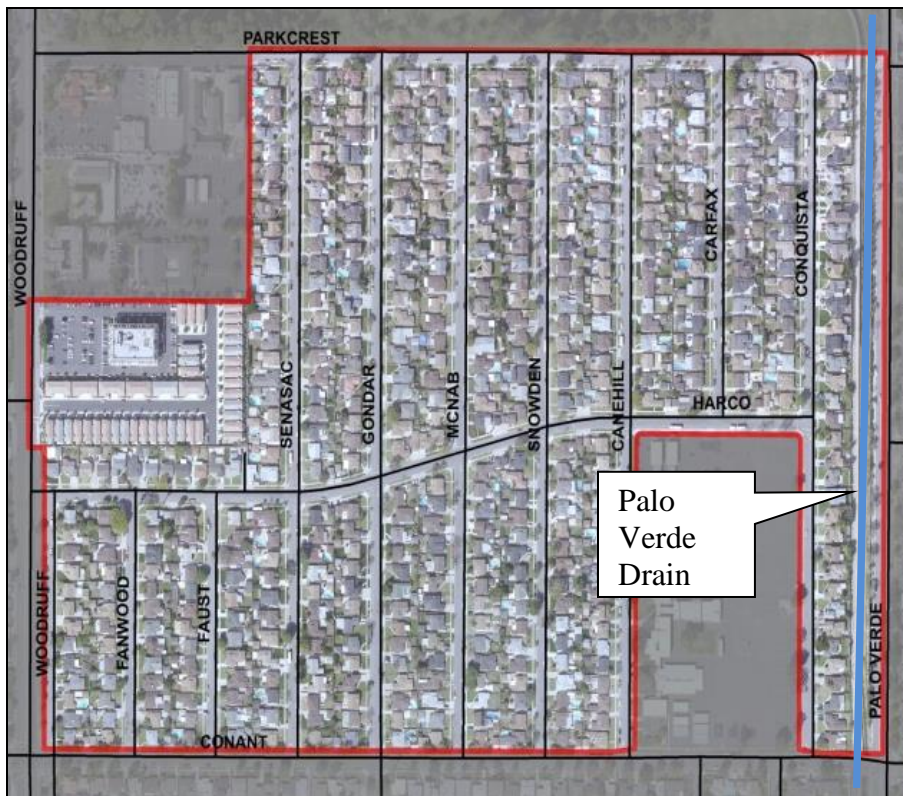


Figure 5: Unincorporated County Island

Section 2. Existing TMDLs and Monitoring Programs in the AB/LCC WMA

Within the AB/LCC WMA, there are 3 existing TMDLs which each require Monitoring and Reporting Programs.

2.1 LOS CERRITOS CHANNEL METALS TMDL

The Total Maximum Daily Load for Metals in Los Cerritos Channel (LCC Metals TMDL) was approved by the United States Environmental Protection Agency (USEPA) on March 17, 2010. The Metals TMDL was developed to address beneficial use impairments due to Copper, Zinc and Lead in the freshwater portion of the Los Cerritos Channel. The freshwater portion of Los Cerritos Channel has the existing beneficial use of Wildlife Habitat (WILD), the potential beneficial uses of Municipal and Domestic Supply (MUN), Water Contact Recreation (REC1) and the intermittent beneficial uses of Warm Freshwater Habitat (WARM), and Non-contact Water Recreation (REC2).

On June 6, 2013, the Los Angeles Regional Water Quality Control Board (LARWQCB) adopted a resolution which includes an Implementation Schedule for the LCC Metals TMDL. The Implementation Schedule states that MS4 permittees shall submit a coordinated monitoring plan, which includes compliance and receiving water monitoring by September 30, 2015. A monitoring plan submitted pursuant to the NPDES Permit may be used by permittees to satisfy the TMDL monitoring requirements. The AB/LCC Group is submitting this CIMP to satisfy the coordinated monitoring plan requirements of the LCC Metals TMDL.

2.2 DOMINGUEZ CHANNEL TOXICS TMDL

The Total Maximum Daily Load for Toxic Pollutants in Dominguez Channel and Greater Los Angeles and Long Beach Harbor Waters (DC Toxics TMDL) was adopted by the LARWQCB on May 5, 2011. The DC Toxics TMDL became effective on March 23, 2012. The goal of the TMDL is to protect and restore fish tissue, water and sediment quality in Dominguez Channel and Greater Los Angeles and Long Beach Harbor waters by remediating contaminated sediment and controlling the sediment loading and accumulation of contaminated sediment in the Harbors.

The County and the LACFCD are both listed as responsible parties for the Greater Harbors waterbody. The DC Toxics TMDL states that “The Greater Los Angeles and Long Beach Harbors responsible parties are each individually responsible for conducting water, sediment, and fish tissue monitoring. However, they are encouraged to collaborate or coordinate their efforts to avoid duplication and reduce associated costs” (DC Toxics TMDL, Basin Plan Amendment pg. 27). Accordingly, both County and LACFCD are participating in the Greater Harbors Regional Monitoring Coalition (RMC). More information can be found in Section 4.3.2.

As recognized by the footnote in Attachment K-7 of the Permit, the County and the LACFCD have entered into an Amended Consent Decree with the United States and the State of California, including the LARWQCB, pursuant to which the LARWQCB has released the County and the LACFCD from responsibility for Toxic pollutants in the Dominguez Channel and the Greater Harbors. Accordingly, no inference should be drawn from the submission of this CIMP or from any action or implementation taken pursuant to it that the County or the LACFCD is obligated to

implement the DC Toxics TMDL, including this CIMP or any of the DC Toxics TMDL's other obligations or plans, or that the County or the LACFCD have waived any rights under the Amended Consent Decree.

2.3 COLORADO LAGOON TOXICS TMDL MONITORING PLAN

The Colorado Lagoon Organochlorine Pesticides, PCBs, Sediment Toxicity, PAHs, and Metals TMDL (Colorado Lagoon Toxics TMDL) was adopted by the LARWQCB on October 1, 2009. The Colorado Lagoon Toxics TMDL was developed to restore fish tissue and sediment in Colorado Lagoon by controlling the contaminated sediment loading and accumulation of contaminated sediment in the lagoon. The Colorado Lagoon has beneficial uses of Commercial and Sport Fishing (COMM), Wildlife Habitat (WILD), Shellfish Harvesting (SHELL), Water Contact Recreation (REC1), Non-Contact water recreation (REC2) and the potential use of Warm Freshwater Habitat (WARM).

On December 17, 2012 the LACFCD along the City of Long Beach and CALTRANS submitted the Final Colorado Lagoon TMDL Monitoring Plan (CLTMP). More information on this monitoring program can be found in Section 4.3.3.

2.4 BENEFICIAL USES

Beneficial uses for waterbodies in the AB/LCC WMA are shown in Table 1.

Table 1: Beneficial Uses in AB/LCC WMA

Water Body	Beneficial Uses	
Los Cerritos Channel Freshwater Segment	Existing	Wildlife Habitat (WILD)
	Potential	Municipal and Domestic Supply (MUN) Water Contact Recreation (REC1)
	Intermittent	Warm Freshwater Habitat (WARM) Non-contact Water Recreation (REC2)
Los Cerritos Channel Estuary	Existing	Industrial Service Supply (IND) Navigation (NAV) Commercial and Sport Fishing (COMM) Estuarine Habitat (EST) Marine Habitat (MAR) Wildlife Habitat (WILD) Rare, Threatened, or Endangered Species (RARE) Migration of Aquatic Organisms (MIGR) Spawning, Reproduction, and/or Early Development (SPWN) Shellfish Harvesting (SHELL) Water Contact Recreation (REC1) Non-Contact water recreation (REC2)
Colorado Lagoon	Existing	Commercial and Sport Fishing (COMM) Wildlife Habitat (WILD) Shellfish Harvesting (SHELL) Water Contact Recreation (REC1) Non-Contact water recreation (REC2)
	Potential	Warm Freshwater Habitat (WARM)
Marine Stadium	Existing	Water Contact Recreation (REC1) Non-Contact water recreation (REC2)
Alamitos Bay	Existing	Water Contact Recreation (REC1) Non-Contact water recreation (REC2)

Section 3. Water Quality Priorities

3.1 OBJECTIVE

Per Section VI.C.5 of the Permit, three categories of pollutants are identified to aid in the evaluation of existing water quality conditions. These classifications consist of:

- Category 1 (Highest Priority): Water body-pollutant combinations for which water quality-based effluent limitations and/or receiving water limitations are established in Part VI.E and Attachments L through R of this Order.
- Category 2 (High Priority): Pollutants for which data indicate water quality impairment in the receiving water according to the State's Water Quality Control Policy for Developing California's Clean Water Act Section 303(d) List (State Listing Policy) and for which MS4 discharges may be causing or contributing to the impairment.
- Category 3 (Medium Priority): Pollutants for which there are insufficient data to indicate water quality impairment in the receiving water according to the State's Listing Policy, but which exceed applicable receiving water limitations contained in this Order and for which MS4 discharges may be causing or contributing to the exceedance"

The AB/LCC group is coordinating portions of its monitoring efforts, where feasible with the Los Cerritos Channel Watershed Group (LCCWG). The LCCWG consists of the cities of Bellflower, Cerritos, Downey, Lakewood, Long Beach, Paramount and Signal Hill. Additionally, the LCCWG contains the LACFCD's infrastructure within these cities' jurisdiction. See Figure 6 for the geographical boundaries of the LCCWG.

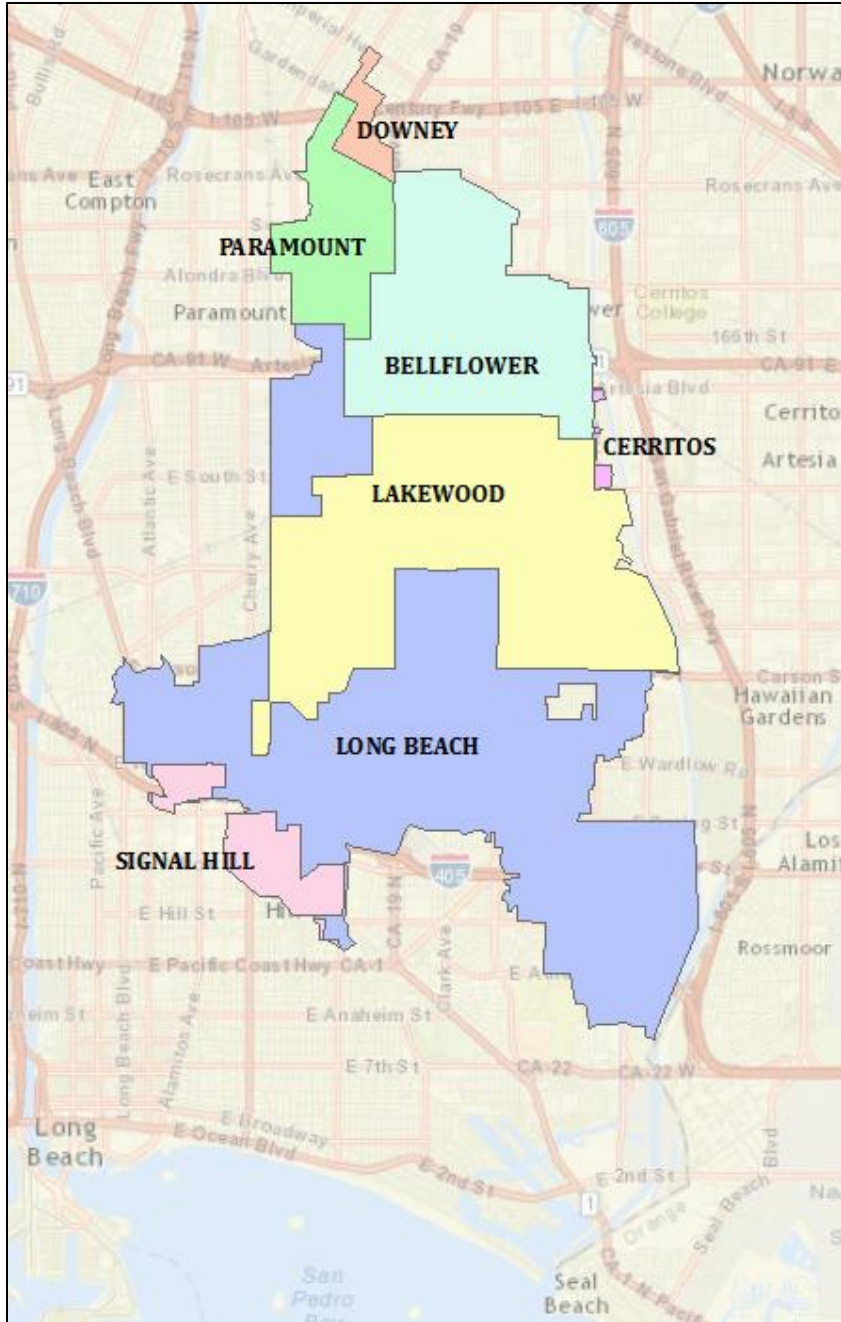


Figure 6: Los Cerritos Channel Watershed Group

For consistency with the LCCWG, the AB/LCC Group has identified Low Priority Pollutants. These pollutants fall below the requirements of Category 3, however there has been at least one exceedance of these pollutants within the past 10 years. Consistent with the requirements of the Permit, existing TMDLs and the 303(d) list were used to determine Category 1 and 2 pollutants. Historic monitoring data collected from the Stearns Street Station (Figure 7 and Figure 8) was used to determine Category 3 and low priority pollutants. Table 2 lists the pollutants of concern for the freshwater portion of the Los Cerritos Channel. A detailed analysis of these pollutants of concern and their priority category can be found in the AB/LCC WMA WMP.

Table 2: Water Quality Priorities for the Freshwater Portion of the Los Cerritos Channel

Waterbody	Category 1 (Highest Priority)		Category 2 (High Priority) Pollutants	Category 3 (Medium Priority) Pollutants	Low Priority Pollutants
	Pollutant	TMDL			
Los Cerritos Channel	Copper (wet and dry)	LCC Metals	Ammonia	MBAS	Cadmium (wet)
	Lead	LCC Metals/DC Toxics	Bis(2ethylhexyl) phthalate (DEHP)	Enterococcus	Chlorpyrifos (wet)
	Zinc	LCC Metals/DC Toxics	Chlordane (Sediment)		Chromium (wet)
	DDT (fish tissue)	DC Toxics	Coliform Bacteria		Diazinon (wet and dry)
	PCBs (fish tissue)	DC Toxics	Trash		Dissolved Silver (wet)
	Chlordane (fish tissue)	DC Toxics	pH		
	PAHs (sediment)	DC Toxics			
	Toxicity (sediment)	DC Toxics			

Section 4. Receiving Water Monitoring

This CIMP utilizes existing monitoring efforts in the AB/LCC Watershed Management Area (WMA) and proposes additional efforts to meet the objectives of the Permit. The AB/LCC Group is providing a representative monitoring program which should characterize its discharge into the affected receiving waters.

4.1 OBJECTIVE

Per Section II.E.1, Attachment E. of the MS4 Permit, the objective of receiving water monitoring includes:

- Determine whether the receiving water limitations are being achieved,
- Assess trends in pollutant concentrations over time, or during specified conditions,
- Determine whether the designated beneficial uses are fully supported as determined by water chemistry, as well as aquatic toxicity and bioassessment monitoring.

This CIMP distinguishes two types of receiving water monitoring, MS4 Receiving Water Sites and TMDL Receiving Water Sites (TMDL Sites).

4.2 MS4 RECEIVING WATER SITE

The AB/LCC Group intends to use the existing mass emission station at the Stearns Street crossing of Los Cerritos Channel as its MS4 Receiving Water Site. The City of Long Beach has maintained this mass emission station since 2000. Upon implementation of the LCCWG and the AB/LCC Group's CIMPs, the City of Long Beach will coordinate with other agencies for the operation and maintenance of the Stearns Street Site.



Figure 7: Stearns Street Mass Emission Station

The Stearns Street site is an ideal location as it assesses the overall health of the Los Cerritos Channel freshwater watershed. Additionally, since this is an existing site, implementation of monitoring at this site is expected to begin once CIMPs are approved by the LARWQCB.

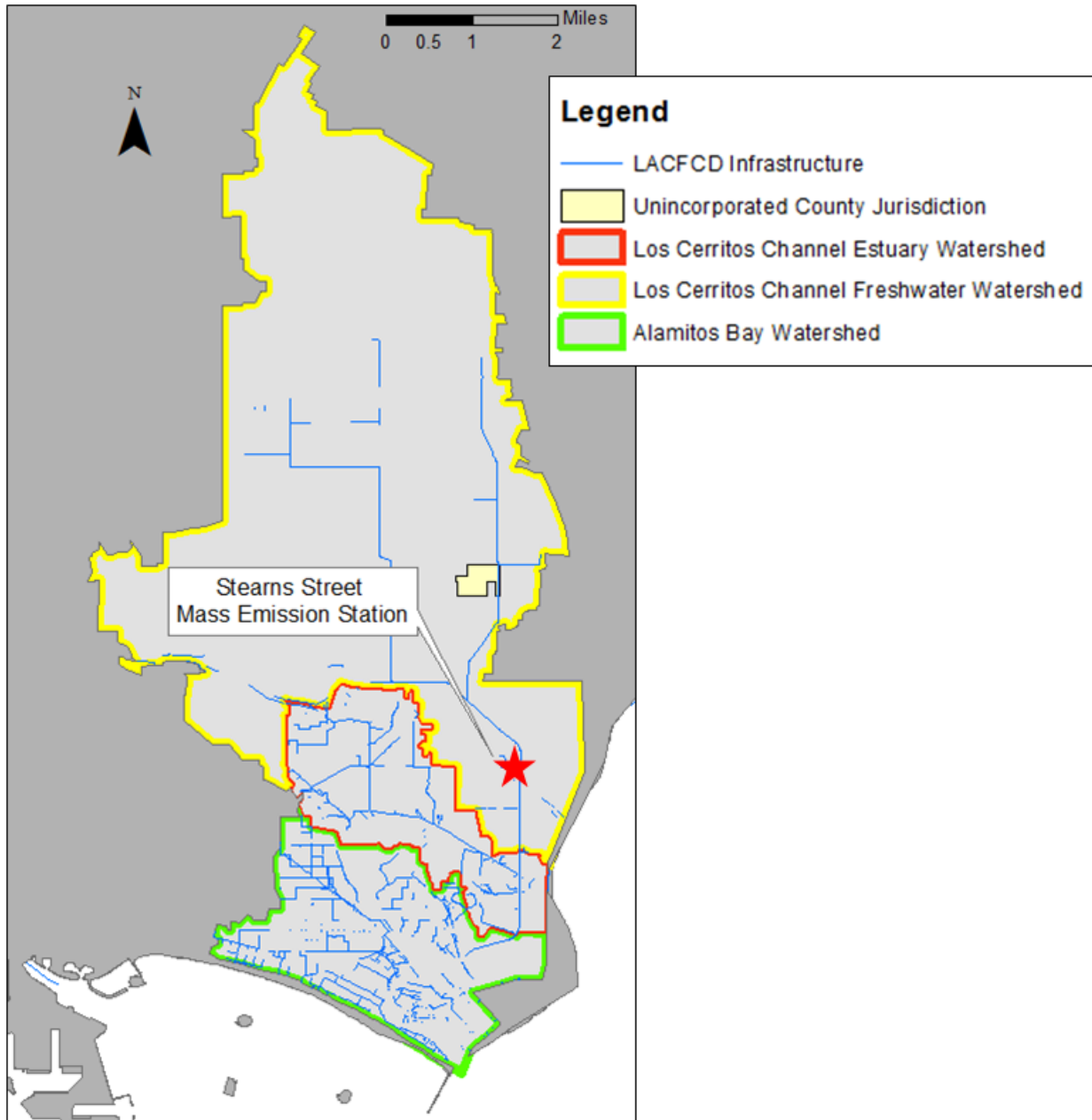


Figure 8: Stearns Street Mass Emission Station Location

Details on constituents, methods and frequency of sampling to be conducted at the Stearns Street site can be found in the *Coordinated Integrated Monitoring Plan for the Los Cerritos Channel Watershed Monitoring Group*.

4.3 TMDL RECEIVING WATER SITES

There are three existing TMDLs in the AB/LCC WMA for which receiving water monitoring is required. The AB/LCC Group will utilize existing monitoring programs and coordinate with parallel CIMP efforts where feasible. The AB/LCC WMA Group may propose new monitoring locations based on results of the receiving water monitoring program through an adaptive process. The adaptive process is outlined in Figure 14.

4.3.1 Los Cerritos Channel Metals TMDL

The LCC Metals TMDL provides WLAs for both wet and dry weather expressed as flow/volumes multiplied by applicable numeric concentration targets and daily pollutant loading thresholds, respectively. Table 3 and Table 4 summarize those WLAs. It is important to note that the LCC Metals TMDL is only applicable to the Los Cerritos Channel freshwater watershed (Figure 1).

Table 3: Category 2: LCC Metals TMDL Wet Weather WLAs

Constituent	WLA Daily Maximum (g/day)
Copper	4.709×10^{-6} x daily storm volume (L)
Lead	26.852×10^{-6} x daily storm volume (L)
Zinc	46.027×10^{-6} x daily storm volume (L)

Table 4: Category 2: LCC Metals TMDL Dry Weather WLA

Constituent	WLA Daily Maximum (g/day)
Copper	67.2

The AB/LCC Group will collaborate its monitoring efforts with the LCCWG to determine the impact of Project 9 Unit 2 Line E (Palo Verde Drain) on the Los Cerritos Channel. Together, the AB/LCC Group and the LCCWG will monitor at the mouth of the Palo Verde Drain, upstream of any backwater effects from the Los Cerritos Channel. The discharge at this site also includes runoff from Cities of Cerritos, Lakewood and Long Beach. Accordingly, monitoring results at this location will be a representative of the cumulative contribution from all of these jurisdictions. A photo and the location of this site are shown in Figures 9 and 10, respectively. Details on constituents, methods and frequency of sampling can be found in the *Coordinated Integrated Monitoring Plan for the Los Cerritos Channel Watershed Monitoring Group*.



Figure 9: Palo Verde Drain: LCC Metals TMDL Receiving Water Site

Figure 9 shows the channel configuration looking upstream towards Spring Street. At this location Palo Verde Drain is a 24 foot by 8 foot rectangular concrete storm drain built in the early 1960s. The storm drain was constructed and is maintained by the LACFCD.

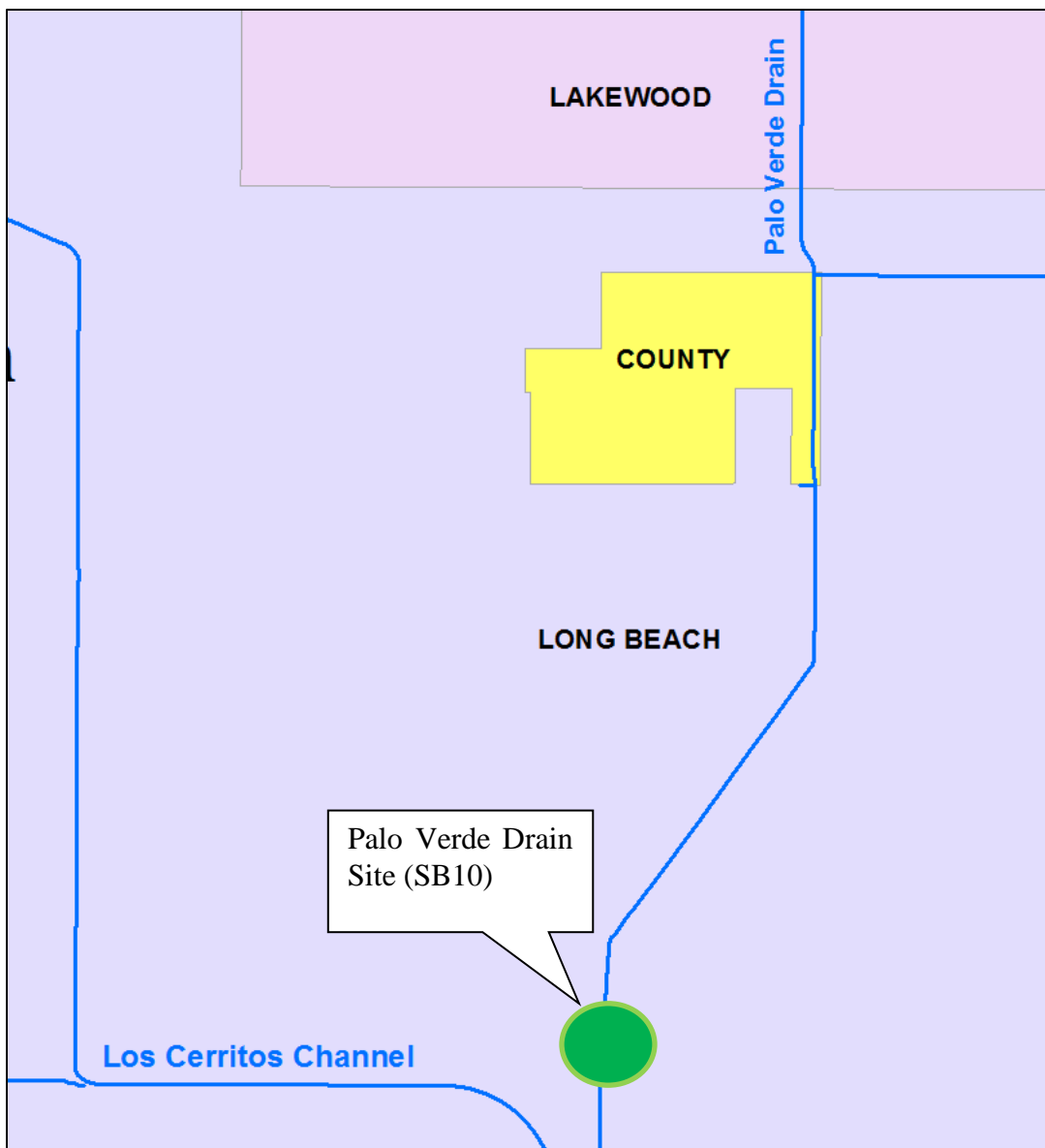


Figure 10: Palo Verde Drain: LCC Metals TMDL Receiving Water Site

The Palo Verde Drain subwatershed is approximately 5.3 square miles consisting of various land uses. The County Island makes up 2.8% of the Palo Verde Drain subwatershed. Table 5 shows the Hydrologic Response Units (HRU) for the Palo Verde Drain subwatershed and the County Island. The HRU is a combination of land use, soil hydrologic group and slope. The comparison in Table 5 shows that HRU breakdown of the County Island is very similar to that of the Palo Verde Drain subwatershed. Therefore, data obtained from the Palo Verde Drain Site will provide an indication of the County Island’s contribution to receiving water.

Table 5: Hydraulic Response Unit Comparison

	Palo Verde Drain Subwatershed		County Island	
	Area [Acres]	Percentage	Area [Acres]	Percentage
High Density Single Family Residential	1623.6	48.3%	63.2	67.0%
Secondary Roads	836.4	24.9%	25.2	26.7%
Institutional	242.2	7.2%	4.0	4.2%
Commercial	162.8	4.8%	2.0	2.1%
Multifamily Residential	235.9	7.0%		
Low Density Single Family Residential Moderate Slope	119.1	3.5%		
Agriculture	60.6	1.8%		
Industrial	43.6	1.3%		
Transportation	34.4	1.0%		
Low Density Single Family Residential Steep Slope	1.8	0.1%		
Vacant	1.0	0.0%		

4.3.2 DC Toxics TMDL

The DC Toxics TMDL states “The Greater Los Angeles and Long Beach Harbors responsible parties are each individually responsible for conducting water, sediment, and fish tissue monitoring. However, they are encouraged to collaborate or coordinate their efforts to avoid duplication and reduce associated costs. Dischargers interested in coordinated compliance monitoring shall submit a coordinated monitoring plan” (BPA pg. 27). Accordingly, the County and LACFCD are participants in the Greater Harbors RMC. The Greater Harbors RMC has prepared a comprehensive sampling and analysis program for the Greater Harbors which includes monitoring at 22 locations (Figure 11). For additional details, see the Coordinated Compliance Monitoring and Reporting Plan, Incorporating Quality Assurance Project Plan Components, Greater Los Angeles and Long Beach Harbor Waters submitted to the LARWQCB on February 25, 2014.



Figure 11: DC and Greater LA/LB Harbors Toxics TMDL Receiving Water Site

4.3.3 Colorado Lagoon Toxics TMDL

On December 17, 2012, the LACFCD along with the City of Long Beach and CALTRANS, submitted the Final Colorado Lagoon TMDL Monitoring Plan (CLTMP). The goals of the CLTMP are:

- Determine compliance with organochlorine pesticides, PCBs, metals, and PAHs waste load and load allocations, and, when appropriate, request delisting of Colorado Lagoon from the 303(d) list of impaired water bodies.
- Monitor the effectiveness of implementation actions proposed by the responsible agencies on water and sediment quality, including potential impacts of redirecting discharges from the Termino Avenue Drain and from cleaning the culvert between Marine Stadium and Colorado Lagoon.
- Monitor contaminants in Lagoon sediments and determine if additional implementation actions are necessary to achieve the TMDL, and
- Implement the CLTMP in a manner consistent with other TMDL implementation plans and regulatory actions within the Colorado Lagoon watershed.

Monitoring per the approved CLTMP began in July 2013. The monitoring locations are shown in Figure 12. For more information, see the Final Colorado Lagoon TMDL Monitoring Plan (CLTMP) prepared for the City of Long Beach, LACFCD, CALTRANS dated December 17, 2012.



Figure 12: Colorado Lagoon Metals TMDL Receiving Water Sites

Section 5. Stormwater Outfall Monitoring

5.1 OBJECTIVE

Per Section II.E.2, Attachment E of the MS4 Permit the objective of stormwater outfall monitoring includes:

- Determine the quality of a Permittee’s discharge relative to municipal action levels, as described in Attachment G of the MS4 Permit,
- Determine whether a Permittee’s discharge is in compliance with applicable storm water WQBELs derived from TMDL WLAs,
- Determine whether a Permittee’s discharge causes or contributes to an exceedance of receiving water limitations”

5.2 APPROACH

To meet the stormwater outfall monitoring requirements, the AB/LCC group will collaborate with the LCCWG. The LCCWG’s CIMP proposes a “watershed segmentation approach” which monitors the major tributaries into the freshwater portion of the Los Cerritos Channel. Due to the unique characteristics of the Los Cerritos Channel Freshwater Watershed, assessing the contributions from major tributaries will efficiently direct a source investigation to determine the sources of pollutants in the watershed. The watershed segmentation approach combines elements of receiving water monitoring and stormwater outfall monitoring.

The Palo Verde Drain is a major tributary to the Los Cerritos Channel. Therefore a monitoring location at the mouth of the Palo Verde Drain will adequately determine the quality of the subwatershed’s discharge into the downstream receiving water. Accordingly, the previously identified site in the Palo Verde Drain Site (SB10) will serve as the stormwater outfall monitoring location for the AB/LCC Group. A detailed description of the Palo Verde Drain Site can be found in Section 4.3.1 of this CIMP.

Section 6. Non-Stormwater Outfall Monitoring Program

6.1 OBJECTIVE

Per Attachment E of the MS4 Permit, the objective of non-stormwater outfall based monitoring is:

- Determine whether a Permittee's discharge is in compliance with applicable non-stormwater WQBELs derived from TMDL WLAs
- Determine whether a Permittee's discharge exceeds non-stormwater action levels, as described in Attachment G of the MS4 Permit
- Determine whether a Permittee's discharge contributes to or causes an exceedance of receiving water limitations,
- Assist a Permittee in identifying illicit discharges as described in Part VI.D.10 of the Permit.

6.2 OUTFALLS WITHIN AB/LCC GROUP'S JURISDICTION

Within the AB/LC Group's jurisdiction, there are a total of 4 MS4 outfalls (Figure 13). These outfalls were initially identified utilizing available GIS databases and as-built drawings. A field check was then done to verify the location and size of the outfalls. A detailed description and photos of the four outfalls within the AB/LCC Group's jurisdiction is shown in Table 6. It should be noted that LCLE-035 and LCLE-041 primarily serve other jurisdiction's land areas and very little of the AB/LCC Group's jurisdiction drains to these outfalls.

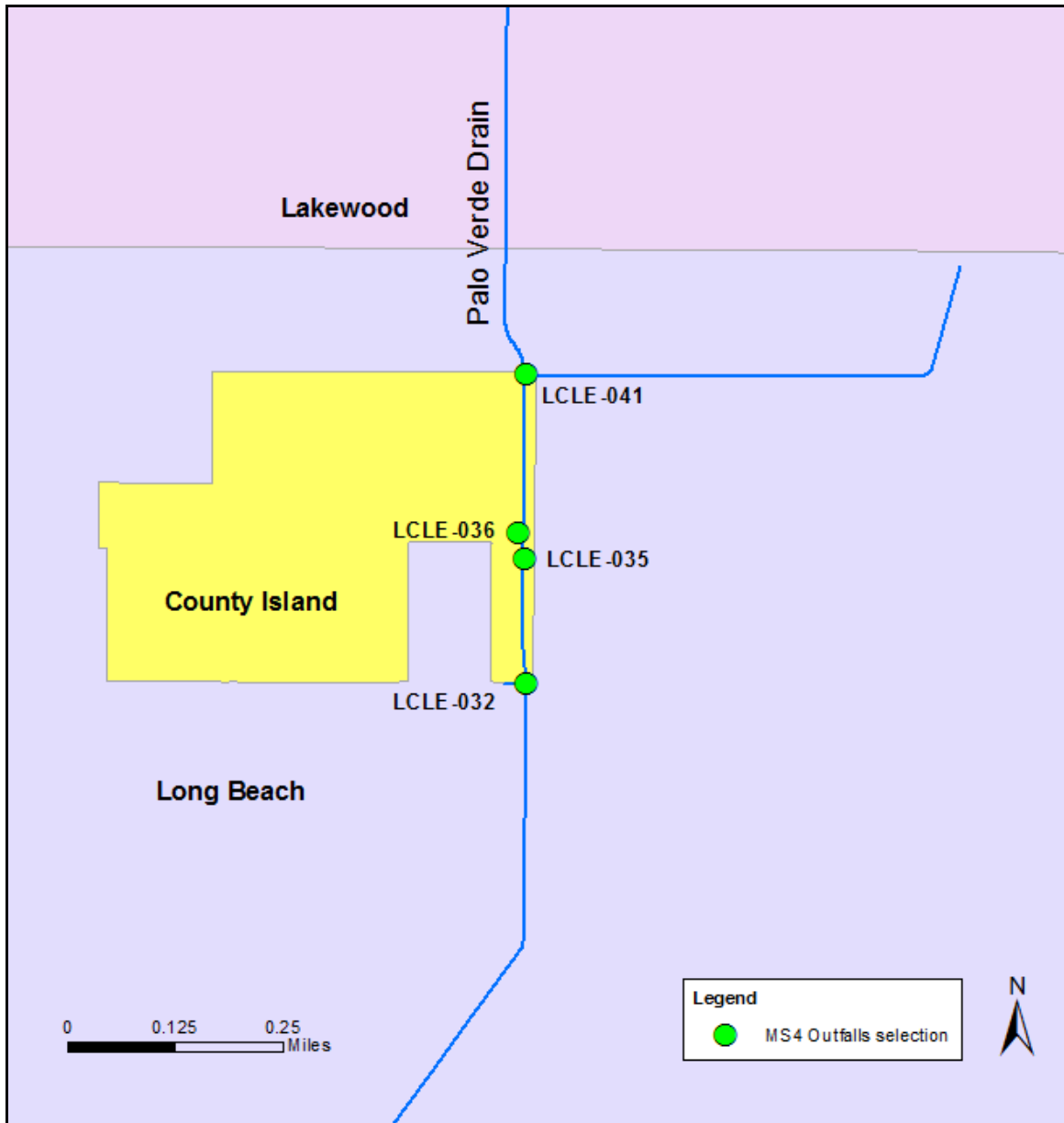






Figure 13: MS4 Outfalls in the AB/LCC WMA Jurisdiction

Table 6: AB/LCC Group's Outfall Description and Photo

Outfall ID Number	Outfall Dimensions	Picture	Screening #1 (April 7, 2014)	Screening #2 (April 17, 2014)
LCLE-032	27 inch Circular Concrete Pipe		No Flow	No Flow
LCLE-035	35 inch x 22 inch Arch Corrugated Metal Pipe Drain		No Flow	No Flow
LCLE-036	56 inch Circular Concrete Pipe		No Flow	Trickle
LCLE-041	Two 72 x 47 inch Rectangular Concrete Outfalls		No Flow	No Flow

6.3 APPROACH

On April 7, 2014 a preliminary field screening of the AB/LCC Group's outfalls was conducted. a subsequent screening was conducted on April 17th . The following methodology is used to meet the objectives of non-stormwater based monitoring program. For the purpose of this CIMP, the AB/LCC Group is screening all outfalls in its jurisdiction. Significant discharge is characterized as any flow visually noted as larger than a "garden hose" during visual observation.

6.3.1 Inventory Outfalls

The AB/LCC Group has conducted an outfall inventory based on channel as-builts and available GIS databases. The inventory noted all outfalls greater than 12 inches in diameter. In early 2014, the outfalls were verified in a field visit. Within the AB/LCC Group's jurisdiction there are 4 outfalls (Table 6).

6.3.2 Field Screening of Outfalls

The AB/LCC has conducted two field screenings of the outfalls within its jurisdiction. The field screening program consists of observing each outfall 3 times. The outfalls are visited at a minimum of three days after a rain event. The screenings are conducted during normal business hours. During the screening, the AB/LCC Group completes the Outfall Screening Form (Appendix B) and appropriate photos are taken. Each screening visually documents whether there is flow or if there is no flow leaving the outfalls.

6.3.3 Determination of Further Assessment

After 3 screenings are conducted, the AB/LCC Group will determine which outfalls require no further assessment. No further assessment is determined if after 3 screenings, 2 of the screenings show the outfalls:

- do not have flow
- do not have known significant non-stormwater discharge
- observed discharges were determined to be exempt

6.3.4 Prioritization Schedule

If any of the outfalls exhibit significant non-stormwater discharge, the AB/LCC Group will prioritize the outfalls for further source investigations. As all of the outfalls discharge to the same waterbody, prioritization will identify the outfalls with the highest visually observed flow to be investigated first. The schedule will ensure that 25% of the outfalls with significant non-stormwater discharges will be investigated by December 28, 2015 and 100% of outfalls with significant non-stormwater discharges will be completed by December 28, 2017.

6.3.5 Non-Stormwater Source Identification

If any outfalls are determined to have significant non-stormwater discharges a source investigation will be conducted including:

- following the dry weather flows upstream into the conveyance system until source is found or it is determined discharge is coming from a jurisdiction outside of the AB/LCC Group
- research if the flows are NPDES permitted, categorically exempt or natural flows
- field inspect the drain for Illicit Connections/Illicit Discharges and eliminate the source
- reviewing land use and City jurisdiction information

6.3.6 Monitor

If outfalls with significant non-stormwater discharge remain unaddressed after a source investigation, monitoring will be done to meet the following objectives:

- Determine whether the discharge is in compliance with applicable non-stormwater WQBELs
- Determine whether the quality of the discharge exceeds non-stormwater action levels described in Attachment G of the Permit
- Determine whether the discharge causes or contributes to the exceedance of Receiving Water Limitations.

The AB/LCC Group would conduct the non-stormwater outfall monitoring twice per year. These dry weather events would be coordinated with downstream LCC Metals monitoring events to determine the whether the non-stormwater discharges are causing or contributing to an observed exceedance of water quality objectives in the receiving water.

6.3.7 Reassessment

Monitoring under the non-stormwater program will cease if monitoring data shows that discharges do not exceed respective water quality standards for TMDL or 303(d) constituents. Updates to the non-stormwater monitoring program will be included in 2017 Annual Report or earlier if changes in the program are determined to be needed

Section 7. New/Redevelopment BMP Effectiveness Tracking System

7.1 OVERVIEW

The County has developed mechanisms for tracking new development/re-development projects that have been conditioned for post-construction BMPs pursuant to Section VI.D.7 of the Permit. Additionally, mechanisms have been developed for tracking the effectiveness of BMPs pursuant to MS4 Permit Attachment E.X. The tracked information includes:

General Information

- Project Name and Developer Name
- Project Location and Map
- Documentation of issuance of requirements to the developer
- Date of Certification of Occupancy

On-Site BMP Sizing Information

- 85th percentile storm event (inches per 24 hours)
- 95th percentile storm event (inches per 24 hours)
- Project design storm (inches per 24 hours)
- Project design volume (gallons or millions of gallons per day)
- Percent of design storm volume to be retained on site
- Other design criteria required to meet hydromodification requirements for projects that directly drain to natural water bodies
- One-year, one-hour storm intensity as depicted on the most recently issued isohyetal map published by the Los Angeles County Hydrologist for flow-through BMPs

Off-Site BMP Information

- Location and maps of off-site mitigation, groundwater replenishment, or retrofit sites
- Design volume for water quality mitigation treatment BMPs
- Percent of design storm volume to be infiltrated at an off-site mitigation or groundwater replenishment project site
- Percent of design storm volume to be retained or treated with biofiltration at an off-site retrofit project

Section 8. Regional Studies

8.1 OVERVIEW

The LACFCD will continue to participate in the Regional Watershed Monitoring Program (Biosassessment Program) being managed by the Southern California Stormwater Monitoring Coalition (SMC). The LACFCD will contribute necessary resources to implement the bioassessment monitoring requirement of the MS4 permit on behalf of all permittees in Los Angeles County during the current permit cycle. Initiated in 2008, the SMC's Regional Bioassessment Program is designed to run over a five-year cycle. Monitoring under the first cycle concluded in 2013, with reporting of findings and additional special studies planned to occur in 2014. SMC, including LACFCD, is currently working on designing the bioassessment monitoring program for the next five-year cycle, which is scheduled to run from 2015 to 2019.

Section 9. Optional Source Identification: County Island

9.1 OVERVIEW

The County Island’s stormwater quality will be primarily indicated based on results at the Palo Verde Drain TMDL site. The County plans to implement this CIMP per the schedule presented in Figure 14. This schedule is dependent upon approval of the AB/LCC and the LCCWG’s CIMPs by the LARWQCB.

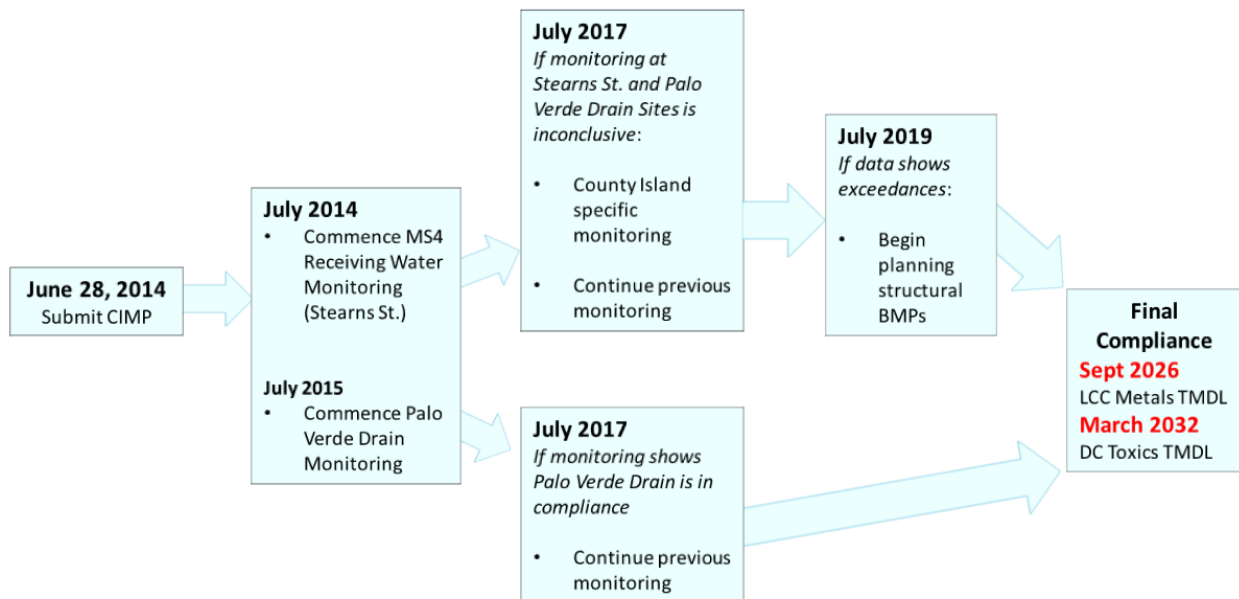


Figure 14: County Island Specific Monitoring Approach

If after two years of monitoring at the Palo Verde Drain Site, monitoring results show exceedances for Category 1 or Category 2 pollutants, the AB/LCC Group will implement a monitoring approach specific to the County Island. If necessary, details of this approach will be submitted to the LARWQCB prior to implementation. Details on the implementation of Best Management Practices can be found in the AB/LCC Group’s WMP.

Section 10. Monitoring Program Overview

10.1 OVERVIEW

The AB/LCC will utilize existing monitoring efforts in the AB/LCC Watershed Management Area (WMA) and proposes additional efforts to meet the objectives of the Permit. Additionally, this CIMP maximizes coordination opportunities with other CIMPs in the AB/LCC WMA. The Permit requires that implementation of the CIMP begins 90 days after approval from the LARWQCB. It should be noted that implementation of this CIMP has already commenced with the Non-Stormwater Outfall Monitoring Program.

Table 7 summarizes the monitoring efforts that will in which the AB/LCC Group is implementing or participating in. Additionally, Figure 15 identifies all proposed monitoring locations in the CIMP. It should be noted that there are additional Greater Harbors RMC (DC Toxics TMDL) sites outside of the limits of this map.

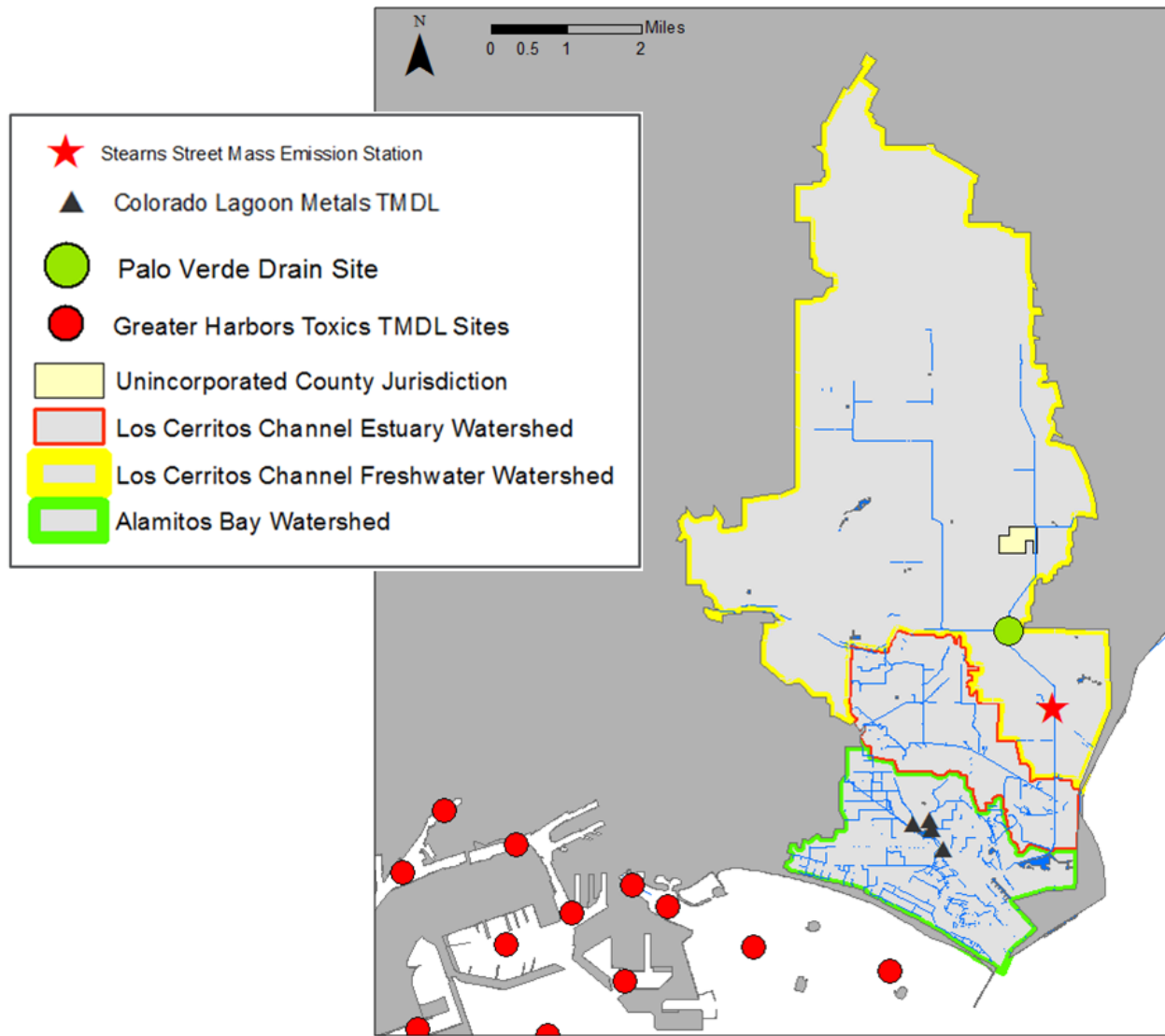


Figure 15: AB/LCC Group's Monitoring Locations

Table 7: Summary of Nutrient and Toxics TMDL Sampling.

Monitoring Type	Locations	Additional Information
<i>Permit Monitoring Program Elements:</i>		
Receiving Water Monitoring	Stearns Street Mass Emission Site	<i>See Coordinated Integrated Monitoring Plan for the Los Cerritos Channel Watershed Monitoring Group</i>
Stormwater Outfall Monitoring	Palo Verde Drain Site	<i>See Coordinated Integrated Monitoring Plan for the Los Cerritos Channel Watershed Monitoring Group</i>
Non-Stormwater Outfall Monitoring Program	TBD	See Section 6 of this CIMP
<i>Los Cerritos Metals TMDL</i>	Palo Verde Drain Site	<i>See Coordinated Integrated Monitoring Plan for the Los Cerritos Channel Watershed Monitoring Group</i>
<i>Dominguez Channel Toxics TMDL</i>	East San Pedro Bay Sites	<i>See the Coordinated Compliance Monitoring and Reporting Plan, Incorporating Quality Assurance Project Plan Components, Greater Los Angeles and Long Beach Harbor Waters submitted to the LARWQCB on February 25, 2014.</i>
<i>Colorado Lagoon Metals TMDL</i>	Colorado Lagoon and Marine Stadium	<i>See Final Colorado Lagoon TMDL Monitoring Plan (CLTMP) dated December 17, 2012</i>

Section 11. Reporting

11.1 MONITORING REPORTS

Monitoring results for the AB/LCC Group's CIMP will be reported semi-annually to the LARWCB. On December 15th of each year an annual report will be submitted to the LARWCQB summarizing the monitoring through June 30th.

As outlined in Part XVI.A of the Monitoring and Reporting Plan (MRP), the annual reporting process is intended to provide the LARWQCB with summary information to allow for the assessment of the Permittee's:

- Participation in one or more Watershed Management Programs.
- Impact of each Permittee(s) stormwater and NSW discharges on the receiving water.
- Each Permittee's compliance with Receiving Water Limitations (RWLs), numeric WQBELs, and NSW action levels.
- The effectiveness of each Permittee(s) control measures in reducing discharges of pollutants from the MS4 to receiving waters.
- Whether the quality of MS4 discharges and the health of receiving waters is improving, staying the same, or declining as a result of watershed management program efforts, and/or TMDL implementation measures, or other minimum control measures (MCMs).
- Whether changes in water quality can be attributed to pollutant controls imposed on new development, re-development, or retrofit projects.
- The Municipal Action Level (MAL) Assessment Report and identification of those subwatersheds with running average of twenty percent or greater of exceedance of the MALs (per page G-17 of Attachment G of the permit). minimum the following components:

The AB/LCC group will work collaboratively with the LCCWG on reporting.

Section 12. References

Los Angeles Regional Water Quality Control Board, “Final Waste Discharge Requirements for Municipal Separate Storm Sewer System (MS4) Discharges within the Coastal Watersheds of Los Angeles County, Except Those Discharges Originating from the City of Long Beach MS4 (posted December 5, 2012)”. Final Order R4-2012-0175, http://www.waterboards.ca.gov/losangeles/water_issues/programs/stormwater/municipal/index.shtml (November 2013)

State of California Water Resources Control Board. “2010 Integrated Report (Clean Water Act Section 303(d) List” April 2010, http://www.waterboards.ca.gov/water_issues/programs/tmdl/integrated2010.shtml. (January 2014)

Los Angeles Regional Water Quality Control Board, “Total Maximum Daily Load for Toxic Pollutants in Dominguez Channel and Greater Los Angeles and Long Beach Harbor Waters”. Resolution No. R11-008, Effective Date: March 23, 2012, http://www.waterboards.ca.gov/losangeles/board_decisions/basin_plan_amendments/technical_documents/bpa_66_R11-008_td.shtml (June 2013)

Anchor QEA, L.P., “Coordinated Compliance, Monitoring, and Reporting Plan Incorporating Quality Assurance Project Plan Components” June, 2013, http://www.waterboards.ca.gov/losangeles/board_decisions/basin_plan_amendments/technical_documents/66_New/09232013/1aDraftCCMRP62413.pdf (January 2014)

United States Environmental Protection Agency, “Los Cerritos Channel Total Maximum Daily Loads for Metals”. March 2010

Los Angeles Regional Water Quality Control Board, “Total Maximum Daily Load for Organochlorine (OC) Pesticides, Polychlorinated Biphenyls (PCBs), Sediment Toxicity, Polycyclic Aromatic Hydrocarbons (PAHs), and Metals for Colorado Lagoon”. Resolution No. R09-05, Adopted Date: October 1, 2009, http://www.waterboards.ca.gov/losangeles/board_decisions/basin_plan_amendments/technical_documents/bpa_65_R09-005_td.shtml (January 2014)

Kinnetic Laboratories, Inc., “Final Colorado Lagoon TMDL Monitoring Plan (CLTMP) Colorado Lagoon Organochlorine Pesticides, PCBs, Sediment Toxicity, PAHs, and Metals TMDL” December, 2012

Los Cerritos Channel Watershed Group, “Coordinated Integrated Monitoring Plan for the Los Cerritos Channel Watershed Monitoring Group” June 2014

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APPENDIX A: LACFCD Background Information

In 1915, the Los Angeles County Flood Control Act was adopted by the California State Legislature after a disastrous regional flood took a heavy toll on lives and property. The act established the LACFCD and empowered it to manage flood risk and conserve stormwater for groundwater recharge. In coordination with the United States Army Corps of Engineers the LACFCD developed and constructed a comprehensive system that provides for the regulation and control of flood waters through the use of reservoirs and flood channels. The system also controls debris, protects existing vegetal covers, collects surface storm water from streets, and replenishes groundwater with storm water and imported and recycled waters. The LACFCD covers the 2,753 square-mile portion of Los Angeles County south of the east-west projection of Avenue S, excluding Catalina Island. It is a special district governed by the County of Los Angeles Board of Supervisors, and its functions are carried out by the Los Angeles County Department of Public Works. The LACFCD service area is shown in **Figure A-1**.

By statute, the LACFCD has limited powers and purposes, which places constraints on the types of projects and activities which the LACFCD may fund. Unlike cities and counties, the LACFCD does not own or operate any municipal sanitary sewer systems, public streets, roads, or highways. The LACFCD operates and maintains storm drains and other appurtenant drainage infrastructure within its service area. The LACFCD has no planning, zoning, development permitting, or other land use authority within its service area. The permittees that have such land use authority are responsible under the Permit for inspecting and controlling pollutants from industrial and commercial facilities, development projects, and development construction sites. (Permit, Part II.E, p. 17.)

The MS4 Permit language clarifies the unique role of the LACFCD in storm water management programs: “[g]iven the LACFCD’s limited land use authority, it is appropriate for the LACFCD to have a separate and uniquely-tailored storm water management program. Accordingly, the storm water management program minimum control measures imposed on the LACFCD in Part VI.D of this Order differ in some ways from the minimum control measures imposed on other Permittees. Namely, aside from its own properties and facilities, the LACFCD is not subject to the Industrial/Commercial Facilities Program, the Planning and Land Development Program, and the Development Construction Program. However, as a discharger of storm and non-storm water, the LACFCD remains subject to the Public Information and Participation Program and the Illicit Connections and Illicit Discharges Elimination Program. Further, as the owner and operator of certain properties, facilities and infrastructure, the LACFCD remains subject to requirements of a Public Agency Activities Program.” (Permit, Part II.F, p. 18.)

Consistent with the role and responsibilities of the LACFCD under the Permit, the WMPs and CIMPs reflect the opportunities that are available for the LACFCD to collaborate with permittees having land use authority over the subject watershed area. In some instances, the opportunities are minimal, however the LACFCD remains responsible for compliance with certain aspects of the MS4 permit as discussed above.

During the development of the CIMP, LACFCD infrastructure was evaluated for monitoring opportunities. The LACFCD will be collaborating with the groups for all of the monitoring.



Figure A-1 Los Angeles County Flood Control District Service Area

APPENDIX B: Non-Stormwater Outfall Screening Form

NON-STORMWATER OUTFALL INSPECTION FORM

Name of Inspector: _____ Date: _____ [dry-weather months]
 Time: _____
 Outfall ID: [alpha-numeric] Previous Inspection Date(s): _____
 Name of Receiving Water Body: _____

Channel Stationing: _____ Outfall Long./Lat.: _____

Narrative Description of Location: [nearest cross streets, whether outlet is on east or west side of channel, notable landmarks nearby, etc.]

Diversion Structures Upstream or Downstream: _____

Outfall Dimensions: _____

Photo IDs: [take photos of outfall and downstream receiving water]

Discharge Characteristics:

Observed Flow Size:
 No Flow
 Trickle
 Garden Hose
 Fire Hydrant

Estimate of Flow Rate:

Water Quality Meter:
 pH
 Temperature
 DO
 Electrical Conductivity

Odor:

Yes
 No
 Description: _____

Color: [Recommended to use Color Wheel]

None
 Yellow
 Brown
 White
 Gray
 Other: _____

Clarity:

Clear
 Slightly Cloudy
 Opaque
 Other: _____

Receiving Water Characteristics:

Conveyance:

Concrete Channel
 Trapezoidal
 Soft Bottom Channel
 Armored Sides
 Natural Creek
 Pipe or Box

Low Flow Channel:

Yes
 No

Water Flow:

Dry
 Ponding
 Flowing
 Tidal

Weather:

Sunny Partly Cloudy Overcast Fog

Site Information:

Flap Gate Yes No
 In Street Yes No
 Parking Close By Yes No
 Safe to Collect Samples Yes No If no, why not?
 Traffic Control Required Yes No

How is the outfall accessed? [adder, manhole, etc. and if not accessible, describe why and provide suggestions on alternate access points, if any.]

Source ID:

Known: Yes No ID, if Known: _____

IC/ID Conditionally Exempt Essential Conditionally Exempt Non-Essential Multiple Sources Upstream Source

Comments:

Los Angeles Regional Water Quality Control Board

October 27, 2014

Ms. Gail Farber, Director
County of Los Angeles
Department of Public Works
Watershed Management Division, 11th Floor
900 South Fremont Avenue
Alhambra, CA 91803

Ms. Gail Farber, Chief Engineer
Los Angeles County Flood Control District
Department of Public Works
Watershed Management Division, 11th Floor
900 South Fremont Avenue
Alhambra, CA 91803

REVIEW OF THE ALAMITOS BAY/LOS CERRITOS CHANNEL WATERSHED MANAGEMENT AREA DRAFT WATERSHED MANAGEMENT PROGRAM, PURSUANT TO PART VI.C OF THE LOS ANGELES COUNTY MUNICIPAL SEPARATE STORM SEWER SYSTEM (MS4) PERMIT (NPDES PERMIT NO. CAS004001; ORDER NO. R4-2012-0175)

Dear Ms. Farber:

The Regional Water Board has reviewed the draft Watershed Management Program (WMP) submitted on June 30, 2014 by the County of Los Angeles and Los Angeles County Flood Control District for the Alamitos Bay/Los Cerritos Channel Watershed Management Area. This program was submitted pursuant to the provisions of NPDES Permit No. CAS004001 (Order No. R4-2012-0175), which authorizes discharges from the municipal separate storm sewer system (MS4) operated by 86 municipal Permittees within Los Angeles County (hereafter, LA County MS4 Permit). The LA County MS4 Permit allows Permittees the option to develop either a Watershed Management Program (WMP) or Enhanced Watershed Management Program (EWMP) to implement permit requirements on a watershed scale through customized strategies, control measures, and best management practices (BMPs). Development of a WMP or EWMP is voluntary and may be developed individually or collaboratively.

The purpose of a WMP or EWMP is for a Permittee to develop and implement a comprehensive and customized program to control pollutants in MS4 discharges of storm water and non-storm water to address the highest water quality priorities. These include complying with the required water quality outcomes of Part V.A (Receiving Water Limitations) and Part VI.E and Attachments L through R (Total Maximum Daily Load (TMDL) Provisions) of the LA County MS4 Permit. If a Permittee opts to develop a WMP or EWMP, the WMP or EWMP must meet the requirements, including conducting a Reasonable Assurance Analysis (RAA), of Part VI.C (Watershed Management Programs) of the LA County Permit and must be approved by the Regional Water Board.

As stated above, on June 30, 2014, the County of Los Angeles (County) and the Los Angeles County Flood Control District (LACFCD) submitted a draft Watershed Management Program (WMP) for the Alamitos Bay/Los Cerritos Channel (AB/LLC) Watershed Management Area (WMA) to the Regional Water Board pursuant to Part VI.C.4.c of the LA County MS4 Permit.

Subsequent to submittal of the draft WMP, Regional Water Board staff met with the County and LACFCD on September 15, 2014, to discuss the AB/LLC WMP.

The Regional Water Board has reviewed the draft WMP and has determined that, for the most part, the draft WMP includes the elements and analysis required in Part VI.C of the LA County MS4 Permit for the 95-acre County Island within the AB/LCC WMA. However, some revisions to the County's and LACFCD's draft WMP are necessary, including additional analyses related to the remainder of the subwatershed areas addressed by the draft WMP, which includes the Los Cerritos Channel Estuary, Colorado Lagoon, Alamitos Bay and San Pedro Bay. The Regional Water Board's comments on the draft WMP, including detailed information concerning necessary revisions to the draft WMP and the Reasonable Assurance Analysis, are found in Enclosure 1 and Enclosure 2, respectively. The specific Permit provisions cited in the enclosures refer to provisions in the LA County MS4 Permit. The LA County MS4 Permit includes a process through which revisions to the draft WMP can be made (Part VI.C.4 in the LA County MS4 Permit). The process requires that a final WMP, revised to address Regional Water Board comments, must be submitted to the Regional Water Board not later than three months after comments are received by the Permittees on the draft program. Please make the necessary revisions to the draft WMP as identified in the enclosures to this letter and submit the revised WMP as soon as possible and no later than **January 27, 2015**.

The revised WMP must be submitted to losangeles@waterboards.ca.gov with the subject line "LA County MS4 Permit – Revised Draft AB/LLC WMP" with a copy to Ivar.Ridgeway@waterboards.ca.gov and Rebecca.Christmann@waterboards.ca.gov.

If the necessary revisions are not made, the County and the LACFCD will be subject to the baseline requirements in Part VI.D of the Order and shall demonstrate compliance with receiving water limitations pursuant to Part V.A and with applicable interim and final water quality-based effluent limitations (WQBELs) in Part VI.E and Attachments N and Q pursuant to subparts VI.E.2.d.i.(1)-(3) and VI.E.2.e.i.(1)-(3), respectively.

Until the draft AB/LLC WMP is approved, the County and LACFCD are required to:

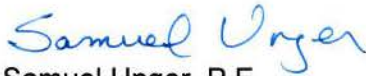
- (a) Continue to implement all watershed control measures in its existing storm water management programs, including actions within each of the six categories of minimum control measures consistent with Title 40, Code of Federal Regulations, section 122.26(d)(2)(iv);
- (b) Continue to implement watershed control measures to eliminate non-storm water discharges through the MS4 that are a source of pollutants to receiving waters consistent with Clean Water Act section 402(p)(3)(B)(ii); and
- (c) Target implementation of watershed control measures in (a) and (b) above to address known contributions of pollutants from MS4 discharges to receiving waters.
- (d) Implement watershed control measures, where possible from existing TMDL implementation plans, to ensure that MS4 discharges are achieving compliance with interim WQBELs for the Colorado Lagoon TMDL and the Harbors Toxics TMDL pursuant to Part VI.E and set forth in Attachments N and Q consistent with the compliance deadline of December 28, 2012.

In addition on June 30, 2014, the County and the LACFCD submitted a draft Coordinated Integrated Monitoring Program (CIMP) for the AB/LLC WMA to the Regional Water Board

pursuant to Part IV.C of Attachment E of the LA County MS4 Permit. The Regional Water Board review and comments on the draft CIMP will be provided under separate cover.

If you have any questions, please contact Ms. Rebecca Christmann of the Storm Water Permitting Unit by electronic mail at Rebecca.Christmann@waterboards.ca.gov or by phone at (213) 576-5734. Alternatively, you may also contact Mr. Ivar Ridgeway, Chief of the Storm Water Permitting Unit, by electronic mail at Ivar.Ridgeway@waterboards.ca.gov or by phone at (213) 620-2150.

Sincerely,



Samuel Unger, P.E.
Executive Officer

cc: Angela George, Los Angeles County Flood Control District
Jolene Guerrero, County of Los Angeles, Department of Public Works
Bill Johnson, County of Los Angeles, Department of Public Works

Enclosures: Summary of Comments and Required Revisions
Memorandum on Reasonable Assurance Analysis

Los Angeles Regional Water Quality Control Board

**Attachment to October 27, 2014 Letter Regarding the Alamitos Bay/Los Cerritos Channel
Watershed Management Area Draft Watershed Management Program,
Pursuant to Part VI.C of the LA County MS4 Permit (Order No. R4-2012-0175)**

Summary of Comments and Required Revisions to the Draft Watershed Management Program

LA County MS4 Permit Provision	Summary of Comments and Necessary Revisions
<p>Part VI.C.5.a.i Water Quality Characterization</p>	<p>The geographical scope of this WMP includes both the 95-acre County Island and LACFCD infrastructure in the Los Cerritos Channel freshwater subwatershed as well as the LACFCD infrastructure within the Los Cerritos Channel Estuary subwatershed and the Alamitos Bay subwatershed. Therefore, the WMP needs to present and evaluate water quality data for the Los Cerritos Channel Estuary, Colorado Lagoon, Alamitos Bay and San Pedro Bay, if available. Monitoring data that should be evaluated in the revised WMP include TMDL monitoring data for the Colorado Lagoon; bacteria data for Alamitos Bay; Bight data for San Pedro Bay; SWAMP data for Los Cerritos Channel Estuary; and any other data from CEDEN for Los Cerritos Channel, Los Cerritos Channel Estuary, Alamitos Bay and San Pedro Bay.</p> <p>It appears that the data for diazinon during wet weather may be missing from Table 1 on page B-3.</p>
<p>Parts VI.C.5.a.ii(1) and iv(1) Water Body-Pollutant Classification</p>	<p>The WMP needs to address the copper dry weather waste load allocation. Copper is listed in Table 3 as a Category 1 pollutant during both wet and dry conditions, but does not appear to be further addressed in the WMP, including the RAA. The WMP needs to identify the interim and final compliance deadlines of September 30, 2023 for the wet weather waste load allocation and dry weather waste load allocation, respectively.</p> <p>In addition, the WMP needs to include and address in the RAA all applicable water quality-based effluent limitations (WQBELs) to comply with provisions of Part VI.E and Attachment Q related to the Colorado Lagoon OC Pesticides, PCBs, Sediment Toxicity, PAHs and Metals TMDL and Attachment N related to the Dominguez Channel and Greater Los Angeles and Long Beach Harbor Waters Toxic Pollutants TMDL, which apply to the LACFCD for direct discharges to Colorado Lagoon and San Pedro Bay, respectively.</p> <p>In Section 2.2, the draft WMP states, “As recognized by the footnote in Attachment K-7 of the Permit, the County and the</p>

LA County MS4 Permit Provision	Summary of Comments and Necessary Revisions
	<p>LACFCD have entered into an Amended Consent Decree with the United States and the State of California, including the LARWQCB, pursuant to which the LARWQCB has released the County and the LACFCD from responsibility for Toxic pollutants in the Dominguez Channel and the Greater Harbors.”</p> <p>This statement misinterprets the Regional Water Board’s findings. Footnote 1 to Table K-7 of the LA County MS4 Permit states, “The requirements of this Order to implement the obligations of this TMDL do not apply to a Permittee to the extent that it is determined that the Permittee has been released from that obligation pursuant to the Amended Consent Decree entered in United States v. Montrose Chemical Corp., Case No. 90-3122 AAH (JRx).” As stated in the responses to comments received on the Dominguez Channel and Greater Harbor Waters Toxic Pollutants TMDL, “...primarily one pollutant, DDT, is associated with the Superfund site and also addressed by the TMDL. The TMDL addresses numerous pollutants and utilizes a different process than Superfund. The other pollutants – heavy metals, PAHs, PCBs and other legacy pesticides are not within Superfund’s focus at the Montrose OU2 Site...”</p> <p>Further, the WQBELs applicable to the County and LACFCD pursuant to the TMDL, which are in Attachment N, Part E of the LA County MS4 Permit, are for ongoing discharges from the MS4, not for the historic contamination of the bed sediments. Therefore, the statement in the draft WMP incorrectly concludes that the aforementioned Consent Decree releases the County and LACFCD from any obligation to implement the WQBELs in Attachment N, Part E.</p>
<p>Part VI.C.5.a.ii(2) and iv(2) Water Body-Pollutant Classification</p>	<p>The WMP needs to specify the applicable receiving water limitations for the Category 2 water body pollutant combinations (WBPCs) listed in Table 2. In addition, pH needs to be added to the list of Category 2 pollutants in Table 2.</p> <p>The WMP needs to address the pollutants identified on the State’s Clean Water Act Section 303(d) List for Colorado Lagoon (indicator bacteria, which was not addressed by the Colorado Lagoon TMDL); and the 303(d) listing for indicator bacteria in Alamitos Bay.</p>
<p>Part VI.C.5.a.ii(3) and iv(2) Water Body-Pollutant Classification</p>	<p>The WMP needs to specify the applicable receiving water limitations for the Category 3 WBPCs. In addition, the WMP needs to include the rationale for not including aluminum as a Category 3 pollutant.</p> <p>The WMP needs to evaluate and address other pollutants that are otherwise causing or contributing to an exceedance of Receiving</p>


LA County MS4 Permit Provision	Summary of Comments and Necessary Revisions
	Water Limitations in Los Cerritos Channel Estuary, Colorado Lagoon, Alamitos Bay and San Pedro Bay, if any.
Part VI.C.5.a.iii Source Assessment	The WMP needs to include a source assessment regarding known and suspected storm water and non-storm water pollutant sources in discharges to the MS4 and from the MS4 to receiving waters. The source assessment should include (1) a discussion of findings from implementation of the minimum control measures under the 2001 Permit; (2) a discussion of the data and conclusions from the TMDL source investigations; and (3) TMDL monitoring data for Colorado Lagoon from the LACFCD storm drain.
Part VI.C.5.a.iii.(1)(b) Source Assessment	<p>The WMP needs to identify on a map the County's MS4s within the County Island; catch basins and major outfalls for the County and LACFCD in the Los Cerritos Channel subwatershed; and catch basins and major outfalls for the LACFCD in the Los Cerritos Channel Estuary subwatershed and the Alamitos Bay subwatershed. Regional Water Board staff is aware that the CIMP identifies 4 outfalls to the Los Cerritos Channel, 2 or 3 of which are potentially major outfalls (Figure 13, Table 6, pp. 23-24). However, the WMP should include this information as well.</p> <p>In Figure 2 of the WMP, the Palo Verde Drain appears to be depicted in the wrong location.</p>
Part VI.C.5.a.iv. Prioritization	The WMP needs to prioritize and address the Category 2 and 3 WBPCs for the Los Cerritos Channel Watershed.
Part VI.C.5.a.iv.(1) Prioritization	<p>The WMP needs to provide a clear schedule that demonstrates implementation of the BMPs will achieve the required interim metal reductions by the compliance deadlines. In addition, justification and supporting data is required to support the expected reductions in pollutant loads.</p> <p>The WMP needs to specify a strategy to achieve the final water quality-based effluent limitations for the Colorado Lagoon Toxics TMDL and demonstrate that the interim WQBELs for chlordane, dieldrin, lead, zinc, DDT, PAHs, and PCBs in sediment have been achieved.</p>
Part VI.C.5.a.iv.(2)(a) Prioritization	The County plans to implement connector pipe screen devices on the 4 catch basins within the County Island by July of 2017; justification is needed to demonstrate that this schedule is as short as possible.
Part VI.C.5.b.ii.(1) Selection of Watershed Control Measures	The WMP needs to specify a strategy that will be implemented to prevent or eliminate non-storm water discharges, if necessary based on the findings of the non-storm water screening program.
Part VI.C.5.b.iv.(3) Selection of Watershed Control Measures	The WMP needs to include the implementation actions to be carried out by the LACFCD or jointly by LACFCD and the City of Long Beach that have been proposed in the Colorado Lagoon Restoration Project and that will be implemented to achieve compliance with

LA County MS4 Permit Provision	Summary of Comments and Necessary Revisions
<p>Part VI.C.5.b.iv.(4)(a) Selection of Watershed Control Measures</p>	<p>the interim and final WQBELs for the Colorado Lagoon Toxics TMDL.</p> <p>The AB/LCC group is submitting the WMP to satisfy the Implementation Plan requirement of the Los Cerritos Channel (LCC) Metal TMDL. The WMP discusses existing and planned non-structural BMPs that will be implemented and potential structural BMPs that may be implemented if necessary to achieve the WLAs for copper, lead, and zinc along with the assumed pollutant reductions. However, the WMP needs to provide peer-reviewed data and/or modeling output to support the expected reduction in pollutant load, in order to demonstrate compliance with the interim WLAs that must be met by 2017 and 2020, as specified in the LCC Metals TMDL Implementation Plan. Where the AB/LCC group relies on the analysis of another group or previous implementation plan, such as the Ballona Creek Multi-pollutant Implementation Plan, the AB/LCC group should reiterate the analysis/findings in the revised WMP.</p> <p>The WMP needs to include control measures to achieve the interim and final WQBELs for the Colorado Lagoon Toxics TMDL and the interim WQBELs for the Harbors Toxics TMDL for direct discharges into San Pedro Bay.</p>
<p>Part VI.C.5.b.iv.(4)(b)-(d) Selection of Watershed Control Measures</p>	<p>The WMP states, "Over the next few years, the County will upgrade a portion of its mechanical broom street sweepers with new high efficiency vacuum street sweepers."</p> <p>In addition, the WMP states, "The County plans to implement CPS devices on the 4 catch basins within its jurisdiction in the AB/LCC WMA by July of 2017. Construction of the CPS devices is contingent upon appropriate field conditions and a thorough design review. CPS devices cannot be installed in areas where they may adversely affect flood protection or in catch basins that are too shallow to house CPS devices." The WMP needs to clearly identify when the 4 catch basins will be assessed as to whether a CPS device is feasible. The WMP needs to include a contingency if the CPS device cannot be installed in one or more of the catch basins.</p> <p>The revised WMP needs to provide more specificity with regards to the schedule of implementation for these watershed control measures that demonstrates compliance with the interim compliance deadlines for metals.</p> <p>In addition, the revised WMP needs to address how the LACFCD will comply with the trash requirements for catch basins and outfalls in the Los Cerritos Channel Estuary subwatershed and the Alamitos Bay subwatershed.</p>

LA County MS4 Permit Provision	Summary of Comments and Necessary Revisions
<p>Part VI.C.5.b.iv.(5) Reasonable Assurance Analysis</p>	<p>The WMP modeled the critical condition, the daily pollutant loads for Cu, Pb, and Zn during wet weather, and the required wet weather load reduction. However, the calculated load reductions were done incorrectly. Since the 95-acre County Island is about 1% of the entire Los Cerritos Channel watershed; then the County's portion of the WLAs is 1%. In addition, the RAA did not address the non-storm water copper WLAs or other pollutants in Category 1 for the Colorado Lagoon Toxics TMDL and Harbors Toxics TMDL. The Reasonable Assurance Analysis (RAA) needs to address all applicable WQBELs in Attachments N and Q and other applicable waterbody-pollutant combinations falling within Categories 2 and 3. (See also detailed comments on the County's RAA in the attached memorandum.)</p>
<p>Part VI.C.5.c Compliance Schedules</p>	<p>The WMP needs to demonstrate that the interim deadlines are being or will be achieved. In addition, the WMP needs to include the interim and final compliance deadlines for September 30, 2023, for the wet weather waste load allocation and dry weather waste load allocation, respectively.</p>

Los Angeles Regional Water Quality Control Board

TO: Bill Johnson, P.E.
Alamitos Bay/Los Cerritos Channel Watershed Management Program

FROM: C.P. Lai, Ph.D., P.E. and Thanhloan Nguyen 
LOS ANGELES REGIONAL WATER QUALITY CONTROL BOARD

DATE: October 24, 2014

SUBJECT: COMMENTS ON SECTION 5, REASONABLE ASSURANCE ANALYSIS, OF
THE DRAFT WATERSHED MANAGEMENT PROGRAM FOR THE ALAMITOS
BAY/LOS CERRITOS CHANNEL WATERSHED MANAGEMENT AREA

This memorandum contains comments on Section 5, Reasonable Assurance Analysis, of the Alamitos Bay/Los Cerritos Channel Watershed Management Program, dated June 28, 2014, which was submitted by the Los Angeles County Flood Control District (LACFCD) and the County of Los Angeles Department of Public Works (County) for the 95-acre County unincorporated land area within the Los Cerritos Channel Freshwater Watershed and the LACFCD's storm drains and other appurtenant drainage infrastructure within the Los Cerritos Channel Freshwater Watershed, Los Cerritos Channel Estuary Watershed, and Alamitos Bay Watershed.

A. General comments on the draft Reasonable Assurance Analysis (RAA) section of the draft Watershed Management Program.

1. The Alamitos Bay/Los Cerritos Channel Group (AB/LCC Group) are subject to final water quality-based effluent limitations pursuant to Attachment N, Part E "Dominguez Channel and Greater Los Angeles and Long Beach Harbor Waters Toxic Pollutants TMDL", and Attachment Q, Part A "Los Cerritos Channel Metals TMDL", Part B "Colorado Lagoon OC Pesticides, PCBs, Sediment Toxicity, PAHs, and Metals TMDL."

Pursuant to Part VI.C.5.a.iv(1) and VI.C.5.b.iv, pages 60 and 62-63 of the MS4 Permit, the AB/LCC Group are required to prepare reasonable assurance analysis to demonstrate that the WQBELs that are established in the Colorado Lagoon OC Pesticides, PCBs, Sediment Toxicity, PAHs, and Metals TMDL shall be achieved through implementation of the watershed control measure proposed in the WMP. However, the Colorado Lagoon OC Pesticides, PCBs, Sediment Toxicity, PAHs, and Metals TMDL was completely omitted from the draft WMP. The draft WMP did not include and analyze a strategy to implement pollutant controls necessary to achieve all applicable interim and final water quality-based effluent limitations and/or receiving water limitations with interim or final compliance deadlines within the permit term pursuant to the corresponding compliance schedules in the Colorado Lagoon OC Pesticides, PCBs, Sediment Toxicity, PAHs, and Metals TMDLs.

2. The AB/LCC Group used historic data from the Stearns Street Mass Emission Station to determine Category 3 and low priority pollutants, which is only appropriate to identify pollutants of concern for the freshwater portion of the Los Cerritos Channel. There is no data analysis or information provided for high priority (Category 2) and medium priority (Category 3) pollutants of concern for Los Cerritos Channel Estuary Watershed and Alamitos Bay Watershed.
 3. The AB/LCC Group had identified water quality priorities for Los Cerritos Channel but not for Colorado Lagoon and East San Pedro Bay, where the following drains discharge to: LACFCD Project 452 Drain (Colorado Lagoon), BI 5151 U2 - Line A - Long Beach, BI 0450 - line G - Alamitos Bay, BI 5101 U2 - Line A - Long Beach, and BI 0450 - Line A - Alamitos Bay. Pursuant to Section VI.C.5.a., the WMP should include an evaluation of existing water quality conditions, classify them into categories, identify potential sources, and identify strategies, control measures, and BMPs as required in the permit.
 4. The TMDL allowable daily loads for metals applicable to the County Island were incorrectly calculated. The calculated TMDL allowable load did not take into account that the County Island area only covers 95 acres, which is approximately 1% of the LCC Freshwater Watershed area covered under the LA County MS4 Permit to which the assigned LA County MS4 Permittees' WLA applies. (The areal extent of the watershed area covered by the LA County MS4 Permit is 9,470 acres.) Table 5 on page 18 of the draft WMP needs to be revised to include the correct TMDL allowable loads for the County Island, specifically, and recalculated required pollutant load reductions. (Also, the table needs to be corrected to state that the TMDL establishes an allowable daily load; the allowable loads for lead and zinc are presented as annual loads not daily loads.) Identification of potential BMPs and modeling of these BMP scenarios for the reasonable assurance analysis to ensure the required reductions are achieved should also be revised accordingly.
- B. Modeling comments regarding analysis of copper, lead and zinc concentrations / loads:
1. The model domain used for predicting flow volume and pollutant loading is limited in the County Island area, which is located within WMMS subbasin 5505. As such, the model prediction did not take upstream and neighboring hydrological contribution of flow and pollutant loading into account. This is based on the assumption that these surrounding flows and pollutant loading will be addressed by the Los Cerritos Channel Watershed Management Program submitted by other LA County MS4 Permittees.
 2. The model predicted flow volume appears to be used as an indicator of required pollutant load reductions for wet weather condition. Thus, the predicted flow volume becomes a very important parameter for evaluating each BMP's performance and required load reductions. In addition to Figures 6 and 7, the model results of daily storm flow volume originating from County Island and the frequency analysis should be presented in tabular form to identify the predicted 90th percentile daily flow volume. Additionally, more description should be presented in the report regarding how the daily pollutant loads for copper, lead, and zinc from the County Island were derived, as identified on page 17.

3. The report did not describe how the model was calibrated, including calibration results compared to calibration criteria in Table 3.0 of the RAA Guidelines, and no historical hydrology and water quality monitoring data were used for comparison with the model results for the baseline prediction. According to Part G, pages 12-13 of the RAA Guidelines, model calibration is necessary to ensure that the model can properly assess all the variables and conditions in a watershed system. If hydrology data are not currently available, the necessary data should be collected so that the model can be calibrated and/or validated during the adaptive management process. Water quality data are available from the Stearns Street mass emission station, which could be used for water quality calibration.
4. For the baseline condition, per RAA Guideline, in Table 5 on pages 20-21, the model predicted concentrations for copper, lead, and zinc under the wet weather critical condition should be presented in the table in addition the baseline loads for the County Island.
5. The required reduction targets in pollutant load from baseline identified in Table 5 of the Report for wet weather should be explained in more detail and also presented in time series as the difference of baseline concentrations/loads from allowable concentrations/loads of each pollutant under long term continuous simulation. Further, as described earlier, the TMDL allowable loads presented in Table 5 appear to be incorrect as well as the required load reductions, which are derived from the baseline loads and allowable loads.
6. The report did not provide predicted pollutant concentrations in the receiving water or at the downstream outlets of the County Island to demonstrate that receiving water limitations will be achieved.
7. The ID number for subbasin 5505 and each neighboring subwatershed used in the model simulation must be provided and be shown in the simulation domain to present the geographic relationship of the subwatersheds simulated in the LSPC model.
8. The flow and water quality time series output at the watershed outlet must be provided using the 90th percentile of modeled pollutant concentration and mass per day for wet event days consistent with the expression of the WQBELs to estimate the baseline concentration and mass. In addition, per RAA Guidelines, the model output should include storm water runoff at outlet for baseline and each BMP scenario as well (See Table 5. Model Output for Both Process-based BMP Models and Empirically-based BMP Models, pages 20-21 of the RAA Guidelines).
9. While copper is identified in Table 3 as a Category 1 pollutant in both wet and dry weather conditions, model simulation for copper in Los Cerritos Channel under the dry weather condition was not included in the RAA.
10. Per the RAA Guidelines, the required load reductions to achieve interim and final WQBELs per the required compliance deadlines should be evaluated at the jurisdictional boundary of each subwatershed to demonstrate that the proposed control measures will ensure that each Group's MS4 discharges achieve effluent limitations and do not cause or contribute to exceedances of receiving water limitations. The BMP performance model proposed in the RAA Guidelines should be used to predict the pollutant reduction

for BMPs identified in Section 5.2.5 of the Report. Section 5.2.6 of the draft WMP does not clearly present, or analyze in the RAA, the BMP scenarios to meet the interim compliance deadlines in 2017, 2020 or 2023 during wet weather conditions or the interim deadlines in 2017 and 2020 and the final deadline in 2023 during dry weather conditions.

- C. Modeling comments regarding lack of analysis for other Categories 1, 2 and 3 waterbody pollutant combinations:
1. Baseline loading and required reductions to achieve effluent limitations for total lead, zinc, DDT, PAHs, PCBs, Chlordane and Dieldrin in sediment discharged from the MS4 to Colorado Lagoon, and for total copper, lead, zinc, PAHs, DDT, and PCBs for San Pedro Bay were not modeled in the Report, nor were proposed watershed control measures evaluated in the model to determine if effluent limitations for these pollutants would be achieved upon implementation of the proposed measures.
 2. Baseline loading and required reductions for Category 2 and Category 3 pollutants, including but not limited to indicator bacteria and ammonia, were not modeled, nor were proposed watershed control measures evaluated in the model to determine if receiving water limitations for these pollutants would be achieved upon implementation of the proposed measures.

Los Angeles Regional Water Quality Control Board

November 20, 2014

Ms. Gail Farber, Director
County of Los Angeles
Department of Public Works
Watershed Management Division, 11th Floor
900 South Fremont Avenue
Alhambra, CA 91803

Ms. Gail Farber, Chief Engineer
Los Angeles County Flood Control District
Department of Public Works
Watershed Management Division, 11th Floor
900 South Fremont Avenue
Alhambra, CA 91803

REVIEW OF THE ALAMITOS BAY/LOS CERRITOS CHANNEL WATERSHED MANAGEMENT AREA COORDINATED INTEGRATED MONITORING PROGRAM, PURSUANT TO PART VI.B AND ATTACHMENT E, PART IV.B OF THE LOS ANGELES COUNTY MUNICIPAL SEPARATE STORM SEWER SYSTEM (MS4) PERMIT (NPDES PERMIT NO. CAS004001; ORDER NO. R4-2012-0175)

Dear Ms. Farber:

The Regional Water Board has reviewed the monitoring program submitted on June 30, 2014 by the County of Los Angeles (County) and Los Angeles County Flood Control District (LACFCD) for the Alamitos Bay/Los Cerritos Channel Watershed Management Area. This monitoring program was submitted pursuant to the provisions of NPDES Permit No. CAS004001 (Order No. R4-2012-0175), which authorizes discharges from the municipal separate storm sewer system (MS4) operated by 86 municipal Permittees within Los Angeles County (hereafter, LA County MS4 Permit). The LA County MS4 Permit allows Permittees the option to develop and implement, in coordination with an approved Watershed Management Program per Part VI.C, a customized monitoring program that achieves the five Primary Objectives set forth in Part II.A of Attachment E and includes the elements set forth in Part II.E of Attachment E. Customized monitoring programs may be developed on an individual jurisdictional basis, referred to as an Integrated Monitoring Program (IMP), or on a watershed basis, referred to as a Coordinated Integrated Monitoring Program (CIMP). These programs must be approved by the Executive Officer of the Regional Water Board.

The Regional Water Board has reviewed the County's and LACFCD's monitoring program and has determined that the monitoring program submitted does not include an appropriate level of detail regarding some of the elements set forth in Part II.E to achieve the Primary Objectives as set forth in Part II.A of Attachment E of the LA County MS4 Permit. In particular, adequate detail was lacking on monitoring constituents, laboratory analysis methods and frequency of sampling for receiving water monitoring, storm water outfall monitoring and non-storm water outfall monitoring. As discussed on a November 6, 2014 teleconference between Regional Water Board staff, the County and LACFCD, the County and LACFCD acknowledged that they will be participating with the Los Cerritos Channel (LCC) Coordinated Integrated Monitoring Program.

Pursuant to Attachment E, Parts IV.B.4 and 5 of the permit, Permittees are required to submit an integrated monitoring program if a coordinated integrated monitoring program, to which the Permittee is a participant, does not address all the applicable monitoring requirements. The coordinated integrated monitoring program submitted by the County and LACFCD needs to be revised to clearly indicate which monitoring program requirements the County and LACFCD will implement individually and which monitoring requirements will be addressed through the LCC CIMP. The Regional Water Board's comments on the Alamitos Bay/Los Cerritos Channel CIMP, including detailed information concerning necessary additions and revisions to the CIMP, are found in Enclosure 1 and Enclosure 2.

Please make the necessary additions and revisions to the CIMP, as identified in the enclosures to this letter, and submit the revised CIMP as soon as possible and no later than **February 18, 2015**. The revised CIMP must be submitted to losangeles@waterboards.ca.gov with the subject line "LA County MS4 Permit – Revised AB/LCC Coordinated Integrated Monitoring Program" with a copy to Ivar.Ridgeway@waterboards.ca.gov and Rebecca.Christmann@waterboards.ca.gov.

Upon approval of the revised CIMP by the Executive Officer, the County and LACFCD must prepare to commence monitoring within 90 days. If the necessary revisions are not made, the County and LACFCD must comply with the Monitoring and Reporting Program and future revisions thereto, in Attachment E of the LA County MS4 Permit.

Until the County's and LACFCD's CIMP is approved by the Executive Officer, the monitoring requirements pursuant to Order No. 01-182 and Monitoring and Reporting Program CI 6948, and pursuant to approved TMDL monitoring plans shall remain in effect for the County and LACFCD.

If you have any questions, please contact Ms. Rebecca Christmann of the Storm Water Permitting Unit by electronic mail at Rebecca.Christmann@waterboards.ca.gov or by phone at (213) 576-5734. Alternatively, you may also contact Mr. Ivar Ridgeway, Chief of the Storm Water Permitting Unit, by electronic mail at Ivar.Ridgeway@waterboards.ca.gov or by phone at (213) 620-2150.

Sincerely,



Samuel Unger, P.E.
Executive Officer

cc: Angela George, County of Los Angeles, Department of Public Works
Jolene Guerrero, County of Los Angeles, Department of Public Works
Bill Johnson, County of Los Angeles, Department of Public Works

Enclosures: Enclosure 1 – Summary of Comments and Required Revisions
Enclosure 2 – Comments on Aquatic Toxicity Testing

Los Angeles Regional Water Quality Control Board

Enclosure 1 to November 20, 2014 Letter Regarding the Alamitos Bay/Los Cerritos Channel Watershed Management Area Draft Coordinated Integrated Monitoring Program, Pursuant to Part VI.B and Attachment E, Part IV.B of the LA County MS4 Permit (Order No. R4-2012-0175)

Summary of Comments and Required Revisions to the Draft Integrated Monitoring Program

IMP Reference	MRP Element/ Reference (Attachment E)	Summary of Comments and Necessary Revisions
General Comments		
Section 1.3, pg. 1	Part IV.B.5 page E-7	The County and LACFCD need to be specific about which monitoring requirements will be addressed by the County and LACFCD in their integrated monitoring program (IMP) and which monitoring requirements will be addressed by the Los Cerritos Channel (LCC) Coordinated Integrated Monitoring Program (CIMP). The County and LACFCD must describe how the IMP and CIMP together fulfill all the applicable monitoring requirements of the LA County MS4 Permit. Additionally, the County and LACFCD cite other monitoring plans such as the Colorado Lagoon TMDL Monitoring Plan and Greater Harbor Waters Toxics TMDL Coordinated Compliance and Reporting Plan. Where the County and/or LACFCD intend to use existing monitoring plans to meet the requirements of the LA County MS4 Permit, including TMDL monitoring requirements, this should be clearly stated along with a description of the County's and/or LACFCD's role(s) and responsibility(ies) within the monitoring plan. Finally, the existing monitoring plans should be included as appendices to the CIMP, so that all monitoring program elements can be found within a single document.
Section 2.1, pg. 6	Part IV.A.6 page E-7	The monitoring program states, "The AB/LCC Group is submitting this CIMP to satisfy the coordinated monitoring plan requirements of the LCC Metals TMDL." However, Section 4.3.1 (page 14) and Table 7 (page 31) refer to the LCC CIMP; therefore, the AB/LCC monitoring program itself does not satisfy the coordinated monitoring plan requirements of the LCC Metals TMDL. In the revised IMP, this language should be revised to clarify that it is the LCC CIMP that satisfies the coordinated monitoring plan requirements of the LCC Metals TMDL. Related to this, the County and LACFCD should clearly indicate their role(s) in the LCC CIMP.
Section 2.2, pg. 6	Part IV.A.6 page E-7	In Section 2.2, the monitoring program states, "As recognized by the footnote in Attachment K-7 of the Permit, the County and the LACFCD have entered into an Amended Consent Decree with the United States

IMP Reference	MRP Element/ Reference (Attachment E)	Summary of Comments and Necessary Revisions
		<p>and the State of California, including the LARWQCB, pursuant to which the LARWQCB has released the County and the LACFCD from responsibility for Toxic pollutants in the Dominguez Channel and the Greater Harbors.”</p> <p>This statement misinterprets the Regional Water Board’s findings. Footnote 1 to Table K-7 of the LA County MS4 Permit states, “The requirements of this Order to implement the obligations of this TMDL do not apply to a Permittee to the extent that it is determined that the Permittee has been released from that obligation pursuant to the Amended Consent Decree entered in United States v. Montrose Chemical Corp., Case No. 90-3122 AAH (JRx).” As stated in the responses to comments received on the Dominguez Channel and Greater Harbor Waters Toxic Pollutants TMDL, “...primarily one pollutant, DDT, is associated with the Superfund site and also addressed by the TMDL. The TMDL addresses numerous pollutants and utilizes a different process than Superfund. The other pollutants – heavy metals, PAHs, PCBs and other legacy pesticides are not within Superfund’s focus at the Montrose OU2 Site...”</p> <p>Further, the WQBELs applicable to the County and LACFCD pursuant to the TMDL, which are in Attachment N, Part E of the LA County MS4 Permit, are for ongoing discharges from the MS4, not for the historic contamination of the bed sediments. Therefore, the statement in the draft WMP incorrectly concludes that the aforementioned Consent Decree releases the County and LACFCD from any obligation to implement the WQBELs in Attachment N, Part E.</p>
Receiving Water Monitoring		
Section 4.1, pg. 12	Part VI.A.1.a page E-13	The County and LACFCD need to declare whether the receiving water monitoring is conducted under their IMP or the LCC CIMP or both. If the receiving water monitoring will be conducted as part of the LCC CIMP, the CIMP needs to affirm that the County is a participant.
	Parts VI.A – VI.D pp. E-13 – E-20	The AB/LLC IMP and/or the LCC CIMP need to comply with all the receiving water monitoring requirements as contained in Attachment E Parts VI.A through VI.D of the LA County MS4 Permit.
Storm Water Outfall Based Monitoring		
Section 5, pg. 21	Part VIII.A pp. E-21 – E-23	The County and LACFCD need to declare whether the storm water outfall based monitoring is conducted under their IMP or the LCC CIMP or both. If the storm water outfall based monitoring will be conducted as part of the LCC CIMP, the CIMP needs to affirm that the County is a participant.
	Parts VIII.A – VIII.C	The AB/LLC IMP and/or the LCC CIMP need to comply with all the storm water outfall based monitoring requirements as contained in

IMP Reference	MRP Element/ Reference (Attachment E)	Summary of Comments and Necessary Revisions
	pp. E-21 – E-23	Attachment E Parts VIII.A through VIII.C of the LA County MS4 Permit.
Section 9.1, pg. 29		Outfall monitoring of the County Island outfalls shall commence no later than July 1, 2016.
Non-Stormwater Outfall Based Monitoring		
Section 6, pg. 22	Part IX.B.1 page E-24	The County and LACFCD need to declare whether the non-storm water outfall based monitoring is conducted under their IMP or the LCC CIMP or both. If the non-storm water outfall based monitoring will be conducted as part of the LCC CIMP, the CIMP needs to affirm that the County is a participant.
Section 6.2, pg. 22	Parts VII.A.8 and VII.A.10	The revised IMP should include a description and/or depiction of the outfall catchment areas for the four MS4 outfalls within the County Island and indicate which of these outfalls are major per the definition of a major outfall in Appendix A of the LA County MS4 Permit.
Section 6.3, pg. 25	Part IX.C.1 pp. E-24 – E-25	The CIMP proposes three non-storm water screening events. Two of the three have already been conducted on April 7 and 17, 2014. However, non-storm water discharges may be present during any season. Therefore, at a minimum, quarterly non-storm water screenings need to be conducted, in order to cover each season (i.e. summer, fall, winter and spring) to establish a baseline. If after these initial quarterly non-storm water screenings, no significant non-storm water discharges are present at a particular outfall, then no further action is necessary.
	Part IX.D pp. E-25 – E-26	The revised IMP must include a process for creating, and updating annually, a database and map of outfalls that have been identified as having significant non-storm water discharges.
	Part IX.B.2 page E-24	The revised IMP must include a process for reassessing the Outfall Screening and Monitoring Plan within the current permit term pursuant to Attachment E, Part IX.B.2.
Section 6.3.5 pp. 25-26	Part IX.F pp. E-26 – E-27	The revised IMP must include a detailed discussion of the source investigation to be conducted if significant non-storm water discharges are identified, which must be consistent with the requirements of Attachment E Part IX.F of the LA County MS4 Permit.
Section 6.3.6 pg. 26	Parts IX.G - IX.H pp. E-27 – E-28	The revised IMP needs to comply with the non-storm water monitoring requirements as contained in Attachment E, Parts IX.G and IX.H of the LA County MS4 Permit, which includes quarterly monitoring of significant non-storm water discharges, if present.
Section 10, pg. 30	Attachment E	The revised IMP needs to address how monitoring requirements for the Los Cerritos Channel Estuary subwatershed and the Alamitos Bay subwatershed will be addressed.

ENCLOSURE 2
COMMENTS ON AQUATIC TOXICITY TESTING
ALAMITOS BAY/LOS CERRITOS CHANNEL CIMP

Part VIII.B.1.c.vi. (Page E-23) and Part VIII.G.1.d. (Page 27) of the Monitoring and Reporting Program (MRP states that where the TIE conducted at the downstream receiving water monitoring station was inconclusive then aquatic toxicity shall be monitored at the outfall. The draft CIMP does not propose conducting this required outfall toxicity monitoring. And, Part XII.G.1. (Page E-30) and Part XII.G.2. (Page E-30) of the MRP states that Permittees shall conduct aquatic toxicity monitoring utilizing the critical life stage chronic toxicity test methods listed. The draft CIMP does not propose any type of toxicity monitoring. These omissions must be corrected.

While the CIMP proposes to use data from a receiving water monitoring station maintained by another entity in a different watershed group, should that monitoring result in finding toxicity in the receiving water then that group will conduct a TIE. Should the results of the TIE be inconclusive, then monitoring for toxicity at the representative upstream outfall(s) is required. Therefore, outfall monitoring for toxicity may need to extend up to the County Island area. In anticipation of the possible need for such monitoring, the CIMP should include a discussion of toxicity testing protocols as described in the MRP.

Suggested Special Study: The 2013 study released by the California Stormwater Quality Association (CASQA) entitled "Review of Pyrethroid, Fipronil and Toxicity Monitoring Data from California Urban Watersheds" reviewed stormwater data from studies conducted during 2005 - 2012 and highlighted the toxicity impacts from use of pesticides not currently required to be monitored for by the MRP. We suggest the group begin monitoring for these chemicals in the receiving water (or coordinate that monitoring with adjacent groups) and, in addition, assess toxicity using the 2002 acute toxicity testing protocol (EPA-821-R-02-012) with the amphipod *Hyaella azteca* as the test organism. *H. azteca* is known to be much more sensitive to pyrethroids than is *Ceriodaphnia dubia*, while the latter is useful for its sensitivity to OP pesticides. The two species together may also prove to be more useful in detecting toxicity from fipronil. And, should 50% or greater effect be detected in the toxicity test, we suggest a procedure to incorporate pyrethroids into the subsequent TIE be documented (three possible treatments have been identified by researchers, see <http://www.pubfacts.com/detail/20018342/Focused-toxicity-identification-evaluations-to-rapidly-identify-the-cause-of-toxicity-in-environment>). While fipronil does not have a TIE procedure identified currently, chemical testing for the parameter (and degradates) and comparison to U.S. EPA Office of Pesticide Program's aquatic life benchmarks at http://www.epa.gov/oppefed1/ecorisk_ders/aquatic_life_benchmark.htm will aid in determining the cause(s) of toxicity in order to follow up with outfall testing of the parameter(s) with the ultimate goal of removing the source. This approach will also help minimize inconclusive TIE results which would lead to required toxicity testing in the representative upstream outfall(s).

Alamitos Bay/Los Cerritos Channel

Watershed Management Program

Submitted to:

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Quality Control Board
Los Angeles Region**
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Revised January 27, 2015

RB-AR2866

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List of Abbreviations

AB/LCC	Alamitos Bay/Los Cerritos Channel
ARS	Automatic Retractable Screen
BPA	Basin Plan Amendment
BMP	Best Management Practice
CIMP	Coordinated Integrated Monitoring Program
CPS	Connector Pipe Screen
DEHP	Bis(2-ethylhexyl) phthalate
EPA	Environmental Protection Agency
EWMP	Enhanced Watershed Management Program
GIS	Geographic Information System
HRU	Hydrologic Response Unit
IC/ID	Illicit Connections and Illicit Discharges
LACFCD	Los Angeles County Flood Control District
LARWCQB	Los Angeles Regional Water Quality Control Board
LID	Low Impact Development
LCCWG	Los Cerritos Channel Watershed Group
MBAS	Methylene Blue Active Substances
MCM	Minimum Control Measure
MDL	Minimum Detection Limit
MES	Mass Emissions Station
MS4	Municipal Separate Storm Sewer System
MRP	Monitoring and Reporting Program
NPDES	National Pollutant Discharge Elimination System
PCBs	Polychlorinated Biphenyls
PIPP	Public Information and Participation Program
QA/QC	Quality Assurance/Quality Control
RAA	Reasonable Assurance Analysis
TMDL	Total Maximum Daily Load
USEPA	United State Environmental Protection Agency
WLA	Waste Load Allocation
WMMS	Watershed Management Modeling System
WMP	Watershed Management Program
WQDS	Water Quality Design Storm

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Section 1. Introduction

1.1 BACKGROUND

The Alamos Bay/Los Cerritos Channel (AB/LCC) Watershed Management Program (WMP) is a collaborative effort between the County of Los Angeles (County) and the Los Angeles County Flood Control District (LACFCD). The geographic scope of the this WMP includes a 95-acre County Island, the LACFCD infrastructure within that island, and the LACFCD infrastructure within the Los Cerritos Channel estuary and Alamos Bay watersheds. The geographic area of this WMP is shown in Figure 1. It is important to note that the 95-acre County Island is located within the separate Los Cerritos Channel Freshwater Watershed.

This WMP is being submitted to meet the requirements outlined in section VI.C of the National Pollutant Discharge Elimination System (NPDES) Municipal Separate Storm Sewer System (MS4) Permit No. R4-2012-0178 (Permit). The Permit was adopted on November 8, 2012 and became effective December 28, 2012.

Section VI.C.1.f of the Permit requires that the WMP shall:

- Be consistent with Part VI.C.5-C.8 of the Permit (see below),
- Prioritize water quality issues resulting from storm water and non-storm water discharges from the MS4 to receiving waters within each Watershed Management Area (WMA),
- Identify and implement strategies, control measures, and BMPs to achieve the outcomes specified in Part VI.C.1.d of the Permit,
- Execute an integrated monitoring program and assessment program pursuant to Attachment E, Part IV of the Permit to determine progress towards achieving applicable limitations and/or action levels in Attachment G of the Permit (See Coordinated Integrated Monitoring Program (CIMP) for the AB/LCC Group),
- Modify strategies, control measures, and Best Management Practices (BMPs) as necessary based on analysis of monitoring data collected pursuant to the Monitoring and Reporting Plan to ensure that applicable water quality-based effluent limitations and receiving water limitations and other milestones set forth in the WMP are achieved in the required timeframes,
- Provide appropriate opportunity for meaningful stakeholder input, including but not limited to, a permit-wide WMP technical advisory committee (TAC) that will advise and participate in the development of the WMPs and enhanced WMPs from month 6 through the date of program approval.

Part VI.C.5-C.8 of the Permit requires the WMP contain:

- Identification of Water Quality Priorities
- Selection of Watershed Control Measures including:
 - Minimum control measures
 - Non-storm water discharge measures
 - TMDL Control measures
 - Identification of specific structural and non-structural BMPs
 - Reasonable assurance analysis
 - Compliance schedules

- Integrated watershed monitoring and assessment (See CIMP for the AB/LCC Group)
- Adaptive management process

1.2 AB/LCC WATERSHED MANAGEMENT AREA

The AB/LCC Watershed Management Area is located in southern Los Angeles County and has a drainage area of approximately 37.5 square miles. The AB/LCC Watershed Management Area encompasses the Los Cerritos Channel freshwater watershed (which includes all or portions of the Cities of Bellflower, Cerritos, Downey, Lakewood, Long Beach, Paramount and Signal Hill, and a 95-acre County Island), the Los Cerritos Channel estuary watershed (located in Long Beach) and the Alamitos Bay watershed (located in Long Beach).

This AB/LCC WMP only includes the 95 acre County Island, the LACFCD infrastructure within that island, and the LACFCD infrastructure within the Los Cerritos Channel estuary watershed, and the Alamitos Bay watershed. The geographic area of the AB/LCC WMP is shown in Figure 1. It is important to note that the AB/LCC WMP has very limited jurisdiction in the overall Watershed Management Area since the County only has land use jurisdiction over the 95 acre County Island, and the LACFCD does not own or operate any municipal sanitary sewer systems, public streets, roads, or highways – the LACFCD only operates and maintains storm drains and other appurtenant drainage infrastructure. A detailed description of the LACFCD can be found in Attachment A.

In the Alamitos Bay and Los Cerritos Channel Estuary watersheds these areas are under the jurisdiction of the City of Long Beach and will be addressed under Long Beach's WMP which will be submitted in March 2015. Through adaptive management, the LACFCD will review Long Beach's WMP and consider on a case-by-case basis opportunities for collaboration on future projects.

A detailed description of the Los Cerritos Channel freshwater watershed, the Los Cerritos Channel estuary watershed, and the Alamitos Bay watershed can be found in the AB/LCC Group's CIMP.

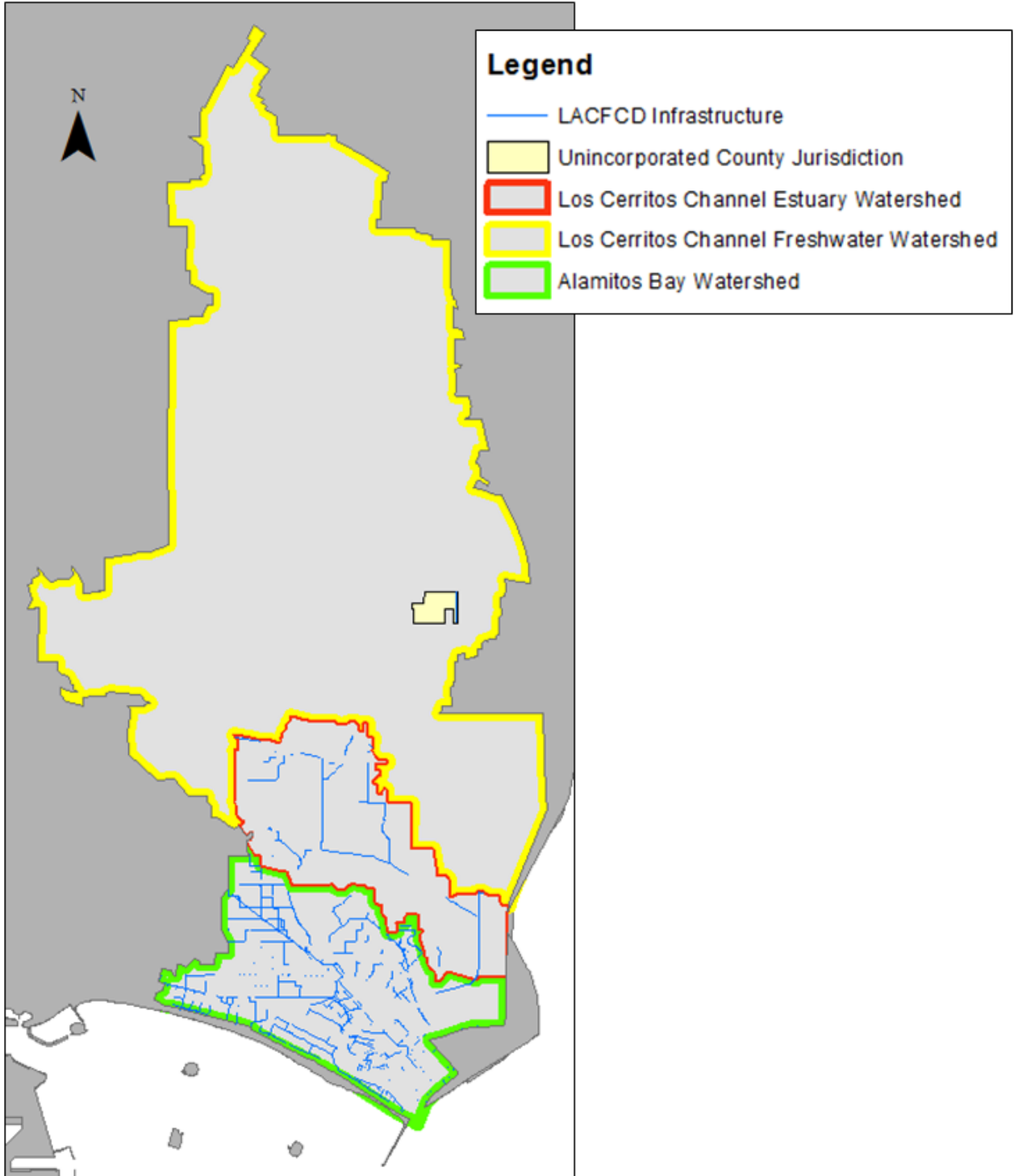


Figure 1: The Alamos Bay/LCC Watershed Management Area (The Unincorporated County Island Is Located Within the Separate Los Cerritos Channel Freshwater Watershed)

1.3 COUNTY ISLAND

Within the AB/LCC Watershed Management Area, the County Island is known as the “North Long Beach Island”. The County Island is landlocked within the City of Long Beach (Figure 2). The County Island is 95 acres (0.15 square miles) and is predominantly Single Family Residential Land Use.



Figure 2: Unincorporated County Island

Within the County Island, is the LACFCD maintained Palo Verde Drain. The Palo Verde Drain is an open channel, rectangular storm drain which discharges into the Los Cerritos Channel.

1.4 WMP GEOGRAPHIC SCOPE

This WMP is focused on areas in which the County has land use jurisdiction. The LACFCD does not have jurisdiction over the land uses which its storm drains and other appurtenant drainage infrastructure serve. Those areas will be addressed through other WMPs.

Section 2. Existing TMDLs Applicable to County Island

Within the AB/LCC Watershed Management Area, there are 2 existing TMDLs which apply to the County Island.

2.1 LOS CERRITOS CHANNEL METALS TMDL

The Total Maximum Daily Load for Metals in Los Cerritos Channel (LCC Metals TMDL) was approved by the United States Environmental Protection Agency (USEPA) on March 17, 2010. The Metals TMDL was developed to address beneficial use impairments due to Copper, Zinc and Lead in the freshwater portion of the Los Cerritos Channel. The freshwater portion of Los Cerritos Channel has the existing beneficial use of Wildlife Habitat (WILD), the potential beneficial uses of Municipal and Domestic Supply (MUN), Water Contact Recreation (REC1) and the intermittent beneficial uses of Warm Freshwater Habitat (WARM), and Non-contact Water Recreation (REC2).

On June 6, 2013, the Los Angeles Regional Water Quality Control Board (LARWQCB) adopted a resolution which includes an Implementation Schedule for the LCC Metals TMDL. The Implementation Schedule states that MS4 permittees

“shall provide a written report to the Regional Los Angeles Water Board outlining how they will achieve compliance with the WLAs. The report shall include implementation methods, an implementation schedule, proposed milestones, and any revisions to the TMDL monitoring plan. An Enhanced Watershed Management Program or Watershed Management Program, including the Reasonable Assurance Analysis, submitted in fulfillment of requirements in Order No. R4-2012-0175 may be used by permittees subject to that Order to satisfy the TMDL implementation plan requirements.”

This WMP is being submitted to satisfy the Implementation Plan requirements of the LCC Metals TMDL.

2.2 DOMINGUEZ CHANNEL TOXICS TMDL

The Total Maximum Daily Load for Toxic Pollutants in Dominguez Channel and Greater Los Angeles and Long Beach Harbor Waters (DC Toxics TMDL) was adopted by the LARWQCB on May 5, 2011. The DC Toxics TMDL became effective on March 23, 2012. The goal of the TMDL is to protect and restore fish tissue, water and sediment quality in Dominguez Channel and Greater Los Angeles and Long Beach Harbor (Greater Harbors) waters by remediating contaminated sediment and controlling the sediment loading and accumulation of contaminated sediment in the Greater Harbors.

The County and the LACFCD are both listed as responsible parties for the Greater Harbors waterbody. An Implementation Plan is not required for parties tributary to the Greater Harbors; however, this WMP will help improve the quality of water discharged to the Greater Harbors.

As recognized by the footnote in Attachment K-7 of the Permit, the County and the LACFCD have entered into an Amended Consent Decree with the United States and the State of California, including the LARWQCB, pursuant to which the LARWQCB has released the County and the LACFCD from responsibility for Toxic pollutants in the Dominguez Channel and the Greater

Harbors. Accordingly, no inference should be drawn from the submission of this WMP or from any action or implementation taken pursuant to it that the County or the LACFCD is obligated to implement the DC Toxics TMDL, including this WMP or any of the DC Toxics TMDL's other obligations or plans, or that the County or the LACFCD have waived any rights under the Amended Consent Decree.

2.3 BENEFICIAL USES

The County Island is tributary to the freshwater portion of the Los Cerritos Channel, which has beneficial uses identified in Table 1.

Table 1: Beneficial Uses in AB/LCC Watershed Management Area

Water Body	Beneficial Uses	
Los Cerritos Channel Freshwater Portion	Existing	Wildlife Habitat (WILD)
	Potential	Municipal and Domestic Supply (MUN) Water Contact Recreation (REC1)
	Intermittent	Warm Freshwater Habitat (WARM) Non-contact Water Recreation (REC2)

2.4 INTERIM AND FINAL TMDL DEADLINES

Figure 3 shows the interim and final deadlines for the TMDLs applicable to the County Island along with notable deadlines related to the Permit.

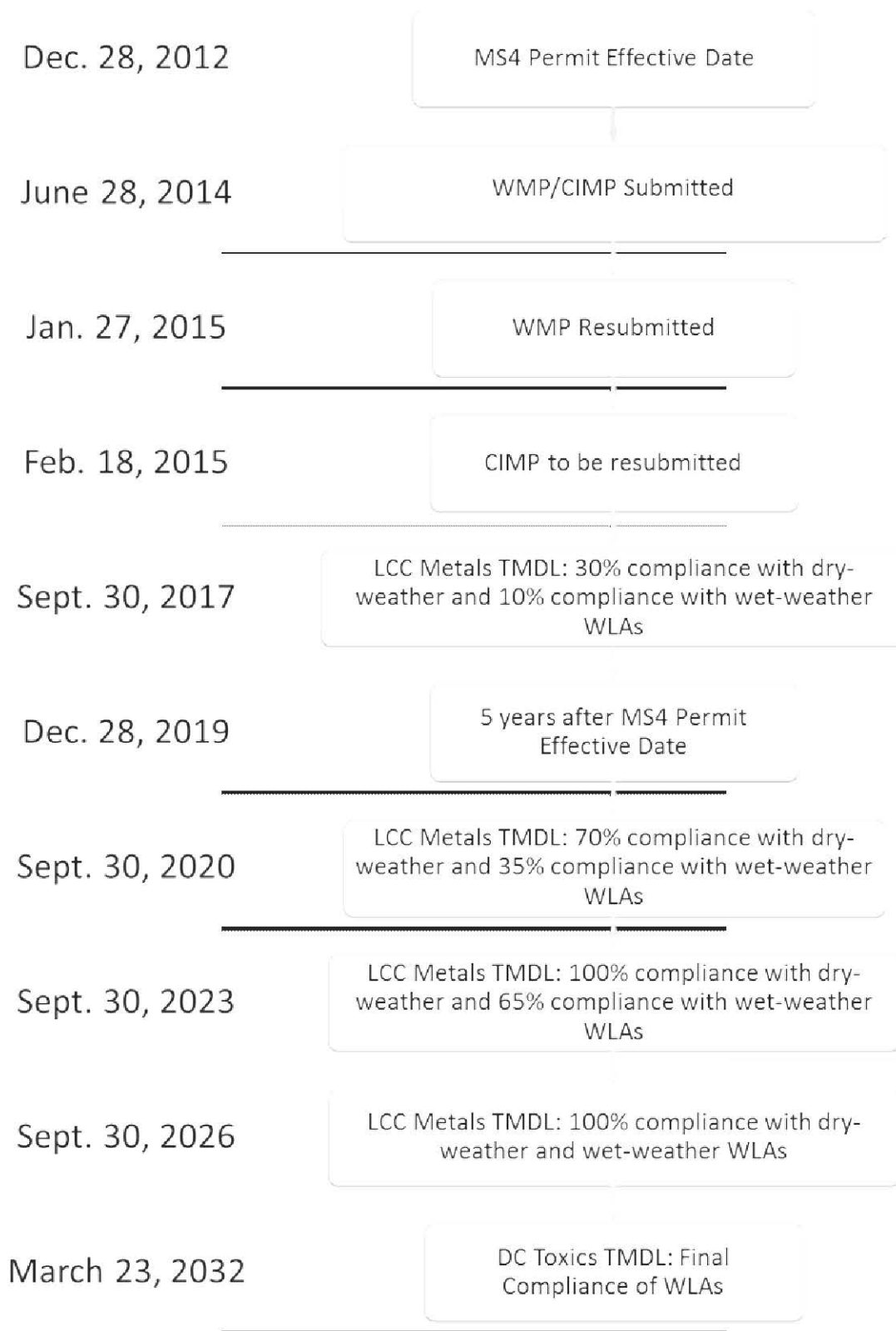


Figure 3: LCC Metals TMDL, DC Toxics TMDL Deadlines and Notable Permit Dates

Section 3. Water Quality Priorities

3.1 OBJECTIVE

Per Section VI.C.5 of the Permit, three categories of pollutants are identified to aid in the evaluation of existing water quality conditions. These classifications consist of:

- Category 1 (Highest Priority): Water body-pollutant combinations for which water quality-based effluent limitations and/or receiving water limitations are established in Part VI.E and Attachments L through R of this Order.
- Category 2 (High Priority): Pollutants for which data indicate water quality impairment in the receiving water according to the State's Water Quality Control Policy for Developing California's Clean Water Act Section 303(d) List (State Listing Policy) and for which MS4 discharges may be causing or contributing to the impairment.
- Category 3 (Medium Priority): Pollutants for which there are insufficient data to indicate water quality impairment in the receiving water according to the State's Listing Policy, but which exceed applicable receiving water limitations contained in this Order and for which MS4 discharges may be causing or contributing to the exceedance

This WMP Group is coordinating portions of its monitoring efforts, where feasible with the Los Cerritos Channel Watershed Group (LCCWG). This includes receiving and stormwater outfall monitoring efforts for the freshwater portion of the Los Cerritos Channel. The LCCWG consists of the cities of Bellflower, Cerritos, Downey, Lakewood, Long Beach, Paramount and Signal Hill. Additionally, the LCCWG contains the LACFCD's infrastructure within these cities' jurisdiction. See Figure 4 for the geographical boundaries of the LCCWG.

The LACFCD does not have jurisdiction of the land uses that create the pollutants of concern in the Alamitos Bay, Colorado Lagoon and Los Cerritos Channel Estuary watersheds. These areas are under the jurisdiction of the City of Long Beach and will be addressed under Long Beach's WMP which will be submitted in March 2015. Accordingly, Water Quality Priorities for the Alamitos Bay, Colorado Lagoon and Los Cerritos Channel Estuary will be addressed in Long Beach's WMP. Through adaptive management, the LACFCD will review Long Beach's WMP and consider on a case-by-case basis opportunities for collaboration on future projects.

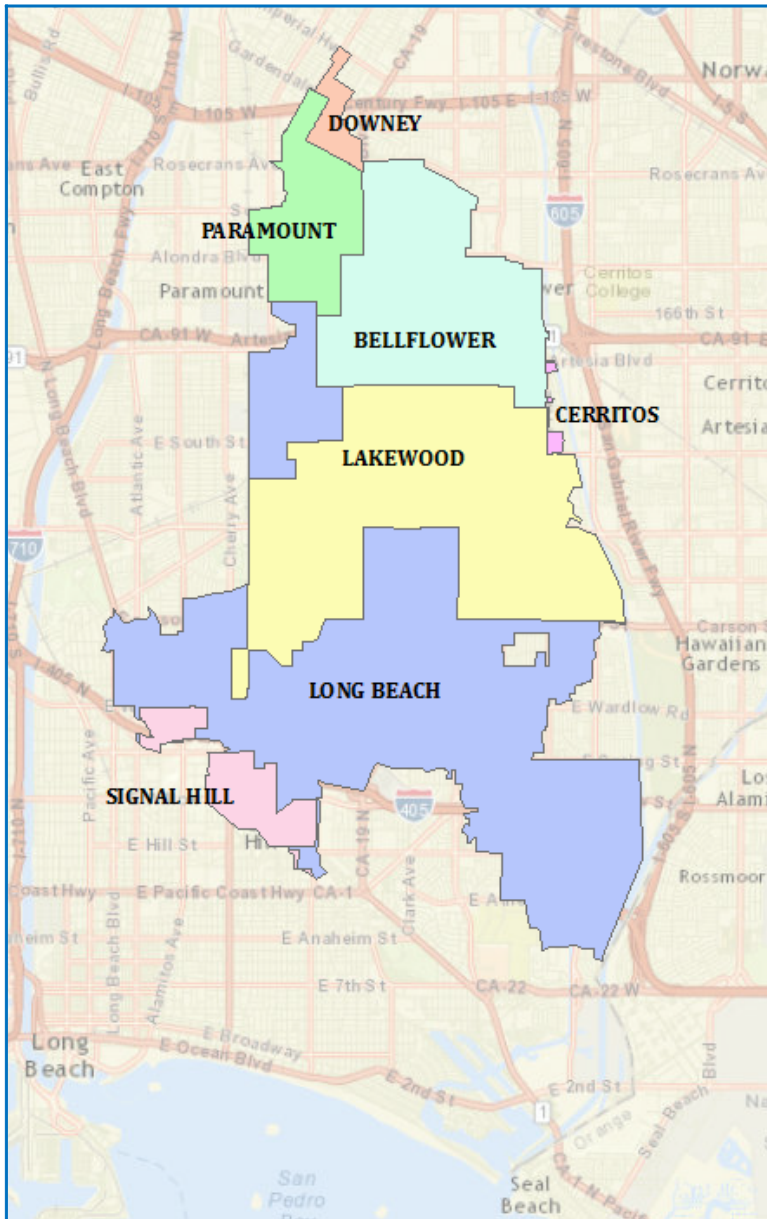


Figure 4: Los Cerritos Channel Watershed Group (LCCWG)

For consistency with the LCCWG, this WMP Group has also identified Low Priority Pollutants. These pollutants fall below the requirements of Category 3, however, there has been at least one exceedance of these pollutants within the past 10 years. Consistent with the requirements of the Permit; existing TMDLs and the 303(d) list were used to determine Category 1 and 2 pollutants. Historic monitoring data collected from the Stearns Street Mass Emission Station (Stearns Street MES) was used to determine Category 3 and low priority pollutants. Table 2 lists the high priority pollutants of concern for the freshwater portion of the Los Cerritos Channel.

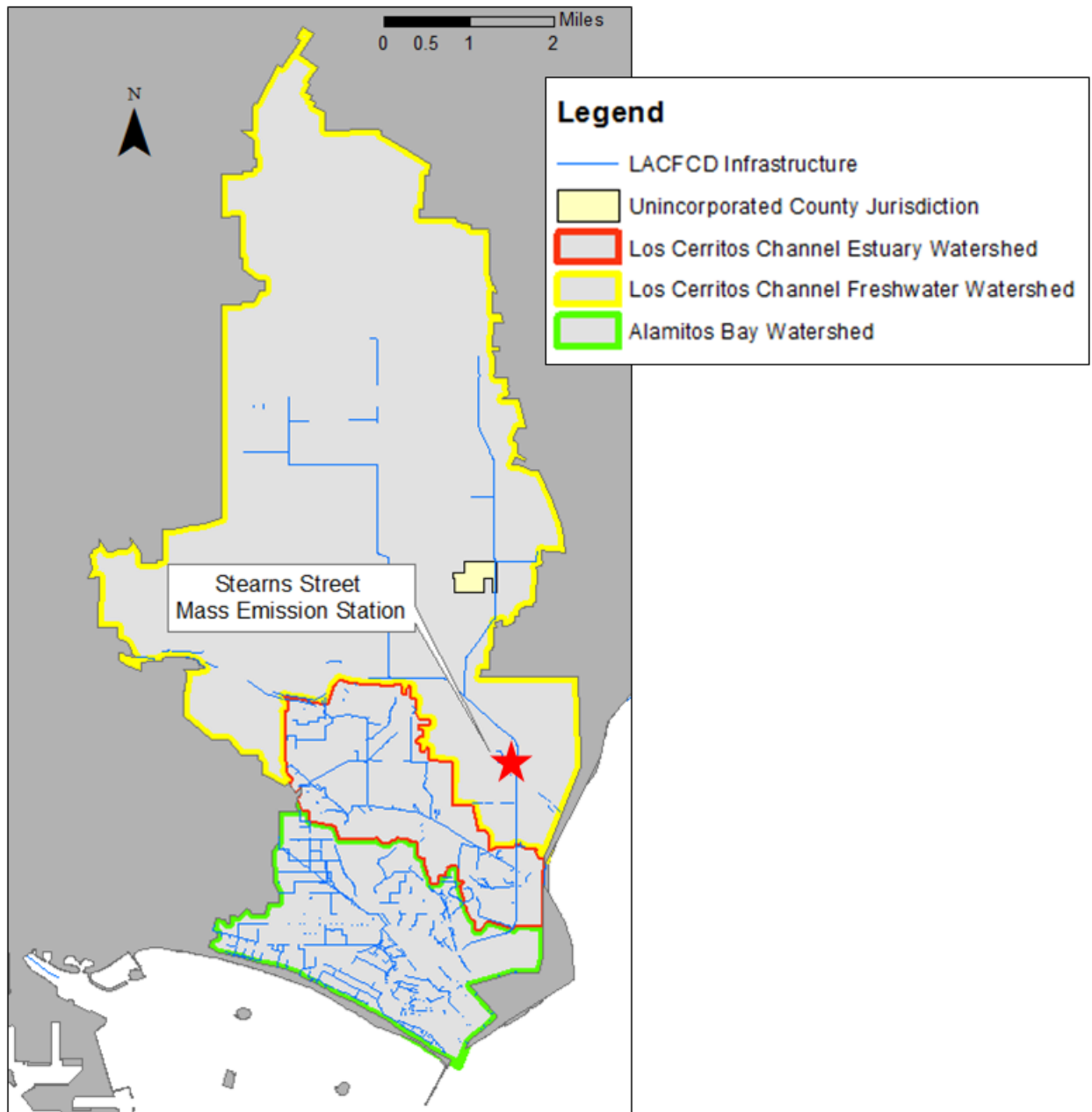


Figure 5: Stearns Street MES Location

3.2 STEARNS STREET MASS EMISSION SITE

This WMP Group has completed a detailed review of monitoring data from the Stearns Street MES. The City of Long Beach has maintained this mass emission station since 2000. Upon implementation of the LCCWG and the AB/LCC Group’s CIMPs, the City of Long Beach will coordinate with other agencies for the operation and maintenance of the Stearns Street MES. Figure 5 shows the location of the Stearns Street MES within the Los Cerritos Channel Watershed. The County Island’s discharge is comingled with other Permittees’ discharge at this location. Appendix B provides a summary of data from the past 10 years.

3.3 CATEGORY 1 (HIGHEST PRIORITY)

For the County Island, the highest priority pollutants are identified in the Los Cerritos Channel Total Maximum Daily Loads for Metals (LCC Metals TMDL) and the Total Maximum Daily Load for Toxic Pollutants in Dominguez Channel and Greater Los Angeles and Long Beach Harbor Waters (DC Toxics TMDL). A complete list of Category 1 pollutants can be found in Table 4.

3.4 CATEGORY 2 (HIGH PRIORITY)

The high priority pollutants are those identified on the 303(d) list for Los Cerritos Channel. Note that the Unincorporated County Island is tributary to the Freshwater Portion of the Los Cerritos Channel via the Palo Verde Drain. Category 2 pollutants are identified in Table 2. Copper, Lead and Zinc have been promulgated and are categorized as Category 1 pollutants per their listing in the LCC Metals TMDL. Additionally, Chlordane is 303(d) listed for the Los Cerritos Channel; however, it is included as a Category 1 pollutant per its listing in the DC Toxics TMDL.

Table 2: Category 2: High Priority Pollutants- Freshwater Portion of Los Cerritos Channel

Water Body	Category 2 (High Priority)	Receiving Water Limitations
Freshwater Portion of Los Cerritos Channel	Ammonia	0.1 mg/L
	Bis(2-ethylhexyl) phthalate (DEHP)	5.9 mg/L
	Coliform Bacteria	235 MPN/100ml
	Trash	N/A
	pH	6.5-8.5

3.5 CATEGORY 3 (MEDIUM PRIORITY)

A thorough analysis was conducted on data collected at the Stearns Street MES from 2003 to 2013. The Permit defines Category 3 pollutants as those

“for which there are insufficient data to indicate water quality impairment in the receiving water according to the State’s Listing Policy, but which exceed applicable receiving water limitations contained in this Order and for which MS4 discharges may be causing or contributing to the exceedance.”

The pollutants that meet the criteria for Category 3 are methylene blue active substances (MBAS) and enterococcus. Enterococcus is considered a concern for marine environments. The Stearns Street MES is located in the freshwater portion of the Los Cerritos Channel, however, this section of channel discharges to a marine environment. Thus enterococcus was included and compared to saltwater standards. A detailed summary of data from the Stearns Street MES is found in Appendix B

Review of the monitoring data for Aluminum at the Stearns Street MES between 2003 and 2013 shows samples exceeded minimum levels. The native soil in this region has naturally high Aluminum levels, therefore it is expected that an elevated level of Aluminum is found in stormwater samples. Additionally, the minimum level for Aluminum is established for drinking water criteria and is not appropriate for comparison to stormwater samples. As noted in Table 2-1 of the “Water Quality Control Plan Los Angeles Region – Basin Plan for the Coastal Watersheds of Los Angeles and Ventura Counties” the Municipal and Domestic Supply

Beneficial Use designation for the Los Cerritos Channel may be considered for exemption at a later date. Due to these concerns, Aluminum is excluded from Category 3 pollutants.

Table 3: Category 3: Medium Priority Pollutants - Freshwater Portion of Los Cerritos Channel

Water Body	Category 3 (Medium Priority)	Receiving Water Limitations
Freshwater Portion of Los Cerritos Channel	MBAS	0.5 mg/L
	Enterococcus*	104 MPN/100 ml

*Enterococcus uses a saltwater standard. This is included as the freshwater portion of Los Cerritos Channel discharges to an estuary.

3.6 LOW PRIORITY POLLUTANTS

Low Priority pollutants of concern for the freshwater portion of the Los Cerritos Channel are identified as those that fall below the requirements of Category 3, however there has been at least one exceedance of these pollutants within the past 10 years. In review of the data from the Stearns Street MES, Cadmium, Chlorpyrifos, Chromium and Dissolved Silver meet this criteria for wet weather and Diazinon meets this criteria for wet and dry weather.

3.7 SUMMARY

In summary, Table 4 lists all pollutant categories applicable to the County Island.

Table 4: Water Quality Priorities for the Freshwater Portion of the Los Cerritos Channel

Waterbody	Category 1 (Highest Priority)		Category 2 (High Priority) Pollutants	Category 3 (Medium Priority) Pollutants	Low Priority Pollutants
	Pollutant	TMDL			
Freshwater Portion of Los Cerritos Channel	Copper (wet and dry)	LCC Metals	Ammonia	MBAS	Cadmium (wet)
	Lead	LCC Metals/DC Toxics	Bis(2-ethylhexyl) phthalate (DEHP)	Enterococcus	Chlorpyrifos (wet)
	Zinc	LCC Metals/DC Toxics	Coliform Bacteria		Chromium (wet)
	DDT (fish tissue)	DC Toxics	Trash		Diazinon (wet and dry)
	PCBs (fish tissue)	DC Toxics	pH		Dissolved Silver (wet)
	Chlordane	DC Toxics			
	PAHs (sediment)	DC Toxics			
	Toxicity (sediment)	DC Toxics			

Section 4. Source Assessment

4.1 OBJECTIVE

Per Section VI.C.5.a.iii of the Permit, this section identifies potential sources of Category 1-3 pollutants.

4.2 CATEGORY 1 (HIGHEST PRIORITY)

Category 1 pollutants are derived from the LCC Metals TMDL and the DC Toxics TMDL. The LCC Metals TMDL dated March 17, 2010 states that sources of metals in stormwater include “*automobile brake pads, vehicle wear, building materials, pesticides, erosion of paint and deposition of air emissions from fuel combustion and industrial facilities.*” Within the AB/LCC Group’s jurisdiction there are no industrial facilities.

The remaining Category 1 pollutants are identified in the DC Toxics TMDL. The Final Staff Report for the DC Toxics TMDL, dated May 5, 2011 states “*Metals and PAHs are currently generated or deposited in the watersheds and are then washed into storm drains and channels that discharge to the Dominguez Channel and Greater Harbor Waters. PCBs, DDT, dieldrin, toxaphene, and chlordane are legacy pollutants for the most part, yet, they remain ubiquitous in the environment, bound to fine-grained particles. When these particles become waterborne, the chemicals are often transported downstream and deposited within estuarine or marine waters.*”

As described in Section 6.3.4, Zinc is the controlling agent for this WMP Group. Zinc in stormwater is mainly the result of tires and galvanized metals. Other metals constituents have the same fate and transport as Zinc, therefore treatment of Zinc will address other metal constituents in Category 1.

4.3 CATEGORY 2 (HIGH PRIORITY)

Category 2 includes five pollutants. Of these Bis(2-ethylhexyl) phthalate (DEHP) and trash share the same source. DEHP is a plasticizer which is used in plastic and can enter the receiving water through trash. The State Water Resources Control Board’s Draft Amendment to Statewide Water Quality Control Plans to Control Trash states that:

“A major source of trash is either intentionally or accidentally improperly discarded waste, thrown or deposited on land and in water bodies. If trash occurs on land, it is commonly transported to nearby water bodies by wind and/or rain or dry season runoff.”

During three quarters of dry weather screening, there has been no significant dry season runoff originating from the County Island. Also, as described in Section 6.3.5.5 the AB/LCC Group will install full capture devices on the catch basins within its jurisdiction. This will help prevent trash from entering the receiving water.

Sources of Bacteria in the AB/LCC Group’s jurisdiction can be broken up into anthropogenic and non-anthropogenic sources. Anthropogenic sources are those resulting from the influence of human beings on nature. These sources include sanitary sewer overflows, organic debris from food waste and other sources such as illegal dumping. Non-anthropogenic sources include animal wastes and decay of vegetation.

Possible sources of Ammonia are animal waste, fertilizer and other landscaping activities. It should be noted that the LCCWG is proposing Ammonia and pH for de-listing in the freshwater portion of the Los Cerritos Channel. The appendices of the LCCWG's "Los Cerritos Channel Watershed Management Program" provide a detailed analysis of the natural process which creates elevated pH and Ammonia levels. High Ammonia concentrations in the Los Cerritos Channel are directly related to high levels of pH. Elevated pH levels are caused by a naturally occurring cycle; however, this cycle is amplified by the small volume of dry weather flow sheet flowing across the concrete channel bottom. In recent years, there has been a significant decrease in dry weather flow in the Los Cerritos Channel. In agreement with the LCCWG, this WMP Group supports the effort for delisting Ammonia and pH.

4.4 CATEGORY 3 (MEDIUM PRIORITY)

This WMP Group has two Category 3 pollutants, MBAS and enterococcus. MBAS is typically linked to detergents and other cleaning products. Enterococcus has similar sources to those of coliform bacteria which are listed above (Section 4.3).

Section 5. Watershed Control Measures

5.1 OBJECTIVE

Per Section VI.C.5 of the Permit, permittees shall provide documentation that they have the necessary legal authority to implement the Watershed Control Measures identified in the plan, or that other legal authority exists to compel implementation of the Watershed Control Measures. The legal authority for the County and LACFCD to implement Watershed Control Measures can be found in Appendix C and D respectively.

Additionally, Section VI.5.b.i of the Permit requires Permittees to identify strategies, control measures, and to implement BMPs through their individual storm water management programs, and collectively on a watershed scale, with the goal of creating an efficient program to focus individual and collective resources on watershed priorities. The objectives of the Watershed Control Measures include:

- (1) Prevent or eliminate non-storm water discharges to the MS4 that are a source of pollutants from the MS4 to receiving waters.
- (2) Implement pollutant controls necessary to achieve all applicable interim and final water quality-based effluent limitations and/or receiving water limitations pursuant to corresponding compliance schedules.
- (3) Ensure that discharges from the MS4 do not cause or contribute to exceedances of receiving water limitations.

5.2 CONTROL MEASURES

This WMP Group has identified numerous control measures, or BMPs for the County Island. Due to the limited area of the County Island, there is little room for large-scale BMPs although this WMP Group will investigate opportunities to collaborate with other permittees. Potential non-structural BMPs applicable to the County Island include enhanced street sweeping, and increased catch basin cleanouts. Potential structural BMPs would be those that require a small footprint such as drainage filtration catch basins and full capture devices. A detailed evaluation of potential BMPs for the County Island can be found in the Section 6 of this WMP.

5.3 MINIMUM CONTROL MEASURES

Section VI.D.4 of the Permit provides requirements for minimum control measures for the LACFCD and Section VI.D.5-10 provides requirements for each permittee.

5.3.1 MCM Requirements for the LACFCD

In general, the requirements for the LACFCD involve:

- Implementing a Public Information and Participation Program (PIPP),
- For LACFCD Industrial or Commercial Facilities, complying with section VI.D.6 of the Permit,
- Implementing a Public Agency Activities Program,

- Continuing to implement an Illicit Connection and Illicit Discharge Program.

The LACFCD is currently implementing all of these requirements and will continue to do so for the duration of this Permit.

5.3.2 MCM Requirements for the County of Los Angeles

In general, the requirements for each permittee involve:

- Implementing a Public Information and Participation Program (PIPP)
- For each Permittee's Industrial or Commercial Facilities, complying with section VI.D.6 of the Permit
- Implementing a Planning and Land Development Program pursuant to Section VI.D.7.b for all New Development and Redevelopment projects subject to the Permit
- Developing a Construction Program subject to Section VI.D.8 of the Permit
- Implementing a Public Agency Activities Program
- Continuing to implement an Illicit Connection and Illicit Discharge Program

The County will implement all of these requirements upon approval of this WMP and will continue to do so for the duration of this Permit.

Section 6. Reasonable Assurance Analysis

6.1 OBJECTIVE

Per Section VI.C.5.b.iv.5 of the Permit, this WMP Group has conducted a Reasonable Assurance Analysis (RAA) for the areas in which it has jurisdiction of the land use. The Permit requires:

- The RAA shall be quantitative and performed using a peer-reviewed model in the public domain.
- The RAA shall commence with assembly of all available, relevant subwatershed data collected within the last 10 years, including land use and pollutant loading data, establishment of quality assurance/quality control (QA/QC) criteria, QA/QC checks of the data, and identification of the data set meeting the criteria for use in the analysis.
- Data on performance of watershed control measures needed as model input shall be drawn only from peer-reviewed sources. These data shall be statistically analyzed to determine the best estimate of performance and the confidence limits on that estimate for the pollutants to be evaluated.
- The objective of the RAA shall be to demonstrate the ability of Watershed Management Programs and EWMPs to ensure that Permittees' MS4 discharges achieve applicable water quality based effluent limitations and do not cause or contribute to exceedances of receiving water limitations.

Additionally, the LARWQCB has released "Guidelines for Conducting Reasonable Assurance Analysis in Watershed Management Program, including an Enhanced Watershed Management Program dated March 25, 2014" (RAA Guidelines). The RAA Guidelines were prepared to provide clarification of the permit requirements regarding the RAA, along with recommended criteria for the permittees to prepare an appropriate RAA for LARWQCB approval.

This section documents the analysis and results of the RAA effort to address stormwater and non-stormwater discharges originating from the County Island. Further, a comprehensive phased approach of BMP implementation is provided. The benefits of BMPs are estimated, in terms of pollutant load reductions, to meet applicable wasteload allocations (WLAs).

This WMP Group has land use jurisdiction over the County Island. The LACFCD does not have jurisdiction of the land uses that create the pollutants of concern in the Alamitos Bay and Los Cerritos Channel Estuary watersheds. These areas are under the jurisdiction of the City of Long Beach and the associated RAA will be addressed under Long Beach's WMP which will be submitted in March 2015. Through adaptive management, the LACFCD will review Long Beach's WMP and consider on a case-by-case basis opportunities for collaboration on future projects.

6.2 NON-STORMWATER APPROACH

This WMP Group has begun to implement a thorough Non-Stormwater Outfall Monitoring Program. Details of this program can be found in the AB/LCC CIMP. Based on suggestion from the LARWCQB, the program includes quarterly screening of outfalls in the Group's jurisdiction for the duration of 1 year. This WMP Group has identified significant dry weather flow as: 1) flow which is greater than a garden hose originating from the County Island 2) Flow

that is seen 2 out of the 4 screening events. Screenings for the Spring, Fall and Winter seasons have taken place. These screenings have found no significant dry weather flow originating from the County Island. As no significant flow has been found originating from the County Island, dry weather runoff from the County Island is not a concern and does not need to be modeled. A Summer screening is scheduled for 2015. Figure 6 shows the catch basins, flow direction of surface runoff, major and other outfalls in the County Island.

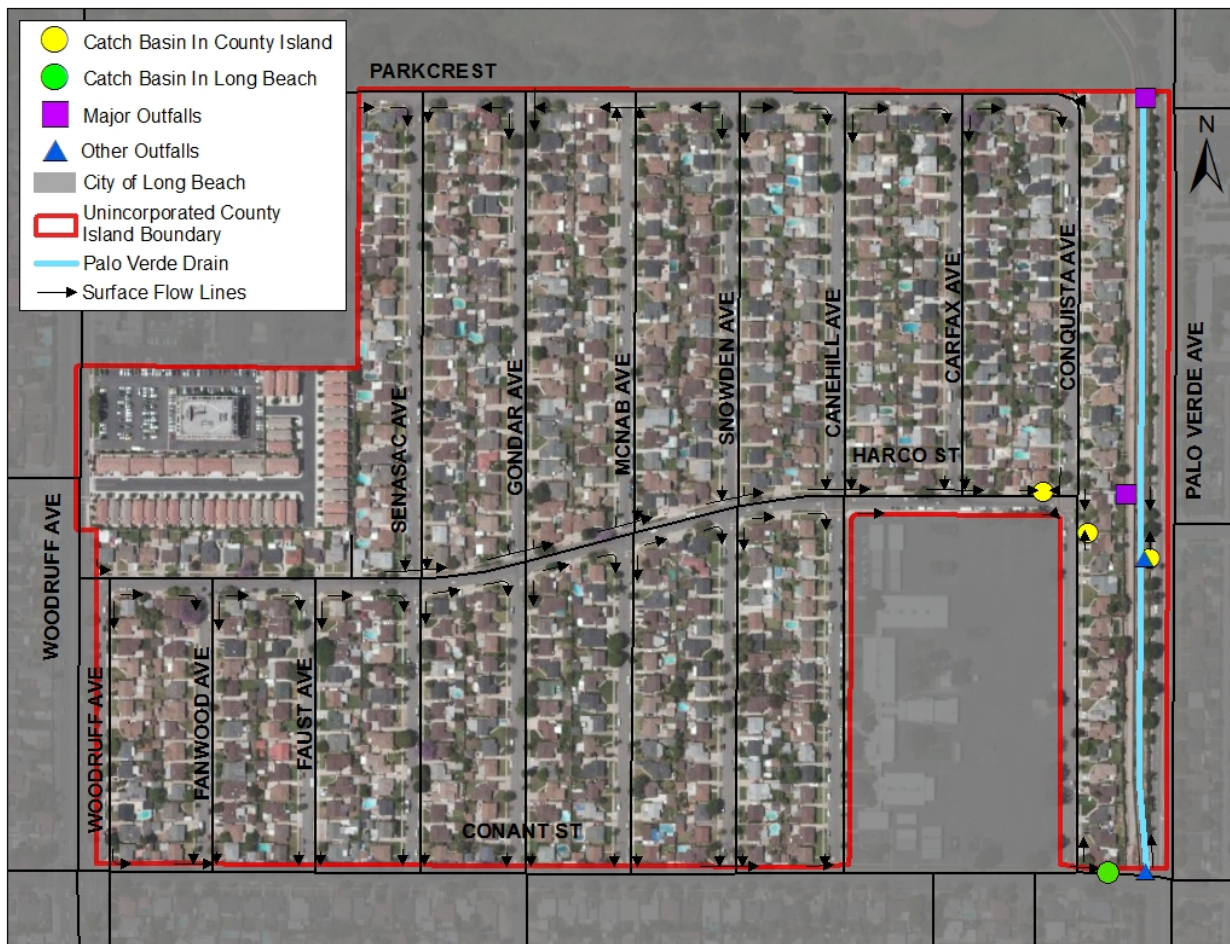


Figure 6: Catch Basins, Flow Direction and Outfalls in County Island

6.3 STORMWATER QUALITY MODEL/APPROACH

This WMP Group utilized the Watershed Management Modeling System (WMMS) to model flows and pollutant loading originating from the County Island. WMMS is a LARWQCB approved model developed as a comprehensive decision support system to help select BMPs, to aid watershed planning and development of strategic TMDL compliance plans.

The following approach was used for conducting the RAA:

1. Identify land area for analysis
2. Run WMMS for identified land area for a 10-year period (October 15, 2000 to April 15, 2011)

3. Select Critical Condition storm
4. Determine Critical Condition Daily Pollutant Load
5. Compare Critical Condition Daily Pollutant Loads to WLA limits
6. Identify non-structural and structural BMPs
7. Develop schedule to meet needed percent reductions

6.3.1 Land Area Identification

The RAA was conducted for areas in which the WMP Group has jurisdiction over the land use. Accordingly, the 95-acre County Island was modeled. The County Island is located completely within WMMS sub basin 5505. The WMMS model was prepared to isolate only those land uses of the County Island. For reference, sub basin 5505 and neighboring WMMS sub basins are shown in Figure 7.

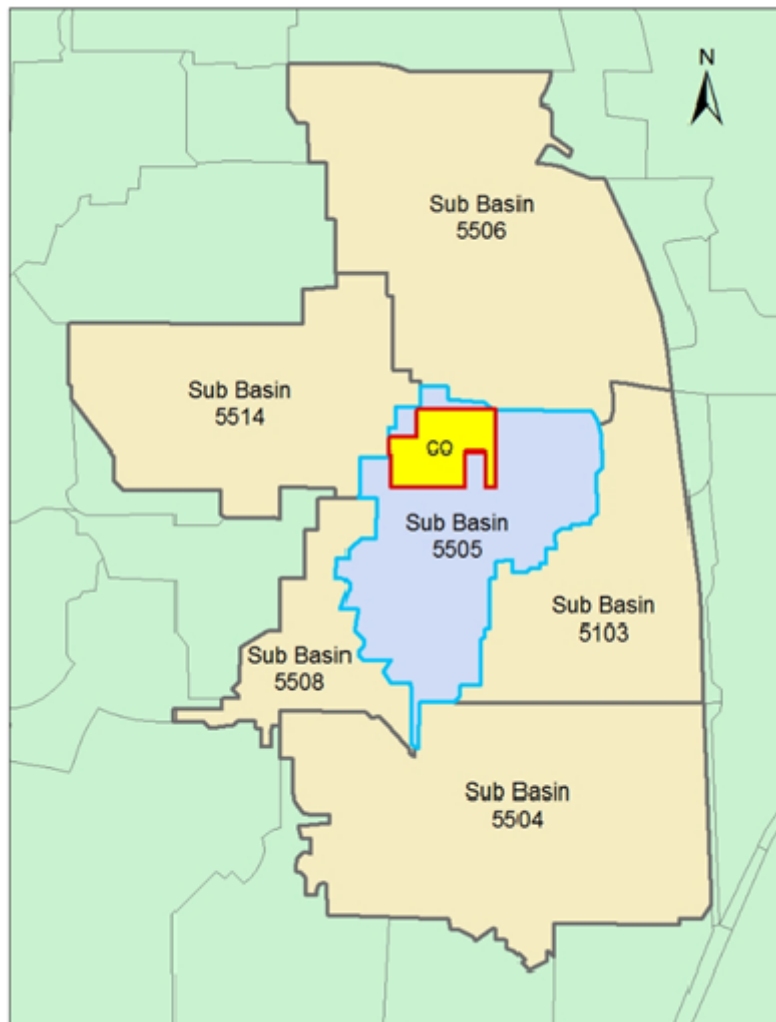


Figure 7: County Island, WMMS Sub Basin 5505 and Neighboring Sub Basins

The Unincorporated County Island Hydrologic Response Units (HRU) and associated Impervious Area distribution is presented in Figure 8 and Table 5.

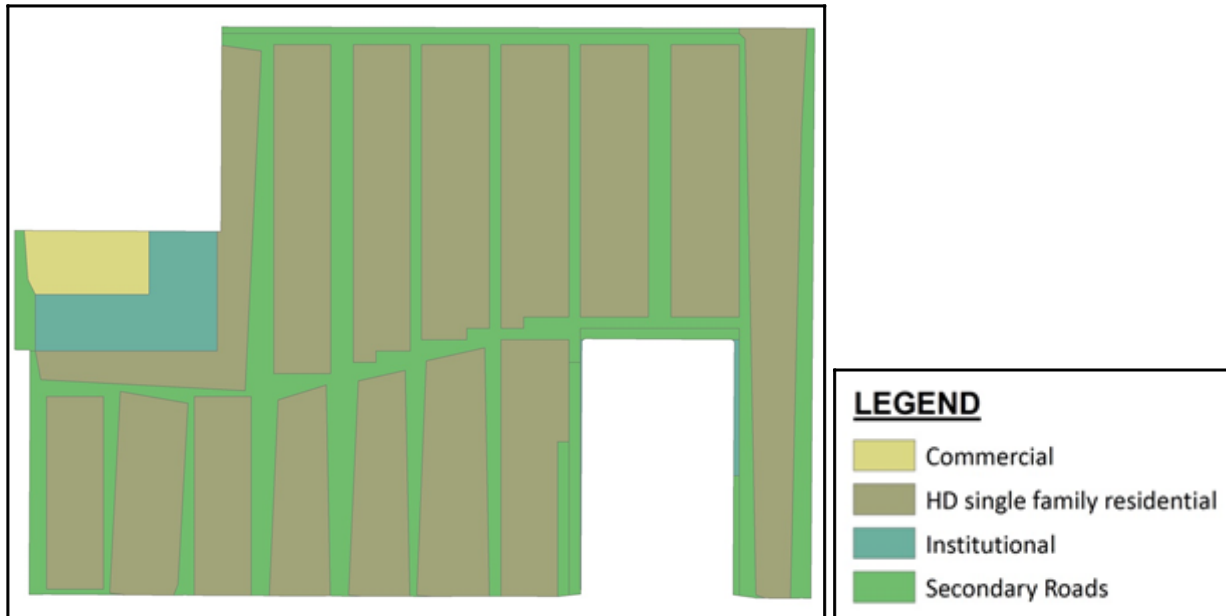


Figure 8: Unincorporated County Island HRU Map

Table 5: HRU Breakdown for County Island

HRU ID	HRU Description	Area (acre)	Impervious Area Percentage	Impervious Area (acre)
1	High Density, Single Family Residential	63.27	42%	26.57
5	Commercial	1.98	96%	1.90
6	Institutional	4.01	75%	3.01
9	Secondary Roads	25.39	44%	11.17

6.3.2 WMMS Analysis

WMMS was populated with the most current information available for input into model. At the time of analysis, data from the 2000-2001 to the 2010-2011 Storm Seasons (October 15, 2001 to April 15, 2011) was available. Figure 9 shows the WMMS output of daily storm volumes. As there is no specific monitoring data for the County Island, or the surrounding subwatershed, WMMS analysis was conducted utilizing built-in parameters. As data is collected during the implementation of this Group’s CIMP, WMMS will be calibrated, if necessary. The WMMS output utilizing the built-in parameters included hourly/daily storm volumes as well as hourly/daily pollutant loading. The WMMS input files used for analysis have been submitted to the LARWQCB.

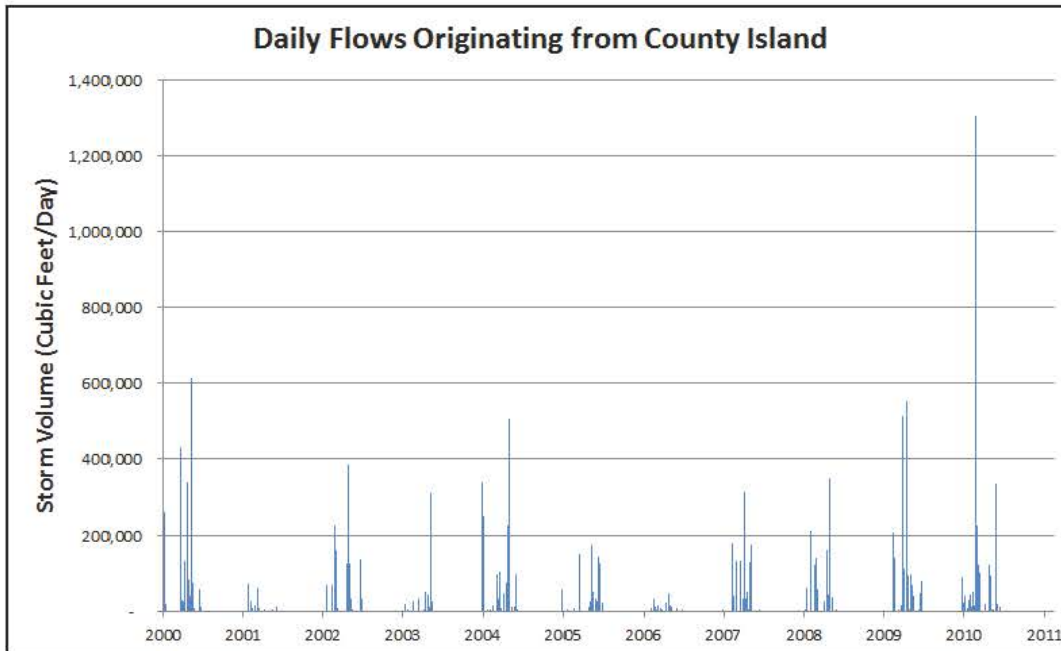


Figure 9: Daily Flows Originating from County Island

6.3.3 Critical Storm

Per the RAA Guidelines, the 90th percentile flow volume was to be determined. Accordingly, all storms occurring from October 15, 2001 to April 15th 2011 were ordered based on the magnitude of their storm volume as shown in Figure 10. The 90th percentile (Critical Condition) storm was then selected. For the County Island, the Critical Condition storm was selected as a storm event which occurred on February 5, 2009. Appendix E contains the dates of storms analyzed and their associated storm volumes in a tabular format.

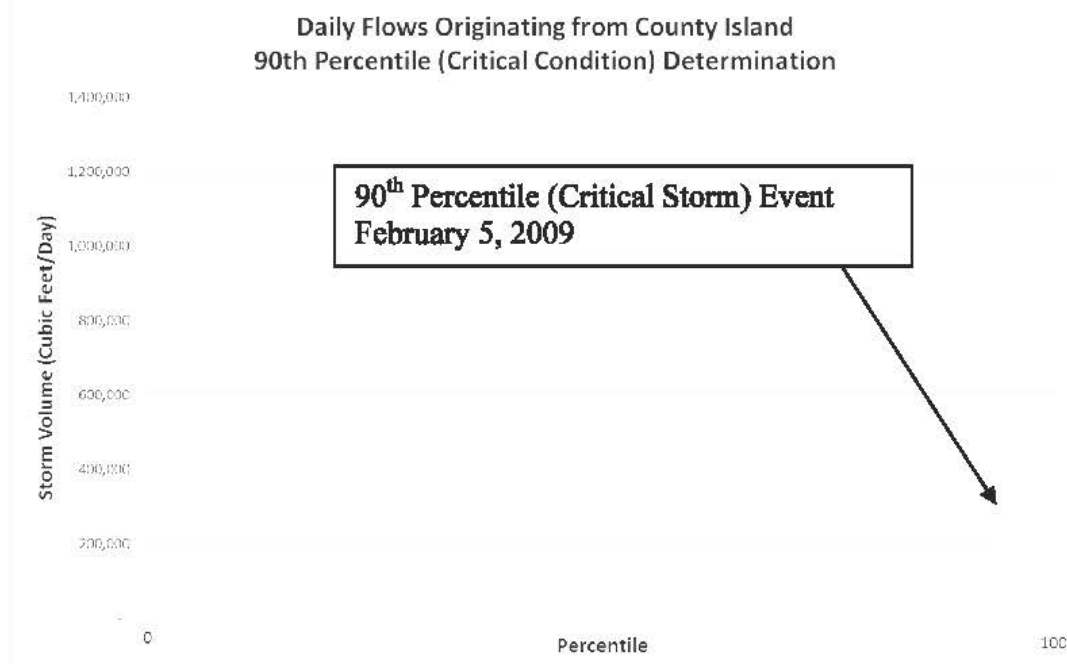


Figure 10: County Island Storms Ordered by Storm Volume

6.3.4 Critical Condition Daily Pollutant Load

The WMMS output was then analyzed and the Critical Condition Daily Pollutant Load and the allowable loading per the LCC Metals TMDL were calculated. This analysis used the 90th Percentile Critical storm event volume (3.7 acre-feet) and the LCC Metals TMDL allowable concentrations found in Table 6-7 of the LCC Metals TMDL (as shown in Table 6 below).

Table 6: Wet-Weather Stormwater Allocations per LCC Metals TMDL

Metal	Los Angeles County MS4 Permittee (g/day)
Copper	4.709 x daily storm volume (L) x 10 ⁻⁶
Lead	26.852 x daily storm volume (L) x 10 ⁻⁶
Zinc	46.027 x daily storm volume (L) x 10 ⁻⁶

The Critical Condition Daily Pollutant Load was calculated as:

Critical Condition Daily Pollutant Load = Critical Condition Storm Event Volume x Modeled Critical Condition Concentration

Similarly, the LLC Metals TMDL Allowable Daily Load was calculated as:

TMDL Allowable Daily Load = Critical Condition Storm Event Volume x LCC Metals TMDL Allowable Concentration

As shown in Table 7, the modeled Critical Condition Daily Pollutant Loads of Copper, Lead and Zinc were calculated:

- Critical Condition Daily Pollutant Copper Loading: 0.080 kg
- Critical Condition Daily Pollutant Lead Loading: 0.078 kg
- Critical Condition Daily Pollutant Zinc Loading: 0.764 kg

Table 7: Critical Condition and Allowable Daily Load Calculation

LCC Metals TMDL Pollutant	Critical Condition Storm Event Volume (acre-ft.)	Critical Condition Storm Event Volume (L)	LCC Metals TMDL Allowable Conc. (micrograms/L)	Modeled Critical Cond. Conc. (micrograms/L)	TMDL Allowable Daily Load (kg)	Modeled Critical Cond. Daily Pollutant Load (kg)
Copper	3.7	4,593,216	4.709	17.52	0.022	0.080
Lead	3.7	4,593,216	26.852	16.897	0.123	0.078
Zinc	3.7	4,593,216	46.027	166.225	0.211	0.764

A time series analysis for LCC Metals TMDL constituents can be found in Appendix G. Other Category 1 pollutants identified in the DC Toxics TMDL were considered. These pollutants have similar fate and transport as the LCC Metals TMDL constituents, i.e. the toxics and metals move through and are transformed physically, chemically and biologically the same in the environment. The DC Toxics TMDL's final compliance date is over 5 years after the LCC

Metal TMDL's. By using the limiting pollutant approach in this RAA, treatment of the Critical LCC Metals Condition will address the DC Toxics TMDL.

Category 2 and 3 pollutants were then analyzed for their Critical Condition. As discussed in Section 4.3, Ammonia and pH are proposed for delisting and do not need to be modeled. Ammonia is directly related to sediment; therefore, proposed BMPs to treat Metals will also reduce Ammonia.

As discussed in Section 4.3, Bis(2-ethylhexyl) phthalate (DEHP) and trash share the same source. DEHP is a plasticizer which is used in plastic and is typically associated with trash. As discussed in Section 6.3.5.5, this WMP Group will install full capture devices on the catch basins in their jurisdiction to significantly reduce trash. Therefore, trash and DEHP do not need to be modeled.

To address Bacteria and in particular Coliform Bacteria, WMMS was used to analyze Fecal Coliform. As seen in Table F.1 of Appendix F, the 2004-2005 storm season is the 90th percentile year for Bacteria. Page 4 of the RAA guidelines state:

“For pollutants included in the RAA but for which there is no TMDL, permittees should consider expressing pollutant loading in terms of averaging periods/duration/critical conditions consistent with those used in TMDLs for that pollutant in order to proactively address the water quality problem in such a way as to avoid the need for a TMDL in the future if possible.”

This WMP Group utilized the methodology outlined by the Ballona Creek, Ballona Estuary and Sepulveda Channel Bacteria TMDL. This TMDL allows for 17 wet weather exceedance days. Storms during the 2004-2005 season were arranged based on magnitude and the 18th largest storm was selected as the Critical Condition Bacteria storm event. This storm produces a 1.09 acre-feet volume. The Critical Condition Bacteria storm volume is far below the 90th Percentile Critical Storm Volume (3.7 acre-feet) chosen for the LCC Metals TMDL. Therefore, treatment of the LCC Metals TMDL will also meet applicable Bacteria limits.

MBAS is typically linked to detergents and other cleaning products. The County Island's contribution of MBAS will be determined based on actual monitoring results from implementation of the Group's CIMP. Enterococcus is a bacteria similar to Fecal Coliform and will be addressed through the previously discussed Bacteria analysis.

6.3.4.1 Comparison of Daily Pollutant Loads to WLA Limits

WLA's for Copper, Lead and Zinc were identified in the LCC Metals TMDL. Limits in the DC Toxics TMDL were identified; however, due to the County's minimal land area tributary to the San Pedro Bay (less than 0.5% of the watershed) reasonable allocations could not be determined. The County Island's contribution to the San Pedro Bay will be determined based on actual monitoring results from implementation of the AB/LCC Group's CIMP. The Critical Condition Daily Pollutant Loads from WMMS were then compared to the WLA from the LCC Metals TMDL (Table 8).

Table 8: Analysis Based on WMMS Results

Critical Condition Storm	Copper			Lead			Zinc		
	Daily Pollutant Load (kg)	TMDL Allowable Daily Load (kg)	Required Daily Load Reduction (kg)	Daily Pollutant Load (kg)	TMDL Allowable Daily Load (kg)	Required Daily Load Reduction (kg)	Daily Pollutant Load (kg)	TMDL Allowable Daily Load (kg)	Required Daily Load Reduction (kg)
February 5, 2009 (3.7 acre-feet)	0.080	0.022	0.059	0.078	0.123	0.000	0.764	0.211	0.552
% Reduction Required	73%			0%			72%		

Key conclusions from the comparison are:

- Lead is within the required TMDL limits
- Copper requires the highest reduction; however, based on an analysis of SB 346 it will not be the controlling agent (see Section 6.3.5.2 for more information)
- Zinc will be the controlling agent

The RAA is conducted under the assumption that if the controlling agent is reduced to the required WLA, all other metals will also be in compliance.

6.3.5 Identification of Potential Non-Structural and Structural BMPs

The implementation of non-structural and structural BMPs aims to build a reasonable approach to achieve the required percent reduction of the controlling agent. For this WMP Group, the controlling agent is Zinc, which requires a 72% reduction. The WMP Group plans to achieve this reduction through a combination of existing and planned control measures, then, if necessary through additional BMP implementation. It should be noted that the LCC Metals TMDL has a final compliance milestone of September 2026; accordingly, the implementation of BMPs will rely heavily on the results of monitoring data provided by the CIMP.

The sections below list existing and planned BMPs as well as identify potential BMPs for this WMP Group.

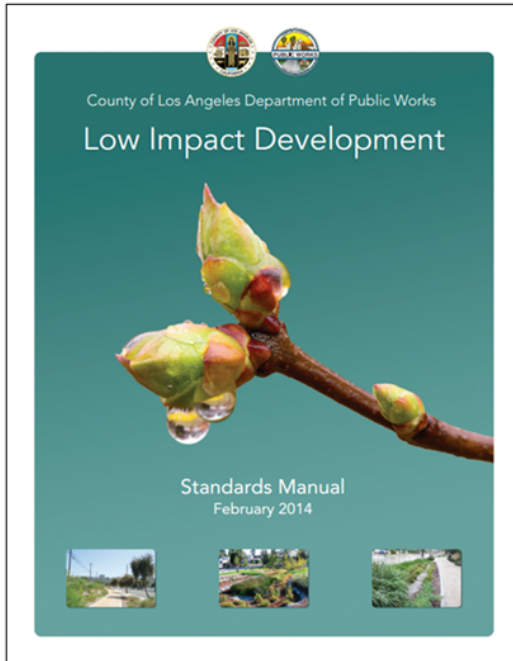


Figure 11: County's Low Impact Development Manual

6.3.5.1 Low Impact Development (Existing Non-Structural BMP)

The County's revised Low Impact Development (LID) Ordinance was adopted by the Los Angeles County Board of Supervisors in November 2013. Shortly after the adoption of the Ordinance, the County developed a LID Manual.

The LID Manual details two types of projects, Designated Projects and Non-Designated Projects. Designated Projects must infiltrate the entire volume of the Water Quality Design Storm (WQDS). The WQDS is calculated to be either the 0.75 inch storm or the 85th percentile storm, whichever is greater. The WQDS is intended to be the design storm which provides the maximum benefit for minimal cost. Designated projects include:

- Sites disturbing 1 acre or more and adding 10,000 sq. ft. + impervious area
- Industrial parks 10,000 sq. ft. + impervious area
- Commercial malls 10,000 sq. ft. + impervious area
- Gas outlets 5,000 sq. ft. + impervious area
- Restaurants 5,000 sq. ft. + impervious area
- Parking lots 5,000 sq. ft. + impervious area or 25 + parking spaces
- Auto facilities 5,000 sq. ft. + impervious area
- Redevelopment projects adding, replacing, creating 5,000 sq. ft. + impervious area
- Sites within Significant Ecological Area that impact sensitive species or habitat and create 2,500 sq. ft. + impervious area

If infiltration is not feasible at the designated projects sites, the LID Manual provides other options for meeting compliance.

The LID Manual also provides requirements for Non-Designated Projects. These requirements are residential projects of 4 units or less that do not fall under the designated project thresholds. The property developer must choose 2 of the following BMPs:

- Porous Pavement
- Cistern/Rain Barrel
- Rain Garden/Planter Box
- Disconnect Impervious Surfaces
- Dry Well

- Landscaping and Landscape Irrigation
- Green Roof

Non-Designated Projects that are residential projects of 5 units or more or a non-residential project must infiltrate the post-development WQDS runoff minus pre-development WQDS runoff. The LID Manual also provides additional compliance requirements for special cases such as single family hillside homes. Further details can be found in the County of Los Angeles' Low Impact Development Manual, dated February 2014.

A majority of the County Island is high-density single family residential. The County's LID Ordinance requires:

- Redevelopment of an existing single family house would be a "non-designated project". LID would be required if there is "addition or alteration" of impervious surfaces.
- If a property owner adds or alters 50% of the impervious surface, then property owner would have to treat the WQDS for the entire site.
- If the property owner adds or alters less than 50% of their site, then the property owner would need LID only for the portion that has been altered.
- Redevelopment of a property over 5,000 square feet would be a "designated project". The property owner would need to infiltrate the volume of runoff created. If they are unable to infiltrate, the proper owner would be subject to other mitigation options.

Assuming a limited rate of implementation of LID for the County Island, a 1% reduction for Zinc is applied to the Critical Condition Daily Pollutant Load prior to the LCC Metals Final Compliance Date (September 2026). A 0.2% reduction is applied before the first LCC Metals TMDL interim deadline (September 2017).

6.3.5.2 Senate Bill 346 (Existing Non-Structural BMP)

In 2010, California Senate Bill SB 346 (SB 346) was enacted to nearly eliminate the use of Copper in brake pads. In 2012, TDC Environmental LLC prepared a draft detailed memo (TDC memo) describing the expected percent reduction of Copper reductions. The TDC memo identifies 3 possible implementation scenarios:

- One Step Reduction
 - All new vehicles and replacement brake pads are reformulated to contain less than 0.5% Copper by January 1, 2021 (first SB 346 compliance deadline).
- Two Step Reduction
 - New vehicle brake pads are reformulated to contain less than 5% copper by January 1, 2021 and less than 0.5% Copper by 2025. It would be assumed that all higher Copper replacement brakes would be sold within two years of each compliance date.
- Aftermarket Exemption
 - New vehicle brake pads are reformulated to contain less than 5% copper by January 1, 2021 and less than 0.5% copper by 2025. This scenario assumes that higher Copper replacement brakes would continue to be sold indefinitely.

Of these cases, Scenario 1 is considered to be the most optimistic and Scenario 3 the most conservative. All scenarios were then analyzed over a fourteen-year period. The TDC memo determines the following copper reductions by the year 2032:

- Scenario 1: 61% Copper reduction
- Scenario 2: 61% Copper reduction
- Scenario 3: 55% Copper reduction

Per the LCC Metals TMDL, the County Island must attain 100% dry weather compliance by September 2023 and 100% wet weather compliance by September 2026. Using Scenario 3 (the most conservative approach), and interpolating values identified in the TDC memo, it is assumed that there will be a 33.5% reduction in Copper by 2023 and a 44% reduction in Copper by 2026. Copper requires the highest reduction; however, based on the projected outcomes of SB 346, Copper will not be the controlling agent. Copper has the same fate and transport as the controlling pollutant Zinc. Therefore, BMPs which address Zinc will also enhance the treatment of Copper in the County Island jurisdiction.

6.3.5.3 Enhanced Street Sweeping (Planned Non-Structural BMP)

Street sweeping is a well-known, non-structural BMP, which removes trash, natural debris and sediment from roads and parking lots. Street sweeping can improve the quality of stormwater runoff by reducing the amount of sediment-bound pollutants that enter catch basins, storm drains and eventually receiving waters.

The County Island is currently swept once a week, historically, this was done mostly by mechanical broom sweepers. The County Island is currently swept by a contractor using a vacuum sweeper. This WMP Group reviewed numerous studies related to street sweeping including:

- Potential Effects of Structural Controls and Street Sweeping on Stormwater Loads to the Lower Charles River, Massachusetts Study
- City of San Diego, Targeted Aggressive Street Sweeping Pilot Study

These studies show that efficient street sweepers such as assisted-vacuum or regenerative-air sweepers are the best machines at removing finer-grained contaminants bound to sediment. Also, the City of San Diego Study found that the assisted vacuum sweeper outperformed the regenerative-air sweeper. The County will ensure that either through in-house forces or through contractors, the County Island continues to be swept by a Vacuum Sweeper.

The County currently maintains a fleet of 48 street sweepers, 38 of which are mechanical broom sweepers and 10 are regenerative-air sweepers. Over the next few years, the County will upgrade a portion of its mechanical broom street sweepers with new high efficiency vacuum street sweepers. Additionally, the County will be conducting a special study to demonstrate the High-Efficiency Vacuum Street Sweepers effect on water quality.

Based on thorough literature review, this WMP Group determined a 5% reduction of Zinc for its efforts in upgrading its fleet to high efficiency vacuum sweepers. This reduction considers the fact that the County Island has very little slope and it is assumed that sediment is retained in the curb and gutter of the County Island. Accordingly, it is expected that the vacuum sweeper will

collect a large amount of sediment that would otherwise be mobilized into the receiving water during a storm event.

6.3.5.4 Irrigation Ordinance (Existing/Potential Non-Structural BMP)

On October 7, 2008, the County of Los Angeles Board of Supervisors adopted Ordinance No. 2008-00052U, which states that:

- *“No person shall hose water or wash down any sidewalks, walkways, driveways, parking areas of other paved surfaces, except as is required for the benefit of public health and safety.”*
- *“No person shall water or cause to be watered any lawn or landscaping to such an extent that runoff into adjoining streets, parking lots or alleys occurs due to incorrectly directed or maintained sprinklers or excessive watering.”*
- *“No motor vehicle, boat, trailer, or other type of mobile equipment may be washed, except at a commercial carwash or with reclaimed water, unless such vehicle is washed by using a hand-held bucket or a water-hose equipped with an automatic shutoff nozzle.”*

Violations of the subject ordinance are subject to fines. This is an existing BMP; however, depending on budgetary needs, the County may allocate additional resources to increase enforcement of this ordinance.

6.3.5.5 Full Capture Devices (Planned Structural BMP)

In April 2007, after extensive research, testing, and development, the County submitted a Full-Capture Device Technical Report for the connector pipe screen (CPS) device to the LARWCQB. The CPS device was subsequently certified by the LARWCQB as an approved full-capture device on August 1, 2007. The LARWCQB has stated:

“a full-capture system is any single device or series of devices that traps all particles retained by a 5-millimeter mesh screen (100 percent trash removal) and has a design treatment capacity of not less than the peak-flow rate resulting from a one-year, one-hour, storm in the subdrainage area.”

CPS devices are designed to reduce trash, but also provide the ancillary benefit of reducing sediment from entering the storm drain system.

The County has successfully implemented CPS units in many of unincorporated County Islands. Additionally, the County has implemented Automatic Retractable Screens (ARS) in numerous locations. ARS devices are placed at the curb inlet of the catch basin adjacent to the roadway. During dry weather and low flow conditions, trash, plastics, vegetative debris and other objects are prevented from entering the catch basin. During routine street sweeping, this material is swept from the curb inlet and removed from the watershed. To prevent localized flooding during heavy runoff, the ARS device is automatically opened via pressure from stormwater on the face of the ARS device. Debris that may enter the catch basin is then filtered by the CPS unit.

Design of the CPS and ARS devices is underway and the County plans to implement this BMP on the 3 catch basins within its jurisdiction by Spring 2016. Design of the CPS and ARS devices is currently underway. Construction of the devices is contingent upon appropriate field

conditions. CPS devices cannot be installed in areas where they may adversely affect flood protection or in catch basins that are too shallow to house CPS devices.

To quantify the benefit of Full Capture Devices this WMP Group reviewed the:

- County of Los Angeles's "Multi-Pollutant TMDL Implementation Plan for the Unincorporated County Area of Ballona Creek" (Ballona Creek IP)
- Center for Watershed Protection's "Research in Support of an Interim Pollutant Removal Rate for Street Sweeping and Storm Drain Cleanout Activities" dated October 2006 (CWP Memo).

The CWP Memo developed a conceptual model to assess pollutant load reduction for catch basin cleanouts. The installation of full capture devices greatly increases the volume of material retained in catch basins which will then be removed during routine cleanouts. Building on information in the CWP Memo, the Ballona Creek IP applied an annual removal rate of 5% to sediments and metals generated in the transportation network. This 5% removal rate within the transportation corridor translated to an *overall* reduction in load of up to 2.1% for the County Islands in the Ballona Creek watershed. Accordingly, this WMP Group has assumed a 2% overall reduction of Zinc.

6.3.5.5.1 Increased Catch Basin Cleanout (Planned Non-Structural BMP)

As a function of installing CPS devices, the County will increase its cleaning frequency of the catch basins in this County Island. Currently catch basins within this County Island are cleaned on a yearly basis. Once CPS devices are installed, the County maintenance will be increased to:

- Bimonthly inspection during Storm Season (October 1 to April 30)
- Inspection after Major Storms
- Cleanouts will be done as needed following these inspections
- One inspection/cleanout during Dry Season (May 1 to September 30)

Visual inspection of catch basin cleanouts has shown significant amounts of sediment captured within catch basins. Based on this increased frequency, a 2% of Zinc reduction has been assumed. This percentage will be considered and may be refined during the adaptive management process.

6.3.5.6 Biofiltration System (Potential Structural BMP)

If needed, the County has identified Biofiltration Systems as potential structural BMPs that would benefit water quality in this County Island. These systems would be installed in road parkways upstream of existing catch basins. The Biofiltration system utilizes screening, hydrodynamic separation, media filtration and bio retention to treat storm water and dry weather flows (Figure 12).

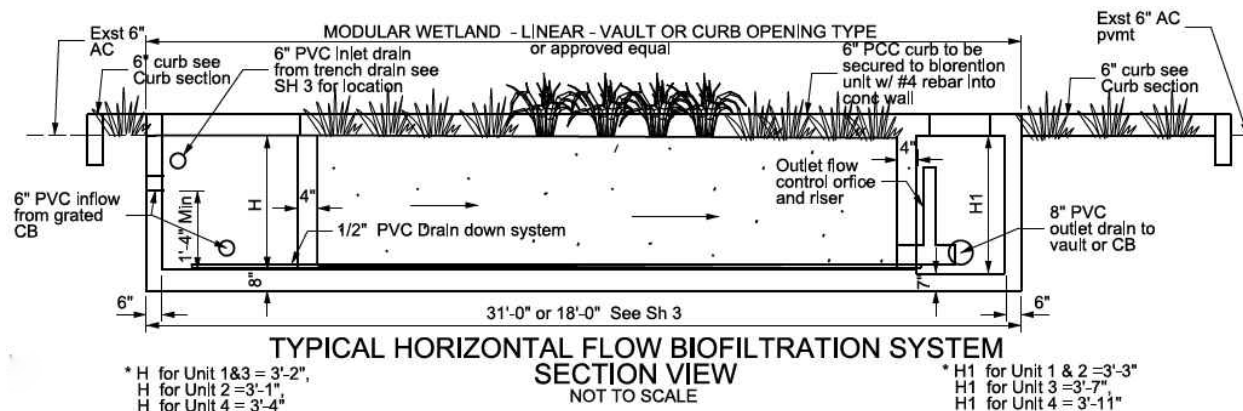


Figure 12: Typical Biofiltration System

Biofiltration Systems have demonstrated 79% efficiency in Zinc removal (Modular Wetlands). The County is currently installing these systems as part of water quality projects in other watersheds, and is evaluating their effectiveness.



Figure 13: Potential Biofiltration System Location

The County has identified the need for appropriate water quality monitoring data before determining the number and location of Biofiltration Systems to be installed. This schedule is outlined in Section 6.3.6.

6.3.5.7 Drainage Filtration Catch Basin (Potential Structural BMP)

Drainage Filtration Catch Basins (Figure 14) may potentially be used to reduce the amount of runoff which leaves the County Island.

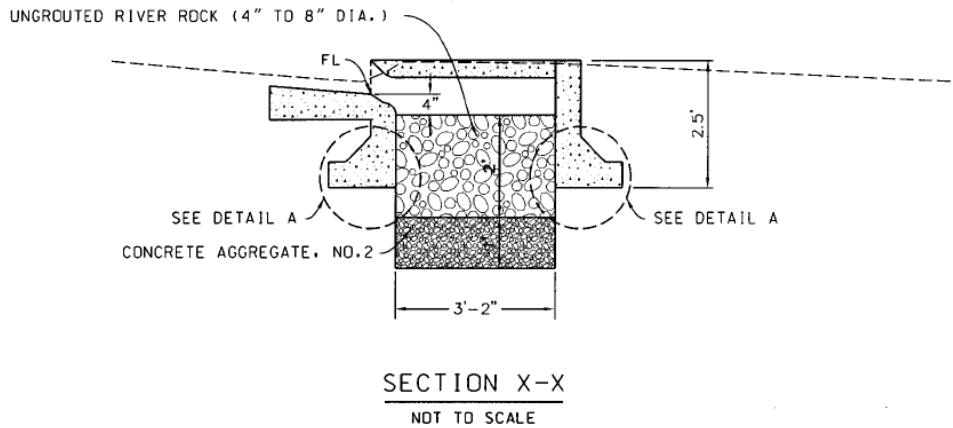


Figure 14: Drainage Filtration Catch Basin Typical Section

Drainage Filtration Catch Basin Systems have been utilized in numerous locations around the County. Their implementation is dependent on the local soils infiltration capacity as well as available space in the public road parkway. Preliminary analysis of nearby groundwater wells shows adequate infiltration depths may be available. However, before feasibility is determined a site-specific analysis is required on soil infiltration rates.



Figure 15: Potential Drainage Filtration Catch Basin Locations

The County has identified the need for appropriate water quality monitoring data before determining the number and location of Drainage Filtration Catch Basins to be installed. A schedule of monitoring and BMP implementation is presented in in Section 6.3.6.

6.3.5.8 LACFCD Right of Way Infiltration (Potential BMP)

The AB/LCC Group has identified a potential project along the Palo Verde Drain.



Figure 16: Potential Right of Way Project along Palo Verde Drain

The LACFCD's right of way along the Palo Verde Drain is frequently used by pedestrians. A potential greenway project incorporating habitat, water quality and recreation features could be implemented at this location. Implementation of all BMPs including this potential right of way project is contingent upon the results of monitoring from the Group's CIMP as well as budgetary considerations. If results of monitoring determine the need for additional BMPs, the LACFCD and County will collaboratively investigate the feasibility of this project.

6.3.6 Schedule to Meet Needed Percent Reductions

By September 2026, an estimated 72% reduction of Zinc is needed to meet the appropriate WLAs. Stormwater volumes to be mitigated to meet interim and final deadlines were calculated utilizing the 90th Percentile Critical Condition storm volume of 3.7 acre-feet and the System for Urban Stormwater Treatment and Analysis IntegratiON (SUSTAIN) component of WMMS. To meet the needed pollutant load reduction, this volume of Stormwater would need to be mitigated, either through infiltration, nonstructural BMPs or a flow-through BMP system. The correlation between the needed percentage of pollutant reduction and the associated percent flow reduction can be seen in Figure 17. For example a 72% reduction of Zinc by September 2026 would require 43.9% reduction in flow or 1.62 acre-feet of stormwater volume mitigated (43.9% x 3.7 acre-feet).

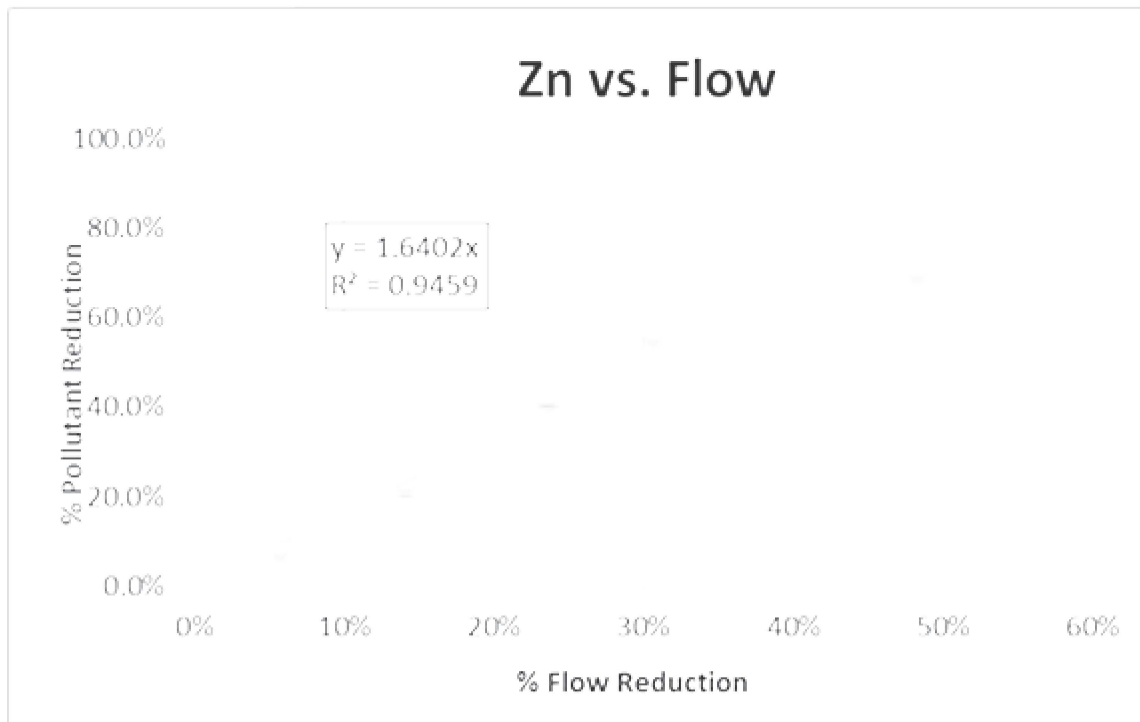


Figure 17: Zinc % Pollutant Reduction vs. Percent Flow Reduction from SUSTAIN

Table 9 is generated using the Critical Condition storm volume and the interim and final deadlines from the LCC Metals TMDL. Figure 18 shows the needed stormwater volumes to be mitigated and the expected mitigation from planned BMPs to be implemented prior to the first LCC Metals interim deadline (September 30, 2017).

Table 9: LCC Metals TMDL, Stormwater Volumes to be Mitigated

Date	Wet Weather Compliance Milestone	Stormwater Volume to be Mitigated (acre-feet)
September 30, 2017	10% compliance with wet weather WLAs	0.16
September 30, 2020	35% compliance with wet weather WLAs	0.57
September 30, 2023	65% compliance with wet weather WLAs	1.06
September 30, 2026	100% compliance with wet weather WLAs	1.62

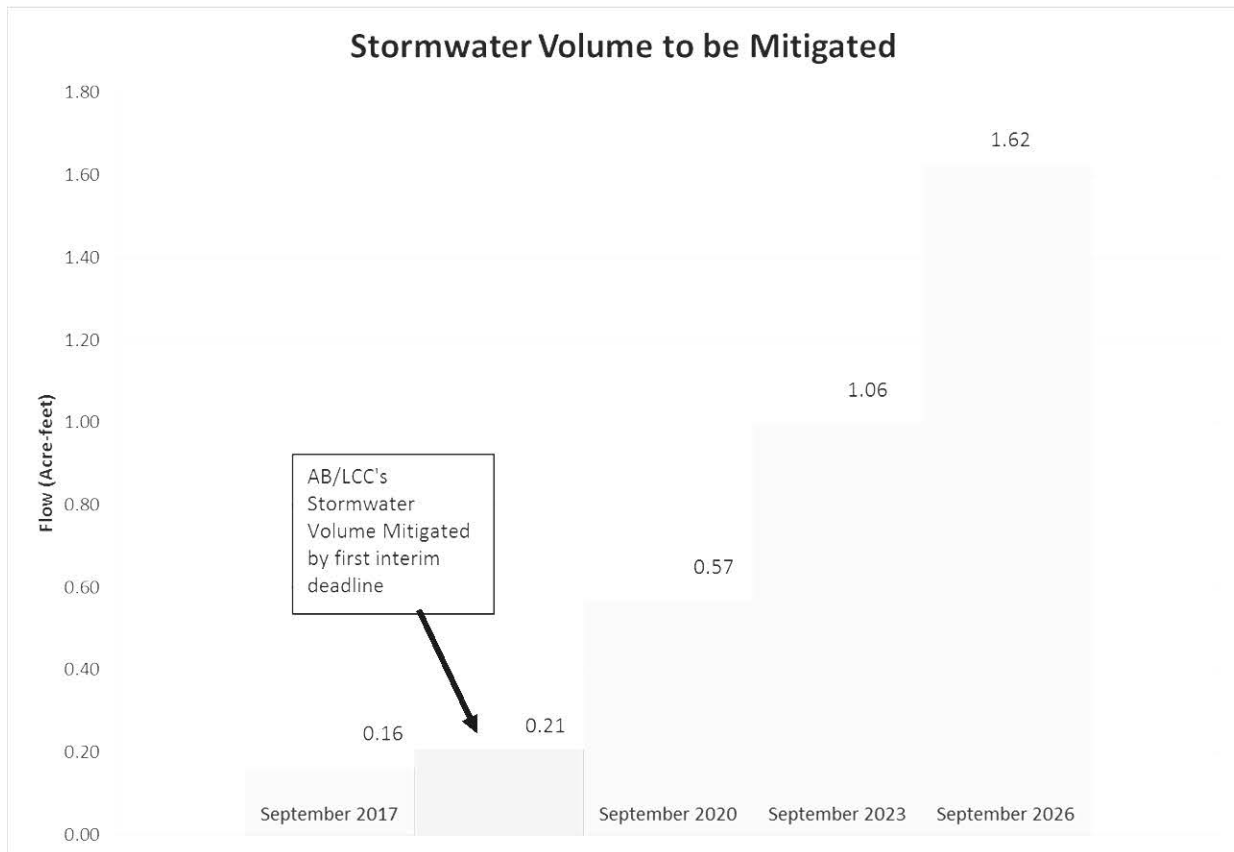


Figure 18: Needed Stormwater Mitigation Volumes

This WMP Group will implement the BMPs below prior to the first interim compliance date for the LCC Metals TMDL (September 30, 2017). The group assumes the following reductions for these existing and planned BMPs:

- Low Impact Development Ordinance 0.2%
 - A 1% reduction is assumed by September 2026
- Enhanced Street Sweeping 5%
- Full Capture Devices 2%
- Increased Catch Basin Cleanout 2%

After implementation of these BMPs a 62.8% reduction of Zinc is required. This reduction in Pollutant Load from 72% to 62.8% translates to 0.21 acre-feet mitigation of stormwater, which brings this WMP Group into compliance with interim milestones in this Permit term.

The WMP Group will determine the need for additional structural BMPs based on the results of monitoring identified in the CIMP. The CIMP presents a phased monitoring approach of:

1. Identifying receiving water quality of commingled discharges
2. If commingled discharges lead to exceedances of WLAs, then a County specific monitoring program will be implemented

3. If County specific discharges produce exceedances of WLAs, structural BMPs will be planned and implemented contingent upon available funding.
4. Upon effectiveness monitoring of potential BMPs, monitoring of the County Island would cease.

Figure 19 presents a flow chart outlining the WMP Group’s approach. Implementation of the future monitoring is dependent upon LARWQCB approval of appropriate CIMPs and is subject to change. Details on monitoring can be found in the AB/LCC CIMP.

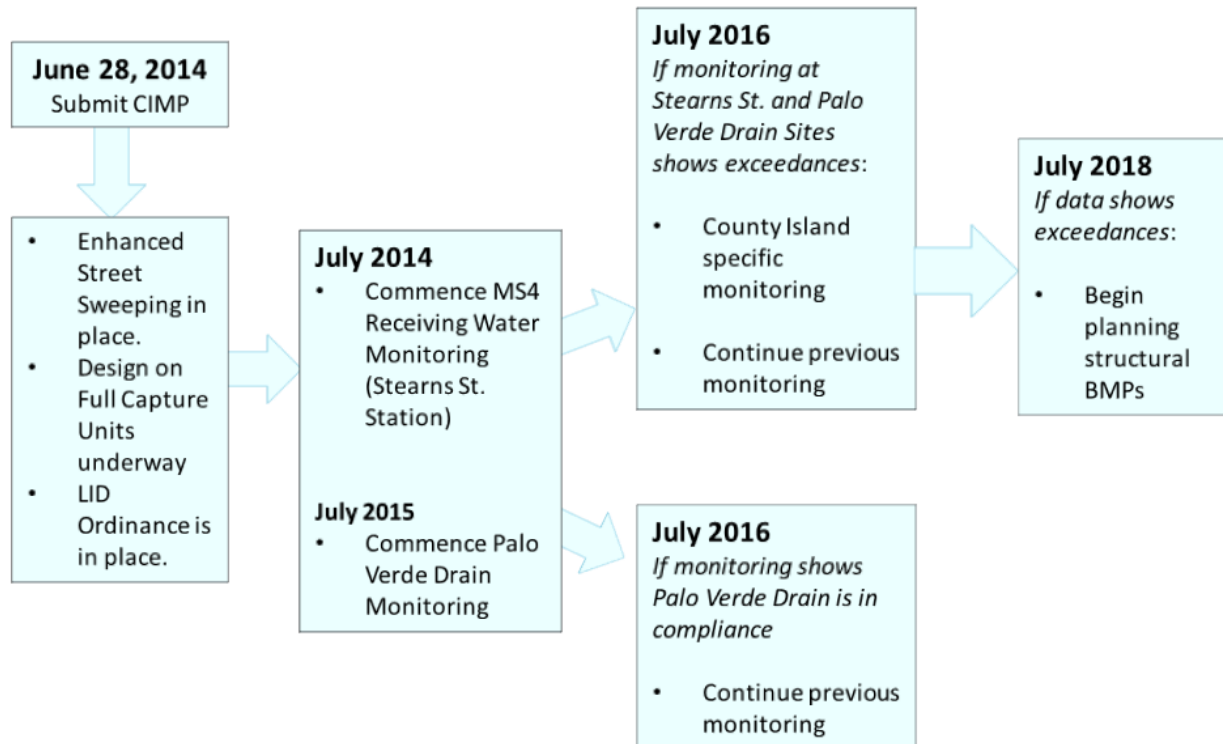


Figure 19: County’s Compliance Approach

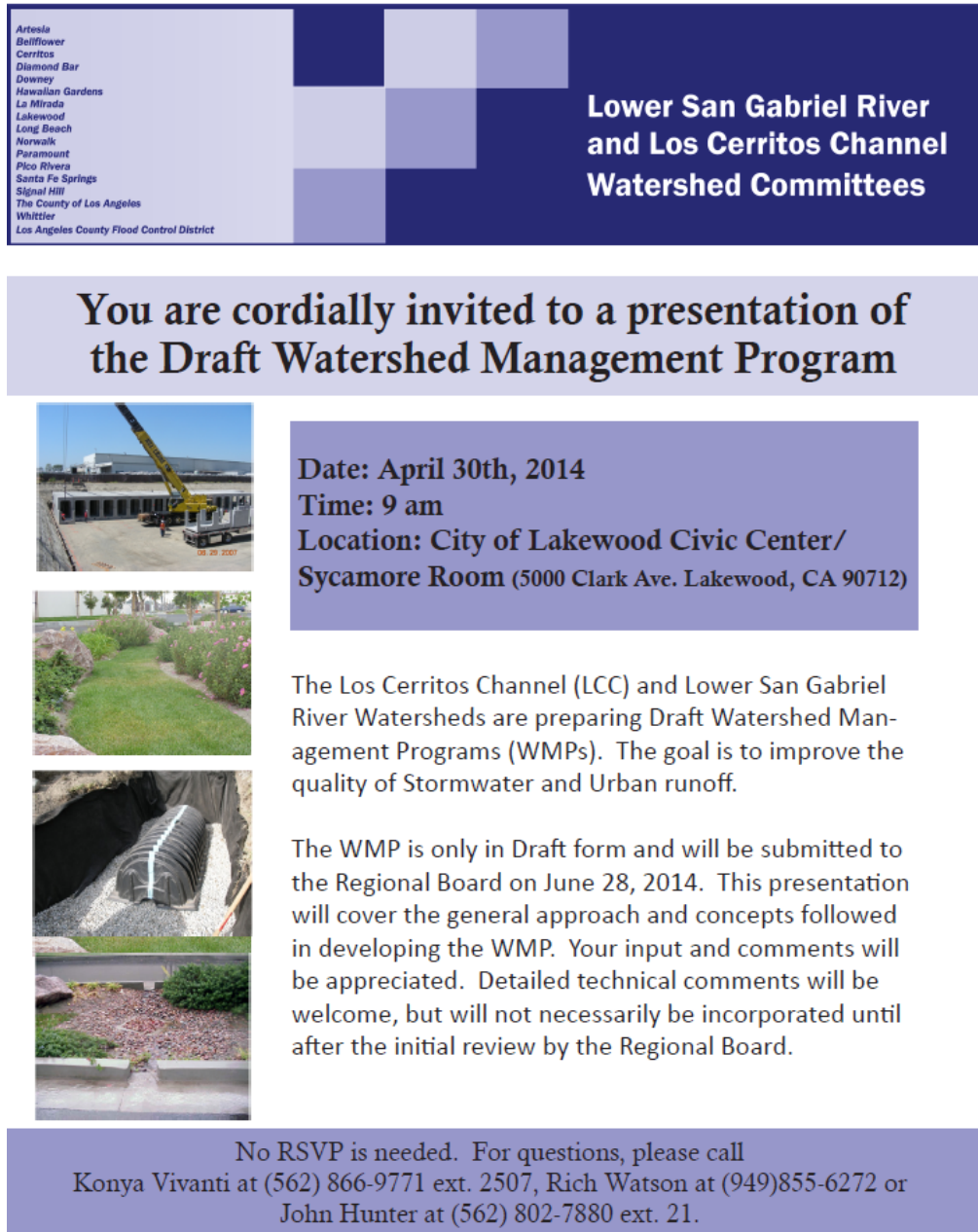
Notable compliance milestones are presented below:

- September 2017: 30% dry weather, 10% wet weather reduction (LCC Metals TMDL)
- September 2020: 70% dry weather, 35% wet weather (LCC Metals TMDL)
- September 2023: 100% dry weather, 65% wet weather (LCC Metals TMDL)
- September 2026 Final Compliance (LCC Metals TMDL)
- March 2032 Final Compliance (DC Toxics TMDL)

Through the RAA process this WMP Group has identified potential structural BMPs locations including roadway parkways and the LACFCD’s right of way along the Palo Verde Drain. The implementation of a selected structural BMP is subject to its necessity based on water quality monitoring as well as the availability of adequate funding.

Section 7. Stakeholder Input

On April 30, 2014, this WMP Group partnered with the Lower San Gabriel River and Los Cerritos Channel Groups to host a stakeholder outreach meeting. The purpose of the meeting was to provide Stakeholders an update on the WMP/CIMP planning process and allow Stakeholders to provide input on the plans. In general, the three watershed groups received positive remarks from the Stakeholders. The notification which was sent to appropriate stakeholders is shown in Figure 20.



The notification graphic features a dark blue header with a list of participating organizations on the left and the title 'Lower San Gabriel River and Los Cerritos Channel Watershed Committees' on the right. Below the header is a light blue banner with the invitation text. To the left of the event details are three small images: a construction site with a crane, a landscaped garden, and a stormwater management structure. The event details are contained in a dark blue box, and the introductory text is in a light blue box. The bottom of the graphic has a dark blue box with contact information.

Artesia
Bellflower
Cerritos
Diamond Bar
Downey
Hawaiian Gardens
La Mirada
Lakewood
Long Beach
Norwalk
Paramount
Pico Rivera
Santa Fe Springs
Signal Hill
The County of Los Angeles
Whittier
Los Angeles County Flood Control District

**Lower San Gabriel River
and Los Cerritos Channel
Watershed Committees**

**You are cordially invited to a presentation of
the Draft Watershed Management Program**

**Date: April 30th, 2014
Time: 9 am
Location: City of Lakewood Civic Center/
Sycamore Room (5000 Clark Ave. Lakewood, CA 90712)**

The Los Cerritos Channel (LCC) and Lower San Gabriel River Watersheds are preparing Draft Watershed Management Programs (WMPs). The goal is to improve the quality of Stormwater and Urban runoff.

The WMP is only in Draft form and will be submitted to the Regional Board on June 28, 2014. This presentation will cover the general approach and concepts followed in developing the WMP. Your input and comments will be appreciated. Detailed technical comments will be welcome, but will not necessarily be incorporated until after the initial review by the Regional Board.

No RSVP is needed. For questions, please call
Konya Vivanti at (562) 866-9771 ext. 2507, Rich Watson at (949)855-6272 or
John Hunter at (562) 802-7880 ext. 21.

Figure 20: Stakeholder Outreach Notification

Section 8. Adaptive Management Process

8.1 OBJECTIVE

Per Section VI.C.8 of the Permit, this WMP Group will implement an adaptive management process every two years from the approval date of the WMP. The adaptive management process will allow the WMP to become more effective and is based on considerations such as:

- Progress toward achieving interim and/or final water-quality based effluent limitations and/or receiving water limitations, according to established compliance schedules
- Progress towards achieving improved water quality in MS4 discharges and achieving receiving water limitations through implementation of the watershed control measures based on an evaluation of outfall-based monitoring data and receiving water monitoring data
- Achievement of interim milestones
- Re-evaluation of the water quality priorities based on more recent water quality data
- Availability of new information from other sources
- Recommendations from the LARWQCB
- Recommendations made during the public participation process for the WMP

A key component of adaptive management is the results from this Group's CIMP. This process will be implemented every two years and any modifications to the WMP will be reported in the permittees' Annual Report.

Additionally, the LACFCD doesn't have jurisdiction of the land uses that create the pollutants of concern in the Colorado Lagoon, Alamitos Bay, San Pedro Bay and Los Cerritos Channel Estuary watersheds. These areas are under the jurisdiction of the City of Long Beach and will be addressed under Long Beach's WMP which will be submitted in March 2015. Through adaptive management, the LACFCD will review Long Beach's WMP and consider on a case-by-case basis opportunities for collaboration on future projects.

Section 9. Reporting

9.1 ANNUAL MONITORING REPORT

Monitoring results for this Group's CIMP will be reported semi-annually to the LARWCB. On December 15th of each year, an annual report will be submitted to the LARWCQB summarizing the monitoring through June 30th. Details of the Annual Monitoring Report can be found this Group's CIMP.

Section 10. References

Los Angeles Regional Water Quality Control Board, “Final Waste Discharge Requirements for Municipal Separate Storm Sewer System (MS4) Discharges within the Coastal Watersheds of Los Angeles County, Except Those Discharges Originating from the City of Long Beach MS4 (posted December 5, 2012)”. Final Order R4-2012-0175, http://www.waterboards.ca.gov/losangeles/water_issues/programs/stormwater/municipal/index.shtml (November 2013)

State of California Water Resources Control Board. “2010 Integrated Report (Clean Water Act Section 303(d) List” April 2010, http://www.waterboards.ca.gov/water_issues/programs/tmdl/integrated2010.shtml. (January 2014)

Los Angeles Regional Water Quality Control Board, “Total Maximum Daily Load for Toxic Pollutants in Dominguez Channel and Greater Los Angeles and Long Beach Harbor Waters”. Resolution No. R11-008, Effective Date: March 23, 2012, http://www.waterboards.ca.gov/losangeles/board_decisions/basin_plan_amendments/technical_documents/bpa_66_R11-008_td.shtml (June 2013)

Anchor QEA, L.P., “Coordinated Compliance, Monitoring, and Reporting Plan Incorporating Quality Assurance Project Plan Components” June, 2013, http://www.waterboards.ca.gov/losangeles/board_decisions/basin_plan_amendments/technical_documents/66_New/09232013/1aDraftCCMRP62413.pdf (January 2014)

United States Environmental Protection Agency, “Los Cerritos Channel Total Maximum Daily Loads for Metals”. March 2010

Los Angeles Regional Water Quality Control Board, “Total Maximum Daily Load for Organochlorine (OC) Pesticides, Polychlorinated Biphenyls (PCBs), Sediment Toxicity, Polycyclic Aromatic Hydrocarbons (PAHs), and Metals for Colorado Lagoon”. Resolution No. R09-05, Adopted Date: October 1, 2009, http://www.waterboards.ca.gov/losangeles/board_decisions/basin_plan_amendments/technical_documents/bpa_65_R09-005_td.shtml (January 2014)

Kinnetic Laboratories, Inc., “Final Colorado Lagoon TMDL Monitoring Plan (CLTMP) Colorado Lagoon Organochlorine Pesticides, PCBs, Sediment Toxicity, PAHs, and Metals TMDL” December, 2012

Los Cerritos Channel Watershed Group, “Los Cerritos Channel Watershed Management Program” January 2015

County of Los Angeles, “Multi-Pollutant TMDL Implementation Plan for the Unincorporated County Area of Ballona Creek” October 2010

County of Los Angeles Department of Public Works, “Low Impact Development Standards Manual” February 2014,

<http://dpw.lacounty.gov/idd/lib/fp/Hydrology/Low%20Impact%20Development%20Standards%20Manual.pdf> (May 2014)

State Water Resources Control Board, “Draft Amendments to Statewide Water Quality Control Plans to Control Trash, Draft Staff Report”. June 2014

Center for Watershed Protection. Research in Support of an Interim Pollutant Removal Rate for Street Sweeping and Storm Drain Cleanout Activities. Technical Memorandum 1 – Literature Review: Final Draft. October 2006.

California Regional Water Quality Control Board Los Angeles Region, “Water Quality Control Plan Los Angeles Region – Basin Plan for the Coastal Watersheds of Los Angeles and Ventura Counties”

APPENIDX A. LACFCD Background Information

In 1915, the Los Angeles County Flood Control Act established the LACFCD and empowered it to manage flood risk and conserve stormwater for groundwater recharge. In coordination with the United States Army Corps of Engineers, the LACFCD developed and constructed a comprehensive system that provides for the regulation and control of flood waters through the use of reservoirs and flood channels. The system also controls debris, collects surface storm water from streets, and replenishes groundwater with storm water and imported and recycled waters. The LACFCD covers the 2,753 square-mile portion of Los Angeles County south of the east-west projection of Avenue S, excluding Catalina Island. It is a special district governed by the County of Los Angeles Board of Supervisors, and its functions are carried out by the Los Angeles County Department of Public Works. The LACFCD service area is shown in Figure A-1.

Unlike cities and counties, the LACFCD does not own or operate any municipal sanitary sewer systems, public streets, roads, or highways. The LACFCD operates and maintains storm drains and other appurtenant drainage infrastructure within its service area. The LACFCD has no planning, zoning, development permitting, or other land use authority within its service area. The permittees that have such land use authority are responsible under the Permit for inspecting and controlling pollutants from industrial and commercial facilities, development projects, and development construction sites. (Permit, Part II.E, p. 17.)

The MS4 Permit language clarifies the unique role of the LACFCD in storm water management programs:

“[g]iven the LACFCD’s limited land use authority, it is appropriate for the LACFCD to have a separate and uniquely-tailored storm water management program. Accordingly, the storm water management program minimum control measures imposed on the LACFCD in Part VI.D of this Order differ in some ways from the minimum control measures imposed on other Permittees. Namely, aside from its own properties and facilities, the LACFCD is not subject to the Industrial/Commercial Facilities Program, the Planning and Land Development Program, and the Development Construction Program. However, as a discharger of storm and non-storm water, the LACFCD remains subject to the Public Information and Participation Program and the Illicit Connections and Illicit Discharges Elimination Program. Further, as the owner and operator of certain properties, facilities and infrastructure, the LACFCD remains subject to requirements of a Public Agency Activities Program.” (Permit, Part II.F, p. 18.)

Consistent with the role and responsibilities of the LACFCD under the Permit, the [E]WMPs and CIMPs reflect the opportunities that are available for the LACFCD to collaborate with permittees having land use authority over the subject watershed area. In some instances, the opportunities are minimal, however the LACFCD remains responsible for compliance with certain aspects of the MS4 permit as discussed above.

As part of the WMP planning process, LACFCD infrastructure was considered for potential project opportunities. However, because of the LACFCD's limited land use authority discussed above, the responsible jurisdictions with land use jurisdiction over the WMP area will be the lead for the development of any structural controls.

In some instances, in recognition of the increased efficiency of implementing certain programs regionally, the LACFCD has committed to responsibilities above and beyond its obligations under the 2012 Permit. For example, although under the 2012 Permit the Public Information and Participation Program is a responsibility of each Permittee, the LACFCD is committed to implementing certain regional elements of the PIPP on behalf of all Permittees at no cost to the Permittees. These regional elements include:

- Maintaining a countywide hotline (888-CLEAN-LA) and website (www.888cleanla.com) for public reporting and general stormwater management information at an estimated annual cost of \$250,000. Each Permittee can utilize this hotline and website for public reporting within its jurisdiction.
- Broadcasting public service announcements and conducting regional advertising campaigns at an estimated annual cost of \$750,000.
- Facilitating the dissemination of public education and activity specific stormwater pollution prevention materials at an estimated annual cost of \$100,000.
- Maintaining a stormwater website at an estimated annual cost of \$10,000.

The LACFCD will implement these elements on behalf of all Permittees starting July 2015 and through the Permit term. With the LACFCD handling these elements regionally, Permittees can better focus on implementing local or watershed-specific programs, including student education and community events, to fully satisfy the PIPP requirements of the 2012 Permit.

Similarly, although water quality monitoring is a responsibility of each Permittee under the 2012 Permit, the LACFCD is committed to implementing certain regional elements of the monitoring program. Specifically, the LACFCD will continue to conduct monitoring at the seven existing mass emissions stations required under the previous Permit. The LACFCD will also participate in the Southern California Stormwater Monitoring Coalition's Regional Bioassessment Program on behalf of all Permittees. By taking on these additional responsibilities, the LACFCD wishes to increase the efficiency and effectiveness of these programs.



Figure A-1 Los Angeles County Flood Control District Service Area

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APPENIDX B. Water Qualities Priorities

SUMMARY

Wet weather and dry weather samples between 2003 and 2013 at the Stearns Street MES were compared to applicable numeric limits in the Los Angeles Basin Plan, California Ocean Plan, California Toxics Rule or California Fish and Game. The Permit states that parameters in Table E-2 shall be monitored in the first year of monitoring and if a parameter is not detected at the MDL or if the result is below the lowest applicable water quality objective, it need not be further analyzed. It's important to note that some of the laboratory reporting limits (RLs) were above the limits used for a number of constituents. Those samples were not counted as being above the numeric limits in this analysis.

TABLE B.1 – WET WEATHER SAMPLES ABOVE NUMERIC TARGETS

CONSTITUENTS	NO. OF SAMPLES ABOVE ML	TOTAL NO. OF SAMPLES
Aroclors		
Aroclor 1016	0	34
Aroclor 1221	0	34
Aroclor 1232	0	34
Aroclor 1242	0	34
Aroclor 1248	0	34
Aroclor 1254	0	26
Aroclor 1260	0	34
Chlorinated Pesticides		
4,4'-DDT	0	34
Aldrin	0	34
Dieldrin	0	34
Endosulfan I	0	34
Endosulfan II	0	34
Endrin	0	34
gamma-BHC (Lindane)	0	34
Heptachlor	0	34
Heptachlor epoxide	0	34
Total Chlordane ¹	--	34
Toxaphene	0	34
Conventionals		
MBAS	3	34
Nitrate (as N)	0	33
Nitrite (as N)	0	33
Total Ammonia (as N) ¹	--	34
Dissolved Metals (CTR Fresh CMC)*		
Arsenic	0	34
Cadmium	0	34
Copper	31	34
Lead	0	34
Nickel	0	34
Silver	1	34
Zinc	24	34
Microbiology		
Enterococcus	32	32
Fecal Coliform	31	32
Total Coliform	30	32
Organophosphates (CFG FRESH CMC)		
Chlorpyrifos	2	34
Total Metals		
Aluminum	30	34
Arsenic	0	34
Cadmium	1	34
Chromium	1	34
Nickel	0	34
Selenium	0	34

TABLE B.2 – DRY WEATHER SAMPLES ABOVE NUMERIC TARGETS

CONSTITUENTS	NO. OF SAMPLES ABOVE ML	TOTAL NO. OF SAMPLES
Aroclors		
Aroclor 1016	0	20
Aroclor 1221	0	20
Aroclor 1232	0	20
Aroclor 1242	0	20
Aroclor 1248	0	20
Aroclor 1254	0	20
Aroclor 1260	0	20
Chlorinated Pesticides		
4,4'-DDT	0	20
Aldrin	0	20
Dieldrin	0	20
Endosulfan I	0	20
Endosulfan II	0	20
Endrin	0	20
gamma-BHC (Lindane)	0	20
Heptachlor	0	20
Heptachlor epoxide	0	20
Total Chlordane ¹	--	20
Toxaphene	0	20
Conventionals		
MBAS	1	20
Nitrate (as N)	0	20
Nitrite (as N)	0	20
Total Ammonia (as N) ¹	--	20
Dissolved Metals (CTR Fresh CMC)		
Arsenic	0	20
Cadmium	0	20
Copper	8	20
Lead	0	20
Nickel	0	20
Silver	0	20
Zinc	0	20
Microbiology		
Enterococcus	18	20
Fecal Coliform	12	20
Total Coliform	9	20
Organophosphates (CFG FRESH CMC)		
Chlorpyrifos	0	20
Diazinon	2	20
Total Metals		
Aluminum	1	20
Arsenic	0	20
Cadmium	0	20
Chromium	0	20
Nickel	0	20

CONSTITUENTS	NO. OF SAMPLES ABOVE ML	TOTAL NO. OF SAMPLES
Selenium	0	20

¹ Refer to the Los Cerritos Channel Watershed Management Group CIMP for analysis of exceedances.

APPENIDX C. County of Los Angeles Legal Authority



COUNTY OF LOS ANGELES
OFFICE OF THE COUNTY COUNSEL

648 KENNETH HAHN HALL OF ADMINISTRATION
500 WEST TEMPLE STREET
LOS ANGELES, CALIFORNIA 90012-2713

TELEPHONE
(213) 974-1923
FACSIMILE
(213) 687-7337
TDD
(213) 633-0901

JOHN F. KRATTLI
County Counsel

December 16, 2013

Mr. Samuel Unger, P.E., Executive Officer
California Regional Water Quality Control Board – Los Angeles Region
320 West 4th Street, Suite 200
Los Angeles, CA 90013-2343

Attention: Mr. Ivar Ridgeway

**Re: Certification By Legal Counsel For County of Los Angeles'
Annual Report**

Dear Mr. Unger:

Pursuant to the requirements of Part VI(A)(2)(b) of Order No. R4-2012-0175 (the "Order"), the Office of the County Counsel of the County of Los Angeles makes the following certification in support of the Annual Report of the County of Los Angeles ("County"):

Certification Pursuant To Order Part VI(A)(2)(b)

"Each Permittee must submit a statement certified by its chief legal counsel that the Permittee has the legal authority within its jurisdiction to implement and enforce the requirements contained in 40 CFR §122.26(d)(2)(i)(A-F) and this Order."

The County has the legal authority within its jurisdiction to implement and enforce each of the requirements contained in 40 CFR §122.26(d)(2)(i)(A-F) and the Order.

Order Part VI(A)(2)(b)(i)

"Citation of applicable municipal ordinances or other appropriate legal authorities and their relationship to the requirements of 40 CFR §122.26(d)(2)(i)(A-F) and this Order"

Citations Of Applicable Ordinances Or Other Legal Authorities

Although many portions of State law, the Charter of the County of Los Angeles and the Los Angeles County Code are potentially applicable to the implementation and enforcement of these requirements, the primary applicable laws and ordinances are as follows:

Los Angeles County Code, Title 12, Chapter 12.80 STORMWATER AND RUNOFF POLLUTION CONTROL, including:

§12.80.010 - §12.80.360 Definitions

§12.80.370 Short title.

§12.80.380 Purpose and intent.

§12.80.390 Applicability of this chapter.

§12.80.400 Standards, guidelines and criteria.

§12.80.410 Illicit discharges prohibited.

§12.80.420 Installation or use of illicit connections prohibited.

§12.80.430 Removal of illicit connection from the storm drain system.

§12.80.440 Littering and other discharge of polluting or damaging substances prohibited.

§12.80.450 Stormwater and runoff pollution mitigation for construction activity.

§12.80.460 Prohibited discharges from industrial or commercial activity.

§12.80.470 Industrial/commercial facility sources required to obtain a NPDES permit.

§12.80.480 Public facility sources required to obtain a NPDES permit.

§12.80.490 Notification of uncontrolled discharges required.

§12.80.500 Good housekeeping provisions.

§12.80.510 Best management practices for construction activity.

- §12.80.520 Best management practices for industrial and commercial facilities.
- §12.80.530 Installation of structural BMPs.
- §12.80.540 BMPs to be consistent with environmental goals.
- §12.80.550 Enforcement—Director's powers and duties.
- §12.80.560 Identification for inspectors and maintenance personnel.
- §12.80.570 Obstructing access to facilities prohibited.
- §12.80.580 Inspection to ascertain compliance—Access required.
- §12.80.590 Interference with inspector prohibited.
- §12.80.600 Notice to correct violations—Director may take action.
- §12.80.610 Violation a public nuisance.
- §12.80.620 Nuisance abatement—Director to perform work when—Costs.
- §12.80.630 Violation—Penalty.
- §12.80.635 Administrative fines.
- §12.80.640 Penalties not exclusive.
- §12.80.650 Conflicts with other code sections.
- §12.80.660 Severability.
- §12.80.700 Purpose.
- §12.80.710 Applicability.
- §12.80.720 Registration required.
- §12.80.730 Exempt facilities.
- §12.80.740 Certificate of inspection—Issuance by the director.
- §12.80.750 Certificate of inspection—Suspension or revocation.

§12.80.760 Certificate of inspection—Termination.

§12.80.770 Service fees.

§12.80.780 Fee schedule.

§12.80.790 Credit for overlapping inspection programs.

§12.80.800 Annual review of fees.

Los Angeles County Code, Title 12, Chapter 12.84 LOW IMPACT
DEVELOPMENT STANDARDS, including:

§12.84.410 Purpose.

§12.84.420 Definitions.

§12.84.430 Applicability.

§12.84.440 Low Impact Development Standards.

§12.84.445 Hydromodification Control.

§12.84.450 LID Plan Review.

§12.84.460 Additional Requirements.

Los Angeles County Code, Title 22 PLANNING AND ZONING, Part 6
ENFORCEMENT PROCEDURES, including:

§22.60.330 General prohibitions.

§22.60.340 Violations.

§22.60.350 Public nuisance.

§22.60.360 Infractions.

§22.60.370 Injunction.

§22.60.380 Enforcement.

§22.60.390 Zoning enforcement order and noncompliance fee.

Los Angeles County Code, Title 26 BUILDING CODE, including:

§26.103 Violations And Penalties

§26.104 Organization And Enforcement

§26.105 Appeals Boards

§26.106 Permits

§26.107 Fees

§26.108 Inspections

California Government Code §6502

California Government Code §23004

Relationship Of Applicable Ordinances Or Other Legal Authorities To
 The Requirements of 40 CFR §122.26(d)(2)(i)(A-F) And The Order

Although, depending upon the particular issue, there may be multiple ways in which particular sections of the County's ordinances and State law relate to the requirements contained in 40 CFR §122.26(d)(2)(i)(A-F) and the Order, the table below indicates the basic relationship with Part VI(A)(2)(a) of the Order:

Order Part VI(A)(2)(a) Items	Primary Applicable Ordinance/Statute
i. Control the contribution of pollutants to its MS4 from storm water discharges associated with industrial and construction activity and control the quality of storm water discharged from industrial and construction sites. This requirement applies both to industrial and construction sites with coverage under an NPDES permit, as well as to those sites that do not have coverage under an NPDES permit.	§12.80.410 [illicit discharge prohibited]; §12.80.450 [construction] §12.80.460 [industrial and commercial] §12.80.470 and .480 [industrial and commercial NPDES requirements] §12.84.440 [LID standards] §12.84.445 [hydromodification control] §12.84.450 [LID Plan Review] §22.60.330 [general prohibitions]

Order Part VI(A)(2)(a) Items	Primary Applicable Ordinance/Statute
	§22.60.340 [violations] §22.60.350 [public nuisance] §22.60.360 [infractions] §22.60.370 [injunction] §22.60.380 [enforcement.] §22.60.390 [zoning enforcement order] §26.103 [violations and penalties] §26.104 [enforcement] §26.106 [permits] §26.108 [inspections]
ii. Prohibit all non-storm water discharges through the MS4 to receiving waters not otherwise authorized or conditionally exempt pursuant to Part III.A.	§12.80.410 [illicit discharge prohibited]
iii. Prohibit and eliminate illicit discharges and illicit connections to the MS4.	§12.80.410 [illicit discharge prohibited]; §12.80.420 [illicit connections prohibited]
iv. Control the discharge of spills, dumping, or disposal of materials other than storm water to its MS4.	§12.80.410 [illicit discharge prohibited]; §12.80.440 [littering and other polluting prohibited]

Order Part VI(A)(2)(a) Items	Primary Applicable Ordinance/Statute
v. Require compliance with conditions in Permittee ordinances, permits, contracts or orders (i.e., hold dischargers to its MS4 accountable for their contributions of pollutants and flows).	§12.80.490 [notification of uncontrolled discharge] §12.80.570 [obstructing access to facilities] §12.80.580 [compliance inspection] §12.80.610 [violation a nuisance] §12.620 [nuisance abatement] §12.80.635 [violation penalty] §12.80.640 [penalties not exclusive] §12.84.440 [LID standards] §12.84.445 [hydromodification control] §12.84.450 [LID Plan Review] §22.60.330 [general prohibitions] §22.60.340 [violations] §22.60.350 [public nuisance] §22.60.360 [infractions] §22.60.370 [injunction] §22.60.380 [enforcement.] §22.60.390 [zoning enforcement order] §26.103 [violations and penalties] §26.104 [enforcement] §26.106 [permits] §26.108 [inspections]
vi. Utilize enforcement mechanisms to require compliance with applicable ordinances, permits, contracts, or orders.	Same as item v., above

Order Part VI(A)(2)(a) Items	Primary Applicable Ordinance/Statute
vii. Control the contribution of pollutants from one portion of the shared MS4 to another portion of the MS4 through interagency agreements among Copermittees.	California Government Code §6502 and §23004
viii. Control of the contribution of pollutants from one portion of the shared MS4 to another portion of the MS4 through interagency agreements with other owners of the MS4 such as the State of California Department of Transportation.	California Government Code §6502 and §23004
ix. Carry out all inspections, surveillance, and monitoring procedures necessary to determine compliance and noncompliance with applicable municipal ordinances, permits, contracts and orders, and with the provisions of this Order, including the prohibition of non-storm water discharges into the MS4 and receiving waters. This means the Permittee must have authority to enter, monitor, inspect, take measurements, review and copy records, and require regular reports from entities discharging into its MS4.	§12.80.490 [notification of uncontrolled discharge] §12.80.570 [obstructing access to facilities] §12.80.580 [compliance inspection] §12.80.610 [violation a nuisance] §12.80.620 [nuisance abatement] §12.80.635 [violation penalty] §12.80.640 [penalties not exclusive] §22.60.380 [enforcement.] §26.106 [permits] §26.108 [inspections]

Order Part VI(A)(2)(a) Items	Primary Applicable Ordinance/Statute
x. Require the use of control measures to prevent or reduce the discharge of pollutants to achieve water quality standards/receiving water limitations.	§12.80.450 [construction mitigation] §12.80.500 [good housekeeping practices] §12.80.510 [construction BMPs] §12.80.520 [industrial/commercial BMPs] §12.84.440 [LID standards] §12.84.450 [LID Plan Review] §22.60.330 [general prohibitions] §22.60.380 [enforcement.] §22.60.390 [zoning enforcement order] §26.106 [permits] §26.108 [inspections]
xi. Require that structural BMPs are properly operated and maintained.	§12.80.530 [installation of structural BMPs] §22.60.380 [enforcement.] §22.60.390 [zoning enforcement order] §26.106 [permits] §26.108 [inspections]
xii. Require documentation on the operation and maintenance of structural BMPs and their effectiveness in reducing the discharge of pollutants to the MS4.	§12.80.530 [installation of structural BMPs] §22.60.380 [enforcement.] §22.60.390 [zoning enforcement order] §26.106 [permits] §26.108 [inspections]

Order Part VI(A)(2)(b)(ii)

"Identification of the local administrative and legal procedures available to mandate compliance with applicable municipal ordinances identified in subsection (i) above and therefore with the conditions of this Order, and a statement as to whether enforcement actions can be completed administratively or whether they must be commenced and completed in the judicial system."

The local administrative and legal procedures available to mandate compliance with the above ordinances are specified in those ordinances, particularly in:

§12.80.550 Enforcement—Director's powers and duties.

§12.80.600 Notice to correct violations—Director may take action.

§12.80.610 Violation a public nuisance.

§12.80.620 Nuisance abatement—Director to perform work when—Costs.

§12.80.630 Violation—Penalty.

§12.80.635 Administrative fines.

§12.80.640 Penalties not exclusive.

§12.84.450 LID Plan Review.

§12.84.460 Additional Requirements.

Title 26, §103 Violations And Penalties

Title 26, §104 Organization And Enforcement

Title 26, §105 Appeals Boards

Title 26, §106 Permits

Title 22 PLANNING AND ZONING, Part 6 ENFORCEMENT PROCEDURES, including:

§22.60.330 General prohibitions.

§22.60.340 Violations.

§22.60.350 Public nuisance.

§22.60.360 Infractions.

§22.60.370 Injunction.

§22.60.380 Enforcement.

§22.60.390 Zoning enforcement order and noncompliance fee.

The County attempts to first resolve each enforcement action administratively. However, the above cited ordinances also provide the County with the authority to pursue such actions in the judicial system as necessary.

Very truly yours,

JOHN F. KRATTLI
County Counsel

By



JUDITH A. FRIES
Principal Deputy County Counsel
Public Works Division

JAF:jjj

APPENIDX D. LACFCD Legal Authority



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JOHN F. KRATTLI
County Counsel

December 16, 2013

Mr. Samuel Unger, P.E., Executive Officer
California Regional Water Quality Control Board – Los Angeles Region
320 West 4th Street, Suite 200
Los Angeles, CA 90013-2343

Attention: Mr. Ivar Ridgeway

**Re: Certification By Legal Counsel For Los Angeles County Flood
Control District's Annual Report**

Dear Mr. Unger:

Pursuant to the requirements of Part VI(A)(2)(b) of Order No. R4-2012-0175 (the "Order"), the Office of the County Counsel of the County of Los Angeles makes the following certification in support of the Annual Report of the Los Angeles County Flood Control District ("LACFCD"):

Certification Pursuant To Order Part VI(A)(2)(b)

"Each Permittee must submit a statement certified by its chief legal counsel that the Permittee has the legal authority within its jurisdiction to implement and enforce the requirements contained in 40 CFR §122.26(d)(2)(i)(A-F) and this Order."

LACFCD has the legal authority within its jurisdiction to implement and enforce each of the requirements contained in 40 CFR §122.26(d)(2)(i)(A-F) and the Order.

Order Part VI(A)(2)(b)(i)

"Citation of applicable municipal ordinances or other appropriate legal authorities and their relationship to the requirements of 40 CFR §122.26(d)(2)(i)(A-F) and this Order"

Citations Of Applicable Ordinances Or Other Legal Authorities

Although many portions of State law, the Charter of the County of Los Angeles, the Los Angeles County Code and LACFCD's Flood Control District Code ("Code") are potentially applicable to the implementation and enforcement of these requirements, the primary applicable laws and ordinances are as follows:

Los Angeles County Code, Title 12, Chapter 12.80 STORMWATER AND RUNOFF POLLUTION CONTROL, including:

§12.80.010 - §12.80.360 Definitions

§12.80.370 Short title.

§12.80.380 Purpose and intent.

§12.80.390 Applicability of this chapter.

§12.80.400 Standards, guidelines and criteria.

§12.80.410 Illicit discharges prohibited.

§12.80.420 Installation or use of illicit connections prohibited.

§12.80.430 Removal of illicit connection from the storm drain system.

§12.80.440 Littering and other discharge of polluting or damaging substances prohibited.

§12.80.450 Stormwater and runoff pollution mitigation for construction activity.

§12.80.460 Prohibited discharges from industrial or commercial activity.

§12.80.470 Industrial/commercial facility sources required to obtain a NPDES permit.

§12.80.480 Public facility sources required to obtain a NPDES permit.

§12.80.490 Notification of uncontrolled discharges required.

§12.80.500 Good housekeeping provisions.

§12.80.510 Best management practices for construction activity.

- §12.80.520 Best management practices for industrial and commercial facilities.
- §12.80.530 Installation of structural BMPs.
- §12.80.540 BMPs to be consistent with environmental goals.
- §12.80.550 Enforcement—Director's powers and duties.
- §12.80.560 Identification for inspectors and maintenance personnel.
- §12.80.570 Obstructing access to facilities prohibited.
- §12.80.580 Inspection to ascertain compliance—Access required.
- §12.80.590 Interference with inspector prohibited.
- §12.80.600 Notice to correct violations—Director may take action.
- §12.80.610 Violation a public nuisance.
- §12.80.620 Nuisance abatement—Director to perform work when—Costs.
- §12.80.630 Violation—Penalty.
- §12.80.635 Administrative fines.
- §12.80.640 Penalties not exclusive.
- §12.80.650 Conflicts with other code sections.
- §12.80.660 Severability.
- §12.80.700 Purpose.
- §12.80.710 Applicability.
- §12.80.720 Registration required.
- §12.80.730 Exempt facilities.
- §12.80.740 Certificate of inspection—Issuance by the director.
- §12.80.750 Certificate of inspection—Suspension or revocation.

§12.80.760 Certificate of inspection—Termination.

§12.80.770 Service fees.

§12.80.780 Fee schedule.

§12.80.790 Credit for overlapping inspection programs.

§12.80.800 Annual review of fees.

Los Angeles County Code, Title 12, Chapter 12.84 LOW IMPACT
DEVELOPMENT STANDARDS, including:

§12.84.410 Purpose.

§12.84.420 Definitions.

§12.84.430 Applicability.

§12.84.440 Low Impact Development Standards.

§12.84.445 Hydromodification Control.

§12.84.450 LID Plan Review.

§12.84.460 Additional Requirements.

Los Angeles County Code, Title 22 PLANNING AND ZONING, Part 6
ENFORCEMENT PROCEDURES, including:

§22.60.330 General prohibitions.

§22.60.340 Violations.

§22.60.350 Public nuisance.

§22.60.360 Infractions.

§22.60.370 Injunction.

§22.60.380 Enforcement.

§22.60.390 Zoning enforcement order and noncompliance fee.

Los Angeles County Code, Title 26 BUILDING CODE, including:

§26.103 Violations And Penalties

§26.104 Organization And Enforcement

§26.105 Appeals Boards

§26.106 Permits

§26.107 Fees

§26.108 Inspections

LACFCD Code Chapter 21 - STORMWATER AND RUNOFF
POLLUTION CONTROL including:

§21.01 Purpose and Intent

§21.03 Definitions

§21.05 Standards, Guidelines, and Criteria

§21.07 Prohibited Discharges

§21.09 Installation or Use of Illicit Connections Prohibited

§21.11 Littering Prohibited

§21.13 Evidence of Compliance With Permit Requirements for Industrial
or Commercial Activity

§21.15 Notification of Uncontrolled Discharges Required

§21.17 Requirement to Monitor and Analyze

§21.19 Conflicts With Other Code Sections

§21.21 Severability

§21.23 Violation a Public Nuisance

California Government Code §6502

California Government Code §23004

California Water Code §8100 *et. seq.*

Relationship Of Applicable Ordinances Or Other Legal Authorities To
 The Requirements of 40 CFR §122.26(d)(2)(i)(A-F) And The Order

Although, depending upon the particular issue, there may be multiple ways in which particular sections of the County of Los Angeles' ordinances, LACFCD's ordinances, and statutes relate to the requirements contained in 40 CFR §122.26(d)(2)(i)(A-F) and the Order, the table below indicates the basic relationship with Part VI(A)(2)(a) of the Order:

Order Part VI(A)(2)(a) Items	Primary Applicable Ordinance/Statute
<p>i. Control the contribution of pollutants to its MS4 from storm water discharges associated with industrial and construction activity and control the quality of storm water discharged from industrial and construction sites. This requirement applies both to industrial and construction sites with coverage under an NPDES permit, as well as to those sites that do not have coverage under an NPDES permit.</p>	<p>Los Angeles County Code: §12.80.410 [illicit discharge prohibited]; §12.80.450 [construction] §12.80.460 [industrial and commercial] §12.80.470 and .480 [industrial and commercial NPDES requirements] §12.84.440 [LID standards] §12.84.445 [hydromodification control] §12.84.450 [LID Plan Review] §22.60.330 [general prohibitions] §22.60.340 [violations] §22.60.350 [public nuisance] §22.60.360 [infractions] §22.60.370 [injunction] §22.60.380 [enforcement.] §22.60.390 [zoning enforcement order] §26.103 [violations and penalties]</p>

Order Part VI(A)(2)(a) Items	Primary Applicable Ordinance/Statute
	§26.104 [enforcement] §26.106 [permits] §26.108 [inspections] LACFCD Code: §21.05 Standards, Guidelines, and Criteria §21.07 Prohibited Discharges §21.13 Evidence of Compliance With Permit Requirements for Industrial or Commercial Activity §21.15 Notification of Uncontrolled Discharges Required §21.17 Requirement to Monitor and Analyze §21.23 Violation a Public Nuisance
ii. Prohibit all non-storm water discharges through the MS4 to receiving waters not otherwise authorized or conditionally exempt pursuant to Part III.A.	Los Angeles County Code: §12.80.410 [illicit discharge prohibited] LACFCD Code: §21.07 Prohibited Discharges
iii. Prohibit and eliminate illicit discharges and illicit connections to the MS4.	Los Angeles County Code: §12.80.410 [illicit discharge prohibited]; §12.80.420 [illicit connections prohibited] LACFCD Code: §21.05 Standards, Guidelines, and Criteria §21.07 Prohibited Discharges §21.09 Installation or Use of Illicit Connections Prohibited §21.23 Violation a Public Nuisance

Order Part VI(A)(2)(a) Items	Primary Applicable Ordinance/Statute
<p>iv. Control the discharge of spills, dumping, or disposal of materials other than storm water to its MS4.</p>	<p>Los Angeles County Code: §12.80.410 [illicit discharge prohibited]; §12.80.440 [littering and other polluting prohibited]</p> <p>LACFCD Code: §19.07 Interference With or Placing Obstructions, Refuse, Contaminating Substances, or Invasive Species in Facilities Prohibited §21.05 Standards, Guidelines, and Criteria §21.07 Prohibited Discharges §21.09 Installation or Use of Illicit Connections Prohibited §21.11 Littering Prohibited §21.13 Evidence of Compliance With Permit Requirements for Industrial or Commercial Activity §21.15 Notification of Uncontrolled Discharges Required §21.17 Requirement to Monitor and Analyze §21.23 Violation a Public Nuisance</p>
<p>v. Require compliance with conditions in Permittee ordinances, permits, contracts or orders (i.e., hold dischargers to its MS4 accountable for their contributions of pollutants and flows).</p>	<p>Los Angeles County Code: §12.80.490 [notification of uncontrolled discharge] §12.80.570 [obstructing access to facilities] §12.80.580 [compliance inspection] §12.80.610 [violation a nuisance] §12.620 [nuisance abatement] §12.80.635 [violation penalty]</p>

Order Part VI(A)(2)(a) Items	Primary Applicable Ordinance/Statute
	§12.80.640 [penalties not exclusive] §12.84.440 [LID standards] §12.84.445 [hydromodification control] §12.84.450 [LID Plan Review] §22.60.330 [general prohibitions] §22.60.340 [violations] §22.60.350 [public nuisance] §22.60.360 [infractions] §22.60.370 [injunction] §22.60.380 [enforcement.] §22.60.390 [zoning enforcement order] §26.103 [violations and penalties] §26.104 [enforcement] §26.106 [permits] §26.108 [inspections] LACFCD Code: §19.11 Violation a Public Nuisance §21.05 Standards, Guidelines, and Criteria §21.07 Prohibited Discharges §21.09 Installation or Use of Illicit Connections Prohibited §21.11 Littering Prohibited §21.13 Evidence of Compliance With Permit Requirements for Industrial or Commercial Activity §21.15 Notification of Uncontrolled Discharges Required §21.17 Requirement to Monitor and Analyze

Order Part VI(A)(2)(a) Items	Primary Applicable Ordinance/Statute
	§21.19 Conflicts With Other Code Sections §21.23 Violation a Public Nuisance
vi. Utilize enforcement mechanisms to require compliance with applicable ordinances, permits, contracts, or orders.	Same as item v., above
vii. Control the contribution of pollutants from one portion of the shared MS4 to another portion of the MS4 through interagency agreements among Copermittees.	California Government Code §6502 California Government Code §23004
viii. Control of the contribution of pollutants from one portion of the shared MS4 to another portion of the MS4 through interagency agreements with other owners of the MS4 such as the State of California Department of Transportation.	California Government Code §6502 California Government Code §23004
ix. Carry out all inspections, surveillance, and monitoring procedures necessary to determine compliance and noncompliance with applicable municipal ordinances, permits, contracts and orders, and with the provisions of this Order, including the prohibition of non-storm water discharges into the MS4 and receiving waters. This means the Permittee must have authority to enter, monitor, inspect, take measurements, review and copy records, and require regular reports from entities discharging into its MS4.	Los Angeles County Code: §12.80.490 [notification of uncontrolled discharge] §12.80.570 [obstructing access to facilities] §12.80.580 [compliance inspection] §12.80.610 [violation a nuisance] §12.80.620 [nuisance abatement] §12.80.635 [violation penalty] §12.80.640 [penalties not exclusive] §22.60.380 [enforcement.] §26.106 [permits] §26.108 [inspections]

Order Part VI(A)(2)(a) Items	Primary Applicable Ordinance/Statute
	LACFCD Code: §21.05 Standards, Guidelines, and Criteria §21.07 Prohibited Discharges §21.09 Installation or Use of Illicit Connections Prohibited §21.11 Littering Prohibited §21.13 Evidence of Compliance With Permit Requirements for Industrial or Commercial Activity §21.15 Notification of Uncontrolled Discharges Required §21.17 Requirement to Monitor and Analyze §21.23 Violation a Public Nuisance
x. Require the use of control measures to prevent or reduce the discharge of pollutants to achieve water quality standards/receiving water limitations.	Los Angeles County Code: §12.80.450 [construction mitigation] §12.80.500 [good housekeeping practices] §12.80.510 [construction BMPs] §12.80.520 [industrial/commercial BMPs] §12.84.440 [LID standards] §12.84.450 [LID Plan Review] §22.60.330 [general prohibitions] §22.60.380 [enforcement.] §22.60.390 [zoning enforcement order] §26.106 [permits] §26.108 [inspections] LACFCD Code: §21.05 Standards, Guidelines, and Criteria

Order Part VI(A)(2)(a) Items	Primary Applicable Ordinance/Statute
	§21.07 Prohibited Discharges §21.09 Installation or Use of Illicit Connections Prohibited §21.11 Littering Prohibited §21.13 Evidence of Compliance With Permit Requirements for Industrial or Commercial Activity §21.15 Notification of Uncontrolled Discharges Required §21.17 Requirement to Monitor and Analyze §21.23 Violation a Public Nuisance
xi. Require that structural BMPs are properly operated and maintained.	Los Angeles County Code: §12.80.530 [installation of structural BMPs] §22.60.380 [enforcement.] §22.60.390 [zoning enforcement order] §26.106 [permits] §26.108 [inspections] LACFCD Code: §21.05 Standards, Guidelines, and Criteria §21.07 Prohibited Discharges §21.09 Installation or Use of Illicit Connections Prohibited §21.11 Littering Prohibited §21.13 Evidence of Compliance With Permit Requirements for Industrial or Commercial Activity §21.15 Notification of Uncontrolled Discharges Required §21.17 Requirement to Monitor and Analyze

Order Part VI(A)(2)(a) Items	Primary Applicable Ordinance/Statute
	§21.23 Violation a Public Nuisance
xii. Require documentation on the operation and maintenance of structural BMPs and their effectiveness in reducing the discharge of pollutants to the MS4.	Los Angeles County Code: §12.80.530 [installation of structural BMPs] §22.60.380 [enforcement.] §22.60.390 [zoning enforcement order] §26.106 [permits] §26.108 [inspections] LACFCD Code: §21.05 Standards, Guidelines, and Criteria §21.07 Prohibited Discharges §21.09 Installation or Use of Illicit Connections Prohibited §21.11 Littering Prohibited §21.13 Evidence of Compliance With Permit Requirements for Industrial or Commercial Activity §21.15 Notification of Uncontrolled Discharges Required §21.17 Requirement to Monitor and Analyze §21.23 Violation a Public Nuisance

Order Part VI(A)(2)(b)(ii)

"Identification of the local administrative and legal procedures available to mandate compliance with applicable municipal ordinances identified in subsection (i) above and therefore with the conditions of this Order, and a statement as to whether enforcement actions can be completed administratively or whether they must be commenced and completed in the judicial system."

The local administrative and legal procedures available to mandate compliance with the above ordinances are specified in those ordinances, particularly in:

Los Angeles County Code:

§12.80.550 Enforcement—Director's powers and duties.

§12.80.600 Notice to correct violations—Director may take action.

§12.80.610 Violation a public nuisance.

§12.80.620 Nuisance abatement—Director to perform work when—Costs.

§12.80.630 Violation—Penalty.

§12.80.635 Administrative fines.

§12.80.640 Penalties not exclusive.

§12.84.450 LID Plan Review.

§12.84.460 Additional Requirements.

Title 26, §103 Violations And Penalties

Title 26, §104 Organization And Enforcement

Title 26, §105 Appeals Boards

Title 26, §106 Permits

§22.60.330 General prohibitions.

§22.60.340 Violations.

§22.60.350 Public nuisance.

§22.60.360 Infractions.

§22.60.370 Injunction.

§22.60.380 Enforcement.

§22.60.390 Zoning enforcement order and noncompliance fee.

LACFCD Code:

§21.05 Standards, Guidelines, and Criteria

§21.07 Prohibited Discharges

§21.09 Installation or Use of Illicit Connections Prohibited

§21.11 Littering Prohibited

§21.13 Evidence of Compliance With Permit Requirements for Industrial
or Commercial Activity

§21.15 Notification of Uncontrolled Discharges Required

§21.17 Requirement to Monitor and Analyze

§21.23 Violation a Public Nuisance

LACFCD attempts to first resolve each enforcement action
administratively. However, the above cited ordinances also provide LACFCD
with the authority to pursue such actions in the judicial system as necessary.

Very truly yours,

JOHN F. KRATTLI
County Counsel

By 

JUDITH A. FRIES
Principal Deputy County Counsel
Public Works Division

JAF:jjj

APPENIDX E. 90th Percentile Determination

The modeled results of daily flows originating from the County Island are presented below. The 90th Percentile Critical Storm Event is also highlighted.

Storm Year	Wet Weather Storm Date (Date where Precipitation output > 0, Oct 15 thru April 15)	Storm Volume (Cubic Feet)	Storm Volume (Acre-Feet)
2010-2011	12/19/2010	1,304,589	29.9
2000-2001	02/23/2001	610,393	14.0
2009-2010	02/05/2010	549,879	12.6
2009-2010	01/18/2010	512,014	11.8
2010-2011	12/17/2010	506,158	11.6
2004-2005	02/19/2005	503,293	11.6
2000-2001	01/08/2001	429,567	9.9
2009-2010	01/19/2010	402,123	9.2
2002-2003	02/11/2003	381,169	8.8
2008-2009	02/16/2009	351,933	8.1
2000-2001	02/10/2001	341,174	7.8
2004-2005	10/17/2004	339,169	7.8
2010-2011	03/20/2011	336,904	7.7
2007-2008	01/23/2008	316,225	7.3
2003-2004	02/23/2004	310,674	7.1
2009-2010	01/20/2010	305,364	7.0
2000-2001	10/24/2000	261,665	6.0
2004-2005	02/21/2005	261,612	6.0
2004-2005	10/24/2004	249,846	5.7
2004-2005	02/20/2005	225,866	5.2
2004-2005	02/09/2005	225,242	5.2
2002-2003	12/15/2002	225,044	5.2
2010-2011	12/25/2010	223,929	5.1
2010-2011	12/20/2010	218,780	5.0
2008-2009	11/25/2008	210,709	4.8
2009-2010	12/07/2009	208,484	4.8
2007-2008	11/30/2007	177,468	4.1
2007-2008	02/22/2008	176,395	4.0
2005-2006	02/25/2006	174,154	4.0
2009-2010	01/17/2010	167,565	3.8
2004-2005	02/17/2005	166,091	3.8
2008-2009	02/05/2009	162,208	3.7
2010-2011	12/22/2010	162,194	3.7
2002-2003	12/17/2002	161,984	3.7
2007-2008	01/25/2008	156,863	3.6

Storm Year	Wet Weather Storm Date (Date where Precipitation output > 0, Oct 15 thru April 15)	Storm Volume (Cubic Feet)	Storm Volume (Acre-Feet)
2005-2006	12/31/2005	149,576	3.4
2008-2009	11/24/2008	147,225	3.4
2005-2006	03/26/2006	145,105	3.3
2000-2001	02/25/2001	144,352	3.3
2004-2005	02/16/2005	144,039	3.3
2010-2011	12/21/2010	141,812	3.3
2009-2010	12/12/2009	141,527	3.2
2008-2009	12/17/2008	139,101	3.2
2007-2008	01/27/2008	138,717	3.2
2002-2003	04/12/2003	137,848	3.2
2010-2011	03/23/2011	133,734	3.1
2004-2005	02/18/2005	133,014	3.1
2000-2001	01/24/2001	132,890	3.1
2007-2008	12/18/2007	132,786	3.0
2007-2008	01/04/2008	132,691	3.0
2007-2008	02/20/2008	128,975	3.0
2002-2003	02/22/2003	126,273	2.9
2008-2009	12/15/2008	125,318	2.9
2005-2006	04/02/2006	124,580	2.9
2002-2003	02/09/2003	124,026	2.8
2010-2011	12/29/2010	123,786	2.8
2008-2009	02/06/2009	122,792	2.8
2010-2011	02/18/2011	121,686	2.8
2008-2009	12/14/2008	120,883	2.8
2009-2010	01/21/2010	111,090	2.6
2000-2001	02/24/2001	107,072	2.5
2004-2005	01/09/2005	103,780	2.4
2010-2011	01/02/2011	102,116	2.3
2004-2005	12/26/2004	97,932	2.2
2007-2008	01/22/2008	97,887	2.2
2004-2005	03/20/2005	97,096	2.2
2009-2010	02/26/2010	96,607	2.2
2003-2004	02/28/2004	95,413	2.2
2009-2010	02/09/2010	93,948	2.2
2009-2010	01/22/2010	93,695	2.2
2010-2011	02/25/2011	93,493	2.1
2010-2011	10/19/2010	89,186	2.0

Storm Year	Wet Weather Storm Date (Date where Precipitation output > 0, Oct 15 thru April 15)	Storm Volume (Cubic Feet)	Storm Volume (Acre-Feet)
2007-2008	01/06/2008	87,035	2.0
2000-2001	02/12/2001	82,455	1.9
2009-2010	12/11/2009	81,998	1.9
2009-2010	04/11/2010	78,979	1.8
2008-2009	12/13/2008	78,591	1.8
2004-2005	02/08/2005	77,145	1.8
2000-2001	03/03/2001	76,116	1.7
2007-2008	01/03/2008	74,027	1.7
2001-2002	11/11/2001	71,218	1.6
2004-2005	01/08/2005	70,472	1.6
2000-2001	01/06/2001	68,422	1.6
2007-2008	01/26/2008	67,325	1.5
2009-2010	02/27/2010	67,298	1.5
2002-2003	11/05/2002	67,294	1.5
2002-2003	11/28/2002	67,230	1.5
2004-2005	10/25/2004	66,378	1.5
2000-2001	01/09/2001	66,031	1.5
2005-2006	12/29/2005	65,408	1.5
2008-2009	02/15/2009	64,185	1.5
2010-2011	12/16/2010	63,424	1.5
2008-2009	11/02/2008	62,878	1.4
2000-2001	10/25/2000	62,172	1.4
2010-2011	03/22/2011	61,647	1.4
2001-2002	12/27/2001	59,865	1.4
2009-2010	02/08/2010	59,080	1.4
2010-2011	12/28/2010	57,931	1.3
2008-2009	02/04/2009	57,174	1.3
2008-2009	12/22/2008	56,814	1.3
2010-2011	01/01/2011	56,719	1.3
2000-2001	04/04/2001	56,198	1.3
2005-2006	10/15/2005	56,080	1.3
2009-2010	02/25/2010	54,679	1.3
2010-2011	02/24/2011	53,643	1.2
2000-2001	02/27/2001	52,135	1.2
2004-2005	02/10/2005	51,902	1.2
2007-2008	02/03/2008	51,755	1.2
2005-2006	03/01/2006	51,184	1.2

Storm Year	Wet Weather Storm Date (Date where Precipitation output > 0, Oct 15 thru April 15)	Storm Volume (Cubic Feet)	Storm Volume (Acre-Feet)
2007-2008	01/24/2008	51,098	1.2
2010-2011	12/05/2010	49,550	1.1
2004-2005	10/19/2004	49,385	1.1
2003-2004	01/31/2004	49,310	1.1
2000-2001	10/27/2000	48,739	1.1
2004-2005	01/26/2005	47,626	1.1
2006-2007	02/10/2007	47,252	1.1
2000-2001	02/26/2001	46,797	1.1
2009-2010	04/05/2010	46,735	1.1
2007-2008	01/05/2008	45,778	1.1
2008-2009	02/09/2009	44,082	1.0
2010-2011	11/20/2010	43,225	1.0
2008-2009	02/14/2009	42,402	1.0
2003-2004	02/16/2004	41,672	1.0
2010-2011	02/17/2011	41,244	0.9
2008-2009	02/17/2009	41,192	0.9
2010-2011	12/27/2010	40,479	0.9
2005-2006	02/26/2006	40,313	0.9
2007-2008	12/06/2007	39,703	0.9
2009-2010	03/06/2010	39,662	0.9
2010-2011	10/28/2010	39,615	0.9
2000-2001	02/21/2001	39,015	0.9
2009-2010	04/10/2010	38,773	0.9
2004-2005	01/05/2005	37,669	0.9
2000-2001	02/08/2001	37,303	0.9
2010-2011	12/15/2010	36,859	0.8
2008-2009	03/04/2009	35,648	0.8
2008-2009	02/13/2009	34,745	0.8
2002-2003	02/23/2003	34,079	0.8
2002-2003	02/08/2003	34,059	0.8
2006-2007	12/07/2006	33,828	0.8
2007-2008	02/02/2008	33,251	0.8
2002-2003	04/13/2003	33,127	0.8
2000-2001	02/17/2001	32,962	0.8
2004-2005	01/01/2005	32,916	0.8
2005-2006	03/27/2006	32,228	0.7
2005-2006	03/15/2006	31,849	0.7

Storm Year	Wet Weather Storm Date (Date where Precipitation output > 0, Oct 15 thru April 15)	Storm Volume (Cubic Feet)	Storm Volume (Acre-Feet)
2003-2004	12/31/2003	31,466	0.7
2007-2008	01/21/2008	31,426	0.7
2000-2001	03/04/2001	30,729	0.7
2002-2003	02/12/2003	30,391	0.7
2010-2011	11/19/2010	30,112	0.7
2000-2001	01/10/2001	29,973	0.7
2005-2006	04/03/2006	29,113	0.7
2002-2003	02/10/2003	28,534	0.7
2000-2001	01/11/2001	28,062	0.6
2004-2005	02/15/2005	27,211	0.6
2004-2005	01/04/2005	26,913	0.6
2005-2006	02/16/2006	26,886	0.6
2005-2006	03/25/2006	26,332	0.6
2008-2009	01/23/2009	25,757	0.6
2004-2005	03/21/2005	25,722	0.6
2007-2008	01/28/2008	25,634	0.6
2010-2011	12/04/2010	25,391	0.6
2000-2001	01/21/2001	25,355	0.6
2005-2006	03/19/2006	25,128	0.6
2001-2002	11/27/2001	24,987	0.6
2003-2004	02/29/2004	24,805	0.6
2008-2009	02/07/2009	24,590	0.6
2008-2009	12/25/2008	24,264	0.6
2003-2004	12/04/2003	23,896	0.5
2008-2009	12/24/2008	23,603	0.5
2004-2005	12/27/2004	23,529	0.5
2006-2007	01/30/2007	22,794	0.5
2010-2011	01/03/2011	22,429	0.5
2004-2005	01/02/2005	21,975	0.5
2005-2006	04/12/2006	21,253	0.5
2010-2011	10/24/2010	20,841	0.5
2010-2011	03/21/2011	20,434	0.5
2000-2001	04/05/2001	18,827	0.4
2010-2011	01/30/2011	18,646	0.4
2007-2008	02/01/2008	18,532	0.4
2010-2011	03/25/2011	18,194	0.4
2006-2007	02/09/2007	18,169	0.4

Storm Year	Wet Weather Storm Date (Date where Precipitation output > 0, Oct 15 thru April 15)	Storm Volume (Cubic Feet)	Storm Volume (Acre-Feet)
2000-2001	01/07/2001	18,063	0.4
2002-2003	11/29/2002	18,024	0.4
2010-2011	10/23/2010	17,887	0.4
2002-2003	02/25/2003	17,772	0.4
2005-2006	12/30/2005	17,292	0.4
2000-2001	10/28/2000	17,245	0.4
2003-2004	11/01/2003	16,872	0.4
2002-2003	11/06/2002	16,869	0.4
2005-2006	10/16/2005	16,859	0.4
2009-2010	01/16/2010	16,835	0.4
2001-2002	12/12/2001	16,606	0.4
2006-2007	12/27/2006	16,528	0.4
2009-2010	01/12/2010	16,424	0.4
2007-2008	02/24/2008	16,296	0.4
2005-2006	03/02/2006	16,296	0.4
2009-2010	01/25/2010	16,294	0.4
2001-2002	12/28/2001	16,165	0.4
2009-2010	01/26/2010	15,926	0.4
2003-2004	02/01/2004	15,424	0.4
2008-2009	03/03/2009	14,839	0.3
2008-2009	02/12/2009	14,787	0.3
2004-2005	12/05/2004	14,561	0.3
2006-2007	02/18/2007	14,503	0.3
2010-2011	03/26/2011	14,433	0.3
2000-2001	02/22/2001	14,386	0.3
2000-2001	02/18/2001	13,381	0.3
2006-2007	12/24/2006	13,342	0.3
2009-2010	03/05/2010	13,287	0.3
2010-2011	02/15/2011	13,285	0.3
2010-2011	12/14/2010	13,206	0.3
2004-2005	10/18/2004	13,190	0.3
2004-2005	03/16/2005	13,032	0.3
2000-2001	02/09/2001	13,011	0.3
2007-2008	02/23/2008	12,880	0.3
2005-2006	03/04/2006	12,783	0.3
2007-2008	12/05/2007	12,113	0.3
2004-2005	01/06/2005	11,951	0.3

Storm Year	Wet Weather Storm Date (Date where Precipitation output > 0, Oct 15 thru April 15)	Storm Volume (Cubic Feet)	Storm Volume (Acre-Feet)
2000-2001	04/07/2001	11,715	0.3
2010-2011	03/27/2011	11,556	0.3
2010-2011	04/07/2011	11,409	0.3
2010-2011	11/27/2010	11,386	0.3
2006-2007	02/22/2007	11,296	0.3
2006-2007	02/26/2007	11,215	0.3
2003-2004	10/29/2003	11,038	0.3
2005-2006	03/29/2006	10,844	0.2
2003-2004	02/17/2004	10,556	0.2
2004-2005	02/28/2005	10,532	0.2
2005-2006	02/15/2006	10,470	0.2
2006-2007	12/14/2006	10,452	0.2
2001-2002	03/20/2002	10,347	0.2
2004-2005	03/01/2005	10,210	0.2
2004-2005	02/11/2005	10,010	0.2
2005-2006	03/16/2006	9,939	0.2
2006-2007	12/08/2006	9,707	0.2
2007-2008	01/20/2008	9,314	0.2
2008-2009	02/08/2009	9,134	0.2
2002-2003	02/24/2003	9,027	0.2
2003-2004	01/01/2004	8,827	0.2
2010-2011	11/08/2010	8,770	0.2
2001-2002	01/01/2002	8,401	0.2
2002-2003	12/26/2002	8,147	0.2
2006-2007	01/29/2007	8,086	0.2
2000-2001	01/22/2001	7,581	0.2
2005-2006	04/13/2006	7,579	0.2
2000-2001	03/07/2001	7,530	0.2
2006-2007	11/25/2006	7,456	0.2
2005-2006	02/17/2006	7,433	0.2
2001-2002	11/28/2001	7,358	0.2
2007-2008	12/07/2007	7,332	0.2
2005-2006	03/31/2006	6,916	0.2
2006-2007	01/04/2007	6,882	0.2
2006-2007	03/21/2007	6,856	0.2
2004-2005	01/10/2005	6,519	0.1
2010-2011	01/29/2011	6,072	0.1

Storm Year	Wet Weather Storm Date (Date where Precipitation output > 0, Oct 15 thru April 15)	Storm Volume (Cubic Feet)	Storm Volume (Acre-Feet)
2005-2006	12/06/2005	5,994	0.1
2003-2004	12/05/2003	5,794	0.1
2004-2005	03/26/2005	5,768	0.1
2009-2010	03/03/2010	5,505	0.1
2006-2007	04/15/2007	5,332	0.1
2004-2005	03/22/2005	5,254	0.1
2009-2010	02/19/2010	5,121	0.1
2006-2007	02/11/2007	4,900	0.1
2000-2001	02/20/2001	4,651	0.1
2003-2004	11/02/2003	4,546	0.1
2010-2011	02/16/2011	4,453	0.1
2009-2010	02/20/2010	4,441	0.1
2010-2011	11/18/2010	4,302	0.1
2001-2002	12/13/2001	4,276	0.1
2010-2011	03/02/2011	4,251	0.1
2007-2008	02/15/2008	4,246	0.1
2006-2007	02/27/2007	4,222	0.1
2004-2005	03/17/2005	3,817	0.1
2004-2005	11/26/2004	3,799	0.1
2005-2006	04/04/2006	3,711	0.1
2005-2006	03/05/2006	3,347	0.1
2005-2006	11/07/2005	3,285	0.1
2004-2005	11/12/2004	3,148	0.1
2007-2008	02/13/2008	3,030	0.1
2002-2003	03/02/2003	2,985	0.1
2009-2010	04/04/2010	2,922	0.1
2009-2010	12/10/2009	2,817	0.1
2009-2010	02/24/2010	2,757	0.1
2010-2011	03/06/2011	2,609	0.1
2007-2008	04/02/2008	2,607	0.1
2004-2005	01/24/2005	2,605	0.1
2008-2009	03/21/2009	2,589	0.1
2006-2007	12/25/2006	2,532	0.1
2010-2011	02/14/2011	2,525	0.1
2008-2009	03/22/2009	2,453	0.1
2001-2002	01/26/2002	2,430	0.1
2009-2010	01/11/2010	2,400	0.1

Storm Year	Wet Weather Storm Date (Date where Precipitation output > 0, Oct 15 thru April 15)	Storm Volume (Cubic Feet)	Storm Volume (Acre-Feet)
2006-2007	12/19/2006	2,384	0.1
2001-2002	03/04/2002	2,322	0.1
2005-2006	02/28/2006	2,297	0.1
2004-2005	10/16/2004	2,240	0.1
2007-2008	02/19/2008	2,189	0.1
2008-2009	01/22/2009	2,176	0.0
2004-2005	12/03/2004	2,129	0.0
2005-2006	04/01/2006	2,087	0.0
2004-2005	12/04/2004	2,069	0.0
2005-2006	03/23/2006	1,764	0.0
2006-2007	11/24/2006	1,379	0.0
2003-2004	11/10/2003	1,151	0.0
2002-2003	12/11/2002	958	0.0
2006-2007	12/20/2006	826	0.0
2010-2011	11/23/2010	809	0.0
2009-2010	01/13/2010	802	0.0
2010-2011	10/22/2010	793	0.0
2007-2008	10/17/2007	785	0.0
2008-2009	10/31/2008	765	0.0
2010-2011	10/18/2010	763	0.0
2006-2007	01/03/2007	753	0.0
2008-2009	11/01/2008	748	0.0
2006-2007	03/20/2007	737	0.0
2003-2004	01/25/2004	724	0.0
2009-2010	12/30/2009	705	0.0
2001-2002	12/26/2001	654	0.0
2006-2007	01/11/2007	628	0.0
2010-2011	11/26/2010	557	0.0
2007-2008	12/17/2007	553	0.0
2006-2007	02/17/2007	532	0.0
2009-2010	12/06/2009	523	0.0
2006-2007	02/19/2007	490	0.0
2006-2007	02/21/2007	481	0.0
2006-2007	02/25/2007	356	0.0

APPENIDX F. Bacteria RAA Analysis

Bacteria was modeled using WMMS's Fecal Coliform output. The analysis followed the process discussed in Section 6.3 of this WMP. The WMMS output was divided into storm years and the number of exceedances per year was determined to identify the 90th Percentile Year.

Table F.1 Number of Days Exceeding Fecal Limit per Storm Year

Storm Year	Number of Days Exceeding Fecal Limit
2001-2002	11
2002-2003	18
2003-2004	14
2004-2005	35
2005-2006	28
2006-2007	20
2007-2008	26
2008-2009	24
2009-2010	26
2010-2011	41

<- 90th Percentile Year

Table F.2 highlights the 18th exceedance day for the Bacteria 90th Percentile Year.

Table F.2 2004-2005 Storm Season Output

Event #	Storm Season	Date	Storm Volume (L)	Storm Volume (acre-feet)	WMMS Modeled Fecal Concentration (#/100ml)	Allowable Single Sample Fecal Concentration (4000/100mL) per Ballona Bacteria TMDL	Storm In Compliance ?
1	2004-2005	02/19/2005	14,251,668.28	11.554	6216.286	400.00	NO
2	2004-2005	10/17/2004	9,604,186.92	7.786	6197.080	400.00	NO
3	2004-2005	02/21/2005	7,408,016.98	6.006	6189.070	400.00	NO
4	2004-2005	10/24/2004	7,074,831.90	5.736	6145.598	400.00	NO
5	2004-2005	02/20/2005	6,395,815.97	5.185	6136.808	400.00	NO
6	2004-2005	02/09/2005	6,378,132.57	5.171	6093.167	400.00	NO
7	2004-2005	02/17/2005	4,703,163.20	3.813	6089.579	400.00	NO
8	2004-2005	02/16/2005	4,078,716.10	3.307	6041.617	400.00	NO
9	2004-2005	02/18/2005	3,766,528.00	3.054	5997.282	400.00	NO
10	2004-2005	01/09/2005	2,938,705.72	2.382	5987.072	400.00	NO
11	2004-2005	12/26/2004	2,773,134.69	2.248	5963.007	400.00	NO
12	2004-2005	03/20/2005	2,749,450.33	2.229	5946.077	400.00	NO
13	2004-2005	02/08/2005	2,184,497.03	1.771	5888.622	400.00	NO
14	2004-2005	01/08/2005	1,995,533.88	1.618	5787.903	400.00	NO
15	2004-2005	10/25/2004	1,879,606.05	1.524	5711.886	400.00	NO
16	2004-2005	02/10/2005	1,469,700.37	1.192	5488.234	400.00	NO
17	2004-2005	10/19/2004	1,398,418.64	1.134	5441.486	400.00	NO
18	2004-2005	01/26/2005	1,348,628.33	1.093	5430.532	400.00	NO
19	2004-2005	01/05/2005	1,066,654.05	0.865	5350.975	400.00	NO
20	2004-2005	01/01/2005	932,070.77	0.756	5336.375	400.00	NO
21	2004-2005	02/15/2005	770,518.15	0.625	5274.477	400.00	NO

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Event #	Storm Season	Date	Storm Volume (L)	Storm Volume (acre-feet)	WMMS Modeled Fecal Concentration (#/100ml)	Allowable Single Sample Fecal Concentration (4000/100mL) per Ballona Bacteria TMDL	Storm In Compliance ?
22	2004-2005	01/04/2005	762,101.16	0.618	5195.947	400.00	NO
23	2004-2005	03/21/2005	728,363.62	0.590	5158.511	400.00	NO
24	2004-2005	12/27/2004	666,275.05	0.540	4984.984	400.00	NO
25	2004-2005	01/02/2005	622,262.23	0.504	4917.418	400.00	NO
26	2004-2005	12/05/2004	412,313.41	0.334	4758.954	400.00	NO
27	2004-2005	10/18/2004	373,504.43	0.303	4726.039	400.00	NO
28	2004-2005	03/16/2005	369,014.72	0.299	4503.673	400.00	NO
29	2004-2005	01/06/2005	338,414.06	0.274	3297.191	400.00	NO
30	2004-2005	02/28/2005	298,244.41	0.242	2574.722	400.00	NO
31	2004-2005	03/01/2005	289,100.67	0.234	1700.535	400.00	NO
32	2004-2005	02/11/2005	283,440.27	0.230	1538.307	400.00	NO
33	2004-2005	01/10/2005	184,608.91	0.150	1296.498	400.00	NO
34	2004-2005	03/26/2005	163,336.58	0.132	1214.059	400.00	NO
35	2004-2005	03/22/2005	148,784.46	0.121	414.237	400.00	NO
36	2004-2005	03/17/2005	108,098.26	0.088	29.155	400.00	YES
37	2004-2005	11/26/2004	107,574.38	0.087	0.251	400.00	YES
38	2004-2005	11/12/2004	89,144.02	0.072	0.098	400.00	YES
39	2004-2005	01/24/2005	73,763.34	0.060	0.023	400.00	YES
40	2004-2005	10/16/2004	63,432.46	0.051	0.021	400.00	YES
41	2004-2005	12/03/2004	60,299.64	0.049	0.009	400.00	YES
42	2004-2005	12/04/2004	58,588.55	0.047	0.006	400.00	YES

APPENIDX G. Time Series Analysis

The following graphs present the time series difference between baseline and allowable concentrations modeled using WMMS.

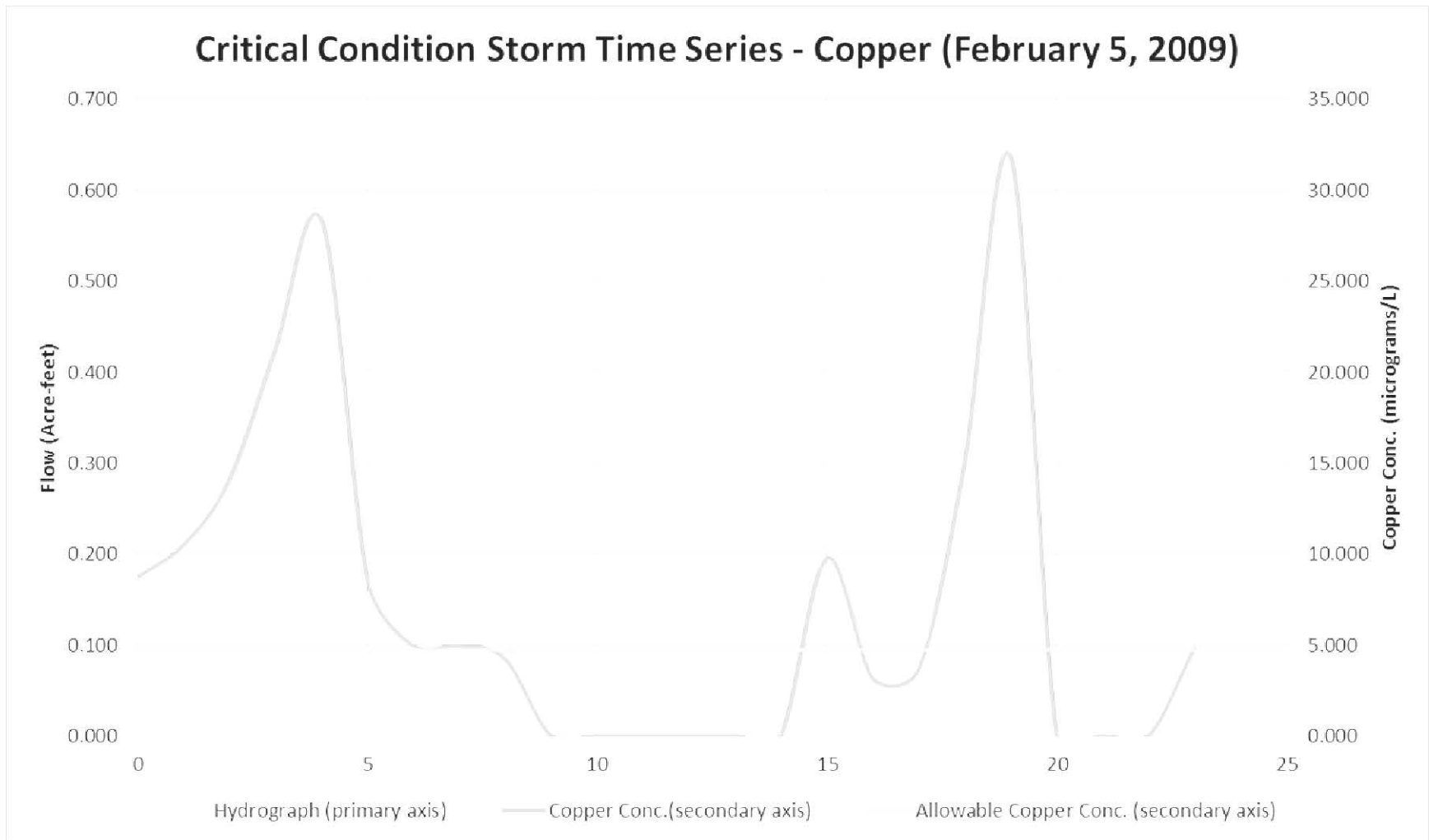


Figure G-1: Critical Condition Storm Hydrograph (Feb 5, 2009) with Modeled Copper Conc. and TMDL Allowable Copper Conc.

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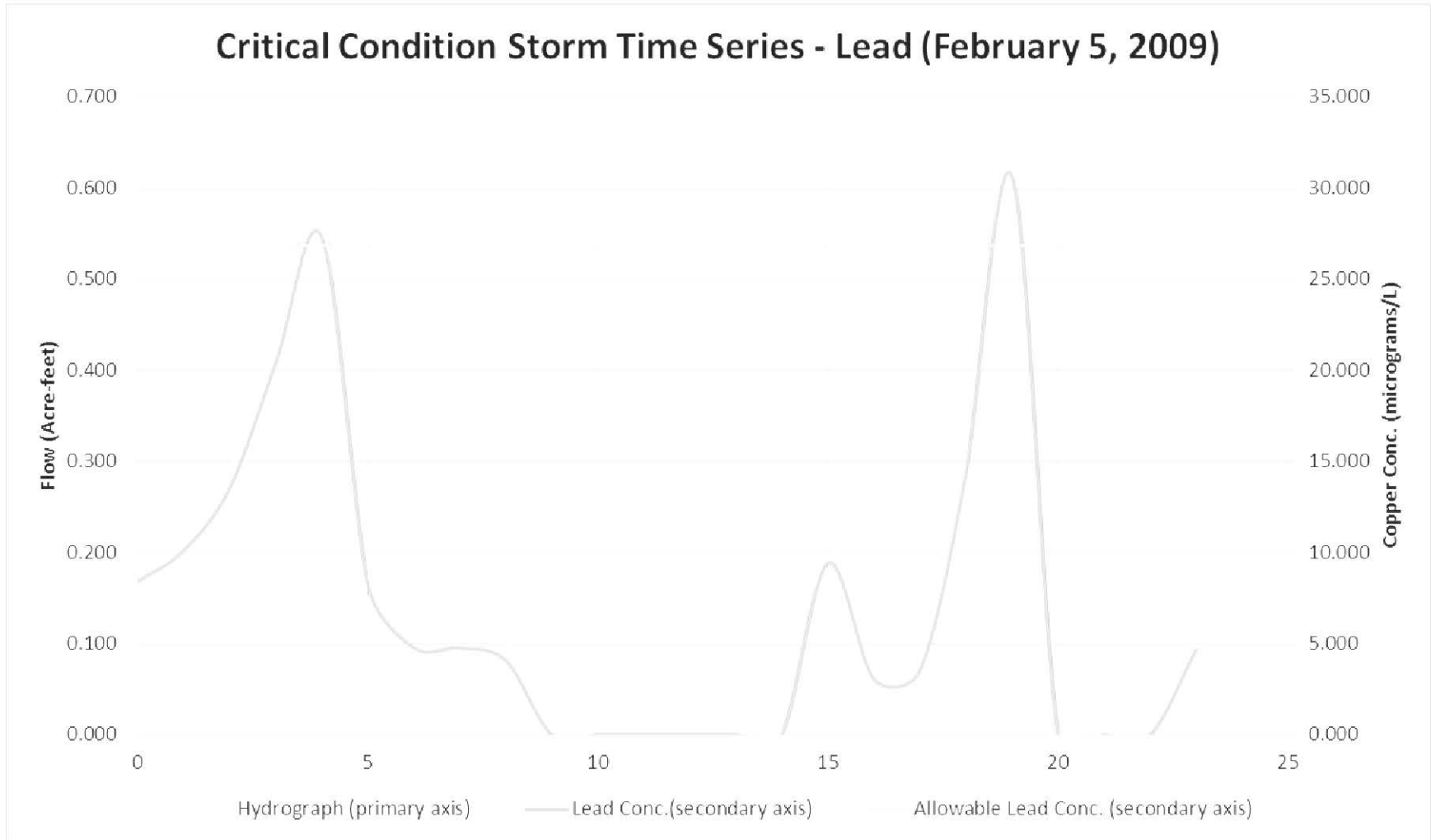


Figure G-2: Critical Condition Storm Hydrograph (Feb 5, 2009) with Modeled Lead Conc. and TMDL Allowable Lead Conc.

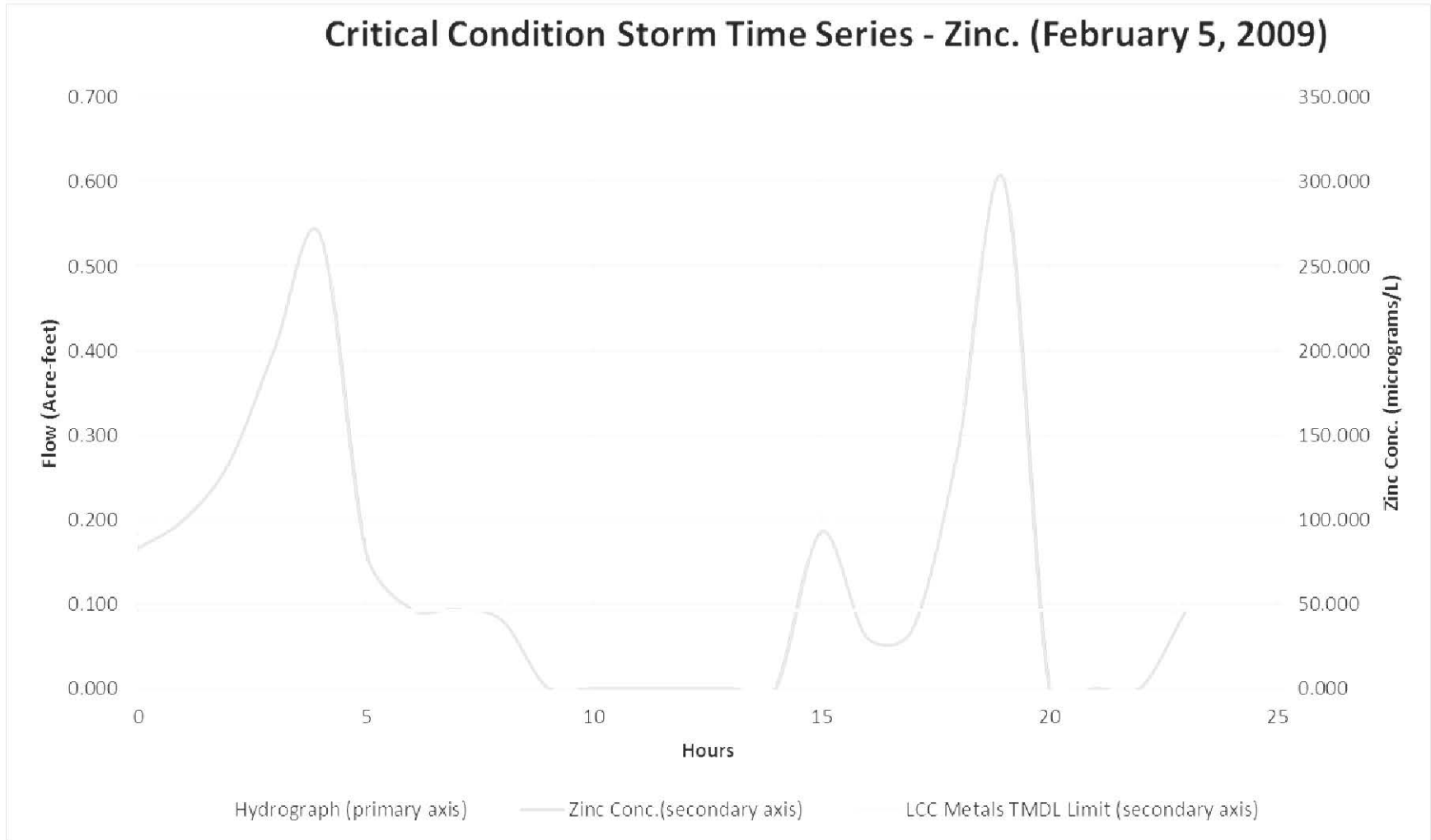
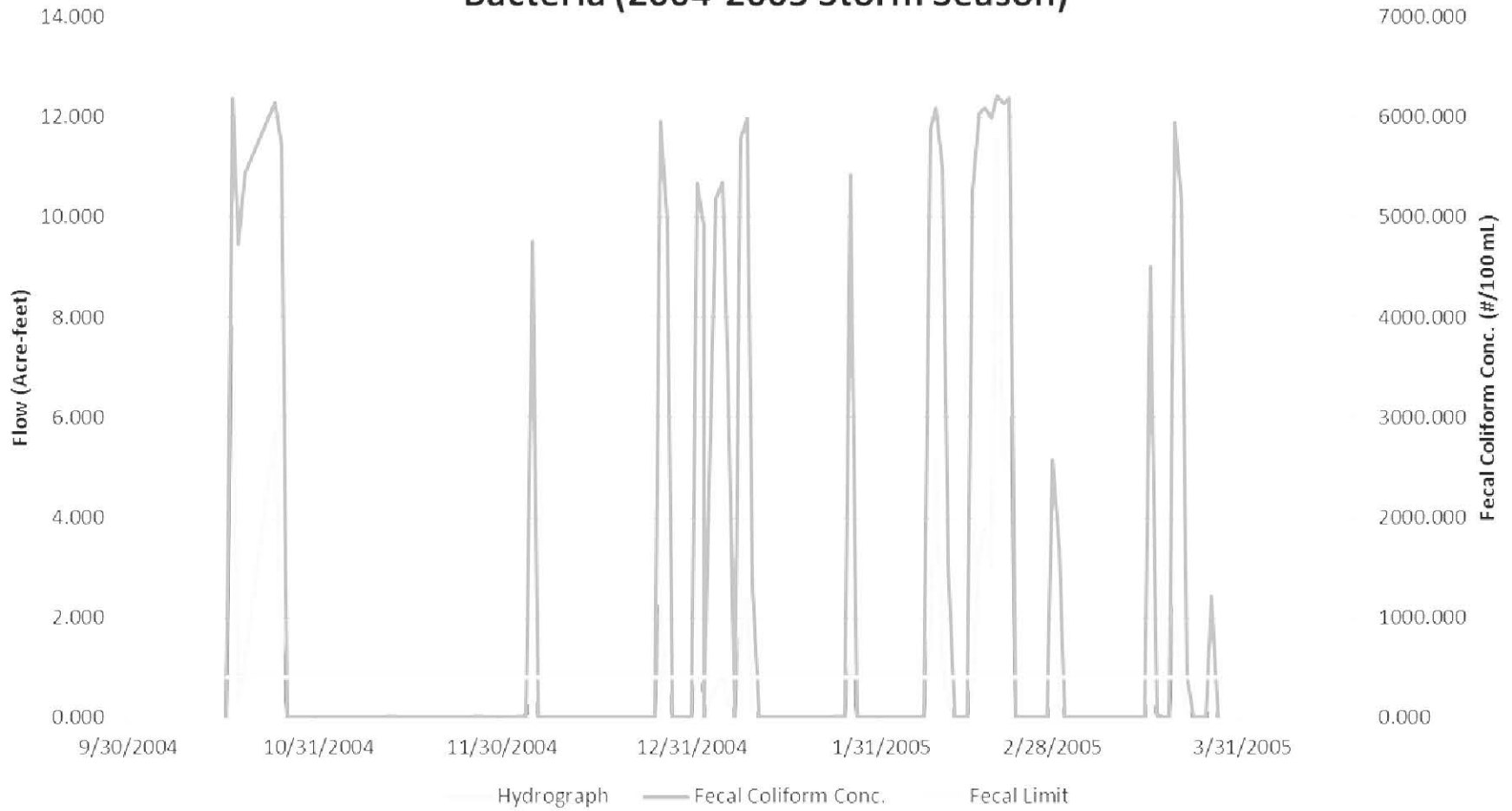


Figure G-3: Critical Condition Storm Hydrograph (Feb 5, 2009) with Modeled Zinc Conc. and TMDL Allowable Zinc Conc.

Critical Condition Wet Weather Year Time Series - Bacteria (2004-2005 Storm Season)



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Figure G-4: Critical Condition Bacteria Year (2004-2005) with Modeled Fecal Coliform, and TMDL Allowable Fecal Conc.

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Comment #	LA County MS4 Permit Provision/Issue	Summary of Comments and Necessary Revisions	Response
1	Part VI.C.5.a.i Water Quality Characterization	The geographical scope of this WMP includes both the 95-acre County Island and LACFCD infrastructure in the Los Cerritos Channel freshwater subwatershed as well as the LACFCD infrastructure within the Los Cerritos Channel Estuary subwatershed and the Alamitos Bay subwatershed. Therefore, the WMP needs to present and evaluate water quality data for the Los Cerritos Channel Estuary, Colorado Lagoon, Alamitos Bay and San Pedro Bay, if available. Monitoring data that should be evaluated in the revised WMP include TMDL monitoring data for the Colorado Lagoon; bacteria data for Alamitos Bay; Bight data for San Pedro Bay; SWAMP data for Los Cerritos Channel Estuary; and any other data from CEDEN for Los Cerritos Channel, Los Cerritos Channel Estuary, Alamitos Bay and San Pedro Bay.	As noted in the Section 3.1 of the revised WMP, the LACFCD doesn't have jurisdiction of the land uses that create the pollutants of concern in the Colorado Lagoon, Alamitos Bay, San Pedro Bay and Los Cerritos Channel Estuary. These areas are under the jurisdiction of the City of Long Beach and will be addressed under Long Beach's WMP which will be submitted in March 2015. Through adaptive management, the LACFCD will review Long Beach's WMP and consider on a case-by-case basis opportunities for collaboration on future projects. This is noted in the revised WMP.
2		It appears that the data for diazinon during wet weather may be missing from Table 1 on page B-3.	Comment noted, diazinon for wet weather has been added to the subject table.
3	Parts VI.C.5.a.ii(1) and iv(1) Water Body-Pollutant Classification	The WMP needs to address the copper dry weather waste load allocation. Copper is listed in Table 3 as a Category 1 pollutant during both wet and dry conditions, but does not appear to be further addressed in the WMP, including the RAA. The WMP needs to identify the interim and final compliance deadlines of September 30, 2023 for the wet weather waste load allocation and dry weather waste load allocation, respectively.	An expanded discussion of Copper has been added to Section 6.3.5.2. Additionally, a dry weather modeling section has been added to the revised WMP (Section 6.2). A timeline for interim deadlines has been added to the revised WMP (Section 2.4).
4		In addition, the WMP needs to include and address in the RAA all applicable water quality-based effluent limitations (WQBELs) to comply with provisions of Part VI.E and Attachment Q related to the Colorado Lagoon OC Pesticides, PCBs, Sediment Toxicity, PAHs and Metals TMDL and Attachment N related to the Dominguez Channel and Greater Los Angeles and Long Beach Harbor Waters Toxic Pollutants TMDL, which apply to the LACFCD for direct discharges to Colorado Lagoon and San Pedro Bay, respectively.	The RAA for areas which drain to Colorado Lagoon and the San Pedro Bay will be addressed under Long Beach's WMP which will be submitted in March 2015. Please see updated discussion in Section 6.1.

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5		<p>In Section 2.2, the draft WMP states, “As recognized by the footnote in Attachment K-7 of the Permit, the County and the LACFCD have entered into an Amended Consent Decree with the United States and the State of California, including the LARWQCB, pursuant to which the LARWQCB has released the County and the LACFCD from responsibility for Toxic pollutants in the Dominguez Channel and the Greater Harbors.”</p> <p>This statement misinterprets the Regional Water Board’s findings. Footnote 1 to Table K-7 of the LA County MS4 Permit states, “The requirements of this Order to implement the obligations of this TMDL do not apply to a Permittee to the extent that it is determined that the Permittee has been released from that obligation pursuant to the Amended Consent Decree entered in United States v. Montrose Chemical Corp., Case No. 90-3122 AAH (JRx).” As stated in the responses to comments received on the Dominguez Channel and Greater Harbor Waters Toxic Pollutants TMDL, “...primarily one pollutant, DDT, is associated with the Superfund site and also addressed by the TMDL. The TMDL addresses numerous pollutants and utilizes a different process than Superfund. The other pollutants – heavy metals, PAHs, PCBs and other legacy pesticides are not within Superfund’s focus at the Montrose OU2 Site...”</p> <p>Further, the WQBELs applicable to the County and LACFCD pursuant to the TMDL, which are in Attachment N, Part E of the LA County MS4 Permit, are for ongoing discharges from the MS4, not for the historic contamination of the bed sediments. Therefore, the statement in the draft WMP incorrectly concludes that the aforementioned Consent Decree releases the County and LACFCD from any obligation to implement the WQBELs in Attachment N, Part E.</p>	<p>As set forth in the footnote to Table K-7, the requirements of the Permit to implement the obligations of the Dominguez Channel and Greater Los Angeles and Long Beach Harbor Waters Toxic Pollutants TMDL do not apply to a permittee where that permittee has been released of that obligation under the Amended Consent Decree entered in United States v. Montrose Chemical Corp., Case No. 90-3122 AAH (JRx). Both the County and LACFCD are parties to that decree and have been released thereunder.</p> <p>The County and the LACFCD have referenced this decree so that it is clear that no inference should be drawn from the submission of the WMP or from any action or implementation taken pursuant to it that the County or the LACFCD is obligated to implement any TMDL or implement any program for which they have been released.</p> <p>The Amended Consent Decree is not limited solely to DDT. The Amended Consent Decree on page 2 recites that the claim that was filed was for “damages” and “response costs” resulting from the releases of “hazardous substances” as those terms are used in the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA). The Amended Consent Decree goes on to specifically include both DDT and PCBs in the category of those hazardous substances, but the Amended Consent decree is not limited solely to those pollutants.</p> <p>Instead the Amended Consent Decree applies to all hazardous substances within the meaning of CERCLA. For example on page 3 of the decree, the decree notes that the Montrose NPL site is contaminated with DDT “and other hazardous substances” released during the manufacture of DDT. On page 5 of the decree, it states that the federal claims are based in part on the local governments’ involvement as present and past owners and/or operators of facilities at which hazardous substances were disposed or based on the local governments transportation of the hazardous substances. The Amended Consent Decree does not limit those hazardous substances solely to DDT. The decree also states that the local municipalities, including</p>

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			<p>the County and LACFCD, are settling claims that include claims arising from the transport of these hazardous substances in stormwater. (Amended Consent Decree at 5, 7 and 14-15). The Amended Consent Decree's covenant not to sue on pages 42 and 43 applies to all response costs incurred or to be incurred in the future in connection with the Montrose NPL site.</p> <p>Despite the fact that the TMDLs might utilize a different process than the process under CERCLA. The Amended Consent Decree on page 43 makes clear that the decree applies to all administrative or other actions that might be taken by the Regional Board.</p>
6	Part VI.C.5.a.ii(2) and iv(2) Water Body-Pollutant Classification	The WMP needs to specify the applicable receiving water limitations for the Category 2 water body pollutant combinations (WBPCs) listed in Table 2. In addition, pH needs to be added to the list of Category 2 pollutants in Table 2.	Comment noted. Values included in updated table in Section 3.4
7		The WMP needs to address the pollutants identified on the State's Clean Water Act Section 303(d) List for Colorado Lagoon (indicator bacteria, which was not addressed by the Colorado Lagoon TMDL); and the 303(d) listing for indicator bacteria in Alamitos Bay.	An updated description of the AB/LCC Group's responsibilities related to Water Quality Priorities can be found in Section 3.1
8	Part VI.C.5.a.ii(3) and iv(2) Water Body-Pollutant Classification	The WMP needs to specify the applicable receiving water limitations for the Category 3 WBPCs. In addition, the WMP needs to include the rationale for not including aluminum as a Category 3 pollutant	Comment noted. Values included in updated table and an additional discussion on aluminum has been included.
9	Part VI.C.5.a.ii(3) and iv(2) Water Body-Pollutant Classification	The WMP needs to evaluate and address other pollutants that are otherwise causing or contributing to an exceedance of Receiving Water Limitations in Los Cerritos Channel Estuary, Colorado Lagoon, Alamitos Bay and San Pedro Bay, if any.	An updated description of the AB/LCC Group's responsibilities related to Water Quality Priorities can be found in Section 3.1

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10	Part VI.C.5.a.iii Source Assessment	The WMP needs to include a source assessment regarding known and suspected storm water and non-storm water pollutant sources in discharges to the MS4 and from the MS4 to receiving waters. The source assessment should include (1) a discussion of findings from implementation of the minimum control measures under the 2001 Permit; (2) a discussion of the data and conclusions from the TMDL source investigations; and (3) TMDL monitoring data for Colorado Lagoon from the LACFCD storm drain.	<p>Comment noted, Section 4: Source Assessment was added to the revised WMP.</p> <p>With regards to item 3 of the comment, the LACFCD doesn't have jurisdiction of the land uses that create the pollutants of concern in the Colorado Lagoon, Alamitos Bay, San Pedro Bay and Los Cerritos Channel Estuary. These areas are under the jurisdiction of the City of Long Beach and will be addressed under Long Beach's WMP which will be submitted in March 2015. Through adaptive management, the LACFCD will review Long Beach's WMP and consider on a case-by-case basis opportunities for collaboration on future projects. This is noted in the revised WMP.</p>
11	Part VI.C.5.a.iii.(1)(b) Source Assessment	<p>The WMP needs to identify on a map the County's MS4s within the County Island; catch basins and major outfalls for the County and LACFCD in the Los Cerritos Channel subwatershed; and catch basins and major outfalls for the LACFCD in the Los Cerritos Channel Estuary subwatershed and the Alamitos Bay subwatershed. Regional Water Board staff is aware that the CIMP identifies 4 outfalls to the Los Cerritos Channel, 2 or 3 of which are potentially major outfalls (Figure 13, Table 6, pp. 23-24). However, the WMP should include this information as well.</p> <p>In Figure 2 of the WMP, the Palo Verde Drain appears to be depicted in the wrong location.</p>	<p>The requested map has been added to Section 6.2.</p> <p>The major outfalls in the Los Cerritos Estuary and Alamitos Bay subwatershed are not presented in this WMP as they are under the jurisdiction of the City of Long Beach and will be addressed under Long Beach's WMP which will be submitted in March 2015.</p> <p>Comment noted, location of Palo Verde Drain in Figure 2 will be updated in resubmittal.</p>
12	Part VI.C.5.a.iv. Prioritization	The WMP needs to prioritize and address the Category 2 and 3 WBPCs for the Los Cerritos Channel Watershed.	Comment noted, please see updated RAA discussion.
13	Part VI.C.5.a.iv.(1) Prioritization	The WMP needs to provide a clear schedule that demonstrates implementation of the BMPs will achieve the required interim metal reductions by the compliance deadlines. In addition, justification and supporting data is required to support the expected reductions in pollutant loads.	Comment noted, an updated schedule has been provided in Section 6.3.6.

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14	Part VI.C.5.a.iv.(1) Prioritization	The WMP needs to specify a strategy to achieve the final water quality-based effluent limitations for the Colorado Lagoon Toxics TMDL and demonstrate that the interim WQBELs for chlordane, dieldrin, lead, zinc, DDT, PAHs, and PCBs in sediment have been achieved.	The LACFCD doesn't have jurisdiction of the land uses that create the pollutants of concern in the Colorado Lagoon watershed. This area is under the jurisdiction of the City of Long Beach and will be addressed under Long Beach's WMP which will be submitted in March 2015. As Long Beach develops and implements their WMP, the LACFCD will determine on a case-by-case basis it's collaboration and contribution on future projects.
15	Part VI.C.5.a.iv.(2)(a) Prioritization	The County plans to implement connector pipe screen devices on the 4 catch basins within the County Island by July of 2017; justification is needed to demonstrate that this schedule is as short as possible.	<p>Upon field and as-built verification, it was determined there are 3 catch basins in the County Island. It is confirmed that these 3 catch basins can be retrofitted.</p> <p>The AB/LCC Group has updated the priority of these catch basins. Due to economies of scale these catch basins are being included in County's LA River Phase 9 project. Design is currently ongoing and the project scheduled to go out by July 1, 2015. The project is scheduled to be completed by Spring 2016.</p>
16	Part VI.C.5.b.ii.(1) Selection of Watershed Control Measures	The WMP needs to specify a strategy that will be implemented to prevent or eliminate non-storm water discharges, if necessary based on the findings of the non-storm water screening program.	The AB/LCC Group has conducted screenings over three seasons (Spring, Fall and Winter). The AB/LCC CIMP states "significant discharge is characterized as any flow visually noted as larger than a "garden hose" during visual observation." During the 3 screenings there was no significant discharge found originating from the County Island. Additionally, the CIMP has been updated to state that when at least 3 out of 4 screenings do not have significant flow, no further assessment is needed. The AB/LCC group will conduct a Summer screening for completeness. As there is no significant dry weather flow, a strategy to prevent or eliminate non-stormwater discharges is not needed.
17	Part VI.C.5.b.iv.(3) Selection of Watershed Control Measures	The WMP needs to include the implementation actions to be carried out by the LACFCD or jointly by LACFCD and the City of Long Beach that have been proposed in the Colorado Lagoon Restoration Project and that will be implemented to achieve compliance with the interim and final WQBELs for the Colorado Lagoon Toxics TMDL.	As noted in the Section 3.1 of the revised WMP, the LACFCD doesn't have jurisdiction of the land uses that create the pollutants of concern in the Colorado Lagoon, Alamitos Bay, San Pedro Bay and Los Cerritos Channel Estuary. These areas are under the jurisdiction of the City of Long Beach and will be addressed under Long Beach's WMP which will be submitted in March 2015. Through adaptive management, the LACFCD will review Long Beach's WMP and consider on a case-by-case basis opportunities for collaboration on future projects.

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18	Part VI.C.5.b.iv.(4)(a) Selection of Watershed Control Measures	<p>The AB/LCC group is submitting the WMP to satisfy the Implementation Plan requirement of the Los Cerritos Channel (LCC) Metal TMDL. The WMP discusses existing and planned nonstructural BMPs that will be implemented and potential structural BMPs that may be implemented if necessary to achieve the WLAs for copper, lead, and zinc along with the assumed pollutant reductions. However, the WMP needs to provide peer-reviewed data and/or modeling output to support the expected reduction in pollutant load, in order to demonstrate compliance with the interim WLAs that must be met by 2017 and 2020, as specified in the LCC Metals TMDL Implementation Plan. Where the AB/LCC group relies on the analysis of another group or previous implementation plan, such as the Ballona Creek Multi-pollutant Implementation Plan, the AB/LCC group should reiterate the analysis/findings in the revised WMP.</p> <p>The WMP needs to include control measures to achieve the interim and final WQBELs for the Colorado Lagoon Toxics TMDL and the interim WQBELs for the Harbors Toxics TMDL for direct discharges into San Pedro Bay.</p>	<p>Comment noted, WMP resubmittal will include analysis presented in Ballona Creek Implementation Plan. Where needed, further justification has been added to address assumed pollutant load reductions.</p> <p>The LACFCD doesn't have jurisdiction of the land uses that create the pollutants of concern in the Colorado Lagoon watershed. These areas are under the jurisdiction of the City of Long Beach and will be addressed under Long Beach's WMP which will be submitted in March 2015. As Long Beach develops and implements their WMP, the LACFCD will determine on a case-by-case basis it's collaboration and contribution on future projects. Per discussion with the Regional Board on September 15, 2014, the County Island does not directly discharge to the San Pedro Bay, therefore interim DC Toxics TMDL limits do not apply.</p>
19		<p>The WMP needs to include control measures to achieve the interim and final WQBELs for the Colorado Lagoon Toxics TMDL and the interim WQBELs for the Harbors Toxics TMDL for direct discharges into San Pedro Bay.</p>	<p>The LACFCD doesn't have jurisdiction of the land uses that create the pollutants of concern in the Colorado Lagoon watershed. These areas are under the jurisdiction of the City of Long Beach and will be addressed under Long Beach's WMP which will be submitted in March 2015. As Long Beach develops and implements their WMP, the LACFCD will determine on a case-by-case basis it's collaboration and contribution on future projects. Per discussion with the Regional Board on September 15, 2014, the County island does not directly discharge to the San Pedro Bay, therefore interim TMDL limits do not apply.</p>

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20	Part VI.C.5.b.iv.(4)(b)-(d) Selection of Watershed Control Measures	<p>The WMP states, "Over the next few years, the County will upgrade a portion of its mechanical broom street sweepers with new high efficiency vacuum street sweepers."</p> <p>In addition, the WMP states, "The County plans to implement CPS devices on the 4 catch basins within its jurisdiction in the AB/LCC WMA by July of 2017. Construction of the CPS devices is contingent upon appropriate field conditions and a thorough design review. CPS devices cannot be installed in areas where they may adversely affect flood protection or in catch basins that are too shallow to house CPS devices." The WMP needs to clearly identify when the 4 catch basins will be assessed as to whether a CPS device is feasible. The WMP needs to include a contingency if the CPS device cannot be installed in one or more of the catch basins.</p> <p>The revised WMP needs to provide more specificity with regards to the schedule of implementation for these watershed control measures that demonstrates compliance with the interim compliance deadlines for metals.</p> <p>In addition, the revised WMP needs to address how the LACFCD will comply with the trash requirements for catch basins and outfalls in the Los Cerritos Channel Estuary subwatershed and the Alamitos Bay subwatershed.</p>	<p>The County Island is currently swept by a contractor. After further coordination, the contractor is using a vacuum sweeper to sweep the Island. The County will ensure that contractors who sweep the Island use vacuum sweepers. If the sweeping is moved in-house, County forces will use a vacuum sweeper. The WMP will be updated to reflect this.</p> <p>Upon field and as-built verification, it was determined there are 3 catch basins in the County Island. These catch basins can be retrofitted. We have updated the priority of these catch basins and due to economies of scale they are being included in our LA River Phase 9 project. Design is currently ongoing and the project scheduled to go out by July 1st 2015. The project is scheduled to be completed by Spring 2016. The WMP will add more specificity regarding meeting interim deadlines. Since the 3 catch basins can be retrofitted a contingency is not needed.</p> <p>An updated discussion of scheduling has been added to Section 6.3.6</p> <p>The LACFCD doesn't have jurisdiction of the land uses that create trash in the Los Cerritos Channel Estuary and the Colorado Lagoon watersheds. These areas are under the jurisdiction of the City of Long Beach and will be addressed under Long Beach's WMP which will be submitted in March 2015. As Long Beach develops and implements their WMP, the LACFCD will determine on a case-by-case basis it's collaboration and contribution on future projects.</p>
21	Part VI.C.5.b.iv.(4)(b)-(d) Selection of Watershed Control Measures	<p>In addition, the revised WMP needs to address how the LACFCD will comply with the trash requirements for catch basins and outfalls in the Los Cerritos Channel Estuary subwatershed and the Alamitos Bay subwatershed.</p>	<p>The LACFCD doesn't have jurisdiction of the land uses that create trash in the Los Cerritos Channel Estuary and the Alamitos Bay watersheds. These areas are under the jurisdiction of the City of Long Beach and will be addressed under Long Beach's WMP which will be submitted in March 2015. Through adaptive management, the LACFCD will review Long Beach's WMP and consider on a case-by-case basis opportunities for collaboration on future projects.</p>

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22	Part VI.C.5.b.iv.(5) Reasonable Assurance Analysis	The WMP modeled the critical condition, the daily pollutant loads for Cu, Pb, and Zn during wet weather, and the required wet weather load reduction. However, the calculated load reductions were done incorrectly. Since the 95-acre County Island is about 1% of the entire Los Cerritos Channel watershed; then the County's portion of the WLAs is 1%. In addition, the RAA did not address the non-storm water copper WLAs or other pollutants in Category 1 for the Colorado Lagoon Toxics TMDL and Harbors Toxics TMDL. The Reasonable Assurance Analysis (RAA) needs to address all applicable WQBELs in Attachments N and Q and other applicable waterbody-pollutant combinations falling within Categories 2 and 3. (See also detailed comments on the County's RAA in the attached memorandum.)	Per conversation with Regional Board staff on December 12, 2014, the calculated load reductions were calculated based on concentrations from the LCC Metals TMDL and Critical Condition Storm Event Volume for rainfall on the County Island. It was determined that the calculated load reductions were done correctly, additional language will be added in the WMP to clarify the methodology used by the AB/LCC Group. Additional language on non-stormwater and Category 2 and 3 pollutants has been added. The RAA has been updated to include discussion on the Harbors Toxics TMDL. The County Island is required to meet the final WLAs. Based on similar fate and transport, treatment of the Critical Condition for LCC Metals will address the Harbors Toxics TMDL.
23	Part VI.C.5.c Compliance Schedules	The WMP needs to demonstrate that the interim deadlines are being or will be achieved. In addition, the WMP needs to include the interim and final compliance deadlines for September 30, 2023, for the wet weather waste load allocation and dry weather waste load allocation, respectively.	Comment noted, additional description included in Section 6.3.6.
24	General comments on the draft Reasonable Assurance Analysis (RAA) section of the draft Watershed Management Program	The Alamitos Bay/Los Cerritos Channel Group (AB/LCC Group) are subject to final water quality-based effluent limitations pursuant to Attachment N, Part E "Dominguez Channel and Greater Los Angeles and Long Beach Harbor Waters Toxic Pollutants TMDL", and Attachment Q, Part A "Los Cerritos Channel Metals TMDL", Part B "Colorado Lagoon OC Pesticides, PCBs, Sediment Toxicity, PAHs, and Metals TMDL." Pursuant to Part VI.C.5.a.iv(1) and VI.C.5.b.iv, pages 60 and 62-63 of the MS4 Permit, the AB/LCC Group are required to prepare reasonable assurance analysis to demonstrate that the WQBELs that are established in the Colorado Lagoon OC Pesticides, PCBs, Sediment Toxicity, PAHs, and Metals TMDL shall be achieved through implementation of the watershed control measure proposed in the WMP. However, the Colorado Lagoon OC Pesticides, PCBs, Sediment Toxicity, PAHs, and Metal TMDL was completely omitted from the draft WMP. The draft WMP did not include and analyze a strategy to implement pollutant controls necessary to achieve all applicable interim and final water quality-based effluent limitations and/or receiving water limitations with	The RAA has been updated to include discussion on the Harbors Toxics TMDL. The LACFCD doesn't have jurisdiction of the land uses that create the pollutants of concern in the Colorado Lagoon watershed. These areas are under the jurisdiction of the City of Long Beach and will be addressed under Long Beach's WMP which will be submitted in March 2015. Through adaptive management, the LACFCD will review Long Beach's WMP and consider on a case-by-case basis opportunities for collaboration on future projects. Per discussion with the Regional Board on September 15, 2014, the County island does not directly discharge to the San Pedro Bay, therefore interim TMDL limits do not apply.

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		interim or final compliance deadlines within the permit term pursuant to the corresponding compliance schedules in the Colorado Lagoon OC Pesticides, PCBs, Sediment Toxicity, PAHs, and Metals TMDLs.	
25		The AB/LCC Group used historic data from the Stearns Street Mass Emission Station to determine Category 3 and low priority pollutants, which is only appropriate to identify pollutants of concern for the freshwater portion of the Los Cerritos Channel. There is no data analysis or information provided for high priority (Category 2) and medium priority (Category 3) pollutants of concern for Los Cerritos Channel Estuary Watershed and Alamitos Bay Watershed.	The LACFCD doesn't have jurisdiction of the land uses that create the pollutants of concern in the Los Cerritos Channel Estuary and the Alamitos Bay watersheds. These areas are under the jurisdiction of the City of Long Beach and will be addressed under Long Beach's WMP which will be submitted in March 2015. As Long Beach develops and implements their WMP, the LACFCD will determine on a case-by-case basis it's collaboration and contribution on future projects. Per discussion with the Regional Board on September 15, 2014, the County Island does not directly discharge to the San Pedro Bay, therefore interim TMDL limits do not apply.
26		The AB/LCC Group had identified water quality priorities for Los Cerritos Channel but not for Colorado Lagoon and East San Pedro Bay, where the following drains discharge to: LACFCD Project 452 Drain (Colorado Lagoon), BI 5151 U2 - Line A - Long Beach, BI 0450 - line G - Alamitos Bay, BI 5101 U2 - Line A - Long Beach, and BI 0450 - Line A - Alamitos Bay. Pursuant to Section VI.C.5.a., the WMP should include an evaluation of existing water quality conditions, classify them into categories, identify potential sources, and identify strategies, control measures, and BMPs as required in the permit.	The LACFCD doesn't have jurisdiction of the land uses that create the pollutants of concern in the Colorado Lagoon and East San Pedro Bay watersheds. These areas are under the jurisdiction of the City of Long Beach and will be addressed under Long Beach's WMP which will be submitted in March 2015. As Long Beach develops and implements their WMP, the LACFCD will determine on a case-by-case basis it's collaboration and contribution on future projects. Per discussion with the Regional Board on September 15, 2014, the County Island does not directly discharge to the San Pedro Bay, therefore interim limits for the DC Toxics TMDL limits do not apply.
27		The TMDL allowable daily loads for metals applicable to the County Island were incorrectly calculated. The calculated TMDL allowable load did not take into account that the County Island area only covers 95 acres, which is approximately 1% of the LCC Freshwater Watershed area covered under the LA County MS4 Permit to which the assigned LA County MS4 Permittees' WLA applies. (The areal extent of the watershed area covered by the LA County MS4 Permit is 9,470 acres.) Table 5 on page 18 of the draft WMP needs to be revised to include the correct TMDL allowable loads for the County Island, specifically, and recalculated required pollutant load	Please see the response to comment 22. Comment noted, the subject table has been updated to reflect the values are daily loads not annual loads. An updated discussion of scheduling has been added to section 6.3.6

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		<p>reductions. (Also, the table needs to be corrected to state that the TMDL establishes an allowable daily load; the allowable loads for lead and zinc are presented as annual loads not daily loads.)</p> <p>Identification of potential BMPs and modeling of these BMP scenarios for the reasonable assurance analysis to ensure the required reductions are achieved should also be revised accordingly.</p>	
28	<p>Modeling Comments regarding analysis of copper, lead and zinc concentrations /loads</p>	<p>The model domain used for predicting flow volume and pollutant loading is limited in the County Island area, which is located within WMMS subbasin 5505. As such, the model prediction did not take upstream and neighboring hydrological contribution of flow and pollutant loading into account. This is based on the assumption that these surrounding flows and pollutant loading will be addressed by the Los Cerritos Channel Watershed Management Program submitted by other LA County MS4 Permittees.</p>	<p>The AB/LCC group can only model what is in its jurisdiction. The Los Cerritos Channel Group has provided an RAA which accounts for their jurisdictional area in the watershed.</p>
29		<p>The model predicted flow volume appears to be used as an indicator of required pollutant load reductions for wet weather condition. Thus, the predicted flow volume becomes a very important parameter for evaluating each BMP's performance and required load reductions. In addition to Figures 6 and 7, the model results of daily storm flow volume originating from County Island and the frequency analysis should be presented in tabular form to identify the predicted 90th percentile daily flow volume. Additionally, more description should be presented in the report regarding how the daily pollutant loads for copper, lead, and zinc from the County Island were derived, as identified on page 17.</p>	<p>Comment noted, tabular results of daily flow volume can be found in the Appendix E. An additional write-up has been included describing how the daily pollutant loads for copper, lead and zinc were derived.</p>

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30		The report did not describe how the model was calibrated, including calibration results compared to calibration criteria in Table 3.0 of the RAA Guidelines, and no historical hydrology and water quality monitoring data were used for comparison with the model results for the baseline prediction. According to Part G, pages 12-13 of the RAA Guidelines, model calibration is necessary to ensure that the model can properly assess all the variables and conditions in a watershed system. If hydrology data are not currently available, the necessary data should be collected so that the model can be calibrated and/or validated during the adaptive management process. Water quality data are available from the Stearns Street mass emission station, which could be used for water quality calibration.	Table 3.0 of the RAA guidelines provides criteria for calibration of the following parameters: Hydrology/Flow, Sediment, Water Temperature, Water Quality/Nutrients and Pesticides/Toxics. This information is not available for the County Island. During Implementation of the CIMP, data specific to the Palo Verde Drain subwatershed will be collected. Additionally, data specific to the County Island may be collected if water quality exceedances are seen downstream. The model will be calibrated when data becomes available as part of the adaptive management process.
31		For the baseline condition, per RAA Guideline, in Table 5 on pages 20-21, the model predicted concentrations for copper, lead, and zinc under the wet weather critical condition should be presented in the table in addition the baseline loads for the County Island.	Comment noted, a new table has been added to Section 6.3.4.
32		The required reduction targets in pollutant load from baseline identified in Table 5 of the Report for wet weather should be explained in more detail and also presented in time series as the difference of baseline concentrations/loads from allowable concentrations/loads of each pollutant under long term continuous simulation. Further, as described earlier, the TMDL allowable loads presented in Table 5 appear to be incorrect as well as the required load reductions, which are derived from the baseline loads and allowable loads.	Comment noted. See Appendix G for time series graphs. Please see the response to comment 22
33		The report did not provide predicted pollutant concentrations in the receiving water or at the downstream outlets of the County Island to demonstrate that receiving water limitations will be achieved.	Comment noted, the AB/LCC's RAA analyzed the groups compliance with WQBEL's, not RWL.
34		The ID number for subbasin 5505 and each neighboring subwatershed used in the model simulation must be provided and be shown in the simulation domain to present the geographic relationship of the subwatersheds simulated in the LSPC model.	Comment noted, the analysis only used sub basin 5505. A map showing neighboring sub basins is provided in the RAA section.

Comment #	LA County MS4 Permit Provision/Issue	Summary of Comments and Necessary Revisions	Response
35		The flow and water quality time series output at the watershed outlet must be provided using the 90th percentile of modeled pollutant concentration and mass per day for wet event days consistent with the expression of the WQBELs to estimate the baseline concentration and mass. In addition, per RAA Guidelines, the model output should include storm water runoff at outlet for baseline and each BMP scenario as well (See Table 5. Model Output for Both Process-based BMP Models and Empirically-based BMP Models, pages 20-21 of the RAA Guidelines).	The flow and water quality time series are presented in the WMP resubmittal. The revised WMP presents load reductions needed to achieve interim and final limits. The revised WMP presents the BMPs which will be implemented to meet the interim deadlines in the current MS4 permit term. BMP scenarios to meet future deadlines will be guided by data from the CIMP to refine the RAA. As discussed in Section 6.2 of the revised WMP, dry weather runoff originating from the County Island has not been found in numerous screening.
36		While copper is identified in Table 3 as a Category 1 pollutant in both wet and dry weather conditions, model simulation for copper in Los Cerritos Channel under the dry weather condition was not included in the RAA.	An expanded discussion of Copper (Section 6.3.5.2) and dry weather modeling (Section 6.2) has been added to the revised WMP.
37		Per the RAA Guidelines, the required load reductions to achieve interim and final WQBELs per the required compliance deadlines should be evaluated at the jurisdictional boundary of each subwatershed to demonstrate that the proposed control measures will ensure that each Group's MS4 discharges achieve effluent limitations and do not cause or contribute to exceedances of receiving water limitations. The BMP performance model proposed in the RAA Guidelines should be used to predict the pollutant reduction for BMPs identified in Section 5.2.5 of the Report. Section 5.2.6 of the draft WMP does not clearly present, or analyze in the RAA, the BMP scenarios to meet the interim compliance deadlines in 2017, 2020 or 2023 during wet weather conditions or the interim deadlines in 2017 and 2020 and the final deadline in 2023 during dry weather conditions.	The revised WMP presents load reductions needed to achieve interim and final limits. The revised WMP presents the BMPs which will be implemented to meet the interim deadlines in the current MS4 permit term. BMP scenarios to meet future deadlines will be guided by data from the CIMP to refine the RAA. As discussed in Section 6.2 of the revised WMP, dry weather runoff originating from the County Island has not been found in numerous screening.

Comment #	LA County MS4 Permit Provision/Issue	Summary of Comments and Necessary Revisions	Response
38	Modeling comments regarding lack of analysis for other Categories 1, 2 and 3 waterbody pollutant combinations	Baseline loading and required reductions to achieve effluent limitations for total lead, zinc, DDT, PAHs, PCBs, Chlordane and Dieldrin in sediment discharged from the MS4 to Colorado Lagoon, and for total copper, lead, zinc, PAHs, DDT, and PCBs for San Pedro Bay were not modeled in the Report, nor were proposed watershed control measures evaluated in the model to determine if effluent limitations for these pollutants would be achieved upon implementation of the proposed measures.	The LACFCD doesn't have jurisdiction of the land uses that create the pollutants of concern in the Colorado Lagoon watershed. This area is under the jurisdiction of the City of Long Beach and will be addressed under Long Beach's WMP which will be submitted in March 2015. As Long Beach develops and implements their WMP, the LACFCD will determine on a case-by-case basis it's collaboration and contribution on future projects.
39		Baseline loading and required reductions for Category 2 and Category 3 pollutants, including but not limited to indicator bacteria and ammonia, were not modeled, nor were proposed watershed control measures evaluated in the model to determine if receiving water limitations for these pollutants would be achieved upon implementation of the proposed measures.	An expanded discussion of Category 2 and 3 pollutants is included in Section 6.3.4

Alamitos Bay/Los Cerritos Channel

Coordinated Integrated Monitoring Program

Submitted to:

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Los Angeles Region**
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Revised February 18, 2015

RB-AR2986

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List of Abbreviations

AB/LCC	Alamitos Bay/Los Cerritos Channel
BPA	Basin Plan Amendment
BMP	Best Management Practice
CIMP	Coordinated Integrated Monitoring Program
CLTMP	Colorado Lagoon TMDL Monitoring Plan
DEHP	Bis(2-ethylhexyl) phthalate
DDT	Dichlorodiphenyltrichloroethane
EPA	Environmental Protection Agency
GIS	Geographic Information System
HRU	Hydrologic Response Unit
IC/ID	Illicit Connections and Illicit Discharges
LACFCD	Los Angeles County Flood Control District
LARWCQB	Los Angeles Regional Water Quality Control Board
LCCWG	Los Cerritos Channel Watershed Group
LID	Low Impact Development
MAL	Municipal Action Level
MBAS	Methylene Blue Active Substances
MCM	Minimum Control Measure
MDL	Minimum Detection Limit
MES	Mass Emissions Station
MS4	Municipal Separate Storm Sewer System
MRP	Monitoring and Reporting Program
N	Nitrogen
NPDES	National Pollutant Discharge Elimination System
NSW	Non Stormwater
PCBs	Polychlorinated Biphenyls
PIPP	Public Information and Participation Program
QA/QC	Quality Assurance/Quality Control
RAA	Reasonable Assurance Analysis
RMC	Regional Monitoring Coalition
RWL	Receiving Water Limitations
SMC	Southern California Stormwater Monitoring Coalition
TMDL	Total Maximum Daily Load
TN	Total Nitrogen
TP	Total Phosphorus
USEPA	United State Environmental Protection Agency
WLA	Waste Load Allocation
WMA	Watershed Management Area
WQBELs	Water Quality Based Effluent Limitations

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Section 1. Introduction

1.1 BACKGROUND

The Alamitos Bay/Los Cerritos Channel (AB/LCC) Coordinated Integrated Monitoring Program (CIMP) is a collaborative effort between the County of Los Angeles (County) and the Los Angeles County Flood Control District (LACFCD). The geographic scope of this CIMP includes a 95-acre County Island, the LACFCD infrastructure within that island, and the LACFCD infrastructure within the Los Cerritos Channel estuary and Alamitos Bay watersheds. The geographic area of this CIMP is shown in Figure 1. It is important to note that the 95-acre County Island is located within the separate Los Cerritos Channel Freshwater Watershed.

As shown in Figure 1, this CIMP Group, makes up a very small portion of the overall Watershed Management Area. This CIMP is being submitted to meet the Monitoring and Reporting Program requirements outlined in Attachment E of the National Pollutant Discharge Elimination System (NPDES) Municipal Separate Storm Sewer System (MS4) Permit No. R4-2012-0178 (Permit). The Permit was adopted on November 8, 2012 and became effective December 28, 2012.

1.2 OBJECTIVE

Section II of Attachment E of the Permit states the primary objectives of the Monitoring Program are to:

- Assess the chemical, physical, and biological impacts of discharges from the MS4 on receiving waters.
- Assess compliance with receiving water limitations and water quality-based effluent limitations (WQBELs) established to implement Total Maximum Daily Load (TMDL) wet weather and dry weather wasteload allocations (WLAs).
- Characterize pollutant loads in MS4 discharges.
- Identify sources of pollutants in MS4 discharges.
- Measure and improve the effectiveness of pollutant controls implemented under the Permit

1.3 APPROACH

This CIMP utilizes existing monitoring efforts that the County and LACFCD are participating in and proposes additional efforts to meet the objectives of the Permit. Additionally, this CIMP maximizes coordination opportunities with other CIMPs in the Watershed Management Area. Table 13 (page 35) of this CIMP identifies the County's and the LACFCD's monitoring requirements per the Permit, and lists the existing monitoring programs the County and LACFCD participate in.

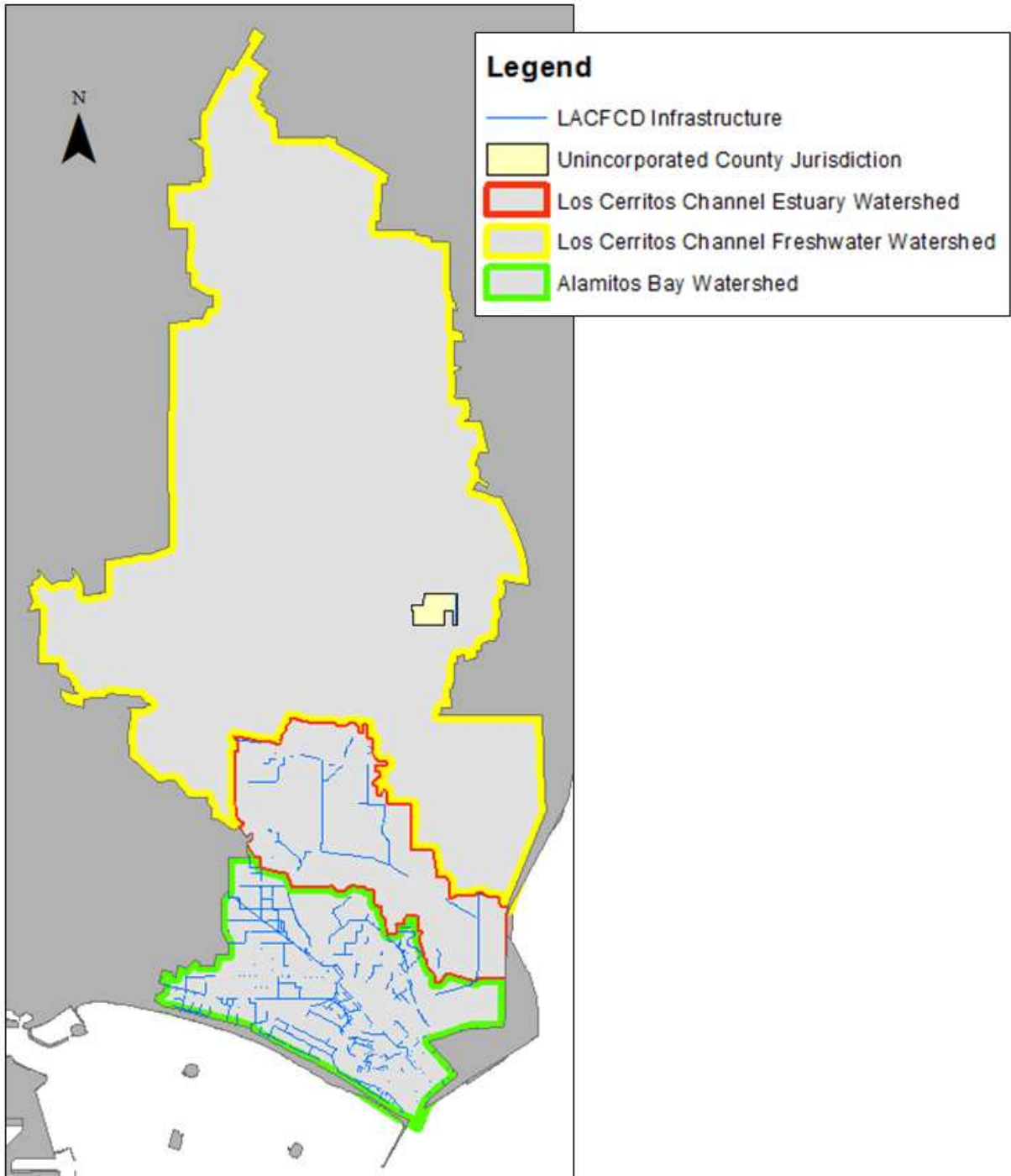


Figure 1: Three Subwatersheds within Alamitos Bay Watershed Management Area

1.4 AB/LCC WATERSHED MANAGEMENT AREA

The AB/LCC Watershed Management Area is located in southern Los Angeles County and has a drainage area of approximately 37.5 square miles. The AB/LCC Watershed Management Area encompasses the Los Cerritos Channel freshwater watershed (which includes all or portions of the Cities of Bellflower, Cerritos, Downey, Lakewood, Long Beach, Paramount and Signal Hill, and a 95-acre County Island), the Los Cerritos Channel estuary watershed (located in Long Beach) and the Alamitos Bay watershed (located in Long Beach). These watersheds and the areas covered in this CIMP are shown in Figure 1. It should be noted that within the Watershed Management Area there are multiple existing monitoring programs as well as parallel CIMP efforts. This CIMP Group has made significant efforts to coordinate with other programs in the Watershed Management Area.

This AB/LCC CIMP only includes the 95-acre County Island, the LACFCD infrastructure within that island, and the LACFCD infrastructure within the Los Cerritos Channel estuary watershed, and the Alamitos Bay watershed. It is important to note that the AB/LCC WMP has very limited jurisdiction in the overall Watershed Management Area since the County only has land use jurisdiction over the 95-acre County Island, and the LACFCD does not own or operate any municipal sanitary sewer systems, public streets, roads, or highways – the LACFCD only operates and maintains storm drains and other appurtenant drainage infrastructure. A detailed description of the LACFCD can be found in Attachment A.

1.4.1 Los Cerritos Channel Freshwater Watershed

The Los Cerritos Channel freshwater watershed has a total drainage area of approximately 27.7 square miles. The Los Cerritos Channel freshwater watershed drains to a concrete lined channel, which is operated and maintained by the LACFCD. Generally, the downstream limit of the freshwater watershed is considered to be just south of Atherton Street as shown in Figure 2. It should be noted that high tides could push tidal surges upstream of Atherton Street. The drainage area of the freshwater watershed is within the jurisdiction of the County, CALTRANS and several cities including Bellflower, Cerritos, Downey, Lakewood, Long Beach, Paramount and Signal Hill.



Figure 2: Los Cerritos Channel Freshwater/Estuary Transition

1.4.2 Los Cerritos Channel Estuary Watershed

The Los Cerritos Channel Estuary (Estuary) is approximately 1.5 miles long and extends from just south of Atherton St. to the Alamitos Bay. The Estuary is under tidal influence (Figure 3) and is characterized by a trapezoidal geometry with rip-rap sides and a natural bottom. The drainage area directly tributary to the Estuary is approximately 4.1 square miles. The Estuary is under the jurisdiction of the LACFCD while the drainage area consists entirely of the City of Long Beach and CALTRANS.



Figure 3: Los Cerritos Channel Estuary

1.4.3 Alamitos Bay Watershed

The Alamitos Bay Watershed has a total drainage area of approximately 5.7 square miles. This area includes the Colorado Lagoon which is situated at the northwestern end of Alamitos Bay. The Colorado Lagoon subwatershed is approximately 1.8 square miles. Alamitos Bay and Colorado Lagoon are hydraulically connected via an underground culvert that connects Colorado Lagoon to the Marine Stadium portion of Alamitos Bay. The Alamitos Bay watershed's drainage area is completely within the jurisdiction of the City of Long Beach and CALTRANS.



Figure 4: Colorado Lagoon

1.4.4 County Island

Within the AB/LCC Watershed Management Area is the County Island is known as the “North Long Beach Island”. The County Island is landlocked within the City of Long Beach (Figure 5). The County Island is 95 acres (0.15 square miles) and is predominantly Single Family Residential Land Use.



Figure 5: Unincorporated County Island

Section 2. Existing TMDLs and Monitoring Programs in the AB/LCC WMA

Within the AB/LCC Watershed Management Area, there are 3 existing TMDLs which each require Monitoring and Reporting Programs.

2.1 LOS CERRITOS CHANNEL METALS TMDL

The Total Maximum Daily Load for Metals in Los Cerritos Channel (LCC Metals TMDL) was approved by the United States Environmental Protection Agency (USEPA) on March 17, 2010. The Metals TMDL was developed to address beneficial use impairments due to Copper, Zinc and Lead in the freshwater portion of the Los Cerritos Channel. The freshwater portion of Los Cerritos Channel has the existing beneficial use of Wildlife Habitat (WILD), the potential beneficial uses of Municipal and Domestic Supply (MUN), Water Contact Recreation (REC1) and the intermittent beneficial uses of Warm Freshwater Habitat (WARM), and Non-contact Water Recreation (REC2).

On June 6, 2013, the Los Angeles Regional Water Quality Control Board (LARWQCB) adopted a resolution which includes an Implementation Schedule for the LCC Metals TMDL. The Implementation Schedule states that MS4 permittees shall submit a coordinated monitoring plan, which includes compliance and receiving water monitoring by September 30, 2015. A monitoring plan submitted pursuant to the NPDES Permit may be used by permittees to satisfy the TMDL monitoring requirements. This CIMP Group, and the Los Cerritos Channel Watershed Group (LCCWG), are submitting CIMPs to satisfy the coordinated monitoring plan requirements of the LCC Metals TMDL. Details on this can be found in Section 3.1, 4 and 5.

2.2 DOMINGUEZ CHANNEL TOXICS TMDL

The Total Maximum Daily Load for Toxic Pollutants in Dominguez Channel and Greater Los Angeles and Long Beach Harbor Waters (DC Toxics TMDL) was adopted by the LARWQCB on May 5, 2011. The DC Toxics TMDL became effective on March 23, 2012. The goal of the TMDL is to protect and restore fish tissue, water and sediment quality in Dominguez Channel and Greater Los Angeles and Long Beach Harbor waters by remediating contaminated sediment and controlling the sediment loading and accumulation of contaminated sediment in the Harbors.

The County and the LACFCD are both listed as responsible parties for the Greater Harbors waterbody. The DC Toxics TMDL states that

“The Greater Los Angeles and Long Beach Harbors responsible parties are each individually responsible for conducting water, sediment, and fish tissue monitoring. However, they are encouraged to collaborate or coordinate their efforts to avoid duplication and reduce associated costs” (DC Toxics TMDL, Basin Plan Amendment pg. 27).

Accordingly, both County and LACFCD are participating in the Greater Harbors Regional Monitoring Coalition (RMC). More information can be found in Section 4.3.2.

As recognized by the footnote in Attachment K-7 of the Permit, the County and the LACFCD have entered into an Amended Consent Decree with the United States and the State of California, including the LARWQCB, pursuant to which the LARWQCB has released the County and the LACFCD from responsibility for Toxic pollutants in the Dominguez Channel and the Greater

Harbors. Accordingly, no inference should be drawn from the submission of this CIMP or from any action or implementation taken pursuant to it that the County or the LACFCD is obligated to implement the DC Toxics TMDL, including this CIMP or any of the DC Toxics TMDL's other obligations or plans, or that the County or the LACFCD have waived any rights under the Amended Consent Decree.

2.3 COLORADO LAGOON TOXICS TMDL MONITORING PLAN

The Colorado Lagoon Organochlorine Pesticides, PCBs, Sediment Toxicity, PAHs, and Metals TMDL (Colorado Lagoon Toxics TMDL) was adopted by the LARWQCB on October 1, 2009. The Colorado Lagoon Toxics TMDL was developed to restore fish tissue and sediment in Colorado Lagoon by controlling the contaminated sediment loading and accumulation of contaminated sediment in the lagoon. The Colorado Lagoon has beneficial uses of Commercial and Sport Fishing (COMM), Wildlife Habitat (WILD), Shellfish Harvesting (SHELL), Water Contact Recreation (REC1), Non-Contact water recreation (REC2) and the potential use of Warm Freshwater Habitat (WARM).

On December 17, 2012 the LACFCD along the City of Long Beach and CALTRANS submitted the Final Colorado Lagoon TMDL Monitoring Plan (CLTMP). More information on this monitoring program can be found in Section 4.3.3.

2.4 BENEFICIAL USES

Beneficial uses for waterbodies in the AB/LCC Watershed Management Area are shown in Table 1.

Table 1: Beneficial Uses in AB/LCC WMA

Water Body	Beneficial Uses	
Los Cerritos Channel Freshwater Segment	Existing	Wildlife Habitat (WILD)
	Potential	Municipal and Domestic Supply (MUN) Water Contact Recreation (REC1)
	Intermittent	Warm Freshwater Habitat (WARM) Non-contact Water Recreation (REC2)
Los Cerritos Channel Estuary	Existing	Industrial Service Supply (IND) Navigation (NAV) Commercial and Sport Fishing (COMM) Estuarine Habitat (EST) Marine Habitat (MAR) Wildlife Habitat (WILD) Rare, Threatened, or Endangered Species (RARE) Migration of Aquatic Organisms (MIGR) Spawning, Reproduction, and/or Early Development (SPWN) Shellfish Harvesting (SHELL) Water Contact Recreation (REC1) Non-Contact water recreation (REC2)
Colorado Lagoon	Existing	Commercial and Sport Fishing (COMM) Wildlife Habitat (WILD) Shellfish Harvesting (SHELL) Water Contact Recreation (REC1) Non-Contact water recreation (REC2)
	Potential	Warm Freshwater Habitat (WARM)
Marine Stadium	Existing	Water Contact Recreation (REC1) Non-Contact water recreation (REC2)
Alamitos Bay	Existing	Water Contact Recreation (REC1) Non-Contact water recreation (REC2)

Section 3. Water Quality Priorities

3.1 OBJECTIVE

Per Section VI.C.5 of the Permit, three categories of pollutants are identified to aid in the evaluation of existing water quality conditions. These classifications consist of:

- Category 1 (Highest Priority): Water body-pollutant combinations for which water quality-based effluent limitations and/or receiving water limitations are established in Part VI.E and Attachments L through R of the Permit.
- Category 2 (High Priority): Pollutants for which data indicate water quality impairment in the receiving water according to the State's Water Quality Control Policy for Developing California's Clean Water Act Section 303(d) List (State Listing Policy) and for which MS4 discharges may be causing or contributing to the impairment.
- Category 3 (Medium Priority): Pollutants for which there are insufficient data to indicate water quality impairment in the receiving water according to the State's Listing Policy, but which exceed applicable receiving water limitations contained in the Permit and for which MS4 discharges may be causing or contributing to the exceedance"

This CIMP Group is coordinating portions of its monitoring efforts, where feasible, with the Los Cerritos Channel Watershed Group (LCCWG). The LCCWG consists of the cities of Bellflower, Cerritos, Downey, Lakewood, Long Beach, Paramount and Signal Hill. Additionally, the LCCWG contains the LACFCD's infrastructure within these cities' jurisdictions. See Figure 6 for the geographical boundaries of the LCCWG.

The LACFCD does not have jurisdiction of the land uses that create the pollutants of concern in the Alamitos Bay, Colorado Lagoon and Los Cerritos Channel Estuary watersheds. These areas are under the jurisdiction of the City of Long Beach and will be addressed under Long Beach's WMP/CIMP which will be submitted in March 2015. Accordingly, Water Quality Priorities for the Alamitos Bay, Colorado Lagoon and Los Cerritos Channel Estuary will be addressed in Long Beach's WMP. Through adaptive management, the LACFCD will review Long Beach's WMP and consider on a case-by-case basis opportunities for collaboration on future projects.

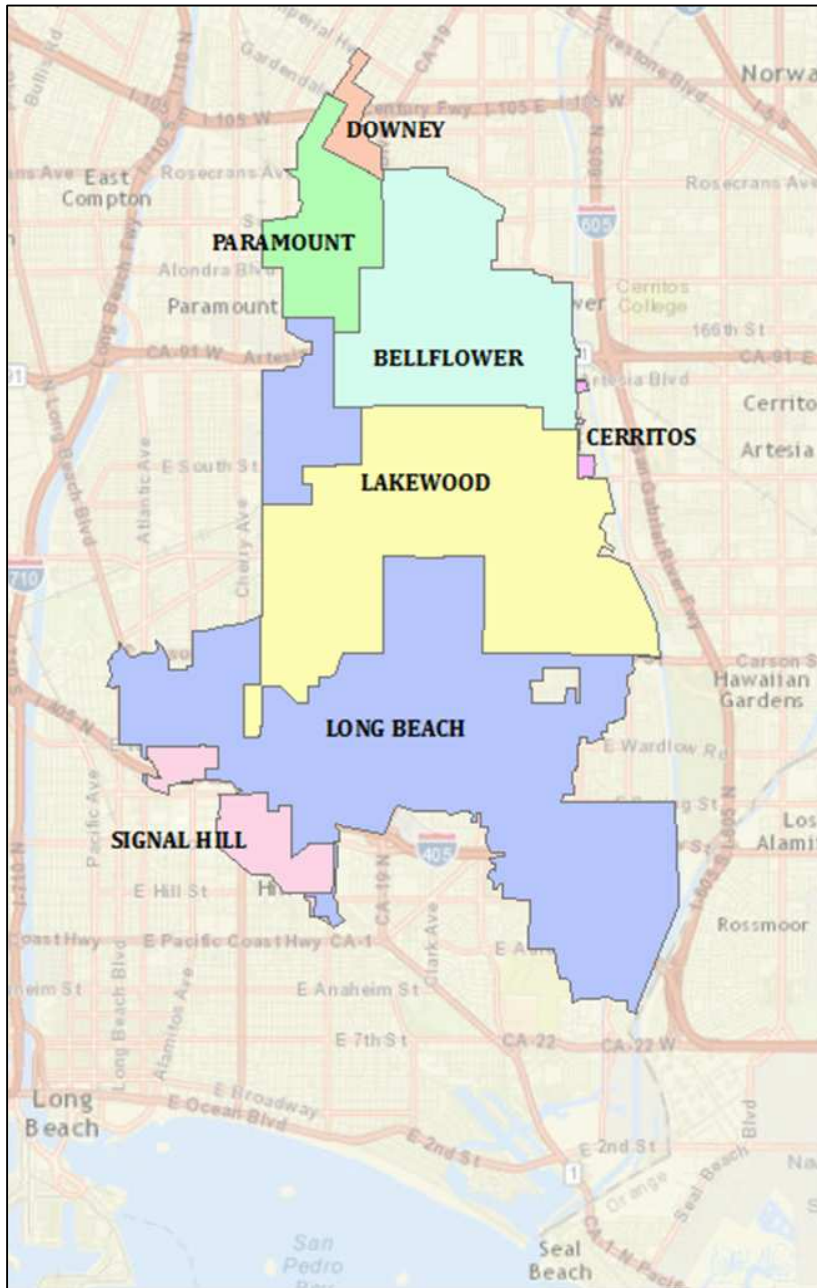


Figure 6: Los Cerritos Channel Watershed Group

For consistency with the LCCWG, this CIMP Group has identified Low Priority Pollutants. These pollutants fall below the requirements of Category 3; however there has been at least one exceedance of these pollutants within the past 10 years. Consistent with the requirements of the Permit, existing TMDLs and the 303(d) list were used to determine Category 1 and 2 pollutants. Historic monitoring data collected from the Stearns Street Station (Figure 7 and Figure 8) was used to determine Category 3 and low priority pollutants. Table 2 lists the pollutants of concern for the freshwater portion of the Los Cerritos Channel. A detailed analysis of these pollutants of concern and their priority category can be found in this Group’s WMP.

Table 2: Water Quality Priorities: Freshwater Portion of the Los Cerritos Channel

Waterbody	Category 1 (Highest Priority)		Category 2 (High Priority) Pollutants	Category 3 (Medium Priority) Pollutants	Low Priority Pollutants
	Pollutant	TMDL			
Freshwater Portion of Los Cerritos Channel	Copper (wet and dry)	LCC Metals	Ammonia	MBAS	Cadmium (wet)
	Lead	LCC Metals/DC Toxics	Bis(2-ethylhexyl) phthalate (DEHP)	Enterococcus	Chlorpyrifos (wet)
	Zinc	LCC Metals/DC Toxics	Coliform Bacteria		Chromium (wet)
	DDT (fish tissue)	DC Toxics	Trash		Diazinon (wet and dry)
	PCBs (fish tissue)	DC Toxics	pH		Dissolved Silver (wet)
	Chlordane (fish tissue)	DC Toxics			
	PAHs (sediment)	DC Toxics			
	Toxicity (sediment)	DC Toxics			

Section 4. Receiving Water Monitoring

This CIMP Group is providing a representative monitoring program which should characterize its discharge into the affected receiving waters. In order to provide efficiencies in monitoring costs and avoid duplicative efforts, receiving water monitoring will be conducted in coordination with other monitoring efforts.

4.1 OBJECTIVE

Per Section II.E.1, Attachment E. of the Permit, the objective of receiving water monitoring includes:

- Determine whether the receiving water limitations are being achieved,
- Assess trends in pollutant concentrations over time, or during specified conditions,
- Determine whether the designated beneficial uses are fully supported as determined by water chemistry, as well as aquatic toxicity and bioassessment monitoring.

This CIMP distinguishes two types of receiving water monitoring, MS4 Receiving Water Sites and TMDL Receiving Water Sites (TMDL Sites).

4.2 MS4 RECEIVING WATER SITE

This CIMP Group will coordinate with the LCCWG to use the existing mass emission station at the Stearns Street crossing of Los Cerritos Channel as the MS4 Receiving Water Site. The City of Long Beach has maintained this mass emission station since 2000. Upon implementation of the LCCWG and the AB/LCC Group's CIMPs, the City of Long Beach will coordinate with other agencies for the operation and maintenance of the Stearns Street Site. Monitoring will be conducted by the LCCWG and the County and LACFCD will cost share with the LCCWG. A Memorandum of Agreement is currently under development.

Additionally, the LCCWG will conduct the Toxicity Monitoring program required by Section XII of Attachment E of the Permit. The LACFCD and County will cost share on this effort. Should the results of the toxicity monitoring be inconclusive, there may be the necessity for Toxicity Monitoring of the County Island. If needed, this CIMP Group will follow the protocols and methods established by the LCCWG.



Figure 7: Stearns Street Mass Emission Station

The Stearns Street site is an ideal location as it assesses the overall health of the Los Cerritos Channel freshwater watershed. Additionally, since this is an existing site, implementation of monitoring at this site is expected to begin once CIMPs are approved by the LARWQCB.

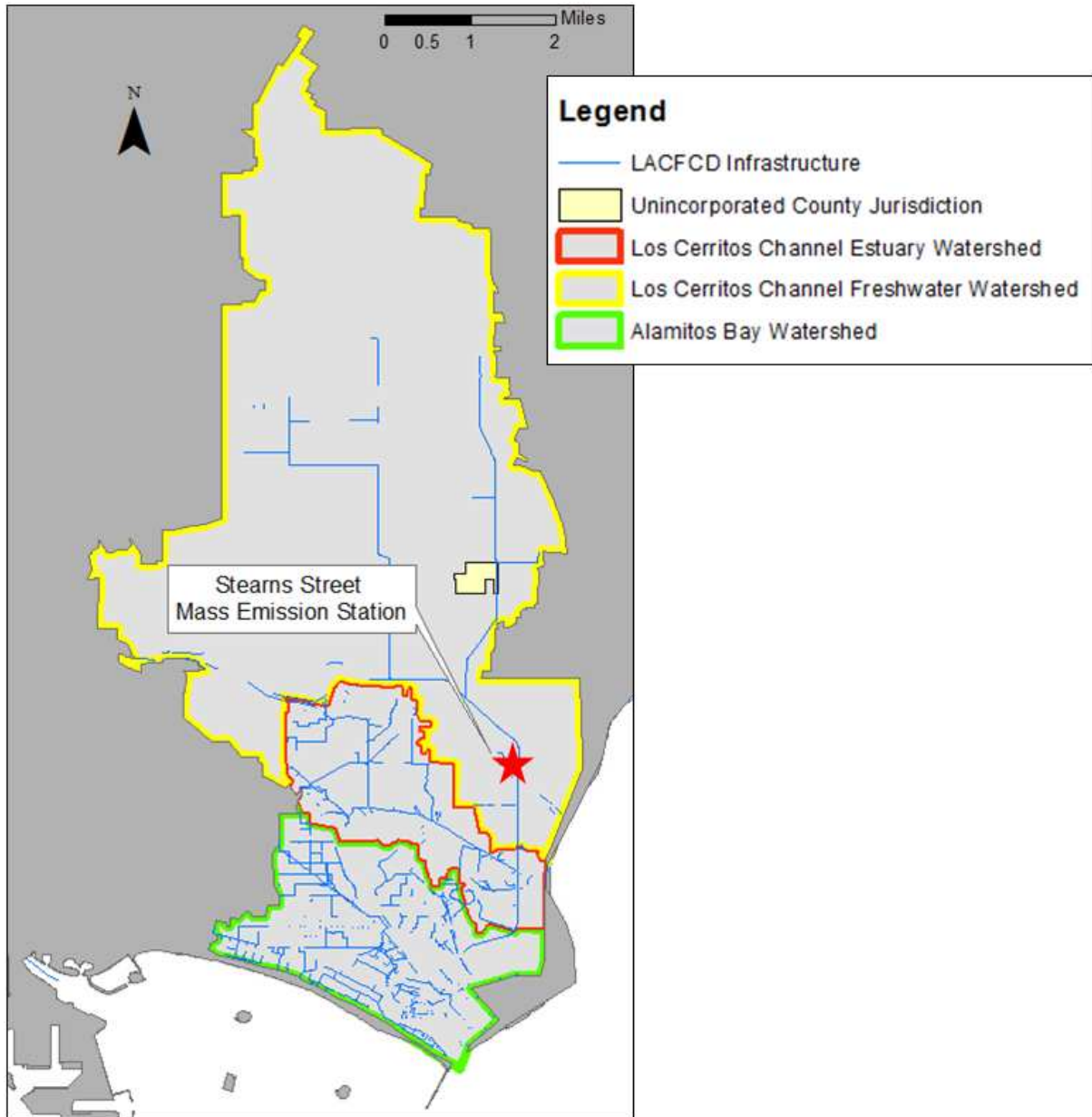


Figure 8: Stearns Street Mass Emission Station Location

Details on constituents, methods and frequency of sampling to be conducted at the Stearns Street site can be found in the *Coordinated Integrated Monitoring Plan for the Los Cerritos Channel Watershed Monitoring Group*.

Table 3: MS4 Receiving Water Monitoring Details

Permit Monitoring Program Elements:	Locations	Additional Information
Receiving Water Monitoring	Stearns Street Mass Emission Site	See <i>Coordinated Integrated Monitoring Plan for the Los Cerritos Channel Watershed Monitoring Group</i>

4.3 TMDL RECEIVING WATER SITES

There are three existing TMDLs in the AB/LCC Watershed Management Area for which receiving water monitoring is required. This CIMP Group will utilize existing monitoring programs and coordinate with parallel CIMP efforts where feasible. This CIMP Group may propose new monitoring locations based on results of the receiving water monitoring program through an adaptive process. The adaptive process is outlined in Figure 14.

4.3.1 Los Cerritos Channel Metals TMDL

The LCC Metals TMDL provides WLAs for both wet and dry weather expressed as flow/volumes multiplied by applicable numeric concentration targets and daily pollutant loading thresholds, respectively. Table 4 and Table 5 summarize those WLAs. It is important to note that the LCC Metals TMDL is only applicable to the Los Cerritos Channel freshwater watershed (Figure 1).

Table 4: Category 2: LCC Metals TMDL Wet Weather WLAs

Constituent	WLA Daily Maximum (g/day)
Copper	$4.709 \times 10^{-6} \times \text{daily storm volume (L)}$
Lead	$26.852 \times 10^{-6} \times \text{daily storm volume (L)}$
Zinc	$46.027 \times 10^{-6} \times \text{daily storm volume (L)}$

Table 5: Category 2: LCC Metals TMDL Dry Weather WLA

Constituent	WLA Daily Maximum (g/day)
Copper	67.2

This CIMP Group will collaborate its monitoring efforts with the LCCWG to determine the impact of Project 9 Unit 2 Line E (Palo Verde Drain) on the Los Cerritos Channel. Together, these groups will monitor at the mouth of the Palo Verde Drain, upstream of any backwater effects from the Los Cerritos Channel. The discharge at this site also includes runoff from Cities of Cerritos, Lakewood and Long Beach. Accordingly, monitoring results at this location will be a representative of the cumulative contribution from all of these jurisdictions. The monitoring in the Palo Verde Drain will be conducted by the LCCWG. A photo and the location of this site are shown in Figures 9 and 10, respectively. The County and LACFCD will cost share for their

share of monitoring costs. Details on constituents, methods and frequency of sampling can be found in the *Coordinated Integrated Monitoring Plan for the Los Cerritos Channel Watershed Monitoring Group*.



Figure 9: Palo Verde Drain: LCC Metals TMDL Receiving Water Site

Figure 9 shows the channel configuration looking upstream towards Spring Street. At this location, Palo Verde Drain is a 24-foot by 8-foot rectangular concrete storm drain built in the early 1960s. The storm drain was constructed and is maintained by the LACFCD.

Table 6: Los Cerritos Metals TMDL Receiving Water Monitoring Details

<i>Permit Monitoring Program Elements:</i>	Locations	Additional Information
<i>Los Cerritos Metals TMDL</i>	Palo Verde Drain Site/ Stearns Street Mass Emission Site	See <i>Coordinated Integrated Monitoring Plan for the Los Cerritos Channel Watershed Monitoring Group</i>

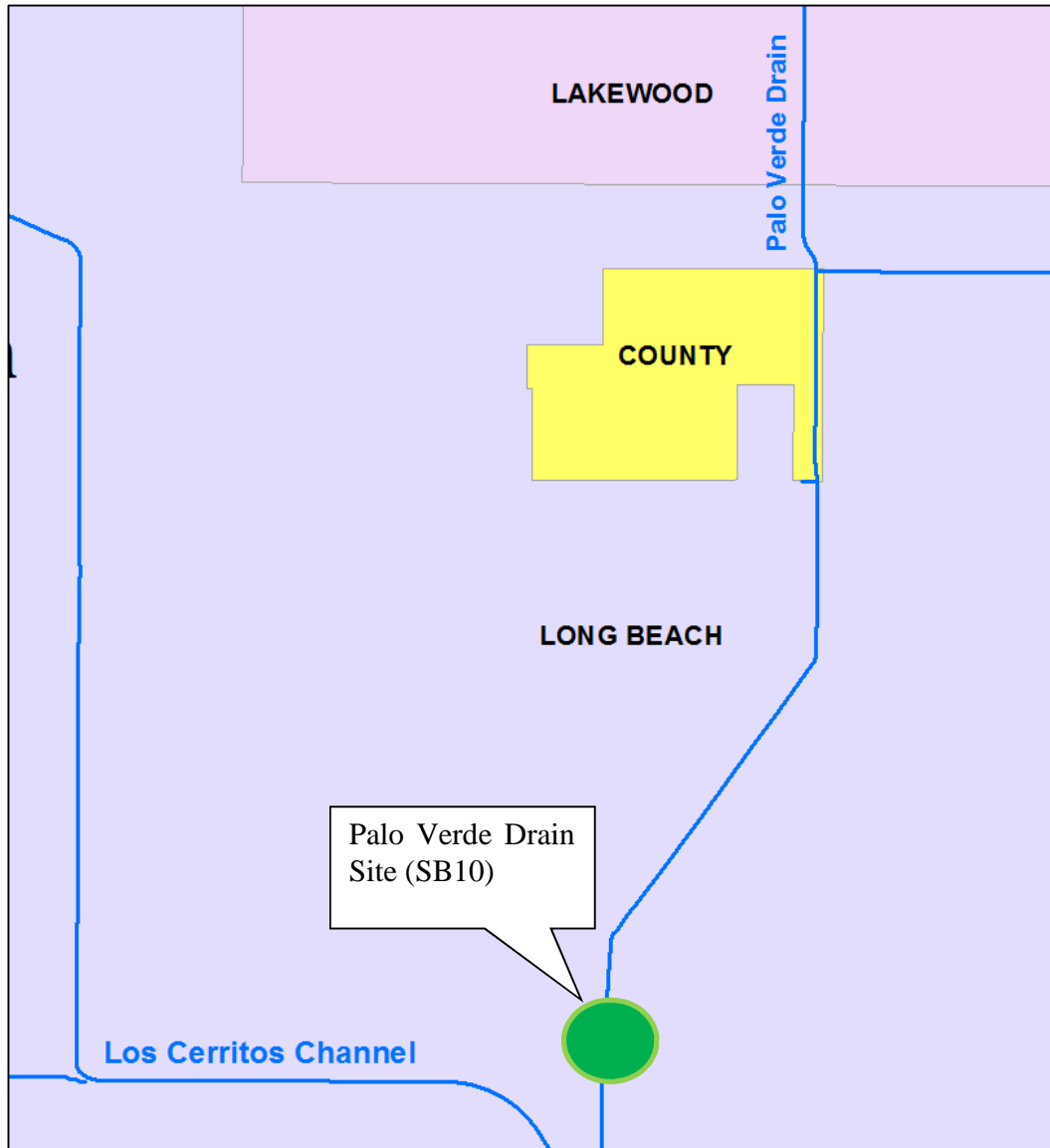


Figure 10: Palo Verde Drain: LCC Metals TMDL Receiving Water Site

The Palo Verde Drain subwatershed is approximately 5.3 square miles consisting of various land uses. The County Island makes up 2.8% of the Palo Verde Drain subwatershed. Table 5 shows the Hydrologic Response Units (HRU) for the Palo Verde Drain subwatershed and the County Island. The HRU is a combination of land use, soil hydrologic group and slope. The comparison in Table 5 shows that HRU breakdown of the County Island is very similar to that of the Palo Verde Drain subwatershed. Therefore, data obtained from the Palo Verde Drain Site will provide an indication of the County Island’s contribution to the receiving water.

Table 7: Hydraulic Response Unit Comparison

	Palo Verde Drain Subwatershed		County Island	
	Area [Acres]	Percentage	Area [Acres]	Percentage
High Density Single Family Residential	1623.6	48.3%	63.2	67.0%
Secondary Roads	836.4	24.9%	25.2	26.7%
Institutional	242.2	7.2%	4.0	4.2%
Commercial	162.8	4.8%	2.0	2.1%
Multifamily Residential	235.9	7.0%		
Low Density Single Family Residential Moderate Slope	119.1	3.5%		
Agriculture	60.6	1.8%		
Industrial	43.6	1.3%		
Transportation	34.4	1.0%		
Low Density Single Family Residential Steep Slope	1.8	0.1%		
Vacant	1.0	0.0%		

4.3.2 DC Toxics TMDL

The DC Toxics TMDL states:

“The Greater Los Angeles and Long Beach Harbors responsible parties are each individually responsible for conducting water, sediment, and fish tissue monitoring. However, they are encouraged to collaborate or coordinate their efforts to avoid duplication and reduce associated costs. Dischargers interested in coordinated compliance monitoring shall submit a coordinated monitoring plan” (BPA pg. 27).

Accordingly, the County and LACFCD are participants in the Greater Harbors RMC. The Greater Harbors RMC has prepared a comprehensive sampling and analysis program for the Greater Harbors which includes monitoring at 22 locations (Figure 11). For additional details, see the Coordinated Compliance Monitoring and Reporting Plan (CCMRP), Incorporating Quality Assurance Project Plan Components, Greater Los Angeles and Long Beach Harbor

Waters submitted to the LARWQCB on February 25, 2014. The County and LACFCD's participation includes cost sharing the preparation and implementation of the CCMRP.

Table 8: Dominguez Channel Toxics TMDL Receiving Water Monitoring Details

<i>Permit Monitoring Program Elements:</i>	Locations	Additional Information
<i>Dominguez Channel Toxics TMDL</i>	East San Pedro Bay Sites	See the <i>Coordinated Compliance Monitoring and Reporting Plan, Incorporating Quality Assurance Project Plan Components, Greater Los Angeles and Long Beach Harbor Waters</i> submitted to the LARWQCB on February 25, 2014.

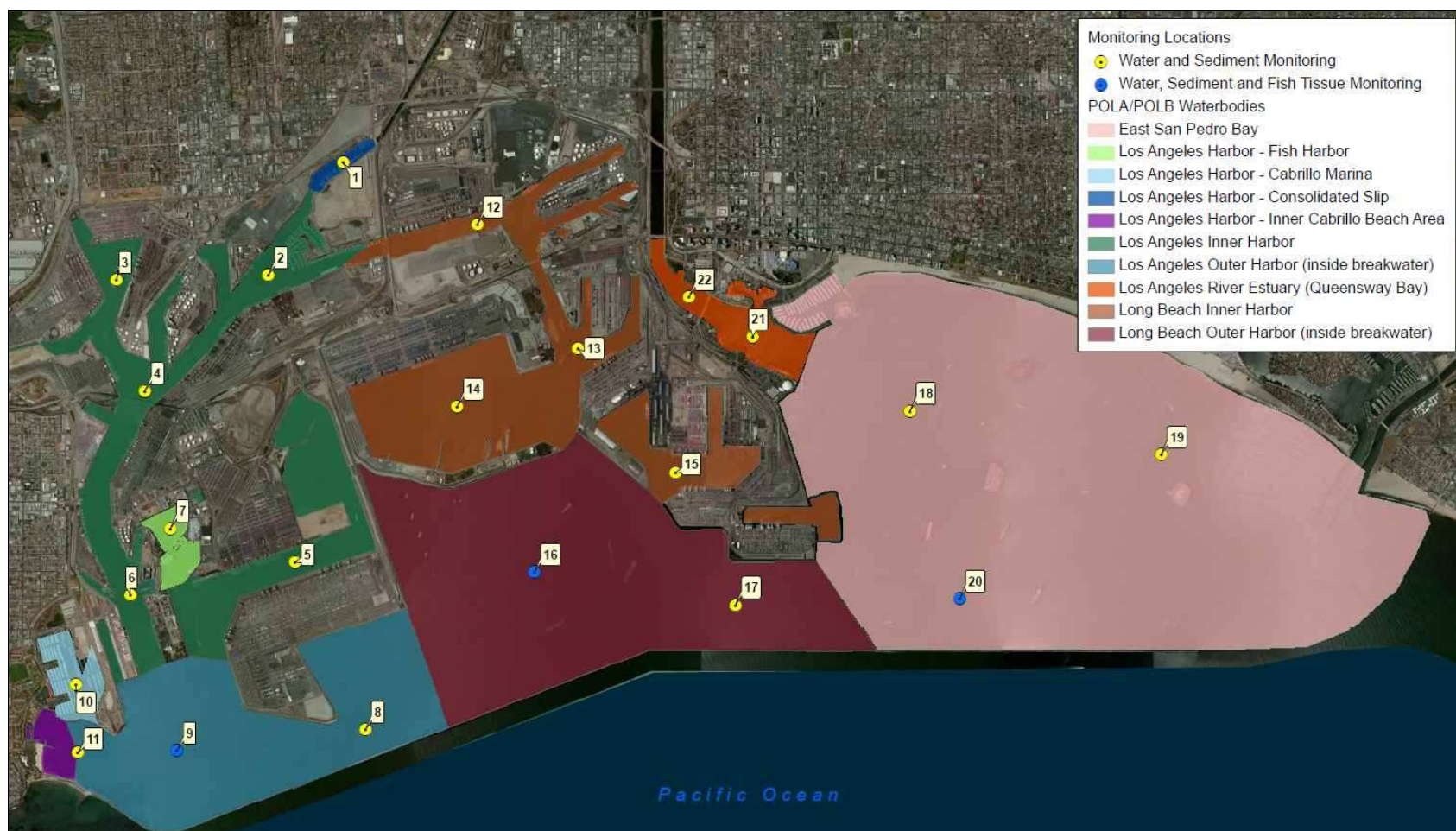


Figure 11: DC and Greater LA/LB Harbors Toxics TMDL Receiving Water Site

4.3.3 Colorado Lagoon Toxics TMDL

On December 17, 2012, the LACFCD along with the City of Long Beach and CALTRANS, submitted the Final Colorado Lagoon TMDL Monitoring Plan (CLTMP). The LACFCD and Long Beach have prepared a Memorandum of Agreement to cost share the preparation and implementation of the CLTMP. The goals of the CLTMP are:

- Determine compliance with organochlorine pesticides, PCBs, metals, and PAHs waste load and load allocations, and, when appropriate, request delisting of Colorado Lagoon from the 303(d) list of impaired water bodies.
- Monitor the effectiveness of implementation actions proposed by the responsible agencies on water and sediment quality, including potential impacts of redirecting discharges from the Termino Avenue Drain and from cleaning the culvert between Marine Stadium and Colorado Lagoon.
- Monitor contaminants in Lagoon sediments and determine if additional implementation actions are necessary to achieve the TMDL, and
- Implement the CLTMP in a manner consistent with other TMDL implementation plans and regulatory actions within the Colorado Lagoon watershed.

Monitoring per the approved CLTMP began in July 2013. The monitoring locations are shown in Figure 12. For more information, see the Final Colorado Lagoon TMDL Monitoring Plan (CLTMP) prepared for the City of Long Beach, LACFCD, CALTRANS dated December 17, 2012.

Table 9: Colorado Lagoon Metals TMDL Receiving Water Monitoring Details

<i>Permit Monitoring Program Elements:</i>	Locations	Additional Information
<i>Colorado Lagoon Metals TMDL</i>	Colorado Lagoon and Marine Stadium	See <i>Final Colorado Lagoon TMDL Monitoring Plan (CLTMP)</i> dated December 17, 2012



Figure 12: Colorado Lagoon Metals TMDL Receiving Water Sites

Section 5. Stormwater Outfall Monitoring

5.1 OBJECTIVE

Per Section II.E.2, Attachment E of the Permit the objective of stormwater outfall monitoring includes:

- Determine the quality of a Permittee’s discharge relative to municipal action levels, as described in Attachment G of the Permit,
- Determine whether a Permittee’s discharge is in compliance with applicable storm water WQBELs derived from TMDL WLAs,
- Determine whether a Permittee’s discharge causes or contributes to an exceedance of receiving water limitations”

5.2 APPROACH

To meet the stormwater outfall monitoring requirements, this CIMP group will collaborate with the LCCWG. The LCCWG’s CIMP proposes a “watershed segmentation approach” which monitors the major tributaries into the freshwater portion of the Los Cerritos Channel. Due to the unique characteristics of the Los Cerritos Channel Freshwater Watershed, assessing the contributions from major tributaries will efficiently direct a source investigation to determine the sources of pollutants in the watershed. The watershed segmentation approach combines elements of receiving water monitoring and stormwater outfall monitoring.

The Palo Verde Drain is a major tributary to the Los Cerritos Channel. Therefore, a monitoring location at the mouth of the Palo Verde Drain will adequately determine the quality of the subwatershed’s discharge into the downstream receiving water. Accordingly, the previously identified site in the Palo Verde Drain Site (SB10) will serve as the stormwater outfall monitoring location for the AB/LCC Group. The monitoring in the Palo Verde Drain will be conducted by the LCCWG. The County and LACFCD will cost share for their proportion of monitoring costs. Details on constituents, methods and frequency of sampling can be found in the *Coordinated Integrated Monitoring Plan for the Los Cerritos Channel Watershed Monitoring Group*. A detailed description of the Palo Verde Drain Site can be found in Section 4.3.1 of this CIMP.

Table 10: Stormwater Outfall Monitoring Details

Permit Monitoring Program Elements:	Locations	Additional Information
Stormwater Outfall Monitoring	Palo Verde Drain Site	See <i>Coordinated Integrated Monitoring Plan for the Los Cerritos Channel Watershed Monitoring Group</i>

Section 6. Non-Stormwater Outfall Monitoring Program

6.1 OBJECTIVE

Per Attachment E of the MS4 Permit, the objective of non-stormwater outfall based monitoring is:

- Determine whether a Permittee's discharge is in compliance with applicable non-stormwater WQBELs derived from TMDL WLAs
- Determine whether a Permittee's discharge exceeds non-stormwater action levels, as described in Attachment G of the Permit
- Determine whether a Permittee's discharge contributes to or causes an exceedance of receiving water limitations,
- Assist a Permittee in identifying illicit discharges as described in Part VI.D.10 of the Permit.

6.2 OUTFALLS WITHIN AB/LCC GROUP'S JURISDICTION

Within the CIMP Group's jurisdiction, there are a total of 4 MS4 outfalls (Figure 13). These outfalls were initially identified utilizing available GIS databases and as-built drawings. A field check was then done to verify the location and size of the outfalls. A detailed description and photos of the four outfalls within the Group's jurisdiction is shown in Table 6. It should be noted that LCLE-035 and LCLE-041 primarily serve other jurisdiction's land areas and very little of this CIMP Group's jurisdiction drains to these outfalls.

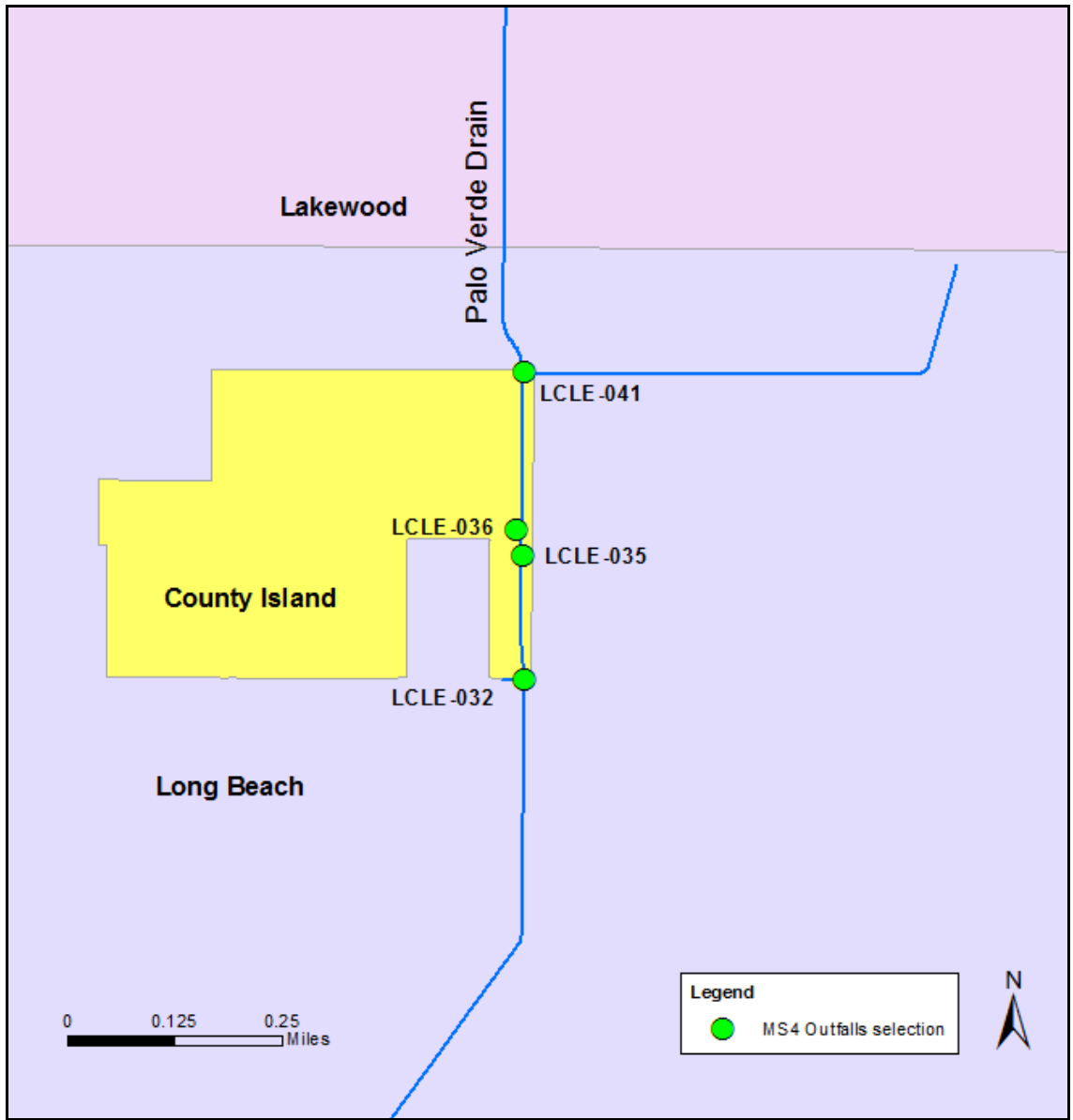






Figure 13: MS4 Outfalls in the CIMP Group's Jurisdiction

Table 11: CIMP Group's Outfall Description and Photo

Outfall ID Number	Outfall Dimensions	Picture	Spring Quarter		Fall Quarter	Winter Quarter
			Screening 1 (April 7, 2014)	Screening 2 (April 17, 2014)	(Dec. 9, 2014)	(Jan. 6, 2014)
LCLE-032	27 inch Circular Concrete Pipe		No Flow	No Flow	No Flow	No Flow
LCLE-035	35 inch x 22 inch Arch Corrugated Metal Pipe Drain		No Flow	No Flow	No Flow	No Flow
LCLE-036	56 inch Circular Concrete Pipe		No Flow	Trickle	No Flow	No Flow
LCLE-041	Two 72 x 47 inch Rectangular Concrete Outfalls		No Flow	No Flow	No Flow	Flow between Garden Hose and fire hydrant entering from Long Beach.

6.3 APPROACH

Non-stormwater screening and potential monitoring is being conducted by this CIMP group. Table 6 shows the screenings conducted to date. The following methodology is used to meet the objectives of non-stormwater based monitoring program. For the purpose of this CIMP, the Group is screening all outfalls in its jurisdiction. This CIMP Group has identified significant dry weather flow as:

- 1) Flow which is greater than a garden hose originating from the County Island
- 2) Flow that is seen at least 2 out of the 4 seasonal screening events.

6.3.1 Inventory of Outfalls

This CIMP Group has conducted an outfall inventory based on channel as-builts and available GIS databases. The inventory noted all outfalls greater than 12 inches in diameter. For this CIMP, major outfalls are defined as those 36 inches or greater. However, this CIMP group will screen all outfalls in its jurisdiction. In early 2014, the outfalls were verified in a field visit. Within the CIMP Group's jurisdiction there are 4 outfalls (Table 11).

6.3.2 Field Screening of Outfalls

The CIMP Group has conducted screenings over three seasons for the outfalls within its jurisdiction. The field screening program consists of observing each outfall during each season. The outfalls are visited at a minimum of three days after a rain event. The screenings are conducted during normal business hours. During the screening, the CIMP Group completes the Outfall Screening Form (Appendix B) and appropriate photos are taken. Each screening visually documents whether there is flow or if there is no flow leaving the outfalls. If there is flow, the source of the flow is identified or the flow is followed back to the County's boundary.

6.3.3 Determination of Further Assessment

After screenings for the four seasons are conducted, the CIMP Group will determine which outfalls require no further assessment. No further assessment is determined if after the screenings during 4 seasons, 2 of the seasonal screening show the outfalls:

- do not have flow
- do not have flow originating from the County Island
- do not have known significant non-stormwater discharge
- observed discharges were determined to be exempt

6.3.4 Prioritization Schedule

If any of the outfalls exhibit significant non-stormwater discharge originating from the County Island, the CIMP Group will prioritize the outfalls for further source investigations. As all of the outfalls discharge to the same waterbody, prioritization will identify the outfalls with the highest visually observed flow to be investigated first. The schedule will ensure that 25% of the outfalls with significant non-stormwater discharges will be investigated by December 28, 2015 and 100% of outfalls with significant non-stormwater discharges will be completed by December 28, 2017.

6.3.5 Non-Stormwater Source Identification

If any outfalls are determined to have significant non-stormwater discharges, a source investigation will be conducted including:

- following the dry weather flows upstream into the conveyance system until source is found or it is determined discharge is coming from a jurisdiction outside of the County Island
- researching if the flows are NPDES permitted, categorically exempt or natural flows
- field inspecting the drain for Illicit Connections/Illicit Discharges and eliminating the source
- reviewing land use and City jurisdiction information



Figure 14: MS4 Outfalls and Flow Direction in County Island

Figure 14 identifies the outfalls in the County Island and shows the direction of flow on each street in the County Island. Should significant flow enter the County's jurisdiction, the CIMP Group will notify that neighboring jurisdiction via telephone and email communication.

6.3.6 Monitor

If outfalls with significant non-stormwater discharge remain unaddressed after a source investigation, monitoring will be done to meet the following objectives:

- Determine whether the discharge is in compliance with applicable non-stormwater WQBELs
- Determine whether the quality of the discharge exceeds non-stormwater action levels described in Attachment G of the Permit
- Determine whether the discharge causes or contributes to the exceedance of Receiving Water Limitations.

The CIMP Group would conduct the non-stormwater outfall monitoring quarterly. These dry weather events would be coordinated with downstream LCC Metals monitoring events to determine the whether the non-stormwater discharges are causing or contributing to an observed exceedance of water quality objectives in the receiving water.

6.3.7 Reassessment

Monitoring under the non-stormwater program will cease if monitoring data shows that discharges do not exceed respective water quality standards for TMDL or 303(d) constituents. Updates to the non-stormwater monitoring program will be included in 2017 Annual Report or earlier if changes in the program are determined to be needed.

Consistent with Attachment E, Section IX.B.2 of the Permit, this CIMP group will conduct one re-assessment of its non-stormwater outfall screening prior to December 2017.

6.3.8 Inventory of MS4 Outfalls with Non-Stormwater Discharges

The CIMP Group will maintain a database documenting items identified in Part IX.D.2 of the Permit. The database will be completed after the Summer screening and submitted in the 2015 Annual Report. The subject database will be updated with the results of future screenings.

Table 12: Non-Stormwater Outfall Monitoring Details

<i>Permit Monitoring Program Elements:</i>	Locations	Additional Information
Non-Stormwater Outfall Monitoring Program	N/A: Screening shows no monitoring required	Screening and potential monitoring covered under this CIMP.

Section 7. New/Redevelopment BMP Effectiveness Tracking System

7.1 OVERVIEW

The County has developed mechanisms for tracking new development/re-development projects that have been conditioned for post-construction BMPs pursuant to Section VI.D.7 of the Permit. Additionally, mechanisms have been developed for tracking the effectiveness of BMPs pursuant to Permit Attachment E.X. The tracked information includes:

General Information

- Project Name and Developer Name
- Project Location and Map
- Documentation of issuance of requirements to the developer
- Date of Certification of Occupancy

On-Site BMP Sizing Information

- 85th percentile storm event (inches per 24 hours)
- 95th percentile storm event (inches per 24 hours)
- Project design storm (inches per 24 hours)
- Project design volume (gallons or millions of gallons per day)
- Percent of design storm volume to be retained on site
- Other design criteria required to meet hydromodification requirements for projects that directly drain to natural water bodies
- One-year, one-hour storm intensity as depicted on the most recently issued isohyetal map published by the Los Angeles County Hydrologist for flow-through BMPs

Off-Site BMP Information

- Location and maps of off-site mitigation, groundwater replenishment, or retrofit sites
- Design volume for water quality mitigation treatment BMPs
- Percent of design storm volume to be infiltrated at an off-site mitigation or groundwater replenishment project site
- Percent of design storm volume to be retained or treated with biofiltration at an off-site retrofit project

Section 8. Regional Studies

8.1 OVERVIEW

The LACFCD will continue to participate in the Regional Watershed Monitoring Program (Biosassessment Program) being managed by the Southern California Stormwater Monitoring Coalition (SMC). The LACFCD will contribute necessary resources to implement the bioassessment monitoring requirement of the MS4 permit on behalf of all permittees in Los Angeles County during the current permit cycle. Initiated in 2008, the SMC's Regional Bioassessment Program is designed to run over a five-year cycle. Monitoring under the first cycle concluded in 2013, with reporting of findings and additional special studies planned to occur in 2014. SMC, including LACFCD, is currently working on designing the bioassessment monitoring program for the next five-year cycle, which is scheduled to run from 2015 to 2019.

Section 9. Optional Source Identification: County Island

9.1 OVERVIEW

The County Island’s stormwater quality will be primarily indicated based on results at the Palo Verde Drain TMDL site. The County plans to implement this CIMP per the schedule presented in Figure 15. This schedule is dependent upon approval of this Group’s CIMP and the LCCWG’s CIMP by the LARWQCB.

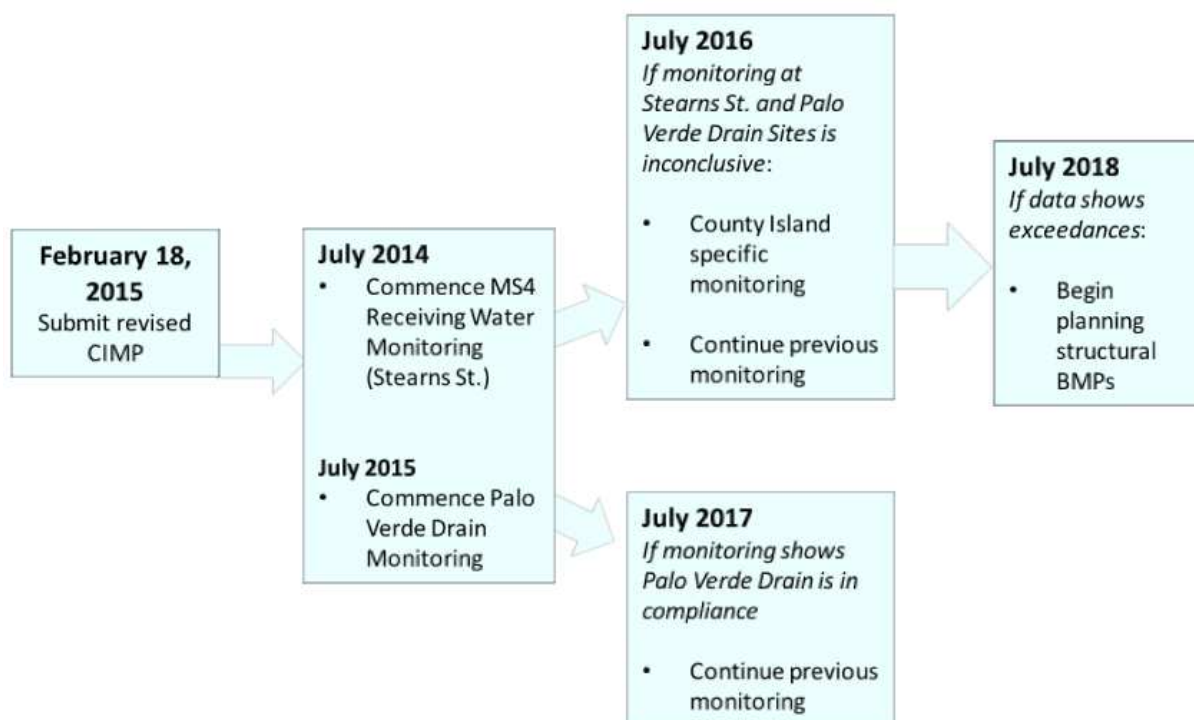


Figure 15: County Island Specific Monitoring Approach

If after one year of monitoring at the Palo Verde Drain Site, monitoring results show exceedances for Category 1 or Category 2 pollutants, the CIMP Group will implement a monitoring approach specific to the County Island. If necessary, details of this approach will be submitted to the LARWQCB prior to implementation. Details on the implementation of BMPs can be found in this Group’s WMP.

Section 10. Monitoring Program Overview

10.1 OVERVIEW

This CIMP Group will utilize existing monitoring efforts in the AB/LCC Watershed Management Area and propose additional efforts to meet the objectives of the Permit. Additionally, this CIMP maximizes coordination opportunities with other CIMPs in the Watershed Management Area. The Permit requires that implementation of the CIMP begin 90 days after approval from the LARWQCB. It should be noted that implementation of this CIMP has already commenced with the Non-Stormwater Outfall Monitoring Program.

Table 13 summarizes the monitoring efforts that the CIMP Group is implementing or participating in. Additionally, Figure 16 identifies all proposed monitoring locations in the CIMP. It should be noted that there are additional Greater Harbors RMC (DC Toxics TMDL) sites outside of the limits of this map.

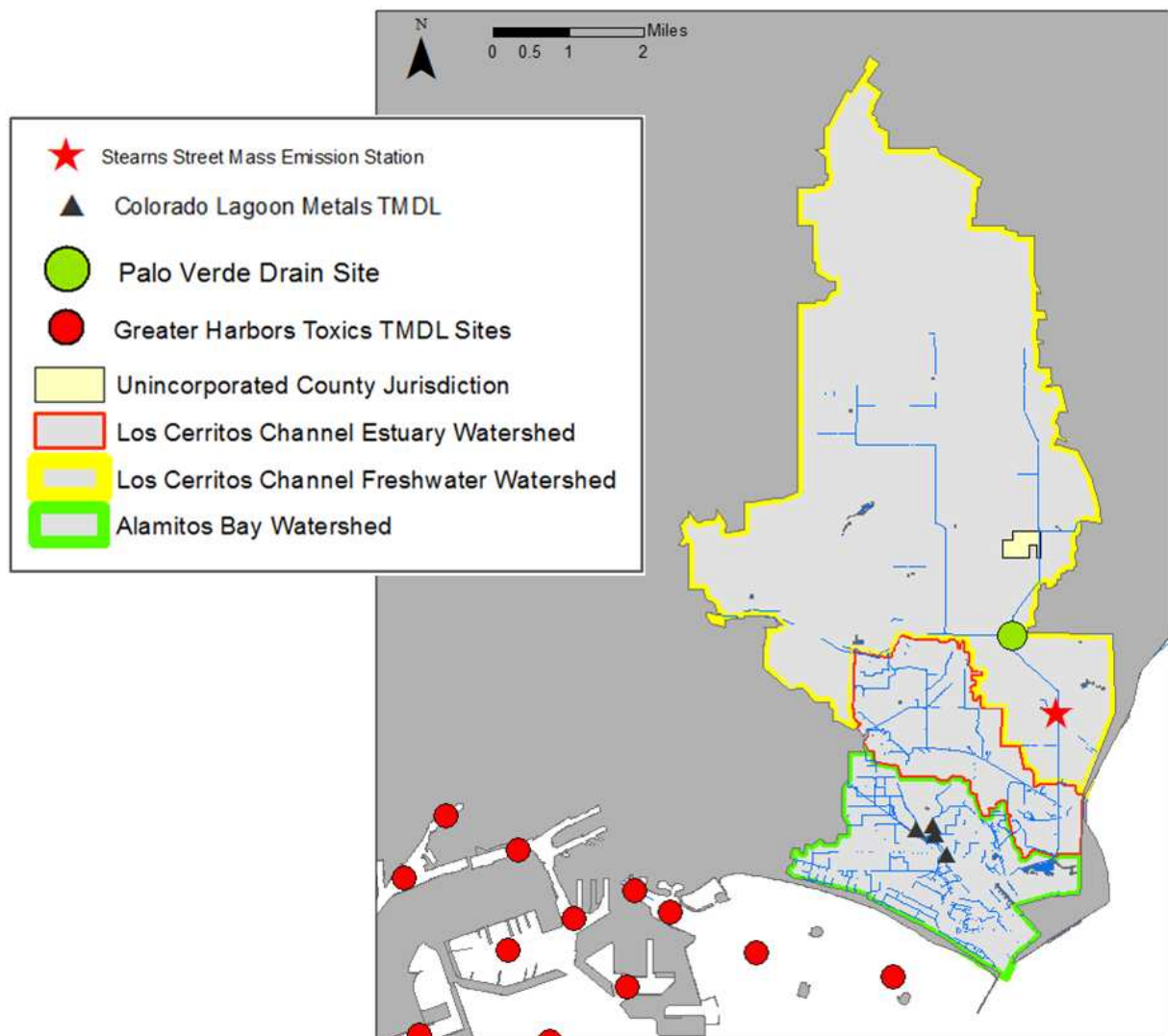


Figure 16: CIMP Group's Monitoring Locations

Table 13: Summary of CIMP Monitoring

Permit Monitoring Program Elements:	Responsibility		Locations	Additional Information
	LACFCD	County		
Receiving Water Monitoring	X	X	Stearns Street Mass Emission Site	<i>Addressed through Coordinated Integrated Monitoring Plan for the Los Cerritos Channel Watershed Management Group</i>
Stormwater Outfall Monitoring	X	X	Palo Verde Drain Site	<i>Addressed through Coordinated Integrated Monitoring Plan for the Los Cerritos Channel Watershed Management Group</i>
Non-Stormwater Outfall Monitoring Program	X	X	N/A: Screening shows no monitoring required	<i>Addressed through Section 6 of this CIMP</i>
Los Cerritos Metals TMDL	X	X	Palo Verde Drain Site/ Stearns Street Mass Emission Site	<i>Addressed through Coordinated Integrated Monitoring Plan for the Los Cerritos Channel Watershed Monitoring Group</i>
Dominguez Channel Toxics TMDL	X	X	East San Pedro Bay Sites	<i>Addressed through the Coordinated Compliance Monitoring and Reporting Plan, Incorporating Quality Assurance Project Plan Components, Greater Los Angeles and Long Beach Harbor Waters submitted to the LARWQCB on February 25, 2014.</i>
Colorado Lagoon Metals TMDL	X		Colorado Lagoon and Marine Stadium	<i>Addressed through Final Colorado Lagoon TMDL Monitoring Plan (CLTMP) dated December 17, 2012</i>

Section 11. Reporting

11.1 MONITORING REPORTS

Monitoring results for this Group's CIMP will be reported semi-annually to the LARWCB. On December 15th of each year an annual report will be submitted to the LARWCQB summarizing the monitoring through June 30th.

As outlined in Part XVI.A of the Monitoring and Reporting Plan (MRP), the annual reporting process is intended to provide the LARWCQB with summary information to allow for the assessment of:

- The Permittee's Participation in one or more Watershed Management Programs.
- The impact of each Permittee's stormwater and NSW discharges on the receiving water.
- Each Permittee's compliance with Receiving Water Limitations (RWLs), numeric WQBELs, and NSW action levels.
- The effectiveness of each Permittee's control measures in reducing discharges of pollutants from the MS4 to receiving waters.
- Whether the quality of MS4 discharges and the health of receiving waters is improving, staying the same, or declining as a result of watershed management program efforts, and/or TMDL implementation measures, or other minimum control measures (MCMs).
- Whether changes in water quality can be attributed to pollutant controls imposed on new development, re-development, or retrofit projects.
- The Municipal Action Level (MAL) Assessment Report and identification of those subwatersheds with running averages of twenty percent or greater exceedance of the MALs (per page G-17 of Attachment G of the permit).

This CIMP Group will work collaboratively with the LCCWG on reporting.

Section 12. References

Los Angeles Regional Water Quality Control Board, “Final Waste Discharge Requirements for Municipal Separate Storm Sewer System (MS4) Discharges within the Coastal Watersheds of Los Angeles County, Except Those Discharges Originating from the City of Long Beach MS4 (posted December 5, 2012)”. Final Order R4-2012-0175, http://www.waterboards.ca.gov/losangeles/water_issues/programs/stormwater/municipal/index.shtml (November 2013)

State of California Water Resources Control Board. “2010 Integrated Report (Clean Water Act Section 303(d) List” April 2010, http://www.waterboards.ca.gov/water_issues/programs/tmdl/integrated2010.shtml. (January 2014)

Los Angeles Regional Water Quality Control Board, “Total Maximum Daily Load for Toxic Pollutants in Dominguez Channel and Greater Los Angeles and Long Beach Harbor Waters”. Resolution No. R11-008, Effective Date: March 23, 2012, http://www.waterboards.ca.gov/losangeles/board_decisions/basin_plan_amendments/technical_documents/bpa_66_R11-008_td.shtml (June 2013)

Anchor QEA, L.P., “Coordinated Compliance, Monitoring, and Reporting Plan Incorporating Quality Assurance Project Plan Components” June, 2013, http://www.waterboards.ca.gov/losangeles/board_decisions/basin_plan_amendments/technical_documents/66_New/09232013/1aDraftCCMRP62413.pdf (January 2014)

United States Environmental Protection Agency, “Los Cerritos Channel Total Maximum Daily Loads for Metals”. March 2010

Los Angeles Regional Water Quality Control Board, “Total Maximum Daily Load for Organochlorine (OC) Pesticides, Polychlorinated Biphenyls (PCBs), Sediment Toxicity, Polycyclic Aromatic Hydrocarbons (PAHs), and Metals for Colorado Lagoon”. Resolution No. R09-05, Adopted Date: October 1, 2009, http://www.waterboards.ca.gov/losangeles/board_decisions/basin_plan_amendments/technical_documents/bpa_65_R09-005_td.shtml (January 2014)

Kinnetic Laboratories, Inc., “Final Colorado Lagoon TMDL Monitoring Plan (CLTMP) Colorado Lagoon Organochlorine Pesticides, PCBs, Sediment Toxicity, PAHs, and Metals TMDL” December, 2012

Los Cerritos Channel Watershed Group, “Coordinated Integrated Monitoring Plan for the Los Cerritos Channel Watershed Monitoring Group” February 2015

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APPENDIX A: LACFCD Background Information

In 1915, the Los Angeles County Flood Control Act was adopted by the California State Legislature after a disastrous regional flood took a heavy toll on lives and property. The act established the LACFCD and empowered it to manage flood risk and conserve stormwater for groundwater recharge. In coordination with the United States Army Corps of Engineers the LACFCD developed and constructed a comprehensive system that provides for the regulation and control of flood waters through the use of reservoirs and flood channels. The system also controls debris, protects existing vegetal covers, collects surface storm water from streets, and replenishes groundwater with storm water and imported and recycled waters. The LACFCD covers the 2,753 square-mile portion of Los Angeles County south of the east-west projection of Avenue S, excluding Catalina Island. It is a special district governed by the County of Los Angeles Board of Supervisors, and its functions are carried out by the Los Angeles County Department of Public Works. The LACFCD service area is shown in **Figure A-1**.

By statute, the LACFCD has limited powers and purposes, which places constraints on the types of projects and activities which the LACFCD may fund. Unlike cities and counties, the LACFCD does not own or operate any municipal sanitary sewer systems, public streets, roads, or highways. The LACFCD operates and maintains storm drains and other appurtenant drainage infrastructure within its service area. The LACFCD has no planning, zoning, development permitting, or other land use authority within its service area. The permittees that have such land use authority are responsible under the Permit for inspecting and controlling pollutants from industrial and commercial facilities, development projects, and development construction sites. (Permit, Part II.E, p. 17.)

The MS4 Permit language clarifies the unique role of the LACFCD in storm water management programs: “[g]iven the LACFCD’s limited land use authority, it is appropriate for the LACFCD to have a separate and uniquely-tailored storm water management program. Accordingly, the storm water management program minimum control measures imposed on the LACFCD in Part VI.D of this Order differ in some ways from the minimum control measures imposed on other Permittees. Namely, aside from its own properties and facilities, the LACFCD is not subject to the Industrial/Commercial Facilities Program, the Planning and Land Development Program, and the Development Construction Program. However, as a discharger of storm and non-stormwater, the LACFCD remains subject to the Public Information and Participation Program and the Illicit Connections and Illicit Discharges Elimination Program. Further, as the owner and operator of certain properties, facilities and infrastructure, the LACFCD remains subject to requirements of a Public Agency Activities Program.” (Permit, Part II.F, p. 18.)

Consistent with the role and responsibilities of the LACFCD under the Permit, the WMPs and CIMPs reflect the opportunities that are available for the LACFCD to collaborate with permittees having land use authority over the subject watershed area. In some instances, the opportunities are minimal, however the LACFCD remains responsible for compliance with certain aspects of the MS4 permit as discussed above.

During the development of the CIMP, LACFCD infrastructure was evaluated for monitoring opportunities. The LACFCD will be collaborating with the groups for all of the monitoring.



Figure A-1 Los Angeles County Flood Control District Service Area

APPENDIX B: Non-Stormwater Outfall Screening Form

NON-STORMWATER OUTFALL INSPECTION FORM

Name of Inspector: _____ Date: _____ [dry-weather months]
 Time: _____
 Outfall ID: [alpha-numeric] Previous Inspection Date(s): _____
 Name of Receiving Water Body: _____

Channel Stationing: _____ Outfall Long./Lat.: _____

Narrative Description of Location: [nearest cross streets, whether outlet is on east or west side of channel, notable landmarks nearby, etc.]

Diversion Structures Upstream or Downstream:

Outfall Dimensions:

Photo IDs: [take photos of outfall and downstream receiving water]

Discharge Characteristics:

- Observed Flow Size:
- No Flow
 - Trickle
 - Garden Hose
 - Fire Hydrant

Estimate of Flow Rate:

- Water Quality Meter:
- pH
 - Temperature
 - DO
 - Electrical Conductivity

Odor:

- Yes
 - No
- Description:

Color: [Recommended to use Color Wheel]

- None
- Yellow
- Brown
- White
- Gray
- Other:

Clarity:

- Clear
- Slightly Cloudy
- Opaque
- Other: _____

Receiving Water Characteristics:

Conveyance:

- Concrete Channel
- Trapezoidal
- Soft Bottom Channel
- Armored Sides
- Natural Creek
- Pipe or Box

Low Flow Channel:

- Yes
- No

Water Flow:

- Dry
- Ponding
- Flowing
- Tidal

Weather:

- Sunny Partly Cloudy Overcast Fog

Site Information:

- | | | |
|--------------------------|------------------------------|--|
| Flap Gate | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| In Street | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| Parking Close By | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| Safe to Collect Samples | <input type="checkbox"/> Yes | <input type="checkbox"/> No If no, why not? |
| Traffic Control Required | <input type="checkbox"/> Yes | <input type="checkbox"/> No |

How is the outfall accessed? [ladder, manhole, etc. and if not accessible, describe why and provide suggestions on alternate access points, if any.]

Source ID:

Known: Yes No ID, if Known:

- IC/ID Conditionally Exempt Essential Conditionally Exempt Non-Essential Multiple Sources Upstream Source

Comments:

Comment #	CIMP Reference	MRP Element/Reference (Attachment E)	Summary of Comments and Necessary Revisions	Response
General Comments				
1	Section 1.3, pg. 1	Part IV.B.5 page E-7	<p>The County and LACFCD need to be specific about which monitoring requirements will be addressed by the County and LACFCD in their integrated monitoring program (IMP) and which monitoring requirements will be addressed by the Los Cerritos Channel (LCC) Coordinated Integrated Monitoring Program (CIMP). The County and LACFCD must describe how the IMP and CIMP together fulfill all the applicable monitoring requirements of the LA County MS4 Permit.</p> <p>Additionally, the County and LACFCD cite other monitoring plans such as the Colorado Lagoon TMDL Monitoring Plan and Greater Harbor Waters Toxics TMDL Coordinated Compliance and Reporting Plan.</p> <p>Where the County and/or LACFCD intend to use existing monitoring plans to meet the requirements of the LA County MS4 Permit, including TMDL monitoring requirements, this should be clearly stated along with a description of the County's and/or LACFCD's role(s) and responsibility(ies) within the monitoring plan. Finally, the existing monitoring plans should be included as appendices to the CIMP, so that all monitoring program elements can be found within a single document.</p>	<p>Comment noted. Additional language has been added to the CIMP to describe which monitoring elements are being conducted under this CIMP and the Los Cerritos Channel Watershed Group (LCCWG) CIMP. Also, clarification has been added regarding how this will meet the requirements of the Permit.</p> <p>Per conversation with Regional Board Staff, due to the size of the existing monitoring programs, they do not need to be included in the revised CIMP.</p>
2	Section 2.1, pg. 6	Part IV.A.6 page E-7	<p>The monitoring program states, "The AB/LCC Group is submitting this CIMP to satisfy the coordinated monitoring plan requirements of the LCC Metals TMDL." However, Section 4.3.1 (page 14) and Table 7 (page 31) refer to the LCC CIMP; therefore, the AB/LCC monitoring program itself does not satisfy the coordinated monitoring plan requirements of the LCC Metals TMDL. In the revised IMP, this language should be revised to clarify that it is the LCC CIMP that satisfies the coordinated monitoring plan requirements of the LCC Metals TMDL. Related to this, the County and LACFCD should clearly indicate their role(s) in the LCC CIMP.</p>	<p>Comment noted, language has been added to the CIMP to clarify this.</p>

3	Section 2.2, pg. 6	Part IV.A.6 page E-7	<p>In Section 2.2, the monitoring program states, “As recognized by the footnote in Attachment K-7 of the Permit, the County and the LACFCD have entered into an Amended Consent Decree with the United States and the State of California, including the LARWQCB, pursuant to which the LARWQCB has released the County and the LACFCD from responsibility for Toxic pollutants in the Dominguez Channel and the Greater Harbors.”</p> <p>This statement misinterprets the Regional Water Board’s findings. Footnote 1 to Table K-7 of the LA County MS4 Permit states, “The requirements of this Order to implement the obligations of this TMDL do not apply to a Permittee to the extent that it is determined that the Permittee has been released from that obligation pursuant to the Amended Consent Decree entered in United States v. Montrose Chemical Corp., Case No. 90-3122 AAH (JRx).” As stated in the responses to comments received on the Dominguez Channel and Greater Harbor Waters Toxic Pollutants TMDL, “...primarily one pollutant, DDT, is associated with the Superfund site and also addressed by the TMDL. The TMDL addresses numerous pollutants and utilizes a different process than Superfund. The other pollutants – heavy metals, PAHs, PCBs and other legacy pesticides are not within Superfund’s focus at the Montrose OU2 Site...”</p> <p>Further, the WQBELs applicable to the County and LACFCD pursuant to the TMDL, which are in Attachment N, Part E of the LA County MS4 Permit, are for ongoing discharges from the MS4, not for the historic contamination of the bed sediments. Therefore, the statement in the draft WMP incorrectly concludes that the aforementioned Consent Decree releases the County and LACFCD from any obligation to implement the WQBELs in Attachment N, Part E.</p>	<p>As set forth in the footnote to Table K-7, the requirements of the Permit to implement the obligations of the Dominguez Channel and Greater Los Angeles and Long Beach Harbor Waters Toxic Pollutants TMDL do not apply to a permittee where that permittee has been released of that obligation under the Amended Consent Decree entered in United States v. Montrose Chemical Corp., Case No. 90-3122 AAH (JRx). Both the County and LACFCD are parties to that decree and have been released thereunder.</p> <p>The County and the LACFCD have referenced this decree so that it is clear that no inference should be drawn from the submission of the WMP or from any action or implementation taken pursuant to it that the County or the LACFCD is obligated to implement any TMDL or implement any program for which they have been released.</p> <p>The Amended Consent Decree is not limited solely to DDT. The Amended Consent Decree on page 2 recites that the claim that was filed was for “damages” and “response costs” resulting from the releases of “hazardous substances” as those terms are used in the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA). The Amended Consent Decree goes on to specifically include both DDT and PCBs in the category of those hazardous substances, but the Amended Consent decree is not limited solely to those pollutants.</p>
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Receiving Water Monitoring				
4	Section 4.1, pg. 12	Part VI.A.1.a page E-13	The County and LACFCD need to declare whether the receiving water monitoring is conducted under their IMP or the LCC CIMP or both. If the receiving water monitoring will be conducted as part of the LCC CIMP, the CIMP needs to affirm that the County is a participant.	Comment noted. Section 4.2 of the CIMP has been updated to specify that MS4 receiving water monitoring will be conducted by the Los Cerritos Channel Watershed Group. The County and LACFCD will cost share for their portion of the monitoring effort.
5		Parts VI.A – VI.D pp. E-13 – E-20	The AB/LLC IMP and/or the LCC CIMP need to comply with all the receiving water monitoring requirements as contained in Attachment E Parts VI.A through VI.D of the LA County MS4 Permit.	Comment noted. Receiving water monitoring is discussed in Section 4 of the revised CIMP.
Stormwater Outfall Based Monitoring				
6	Section 5 pg. 21	Part VIII.A pp. E-21 – E-23	The County and LACFCD need to declare whether the storm water outfall based monitoring is conducted under their IMP or the LCC CIMP or both. If the storm water outfall based monitoring will be conducted as part of the LCC CIMP, the CIMP needs to affirm that the County is a participant.	Comment noted. Section 5.2 of the CIMP has been updated to specify that stormwater outfall monitoring will be conducted as part of the LCC Watershed Group CIMP. The County and LACFCD will cost share that monitoring.
7		Parts VIII.A – VIII.C pp. E-21 – E-23	The AB/LLC IMP and/or the LCC CIMP need to comply with all the storm water outfall based monitoring requirements as contained in Attachment E Parts VIII.A through VIII.C of the LA County MS4 Permit.	Comment noted. Stormwater Outfall based monitoring is discussed in Section 5 of the revised CIMP.
8	Section 9.1, pg. 29		Outfall monitoring of the County Island outfalls shall commence no later than July 1, 2016.	Comment noted. Section 9 of the CIMP has been updated accordingly. Note that monitoring of the County's jurisdictional area <i>will only</i> be conducted if there are exceedances at the Palo Verde Drain monitoring site.
Non-Stormwater Outfall Based Monitoring				
9	Section 6, pg. 22	Part IX.B.1 page E-24	The County and LACFCD need to declare whether the non-storm water outfall based monitoring is conducted under their IMP or the LCC CIMP or both. If the non-storm water outfall based monitoring will be conducted as part of the LCC CIMP, the CIMP needs to affirm that the County is a participant.	Comment noted. Language has been added to the resubmitted CIMP. Non-stormwater monitoring will be conducted as part of the Alamitos Bay/Los Cerritos Channel Group's CIMP

10	Section 6.2, pg. 22	Parts VII.A.8 and VII.A.10	The revised IMP should include a description and/or depiction of the outfall catchment areas for the four MS4 outfalls within the County Island and indicate which of these outfalls are major per the definition of a major outfall in Appendix A of the LA County MS4 Permit.	Flow directions for the streets in the County's jurisdiction have been added to the revised CIMP. Outfall catchment areas will be submitted as part of the 2015 annual report.
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11	Section 6.3, pg. 25	Part IX.C.1 pp. E-24 – E-25	<p>The CIMP proposes three non-storm water screening events. Two of the three have already been conducted on April 7 and 17, 2014.</p> <p>However, non-storm water discharges may be present during any season. Therefore, at a minimum, quarterly non-storm water screenings need to be conducted, in order to cover each season (i.e. summer, fall, winter and spring) to establish a baseline. If after these initial quarterly non-storm water screenings, no significant non-storm water discharges are present at a particular outfall, then no further action is necessary.</p>	<p>The CIMP has been updated accordingly. Quarterly screening will be conducted based on the seasons: Quarter 1 Spring: March 21-June 20 Quarter 2 Summer: June 21-Sept 20 Quarter 3 Fall: Sept 21-Dec 20 Quarter 4: Winter: Dec 21- March 20</p> <p>Currently 3 seasons (Spring, Fall and Winter) have been screened. The revised AB/LCC CIMP states "significant discharge is characterized as any flow visually noted as larger than a "garden hose" during visual observation originating from the County Island. No significant discharge has been seen originating from the County Island.</p>
12		Part IX.D pp. E-25 – E-26	<p>The revised IMP must include a process for creating, and updating annually, a database and map of outfalls that have been identified as having significant non-storm water discharges.</p>	<p>Section 6.3.8 has been added to discuss the process for creating and updating an outfall database.</p>
13		Part IX.B.2 page E-24	<p>The revised IMP must include a process for reassessing the Outfall Screening and Monitoring Plan within the current permit term pursuant to Attachment E, Part IX.B.2.</p>	<p>Section 6.3.7 has been added to discuss the process for reassessing outfall screening.</p>
14	Section 6.3.5 pp. 25-26	Part IX.F pp. E-26 – E-27	<p>The revised IMP must include a detailed discussion of the source investigation to be conducted if significant non-storm water discharges are identified, which must be consistent with the requirements of Attachment E Part IX.F of the LA County MS4 Permit.</p>	<p>Additional discussion has been added to Section 6.3.5.</p>

15	Section 6.3.6 pg. 26	Parts IX.G - IX.H pp. E-27 – E-28	The revised IMP needs to comply with the non-storm water monitoring requirements as contained in Attachment E, Parts IX.G and IX.H of the LA County MS4 Permit, which includes quarterly monitoring of significant non-storm water discharges, if present.	<p>Comment noted. The frequency of potential non-stormwater monitoring has been updated to quarterly.</p> <p>Note that the CIMP has been updated to reflect that Quarterly screening will be conducted based on the seasons: Quarter 1 Spring: March 21-June 20 Quarter 2 Summer: June 21-Sept 20 Quarter 3 Fall: Sept 21-Dec 20 Quarter 4: Winter: Dec 21- March 20</p> <p>Currently, 3 seasons (Spring, Fall and Winter) have been screened. The revised AB/LCC CIMP states "significant discharge is characterized as any flow visually noted as larger than a "garden hose" during visual observation originating from the County Island. No significant discharge has been seen originating from the County Island. Additionally, the CIMP has been updated to state that when at least 3 out of 4 screenings do not have significant flow, no further assessment is needed. The CIMP Group will conduct a Summer screening for completeness.</p>
16	Section 10, pg. 30	Attachment E	The revised IMP needs to address how monitoring requirements for the Los Cerritos Channel Estuary subwatershed and the Alamitos Bay subwatershed will be addressed.	Monitoring requirements for the Los Cerritos Channel Estuary and the Alamitos Bay will be addressed under the City of Long Beach's CIMP. The LACFCD will consider contribution to their monitoring program on a case-by-case.

ENCLOSURE 2
 COMMENTS ON AQUATIC TOXICITY TESTING
 ALAMITOS BAY/LOS CERRITOS CHANNEL CIMP

Comment #	Summary of Comments and Necessary Revisions	Response
Aquatic Toxicity		
17	Part VIII.B.1.c.vi. (Page E-23) and Part VIII.G.1.d. (Page 27) of the Monitoring and Reporting Program (MRP) states that where the TIE conducted at the downstream receiving water monitoring station was inconclusive then aquatic toxicity shall be monitored at the outfall. The draft CIMP does not propose conducting this required outfall toxicity monitoring. And, Part XII.G.1. (Page E-30) and Part XII.G.2. (Page E-30) of the MRP states that Permittees shall conduct aquatic toxicity monitoring utilizing the critical life stage chronic toxicity test methods listed. The draft CIMP does not propose any type of toxicity monitoring. These omissions must be corrected.	Chronic toxicity tests will be conducted under the LCC Watershed Group's CIMP. The County and LACFCD will cost share for this portion of monitoring. This has been clarified in the revised CIMP.
18	While the CIMP proposes to use data from a receiving water monitoring station maintained by another entity in a different watershed group, should that monitoring result in finding toxicity in the receiving water then that group will conduct a TIE. Should the results of the TIE be inconclusive, then monitoring for toxicity at the representative upstream outfall(s) is required. Therefore, outfall monitoring for toxicity may need to extend up to the County Island area. In anticipation of the possible need for such monitoring, the CIMP should include a discussion of toxicity testing protocols as described in the MRP.	TIEs will be conducted under the LCC Watershed Group CIMP. The County and LACFD will cost share for this portion of monitoring. This has been clarified in the revised CIMP. Should toxicity testing be needed for the County Island, the CIMP group will follow the protocols used by the LCC Watershed Group.

Suggested Special Study		
19	<p>The 2013 study released by the California Stormwater Quality Association (CASQA) entitled “Review of Pyrethroid, Fipronil and Toxicity Monitoring Data from California Urban Watersheds” reviewed stormwater data from studies conducted during 2005 - 2012 and highlighted the toxicity impacts from use of pesticides not currently required to be monitored for by the MRP. We suggest the group begin monitoring for these chemicals in the receiving water (or coordinate that monitoring with adjacent groups) and, in addition, assess toxicity using the 2002 acute toxicity testing protocol (EPA-821-R-02-012) with the amphipod <i>Hyaella azteca</i> as the test organism. <i>H. azteca</i> is known to be much more sensitive to pyrethroids than is <i>Ceriodaphnia dubia</i>, while the latter is useful for its sensitivity to OP pesticides. The two species together may also prove to be more useful in detecting toxicity from fipronil. And, should 50% or greater effect be detected in the toxicity test, we suggest a procedure to incorporate pyrethroids into the subsequent TIE be documented (three possible treatments have been identified by researchers, see http://www.pubfacts.com/detail/20018342/Focused-toxicity-identification-evaluations-to-rapidlyidentify-the-cause-of-toxicity-in-environment). While fipronil does not have a TIE procedure identified currently, chemical testing for the parameter (and degradates) and comparison to U.S. EPA Office of Pesticide Program’s aquatic life benchmarks at http://www.epa.gov/oppefed1/ecorisk_ders/aquatic_life_benchmark.htm will aid in determining the cause(s) of toxicity in order to follow up with outfall testing of the parameter(s) with the ultimate goal of removing the source. This approach will also help minimize inconclusive TIE results which would lead to required toxicity testing in the representative upstream outfall(s).</p>	<p>This CIMP group is not proposing the suggested additional monitoring at this time.</p>

Los Angeles Regional Water Quality Control Board

April 28, 2015

Ms. Gail Farber, Director
County of Los Angeles
Department of Public Works
Watershed Management Division, 11th Floor
900 South Fremont Avenue
Alhambra, CA 91803

Ms. Gail Farber, Chief Engineer
Los Angeles County Flood Control District
Department of Public Works
Watershed Management Division, 11th Floor
900 South Fremont Avenue
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APPROVAL, WITH CONDITIONS, OF THE ALAMITOS BAY/LOS CERRITOS CHANNEL WATERSHED MANAGEMENT AREA WATERSHED MANAGEMENT PROGRAM (WMP) PURSUANT TO THE LOS ANGELES COUNTY MUNICIPAL SEPARATE STORM SEWER SYSTEM (MS4) PERMIT (NPDES PERMIT NO. CAS004001; ORDER NO. R4-2012-0175)

Dear Ms. Farber:

On November 8, 2012, the California Regional Water Quality Control Board, Los Angeles Region (Los Angeles Water Board or Board) adopted Order No. R4-2012-0175, *Waste Discharge Requirements for Municipal Separate Storm Sewer System (MS4) Discharges within the Coastal Watersheds of Los Angeles County, except those Discharges Originating from the City of Long Beach* (hereafter, LA County MS4 Permit). Part VI.C of the LA County MS4 Permit allows Permittees the option to develop either a Watershed Management Program (WMP) or an Enhanced Watershed Management Program (EWMP) to implement permit requirements on a watershed scale through customized strategies, control measures, and best management practices (BMPs). Development of a WMP or EWMP is voluntary and allows a Permittee to address the highest watershed priorities, including complying with the requirements of Part V.A (Receiving Water Limitations), Part VI.E and Attachments L through R (Total Maximum Daily Load Provisions), and by customizing the control measures in Parts III.A (Prohibitions – Non-Storm Water Discharges) and VI.D (Minimum Control Measures), except the Planning and Land Development Program. Pursuant to Part VI.C.4.c of the LA County MS4 Permit, the County of Los Angeles (County) and the Los Angeles County Flood Control District (LACFCD) jointly submitted a draft WMP for the Alamitos Bay/Los Cerritos Channel (AB/LLC) Watershed Management Area (WMA) dated June 28, 2014, to the Los Angeles Water Board for review.

Public Review and Comment

On July 3, 2014, the Board provided public notice and a 46-day period to allow for public review and comment on the County's and LACFCD's draft WMP. A separate notice of availability regarding the draft WMPs, including the AB/LCC WMP, was directed to State Senators and Assembly Members within the Coastal Watersheds of Los Angeles County. The Board received one comment letter that had specific comments on the County's and LACFCD's draft WMP and two letters that had comments on WMPs generally, which were in part applicable to the County's and LACFCD's draft WMP. One joint letter was from the Natural Resources Defense Council (NRDC), Heal the Bay, and Los Angeles Waterkeeper and the other letters were from the Construction Industry Coalition on Water Quality (CICWQ) and a private citizen, Joyce Dillard. On October 9, 2014, the Board held a workshop at its regularly scheduled Board meeting on the draft WMPs. The Board also held a public meeting on April 13, 2015 for permittees and interested persons to discuss the revised draft WMPs with the Executive Officer and staff. During its initial review and its review of the revised draft WMP, the Los Angeles Water Board considered those comments applicable to the County's and LACFCD's proposed WMP.

Los Angeles Water Board Review

Concurrently with the public review, the Los Angeles Water Board, along with U.S. EPA Region IX staff, reviewed the draft WMPs. On October 27, 2014, the Los Angeles Water Board sent a letter to the County and LACFCD detailing the Board's comments on the draft WMP and identifying the revisions that needed to be addressed prior to the Board's approval of the County's and LACFCD's WMP. The letter directed the County and LACFCD to submit a revised draft WMP addressing the Los Angeles Water Board's comments. Prior to the County's and LACFCD's submittal of the revised draft WMP, Board staff had a meeting on January 15, 2015, teleconferences, and e-mail exchanges with County representatives to discuss the Board's comments and the revisions to the draft WMP, including the supporting reasonable assurance analysis (RAA), which would address the Board's comments. The County and LACFCD submitted a revised draft WMP on January 27, 2015, for Los Angeles Water Board review and approval.

Approval of WMP, with Conditions

The Los Angeles Water Board hereby approves, subject to the following conditions, the County's and LACFCD's January 27, 2015, revised draft WMP for the AB/LLC WMA. The Board may rescind this approval if all of the following conditions are not met to the satisfaction of the Board within the timeframe provided below.

1. In Section 6.3.5.5 Full Capture Devices (Planned Structural BMP) of the revised draft WMP, pages 29 and 30, since the three catch basins can be retrofitted with full capture devices as confirmed during discussions with the County and LACFCD, delete the

following language: “Construction of the devices is contingent upon appropriate field conditions. CPS devices cannot be installed in areas where they may adversely affect flood protection or in catch basins that are too shallow to house CPS devices.”

2. Correct the following typographical errors and omissions in the revised draft WMP:
 - a. Figure 3, page 7, correct the “Notable Permit Date” for “5 years after MS4 Permit Effective Date” to Dec. 28, 2017; and
 - b. Appendix B, Table B.1, include the wet weather data for diazinon.

The County and LACFCD shall submit a final WMP to the Los Angeles Water Board that satisfies all of the above conditions no later than May 28, 2015.

Determination of Compliance with WMP

Pursuant to Part VI.C.6 of the LA County MS4 Permit, the County and LACFCD shall begin implementation of the approved WMP immediately. To continue to be afforded the opportunity to implement permit provisions within the framework of the WMP, Permittees must fully and timely implement all actions per associated schedules set forth in the approved WMP regardless of any contingencies indicated in the approved WMP (e.g., funding) unless a modification to the approved WMP, including any extension of deadlines where allowed, is approved by the Los Angeles Water Board pursuant to Part VI.C.6.a or Part VI.C.8.a.ii-iii. The Los Angeles Water Board will determine the County’s and LACFCD’s compliance with the WMP on the basis of the compliance actions and milestones included in the WMP, including, but not limited to, the following:

- Section 5 “Watershed Control Measures;”
- Section 6.3.5 “Identification of Potential Non-Structural and Structural BMPs,” which lists the existing and planned BMPs as well as identification of potential BMPs; and
- Section 6.3.6 “Schedule to Meet Needed Percent Reductions” Including Table 9 and Figures 18 and 19.

Pursuant to Parts VI.C.3 and VI.E.2.d.i.(4)(a) of the LA County MS4 Permit, the County’s and LACFCD’s full and timely compliance with all actions and dates for their achievement in their approved WMP shall constitute compliance with permit provisions pertaining to applicable WQBELs/WLAs in Part VI.E and Attachment Q of the LA County MS4 Permit. Further, per Part VI.C.2.b of the LA County MS4 Permit, the County’s and LACFCD’s full compliance with all requirements and dates for their achievement in their approved WMP constitutes compliance with the receiving water limitations provisions of Part V.A of the LA County MS4 Permit for the specific waterbody-pollutant combinations addressed by their approved WMP.

If the County and LACFCD Permittees fail to meet any requirement or date for its achievement in the approved WMP, which will be demonstrated through the County’s and LACFCD’s Annual Reports and program audits (when conducted), the County and LACFCD shall be subject to the baseline requirements of the LA County MS4 Permit, including but not limited to demonstrating

compliance with applicable receiving water limitations and TMDL-based WQBELs/WLAs through outfall and receiving water monitoring. See Parts VI.C.2.c and VI.E.2.d.i.(4)(c).

Annual Reporting

The County and LACFCD shall report on achievement of actions and milestones within the reporting year, as well as progress towards future milestones related to multi-year projects, through its Annual Report per Attachment E, Part XVIII of the LA County MS4 Permit. For multi-year efforts, the County and LACFCD shall include the status of the project, which includes the status with regard to standard project implementation steps. These steps include, but are not limited to, adopted or potential future changes to municipal ordinances to implement the project, site selection, environmental review and permitting, project design, acquisition of grant or loan funding and/or County/LACFCD approval of project funding, contractor selection, construction schedule, start-up, and effectiveness evaluation (once operational), where applicable. For all stormwater retention/infiltration projects, including LID due to new/redevelopment, green streets, and regional BMPs, the County and LACFCD shall report annually on the volume of stormwater retained within the area covered by the WMP.

The County and LACFCD shall also include in its Annual Report the source(s) of funds used during the reporting year, and those funds proposed for the coming year, to meet necessary expenditures related to implementation of the actions identified in its WMP per Part VI.A.3 of the LA County MS4 Permit. Further, as part of the annual certification concerning a permittee's legal authority required by Part VI.A.2.b of the LA County MS4 Permit, the County and LACFCD shall also certify in the Annual Report that it has the necessary legal authority to implement each of the actions and milestones in the approved WMP as required by Part VI.C.5.b.iv.(6). If a Permittee does not have legal authority to implement an action or milestone at the time the County and LACFCD submits its Annual Report, the Permittee shall propose a schedule to establish and maintain such legal authority.

Adaptive Management

The County and LACFCD shall conduct a comprehensive evaluation of the WMP no later than April 28, 2017, and subsequently, every two years thereafter pursuant to the adaptive management process set forth in Part VI.C.8 of the Los Angeles County MS4 Permit. As part of this process, the County and LACFCD must evaluate progress toward achieving:

- Applicable WQBELs/WLAs in Attachment Q of the LA County MS4 Permit according to the milestones set forth in its WMP;
- Improved water quality in MS4 discharges and receiving waters;
- Stormwater retention milestones; and
- Multi-year efforts that were not completed in the current year and will continue into the subsequent year(s), among other requirements.

The County's and LACFCD's evaluation of the above shall be based on both progress implementing actions in the WMP and an evaluation of outfall-based monitoring data and receiving water data. Per Attachment E, Part XVIII.6 of the LA County MS4 Permit, the County and LACFCD shall implement adaptive management strategies, including but not limited to:

- Refinement and recalibration of the Reasonable Assurance Analysis (RAA) based on data specific to the County's Island and LACFCD's infrastructure that are collected through the County's and LACFCD's Coordinated Integrated Monitoring Program and other data as appropriate;
- Identifying the most effective control measures, why they are the most effective, and how other control measures can be optimized based on this understanding;
- Identify the least effective control measures, why they are ineffective, and how the control measures can be modified or replaced to be more effective;
- Identify significant changes to control measures during the prior year(s) and the rationale for the changes; and
- Describe all significant changes to control measures anticipated to be made in the next year(s) and the rationale for each change.

As part of the adaptive management process, any modifications to the WMP, including any requests for extension of deadlines not associated with TMDL provisions, must be submitted to the Los Angeles Water Board for review and approval. The County and LACFCD must implement any modifications to the WMP upon approval by the Los Angeles Water Board or its Executive Officer, or within 60 days of submittal of modifications if the Los Angeles Water Board or its Executive Officer expresses no objections. Note that the Permittees' Report(s) of Waste Discharge (ROWD) is due no later than July 1, 2017. To align any modifications to the WMP proposed through the adaptive management process with permit reissuance, results of the first adaptive management cycle should be submitted in conjunction with the Permittees' ROWD.

The Regional Water Board appreciates the participation and cooperation of the County and LACFCD in the implementation of the LA County MS4 Permit. If you have any questions, please contact Rebecca Christmann, at Rebecca.Christmann@waterboards.ca.gov or by phone at (213) 576-5734. Alternatively, you may also contact Mr. Ivar Ridgeway, Chief Storm Water Permitting Unit, at Ivar.Ridgeway@waterboards.ca.gov or by phone at (213) 620-2150.

Sincerely,



Samuel Unger, P.E.
Executive Officer

cc: Angela George, Los Angeles County Flood Control District
Jolene Guerrero, County of Los Angeles, Department of Public Works
William Johnson, County of Los Angeles, Department of Public Works

Alamitos Bay/Los Cerritos Channel

Final Watershed Management Program

Submitted to:

**California Regional Water
Quality Control Board
Los Angeles Region**
320 West 4th Street, Suite 200
Los Angeles, CA 90013-2343

Submitted by:

**Los Angeles County
Flood Control District**
900 S. Fremont Avenue
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Revised May 28, 2015

RB-AR3052

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List of Abbreviations

AB/LCC	Alamitos Bay/Los Cerritos Channel
ARS	Automatic Retractable Screen
BPA	Basin Plan Amendment
BMP	Best Management Practice
CIMP	Coordinated Integrated Monitoring Program
CPS	Connector Pipe Screen
DEHP	Bis(2-ethylhexyl) phthalate
EPA	Environmental Protection Agency
EWMP	Enhanced Watershed Management Program
GIS	Geographic Information System
HRU	Hydrologic Response Unit
IC/ID	Illicit Connections and Illicit Discharges
LACFCD	Los Angeles County Flood Control District
LARWCQB	Los Angeles Regional Water Quality Control Board
LID	Low Impact Development
LCCWG	Los Cerritos Channel Watershed Group
MBAS	Methylene Blue Active Substances
MCM	Minimum Control Measure
MDL	Minimum Detection Limit
MES	Mass Emissions Station
MS4	Municipal Separate Storm Sewer System
MRP	Monitoring and Reporting Program
NPDES	National Pollutant Discharge Elimination System
PCBs	Polychlorinated Biphenyls
PIPP	Public Information and Participation Program
QA/QC	Quality Assurance/Quality Control
RAA	Reasonable Assurance Analysis
TMDL	Total Maximum Daily Load
USEPA	United State Environmental Protection Agency
WLA	Waste Load Allocation
WMMS	Watershed Management Modeling System
WMP	Watershed Management Program
WQDS	Water Quality Design Storm

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Section 1. Introduction

1.1 BACKGROUND

The Alamitos Bay/Los Cerritos Channel (AB/LCC) Watershed Management Program (WMP) is a collaborative effort between the County of Los Angeles (County) and the Los Angeles County Flood Control District (LACFCD). The geographic scope of this WMP includes a 95-acre County Island, the LACFCD infrastructure within that island, and the LACFCD infrastructure within the Los Cerritos Channel estuary and Alamitos Bay watersheds. The geographic area of this WMP is shown in Figure 1. It is important to note that the 95-acre County Island is located within the separate Los Cerritos Channel Freshwater Watershed.

This WMP is being submitted to meet the requirements outlined in section VI.C of the National Pollutant Discharge Elimination System (NPDES) Municipal Separate Storm Sewer System (MS4) Permit No. R4-2012-0178 (Permit). The Permit was adopted on November 8, 2012 and became effective December 28, 2012.

Section VI.C.1.f of the Permit requires that the WMP shall:

- Be consistent with Part VI.C.5-C.8 of the Permit (see below),
- Prioritize water quality issues resulting from storm water and non-storm water discharges from the MS4 to receiving waters within each Watershed Management Area (WMA),
- Identify and implement strategies, control measures, and BMPs to achieve the outcomes specified in Part VI.C.1.d of the Permit,
- Execute an integrated monitoring program and assessment program pursuant to Attachment E, Part IV of the Permit to determine progress towards achieving applicable limitations and/or action levels in Attachment G of the Permit (See Coordinated Integrated Monitoring Program (CIMP) for the AB/LCC Group),
- Modify strategies, control measures, and Best Management Practices (BMPs) as necessary based on analysis of monitoring data collected pursuant to the Monitoring and Reporting Plan to ensure that applicable water quality-based effluent limitations and receiving water limitations and other milestones set forth in the WMP are achieved in the required timeframes,
- Provide appropriate opportunity for meaningful stakeholder input, including but not limited to, a permit-wide WMP technical advisory committee (TAC) that will advise and participate in the development of the WMPs and enhanced WMPs from month 6 through the date of program approval.

Part VI.C.5-C.8 of the Permit requires the WMP contain:

- Identification of Water Quality Priorities
- Selection of Watershed Control Measures including:
 - Minimum control measures
 - Non-storm water discharge measures
 - TMDL Control measures
 - Identification of specific structural and non-structural BMPs
 - Reasonable assurance analysis
 - Compliance schedules

- Integrated watershed monitoring and assessment (See CIMP for the AB/LCC Group)
- Adaptive management process

1.2 AB/LCC WATERSHED MANAGEMENT AREA

The AB/LCC Watershed Management Area is located in southern Los Angeles County and has a drainage area of approximately 37.5 square miles. The AB/LCC Watershed Management Area encompasses the Los Cerritos Channel freshwater watershed (which includes all or portions of the Cities of Bellflower, Cerritos, Downey, Lakewood, Long Beach, Paramount and Signal Hill, and a 95-acre County Island), the Los Cerritos Channel estuary watershed (located in Long Beach) and the Alamitos Bay watershed (located in Long Beach).

This AB/LCC WMP only includes the 95 acre County Island, the LACFCD infrastructure within that island, and the LACFCD infrastructure within the Los Cerritos Channel estuary watershed, and the Alamitos Bay watershed. The geographic area of the AB/LCC WMP is shown in Figure 1. It is important to note that the AB/LCC WMP has very limited jurisdiction in the overall Watershed Management Area since the County only has land use jurisdiction over the 95 acre County Island, and the LACFCD does not own or operate any municipal sanitary sewer systems, public streets, roads, or highways – the LACFCD only operates and maintains storm drains and other appurtenant drainage infrastructure. A detailed description of the LACFCD can be found in Attachment A.

In the Alamitos Bay and Los Cerritos Channel Estuary watersheds these areas are under the jurisdiction of the City of Long Beach and will be addressed under Long Beach's WMP which will be submitted in March 2015. Through adaptive management, the LACFCD will review Long Beach's WMP and consider on a case-by-case basis opportunities for collaboration on future projects.

A detailed description of the Los Cerritos Channel freshwater watershed, the Los Cerritos Channel estuary watershed, and the Alamitos Bay watershed can be found in the AB/LCC Group's CIMP.

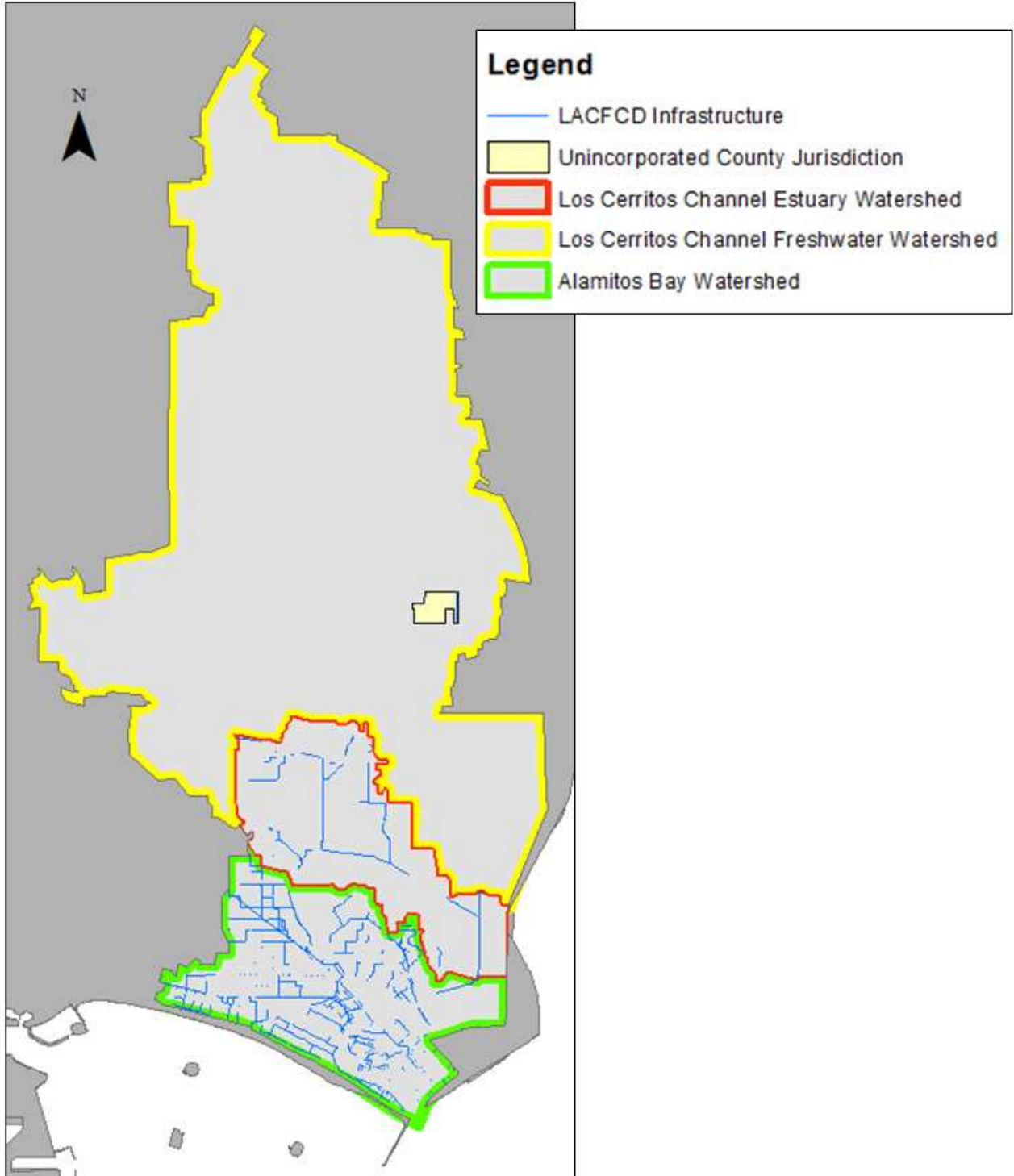


Figure 1: The Alamos Bay/LCC Watershed Management Area (The Unincorporated County Island Is Located Within the Separate Los Cerritos Channel Freshwater Watershed)

1.3 COUNTY ISLAND

Within the AB/LCC Watershed Management Area, the County Island is known as the “North Long Beach Island”. The County Island is landlocked within the City of Long Beach (Figure 2). The County Island is 95 acres (0.15 square miles) and is predominantly Single Family Residential Land Use.



Figure 2: Unincorporated County Island

Within the County Island, is the LACFCD maintained Palo Verde Drain. The Palo Verde Drain is an open channel, rectangular storm drain which discharges into the Los Cerritos Channel.

1.4 WMP GEOGRAPHIC SCOPE

This WMP is focused on areas in which the County has land use jurisdiction. The LACFCD does not have jurisdiction over the land uses which its storm drains and other appurtenant drainage infrastructure serve. Those areas will be addressed through other WMPs.

Section 2. Existing TMDLs Applicable to County Island

Within the AB/LCC Watershed Management Area, there are 2 existing TMDLs which apply to the County Island.

2.1 LOS CERRITOS CHANNEL METALS TMDL

The Total Maximum Daily Load for Metals in Los Cerritos Channel (LCC Metals TMDL) was approved by the United States Environmental Protection Agency (USEPA) on March 17, 2010. The Metals TMDL was developed to address beneficial use impairments due to Copper, Zinc and Lead in the freshwater portion of the Los Cerritos Channel. The freshwater portion of Los Cerritos Channel has the existing beneficial use of Wildlife Habitat (WILD), the potential beneficial uses of Municipal and Domestic Supply (MUN), Water Contact Recreation (REC1) and the intermittent beneficial uses of Warm Freshwater Habitat (WARM), and Non-contact Water Recreation (REC2).

On June 6, 2013, the Los Angeles Regional Water Quality Control Board (LARWQCB) adopted a resolution which includes an Implementation Schedule for the LCC Metals TMDL. The Implementation Schedule states that MS4 permittees

“shall provide a written report to the Regional Los Angeles Water Board outlining how they will achieve compliance with the WLAs. The report shall include implementation methods, an implementation schedule, proposed milestones, and any revisions to the TMDL monitoring plan. An Enhanced Watershed Management Program or Watershed Management Program, including the Reasonable Assurance Analysis, submitted in fulfillment of requirements in Order No. R4-2012-0175 may be used by permittees subject to that Order to satisfy the TMDL implementation plan requirements.”

This WMP is being submitted to satisfy the Implementation Plan requirements of the LCC Metals TMDL.

2.2 DOMINGUEZ CHANNEL TOXICS TMDL

The Total Maximum Daily Load for Toxic Pollutants in Dominguez Channel and Greater Los Angeles and Long Beach Harbor Waters (DC Toxics TMDL) was adopted by the LARWQCB on May 5, 2011. The DC Toxics TMDL became effective on March 23, 2012. The goal of the TMDL is to protect and restore fish tissue, water and sediment quality in Dominguez Channel and Greater Los Angeles and Long Beach Harbor (Greater Harbors) waters by remediating contaminated sediment and controlling the sediment loading and accumulation of contaminated sediment in the Greater Harbors.

The County and the LACFCD are both listed as responsible parties for the Greater Harbors waterbody. An Implementation Plan is not required for parties tributary to the Greater Harbors; however, this WMP will help improve the quality of water discharged to the Greater Harbors.

As recognized by the footnote in Attachment K-7 of the Permit, the County and the LACFCD have entered into an Amended Consent Decree with the United States and the State of California, including the LARWQCB, pursuant to which the LARWQCB has released the County and the LACFCD from responsibility for Toxic pollutants in the Dominguez Channel and the Greater

Harbors. Accordingly, no inference should be drawn from the submission of this WMP or from any action or implementation taken pursuant to it that the County or the LACFCD is obligated to implement the DC Toxics TMDL, including this WMP or any of the DC Toxics TMDL's other obligations or plans, or that the County or the LACFCD have waived any rights under the Amended Consent Decree.

2.3 BENEFICIAL USES

The County Island is tributary to the freshwater portion of the Los Cerritos Channel, which has beneficial uses identified in Table 1.

Table 1: Beneficial Uses in AB/LCC Watershed Management Area

Water Body	Beneficial Uses	
Los Cerritos Channel Freshwater Portion	Existing	Wildlife Habitat (WILD)
	Potential	Municipal and Domestic Supply (MUN) Water Contact Recreation (REC1)
	Intermittent	Warm Freshwater Habitat (WARM) Non-contact Water Recreation (REC2)

2.4 INTERIM AND FINAL TMDL DEADLINES

Figure 3 shows the interim and final deadlines for the TMDLs applicable to the County Island along with notable deadlines related to the Permit.

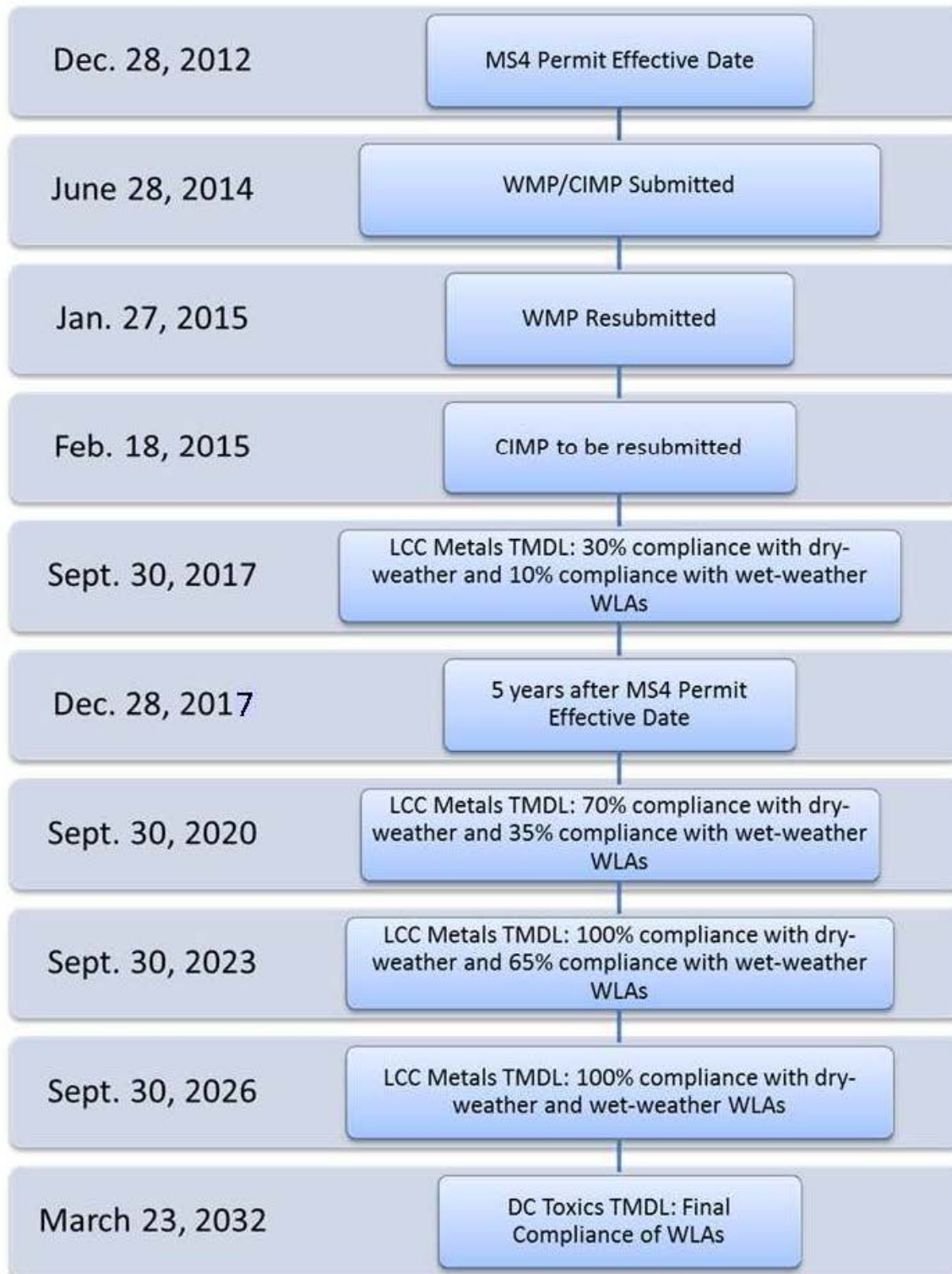


Figure 3: LCC Metals TMDL, DC Toxics TMDL Deadlines and Notable Permit Dates

Section 3. Water Quality Priorities

3.1 OBJECTIVE

Per Section VI.C.5 of the Permit, three categories of pollutants are identified to aid in the evaluation of existing water quality conditions. These classifications consist of:

- Category 1 (Highest Priority): Water body-pollutant combinations for which water quality-based effluent limitations and/or receiving water limitations are established in Part VI.E and Attachments L through R of this Order.
- Category 2 (High Priority): Pollutants for which data indicate water quality impairment in the receiving water according to the State's Water Quality Control Policy for Developing California's Clean Water Act Section 303(d) List (State Listing Policy) and for which MS4 discharges may be causing or contributing to the impairment.
- Category 3 (Medium Priority): Pollutants for which there are insufficient data to indicate water quality impairment in the receiving water according to the State's Listing Policy, but which exceed applicable receiving water limitations contained in this Order and for which MS4 discharges may be causing or contributing to the exceedance

This WMP Group is coordinating portions of its monitoring efforts, where feasible with the Los Cerritos Channel Watershed Group (LCCWG). This includes receiving and stormwater outfall monitoring efforts for the freshwater portion of the Los Cerritos Channel. The LCCWG consists of the cities of Bellflower, Cerritos, Downey, Lakewood, Long Beach, Paramount and Signal Hill. Additionally, the LCCWG contains the LACFCD's infrastructure within these cities' jurisdiction. See Figure 4 for the geographical boundaries of the LCCWG.

The LACFCD does not have jurisdiction of the land uses that create the pollutants of concern in the Alamitos Bay, Colorado Lagoon and Los Cerritos Channel Estuary watersheds. These areas are under the jurisdiction of the City of Long Beach and will be addressed under Long Beach's WMP which will be submitted in March 2015. Accordingly, Water Quality Priorities for the Alamitos Bay, Colorado Lagoon and Los Cerritos Channel Estuary will be addressed in Long Beach's WMP. Through adaptive management, the LACFCD will review Long Beach's WMP and consider on a case-by-case basis opportunities for collaboration on future projects.

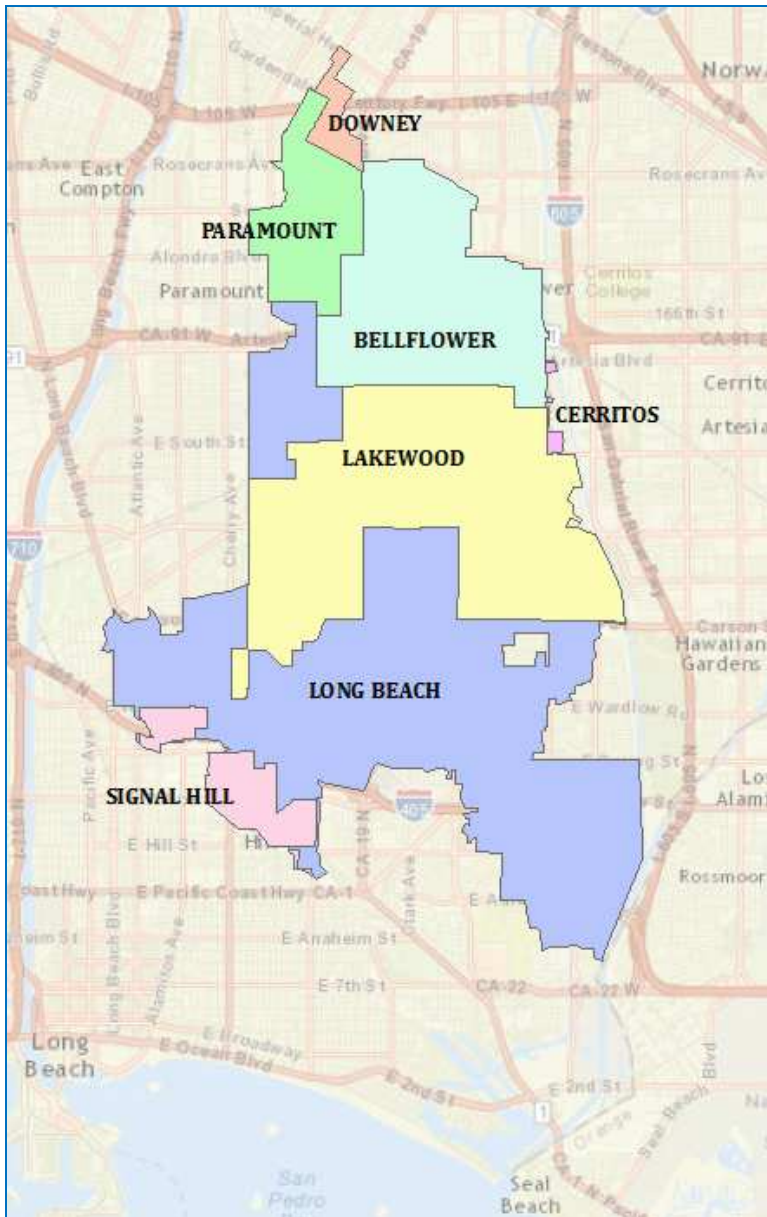


Figure 4: Los Cerritos Channel Watershed Group (LCCWG)

For consistency with the LCCWG, this WMP Group has also identified Low Priority Pollutants. These pollutants fall below the requirements of Category 3, however, there has been at least one exceedance of these pollutants within the past 10 years. Consistent with the requirements of the Permit; existing TMDLs and the 303(d) list were used to determine Category 1 and 2 pollutants. Historic monitoring data collected from the Stearns Street Mass Emission Station (Stearns Street MES) was used to determine Category 3 and low priority pollutants. Table 2 lists the high priority pollutants of concern for the freshwater portion of the Los Cerritos Channel.

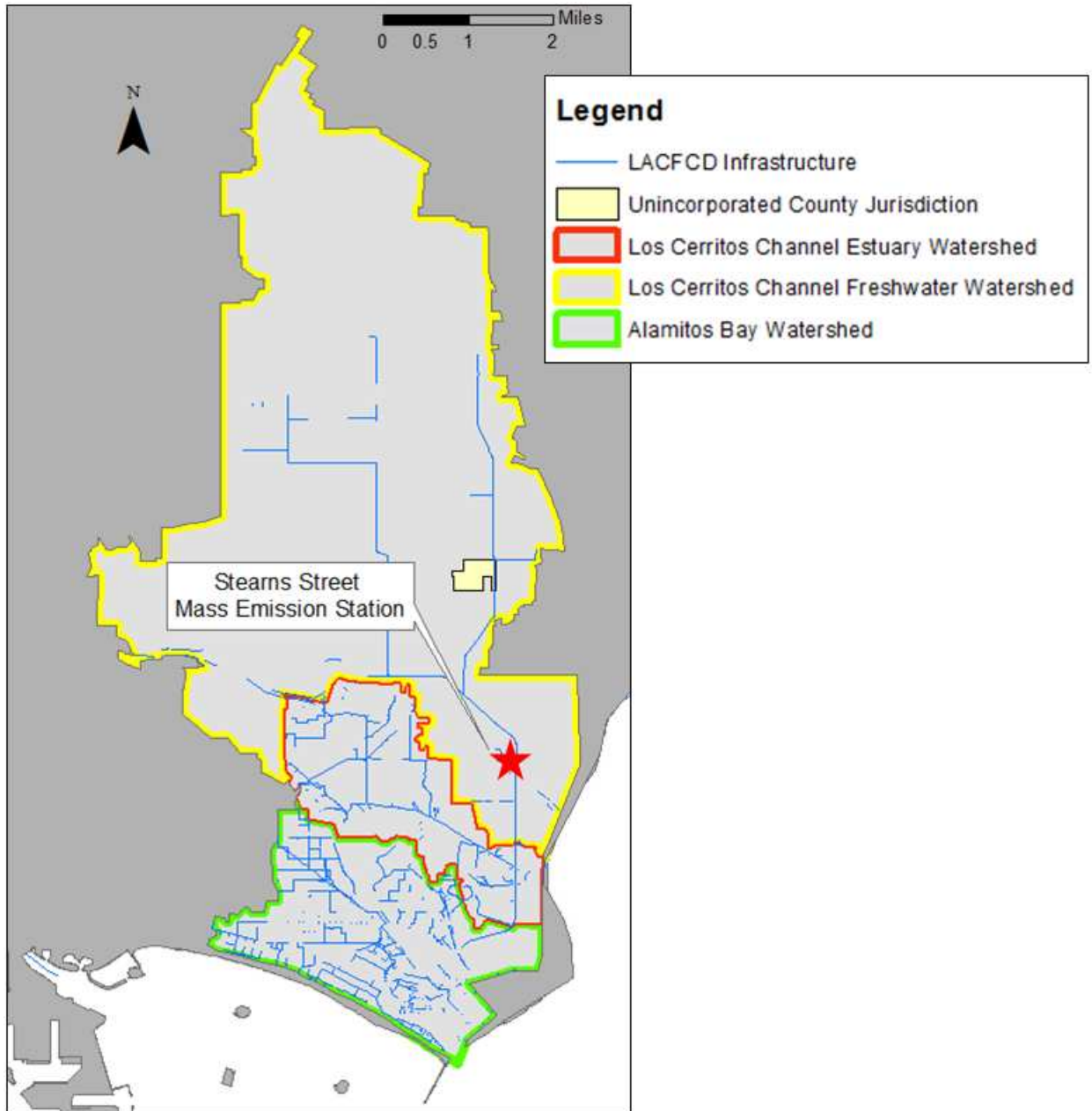


Figure 5: Stearns Street MES Location

3.2 STEARNS STREET MASS EMISSION SITE

This WMP Group has completed a detailed review of monitoring data from the Stearns Street MES. The City of Long Beach has maintained this mass emission station since 2000. Upon implementation of the LCCWG and the AB/LCC Group’s CIMPs, the City of Long Beach will coordinate with other agencies for the operation and maintenance of the Stearns Street MES. Figure 5 shows the location of the Stearns Street MES within the Los Cerritos Channel Watershed. The County Island’s discharge is comingled with other Permittees’ discharge at this location. Appendix B provides a summary of data from the past 10 years.

3.3 CATEGORY 1 (HIGHEST PRIORITY)

For the County Island, the highest priority pollutants are identified in the Los Cerritos Channel Total Maximum Daily Loads for Metals (LCC Metals TMDL) and the Total Maximum Daily Load for Toxic Pollutants in Dominguez Channel and Greater Los Angeles and Long Beach Harbor Waters (DC Toxics TMDL). A complete list of Category 1 pollutants can be found in Table 4.

3.4 CATEGORY 2 (HIGH PRIORITY)

The high priority pollutants are those identified on the 303(d) list for Los Cerritos Channel. Note that the Unincorporated County Island is tributary to the Freshwater Portion of the Los Cerritos Channel via the Palo Verde Drain. Category 2 pollutants are identified in Table 2. Copper, Lead and Zinc have been promulgated and are categorized as Category 1 pollutants per their listing in the LCC Metals TMDL. Additionally, Chlordane is 303(d) listed for the Los Cerritos Channel; however, it is included as a Category 1 pollutant per its listing in the DC Toxics TMDL.

Table 2: Category 2: High Priority Pollutants- Freshwater Portion of Los Cerritos Channel

Water Body	Category 2 (High Priority)	Receiving Water Limitations
Freshwater Portion of Los Cerritos Channel	Ammonia	0.1 mg/L
	Bis(2-ethylhexyl) phthalate (DEHP)	5.9 mg/L
	Coliform Bacteria	235 MPN/100ml
	Trash	N/A
	pH	6.5-8.5

3.5 CATEGORY 3 (MEDIUM PRIORITY)

A thorough analysis was conducted on data collected at the Stearns Street MES from 2003 to 2013. The Permit defines Category 3 pollutants as those

“for which there are insufficient data to indicate water quality impairment in the receiving water according to the State’s Listing Policy, but which exceed applicable receiving water limitations contained in this Order and for which MS4 discharges may be causing or contributing to the exceedance.”

The pollutants that meet the criteria for Category 3 are methylene blue active substances (MBAS) and enterococcus. Enterococcus is considered a concern for marine environments. The Stearns Street MES is located in the freshwater portion of the Los Cerritos Channel, however, this section of channel discharges to a marine environment. Thus enterococcus was included and compared to saltwater standards. A detailed summary of data from the Stearns Street MES is found in Appendix B

Review of the monitoring data for Aluminum at the Stearns Street MES between 2003 and 2013 shows samples exceeded minimum levels. The native soil in this region has naturally high Aluminum levels, therefore it is expected that an elevated level of Aluminum is found in stormwater samples. Additionally, the minimum level for Aluminum is established for drinking water criteria and is not appropriate for comparison to stormwater samples. As noted in Table 2-1 of the “Water Quality Control Plan Los Angeles Region – Basin Plan for the Coastal Watersheds of Los Angeles and Ventura Counties” the Municipal and Domestic Supply

Beneficial Use designation for the Los Cerritos Channel may be considered for exemption at a later date. Due to these concerns, Aluminum is excluded from Category 3 pollutants.

Table 3: Category 3: Medium Priority Pollutants - Freshwater Portion of Los Cerritos Channel

Water Body	Category 3 (Medium Priority)	Receiving Water Limitations
Freshwater Portion of Los Cerritos Channel	MBAS	0.5 mg/L
	Enterococcus*	104 MPN/100 ml

*Enterococcus uses a saltwater standard. This is included as the freshwater portion of Los Cerritos Channel discharges to an estuary.

3.6 LOW PRIORITY POLLUTANTS

Low Priority pollutants of concern for the freshwater portion of the Los Cerritos Channel are identified as those that fall below the requirements of Category 3, however there has been at least one exceedance of these pollutants within the past 10 years. In review of the data from the Stearns Street MES, Cadmium, Chlorpyrifos, Chromium and Dissolved Silver meet this criteria for wet weather and Diazinon meets this criteria for wet and dry weather.

3.7 SUMMARY

In summary, Table 4 lists all pollutant categories applicable to the County Island.

Table 4: Water Quality Priorities for the Freshwater Portion of the Los Cerritos Channel

Waterbody	Category 1 (Highest Priority)		Category 2 (High Priority) Pollutants	Category 3 (Medium Priority) Pollutants	Low Priority Pollutants
	Pollutant	TMDL			
Freshwater Portion of Los Cerritos Channel	Copper (wet and dry)	LCC Metals	Ammonia	MBAS	Cadmium (wet)
	Lead	LCC Metals/DC Toxics	Bis(2-ethylhexyl) phthalate (DEHP)	Enterococcus	Chlorpyrifos (wet)
	Zinc	LCC Metals/DC Toxics	Coliform Bacteria		Chromium (wet)
	DDT (fish tissue)	DC Toxics	Trash		Diazinon (wet and dry)
	PCBs (fish tissue)	DC Toxics	pH		Dissolved Silver (wet)
	Chlordane	DC Toxics			
	PAHs (sediment)	DC Toxics			
	Toxicity (sediment)	DC Toxics			

Section 4. Source Assessment

4.1 OBJECTIVE

Per Section VI.C.5.a.iii of the Permit, this section identifies potential sources of Category 1-3 pollutants.

4.2 CATEGORY 1 (HIGHEST PRIORITY)

Category 1 pollutants are derived from the LCC Metals TMDL and the DC Toxics TMDL. The LCC Metals TMDL dated March 17, 2010 states that sources of metals in stormwater include *“automobile brake pads, vehicle wear, building materials, pesticides, erosion of paint and deposition of air emissions from fuel combustion and industrial facilities.”* Within the AB/LCC Group’s jurisdiction there are no industrial facilities.

The remaining Category 1 pollutants are identified in the DC Toxics TMDL. The Final Staff Report for the DC Toxics TMDL, dated May 5, 2011 states *“Metals and PAHs are currently generated or deposited in the watersheds and are then washed into storm drains and channels that discharge to the Dominguez Channel and Greater Harbor Waters. PCBs, DDT, dieldrin, toxaphene, and chlordane are legacy pollutants for the most part, yet, they remain ubiquitous in the environment, bound to fine-grained particles. When these particles become waterborne, the chemicals are often transported downstream and deposited within estuarine or marine waters.”*

As described in Section 6.3.4, Zinc is the controlling agent for this WMP Group. Zinc in stormwater is mainly the result of tires and galvanized metals. Other metals constituents have the same fate and transport as Zinc, therefore treatment of Zinc will address other metal constituents in Category 1.

4.3 CATEGORY 2 (HIGH PRIORITY)

Category 2 includes five pollutants. Of these Bis(2-ethylhexyl) phthalate (DEHP) and trash share the same source. DEHP is a plasticizer which is used in plastic and can enter the receiving water through trash. The State Water Resources Control Board’s Draft Amendment to Statewide Water Quality Control Plans to Control Trash states that:

“A major source of trash is either intentionally or accidentally improperly discarded waste, thrown or deposited on land and in water bodies. If trash occurs on land, it is commonly transported to nearby water bodies by wind and/or rain or dry season runoff.”

During three quarters of dry weather screening, there has been no significant dry season runoff originating from the County Island. Also, as described in Section 6.3.5.5 the AB/LCC Group will install full capture devices on the catch basins within its jurisdiction. This will help prevent trash from entering the receiving water.

Sources of Bacteria in the AB/LCC Group’s jurisdiction can be broken up into anthropogenic and non-anthropogenic sources. Anthropogenic sources are those resulting from the influence of human beings on nature. These sources include sanitary sewer overflows, organic debris from food waste and other sources such as illegal dumping. Non-anthropogenic sources include animal wastes and decay of vegetation.

Possible sources of Ammonia are animal waste, fertilizer and other landscaping activities. It should be noted that the LCCWG is proposing Ammonia and pH for de-listing in the freshwater portion of the Los Cerritos Channel. The appendices of the LCCWG's "Los Cerritos Channel Watershed Management Program" provide a detailed analysis of the natural process which creates elevated pH and Ammonia levels. High Ammonia concentrations in the Los Cerritos Channel are directly related to high levels of pH. Elevated pH levels are caused by a naturally occurring cycle; however, this cycle is amplified by the small volume of dry weather flow sheet flowing across the concrete channel bottom. In recent years, there has been a significant decrease in dry weather flow in the Los Cerritos Channel. In agreement with the LCCWG, this WMP Group supports the effort for delisting Ammonia and pH.

4.4 CATEGORY 3 (MEDIUM PRIORITY)

This WMP Group has two Category 3 pollutants, MBAS and enterococcus. MBAS is typically linked to detergents and other cleaning products. Enterococcus has similar sources to those of coliform bacteria which are listed above (Section 4.3).

Section 5. Watershed Control Measures

5.1 OBJECTIVE

Per Section VI.C.5 of the Permit, permittees shall provide documentation that they have the necessary legal authority to implement the Watershed Control Measures identified in the plan, or that other legal authority exists to compel implementation of the Watershed Control Measures. The legal authority for the County and LACFCD to implement Watershed Control Measures can be found in Appendix C and D respectively.

Additionally, Section VI.5.b.i of the Permit requires Permittees to identify strategies, control measures, and to implement BMPs through their individual storm water management programs, and collectively on a watershed scale, with the goal of creating an efficient program to focus individual and collective resources on watershed priorities. The objectives of the Watershed Control Measures include:

- (1) Prevent or eliminate non-storm water discharges to the MS4 that are a source of pollutants from the MS4 to receiving waters.
- (2) Implement pollutant controls necessary to achieve all applicable interim and final water quality-based effluent limitations and/or receiving water limitations pursuant to corresponding compliance schedules.
- (3) Ensure that discharges from the MS4 do not cause or contribute to exceedances of receiving water limitations.

5.2 CONTROL MEASURES

This WMP Group has identified numerous control measures, or BMPs for the County Island. Due to the limited area of the County Island, there is little room for large-scale BMPs although this WMP Group will investigate opportunities to collaborate with other permittees. Potential non-structural BMPs applicable to the County Island include enhanced street sweeping, and increased catch basin cleanouts. Potential structural BMPs would be those that require a small footprint such as drainage filtration catch basins and full capture devices. A detailed evaluation of potential BMPs for the County Island can be found in the Section 6 of this WMP.

5.3 MINIMUM CONTROL MEASURES

Section VI.D.4 of the Permit provides requirements for minimum control measures for the LACFCD and Section VI.D.5-10 provides requirements for each permittee.

5.3.1 MCM Requirements for the LACFCD

In general, the requirements for the LACFCD involve:

- Implementing a Public Information and Participation Program (PIPP),
- For LACFCD Industrial or Commercial Facilities, complying with section VI.D.6 of the Permit,
- Implementing a Public Agency Activities Program,

- Continuing to implement an Illicit Connection and Illicit Discharge Program.

The LACFCD is currently implementing all of these requirements and will continue to do so for the duration of this Permit.

5.3.2 MCM Requirements for the County of Los Angeles

In general, the requirements for each permittee involve:

- Implementing a Public Information and Participation Program (PIPP)
- For each Permittee's Industrial or Commercial Facilities, complying with section VI.D.6 of the Permit
- Implementing a Planning and Land Development Program pursuant to Section VI.D.7.b for all New Development and Redevelopment projects subject to the Permit
- Developing a Construction Program subject to Section VI.D.8 of the Permit
- Implementing a Public Agency Activities Program
- Continuing to implement an Illicit Connection and Illicit Discharge Program

The County will implement all of these requirements upon approval of this WMP and will continue to do so for the duration of this Permit.

Section 6. Reasonable Assurance Analysis

6.1 OBJECTIVE

Per Section VI.C.5.b.iv.5 of the Permit, this WMP Group has conducted a Reasonable Assurance Analysis (RAA) for the areas in which it has jurisdiction of the land use. The Permit requires:

- The RAA shall be quantitative and performed using a peer-reviewed model in the public domain.
- The RAA shall commence with assembly of all available, relevant subwatershed data collected within the last 10 years, including land use and pollutant loading data, establishment of quality assurance/quality control (QA/QC) criteria, QA/QC checks of the data, and identification of the data set meeting the criteria for use in the analysis.
- Data on performance of watershed control measures needed as model input shall be drawn only from peer-reviewed sources. These data shall be statistically analyzed to determine the best estimate of performance and the confidence limits on that estimate for the pollutants to be evaluated.
- The objective of the RAA shall be to demonstrate the ability of Watershed Management Programs and EWMPs to ensure that Permittees' MS4 discharges achieve applicable water quality based effluent limitations and do not cause or contribute to exceedances of receiving water limitations.

Additionally, the LARWQCB has released "Guidelines for Conducting Reasonable Assurance Analysis in Watershed Management Program, including an Enhanced Watershed Management Program dated March 25, 2014" (RAA Guidelines). The RAA Guidelines were prepared to provide clarification of the permit requirements regarding the RAA, along with recommended criteria for the permittees to prepare an appropriate RAA for LARWQCB approval.

This section documents the analysis and results of the RAA effort to address stormwater and non-stormwater discharges originating from the County Island. Further, a comprehensive phased approach of BMP implementation is provided. The benefits of BMPs are estimated, in terms of pollutant load reductions, to meet applicable wasteload allocations (WLAs).

This WMP Group has land use jurisdiction over the County Island. The LACFCD does not have jurisdiction of the land uses that create the pollutants of concern in the Alamitos Bay and Los Cerritos Channel Estuary watersheds. These areas are under the jurisdiction of the City of Long Beach and the associated RAA will be addressed under Long Beach's WMP which will be submitted in March 2015. Through adaptive management, the LACFCD will review Long Beach's WMP and consider on a case-by-case basis opportunities for collaboration on future projects.

6.2 NON-STORMWATER APPROACH

This WMP Group has begun to implement a thorough Non-Stormwater Outfall Monitoring Program. Details of this program can be found in the AB/LCC CIMP. Based on suggestion from the LARWCQB, the program includes quarterly screening of outfalls in the Group's jurisdiction for the duration of 1 year. This WMP Group has identified significant dry weather flow as: 1) flow which is greater than a garden hose originating from the County Island 2) Flow

that is seen 2 out of the 4 screening events. Screenings for the Spring, Fall and Winter seasons have taken place. These screenings have found no significant dry weather flow originating from the County Island. As no significant flow has been found originating from the County Island, dry weather runoff from the County Island is not a concern and does not need to be modeled. A Summer screening is scheduled for 2015. Figure 6 shows the catch basins, flow direction of surface runoff, major and other outfalls in the County Island.



Figure 6: Catch Basins, Flow Direction and Outfalls in County Island

6.3 STORMWATER QUALITY MODEL/APPROACH

This WMP Group utilized the Watershed Management Modeling System (WMMS) to model flows and pollutant loading originating from the County Island. WMMS is a LARWQCB approved model developed as a comprehensive decision support system to help select BMPs, to aid watershed planning and development of strategic TMDL compliance plans.

The following approach was used for conducting the RAA:

1. Identify land area for analysis
2. Run WMMS for identified land area for a 10-year period (October 15, 2000 to April 15, 2011)

3. Select Critical Condition storm
4. Determine Critical Condition Daily Pollutant Load
5. Compare Critical Condition Daily Pollutant Loads to WLA limits
6. Identify non-structural and structural BMPs
7. Develop schedule to meet needed percent reductions

6.3.1 Land Area Identification

The RAA was conducted for areas in which the WMP Group has jurisdiction over the land use. Accordingly, the 95-acre County Island was modeled. The County Island is located completely within WMMS sub basin 5505. The WMMS model was prepared to isolate only those land uses of the County Island. For reference, sub basin 5505 and neighboring WMMS sub basins are shown in Figure 7.

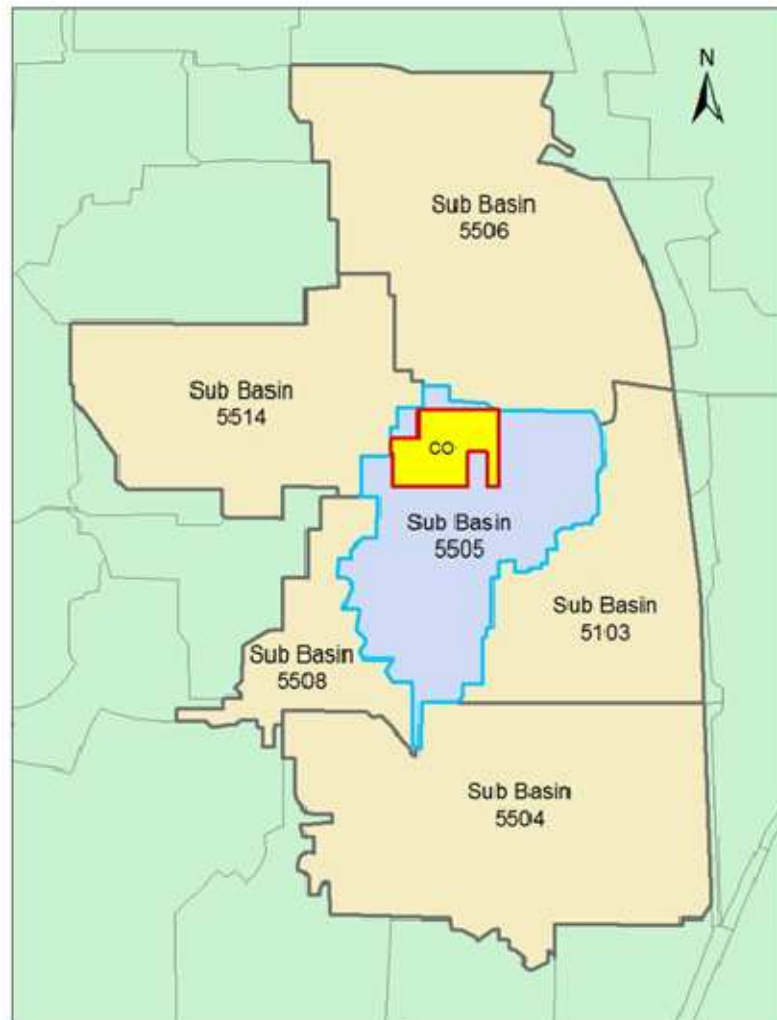


Figure 7: County Island, WMMS Sub Basin 5505 and Neighboring Sub Basins

The Unincorporated County Island Hydrologic Response Units (HRU) and associated Impervious Area distribution is presented in Figure 8 and Table 5.

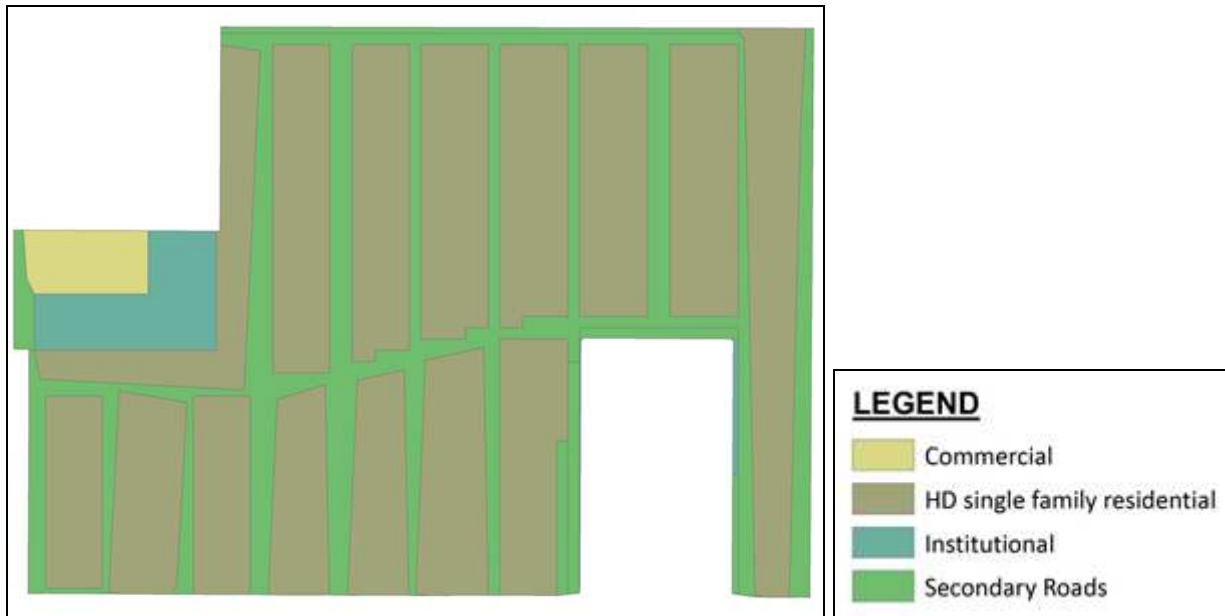


Figure 8: Unincorporated County Island HRU Map

Table 5: HRU Breakdown for County Island

HRU ID	HRU Description	Area (acre)	Impervious Area Percentage	Impervious Area (acre)
1	High Density, Single Family Residential	63.27	42%	26.57
5	Commercial	1.98	96%	1.90
6	Institutional	4.01	75%	3.01
9	Secondary Roads	25.39	44%	11.17

6.3.2 WMMS Analysis

WMMS was populated with the most current information available for input into model. At the time of analysis, data from the 2000-2001 to the 2010-2011 Storm Seasons (October 15, 2001 to April 15, 2011) was available. Figure 9 shows the WMMS output of daily storm volumes. As there is no specific monitoring data for the County Island, or the surrounding subwatershed, WMMS analysis was conducted utilizing built-in parameters. As data is collected during the implementation of this Group's CIMP, WMMS will be calibrated, if necessary. The WMMS output utilizing the built-in parameters included hourly/daily storm volumes as well as hourly/daily pollutant loading. The WMMS input files used for analysis have been submitted to the LARWQCB.

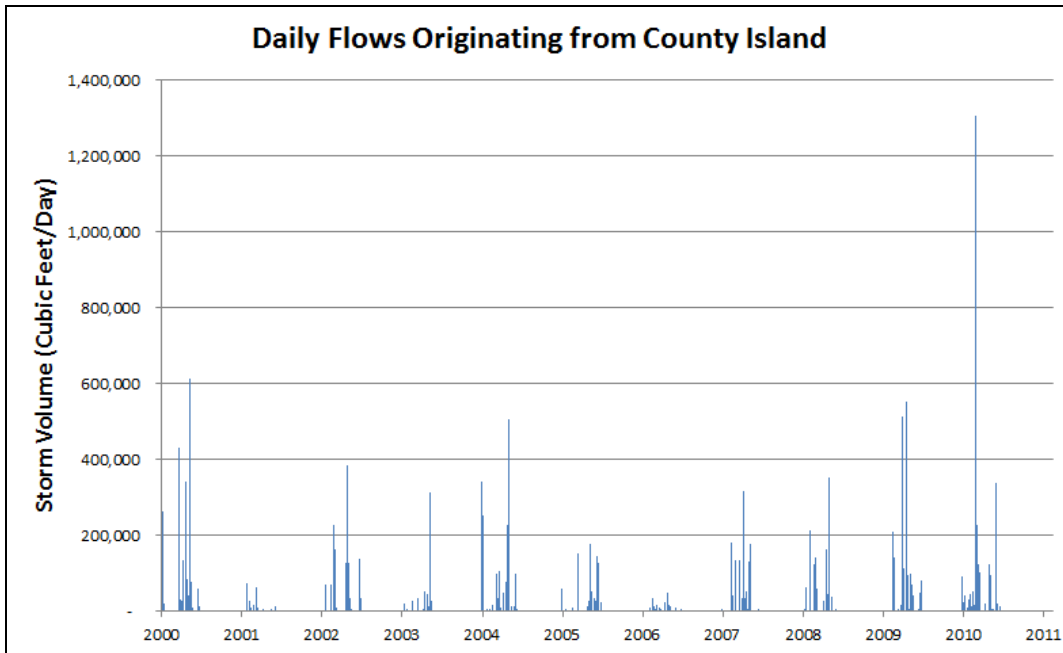


Figure 9: Daily Flows Originating from County Island

6.3.3 Critical Storm

Per the RAA Guidelines, the 90th percentile flow volume was to be determined. Accordingly, all storms occurring from October 15, 2001 to April 15th 2011 were ordered based on the magnitude of their storm volume as shown in Figure 10. The 90th percentile (Critical Condition) storm was then selected. For the County Island, the Critical Condition storm was selected as a storm event which occurred on February 5, 2009. Appendix E contains the dates of storms analyzed and their associated storm volumes in a tabular format.

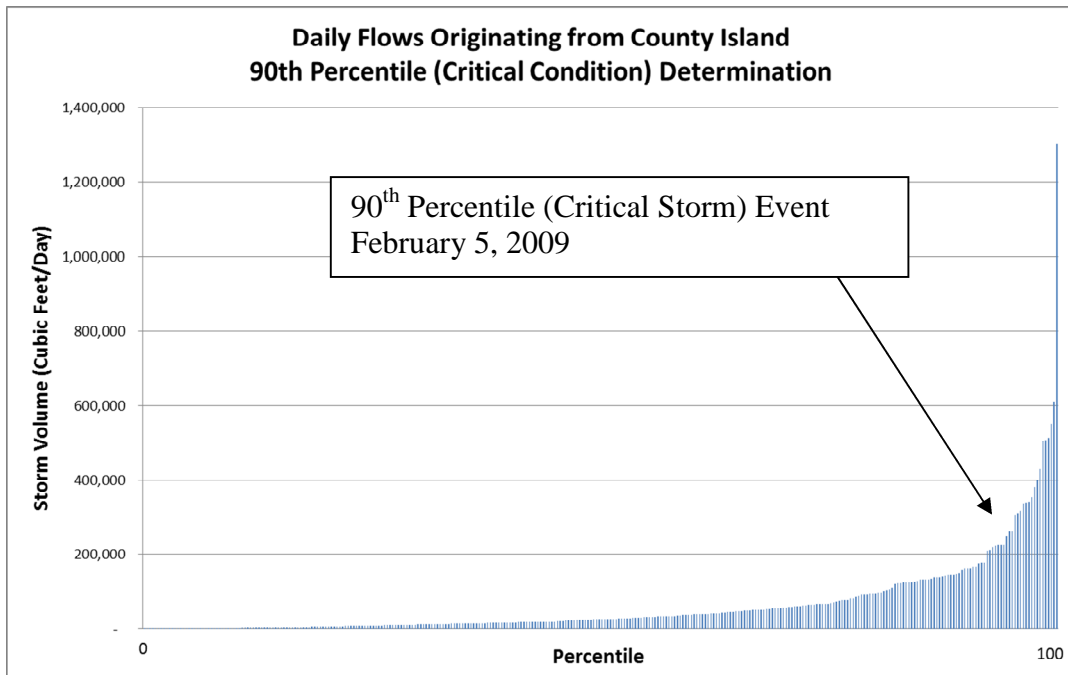


Figure 10: County Island Storms Ordered by Storm Volume

6.3.4 Critical Condition Daily Pollutant Load

The WMMS output was then analyzed and the Critical Condition Daily Pollutant Load and the allowable loading per the LCC Metals TMDL were calculated. This analysis used the 90th Percentile Critical storm event volume (3.7 acre-feet) and the LCC Metals TMDL allowable concentrations found in Table 6-7 of the LCC Metals TMDL (as shown in Table 6 below).

Table 6: Wet-Weather Stormwater Allocations per LCC Metals TMDL

Metal	Los Angeles County MS4 Permittee (g/day)
Copper	4.709 x daily storm volume (L) x 10 ⁻⁶
Lead	26.852 x daily storm volume (L) x 10 ⁻⁶
Zinc	46.027 x daily storm volume (L) x 10 ⁻⁶

The Critical Condition Daily Pollutant Load was calculated as:

$$\text{Critical Condition Daily Pollutant Load} = \text{Critical Condition Storm Event Volume} \times \text{Modeled Critical Condition Concentration}$$

Similarly, the LLC Metals TMDL Allowable Daily Load was calculated as:

$$\text{TMDL Allowable Daily Load} = \text{Critical Condition Storm Event Volume} \times \text{LCC Metals TMDL Allowable Concentration}$$

As shown in Table 7, the modeled Critical Condition Daily Pollutant Loads of Copper, Lead and Zinc were calculated:

- Critical Condition Daily Pollutant Copper Loading: 0.080 kg
- Critical Condition Daily Pollutant Lead Loading: 0.078 kg
- Critical Condition Daily Pollutant Zinc Loading: 0.764 kg

Table 7: Critical Condition and Allowable Daily Load Calculation

LCC Metals TMDL Pollutant	Critical Condition Storm Event Volume (acre-ft.)	Critical Condition Storm Event Volume (L)	LCC Metals TMDL Allowable Conc. (micrograms/L)	Modeled Critical Cond. Conc. (micrograms/L)	TMDL Allowable Daily Load (kg)	Modeled Critical Cond. Daily Pollutant Load (kg)
Copper	3.7	4,593,216	4.709	17.52	0.022	0.080
Lead	3.7	4,593,216	26.852	16.897	0.123	0.078
Zinc	3.7	4,593,216	46.027	166.225	0.211	0.764

A time series analysis for LCC Metals TMDL constituents can be found in Appendix G. Other Category 1 pollutants identified in the DC Toxics TMDL were considered. These pollutants have similar fate and transport as the LCC Metals TMDL constituents, i.e. the toxics and metals move through and are transformed physically, chemically and biologically the same in the environment. The DC Toxics TMDL's final compliance date is over 5 years after the LCC

Metal TMDL's. By using the limiting pollutant approach in this RAA, treatment of the Critical LCC Metals Condition will address the DC Toxics TMDL.

Category 2 and 3 pollutants were then analyzed for their Critical Condition. As discussed in Section 4.3, Ammonia and pH are proposed for delisting and do not need to be modeled. Ammonia is directly related to sediment; therefore, proposed BMPs to treat Metals will also reduce Ammonia.

As discussed in Section 4.3, Bis(2-ethylhexyl) phthalate (DEHP) and trash share the same source. DEHP is a plasticizer which is used in plastic and is typically associated with trash. As discussed in Section 6.3.5.5, this WMP Group will install full capture devices on the catch basins in their jurisdiction to significantly reduce trash. Therefore, trash and DEHP do not need to be modeled.

To address Bacteria and in particular Coliform Bacteria, WMMS was used to analyze Fecal Coliform. As seen in Table F.1 of Appendix F, the 2004-2005 storm season is the 90th percentile year for Bacteria. Page 4 of the RAA guidelines state:

“For pollutants included in the RAA but for which there is no TMDL, permittees should consider expressing pollutant loading in terms of averaging periods/duration/critical conditions consistent with those used in TMDLs for that pollutant in order to proactively address the water quality problem in such a way as to avoid the need for a TMDL in the future if possible.”

This WMP Group utilized the methodology outlined by the Ballona Creek, Ballona Estuary and Sepulveda Channel Bacteria TMDL. This TMDL allows for 17 wet weather exceedance days. Storms during the 2004-2005 season were arranged based on magnitude and the 18th largest storm was selected as the Critical Condition Bacteria storm event. This storm produces a 1.09 acre-feet volume. The Critical Condition Bacteria storm volume is far below the 90th Percentile Critical Storm Volume (3.7 acre-feet) chosen for the LCC Metals TMDL. Therefore, treatment of the LCC Metals TMDL will also meet applicable Bacteria limits.

MBAS is typically linked to detergents and other cleaning products. The County Island's contribution of MBAS will be determined based on actual monitoring results from implementation of the Group's CIMP. Enterococcus is a bacteria similar to Fecal Coliform and will be addressed through the previously discussed Bacteria analysis.

6.3.4.1 Comparison of Daily Pollutant Loads to WLA Limits

WLA's for Copper, Lead and Zinc were identified in the LCC Metals TMDL. Limits in the DC Toxics TMDL were identified; however, due to the County's minimal land area tributary to the San Pedro Bay (less than 0.5% of the watershed) reasonable allocations could not be determined. The County Island's contribution to the San Pedro Bay will be determined based on actual monitoring results from implementation of the AB/LCC Group's CIMP. The Critical Condition Daily Pollutant Loads from WMMS were then compared to the WLA from the LCC Metals TMDL (Table 8).

Table 8: Analysis Based on WMMS Results

Critical Condition Storm	Copper			Lead			Zinc		
	Daily Pollutant Load (kg)	TMDL Allowable Daily Load (kg)	Required Daily Load Reduction (kg)	Daily Pollutant Load (kg)	TMDL Allowable Daily Load (kg)	Required Daily Load Reduction (kg)	Daily Pollutant Load (kg)	TMDL Allowable Daily Load (kg)	Required Daily Load Reduction (kg)
February 5, 2009 (3.7 acre-feet)	0.080	0.022	0.059	0.078	0.123	0.000	0.764	0.211	0.552
% Reduction Required	73%			0%			72%		

Key conclusions from the comparison are:

- Lead is within the required TMDL limits
- Copper requires the highest reduction; however, based on an analysis of SB 346 it will not be the controlling agent (see Section 6.3.5.2 for more information)
- Zinc will be the controlling agent

The RAA is conducted under the assumption that if the controlling agent is reduced to the required WLA, all other metals will also be in compliance.

6.3.5 Identification of Potential Non-Structural and Structural BMPs

The implementation of non-structural and structural BMPs aims to build a reasonable approach to achieve the required percent reduction of the controlling agent. For this WMP Group, the controlling agent is Zinc, which requires a 72% reduction. The WMP Group plans to achieve this reduction through a combination of existing and planned control measures, then, if necessary through additional BMP implementation. It should be noted that the LCC Metals TMDL has a final compliance milestone of September 2026; accordingly, the implementation of BMPs will rely heavily on the results of monitoring data provided by the CIMP.

The sections below list existing and planned BMPs as well as identify potential BMPs for this WMP Group.

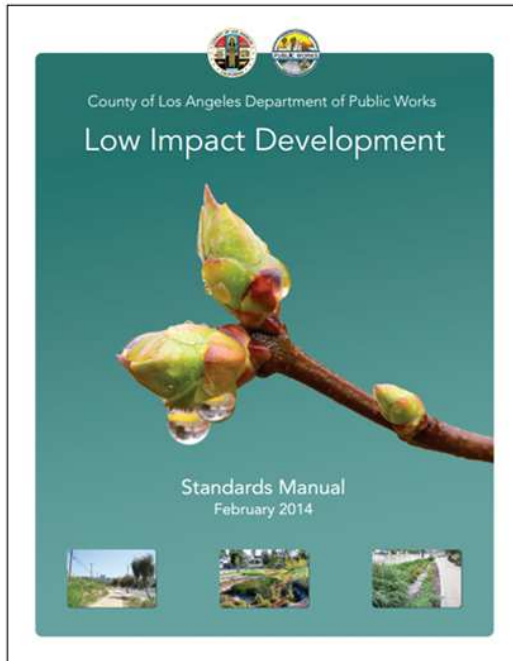


Figure 11: County's Low Impact Development Manual

6.3.5.1 Low Impact Development (Existing Non-Structural BMP)

The County's revised Low Impact Development (LID) Ordinance was adopted by the Los Angeles County Board of Supervisors in November 2013. Shortly after the adoption of the Ordinance, the County developed a LID Manual.

The LID Manual details two types of projects, Designated Projects and Non-Designated Projects. Designated Projects must infiltrate the entire volume of the Water Quality Design Storm (WQDS). The WQDS is calculated to be either the 0.75 inch storm or the 85th percentile storm, whichever is greater. The WQDS is intended to be the design storm which provides the maximum benefit for minimal cost. Designated projects include:

- Sites disturbing 1 acre or more and adding 10,000 sq. ft. + impervious area
- Industrial parks 10,000 sq. ft. + impervious area
- Commercial malls 10,000 sq. ft. + impervious area
- Gas outlets 5,000 sq. ft. + impervious area
- Restaurants 5,000 sq. ft. + impervious area
- Parking lots 5,000 sq. ft. + impervious area or 25 + parking spaces
- Auto facilities 5,000 sq. ft. + impervious area
- Redevelopment projects adding, replacing, creating 5,000 sq. ft. + impervious area
- Sites within Significant Ecological Area that impact sensitive species or habitat and create 2,500 sq. ft. + impervious area

If infiltration is not feasible at the designated projects sites, the LID Manual provides other options for meeting compliance.

The LID Manual also provides requirements for Non-Designated Projects. These requirements are residential projects of 4 units or less that do not fall under the designated project thresholds. The property developer must choose 2 of the following BMPs:

- Porous Pavement
- Cistern/Rain Barrel
- Rain Garden/Planter Box
- Disconnect Impervious Surfaces
- Dry Well

- Landscaping and Landscape Irrigation
- Green Roof

Non-Designated Projects that are residential projects of 5 units or more or a non-residential project must infiltrate the post-development WQDS runoff minus pre-development WQDS runoff. The LID Manual also provides additional compliance requirements for special cases such as single family hillside homes. Further details can be found in the County of Los Angeles' Low Impact Development Manual, dated February 2014.

A majority of the County Island is high-density single family residential. The County's LID Ordinance requires:

- Redevelopment of an existing single family house would be a "non-designated project". LID would be required if there is "addition or alteration" of impervious surfaces.
- If a property owner adds or alters 50% of the impervious surface, then property owner would have to treat the WQDS for the entire site.
- If the property owner adds or alters less than 50% of their site, then the property owner would need LID only for the portion that has been altered.
- Redevelopment of a property over 5,000 square feet would be a "designated project". The property owner would need to infiltrate the volume of runoff created. If they are unable to infiltrate, the proper owner would be subject to other mitigation options.

Assuming a limited rate of implementation of LID for the County Island, a 1% reduction for Zinc is applied to the Critical Condition Daily Pollutant Load prior to the LCC Metals Final Compliance Date (September 2026). A 0.2% reduction is applied before the first LCC Metals TMDL interim deadline (September 2017).

6.3.5.2 Senate Bill 346 (Existing Non-Structural BMP)

In 2010, California Senate Bill SB 346 (SB 346) was enacted to nearly eliminate the use of Copper in brake pads. In 2012, TDC Environmental LLC prepared a draft detailed memo (TDC memo) describing the expected percent reduction of Copper reductions. The TDC memo identifies 3 possible implementation scenarios:

- One Step Reduction
 - All new vehicles and replacement brake pads are reformulated to contain less than 0.5% Copper by January 1, 2021 (first SB 346 compliance deadline).
- Two Step Reduction
 - New vehicle brake pads are reformulated to contain less than 5% copper by January 1, 2021 and less than 0.5% Copper by 2025. It would be assumed that all higher Copper replacement brakes would be sold within two years of each compliance date.
- Aftermarket Exemption
 - New vehicle brake pads are reformulated to contain less than 5% copper by January 1, 2021 and less than 0.5% copper by 2025. This scenario assumes that higher Copper replacement brakes would continue to be sold indefinitely.

Of these cases, Scenario 1 is considered to be the most optimistic and Scenario 3 the most conservative. All scenarios were then analyzed over a fourteen-year period. The TDC memo determines the following copper reductions by the year 2032:

- Scenario 1: 61% Copper reduction
- Scenario 2: 61% Copper reduction
- Scenario 3: 55% Copper reduction

Per the LCC Metals TMDL, the County Island must attain 100% dry weather compliance by September 2023 and 100% wet weather compliance by September 2026. Using Scenario 3 (the most conservative approach), and interpolating values identified in the TDC memo, it is assumed that there will be a 33.5% reduction in Copper by 2023 and a 44% reduction in Copper by 2026. Copper requires the highest reduction; however, based on the projected outcomes of SB 346, Copper will not be the controlling agent. Copper has the same fate and transport as the controlling pollutant Zinc. Therefore, BMPs which address Zinc will also enhance the treatment of Copper in the County Island jurisdiction.

6.3.5.3 Enhanced Street Sweeping (Planned Non-Structural BMP)

Street sweeping is a well-known, non-structural BMP, which removes trash, natural debris and sediment from roads and parking lots. Street sweeping can improve the quality of stormwater runoff by reducing the amount of sediment-bound pollutants that enter catch basins, storm drains and eventually receiving waters.

The County Island is currently swept once a week, historically, this was done mostly by mechanical broom sweepers. The County Island is currently swept by a contractor using a vacuum sweeper. This WMP Group reviewed numerous studies related to street sweeping including:

- Potential Effects of Structural Controls and Street Sweeping on Stormwater Loads to the Lower Charles River, Massachusetts Study
- City of San Diego, Targeted Aggressive Street Sweeping Pilot Study

These studies show that efficient street sweepers such as assisted-vacuum or regenerative-air sweepers are the best machines at removing finer-grained contaminants bound to sediment. Also, the City of San Diego Study found that the assisted vacuum sweeper outperformed the regenerative-air sweeper. The County will ensure that either through in-house forces or through contractors, the County Island continues to be swept by a Vacuum Sweeper.

The County currently maintains a fleet of 48 street sweepers, 38 of which are mechanical broom sweepers and 10 are regenerative-air sweepers. Over the next few years, the County will upgrade a portion of its mechanical broom street sweepers with new high efficiency vacuum street sweepers. Additionally, the County will be conducting a special study to demonstrate the High-Efficiency Vacuum Street Sweepers effect on water quality.

Based on thorough literature review, this WMP Group determined a 5% reduction of Zinc for its efforts in upgrading its fleet to high efficiency vacuum sweepers. This reduction considers the fact that the County Island has very little slope and it is assumed that sediment is retained in the curb and gutter of the County Island. Accordingly, it is expected that the vacuum sweeper will

collect a large amount of sediment that would otherwise be mobilized into the receiving water during a storm event.

6.3.5.4 Irrigation Ordinance (Existing/Potential Non-Structural BMP)

On October 7, 2008, the County of Los Angeles Board of Supervisors adopted Ordinance No. 2008-00052U, which states that:

- *“No person shall hose water or wash down any sidewalks, walkways, driveways, parking areas of other paved surfaces, except as is required for the benefit of public health and safety.”*
- *“No person shall water or cause to be watered any lawn or landscaping to such an extent that runoff into adjoining streets, parking lots or alleys occurs due to incorrectly directed or maintained sprinklers or excessive watering.”*
- *“No motor vehicle, boat, trailer, or other type of mobile equipment may be washed, except at a commercial carwash or with reclaimed water, unless such vehicle is washed by using a hand-held bucket or a water-hose equipped with an automatic shutoff nozzle.”*

Violations of the subject ordinance are subject to fines. This is an existing BMP; however, depending on budgetary needs, the County may allocate additional resources to increase enforcement of this ordinance.

6.3.5.5 Full Capture Devices (Planned Structural BMP)

In April 2007, after extensive research, testing, and development, the County submitted a Full-Capture Device Technical Report for the connector pipe screen (CPS) device to the LARWCQB. The CPS device was subsequently certified by the LARWCQB as an approved full-capture device on August 1, 2007. The LARWCQB has stated:

“a full-capture system is any single device or series of devices that traps all particles retained by a 5-millimeter mesh screen (100 percent trash removal) and has a design treatment capacity of not less than the peak-flow rate resulting from a one-year, one-hour, storm in the subdrainage area.”

CPS devices are designed to reduce trash, but also provide the ancillary benefit of reducing sediment from entering the storm drain system.

The County has successfully implemented CPS units in many of unincorporated County Islands. Additionally, the County has implemented Automatic Retractable Screens (ARS) in numerous locations. ARS devices are placed at the curb inlet of the catch basin adjacent to the roadway. During dry weather and low flow conditions, trash, plastics, vegetative debris and other objects are prevented from entering the catch basin. During routine street sweeping, this material is swept from the curb inlet and removed from the watershed. To prevent localized flooding during heavy runoff, the ARS device is automatically opened via pressure from stormwater on the face of the ARS device. Debris that may enter the catch basin is then filtered by the CPS unit.

Design of the CPS and ARS devices is underway and the County plans to implement this BMP on the 3 catch basins within its jurisdiction by Spring 2016. Design of the CPS and ARS devices is currently underway.

To quantify the benefit of Full Capture Devices this WMP Group reviewed the:

- County of Los Angeles's "Multi-Pollutant TMDL Implementation Plan for the Unincorporated County Area of Ballona Creek" (Ballona Creek IP)
- Center for Watershed Protection's "Research in Support of an Interim Pollutant Removal Rate for Street Sweeping and Storm Drain Cleanout Activities" dated October 2006 (CWP Memo).

The CWP Memo developed a conceptual model to assess pollutant load reduction for catch basin cleanouts. The installation of full capture devices greatly increases the volume of material retained in catch basins which will then be removed during routine cleanouts. Building on information in the CWP Memo, the Ballona Creek IP applied an annual removal rate of 5% to sediments and metals generated in the transportation network. This 5% removal rate within the transportation corridor translated to an *overall* reduction in load of up to 2.1% for the County Islands in the Ballona Creek watershed. Accordingly, this WMP Group has assumed a 2% overall reduction of Zinc.

6.3.5.5.1 Increased Catch Basin Cleanout (Planned Non-Structural BMP)

As a function of installing CPS devices, the County will increase its cleaning frequency of the catch basins in this County Island. Currently catch basins within this County Island are cleaned on a yearly basis. Once CPS devices are installed, the County maintenance will be increased to:

- Bimonthly inspection during Storm Season (October 1 to April 30)
- Inspection after Major Storms
- Cleanouts will be done as needed following these inspections
- One inspection/cleanout during Dry Season (May 1 to September 30)

Visual inspection of catch basin cleanouts has shown significant amounts of sediment captured within catch basins. Based on this increased frequency, a 2% of Zinc reduction has been assumed. This percentage will be considered and may be refined during the adaptive management process.

6.3.5.6 Biofiltration System (Potential Structural BMP)

If needed, the County has identified Biofiltration Systems as potential structural BMPs that would benefit water quality in this County Island. These systems would be installed in road parkways upstream of existing catch basins. The Biofiltration system utilizes screening, hydrodynamic separation, media filtration and bio retention to treat storm water and dry weather flows (Figure 12).

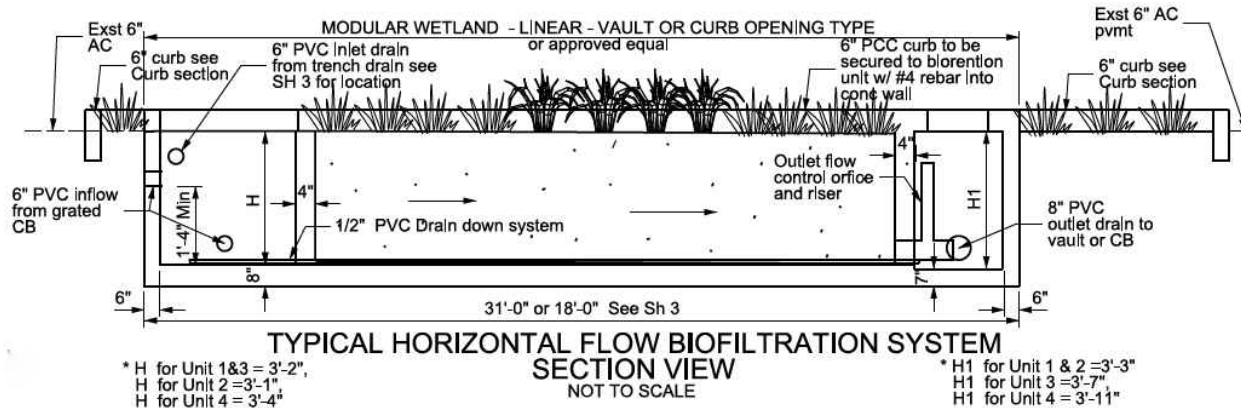


Figure 12: Typical Biofiltration System

Biofiltration Systems have demonstrated 79% efficiency in Zinc removal (Modular Wetlands). The County is currently installing these systems as part of water quality projects in other watersheds, and is evaluating their effectiveness.



Figure 13: Potential Biofiltration System Location

The County has identified the need for appropriate water quality monitoring data before determining the number and location of Biofiltration Systems to be installed. This schedule is outlined in Section 6.3.6.

6.3.5.7 Drainage Filtration Catch Basin (Potential Structural BMP)

Drainage Filtration Catch Basins (Figure 14) may potentially be used to reduce the amount of runoff which leaves the County Island.

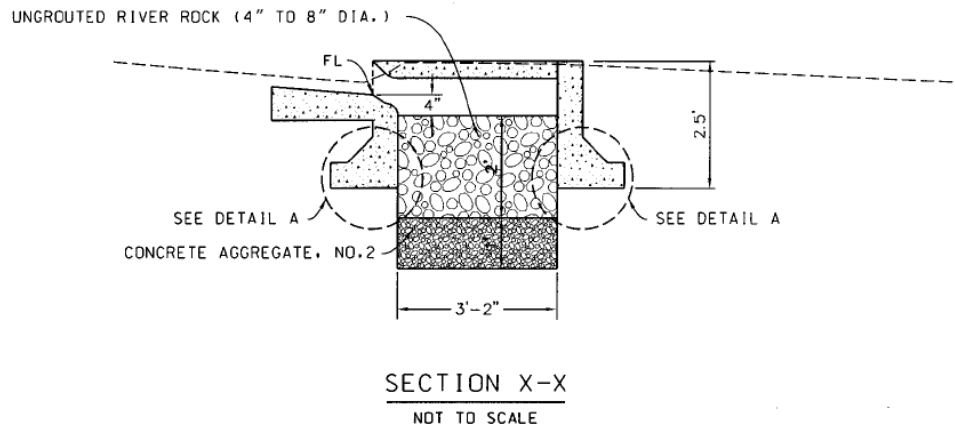


Figure 14: Drainage Filtration Catch Basin Typical Section

Drainage Filtration Catch Basin Systems have been utilized in numerous locations around the County. Their implementation is dependent on the local soils infiltration capacity as well as available space in the public road parkway. Preliminary analysis of nearby groundwater wells shows adequate infiltration depths may be available. However, before feasibility is determined a site-specific analysis is required on soil infiltration rates.



Figure 15: Potential Drainage Filtration Catch Basin Locations

The County has identified the need for appropriate water quality monitoring data before determining the number and location of Drainage Filtration Catch Basins to be installed. A schedule of monitoring and BMP implementation is presented in in Section 6.3.6.

6.3.5.8 LACFCD Right of Way Infiltration (Potential BMP)

The AB/LCC Group has identified a potential project along the Palo Verde Drain.



Figure 16: Potential Right of Way Project along Palo Verde Drain

The LACFCD's right of way along the Palo Verde Drain is frequently used by pedestrians. A potential greenway project incorporating habitat, water quality and recreation features could be implemented at this location. Implementation of all BMPs including this potential right of way project is contingent upon the results of monitoring from the Group's CIMP as well as budgetary considerations. If results of monitoring determine the need for additional BMPs, the LACFCD and County will collaboratively investigate the feasibility of this project.

6.3.6 Schedule to Meet Needed Percent Reductions

By September 2026, an estimated 72% reduction of Zinc is needed to meet the appropriate WLAs. Stormwater volumes to be mitigated to meet interim and final deadlines were calculated utilizing the 90th Percentile Critical Condition storm volume of 3.7 acre-feet and the System for Urban Stormwater Treatment and Analysis IntegratiON (SUSTAIN) component of WMMS. To meet the needed pollutant load reduction, this volume of Stormwater would need to be mitigated, either through infiltration, nonstructural BMPs or a flow-through BMP system. The correlation between the needed percentage of pollutant reduction and the associated percent flow reduction can be seen in Figure 17. For example a 72% reduction of Zinc by September 2026 would require 43.9% reduction in flow or 1.62 acre-feet of stormwater volume mitigated (43.9% x 3.7 acre-feet).

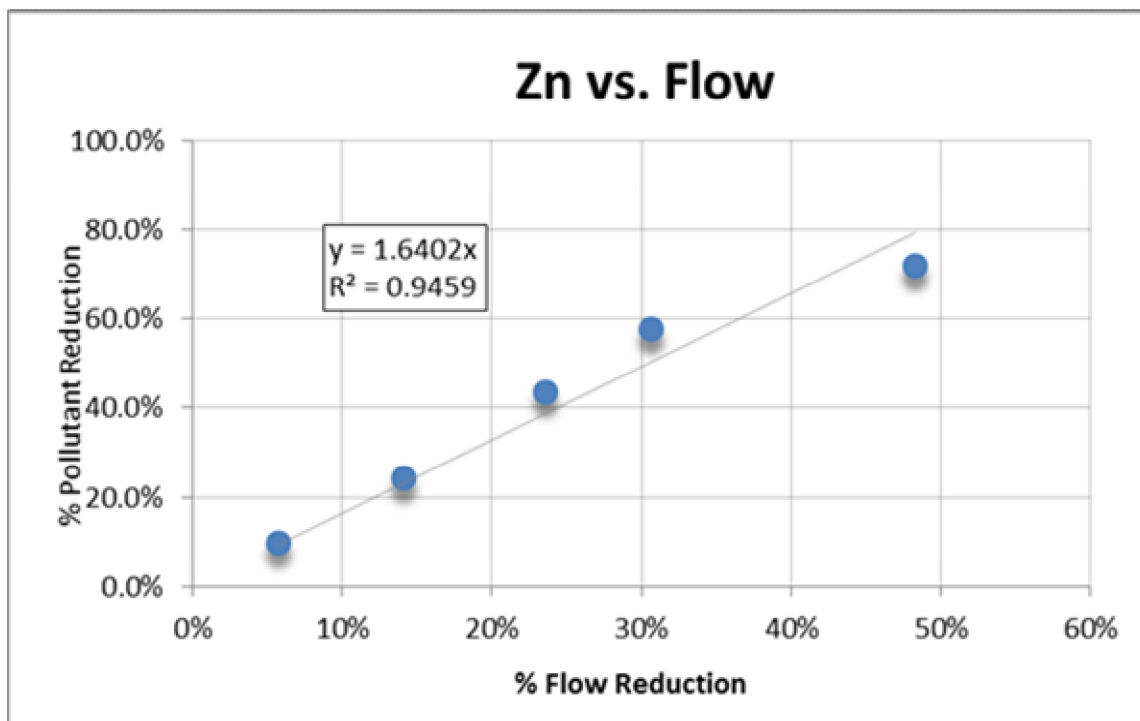


Figure 17: Zinc % Pollutant Reduction vs. Percent Flow Reduction from SUSTAIN

Table 9 is generated using the Critical Condition storm volume and the interim and final deadlines from the LCC Metals TMDL. Figure 18 shows the needed stormwater volumes to be mitigated and the expected mitigation from planned BMPs to be implemented prior to the first LCC Metals interim deadline (September 30, 2017).

Table 9: LCC Metals TMDL, Stormwater Volumes to be Mitigated

Date	Wet Weather Compliance Milestone	Stormwater Volume to be Mitigated (acre-feet)
September 30, 2017	10% compliance with wet weather WLAs	0.16
September 30, 2020	35% compliance with wet weather WLAs	0.57
September 30, 2023	65% compliance with wet weather WLAs	1.06
September 30, 2026	100% compliance with wet weather WLAs	1.62

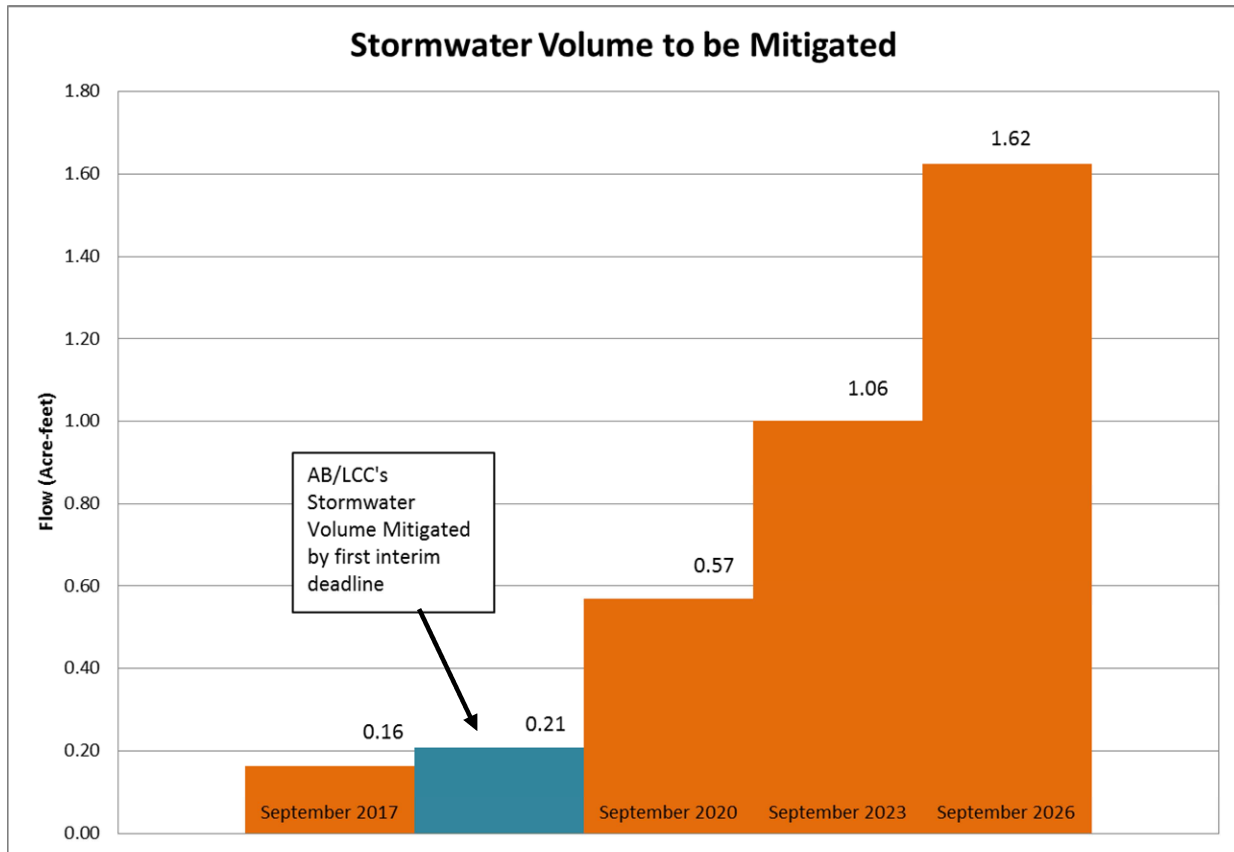


Figure 18: Needed Stormwater Mitigation Volumes

This WMP Group will implement the BMPs below prior to the first interim compliance date for the LCC Metals TMDL (September 30, 2017). The group assumes the following reductions for these existing and planned BMPs:

- Low Impact Development Ordinance 0.2%
 - A 1% reduction is assumed by September 2026
- Enhanced Street Sweeping 5%
- Full Capture Devices 2%
- Increased Catch Basin Cleanout 2%

After implementation of these BMPs a 62.8% reduction of Zinc is required. This reduction in Pollutant Load from 72% to 62.8% translates to 0.21 acre-feet mitigation of stormwater, which brings this WMP Group into compliance with interim milestones in this Permit term.

The WMP Group will determine the need for additional structural BMPs based on the results of monitoring identified in the CIMP. The CIMP presents a phased monitoring approach of:

1. Identifying receiving water quality of commingled discharges
2. If commingled discharges lead to exceedances of WLAs, then a County specific monitoring program will be implemented

3. If County specific discharges produce exceedances of WLAs, structural BMPs will be planned and implemented contingent upon available funding.
4. Upon effectiveness monitoring of potential BMPs, monitoring of the County Island would cease.

Figure 19 presents a flow chart outlining the WMP Group’s approach. Implementation of the future monitoring is dependent upon LARWQCB approval of appropriate CIMPs and is subject to change. Details on monitoring can be found in the AB/LCC CIMP.

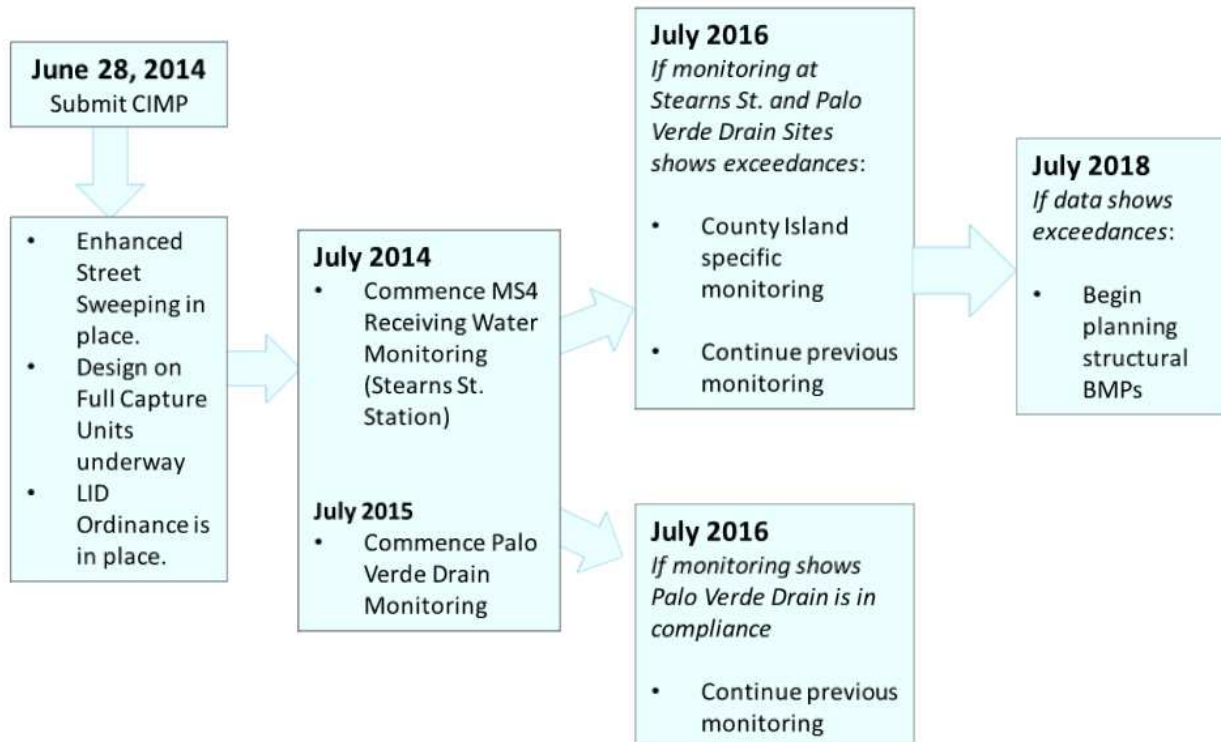


Figure 19: County’s Compliance Approach

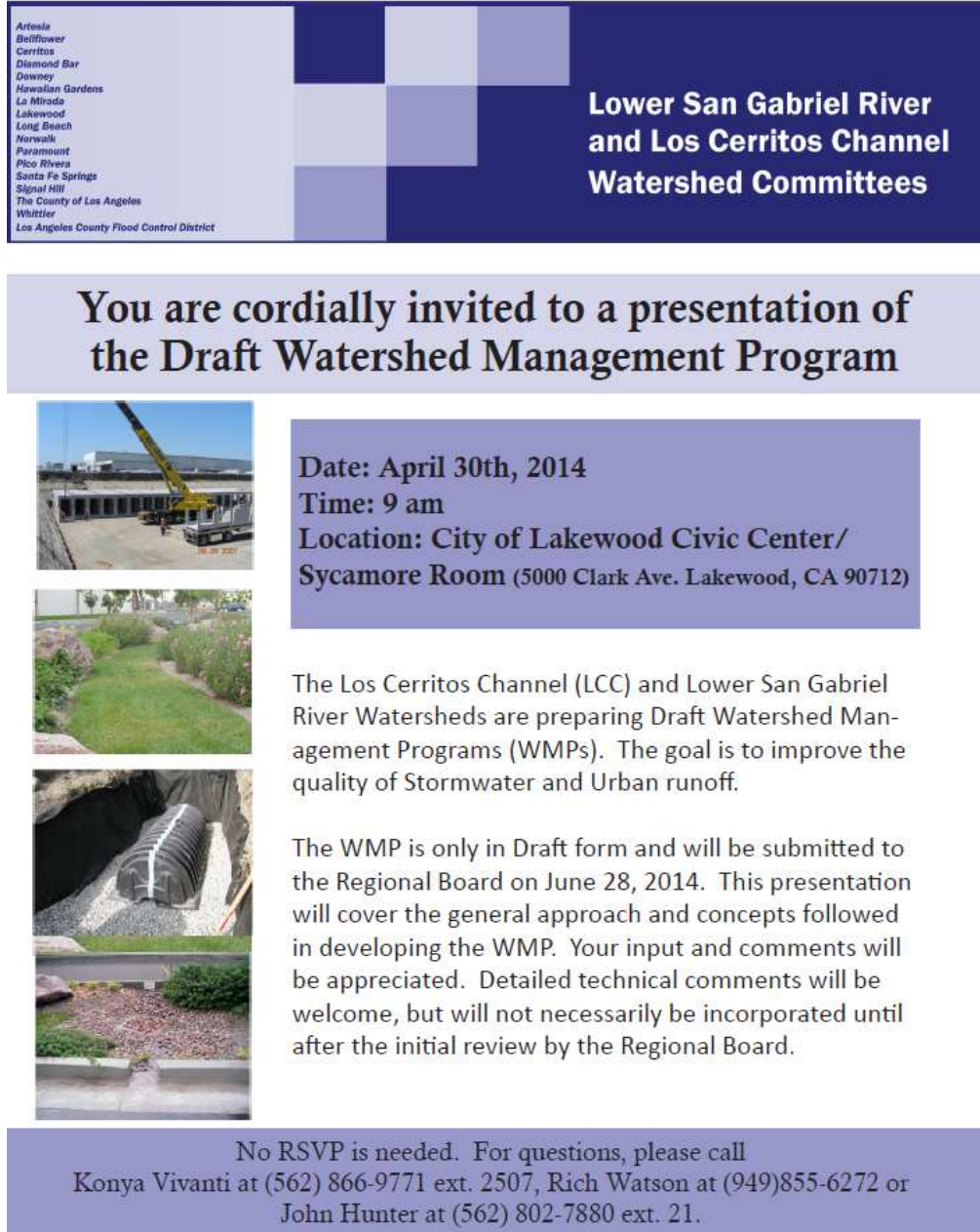
Notable compliance milestones are presented below:

- September 2017: 30% dry weather, 10% wet weather reduction (LCC Metals TMDL)
- September 2020: 70% dry weather, 35% wet weather (LCC Metals TMDL)
- September 2023: 100% dry weather, 65% wet weather (LCC Metals TMDL)
- September 2026 Final Compliance (LCC Metals TMDL)
- March 2032 Final Compliance (DC Toxics TMDL)

Through the RAA process this WMP Group has identified potential structural BMPs locations including roadway parkways and the LACFCD’s right of way along the Palo Verde Drain. The implementation of a selected structural BMP is subject to its necessity based on water quality monitoring as well as the availability of adequate funding.

Section 7. Stakeholder Input

On April 30, 2014, this WMP Group partnered with the Lower San Gabriel River and Los Cerritos Channel Groups to host a stakeholder outreach meeting. The purpose of the meeting was to provide Stakeholders an update on the WMP/CIMP planning process and allow Stakeholders to provide input on the plans. In general, the three watershed groups received positive remarks from the Stakeholders. The notification which was sent to appropriate stakeholders is shown in Figure 20.



The graphic is a stakeholder outreach notification. At the top, it features a dark blue header with the text "Lower San Gabriel River and Los Cerritos Channel Watershed Committees" in white. To the left of this header is a list of participating organizations: Artesia, Bellflower, Cerritos, Diamond Bar, Downey, Hawaiian Gardens, La Mirada, Lakewood, Long Beach, Norwalk, Paramount, Pico Rivers, Santa Fe Springs, Signal Hill, The County of Los Angeles, Whittier, and Los Angeles County Flood Control District. Below the header is a light blue banner with the text "You are cordially invited to a presentation of the Draft Watershed Management Program". To the left of the banner are four small images: a construction site with a crane, a landscaped area with green grass and flowers, a large black pipe being installed in a trench, and a concrete drainage structure. To the right of the banner is a dark blue box with white text providing the date (April 30th, 2014), time (9 am), and location (City of Lakewood Civic Center/ Sycamore Room, 5000 Clark Ave., Lakewood, CA 90712). Below this box is a paragraph of text explaining the purpose of the WMP and the goal of the presentation. To the right of this paragraph is another paragraph explaining that the WMP is in draft form and will be submitted to the Regional Board on June 28, 2014, and that input and comments will be appreciated. At the bottom of the graphic is a dark blue box with white text providing contact information for Konya Vivanti, Rich Watson, and John Hunter.

Artesia
Bellflower
Cerritos
Diamond Bar
Downey
Hawaiian Gardens
La Mirada
Lakewood
Long Beach
Norwalk
Paramount
Pico Rivers
Santa Fe Springs
Signal Hill
The County of Los Angeles
Whittier
Los Angeles County Flood Control District

**Lower San Gabriel River
and Los Cerritos Channel
Watershed Committees**

**You are cordially invited to a presentation of
the Draft Watershed Management Program**

**Date: April 30th, 2014
Time: 9 am
Location: City of Lakewood Civic Center/
Sycamore Room (5000 Clark Ave. Lakewood, CA 90712)**

The Los Cerritos Channel (LCC) and Lower San Gabriel River Watersheds are preparing Draft Watershed Management Programs (WMPs). The goal is to improve the quality of Stormwater and Urban runoff.

The WMP is only in Draft form and will be submitted to the Regional Board on June 28, 2014. This presentation will cover the general approach and concepts followed in developing the WMP. Your input and comments will be appreciated. Detailed technical comments will be welcome, but will not necessarily be incorporated until after the initial review by the Regional Board.

No RSVP is needed. For questions, please call Konya Vivanti at (562) 866-9771 ext. 2507, Rich Watson at (949)855-6272 or John Hunter at (562) 802-7880 ext. 21.

Figure 20: Stakeholder Outreach Notification

Section 8. Adaptive Management Process

8.1 OBJECTIVE

Per Section VI.C.8 of the Permit, this WMP Group will implement an adaptive management process every two years from the approval date of the WMP. The adaptive management process will allow the WMP to become more effective and is based on considerations such as:

- Progress toward achieving interim and/or final water-quality based effluent limitations and/or receiving water limitations, according to established compliance schedules
- Progress towards achieving improved water quality in MS4 discharges and achieving receiving water limitations through implementation of the watershed control measures based on an evaluation of outfall-based monitoring data and receiving water monitoring data
- Achievement of interim milestones
- Re-evaluation of the water quality priorities based on more recent water quality data
- Availability of new information from other sources
- Recommendations from the LARWQCB
- Recommendations made during the public participation process for the WMP

A key component of adaptive management is the results from this Group's CIMP. This process will be implemented every two years and any modifications to the WMP will be reported in the permittees' Annual Report.

Additionally, the LACFCD doesn't have jurisdiction of the land uses that create the pollutants of concern in the Colorado Lagoon, Alamitos Bay, San Pedro Bay and Los Cerritos Channel Estuary watersheds. These areas are under the jurisdiction of the City of Long Beach and will be addressed under Long Beach's WMP which will be submitted in March 2015. Through adaptive management, the LACFCD will review Long Beach's WMP and consider on a case-by-case basis opportunities for collaboration on future projects.

Section 9. Reporting

9.1 ANNUAL MONITORING REPORT

Monitoring results for this Group's CIMP will be reported semi-annually to the LARWCB. On December 15th of each year, an annual report will be submitted to the LARWCQB summarizing the monitoring through June 30th. Details of the Annual Monitoring Report can be found this Group's CIMP.

Section 10. References

Los Angeles Regional Water Quality Control Board, “Final Waste Discharge Requirements for Municipal Separate Storm Sewer System (MS4) Discharges within the Coastal Watersheds of Los Angeles County, Except Those Discharges Originating from the City of Long Beach MS4 (posted December 5, 2012)”. Final Order R4-2012-0175, http://www.waterboards.ca.gov/losangeles/water_issues/programs/stormwater/municipal/index.shtml (November 2013)

State of California Water Resources Control Board. “2010 Integrated Report (Clean Water Act Section 303(d) List” April 2010, http://www.waterboards.ca.gov/water_issues/programs/tmdl/integrated2010.shtml. (January 2014)

Los Angeles Regional Water Quality Control Board, “Total Maximum Daily Load for Toxic Pollutants in Dominguez Channel and Greater Los Angeles and Long Beach Harbor Waters”. Resolution No. R11-008, Effective Date: March 23, 2012, http://www.waterboards.ca.gov/losangeles/board_decisions/basin_plan_amendments/technical_documents/bpa_66_R11-008_td.shtml (June 2013)

Anchor QEA, L.P., “Coordinated Compliance, Monitoring, and Reporting Plan Incorporating Quality Assurance Project Plan Components” June, 2013, http://www.waterboards.ca.gov/losangeles/board_decisions/basin_plan_amendments/technical_documents/66_New/09232013/1aDraftCCMRP62413.pdf (January 2014)

United States Environmental Protection Agency, “Los Cerritos Channel Total Maximum Daily Loads for Metals”. March 2010

Los Angeles Regional Water Quality Control Board, “Total Maximum Daily Load for Organochlorine (OC) Pesticides, Polychlorinated Biphenyls (PCBs), Sediment Toxicity, Polycyclic Aromatic Hydrocarbons (PAHs), and Metals for Colorado Lagoon”. Resolution No. R09-05, Adopted Date: October 1, 2009, http://www.waterboards.ca.gov/losangeles/board_decisions/basin_plan_amendments/technical_documents/bpa_65_R09-005_td.shtml (January 2014)

Kinnetic Laboratories, Inc., “Final Colorado Lagoon TMDL Monitoring Plan (CLTMP) Colorado Lagoon Organochlorine Pesticides, PCBs, Sediment Toxicity, PAHs, and Metals TMDL” December, 2012

Los Cerritos Channel Watershed Group, “Los Cerritos Channel Watershed Management Program” January 2015

County of Los Angeles, “Multi-Pollutant TMDL Implementation Plan for the Unincorporated County Area of Ballona Creek” October 2010

County of Los Angeles Department of Public Works, “Low Impact Development Standards Manual” February 2014,

<http://dpw.lacounty.gov/idd/lib/fp/Hydrology/Low%20Impact%20Development%20Standards%20Manual.pdf> (May 2014)

State Water Resources Control Board, “Draft Amendments to Statewide Water Quality Control Plans to Control Trash, Draft Staff Report”. June 2014

Center for Watershed Protection. Research in Support of an Interim Pollutant Removal Rate for Street Sweeping and Storm Drain Cleanout Activities. Technical Memorandum 1 – Literature Review: Final Draft. October 2006.

California Regional Water Quality Control Board Los Angeles Region, “Water Quality Control Plan Los Angeles Region – Basin Plan for the Coastal Watersheds of Los Angeles and Ventura Counties”

APPENDIX A. LACFCD Background Information

In 1915, the Los Angeles County Flood Control Act established the LACFCD and empowered it to manage flood risk and conserve stormwater for groundwater recharge. In coordination with the United States Army Corps of Engineers, the LACFCD developed and constructed a comprehensive system that provides for the regulation and control of flood waters through the use of reservoirs and flood channels. The system also controls debris, collects surface storm water from streets, and replenishes groundwater with storm water and imported and recycled waters. The LACFCD covers the 2,753 square-mile portion of Los Angeles County south of the east-west projection of Avenue S, excluding Catalina Island. It is a special district governed by the County of Los Angeles Board of Supervisors, and its functions are carried out by the Los Angeles County Department of Public Works. The LACFCD service area is shown in Figure A-1.

Unlike cities and counties, the LACFCD does not own or operate any municipal sanitary sewer systems, public streets, roads, or highways. The LACFCD operates and maintains storm drains and other appurtenant drainage infrastructure within its service area. The LACFCD has no planning, zoning, development permitting, or other land use authority within its service area. The permittees that have such land use authority are responsible under the Permit for inspecting and controlling pollutants from industrial and commercial facilities, development projects, and development construction sites. (Permit, Part II.E, p. 17.)

The MS4 Permit language clarifies the unique role of the LACFCD in storm water management programs:

“[g]iven the LACFCD’s limited land use authority, it is appropriate for the LACFCD to have a separate and uniquely-tailored storm water management program. Accordingly, the storm water management program minimum control measures imposed on the LACFCD in Part VI.D of this Order differ in some ways from the minimum control measures imposed on other Permittees. Namely, aside from its own properties and facilities, the LACFCD is not subject to the Industrial/Commercial Facilities Program, the Planning and Land Development Program, and the Development Construction Program. However, as a discharger of storm and non-storm water, the LACFCD remains subject to the Public Information and Participation Program and the Illicit Connections and Illicit Discharges Elimination Program. Further, as the owner and operator of certain properties, facilities and infrastructure, the LACFCD remains subject to requirements of a Public Agency Activities Program.” (Permit, Part II.F, p. 18.)

Consistent with the role and responsibilities of the LACFCD under the Permit, the [E]WMPs and CIMPs reflect the opportunities that are available for the LACFCD to collaborate with permittees having land use authority over the subject watershed area. In some instances, the opportunities are minimal, however the LACFCD remains responsible for compliance with certain aspects of the MS4 permit as discussed above.

As part of the WMP planning process, LACFCD infrastructure was considered for potential project opportunities. However, because of the LACFCD's limited land use authority discussed above, the responsible jurisdictions with land use jurisdiction over the WMP area will be the lead for the development of any structural controls.

In some instances, in recognition of the increased efficiency of implementing certain programs regionally, the LACFCD has committed to responsibilities above and beyond its obligations under the 2012 Permit. For example, although under the 2012 Permit the Public Information and Participation Program is a responsibility of each Permittee, the LACFCD is committed to implementing certain regional elements of the PIPP on behalf of all Permittees at no cost to the Permittees. These regional elements include:

- Maintaining a countywide hotline (888-CLEAN-LA) and website (www.888cleanla.com) for public reporting and general stormwater management information at an estimated annual cost of \$250,000. Each Permittee can utilize this hotline and website for public reporting within its jurisdiction.
- Broadcasting public service announcements and conducting regional advertising campaigns at an estimated annual cost of \$750,000.
- Facilitating the dissemination of public education and activity specific stormwater pollution prevention materials at an estimated annual cost of \$100,000.
- Maintaining a stormwater website at an estimated annual cost of \$10,000.

The LACFCD will implement these elements on behalf of all Permittees starting July 2015 and through the Permit term. With the LACFCD handling these elements regionally, Permittees can better focus on implementing local or watershed-specific programs, including student education and community events, to fully satisfy the PIPP requirements of the 2012 Permit.

Similarly, although water quality monitoring is a responsibility of each Permittee under the 2012 Permit, the LACFCD is committed to implementing certain regional elements of the monitoring program. Specifically, the LACFCD will continue to conduct monitoring at the seven existing mass emissions stations required under the previous Permit. The LACFCD will also participate in the Southern California Stormwater Monitoring Coalition's Regional Bioassessment Program on behalf of all Permittees. By taking on these additional responsibilities, the LACFCD wishes to increase the efficiency and effectiveness of these programs.

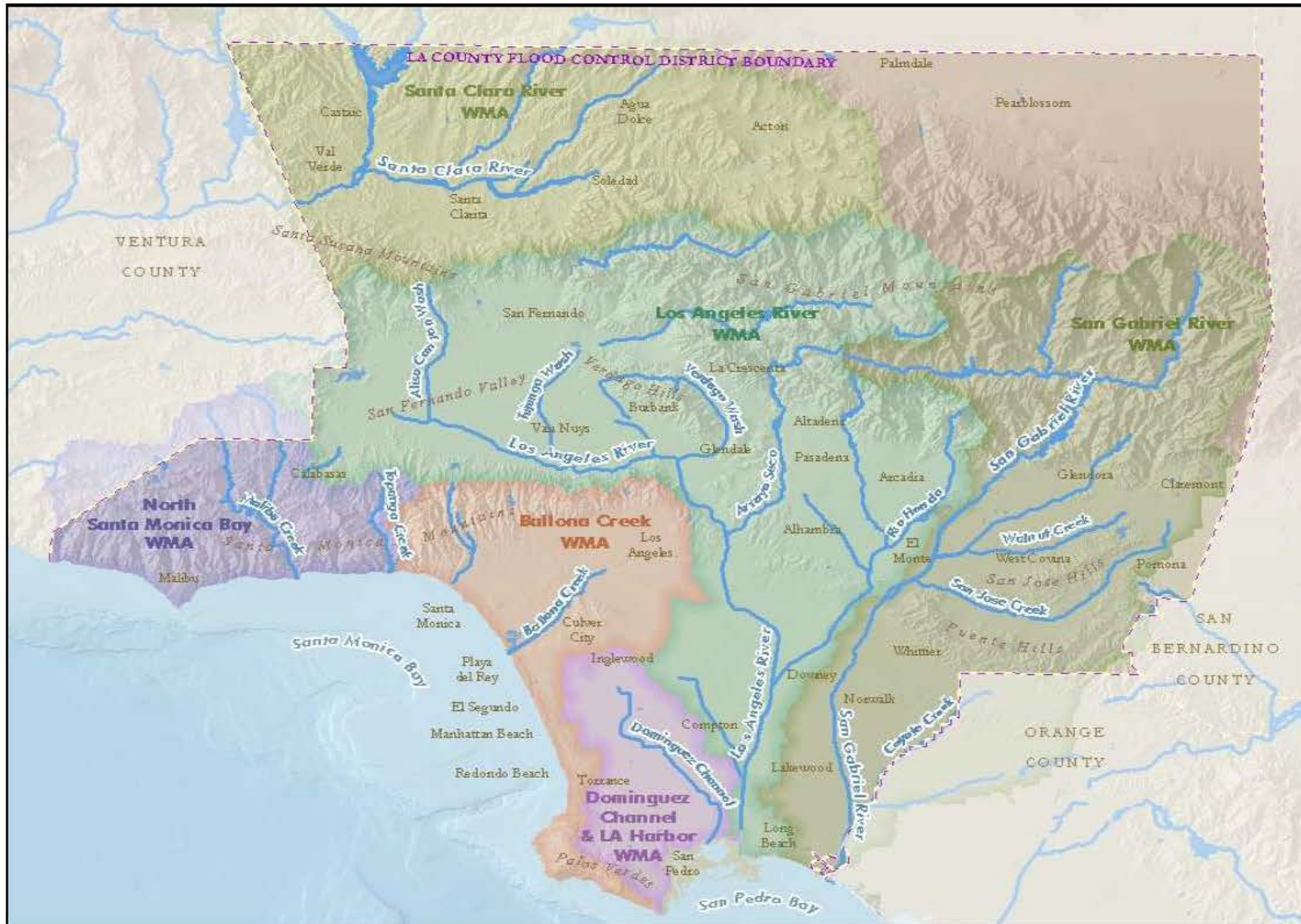


Figure A-1 Los Angeles County Flood Control District Service Area

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APPENDIX B. Water Qualities Priorities

SUMMARY

Wet weather and dry weather samples between 2003 and 2013 at the Stearns Street MES were compared to applicable numeric limits in the Los Angeles Basin Plan, California Ocean Plan, California Toxics Rule or California Fish and Game. The Permit states that parameters in Table E-2 shall be monitored in the first year of monitoring and if a parameter is not detected at the MDL or if the result is below the lowest applicable water quality objective, it need not be further analyzed. It's important to note that some of the laboratory reporting limits (RLs) were above the limits used for a number of constituents. Those samples were not counted as being above the numeric limits in this analysis.

TABLE B.1 – WET WEATHER SAMPLES ABOVE NUMERIC TARGETS

CONSTITUENTS	NO. OF SAMPLES ABOVE ML	TOTAL NO. OF SAMPLES
Aroclors		
Aroclor 1016	0	34
Aroclor 1221	0	34
Aroclor 1232	0	34
Aroclor 1242	0	34
Aroclor 1248	0	34
Aroclor 1254	0	26
Aroclor 1260	0	34
Chlorinated Pesticides		
4,4'-DDT	0	34
Aldrin	0	34
Dieldrin	0	34
Endosulfan I	0	34
Endosulfan II	0	34
Endrin	0	34
gamma-BHC (Lindane)	0	34
Heptachlor	0	34
Heptachlor epoxide	0	34
Total Chlordane ¹	--	34
Toxaphene	0	34
Conventionals		
MBAS	3	34
Nitrate (as N)	0	33
Nitrite (as N)	0	33
Total Ammonia (as N) ¹	--	34
Dissolved Metals (CTR Fresh CMC)*		
Arsenic	0	34
Cadmium	0	34
Copper	31	34
Lead	0	34
Nickel	0	34
Silver	1	34
Zinc	24	34
Microbiology		
Enterococcus	32	32
Fecal Coliform	31	32
Total Coliform	30	32

CONSTITUENTS	NO. OF SAMPLES ABOVE ML	TOTAL NO. OF SAMPLES
Organophosphates (CFG FRESH CMC)		
Chlorpyrifos	2	34
Diazinon	3	34
Total Metals		
Aluminum	30	34
Arsenic	0	34
Cadmium	1	34
Chromium	1	34
Nickel	0	34
Selenium	0	34

TABLE B.2 – DRY WEATHER SAMPLES ABOVE NUMERIC TARGETS

CONSTITUENTS	NO. OF SAMPLES ABOVE ML	TOTAL NO. OF SAMPLES
Aroclors		
Aroclor 1016	0	20
Aroclor 1221	0	20
Aroclor 1232	0	20
Aroclor 1242	0	20
Aroclor 1248	0	20
Aroclor 1254	0	20
Aroclor 1260	0	20
Chlorinated Pesticides		
4,4'-DDT	0	20
Aldrin	0	20
Dieldrin	0	20
Endosulfan I	0	20
Endosulfan II	0	20
Endrin	0	20
gamma-BHC (Lindane)	0	20
Heptachlor	0	20
Heptachlor epoxide	0	20
Total Chlordane ¹	--	20
Toxaphene	0	20
Conventionals		
MBAS	1	20
Nitrate (as N)	0	20
Nitrite (as N)	0	20
Total Ammonia (as N) ¹	--	20
Dissolved Metals (CTR Fresh CMC)		
Arsenic	0	20
Cadmium	0	20
Copper	8	20
Lead	0	20
Nickel	0	20
Silver	0	20
Zinc	0	20
Microbiology		
Enterococcus	18	20
Fecal Coliform	12	20
Total Coliform	9	20

CONSTITUENTS	NO. OF SAMPLES ABOVE ML	TOTAL NO. OF SAMPLES
Organophosphates (CFG FRESH CMC)		
Chlorpyrifos	0	20
Diazinon	2	20
Total Metals		
Aluminum	1	20
Arsenic	0	20
Cadmium	0	20
Chromium	0	20
Nickel	0	20
Selenium	0	20

¹ Refer to the Los Cerritos Channel Watershed Management Group CIMP for analysis of exceedances.

APPENDIX C. County of Los Angeles Legal Authority



COUNTY OF LOS ANGELES
OFFICE OF THE COUNTY COUNSEL

648 KENNETH HAHN HALL OF ADMINISTRATION
500 WEST TEMPLE STREET
LOS ANGELES, CALIFORNIA 90012-2713

TELEPHONE
(213) 974-1923
FACSIMILE
(213) 687-7337
TDD
(213) 633-0901

JOHN F. KRATTLI
County Counsel

December 16, 2013

Mr. Samuel Unger, P.E., Executive Officer
California Regional Water Quality Control Board – Los Angeles Region
320 West 4th Street, Suite 200
Los Angeles, CA 90013-2343

Attention: Mr. Ivar Ridgeway

**Re: Certification By Legal Counsel For County of Los Angeles'
Annual Report**

Dear Mr. Unger:

Pursuant to the requirements of Part VI(A)(2)(b) of Order No. R4-2012-0175 (the "Order"), the Office of the County Counsel of the County of Los Angeles makes the following certification in support of the Annual Report of the County of Los Angeles ("County"):

Certification Pursuant To Order Part VI(A)(2)(b)

"Each Permittee must submit a statement certified by its chief legal counsel that the Permittee has the legal authority within its jurisdiction to implement and enforce the requirements contained in 40 CFR §122.26(d)(2)(i)(A-F) and this Order."

The County has the legal authority within its jurisdiction to implement and enforce each of the requirements contained in 40 CFR §122.26(d)(2)(i)(A-F) and the Order.

Order Part VI(A)(2)(b)(i)

"Citation of applicable municipal ordinances or other appropriate legal authorities and their relationship to the requirements of 40 CFR §122.26(d)(2)(i)(A-F) and this Order"

Citations Of Applicable Ordinances Or Other Legal Authorities

Although many portions of State law, the Charter of the County of Los Angeles and the Los Angeles County Code are potentially applicable to the implementation and enforcement of these requirements, the primary applicable laws and ordinances are as follows:

Los Angeles County Code, Title 12, Chapter 12.80 STORMWATER AND RUNOFF POLLUTION CONTROL, including:

§12.80.010 - §12.80.360 Definitions

§12.80.370 Short title.

§12.80.380 Purpose and intent.

§12.80.390 Applicability of this chapter.

§12.80.400 Standards, guidelines and criteria.

§12.80.410 Illicit discharges prohibited.

§12.80.420 Installation or use of illicit connections prohibited.

§12.80.430 Removal of illicit connection from the storm drain system.

§12.80.440 Littering and other discharge of polluting or damaging substances prohibited.

§12.80.450 Stormwater and runoff pollution mitigation for construction activity.

§12.80.460 Prohibited discharges from industrial or commercial activity.

§12.80.470 Industrial/commercial facility sources required to obtain a NPDES permit.

§12.80.480 Public facility sources required to obtain a NPDES permit.

§12.80.490 Notification of uncontrolled discharges required.

§12.80.500 Good housekeeping provisions.

§12.80.510 Best management practices for construction activity.

- §12.80.520 Best management practices for industrial and commercial facilities.
- §12.80.530 Installation of structural BMPs.
- §12.80.540 BMPs to be consistent with environmental goals.
- §12.80.550 Enforcement—Director's powers and duties.
- §12.80.560 Identification for inspectors and maintenance personnel.
- §12.80.570 Obstructing access to facilities prohibited.
- §12.80.580 Inspection to ascertain compliance—Access required.
- §12.80.590 Interference with inspector prohibited.
- §12.80.600 Notice to correct violations—Director may take action.
- §12.80.610 Violation a public nuisance.
- §12.80.620 Nuisance abatement—Director to perform work when—Costs.
- §12.80.630 Violation—Penalty.
- §12.80.635 Administrative fines.
- §12.80.640 Penalties not exclusive.
- §12.80.650 Conflicts with other code sections.
- §12.80.660 Severability.
- §12.80.700 Purpose.
- §12.80.710 Applicability.
- §12.80.720 Registration required.
- §12.80.730 Exempt facilities.
- §12.80.740 Certificate of inspection—Issuance by the director.
- §12.80.750 Certificate of inspection—Suspension or revocation.

§12.80.760 Certificate of inspection—Termination.

§12.80.770 Service fees.

§12.80.780 Fee schedule.

§12.80.790 Credit for overlapping inspection programs.

§12.80.800 Annual review of fees.

Los Angeles County Code, Title 12, Chapter 12.84 LOW IMPACT
DEVELOPMENT STANDARDS, including:

§12.84.410 Purpose.

§12.84.420 Definitions.

§12.84.430 Applicability.

§12.84.440 Low Impact Development Standards.

§12.84.445 Hydromodification Control.

§12.84.450 LID Plan Review.

§12.84.460 Additional Requirements.

Los Angeles County Code, Title 22 PLANNING AND ZONING, Part 6
ENFORCEMENT PROCEDURES, including:

§22.60.330 General prohibitions.

§22.60.340 Violations.

§22.60.350 Public nuisance.

§22.60.360 Infractions.

§22.60.370 Injunction.

§22.60.380 Enforcement.

§22.60.390 Zoning enforcement order and noncompliance fee.

Los Angeles County Code, Title 26 BUILDING CODE, including:

§26.103 Violations And Penalties

§26.104 Organization And Enforcement

§26.105 Appeals Boards

§26.106 Permits

§26.107 Fees

§26.108 Inspections

California Government Code §6502

California Government Code §23004

Relationship Of Applicable Ordinances Or Other Legal Authorities To
 The Requirements of 40 CFR §122.26(d)(2)(i)(A-F) And The Order

Although, depending upon the particular issue, there may be multiple ways in which particular sections of the County's ordinances and State law relate to the requirements contained in 40 CFR §122.26(d)(2)(i)(A-F) and the Order, the table below indicates the basic relationship with Part VI(A)(2)(a) of the Order:

Order Part VI(A)(2)(a) Items	Primary Applicable Ordinance/Statute
i. Control the contribution of pollutants to its MS4 from storm water discharges associated with industrial and construction activity and control the quality of storm water discharged from industrial and construction sites. This requirement applies both to industrial and construction sites with coverage under an NPDES permit, as well as to those sites that do not have coverage under an NPDES permit.	§12.80.410 [illicit discharge prohibited]; §12.80.450 [construction] §12.80.460 [industrial and commercial] §12.80.470 and .480 [industrial and commercial NPDES requirements] §12.84.440 [LID standards] §12.84.445 [hydromodification control] §12.84.450 [LID Plan Review] §22.60.330 [general prohibitions]

Order Part VI(A)(2)(a) Items	Primary Applicable Ordinance/Statute
	§22.60.340 [violations] §22.60.350 [public nuisance] §22.60.360 [infractions] §22.60.370 [injunction] §22.60.380 [enforcement.] §22.60.390 [zoning enforcement order] §26.103 [violations and penalties] §26.104 [enforcement] §26.106 [permits] §26.108 [inspections]
ii. Prohibit all non-storm water discharges through the MS4 to receiving waters not otherwise authorized or conditionally exempt pursuant to Part III.A.	§12.80.410 [illicit discharge prohibited]
iii. Prohibit and eliminate illicit discharges and illicit connections to the MS4.	§12.80.410 [illicit discharge prohibited]; §12.80.420 [illicit connections prohibited]
iv. Control the discharge of spills, dumping, or disposal of materials other than storm water to its MS4.	§12.80.410 [illicit discharge prohibited]; §12.80.440 [littering and other polluting prohibited]

Order Part VI(A)(2)(a) Items	Primary Applicable Ordinance/Statute
<p>v. Require compliance with conditions in Permittee ordinances, permits, contracts or orders (i.e., hold dischargers to its MS4 accountable for their contributions of pollutants and flows).</p>	<p>§12.80.490 [notification of uncontrolled discharge] §12.80.570 [obstructing access to facilities] §12.80.580 [compliance inspection] §12.80.610 [violation a nuisance] §12.620 [nuisance abatement] §12.80.635 [violation penalty] §12.80.640 [penalties not exclusive] §12.84.440 [LID standards] §12.84.445 [hydromodification control] §12.84.450 [LID Plan Review] §22.60.330 [general prohibitions] §22.60.340 [violations] §22.60.350 [public nuisance] §22.60.360 [infractions] §22.60.370 [injunction] §22.60.380 [enforcement.] §22.60.390 [zoning enforcement order] §26.103 [violations and penalties] §26.104 [enforcement] §26.106 [permits] §26.108 [inspections]</p>
<p>vi. Utilize enforcement mechanisms to require compliance with applicable ordinances, permits, contracts, or orders.</p>	<p>Same as item v., above</p>

Order Part VI(A)(2)(a) Items	Primary Applicable Ordinance/Statute
vii. Control the contribution of pollutants from one portion of the shared MS4 to another portion of the MS4 through interagency agreements among Copermittees.	California Government Code §6502 and §23004
viii. Control of the contribution of pollutants from one portion of the shared MS4 to another portion of the MS4 through interagency agreements with other owners of the MS4 such as the State of California Department of Transportation.	California Government Code §6502 and §23004
ix. Carry out all inspections, surveillance, and monitoring procedures necessary to determine compliance and noncompliance with applicable municipal ordinances, permits, contracts and orders, and with the provisions of this Order, including the prohibition of non-storm water discharges into the MS4 and receiving waters. This means the Permittee must have authority to enter, monitor, inspect, take measurements, review and copy records, and require regular reports from entities discharging into its MS4.	§12.80.490 [notification of uncontrolled discharge] §12.80.570 [obstructing access to facilities] §12.80.580 [compliance inspection] §12.80.610 [violation a nuisance] §12.80.620 [nuisance abatement] §12.80.635 [violation penalty] §12.80.640 [penalties not exclusive] §22.60.380 [enforcement.] §26.106 [permits] §26.108 [inspections]

Order Part VI(A)(2)(a) Items	Primary Applicable Ordinance/Statute
x. Require the use of control measures to prevent or reduce the discharge of pollutants to achieve water quality standards/receiving water limitations.	§12.80.450 [construction mitigation] §12.80.500 [good housekeeping practices] §12.80.510 [construction BMPs] §12.80.520 [industrial/commercial BMPs] §12.84.440 [LID standards] §12.84.450 [LID Plan Review] §22.60.330 [general prohibitions] §22.60.380 [enforcement.] §22.60.390 [zoning enforcement order] §26.106 [permits] §26.108 [inspections]
xi. Require that structural BMPs are properly operated and maintained.	§12.80.530 [installation of structural BMPs] §22.60.380 [enforcement.] §22.60.390 [zoning enforcement order] §26.106 [permits] §26.108 [inspections]
xii. Require documentation on the operation and maintenance of structural BMPs and their effectiveness in reducing the discharge of pollutants to the MS4.	§12.80.530 [installation of structural BMPs] §22.60.380 [enforcement.] §22.60.390 [zoning enforcement order] §26.106 [permits] §26.108 [inspections]

Order Part VI(A)(2)(b)(ii)

"Identification of the local administrative and legal procedures available to mandate compliance with applicable municipal ordinances identified in subsection (i) above and therefore with the conditions of this Order, and a statement as to whether enforcement actions can be completed administratively or whether they must be commenced and completed in the judicial system."

The local administrative and legal procedures available to mandate compliance with the above ordinances are specified in those ordinances, particularly in:

§12.80.550 Enforcement—Director's powers and duties.

§12.80.600 Notice to correct violations—Director may take action.

§12.80.610 Violation a public nuisance.

§12.80.620 Nuisance abatement—Director to perform work when—Costs.

§12.80.630 Violation—Penalty.

§12.80.635 Administrative fines.

§12.80.640 Penalties not exclusive.

§12.84.450 LID Plan Review.

§12.84.460 Additional Requirements.

Title 26, §103 Violations And Penalties

Title 26, §104 Organization And Enforcement

Title 26, §105 Appeals Boards

Title 26, §106 Permits

Title 22 PLANNING AND ZONING, Part 6 ENFORCEMENT PROCEDURES, including:

§22.60.330 General prohibitions.

§22.60.340 Violations.

§22.60.350 Public nuisance.

§22.60.360 Infractions.

§22.60.370 Injunction.


§22.60.380 Enforcement.

§22.60.390 Zoning enforcement order and noncompliance fee.

The County attempts to first resolve each enforcement action administratively. However, the above cited ordinances also provide the County with the authority to pursue such actions in the judicial system as necessary.

Very truly yours,

JOHN F. KRATTLI
County Counsel

By 
JUDITH A. FRIES
Principal Deputy County Counsel
Public Works Division

JAF:jjj

APPENDIX D. LACFCD Legal Authority



COUNTY OF LOS ANGELES
OFFICE OF THE COUNTY COUNSEL

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December 16, 2013

Mr. Samuel Unger, P.E., Executive Officer
California Regional Water Quality Control Board – Los Angeles Region
320 West 4th Street, Suite 200
Los Angeles, CA 90013-2343

Attention: Mr. Ivar Ridgeway

**Re: Certification By Legal Counsel For Los Angeles County Flood
Control District's Annual Report**

Dear Mr. Unger:

Pursuant to the requirements of Part VI(A)(2)(b) of Order No. R4-2012-0175 (the "Order"), the Office of the County Counsel of the County of Los Angeles makes the following certification in support of the Annual Report of the Los Angeles County Flood Control District ("LACFCD"):

Certification Pursuant To Order Part VI(A)(2)(b)

"Each Permittee must submit a statement certified by its chief legal counsel that the Permittee has the legal authority within its jurisdiction to implement and enforce the requirements contained in 40 CFR §122.26(d)(2)(i)(A-F) and this Order."

LACFCD has the legal authority within its jurisdiction to implement and enforce each of the requirements contained in 40 CFR §122.26(d)(2)(i)(A-F) and the Order.

Order Part VI(A)(2)(b)(i)

"Citation of applicable municipal ordinances or other appropriate legal authorities and their relationship to the requirements of 40 CFR §122.26(d)(2)(i)(A-F) and this Order"

Citations Of Applicable Ordinances Or Other Legal Authorities

Although many portions of State law, the Charter of the County of Los Angeles, the Los Angeles County Code and LACFCD's Flood Control District Code ("Code") are potentially applicable to the implementation and enforcement of these requirements, the primary applicable laws and ordinances are as follows:

Los Angeles County Code, Title 12, Chapter 12.80 STORMWATER AND RUNOFF POLLUTION CONTROL, including:

§12.80.010 - §12.80.360 Definitions

§12.80.370 Short title.

§12.80.380 Purpose and intent.

§12.80.390 Applicability of this chapter.

§12.80.400 Standards, guidelines and criteria.

§12.80.410 Illicit discharges prohibited.

§12.80.420 Installation or use of illicit connections prohibited.

§12.80.430 Removal of illicit connection from the storm drain system.

§12.80.440 Littering and other discharge of polluting or damaging substances prohibited.

§12.80.450 Stormwater and runoff pollution mitigation for construction activity.

§12.80.460 Prohibited discharges from industrial or commercial activity.

§12.80.470 Industrial/commercial facility sources required to obtain a NPDES permit.

§12.80.480 Public facility sources required to obtain a NPDES permit.

§12.80.490 Notification of uncontrolled discharges required.

§12.80.500 Good housekeeping provisions.

§12.80.510 Best management practices for construction activity.

- §12.80.520 Best management practices for industrial and commercial facilities.
- §12.80.530 Installation of structural BMPs.
- §12.80.540 BMPs to be consistent with environmental goals.
- §12.80.550 Enforcement—Director's powers and duties.
- §12.80.560 Identification for inspectors and maintenance personnel.
- §12.80.570 Obstructing access to facilities prohibited.
- §12.80.580 Inspection to ascertain compliance—Access required.
- §12.80.590 Interference with inspector prohibited.
- §12.80.600 Notice to correct violations—Director may take action.
- §12.80.610 Violation a public nuisance.
- §12.80.620 Nuisance abatement—Director to perform work when—Costs.
- §12.80.630 Violation—Penalty.
- §12.80.635 Administrative fines.
- §12.80.640 Penalties not exclusive.
- §12.80.650 Conflicts with other code sections.
- §12.80.660 Severability.
- §12.80.700 Purpose.
- §12.80.710 Applicability.
- §12.80.720 Registration required.
- §12.80.730 Exempt facilities.
- §12.80.740 Certificate of inspection—Issuance by the director.
- §12.80.750 Certificate of inspection—Suspension or revocation.

§12.80.760 Certificate of inspection—Termination.

§12.80.770 Service fees.

§12.80.780 Fee schedule.

§12.80.790 Credit for overlapping inspection programs.

§12.80.800 Annual review of fees.

Los Angeles County Code, Title 12, Chapter 12.84 LOW IMPACT DEVELOPMENT STANDARDS, including:

§12.84.410 Purpose.

§12.84.420 Definitions.

§12.84.430 Applicability.

§12.84.440 Low Impact Development Standards.

§12.84.445 Hydromodification Control.

§12.84.450 LID Plan Review.

§12.84.460 Additional Requirements.

Los Angeles County Code, Title 22 PLANNING AND ZONING, Part 6 ENFORCEMENT PROCEDURES, including:

§22.60.330 General prohibitions.

§22.60.340 Violations.

§22.60.350 Public nuisance.

§22.60.360 Infractions.

§22.60.370 Injunction.

§22.60.380 Enforcement.

§22.60.390 Zoning enforcement order and noncompliance fee.

Los Angeles County Code, Title 26 BUILDING CODE, including:

§26.103 Violations And Penalties

§26.104 Organization And Enforcement

§26.105 Appeals Boards

§26.106 Permits

§26.107 Fees

§26.108 Inspections

LACFCD Code Chapter 21 - STORMWATER AND RUNOFF
POLLUTION CONTROL including:

§21.01 Purpose and Intent

§21.03 Definitions

§21.05 Standards, Guidelines, and Criteria

§21.07 Prohibited Discharges

§21.09 Installation or Use of Illicit Connections Prohibited

§21.11 Littering Prohibited

§21.13 Evidence of Compliance With Permit Requirements for Industrial
or Commercial Activity

§21.15 Notification of Uncontrolled Discharges Required

§21.17 Requirement to Monitor and Analyze

§21.19 Conflicts With Other Code Sections

§21.21 Severability

§21.23 Violation a Public Nuisance

California Government Code §6502

California Government Code §23004

California Water Code §8100 *et. seq.*

Relationship Of Applicable Ordinances Or Other Legal Authorities To
 The Requirements of 40 CFR §122.26(d)(2)(i)(A-F) And The Order

Although, depending upon the particular issue, there may be multiple ways in which particular sections of the County of Los Angeles' ordinances, LACFCD's ordinances, and statutes relate to the requirements contained in 40 CFR §122.26(d)(2)(i)(A-F) and the Order, the table below indicates the basic relationship with Part VI(A)(2)(a) of the Order:

Order Part VI(A)(2)(a) Items	Primary Applicable Ordinance/Statute
<p>i. Control the contribution of pollutants to its MS4 from storm water discharges associated with industrial and construction activity and control the quality of storm water discharged from industrial and construction sites. This requirement applies both to industrial and construction sites with coverage under an NPDES permit, as well as to those sites that do not have coverage under an NPDES permit.</p>	<p>Los Angeles County Code: §12.80.410 [illicit discharge prohibited]; §12.80.450 [construction] §12.80.460 [industrial and commercial] §12.80.470 and .480 [industrial and commercial NPDES requirements] §12.84.440 [LID standards] §12.84.445 [hydromodification control] §12.84.450 [LID Plan Review] §22.60.330 [general prohibitions] §22.60.340 [violations] §22.60.350 [public nuisance] §22.60.360 [infractions] §22.60.370 [injunction] §22.60.380 [enforcement.] §22.60.390 [zoning enforcement order] §26.103 [violations and penalties]</p>

Order Part VI(A)(2)(a) Items	Primary Applicable Ordinance/Statute
	§26.104 [enforcement] §26.106 [permits] §26.108 [inspections] LACFCD Code: §21.05 Standards, Guidelines, and Criteria §21.07 Prohibited Discharges §21.13 Evidence of Compliance With Permit Requirements for Industrial or Commercial Activity §21.15 Notification of Uncontrolled Discharges Required §21.17 Requirement to Monitor and Analyze §21.23 Violation a Public Nuisance
ii. Prohibit all non-storm water discharges through the MS4 to receiving waters not otherwise authorized or conditionally exempt pursuant to Part III.A.	Los Angeles County Code: §12.80.410 [illicit discharge prohibited] LACFCD Code: §21.07 Prohibited Discharges
iii. Prohibit and eliminate illicit discharges and illicit connections to the MS4.	Los Angeles County Code: §12.80.410 [illicit discharge prohibited]; §12.80.420 [illicit connections prohibited] LACFCD Code: §21.05 Standards, Guidelines, and Criteria §21.07 Prohibited Discharges §21.09 Installation or Use of Illicit Connections Prohibited §21.23 Violation a Public Nuisance

Order Part VI(A)(2)(a) Items	Primary Applicable Ordinance/Statute
<p>iv. Control the discharge of spills, dumping, or disposal of materials other than storm water to its MS4.</p>	<p>Los Angeles County Code: §12.80.410 [illicit discharge prohibited]; §12.80.440 [littering and other polluting prohibited] LACFCD Code: §19.07 Interference With or Placing Obstructions, Refuse, Contaminating Substances, or Invasive Species in Facilities Prohibited §21.05 Standards, Guidelines, and Criteria §21.07 Prohibited Discharges §21.09 Installation or Use of Illicit Connections Prohibited §21.11 Littering Prohibited §21.13 Evidence of Compliance With Permit Requirements for Industrial or Commercial Activity §21.15 Notification of Uncontrolled Discharges Required §21.17 Requirement to Monitor and Analyze §21.23 Violation a Public Nuisance</p>
<p>v. Require compliance with conditions in Permittee ordinances, permits, contracts or orders (i.e., hold dischargers to its MS4 accountable for their contributions of pollutants and flows).</p>	<p>Los Angeles County Code: §12.80.490 [notification of uncontrolled discharge] §12.80.570 [obstructing access to facilities] §12.80.580 [compliance inspection] §12.80.610 [violation a nuisance] §12.620 [nuisance abatement] §12.80.635 [violation penalty]</p>

Order Part VI(A)(2)(a) Items	Primary Applicable Ordinance/Statute
	§12.80.640 [penalties not exclusive] §12.84.440 [LID standards] §12.84.445 [hydromodification control] §12.84.450 [LID Plan Review] §22.60.330 [general prohibitions] §22.60.340 [violations] §22.60.350 [public nuisance] §22.60.360 [infractions] §22.60.370 [injunction] §22.60.380 [enforcement.] §22.60.390 [zoning enforcement order] §26.103 [violations and penalties] §26.104 [enforcement] §26.106 [permits] §26.108 [inspections] LACFCD Code: §19.11 Violation a Public Nuisance §21.05 Standards, Guidelines, and Criteria §21.07 Prohibited Discharges §21.09 Installation or Use of Illicit Connections Prohibited §21.11 Littering Prohibited §21.13 Evidence of Compliance With Permit Requirements for Industrial or Commercial Activity §21.15 Notification of Uncontrolled Discharges Required §21.17 Requirement to Monitor and Analyze

Order Part VI(A)(2)(a) Items	Primary Applicable Ordinance/Statute
	§21.19 Conflicts With Other Code Sections §21.23 Violation a Public Nuisance
vi. Utilize enforcement mechanisms to require compliance with applicable ordinances, permits, contracts, or orders.	Same as item v., above
vii. Control the contribution of pollutants from one portion of the shared MS4 to another portion of the MS4 through interagency agreements among Copermittees.	California Government Code §6502 California Government Code §23004
viii. Control of the contribution of pollutants from one portion of the shared MS4 to another portion of the MS4 through interagency agreements with other owners of the MS4 such as the State of California Department of Transportation.	California Government Code §6502 California Government Code §23004
ix. Carry out all inspections, surveillance, and monitoring procedures necessary to determine compliance and noncompliance with applicable municipal ordinances, permits, contracts and orders, and with the provisions of this Order, including the prohibition of non-storm water discharges into the MS4 and receiving waters. This means the Permittee must have authority to enter, monitor, inspect, take measurements, review and copy records, and require regular reports from entities discharging into its MS4.	Los Angeles County Code: §12.80.490 [notification of uncontrolled discharge] §12.80.570 [obstructing access to facilities] §12.80.580 [compliance inspection] §12.80.610 [violation a nuisance] §12.80.620 [nuisance abatement] §12.80.635 [violation penalty] §12.80.640 [penalties not exclusive] §22.60.380 [enforcement.] §26.106 [permits] §26.108 [inspections]

Order Part VI(A)(2)(a) Items	Primary Applicable Ordinance/Statute
	LACFCD Code: §21.05 Standards, Guidelines, and Criteria §21.07 Prohibited Discharges §21.09 Installation or Use of Illicit Connections Prohibited §21.11 Littering Prohibited §21.13 Evidence of Compliance With Permit Requirements for Industrial or Commercial Activity §21.15 Notification of Uncontrolled Discharges Required §21.17 Requirement to Monitor and Analyze §21.23 Violation a Public Nuisance
x. Require the use of control measures to prevent or reduce the discharge of pollutants to achieve water quality standards/receiving water limitations.	Los Angeles County Code: §12.80.450 [construction mitigation] §12.80.500 [good housekeeping practices] §12.80.510 [construction BMPs] §12.80.520 [industrial/commercial BMPs] §12.84.440 [LID standards] §12.84.450 [LID Plan Review] §22.60.330 [general prohibitions] §22.60.380 [enforcement.] §22.60.390 [zoning enforcement order] §26.106 [permits] §26.108 [inspections] LACFCD Code: §21.05 Standards, Guidelines, and Criteria

Order Part VI(A)(2)(a) Items	Primary Applicable Ordinance/Statute
	<p>§21.07 Prohibited Discharges §21.09 Installation or Use of Illicit Connections Prohibited §21.11 Littering Prohibited §21.13 Evidence of Compliance With Permit Requirements for Industrial or Commercial Activity §21.15 Notification of Uncontrolled Discharges Required §21.17 Requirement to Monitor and Analyze §21.23 Violation a Public Nuisance</p>
<p>xi. Require that structural BMPs are properly operated and maintained.</p>	<p>Los Angeles County Code: §12.80.530 [installation of structural BMPs] §22.60.380 [enforcement.] §22.60.390 [zoning enforcement order] §26.106 [permits] §26.108 [inspections] LACFCD Code: §21.05 Standards, Guidelines, and Criteria §21.07 Prohibited Discharges §21.09 Installation or Use of Illicit Connections Prohibited §21.11 Littering Prohibited §21.13 Evidence of Compliance With Permit Requirements for Industrial or Commercial Activity §21.15 Notification of Uncontrolled Discharges Required §21.17 Requirement to Monitor and Analyze</p>

Order Part VI(A)(2)(a) Items	Primary Applicable Ordinance/Statute
	§21.23 Violation a Public Nuisance
<p>xii. Require documentation on the operation and maintenance of structural BMPs and their effectiveness in reducing the discharge of pollutants to the MS4.</p>	<p>Los Angeles County Code: §12.80.530 [installation of structural BMPs] §22.60.380 [enforcement.] §22.60.390 [zoning enforcement order] §26.106 [permits] §26.108 [inspections]</p> <p>LACFCD Code: §21.05 Standards, Guidelines, and Criteria §21.07 Prohibited Discharges §21.09 Installation or Use of Illicit Connections Prohibited §21.11 Littering Prohibited §21.13 Evidence of Compliance With Permit Requirements for Industrial or Commercial Activity §21.15 Notification of Uncontrolled Discharges Required §21.17 Requirement to Monitor and Analyze §21.23 Violation a Public Nuisance</p>

Order Part VI(A)(2)(b)(ii)

"Identification of the local administrative and legal procedures available to mandate compliance with applicable municipal ordinances identified in subsection (i) above and therefore with the conditions of this Order, and a statement as to whether enforcement actions can be completed administratively or whether they must be commenced and completed in the judicial system."

The local administrative and legal procedures available to mandate compliance with the above ordinances are specified in those ordinances, particularly in:

Los Angeles County Code:

§12.80.550 Enforcement—Director's powers and duties.

§12.80.600 Notice to correct violations—Director may take action.

§12.80.610 Violation a public nuisance.

§12.80.620 Nuisance abatement—Director to perform work when—Costs.

§12.80.630 Violation—Penalty.

§12.80.635 Administrative fines.

§12.80.640 Penalties not exclusive.

§12.84.450 LID Plan Review.

§12.84.460 Additional Requirements.

Title 26, §103 Violations And Penalties

Title 26, §104 Organization And Enforcement

Title 26, §105 Appeals Boards

Title 26, §106 Permits

§22.60.330 General prohibitions.

§22.60.340 Violations.

§22.60.350 Public nuisance.

§22.60.360 Infractions.

§22.60.370 Injunction.

§22.60.380 Enforcement.

§22.60.390 Zoning enforcement order and noncompliance fee.

LACFCD Code:

§21.05 Standards, Guidelines, and Criteria

§21.07 Prohibited Discharges

§21.09 Installation or Use of Illicit Connections Prohibited

§21.11 Littering Prohibited

§21.13 Evidence of Compliance With Permit Requirements for Industrial or Commercial Activity

§21.15 Notification of Uncontrolled Discharges Required

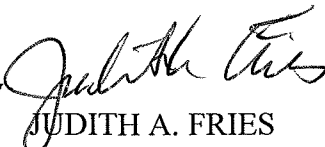
§21.17 Requirement to Monitor and Analyze

§21.23 Violation a Public Nuisance

LACFCD attempts to first resolve each enforcement action administratively. However, the above cited ordinances also provide LACFCD with the authority to pursue such actions in the judicial system as necessary.

Very truly yours,

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County Counsel

By 

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Principal Deputy County Counsel
Public Works Division

JAF:jjj

APPENDIX E. 90th Percentile Determination

The modeled results of daily flows originating from the County Island are presented below. The 90th Percentile Critical Storm Event is also highlighted.

Storm Year	Wet Weather Storm Date (Date where Precipitation output > 0, Oct 15 thru April 15)	Storm Volume (Cubic Feet)	Storm Volume (Acre-Feet)
2010-2011	12/19/2010	1,304,589	29.9
2000-2001	02/23/2001	610,393	14.0
2009-2010	02/05/2010	549,879	12.6
2009-2010	01/18/2010	512,014	11.8
2010-2011	12/17/2010	506,158	11.6
2004-2005	02/19/2005	503,293	11.6
2000-2001	01/08/2001	429,567	9.9
2009-2010	01/19/2010	402,123	9.2
2002-2003	02/11/2003	381,169	8.8
2008-2009	02/16/2009	351,933	8.1
2000-2001	02/10/2001	341,174	7.8
2004-2005	10/17/2004	339,169	7.8
2010-2011	03/20/2011	336,904	7.7
2007-2008	01/23/2008	316,225	7.3
2003-2004	02/23/2004	310,674	7.1
2009-2010	01/20/2010	305,364	7.0
2000-2001	10/24/2000	261,665	6.0
2004-2005	02/21/2005	261,612	6.0
2004-2005	10/24/2004	249,846	5.7
2004-2005	02/20/2005	225,866	5.2
2004-2005	02/09/2005	225,242	5.2
2002-2003	12/15/2002	225,044	5.2
2010-2011	12/25/2010	223,929	5.1
2010-2011	12/20/2010	218,780	5.0
2008-2009	11/25/2008	210,709	4.8
2009-2010	12/07/2009	208,484	4.8
2007-2008	11/30/2007	177,468	4.1
2007-2008	02/22/2008	176,395	4.0
2005-2006	02/25/2006	174,154	4.0
2009-2010	01/17/2010	167,565	3.8
2004-2005	02/17/2005	166,091	3.8
2008-2009	02/05/2009	162,208	3.7
2010-2011	12/22/2010	162,194	3.7
2002-2003	12/17/2002	161,984	3.7
2007-2008	01/25/2008	156,863	3.6

Storm Year	Wet Weather Storm Date (Date where Precipitation output > 0, Oct 15 thru April 15)	Storm Volume (Cubic Feet)	Storm Volume (Acre-Feet)
2005-2006	12/31/2005	149,576	3.4
2008-2009	11/24/2008	147,225	3.4
2005-2006	03/26/2006	145,105	3.3
2000-2001	02/25/2001	144,352	3.3
2004-2005	02/16/2005	144,039	3.3
2010-2011	12/21/2010	141,812	3.3
2009-2010	12/12/2009	141,527	3.2
2008-2009	12/17/2008	139,101	3.2
2007-2008	01/27/2008	138,717	3.2
2002-2003	04/12/2003	137,848	3.2
2010-2011	03/23/2011	133,734	3.1
2004-2005	02/18/2005	133,014	3.1
2000-2001	01/24/2001	132,890	3.1
2007-2008	12/18/2007	132,786	3.0
2007-2008	01/04/2008	132,691	3.0
2007-2008	02/20/2008	128,975	3.0
2002-2003	02/22/2003	126,273	2.9
2008-2009	12/15/2008	125,318	2.9
2005-2006	04/02/2006	124,580	2.9
2002-2003	02/09/2003	124,026	2.8
2010-2011	12/29/2010	123,786	2.8
2008-2009	02/06/2009	122,792	2.8
2010-2011	02/18/2011	121,686	2.8
2008-2009	12/14/2008	120,883	2.8
2009-2010	01/21/2010	111,090	2.6
2000-2001	02/24/2001	107,072	2.5
2004-2005	01/09/2005	103,780	2.4
2010-2011	01/02/2011	102,116	2.3
2004-2005	12/26/2004	97,932	2.2
2007-2008	01/22/2008	97,887	2.2
2004-2005	03/20/2005	97,096	2.2
2009-2010	02/26/2010	96,607	2.2
2003-2004	02/28/2004	95,413	2.2
2009-2010	02/09/2010	93,948	2.2
2009-2010	01/22/2010	93,695	2.2
2010-2011	02/25/2011	93,493	2.1
2010-2011	10/19/2010	89,186	2.0

Storm Year	Wet Weather Storm Date (Date where Precipitation output > 0, Oct 15 thru April 15)	Storm Volume (Cubic Feet)	Storm Volume (Acre-Feet)
2007-2008	01/06/2008	87,035	2.0
2000-2001	02/12/2001	82,455	1.9
2009-2010	12/11/2009	81,998	1.9
2009-2010	04/11/2010	78,979	1.8
2008-2009	12/13/2008	78,591	1.8
2004-2005	02/08/2005	77,145	1.8
2000-2001	03/03/2001	76,116	1.7
2007-2008	01/03/2008	74,027	1.7
2001-2002	11/11/2001	71,218	1.6
2004-2005	01/08/2005	70,472	1.6
2000-2001	01/06/2001	68,422	1.6
2007-2008	01/26/2008	67,325	1.5
2009-2010	02/27/2010	67,298	1.5
2002-2003	11/05/2002	67,294	1.5
2002-2003	11/28/2002	67,230	1.5
2004-2005	10/25/2004	66,378	1.5
2000-2001	01/09/2001	66,031	1.5
2005-2006	12/29/2005	65,408	1.5
2008-2009	02/15/2009	64,185	1.5
2010-2011	12/16/2010	63,424	1.5
2008-2009	11/02/2008	62,878	1.4
2000-2001	10/25/2000	62,172	1.4
2010-2011	03/22/2011	61,647	1.4
2001-2002	12/27/2001	59,865	1.4
2009-2010	02/08/2010	59,080	1.4
2010-2011	12/28/2010	57,931	1.3
2008-2009	02/04/2009	57,174	1.3
2008-2009	12/22/2008	56,814	1.3
2010-2011	01/01/2011	56,719	1.3
2000-2001	04/04/2001	56,198	1.3
2005-2006	10/15/2005	56,080	1.3
2009-2010	02/25/2010	54,679	1.3
2010-2011	02/24/2011	53,643	1.2
2000-2001	02/27/2001	52,135	1.2
2004-2005	02/10/2005	51,902	1.2
2007-2008	02/03/2008	51,755	1.2
2005-2006	03/01/2006	51,184	1.2

Storm Year	Wet Weather Storm Date (Date where Precipitation output > 0, Oct 15 thru April 15)	Storm Volume (Cubic Feet)	Storm Volume (Acre-Feet)
2007-2008	01/24/2008	51,098	1.2
2010-2011	12/05/2010	49,550	1.1
2004-2005	10/19/2004	49,385	1.1
2003-2004	01/31/2004	49,310	1.1
2000-2001	10/27/2000	48,739	1.1
2004-2005	01/26/2005	47,626	1.1
2006-2007	02/10/2007	47,252	1.1
2000-2001	02/26/2001	46,797	1.1
2009-2010	04/05/2010	46,735	1.1
2007-2008	01/05/2008	45,778	1.1
2008-2009	02/09/2009	44,082	1.0
2010-2011	11/20/2010	43,225	1.0
2008-2009	02/14/2009	42,402	1.0
2003-2004	02/16/2004	41,672	1.0
2010-2011	02/17/2011	41,244	0.9
2008-2009	02/17/2009	41,192	0.9
2010-2011	12/27/2010	40,479	0.9
2005-2006	02/26/2006	40,313	0.9
2007-2008	12/06/2007	39,703	0.9
2009-2010	03/06/2010	39,662	0.9
2010-2011	10/28/2010	39,615	0.9
2000-2001	02/21/2001	39,015	0.9
2009-2010	04/10/2010	38,773	0.9
2004-2005	01/05/2005	37,669	0.9
2000-2001	02/08/2001	37,303	0.9
2010-2011	12/15/2010	36,859	0.8
2008-2009	03/04/2009	35,648	0.8
2008-2009	02/13/2009	34,745	0.8
2002-2003	02/23/2003	34,079	0.8
2002-2003	02/08/2003	34,059	0.8
2006-2007	12/07/2006	33,828	0.8
2007-2008	02/02/2008	33,251	0.8
2002-2003	04/13/2003	33,127	0.8
2000-2001	02/17/2001	32,962	0.8
2004-2005	01/01/2005	32,916	0.8
2005-2006	03/27/2006	32,228	0.7
2005-2006	03/15/2006	31,849	0.7

Storm Year	Wet Weather Storm Date (Date where Precipitation output > 0, Oct 15 thru April 15)	Storm Volume (Cubic Feet)	Storm Volume (Acre-Feet)
2003-2004	12/31/2003	31,466	0.7
2007-2008	01/21/2008	31,426	0.7
2000-2001	03/04/2001	30,729	0.7
2002-2003	02/12/2003	30,391	0.7
2010-2011	11/19/2010	30,112	0.7
2000-2001	01/10/2001	29,973	0.7
2005-2006	04/03/2006	29,113	0.7
2002-2003	02/10/2003	28,534	0.7
2000-2001	01/11/2001	28,062	0.6
2004-2005	02/15/2005	27,211	0.6
2004-2005	01/04/2005	26,913	0.6
2005-2006	02/16/2006	26,886	0.6
2005-2006	03/25/2006	26,332	0.6
2008-2009	01/23/2009	25,757	0.6
2004-2005	03/21/2005	25,722	0.6
2007-2008	01/28/2008	25,634	0.6
2010-2011	12/04/2010	25,391	0.6
2000-2001	01/21/2001	25,355	0.6
2005-2006	03/19/2006	25,128	0.6
2001-2002	11/27/2001	24,987	0.6
2003-2004	02/29/2004	24,805	0.6
2008-2009	02/07/2009	24,590	0.6
2008-2009	12/25/2008	24,264	0.6
2003-2004	12/04/2003	23,896	0.5
2008-2009	12/24/2008	23,603	0.5
2004-2005	12/27/2004	23,529	0.5
2006-2007	01/30/2007	22,794	0.5
2010-2011	01/03/2011	22,429	0.5
2004-2005	01/02/2005	21,975	0.5
2005-2006	04/12/2006	21,253	0.5
2010-2011	10/24/2010	20,841	0.5
2010-2011	03/21/2011	20,434	0.5
2000-2001	04/05/2001	18,827	0.4
2010-2011	01/30/2011	18,646	0.4
2007-2008	02/01/2008	18,532	0.4
2010-2011	03/25/2011	18,194	0.4
2006-2007	02/09/2007	18,169	0.4

Storm Year	Wet Weather Storm Date (Date where Precipitation output > 0, Oct 15 thru April 15)	Storm Volume (Cubic Feet)	Storm Volume (Acre-Feet)
2000-2001	01/07/2001	18,063	0.4
2002-2003	11/29/2002	18,024	0.4
2010-2011	10/23/2010	17,887	0.4
2002-2003	02/25/2003	17,772	0.4
2005-2006	12/30/2005	17,292	0.4
2000-2001	10/28/2000	17,245	0.4
2003-2004	11/01/2003	16,872	0.4
2002-2003	11/06/2002	16,869	0.4
2005-2006	10/16/2005	16,859	0.4
2009-2010	01/16/2010	16,835	0.4
2001-2002	12/12/2001	16,606	0.4
2006-2007	12/27/2006	16,528	0.4
2009-2010	01/12/2010	16,424	0.4
2007-2008	02/24/2008	16,296	0.4
2005-2006	03/02/2006	16,296	0.4
2009-2010	01/25/2010	16,294	0.4
2001-2002	12/28/2001	16,165	0.4
2009-2010	01/26/2010	15,926	0.4
2003-2004	02/01/2004	15,424	0.4
2008-2009	03/03/2009	14,839	0.3
2008-2009	02/12/2009	14,787	0.3
2004-2005	12/05/2004	14,561	0.3
2006-2007	02/18/2007	14,503	0.3
2010-2011	03/26/2011	14,433	0.3
2000-2001	02/22/2001	14,386	0.3
2000-2001	02/18/2001	13,381	0.3
2006-2007	12/24/2006	13,342	0.3
2009-2010	03/05/2010	13,287	0.3
2010-2011	02/15/2011	13,285	0.3
2010-2011	12/14/2010	13,206	0.3
2004-2005	10/18/2004	13,190	0.3
2004-2005	03/16/2005	13,032	0.3
2000-2001	02/09/2001	13,011	0.3
2007-2008	02/23/2008	12,880	0.3
2005-2006	03/04/2006	12,783	0.3
2007-2008	12/05/2007	12,113	0.3
2004-2005	01/06/2005	11,951	0.3

Storm Year	Wet Weather Storm Date (Date where Precipitation output > 0, Oct 15 thru April 15)	Storm Volume (Cubic Feet)	Storm Volume (Acre-Feet)
2000-2001	04/07/2001	11,715	0.3
2010-2011	03/27/2011	11,556	0.3
2010-2011	04/07/2011	11,409	0.3
2010-2011	11/27/2010	11,386	0.3
2006-2007	02/22/2007	11,296	0.3
2006-2007	02/26/2007	11,215	0.3
2003-2004	10/29/2003	11,038	0.3
2005-2006	03/29/2006	10,844	0.2
2003-2004	02/17/2004	10,556	0.2
2004-2005	02/28/2005	10,532	0.2
2005-2006	02/15/2006	10,470	0.2
2006-2007	12/14/2006	10,452	0.2
2001-2002	03/20/2002	10,347	0.2
2004-2005	03/01/2005	10,210	0.2
2004-2005	02/11/2005	10,010	0.2
2005-2006	03/16/2006	9,939	0.2
2006-2007	12/08/2006	9,707	0.2
2007-2008	01/20/2008	9,314	0.2
2008-2009	02/08/2009	9,134	0.2
2002-2003	02/24/2003	9,027	0.2
2003-2004	01/01/2004	8,827	0.2
2010-2011	11/08/2010	8,770	0.2
2001-2002	01/01/2002	8,401	0.2
2002-2003	12/26/2002	8,147	0.2
2006-2007	01/29/2007	8,086	0.2
2000-2001	01/22/2001	7,581	0.2
2005-2006	04/13/2006	7,579	0.2
2000-2001	03/07/2001	7,530	0.2
2006-2007	11/25/2006	7,456	0.2
2005-2006	02/17/2006	7,433	0.2
2001-2002	11/28/2001	7,358	0.2
2007-2008	12/07/2007	7,332	0.2
2005-2006	03/31/2006	6,916	0.2
2006-2007	01/04/2007	6,882	0.2
2006-2007	03/21/2007	6,856	0.2
2004-2005	01/10/2005	6,519	0.1
2010-2011	01/29/2011	6,072	0.1

Storm Year	Wet Weather Storm Date (Date where Precipitation output > 0, Oct 15 thru April 15)	Storm Volume (Cubic Feet)	Storm Volume (Acre-Feet)
2005-2006	12/06/2005	5,994	0.1
2003-2004	12/05/2003	5,794	0.1
2004-2005	03/26/2005	5,768	0.1
2009-2010	03/03/2010	5,505	0.1
2006-2007	04/15/2007	5,332	0.1
2004-2005	03/22/2005	5,254	0.1
2009-2010	02/19/2010	5,121	0.1
2006-2007	02/11/2007	4,900	0.1
2000-2001	02/20/2001	4,651	0.1
2003-2004	11/02/2003	4,546	0.1
2010-2011	02/16/2011	4,453	0.1
2009-2010	02/20/2010	4,441	0.1
2010-2011	11/18/2010	4,302	0.1
2001-2002	12/13/2001	4,276	0.1
2010-2011	03/02/2011	4,251	0.1
2007-2008	02/15/2008	4,246	0.1
2006-2007	02/27/2007	4,222	0.1
2004-2005	03/17/2005	3,817	0.1
2004-2005	11/26/2004	3,799	0.1
2005-2006	04/04/2006	3,711	0.1
2005-2006	03/05/2006	3,347	0.1
2005-2006	11/07/2005	3,285	0.1
2004-2005	11/12/2004	3,148	0.1
2007-2008	02/13/2008	3,030	0.1
2002-2003	03/02/2003	2,985	0.1
2009-2010	04/04/2010	2,922	0.1
2009-2010	12/10/2009	2,817	0.1
2009-2010	02/24/2010	2,757	0.1
2010-2011	03/06/2011	2,609	0.1
2007-2008	04/02/2008	2,607	0.1
2004-2005	01/24/2005	2,605	0.1
2008-2009	03/21/2009	2,589	0.1
2006-2007	12/25/2006	2,532	0.1
2010-2011	02/14/2011	2,525	0.1
2008-2009	03/22/2009	2,453	0.1
2001-2002	01/26/2002	2,430	0.1
2009-2010	01/11/2010	2,400	0.1

Storm Year	Wet Weather Storm Date (Date where Precipitation output > 0, Oct 15 thru April 15)	Storm Volume (Cubic Feet)	Storm Volume (Acre-Feet)
2006-2007	12/19/2006	2,384	0.1
2001-2002	03/04/2002	2,322	0.1
2005-2006	02/28/2006	2,297	0.1
2004-2005	10/16/2004	2,240	0.1
2007-2008	02/19/2008	2,189	0.1
2008-2009	01/22/2009	2,176	0.0
2004-2005	12/03/2004	2,129	0.0
2005-2006	04/01/2006	2,087	0.0
2004-2005	12/04/2004	2,069	0.0
2005-2006	03/23/2006	1,764	0.0
2006-2007	11/24/2006	1,379	0.0
2003-2004	11/10/2003	1,151	0.0
2002-2003	12/11/2002	958	0.0
2006-2007	12/20/2006	826	0.0
2010-2011	11/23/2010	809	0.0
2009-2010	01/13/2010	802	0.0
2010-2011	10/22/2010	793	0.0
2007-2008	10/17/2007	785	0.0
2008-2009	10/31/2008	765	0.0
2010-2011	10/18/2010	763	0.0
2006-2007	01/03/2007	753	0.0
2008-2009	11/01/2008	748	0.0
2006-2007	03/20/2007	737	0.0
2003-2004	01/25/2004	724	0.0
2009-2010	12/30/2009	705	0.0
2001-2002	12/26/2001	654	0.0
2006-2007	01/11/2007	628	0.0
2010-2011	11/26/2010	557	0.0
2007-2008	12/17/2007	553	0.0
2006-2007	02/17/2007	532	0.0
2009-2010	12/06/2009	523	0.0
2006-2007	02/19/2007	490	0.0
2006-2007	02/21/2007	481	0.0
2006-2007	02/25/2007	356	0.0

APPENDIX F. Bacteria RAA Analysis

Bacteria was modeled using WMMS's Fecal Coliform output. The analysis followed the process discussed in Section 6.3 of this WMP. The WMMS output was divided into storm years and the number of exceedances per year was determined to identify the 90th Percentile Year.

Table F.1 Number of Days Exceeding Fecal Limit per Storm Year

Storm Year	Number of Days Exceeding Fecal Limit
2001-2002	11
2002-2003	18
2003-2004	14
2004-2005	35
2005-2006	28
2006-2007	20
2007-2008	26
2008-2009	24
2009-2010	26
2010-2011	41

<- 90th Percentile Year

Table F.2 highlights the 18th exceedance day for the Bacteria 90th Percentile Year.

Table F.2 2004-2005 Storm Season Output

Event #	Storm Season	Date	Storm Volume (L)	Storm Volume (acre-feet)	WMMS Modeled Fecal Concentration (#/100ml)	Allowable Single Sample Fecal Concentration (4000/100mL) per Ballona Bacteria TMDL	Storm In Compliance ?
1	2004-2005	02/19/2005	14,251,668.28	11.554	6216.286	400.00	NO
2	2004-2005	10/17/2004	9,604,186.92	7.786	6197.080	400.00	NO
3	2004-2005	02/21/2005	7,408,016.98	6.006	6189.070	400.00	NO
4	2004-2005	10/24/2004	7,074,831.90	5.736	6145.598	400.00	NO
5	2004-2005	02/20/2005	6,395,815.97	5.185	6136.808	400.00	NO
6	2004-2005	02/09/2005	6,378,132.57	5.171	6093.167	400.00	NO
7	2004-2005	02/17/2005	4,703,163.20	3.813	6089.579	400.00	NO
8	2004-2005	02/16/2005	4,078,716.10	3.307	6041.617	400.00	NO
9	2004-2005	02/18/2005	3,766,528.00	3.054	5997.282	400.00	NO
10	2004-2005	01/09/2005	2,938,705.72	2.382	5987.072	400.00	NO
11	2004-2005	12/26/2004	2,773,134.69	2.248	5963.007	400.00	NO
12	2004-2005	03/20/2005	2,749,450.33	2.229	5946.077	400.00	NO
13	2004-2005	02/08/2005	2,184,497.03	1.771	5888.622	400.00	NO
14	2004-2005	01/08/2005	1,995,533.88	1.618	5787.903	400.00	NO
15	2004-2005	10/25/2004	1,879,606.05	1.524	5711.886	400.00	NO
16	2004-2005	02/10/2005	1,469,700.37	1.192	5488.234	400.00	NO
17	2004-2005	10/19/2004	1,398,418.64	1.134	5441.486	400.00	NO
18	2004-2005	01/26/2005	1,348,628.33	1.093	5430.532	400.00	NO
19	2004-2005	01/05/2005	1,066,654.05	0.865	5350.975	400.00	NO
20	2004-2005	01/01/2005	932,070.77	0.756	5336.375	400.00	NO
21	2004-2005	02/15/2005	770,518.15	0.625	5274.477	400.00	NO

Event #	Storm Season	Date	Storm Volume (L)	Storm Volume (acre-feet)	WMMS Modeled Fecal Concentration (#/100ml)	Allowable Single Sample Fecal Concentration (4000/100mL) per Ballona Bacteria TMDL	Storm In Compliance ?
22	2004-2005	01/04/2005	762,101.16	0.618	5195.947	400.00	NO
23	2004-2005	03/21/2005	728,363.62	0.590	5158.511	400.00	NO
24	2004-2005	12/27/2004	666,275.05	0.540	4984.984	400.00	NO
25	2004-2005	01/02/2005	622,262.23	0.504	4917.418	400.00	NO
26	2004-2005	12/05/2004	412,313.41	0.334	4758.954	400.00	NO
27	2004-2005	10/18/2004	373,504.43	0.303	4726.039	400.00	NO
28	2004-2005	03/16/2005	369,014.72	0.299	4503.673	400.00	NO
29	2004-2005	01/06/2005	338,414.06	0.274	3297.191	400.00	NO
30	2004-2005	02/28/2005	298,244.41	0.242	2574.722	400.00	NO
31	2004-2005	03/01/2005	289,100.67	0.234	1700.535	400.00	NO
32	2004-2005	02/11/2005	283,440.27	0.230	1538.307	400.00	NO
33	2004-2005	01/10/2005	184,608.91	0.150	1296.498	400.00	NO
34	2004-2005	03/26/2005	163,336.58	0.132	1214.059	400.00	NO
35	2004-2005	03/22/2005	148,784.46	0.121	414.237	400.00	NO
36	2004-2005	03/17/2005	108,098.26	0.088	29.155	400.00	YES
37	2004-2005	11/26/2004	107,574.38	0.087	0.251	400.00	YES
38	2004-2005	11/12/2004	89,144.02	0.072	0.098	400.00	YES
39	2004-2005	01/24/2005	73,763.34	0.060	0.023	400.00	YES
40	2004-2005	10/16/2004	63,432.46	0.051	0.021	400.00	YES
41	2004-2005	12/03/2004	60,299.64	0.049	0.009	400.00	YES
42	2004-2005	12/04/2004	58,588.55	0.047	0.006	400.00	YES

APPENDIX G. Time Series Analysis

The following graphs present the time series difference between baseline and allowable concentrations modeled using WMMS.

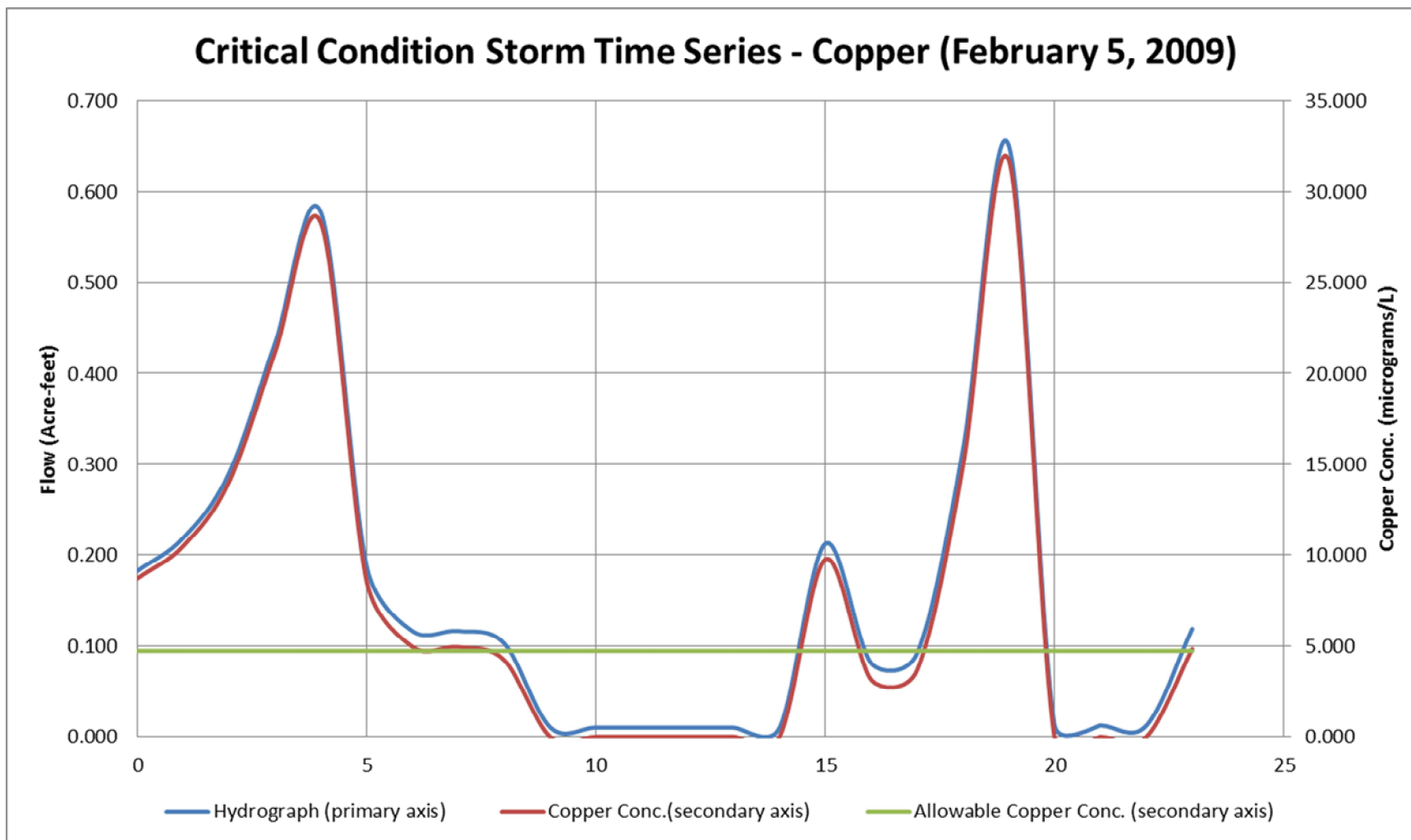


Figure G-1: Critical Condition Storm Hydrograph (Feb 5, 2009) with Modeled Copper Conc. and TMDL Allowable Copper Conc.

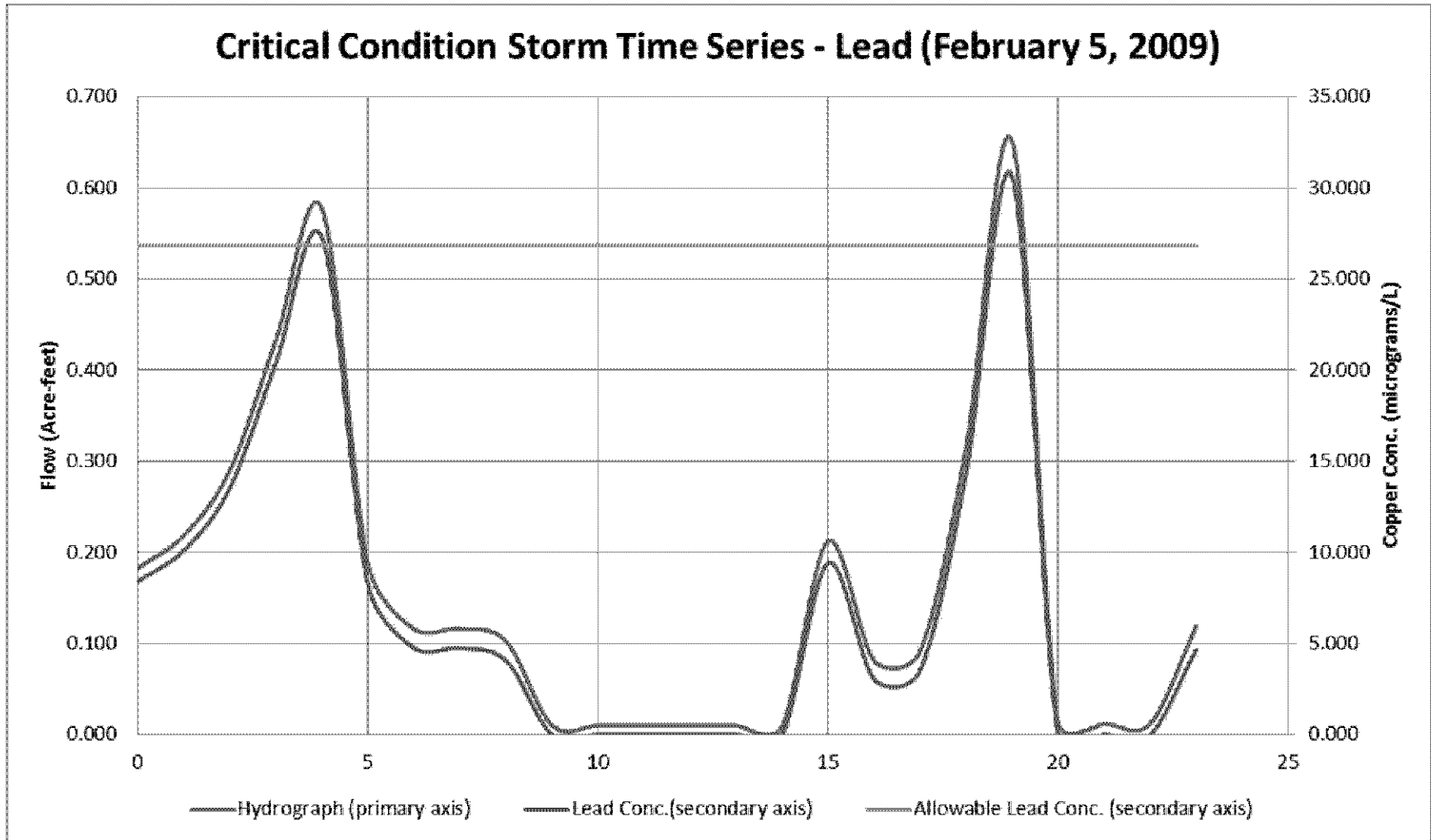


Figure G-2: Critical Condition Storm Hydrograph (Feb 5, 2009) with Modeled Lead Conc. and TMDL Allowable Lead Conc.

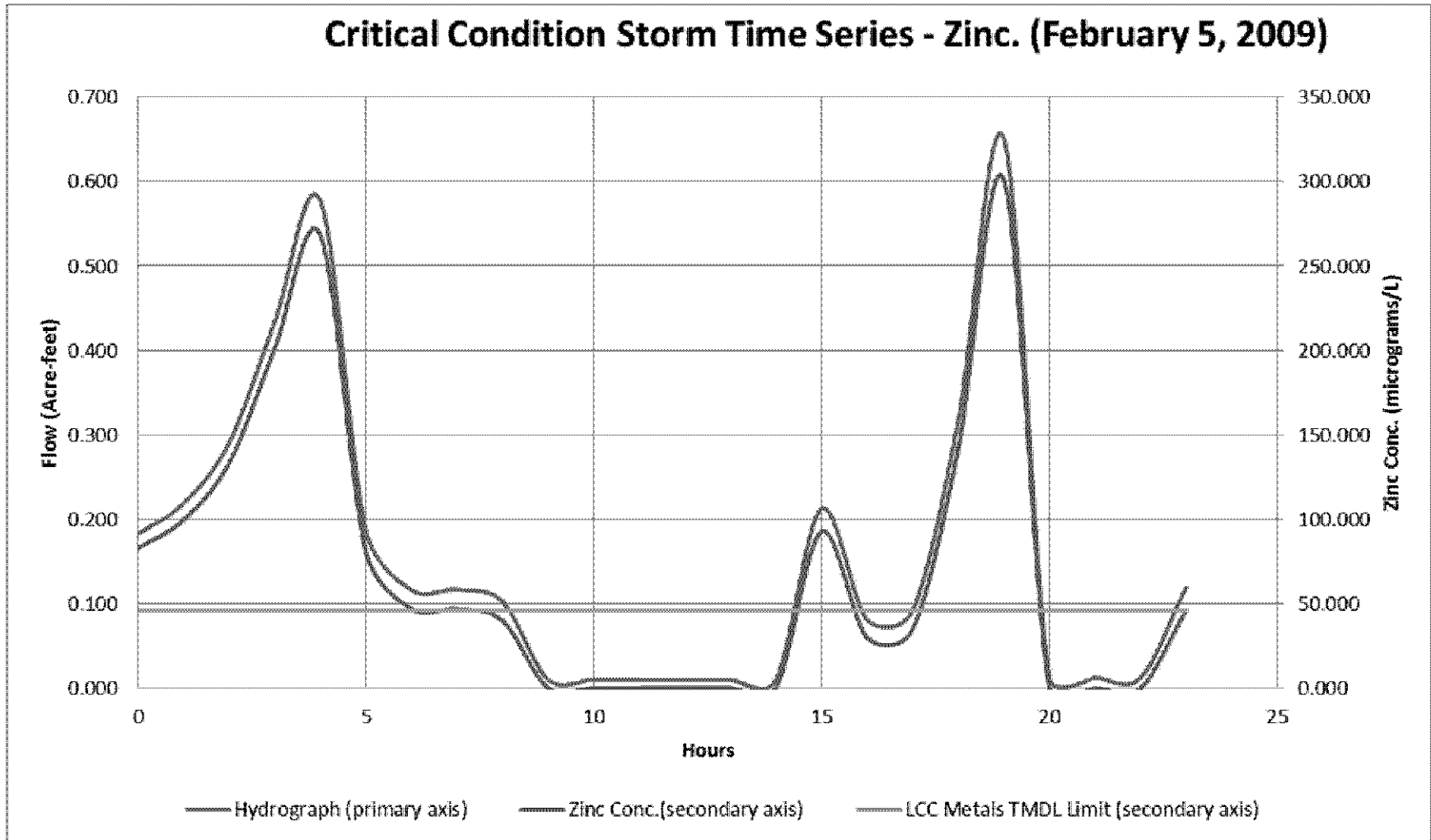


Figure G-3: Critical Condition Storm Hydrograph (Feb 5, 2009) with Modeled Zinc Conc. and TMDL Allowable Zinc Conc.

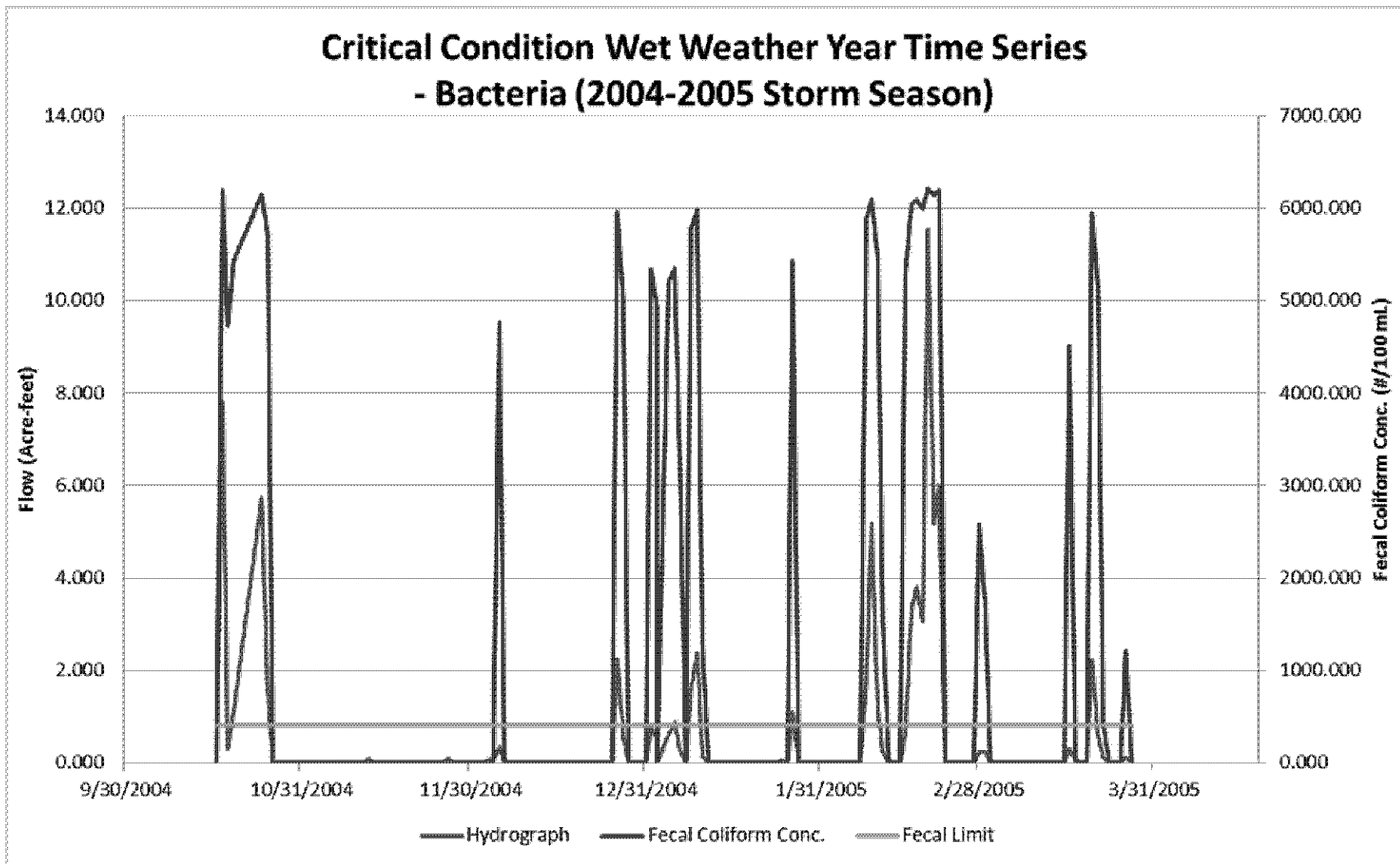


Figure G-4: Critical Condition Bacteria Year (2004-2005) with Modeled Fecal Coliform, and TMDL Allowable Fecal Conc.

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Los Angeles Regional Water Quality Control Board

June 24, 2015

Ms. Gail Farber, Director
County of Los Angeles
Department of Public Works
Watershed Management Division, 11th Floor
900 South Fremont Avenue
Alhambra, CA 91803

Ms. Gail Farber, Chief Engineer
Los Angeles County Flood Control District
Department of Public Works
Watershed Management Division, 11th Floor
900 South Fremont Avenue
Alhambra, CA 91803

APPROVAL, WITH CONDITIONS, OF THE ALAMITOS BAY/LOS CERRITOS CHANNEL WATERSHED MANAGEMENT AREA COORDINATED INTEGRATED MONITORING PROGRAM, PURSUANT TO ATTACHMENT E, PART IV.B OF THE LOS ANGELES COUNTY MUNICIPAL SEPARATE STORM SEWER SYSTEM (MS4) PERMIT (NPDES PERMIT NO. CAS004001; ORDER NO. R4-2012-0175)

Dear Ms. Farber:

The Los Angeles Regional Water Quality Control Board (Los Angeles Water Board or Board) has reviewed the revised monitoring program submitted on February 18, 2015 by the County of Los Angeles (County) and Los Angeles County Flood Control District (LACFCD) for the Alamitos Bay/Los Cerritos Channel (AB/LCC) Watershed Management Area (WMA). This monitoring program was submitted pursuant to the provisions of NPDES Permit No. CAS004001 (Order No. R4-2012-0175), which authorizes discharges from the municipal separate storm sewer system (MS4) operated by 86 municipal Permittees within Los Angeles County (hereafter, LA County MS4 Permit). The LA County MS4 Permit allows Permittees the option to develop and implement a coordinated integrated monitoring program (CIMP) that achieves the five Primary Objectives set forth in Part II.A of Attachment E and includes the elements set forth in Part II.E of Attachment E. These programs must be approved by the Executive Officer of the Los Angeles Water Board.

The Los Angeles Water Board has reviewed the County's and LACFCD's revised CIMP and has determined that the CIMP includes the elements set forth in Part II.E of Attachment E and will achieve the Primary Objectives set forth in Part II.A of Attachment E of the LA County MS4 Permit.

Public Review and Comment

On July 3, 2014, the Board provided public notice and a 46-day period to allow for public review and comment on the County's and LACFCD's draft CIMP. A separate notice of availability regarding the draft CIMPs, including the AB/LCC WMA CIMP, was directed to State Senators and Assembly Members within the Coastal Watersheds of Los Angeles County. The Board received four comment letters that had comments applicable to the County's and LACFCD's draft CIMP. One joint letter was from the Natural Resources Defense Council (NRDC), Heal the Bay, and Los Angeles Waterkeeper and the other letters were from the Construction Industry

Coalition on Water Quality (CICWQ); Ventura Countywide Stormwater Quality Management Program and a private citizen, Joyce Dillard. During the review of the draft and revised CIMP, the Los Angeles Water Board considered those comments applicable to the County's and LACFCD's proposed CIMP.

Los Angeles Water Board Review

Concurrent with the public review, the Los Angeles Water Board, along with U.S. EPA Region IX staff, reviewed the draft CIMPs. On November 20, 2014, the Los Angeles Water Board sent a letter to the County and LACFCD detailing the Board's comments on the draft CIMP and identifying the revisions that needed to be addressed prior to the Board's approval of the County's and LACFCD's CIMP. The letter directed the County and LACFCD to submit a revised CIMP addressing the Los Angeles Water Board's comments. Prior to the County's and LACFCD's submittal of its revised CIMP, the Los Angeles Water Board staff had a meeting on January 15, 2015, teleconferences, and email exchanges with the County's representatives to discuss the Board's remaining comments and necessary revisions to the draft CIMP. The County and LACFCD submitted its revised CIMP on February 18, 2015, for Los Angeles Water Board review and approval.

Approval of CIMP, with Conditions

The Los Angeles Water Board hereby approves, subject to the following condition, the County's and LACFCD's February 18, 2015, revised CIMP for the AB/LLC. The Board may rescind this approval if the following condition is not met to the satisfaction of the Board within the timeframe provided below.

1. Revise Section 2.2 Dominguez Channel Toxics TMDL, 5th paragraph, last sentence of the CIMP to omit the strike out portion of the sentence: "Accordingly, no inference should be drawn from the submission of this CIMP or from any action or implementation taken pursuant to it that ~~the County or the LACFCD is obligated to implement the DC Toxics TMDL, including this CIMP or any of the DC Toxics TMDL's other obligations or plans, or that the County or the LACFCD have waived any rights under the Amended Consent Decree.~~"

In separate correspondence to all Permittees developing CIMPs and Integrated Monitoring Programs (IMPs), the Los Angeles Water Board will also be providing clarification of requirements for toxicity monitoring – specifically regarding additional toxicity monitoring upstream and at outfalls where toxicity is identified during a sampling event at a receiving water monitoring site.

The County and LACFCD shall submit a final CIMP to the Los Angeles Water Board that satisfies the above condition no later than **July 8, 2015**. Pursuant to Attachment E, Part IV.C.6 of the LA County MS4 Permit, the County and LACFCD must commence implementing its monitoring program within 90 days after this approval of the final CIMP (i.e. no later than September 22, 2015). Please note that the County and LACFCD are responsible for complying with all reporting provisions included in Attachment E, Part XIV – XVIII and Section F of Part XIX, "Reporting Requirements for Los Cerritos Channel WMA TMDLs," and Attachment D, Sections IV, V, and VII.A of the LA County MS4 Permit. The County and LACFCD are also responsible for complying with applicable reporting provisions included in Section C of Part XIX,

“Reporting Requirements for Dominguez Channel and Greater Harbors Waters WMA TMDLs.” Additionally, the County and LACFCD are also responsible for complying with the following requirements under Annual Reporting and Adaptive Management.

Annual Reporting

Within the reporting year, through its Annual Report per Attachment E, Part XVIII of the LA County MS4 Permit, the County and LACFCD shall provide an Integrated Monitoring Report that summarizes all identified exceedances of:

- outfall-based stormwater monitoring data,
- wet weather receiving water monitoring data,
- dry weather receiving water monitoring data, and
- non-storm water outfall monitoring data

against all applicable receiving water limitations, water quality-based effluent limitations, non-storm water action levels, and aquatic toxicity thresholds as defined in Sections XII.F and G of this MRP. All sample results that exceeded one or more applicable thresholds shall be readily identified.

The Annual Report shall also include a Municipal Action Level (MAL) Assessment Report, which shall present the stormwater outfall monitoring data in comparison to the applicable MALs, and identify those subwatersheds with a running average of twenty percent or greater of exceedances of the MALs in discharges of stormwater from the MS4. Please note that beginning in Year 3 after the effective date of the LA County MS4 Permit, each Permittee or group of Permittees shall submit a MAL Action Plan with the Annual Report (first MAL Action Plan due with December 15, 2015 Annual Report) to the Regional Water Board Executive Officer, for those subwatersheds with a running average of twenty percent or greater of exceedances of the MALs in any discharge of storm water from the MS4. Please note that implementation of an approved Watershed Management Program (WMP) or Enhanced Watershed Management Program (EWMP) per Part VI.C of the LA County MS4 Permit fulfills all requirements related to the development and implementation of the MAL Action Plan, as per Attachment G of the LA County MS4 Permit, for those pollutants addressed by the WMP or EWMP.

Adaptive Management

The Regional Water Board or its Executive Officer, consistent with 40 CFR section 122.41, may approve changes to the Monitoring and Reporting Program, after providing the opportunity for public comment, either:

1. By request of the County of LACFCD or by an interested person after submittal of the Monitoring Report. Such request shall be in writing and filed not later than 60 days after the Monitoring Report submittal date, or
2. As deemed necessary by the Regional Water Board Executive Officer, following notice to the County and LACFCD.

As part of the adaptive management process, any modifications to the CIMP must be submitted to the Los Angeles Water Board for review and approval. The County and LACFCD must implement any modifications to the CIMP upon approval by the Los Angeles Water Board or its Executive Officer, or within 60 days of submittal of modifications if the Los Angeles Water Board or its Executive Officer expresses no objections. Note that the County’s and LACFCD’s Report

of Waste Discharge (ROWD) is due no later than July 1, 2017. To align any modifications to the CIMP proposed through the adaptive management process with permit reissuance, results of the first adaptive management cycle should be submitted in conjunction with the County's and LACFCD's ROWD.

The Regional Water Board appreciates the participation and cooperation of the County and LACFCD in the implementation of the LA County MS4 Permit. If you have any questions, please contact Ms. Rebecca Christmann of the Storm Water Permitting Unit by electronic mail at Rebecca.Christmann@waterboards.ca.gov or by phone at (213) 576-5734. Alternatively, you may also contact Mr. Ivar Ridgeway, Chief of the Storm Water Permitting Unit, by electronic mail at Ivar.Ridgeway@waterboards.ca.gov or by phone at (213) 620-2150.

Sincerely,


Samuel Unger, P.E.
Executive Officer

cc: Angela George, Los Angeles County Flood Control District
Jolene Guerrero, County of Los Angeles, Department of Public Works
William Johnson, County of Los Angeles, Department of Public Works

Alamitos Bay/Los Cerritos Channel

Final Coordinated Integrated Monitoring Program

Submitted to:

**California Regional Water
Quality Control Board
Los Angeles Region**
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Los Angeles, CA 90013-2343

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Revised July 7, 2015

RB-AR3164

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List of Abbreviations

AB/LCC	Alamitos Bay/Los Cerritos Channel
BPA	Basin Plan Amendment
BMP	Best Management Practice
CIMP	Coordinated Integrated Monitoring Program
CLTMP	Colorado Lagoon TMDL Monitoring Plan
DEHP	Bis(2-ethylhexyl) phthalate
DDT	Dichlorodiphenyltrichloroethane
EPA	Environmental Protection Agency
GIS	Geographic Information System
HRU	Hydrologic Response Unit
IC/ID	Illicit Connections and Illicit Discharges
LACFCD	Los Angeles County Flood Control District
LARWCQB	Los Angeles Regional Water Quality Control Board
LCCWG	Los Cerritos Channel Watershed Group
LID	Low Impact Development
MAL	Municipal Action Level
MBAS	Methylene Blue Active Substances
MCM	Minimum Control Measure
MDL	Minimum Detection Limit
MES	Mass Emissions Station
MS4	Municipal Separate Storm Sewer System
MRP	Monitoring and Reporting Program
N	Nitrogen
NPDES	National Pollutant Discharge Elimination System
NSW	Non Stormwater
PCBs	Polychlorinated Biphenyls
PIPP	Public Information and Participation Program
QA/QC	Quality Assurance/Quality Control
RAA	Reasonable Assurance Analysis
RMC	Regional Monitoring Coalition
RWL	Receiving Water Limitations
SMC	Southern California Stormwater Monitoring Coalition
TMDL	Total Maximum Daily Load
TN	Total Nitrogen
TP	Total Phosphorus
USEPA	United State Environmental Protection Agency
WLA	Waste Load Allocation
WMA	Watershed Management Area
WQBELs	Water Quality Based Effluent Limitations

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Section 1. Introduction

1.1 BACKGROUND

The Alamitos Bay/Los Cerritos Channel (AB/LCC) Coordinated Integrated Monitoring Program (CIMP) is a collaborative effort between the County of Los Angeles (County) and the Los Angeles County Flood Control District (LACFCD). The geographic scope of this CIMP includes a 95-acre County Island, the LACFCD infrastructure within that island, and the LACFCD infrastructure within the Los Cerritos Channel estuary and Alamitos Bay watersheds. The geographic area of this CIMP is shown in Figure 1. It is important to note that the 95-acre County Island is located within the separate Los Cerritos Channel Freshwater Watershed.

As shown in Figure 1, this CIMP Group, makes up a very small portion of the overall Watershed Management Area. This CIMP is being submitted to meet the Monitoring and Reporting Program requirements outlined in Attachment E of the National Pollutant Discharge Elimination System (NPDES) Municipal Separate Storm Sewer System (MS4) Permit No. R4-2012-0178 (Permit). The Permit was adopted on November 8, 2012 and became effective December 28, 2012.

1.2 OBJECTIVE

Section II of Attachment E of the Permit states the primary objectives of the Monitoring Program are to:

- Assess the chemical, physical, and biological impacts of discharges from the MS4 on receiving waters.
- Assess compliance with receiving water limitations and water quality-based effluent limitations (WQBELs) established to implement Total Maximum Daily Load (TMDL) wet weather and dry weather wasteload allocations (WLA).
- Characterize pollutant loads in MS4 discharges.
- Identify sources of pollutants in MS4 discharges.
- Measure and improve the effectiveness of pollutant controls implemented under the Permit

1.3 APPROACH

This CIMP utilizes existing monitoring efforts that the County and LACFCD are participating in and proposes additional efforts to meet the objectives of the Permit. Additionally, this CIMP maximizes coordination opportunities with other CIMPs in the Watershed Management Area. Table 13 (page 35) of this CIMP identifies the County's and the LACFCD's monitoring requirements per the Permit, and lists the existing monitoring programs the County and LACFCD participate in.

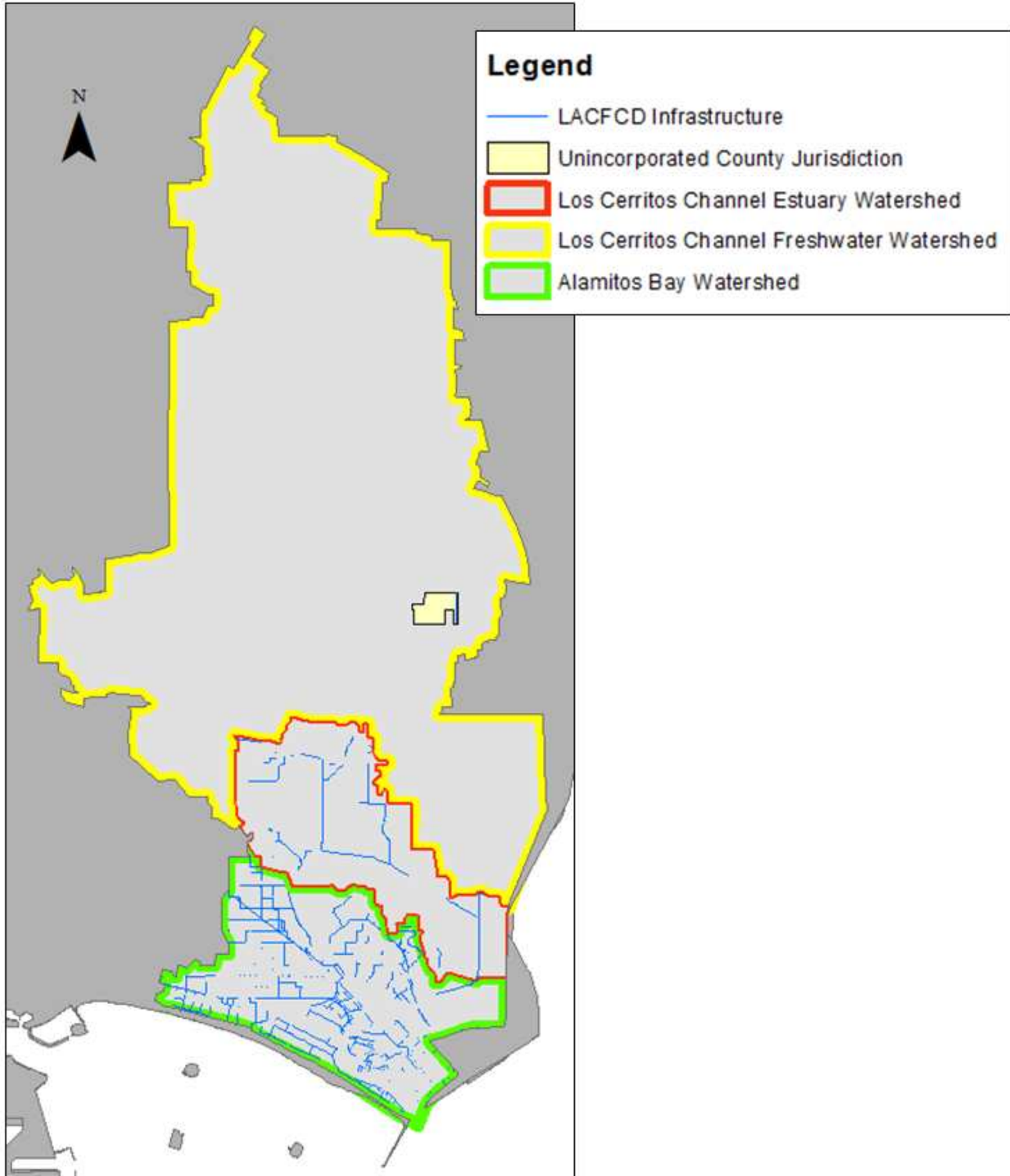


Figure 1: Three Subwatersheds within Alamitos Bay Watershed Management Area

1.4 AB/LCC WATERSHED MANAGEMENT AREA

The AB/LCC Watershed Management Area is located in southern Los Angeles County and has a drainage area of approximately 37.5 square miles. The AB/LCC Watershed Management Area encompasses the Los Cerritos Channel freshwater watershed (which includes all or portions of the Cities of Bellflower, Cerritos, Downey, Lakewood, Long Beach, Paramount and Signal Hill, and a 95-acre County Island), the Los Cerritos Channel estuary watershed (located in Long Beach) and the Alamitos Bay watershed (located in Long Beach). These watersheds and the areas covered in this CIMP are shown in Figure 1. It should be noted that within the Watershed Management Area there are multiple existing monitoring programs as well as parallel CIMP efforts. This CIMP Group has made significant efforts to coordinate with other programs in the Watershed Management Area.

This AB/LCC CIMP only includes the 95-acre County Island, the LACFCD infrastructure within that island, and the LACFCD infrastructure within the Los Cerritos Channel estuary watershed, and the Alamitos Bay watershed. It is important to note that the AB/LCC WMP has very limited jurisdiction in the overall Watershed Management Area since the County only has land use jurisdiction over the 95-acre County Island, and the LACFCD does not own or operate any municipal sanitary sewer systems, public streets, roads, or highways – the LACFCD only operates and maintains storm drains and other appurtenant drainage infrastructure. A detailed description of the LACFCD can be found in Attachment A.

1.4.1 Los Cerritos Channel Freshwater Watershed

The Los Cerritos Channel freshwater watershed has a total drainage area of approximately 27.7 square miles. The Los Cerritos Channel freshwater watershed drains to a concrete lined channel, which is operated and maintained by the LACFCD. Generally, the downstream limit of the freshwater watershed is considered to be just south of Atherton Street as shown in Figure 2. It should be noted that high tides could push tidal surges upstream of Atherton Street. The drainage area of the freshwater watershed is within the jurisdiction of the County, CALTRANS and several cities including Bellflower, Cerritos, Downey, Lakewood, Long Beach, Paramount and Signal Hill.



Figure 2: Los Cerritos Channel Freshwater/Estuary Transition

1.4.2 Los Cerritos Channel Estuary Watershed

The Los Cerritos Channel Estuary (Estuary) is approximately 1.5 miles long and extends from just south of Atherton St. to the Alamitos Bay. The Estuary is under tidal influence (Figure 3) and is characterized by a trapezoidal geometry with rip-rap sides and a natural bottom. The drainage area directly tributary to the Estuary is approximately 4.1 square miles. The Estuary is under the jurisdiction of the LACFCD while the drainage area consists entirely of the City of Long Beach and CALTRANS.



Figure 3: Los Cerritos Channel Estuary

1.4.3 Alamitos Bay Watershed

The Alamitos Bay Watershed has a total drainage area of approximately 5.7 square miles. This area includes the Colorado Lagoon which is situated at the northwestern end of Alamitos Bay. The Colorado Lagoon subwatershed is approximately 1.8 square miles. Alamitos Bay and Colorado Lagoon are hydraulically connected via an underground culvert that connects Colorado Lagoon to the Marine Stadium portion of Alamitos Bay. The Alamitos Bay watershed’s drainage area is completely within the jurisdiction of the City of Long Beach and CALTRANS.



Figure 4: Colorado Lagoon

1.4.4 County Island

Within the AB/LCC Watershed Management Area is the County Island is known as the “North Long Beach Island”. The County Island is landlocked within the City of Long Beach (Figure 5). The County Island is 95 acres (0.15 square miles) and is predominantly Single Family Residential Land Use.



Figure 5: Unincorporated County Island

Section 2. Existing TMDLs and Monitoring Programs in the AB/LCC WMA

Within the AB/LCC Watershed Management Area, there are 3 existing TMDLs which each require Monitoring and Reporting Programs.

2.1 LOS CERRITOS CHANNEL METALS TMDL

The Total Maximum Daily Load for Metals in Los Cerritos Channel (LCC Metals TMDL) was approved by the United States Environmental Protection Agency (USEPA) on March 17, 2010. The Metals TMDL was developed to address beneficial use impairments due to Copper, Zinc and Lead in the freshwater portion of the Los Cerritos Channel. The freshwater portion of Los Cerritos Channel has the existing beneficial use of Wildlife Habitat (WILD), the potential beneficial uses of Municipal and Domestic Supply (MUN), Water Contact Recreation (REC1) and the intermittent beneficial uses of Warm Freshwater Habitat (WARM), and Non-contact Water Recreation (REC2).

On June 6, 2013, the Los Angeles Regional Water Quality Control Board (LARWQCB) adopted a resolution which includes an Implementation Schedule for the LCC Metals TMDL. The Implementation Schedule states that MS4 permittees shall submit a coordinated monitoring plan, which includes compliance and receiving water monitoring by September 30, 2015. A monitoring plan submitted pursuant to the NPDES Permit may be used by permittees to satisfy the TMDL monitoring requirements. This CIMP Group, and the Los Cerritos Channel Watershed Group (LCCWG), are submitting CIMPs to satisfy the coordinated monitoring plan requirements of the LCC Metals TMDL. Details on this can be found in Section 3.1, 4 and 5.

2.2 DOMINGUEZ CHANNEL TOXICS TMDL

The Total Maximum Daily Load for Toxic Pollutants in Dominguez Channel and Greater Los Angeles and Long Beach Harbor Waters (DC Toxics TMDL) was adopted by the LARWQCB on May 5, 2011. The DC Toxics TMDL became effective on March 23, 2012. The goal of the TMDL is to protect and restore fish tissue, water and sediment quality in Dominguez Channel and Greater Los Angeles and Long Beach Harbor waters by remediating contaminated sediment and controlling the sediment loading and accumulation of contaminated sediment in the Harbors.

The County and the LACFCD are both listed as responsible parties for the Greater Harbors waterbody. The DC Toxics TMDL states that

“The Greater Los Angeles and Long Beach Harbors responsible parties are each individually responsible for conducting water, sediment, and fish tissue monitoring. However, they are encouraged to collaborate or coordinate their efforts to avoid duplication and reduce associated costs” (DC Toxics TMDL, Basin Plan Amendment pg. 27).

Accordingly, both County and LACFCD are participating in the Greater Harbors Regional Monitoring Coalition (RMC). More information can be found in Section 4.3.2.

As recognized by the footnote in Attachment K-7 of the Permit, the County and the LACFCD have entered into an Amended Consent Decree with the United States and the State of California, including the LARWQCB, pursuant to which the LARWQCB has released the County and the LACFCD from responsibility for Toxic pollutants in the Dominguez Channel and the Greater

Harbors. Accordingly, no inference should be drawn from the submission of this CIMP or from any action or implementation taken pursuant to it that the County or the LACFCD have waived any rights under the Amended Consent Decree.

2.3 COLORADO LAGOON TOXICS TMDL MONITORING PLAN

The Colorado Lagoon Organochlorine Pesticides, PCBs, Sediment Toxicity, PAHs, and Metals TMDL (Colorado Lagoon Toxics TMDL) was adopted by the LARWQCB on October 1, 2009. The Colorado Lagoon Toxics TMDL was developed to restore fish tissue and sediment in Colorado Lagoon by controlling the contaminated sediment loading and accumulation of contaminated sediment in the lagoon. The Colorado Lagoon has beneficial uses of Commercial and Sport Fishing (COMM), Wildlife Habitat (WILD), Shellfish Harvesting (SHELL), Water Contact Recreation (REC1), Non-Contact water recreation (REC2) and the potential use of Warm Freshwater Habitat (WARM).

On December 17, 2012 the LACFCD along the City of Long Beach and CALTRANS submitted the Final Colorado Lagoon TMDL Monitoring Plan (CLTMP). More information on this monitoring program can be found in Section 4.3.3.

2.4 BENEFICIAL USES

Beneficial uses for waterbodies in the AB/LCC Watershed Management Area are shown in Table 1.

Table 1: Beneficial Uses in AB/LCC WMA

Water Body	Beneficial Uses	
Los Cerritos Channel Freshwater Segment	Existing	Wildlife Habitat (WILD)
	Potential	Municipal and Domestic Supply (MUN) Water Contact Recreation (REC1)
	Intermittent	Warm Freshwater Habitat (WARM) Non-contact Water Recreation (REC2)
Los Cerritos Channel Estuary	Existing	Industrial Service Supply (IND) Navigation (NAV) Commercial and Sport Fishing (COMM) Estuarine Habitat (EST) Marine Habitat (MAR) Wildlife Habitat (WILD) Rare, Threatened, or Endangered Species (RARE) Migration of Aquatic Organisms (MIGR) Spawning, Reproduction, and/or Early Development (SPWN) Shellfish Harvesting (SHELL) Water Contact Recreation (REC1) Non-Contact water recreation (REC2)
Colorado Lagoon	Existing	Commercial and Sport Fishing (COMM) Wildlife Habitat (WILD) Shellfish Harvesting (SHELL) Water Contact Recreation (REC1) Non-Contact water recreation (REC2)
	Potential	Warm Freshwater Habitat (WARM)
Marine Stadium	Existing	Water Contact Recreation (REC1) Non-Contact water recreation (REC2)
Alamitos Bay	Existing	Water Contact Recreation (REC1) Non-Contact water recreation (REC2)

Section 3. Water Quality Priorities

3.1 OBJECTIVE

Per Section VI.C.5 of the Permit, three categories of pollutants are identified to aid in the evaluation of existing water quality conditions. These classifications consist of:

- Category 1 (Highest Priority): Water body-pollutant combinations for which water quality-based effluent limitations and/or receiving water limitations are established in Part VI.E and Attachments L through R of the Permit.
- Category 2 (High Priority): Pollutants for which data indicate water quality impairment in the receiving water according to the State's Water Quality Control Policy for Developing California's Clean Water Act Section 303(d) List (State Listing Policy) and for which MS4 discharges may be causing or contributing to the impairment.
- Category 3 (Medium Priority): Pollutants for which there are insufficient data to indicate water quality impairment in the receiving water according to the State's Listing Policy, but which exceed applicable receiving water limitations contained in the Permit and for which MS4 discharges may be causing or contributing to the exceedance"

This CIMP Group is coordinating portions of its monitoring efforts, where feasible, with the Los Cerritos Channel Watershed Group (LCCWG). The LCCWG consists of the cities of Bellflower, Cerritos, Downey, Lakewood, Long Beach, Paramount and Signal Hill. Additionally, the LCCWG contains the LACFCD's infrastructure within these cities' jurisdictions. See Figure 6 for the geographical boundaries of the LCCWG.

The LACFCD does not have jurisdiction of the land uses that create the pollutants of concern in the Alamitos Bay, Colorado Lagoon and Los Cerritos Channel Estuary watersheds. These areas are under the jurisdiction of the City of Long Beach and will be addressed under Long Beach's WMP/CIMP which will be submitted in March 2015. Accordingly, Water Quality Priorities for the Alamitos Bay, Colorado Lagoon and Los Cerritos Channel Estuary will be addressed in Long Beach's WMP. Through adaptive management, the LACFCD will review Long Beach's WMP and consider on a case-by-case basis opportunities for collaboration on future projects.

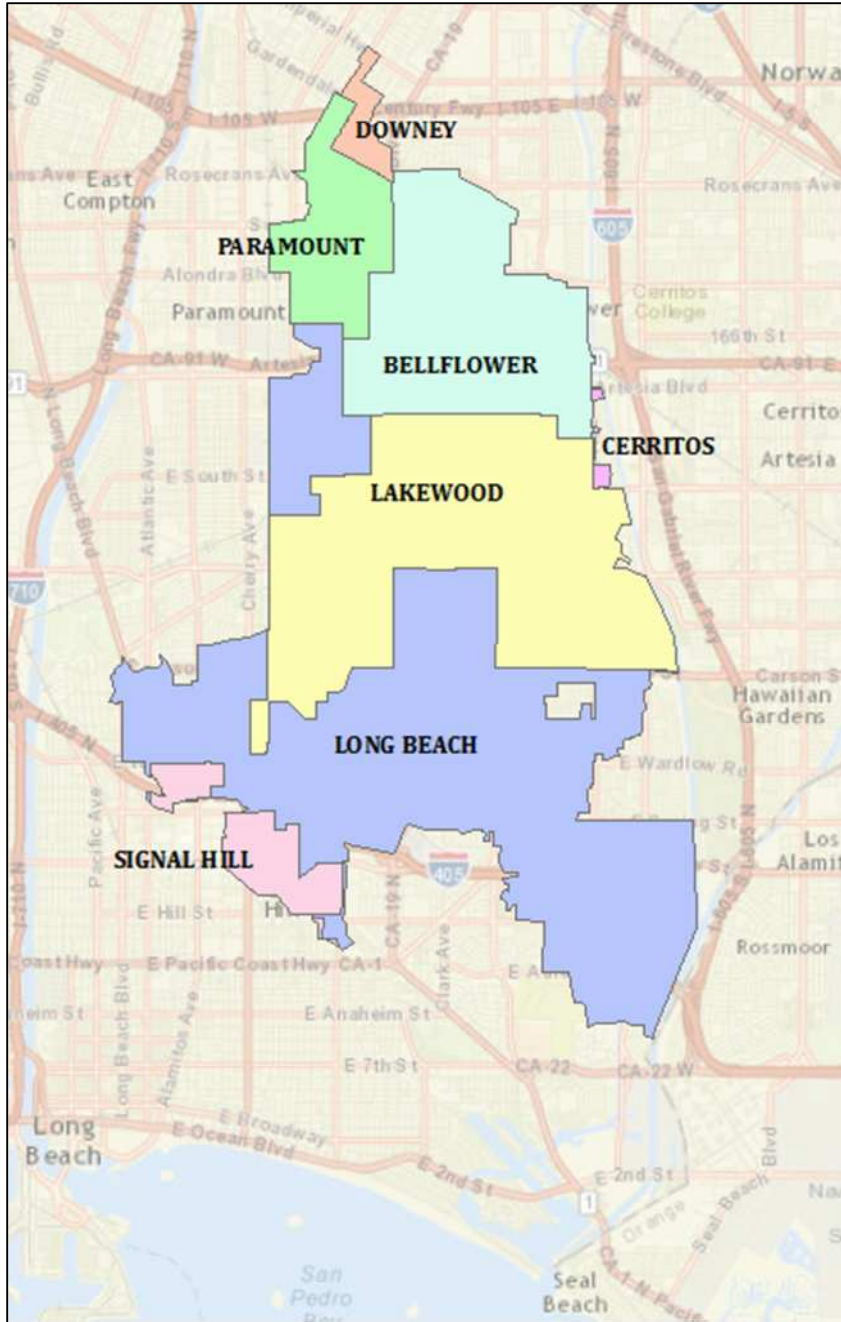


Figure 6: Los Cerritos Channel Watershed Group

For consistency with the LCCWG, this CIMP Group has identified Low Priority Pollutants. These pollutants fall below the requirements of Category 3; however there has been at least one exceedance of these pollutants within the past 10 years. Consistent with the requirements of the Permit, existing TMDLs and the 303(d) list were used to determine Category 1 and 2 pollutants. Historic monitoring data collected from the Stearns Street Station (Figure 7 and Figure 8) was used to determine Category 3 and low priority pollutants. Table 2 lists the pollutants of concern for the freshwater portion of the Los Cerritos Channel. A detailed analysis of these pollutants of concern and their priority category can be found in this Group’s WMP.

Table 2: Water Quality Priorities: Freshwater Portion of the Los Cerritos Channel

Waterbody	Category 1 (Highest Priority)		Category 2 (High Priority) Pollutants	Category 3 (Medium Priority) Pollutants	Low Priority Pollutants
	Pollutant	TMDL			
Freshwater Portion of Los Cerritos Channel	Copper (wet and dry)	LCC Metals	Ammonia	MBAS	Cadmium (wet)
	Lead	LCC Metals/DC Toxics	Bis(2-ethylhexyl) phthalate (DEHP)	Enterococcus	Chlorpyrifos (wet)
	Zinc	LCC Metals/DC Toxics	Coliform Bacteria		Chromium (wet)
	DDT (fish tissue)	DC Toxics	Trash		Diazinon (wet and dry)
	PCBs (fish tissue)	DC Toxics	pH		Dissolved Silver (wet)
	Chlordane (fish tissue)	DC Toxics			
	PAHs (sediment)	DC Toxics			
	Toxicity (sediment)	DC Toxics			

Section 4. Receiving Water Monitoring

This CIMP Group is providing a representative monitoring program which should characterize its discharge into the affected receiving waters. In order to provide efficiencies in monitoring costs and avoid duplicative efforts, receiving water monitoring will be conducted in coordination with other monitoring efforts.

4.1 OBJECTIVE

Per Section II.E.1, Attachment E. of the Permit, the objective of receiving water monitoring includes:

- Determine whether the receiving water limitations are being achieved,
- Assess trends in pollutant concentrations over time, or during specified conditions,
- Determine whether the designated beneficial uses are fully supported as determined by water chemistry, as well as aquatic toxicity and bioassessment monitoring.

This CIMP distinguishes two types of receiving water monitoring, MS4 Receiving Water Sites and TMDL Receiving Water Sites (TMDL Sites).

4.2 MS4 RECEIVING WATER SITE

This CIMP Group will coordinate with the LCCWG to use the existing mass emission station at the Stearns Street crossing of Los Cerritos Channel as the MS4 Receiving Water Site. The City of Long Beach has maintained this mass emission station since 2000. Upon implementation of the LCCWG and the AB/LCC Group's CIMPs, the City of Long Beach will coordinate with other agencies for the operation and maintenance of the Stearns Street Site. Monitoring will be conducted by the LCCWG and the County and LACFCD will cost share with the LCCWG. A Memorandum of Agreement is currently under development.

Additionally, the LCCWG will conduct the Toxicity Monitoring program required by Section XII of Attachment E of the Permit. The LACFCD and County will cost share on this effort. Should the results of the toxicity monitoring be inconclusive, there may be the necessity for Toxicity Monitoring of the County Island. If needed, this CIMP Group will follow the protocols and methods established by the LCCWG.



Figure 7: Stearns Street Mass Emission Station

The Stearns Street site is an ideal location as it assesses the overall health of the Los Cerritos Channel freshwater watershed. Additionally, since this is an existing site, implementation of monitoring at this site is expected to begin once CIMPs are approved by the LARWQCB.

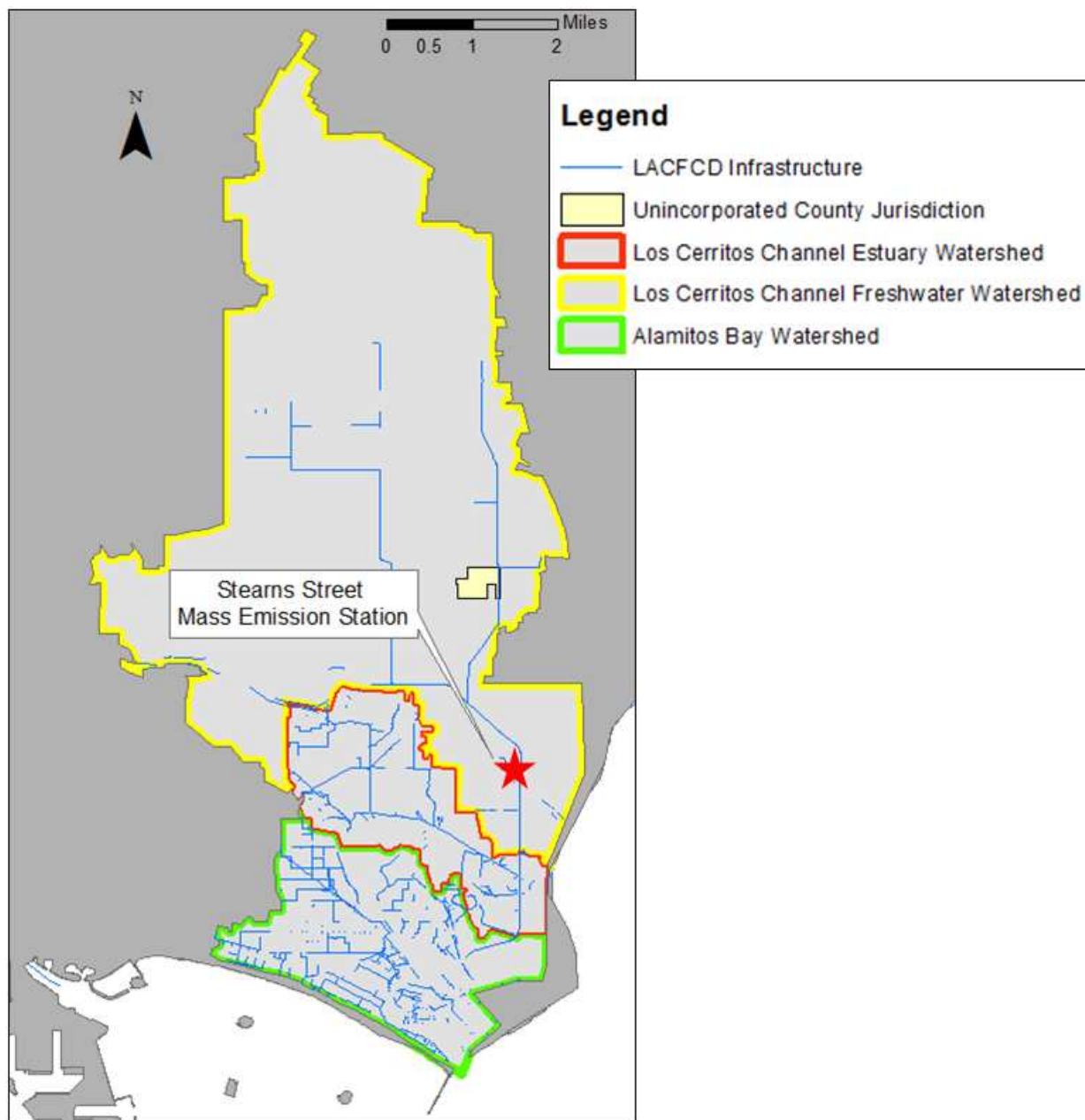


Figure 8: Stearns Street Mass Emission Station Location

Details on constituents, methods and frequency of sampling to be conducted at the Stearns Street site can be found in the *Coordinated Integrated Monitoring Plan for the Los Cerritos Channel Watershed Monitoring Group*.

Table 3: MS4 Receiving Water Monitoring Details

Permit Monitoring Program Elements:	Locations	Additional Information
Receiving Water Monitoring	Stearns Street Mass Emission Site	See <i>Coordinated Integrated Monitoring Plan for the Los Cerritos Channel Watershed Monitoring Group</i>

4.3 TMDL RECEIVING WATER SITES

There are three existing TMDLs in the AB/LCC Watershed Management Area for which receiving water monitoring is required. This CIMP Group will utilize existing monitoring programs and coordinate with parallel CIMP efforts where feasible. This CIMP Group may propose new monitoring locations based on results of the receiving water monitoring program through an adaptive process. The adaptive process is outlined in Figure 14.

4.3.1 Los Cerritos Channel Metals TMDL

The LCC Metals TMDL provides WLAs for both wet and dry weather expressed as flow/volumes multiplied by applicable numeric concentration targets and daily pollutant loading thresholds, respectively. Table 4 and Table 5 summarize those WLAs. It is important to note that the LCC Metals TMDL is only applicable to the Los Cerritos Channel freshwater watershed (Figure 1).

Table 4: Category 2: LCC Metals TMDL Wet Weather WLAs

Constituent	WLA Daily Maximum (g/day)
Copper	4.709×10^{-6} x daily storm volume (L)
Lead	26.852×10^{-6} x daily storm volume (L)
Zinc	46.027×10^{-6} x daily storm volume (L)

Table 5: Category 2: LCC Metals TMDL Dry Weather WLA

Constituent	WLA Daily Maximum (g/day)
Copper	67.2

This CIMP Group will collaborate its monitoring efforts with the LCCWG to determine the impact of Project 9 Unit 2 Line E (Palo Verde Drain) on the Los Cerritos Channel. Together, these groups will monitor at the mouth of the Palo Verde Drain, upstream of any backwater effects from the Los Cerritos Channel. The discharge at this site also includes runoff from Cities of Cerritos, Lakewood and Long Beach. Accordingly, monitoring results at this location will be a representative of the cumulative contribution from all of these jurisdictions. The monitoring in the Palo Verde Drain will be conducted by the LCCWG. A photo and the location of this site are shown in Figures 9 and 10, respectively. The County and LACFCD will cost share for their

share of monitoring costs. Details on constituents, methods and frequency of sampling can be found in the *Coordinated Integrated Monitoring Plan for the Los Cerritos Channel Watershed Monitoring Group*.



Figure 9: Palo Verde Drain: LCC Metals TMDL Receiving Water Site

Figure 9 shows the channel configuration looking upstream towards Spring Street. At this location, Palo Verde Drain is a 24-foot by 8-foot rectangular concrete storm drain built in the early 1960s. The storm drain was constructed and is maintained by the LACFCD.

Table 6: Los Cerritos Metals TMDL Receiving Water Monitoring Details

<i>Permit Monitoring Program Elements:</i>	Locations	Additional Information
<i>Los Cerritos Metals TMDL</i>	Palo Verde Drain Site/ Stearns Street Mass Emission Site	<i>See Coordinated Integrated Monitoring Plan for the Los Cerritos Channel Watershed Monitoring Group</i>

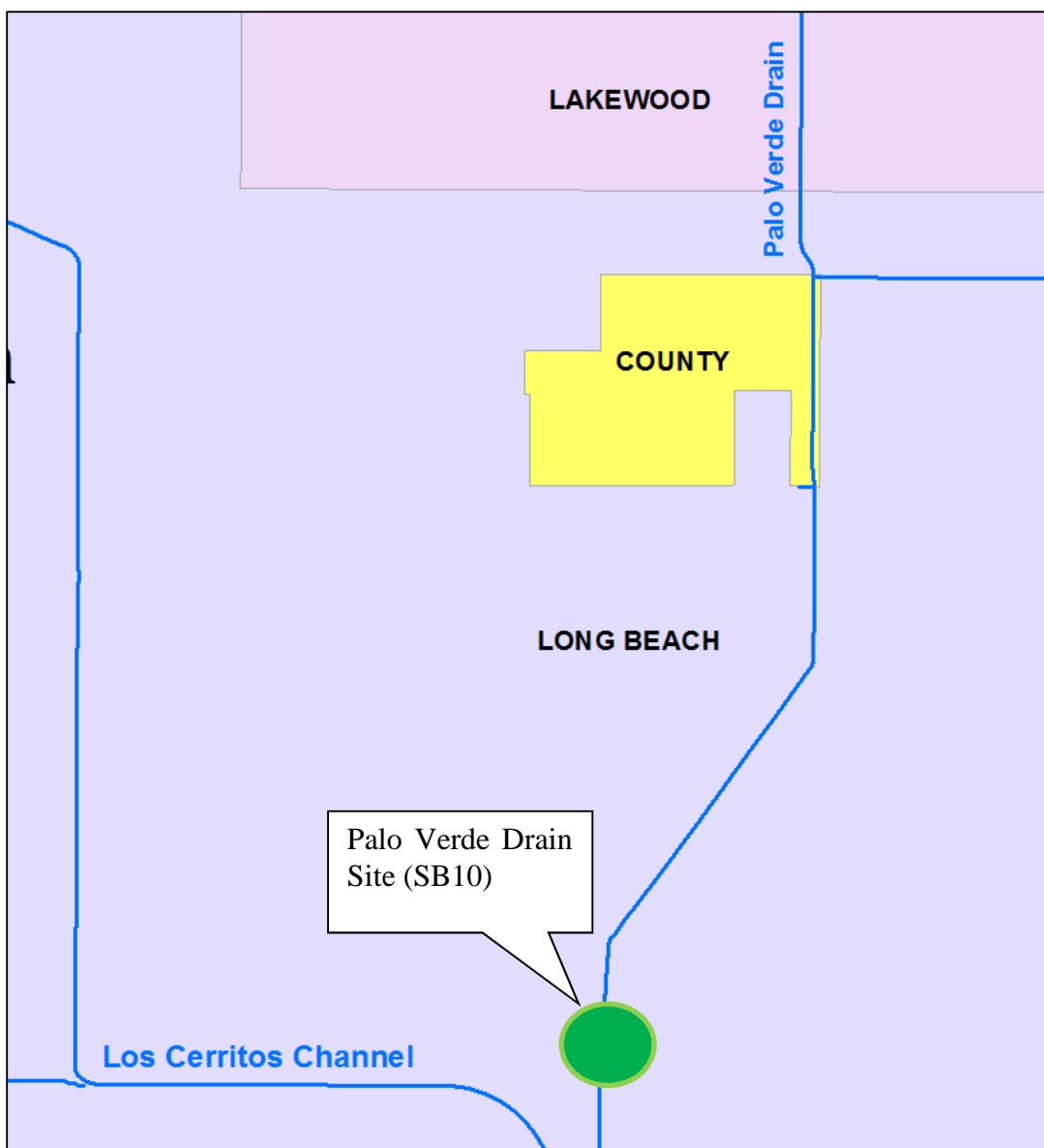


Figure 10: Palo Verde Drain: LCC Metals TMDL Receiving Water Site

The Palo Verde Drain subwatershed is approximately 5.3 square miles consisting of various land uses. The County Island makes up 2.8% of the Palo Verde Drain subwatershed. Table 5 shows the Hydrologic Response Units (HRU) for the Palo Verde Drain subwatershed and the County Island. The HRU is a combination of land use, soil hydrologic group and slope. The comparison in Table 5 shows that HRU breakdown of the County Island is very similar to that of the Palo Verde Drain subwatershed. Therefore, data obtained from the Palo Verde Drain Site will provide an indication of the County Island’s contribution to the receiving water.

Table 7: Hydraulic Response Unit Comparison

	Palo Verde Drain Subwatershed		County Island	
	Area [Acres]	Percentage	Area [Acres]	Percentage
High Density Single Family Residential	1623.6	48.3%	63.2	67.0%
Secondary Roads	836.4	24.9%	25.2	26.7%
Institutional	242.2	7.2%	4.0	4.2%
Commercial	162.8	4.8%	2.0	2.1%
Multifamily Residential	235.9	7.0%		
Low Density Single Family Residential Moderate Slope	119.1	3.5%		
Agriculture	60.6	1.8%		
Industrial	43.6	1.3%		
Transportation	34.4	1.0%		
Low Density Single Family Residential Steep Slope	1.8	0.1%		
Vacant	1.0	0.0%		

4.3.2 DC Toxics TMDL

The DC Toxics TMDL states:

“The Greater Los Angeles and Long Beach Harbors responsible parties are each individually responsible for conducting water, sediment, and fish tissue monitoring. However, they are encouraged to collaborate or coordinate their efforts to avoid duplication and reduce associated costs. Dischargers interested in coordinated compliance monitoring shall submit a coordinated monitoring plan” (BPA pg. 27).

Accordingly, the County and LACFCD are participants in the Greater Harbors RMC. The Greater Harbors RMC has prepared a comprehensive sampling and analysis program for the Greater Harbors which includes monitoring at 22 locations (Figure 11). For additional details, see the Coordinated Compliance Monitoring and Reporting Plan (CCMRP), Incorporating Quality Assurance Project Plan Components, Greater Los Angeles and Long Beach Harbor

Waters submitted to the LARWQCB on February 25, 2014. The County and LACFCD's participation includes cost sharing the preparation and implementation of the CCMRP.

Table 8: Dominguez Channel Toxics TMDL Receiving Water Monitoring Details

<i>Permit Monitoring Program Elements:</i>	Locations	Additional Information
<i>Dominguez Channel Toxics TMDL</i>	East San Pedro Bay Sites	See the <i>Coordinated Compliance Monitoring and Reporting Plan, Incorporating Quality Assurance Project Plan Components, Greater Los Angeles and Long Beach Harbor Waters</i> submitted to the LARWQCB on February 25, 2014.



Figure 11: DC and Greater LA/LB Harbors Toxics TMDL Receiving Water Site

4.3.3 Colorado Lagoon Toxics TMDL

On December 17, 2012, the LACFCD along with the City of Long Beach and CALTRANS, submitted the Final Colorado Lagoon TMDL Monitoring Plan (CLTMP). The LACFCD and Long Beach have prepared a Memorandum of Agreement to cost share the preparation and implementation of the CLTMP. The goals of the CLTMP are:

- Determine compliance with organochlorine pesticides, PCBs, metals, and PAHs waste load and load allocations, and, when appropriate, request delisting of Colorado Lagoon from the 303(d) list of impaired water bodies.
- Monitor the effectiveness of implementation actions proposed by the responsible agencies on water and sediment quality, including potential impacts of redirecting discharges from the Termino Avenue Drain and from cleaning the culvert between Marine Stadium and Colorado Lagoon.
- Monitor contaminants in Lagoon sediments and determine if additional implementation actions are necessary to achieve the TMDL, and
- Implement the CLTMP in a manner consistent with other TMDL implementation plans and regulatory actions within the Colorado Lagoon watershed.

Monitoring per the approved CLTMP began in July 2013. The monitoring locations are shown in Figure 12. For more information, see the Final Colorado Lagoon TMDL Monitoring Plan (CLTMP) prepared for the City of Long Beach, LACFCD, CALTRANS dated December 17, 2012.

Table 9: Colorado Lagoon Metals TMDL Receiving Water Monitoring Details

<i>Permit Monitoring Program Elements:</i>	Locations	Additional Information
<i>Colorado Lagoon Metals TMDL</i>	Colorado Lagoon and Marine Stadium	See <i>Final Colorado Lagoon TMDL Monitoring Plan (CLTMP)</i> dated December 17, 2012



Figure 12: Colorado Lagoon Metals TMDL Receiving Water Sites

Section 5. Stormwater Outfall Monitoring

5.1 OBJECTIVE

Per Section II.E.2, Attachment E of the Permit the objective of stormwater outfall monitoring includes:

- Determine the quality of a Permittee’s discharge relative to municipal action levels, as described in Attachment G of the Permit,
- Determine whether a Permittee’s discharge is in compliance with applicable storm water WQBELs derived from TMDL WLAs,
- Determine whether a Permittee’s discharge causes or contributes to an exceedance of receiving water limitations”

5.2 APPROACH

To meet the stormwater outfall monitoring requirements, this CIMP group will collaborate with the LCCWG. The LCCWG’s CIMP proposes a “watershed segmentation approach” which monitors the major tributaries into the freshwater portion of the Los Cerritos Channel. Due to the unique characteristics of the Los Cerritos Channel Freshwater Watershed, assessing the contributions from major tributaries will efficiently direct a source investigation to determine the sources of pollutants in the watershed. The watershed segmentation approach combines elements of receiving water monitoring and stormwater outfall monitoring.

The Palo Verde Drain is a major tributary to the Los Cerritos Channel. Therefore, a monitoring location at the mouth of the Palo Verde Drain will adequately determine the quality of the subwatershed’s discharge into the downstream receiving water. Accordingly, the previously identified site in the Palo Verde Drain Site (SB10) will serve as the stormwater outfall monitoring location for the AB/LCC Group. The monitoring in the Palo Verde Drain will be conducted by the LCCWG. The County and LACFCD will cost share for their proportion of monitoring costs. Details on constituents, methods and frequency of sampling can be found in the *Coordinated Integrated Monitoring Plan for the Los Cerritos Channel Watershed Monitoring Group*. A detailed description of the Palo Verde Drain Site can be found in Section 4.3.1 of this CIMP.

Table 10: Stormwater Outfall Monitoring Details

Permit Monitoring Program Elements:	Locations	Additional Information
Stormwater Outfall Monitoring	Palo Verde Drain Site	See <i>Coordinated Integrated Monitoring Plan for the Los Cerritos Channel Watershed Monitoring Group</i>

Section 6. Non-Stormwater Outfall Monitoring Program

6.1 OBJECTIVE

Per Attachment E of the MS4 Permit, the objective of non-stormwater outfall based monitoring is:

- Determine whether a Permittee's discharge is in compliance with applicable non-stormwater WQBELs derived from TMDL WLAs
- Determine whether a Permittee's discharge exceeds non-stormwater action levels, as described in Attachment G of the Permit
- Determine whether a Permittee's discharge contributes to or causes an exceedance of receiving water limitations,
- Assist a Permittee in identifying illicit discharges as described in Part VI.D.10 of the Permit.

6.2 OUTFALLS WITHIN AB/LCC GROUP'S JURISDICTION

Within the CIMP Group's jurisdiction, there are a total of 4 MS4 outfalls (Figure 13). These outfalls were initially identified utilizing available GIS databases and as-built drawings. A field check was then done to verify the location and size of the outfalls. A detailed description and photos of the four outfalls within the Group's jurisdiction is shown in Table 6. It should be noted that LCLE-035 and LCLE-041 primarily serve other jurisdiction's land areas and very little of this CIMP Group's jurisdiction drains to these outfalls.

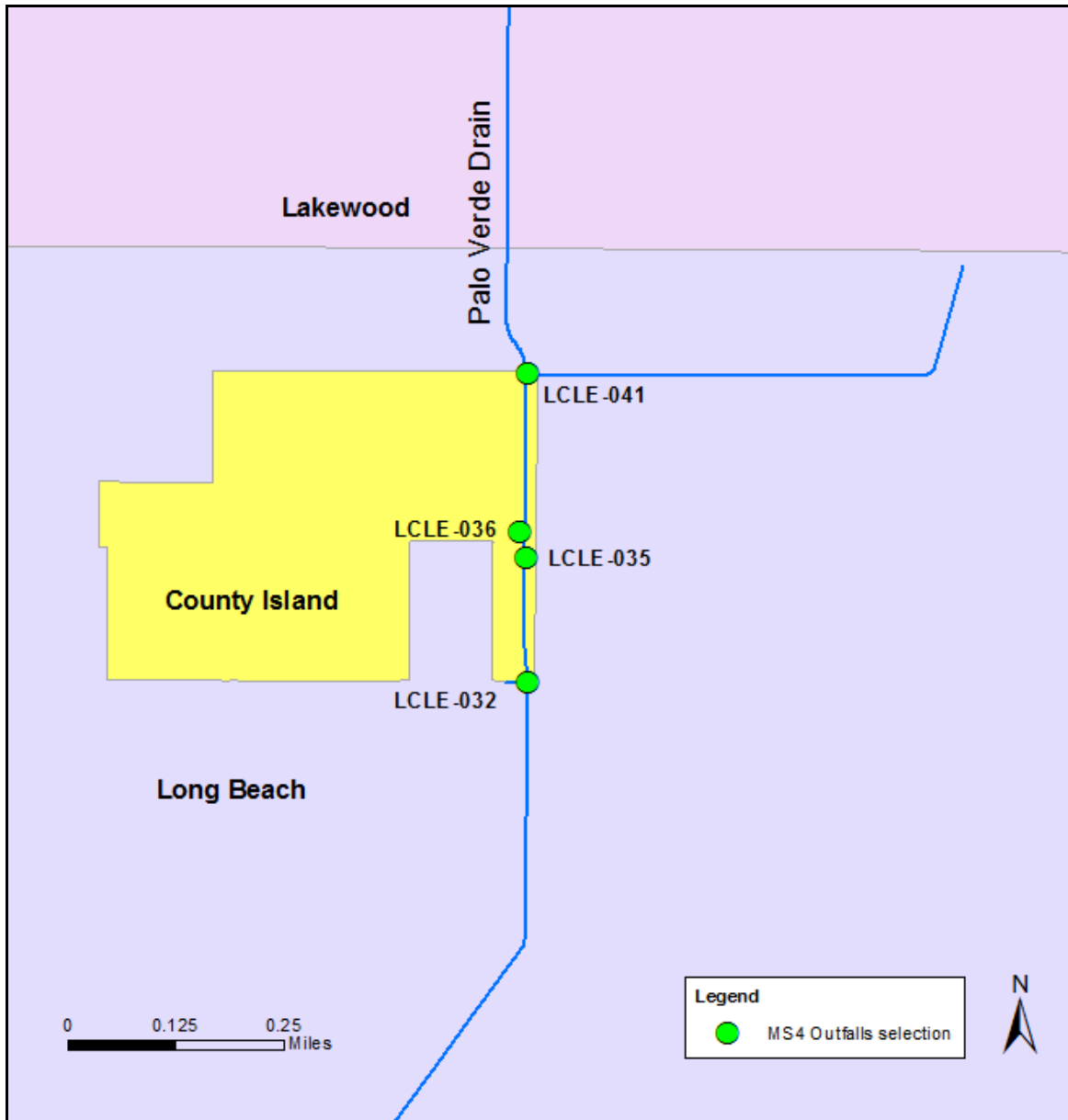






Figure 13: MS4 Outfalls in the CIMP Group's Jurisdiction

Table 11: CIMP Group's Outfall Description and Photo

Outfall ID Number	Outfall Dimensions	Picture	Spring Quarter		Fall Quarter	Winter Quarter
			Screening 1 (April 7, 2014)	Screening 2 (April 17, 2014)	(Dec. 9, 2014)	(Jan. 6, 2014)
LCLE-032	27 inch Circular Concrete Pipe		No Flow	No Flow	No Flow	No Flow
LCLE-035	35 inch x 22 inch Arch Corrugated Metal Pipe Drain		No Flow	No Flow	No Flow	No Flow
LCLE-036	56 inch Circular Concrete Pipe		No Flow	Trickle	No Flow	No Flow
LCLE-041	Two 72 x 47 inch Rectangular Concrete Outfalls		No Flow	No Flow	No Flow	Flow between Garden Hose and fire hydrant entering from Long Beach.

6.3 APPROACH

Non-stormwater screening and potential monitoring is being conducted by this CIMP group. Table 6 shows the screenings conducted to date. The following methodology is used to meet the objectives of non-stormwater based monitoring program. For the purpose of this CIMP, the Group is screening all outfalls in its jurisdiction. This CIMP Group has identified significant dry weather flow as:

- 1) Flow which is greater than a garden hose originating from the County Island
- 2) Flow that is seen at least 2 out of the 4 seasonal screening events.

6.3.1 Inventory of Outfalls

This CIMP Group has conducted an outfall inventory based on channel as-builts and available GIS databases. The inventory noted all outfalls greater than 12 inches in diameter. For this CIMP, major outfalls are defined as those 36 inches or greater. However, this CIMP group will screen all outfalls in its jurisdiction. In early 2014, the outfalls were verified in a field visit. Within the CIMP Group's jurisdiction there are 4 outfalls (Table 11).

6.3.2 Field Screening of Outfalls

The CIMP Group has conducted screenings over three seasons for the outfalls within its jurisdiction. The field screening program consists of observing each outfall during each season. The outfalls are visited at a minimum of three days after a rain event. The screenings are conducted during normal business hours. During the screening, the CIMP Group completes the Outfall Screening Form (Appendix B) and appropriate photos are taken. Each screening visually documents whether there is flow or if there is no flow leaving the outfalls. If there is flow, the source of the flow is identified or the flow is followed back to the County's boundary.

6.3.3 Determination of Further Assessment

After screenings for the four seasons are conducted, the CIMP Group will determine which outfalls require no further assessment. No further assessment is determined if after the screenings during 4 seasons, 2 of the seasonal screening show the outfalls:

- do not have flow
- do not have flow originating from the County Island
- do not have known significant non-stormwater discharge
- observed discharges were determined to be exempt

6.3.4 Prioritization Schedule

If any of the outfalls exhibit significant non-stormwater discharge originating from the County Island, the CIMP Group will prioritize the outfalls for further source investigations. As all of the outfalls discharge to the same waterbody, prioritization will identify the outfalls with the highest visually observed flow to be investigated first. The schedule will ensure that 25% of the outfalls with significant non-stormwater discharges will be investigated by December 28, 2015 and 100% of outfalls with significant non-stormwater discharges will be completed by December 28, 2017.

6.3.5 Non-Stormwater Source Identification

If any outfalls are determined to have significant non-stormwater discharges, a source investigation will be conducted including:

- following the dry weather flows upstream into the conveyance system until source is found or it is determined discharge is coming from a jurisdiction outside of the County Island
- researching if the flows are NPDES permitted, categorically exempt or natural flows
- field inspecting the drain for Illicit Connections/Illicit Discharges and eliminating the source
- reviewing land use and City jurisdiction information



Figure 14: MS4 Outfalls and Flow Direction in County Island

Figure 14 identifies the outfalls in the County Island and shows the direction of flow on each street in the County Island. Should significant flow enter the County's jurisdiction, the CIMP Group will notify that neighboring jurisdiction via telephone and email communication.

6.3.6 Monitor

If outfalls with significant non-stormwater discharge remain unaddressed after a source investigation, monitoring will be done to meet the following objectives:

- Determine whether the discharge is in compliance with applicable non-stormwater WQBELs
- Determine whether the quality of the discharge exceeds non-stormwater action levels described in Attachment G of the Permit
- Determine whether the discharge causes or contributes to the exceedance of Receiving Water Limitations.

The CIMP Group would conduct the non-stormwater outfall monitoring quarterly. These dry weather events would be coordinated with downstream LCC Metals monitoring events to determine the whether the non-stormwater discharges are causing or contributing to an observed exceedance of water quality objectives in the receiving water.

6.3.7 Reassessment

Monitoring under the non-stormwater program will cease if monitoring data shows that discharges do not exceed respective water quality standards for TMDL or 303(d) constituents. Updates to the non-stormwater monitoring program will be included in 2017 Annual Report or earlier if changes in the program are determined to be needed.

Consistent with Attachment E, Section IX.B.2 of the Permit, this CIMP group will conduct one re-assessment of its non-stormwater outfall screening prior to December 2017.

6.3.8 Inventory of MS4 Outfalls with Non-Stormwater Discharges

The CIMP Group will maintain a database documenting items identified in Part IX.D.2 of the Permit. The database will be completed after the Summer screening and submitted in the 2015 Annual Report. The subject database will be updated with the results of future screenings.

Table 12: Non-Stormwater Outfall Monitoring Details

<i>Permit Monitoring Program Elements:</i>	Locations	Additional Information
Non-Stormwater Outfall Monitoring Program	N/A: Screening shows no monitoring required	Screening and potential monitoring covered under this CIMP.

Section 7. New/Redevelopment BMP Effectiveness Tracking System

7.1 OVERVIEW

The County has developed mechanisms for tracking new development/re-development projects that have been conditioned for post-construction BMPs pursuant to Section VI.D.7 of the Permit. Additionally, mechanisms have been developed for tracking the effectiveness of BMPs pursuant to Permit Attachment E.X. The tracked information includes:

General Information

- Project Name and Developer Name
- Project Location and Map
- Documentation of issuance of requirements to the developer
- Date of Certification of Occupancy

On-Site BMP Sizing Information

- 85th percentile storm event (inches per 24 hours)
- 95th percentile storm event (inches per 24 hours)
- Project design storm (inches per 24 hours)
- Project design volume (gallons or millions of gallons per day)
- Percent of design storm volume to be retained on site
- Other design criteria required to meet hydromodification requirements for projects that directly drain to natural water bodies
- One-year, one-hour storm intensity as depicted on the most recently issued isohyetal map published by the Los Angeles County Hydrologist for flow-through BMPs

Off-Site BMP Information

- Location and maps of off-site mitigation, groundwater replenishment, or retrofit sites
- Design volume for water quality mitigation treatment BMPs
- Percent of design storm volume to be infiltrated at an off-site mitigation or groundwater replenishment project site
- Percent of design storm volume to be retained or treated with biofiltration at an off-site retrofit project

Section 8. Regional Studies

8.1 OVERVIEW

The LACFCD will continue to participate in the Regional Watershed Monitoring Program (Biosassessment Program) being managed by the Southern California Stormwater Monitoring Coalition (SMC). The LACFCD will contribute necessary resources to implement the bioassessment monitoring requirement of the MS4 permit on behalf of all permittees in Los Angeles County during the current permit cycle. Initiated in 2008, the SMC's Regional Bioassessment Program is designed to run over a five-year cycle. Monitoring under the first cycle concluded in 2013, with reporting of findings and additional special studies planned to occur in 2014. SMC, including LACFCD, is currently working on designing the bioassessment monitoring program for the next five-year cycle, which is scheduled to run from 2015 to 2019.

Section 9. Optional Source Identification: County Island

9.1 OVERVIEW

The County Island's stormwater quality will be primarily indicated based on results at the Palo Verde Drain TMDL site. The County plans to implement this CIMP per the schedule presented in Figure 15. This schedule is dependent upon approval of this Group's CIMP and the LCCWG's CIMP by the LARWQCB.

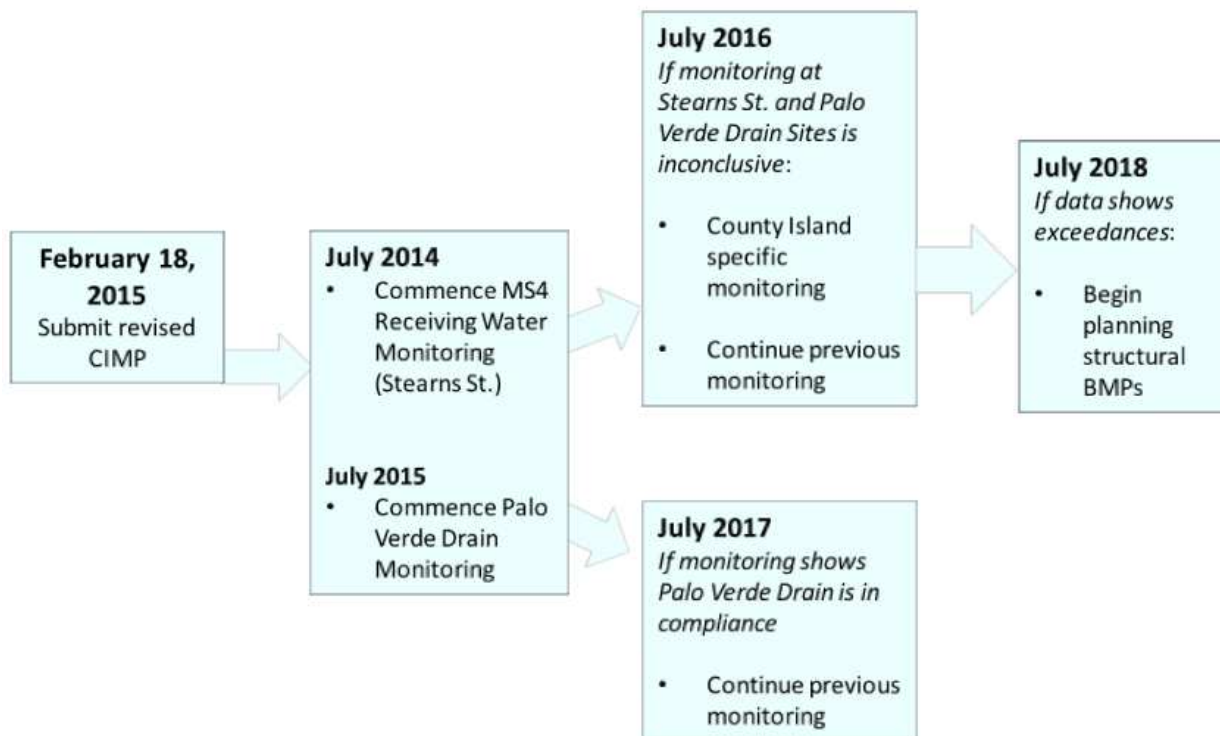


Figure 15: County Island Specific Monitoring Approach

If after one year of monitoring at the Palo Verde Drain Site, monitoring results show exceedances for Category 1 or Category 2 pollutants, the CIMP Group will implement a monitoring approach specific to the County Island. If necessary, details of this approach will be submitted to the LARWQCB prior to implementation. Details on the implementation of BMPs can be found in this Group's WMP.

Section 10. Monitoring Program Overview

10.1 OVERVIEW

This CIMP Group will utilize existing monitoring efforts in the AB/LCC Watershed Management Area and propose additional efforts to meet the objectives of the Permit. Additionally, this CIMP maximizes coordination opportunities with other CIMPs in the Watershed Management Area. The Permit requires that implementation of the CIMP begin 90 days after approval from the LARWQCB. It should be noted that implementation of this CIMP has already commenced with the Non-Stormwater Outfall Monitoring Program.

Table 13 summarizes the monitoring efforts that the CIMP Group is implementing or participating in. Additionally, Figure 16 identifies all proposed monitoring locations in the CIMP. It should be noted that there are additional Greater Harbors RMC (DC Toxics TMDL) sites outside of the limits of this map.

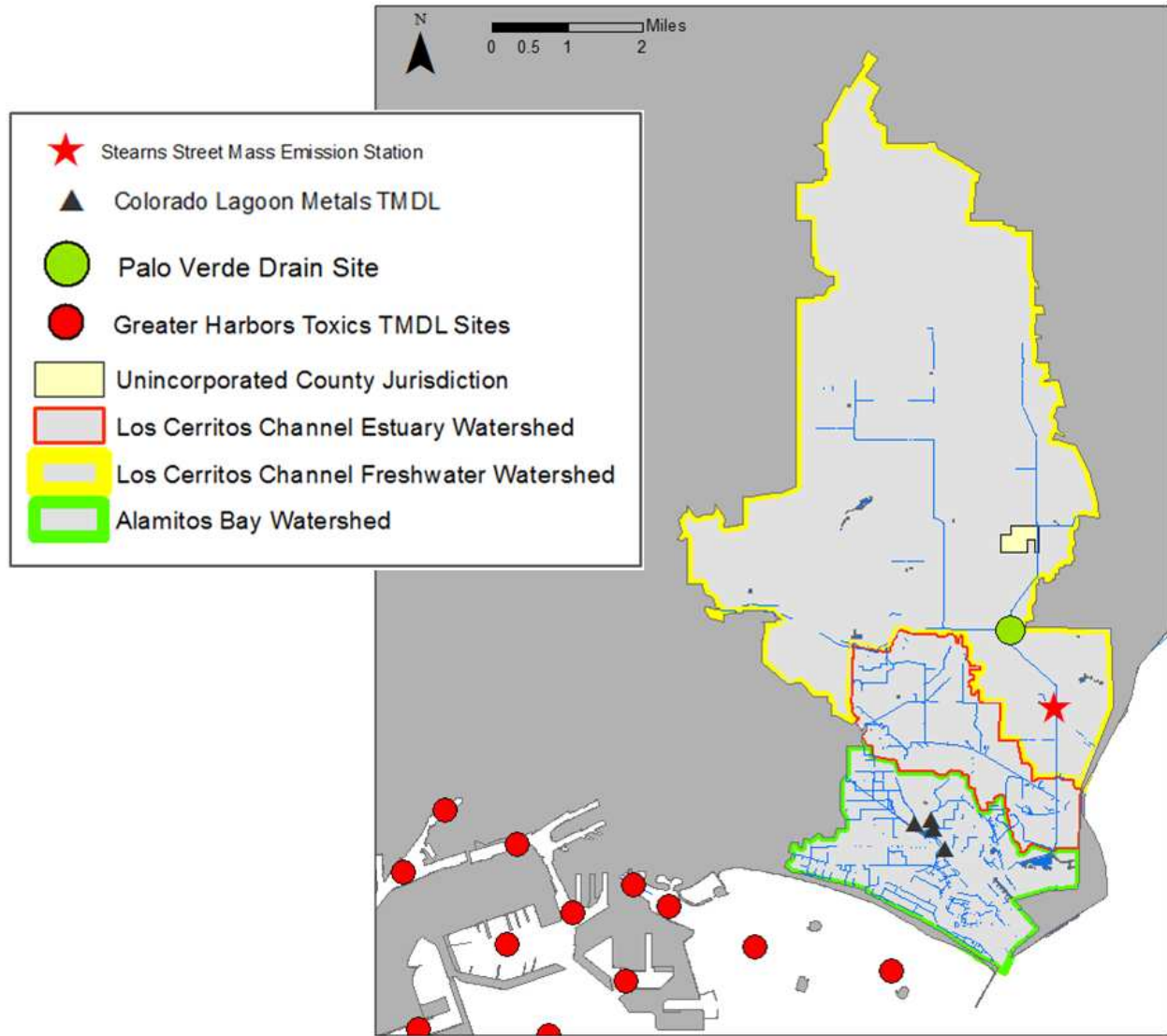


Figure 16: CIMP Group's Monitoring Locations

Table 13: Summary of CIMP Monitoring

Permit Monitoring Program Elements:	Responsibility		Locations	Additional Information
	LACFCD	County		
Receiving Water Monitoring	X	X	Stearns Street Mass Emission Site	<i>Addressed through Coordinated Integrated Monitoring Plan for the Los Cerritos Channel Watershed Management Group</i>
Stormwater Outfall Monitoring	X	X	Palo Verde Drain Site	<i>Addressed through Coordinated Integrated Monitoring Plan for the Los Cerritos Channel Watershed Management Group</i>
Non-Stormwater Outfall Monitoring Program	X	X	N/A: Screening shows no monitoring required	<i>Addressed through Section 6 of this CIMP</i>
Los Cerritos Metals TMDL	X	X	Palo Verde Drain Site/ Stearns Street Mass Emission Site	<i>Addressed through Coordinated Integrated Monitoring Plan for the Los Cerritos Channel Watershed Monitoring Group</i>
Dominguez Channel Toxics TMDL	X	X	East San Pedro Bay Sites	<i>Addressed through the Coordinated Compliance Monitoring and Reporting Plan, Incorporating Quality Assurance Project Plan Components, Greater Los Angeles and Long Beach Harbor Waters submitted to the LARWQCB on February 25, 2014.</i>
Colorado Lagoon Metals TMDL	X		Colorado Lagoon and Marine Stadium	<i>Addressed through Final Colorado Lagoon TMDL Monitoring Plan (CLTMP) dated December 17, 2012</i>

Section 11. Reporting

11.1 MONITORING REPORTS

Monitoring results for this Group's CIMP will be reported semi-annually to the LARWCB. On December 15th of each year an annual report will be submitted to the LARWCQB summarizing the monitoring through June 30th.

As outlined in Part XVI.A of the Monitoring and Reporting Plan (MRP), the annual reporting process is intended to provide the LARWCQB with summary information to allow for the assessment of:

- The Permittee's Participation in one or more Watershed Management Programs.
- The impact of each Permittee's stormwater and NSW discharges on the receiving water.
- Each Permittee's compliance with Receiving Water Limitations (RWLs), numeric WQBELs, and NSW action levels.
- The effectiveness of each Permittee's control measures in reducing discharges of pollutants from the MS4 to receiving waters.
- Whether the quality of MS4 discharges and the health of receiving waters is improving, staying the same, or declining as a result of watershed management program efforts, and/or TMDL implementation measures, or other minimum control measures (MCMs).
- Whether changes in water quality can be attributed to pollutant controls imposed on new development, re-development, or retrofit projects.
- The Municipal Action Level (MAL) Assessment Report and identification of those subwatersheds with running averages of twenty percent or greater exceedance of the MALs (per page G-17 of Attachment G of the permit).

This CIMP Group will work collaboratively with the LCCWG on reporting.

Section 12. References

Los Angeles Regional Water Quality Control Board, “Final Waste Discharge Requirements for Municipal Separate Storm Sewer System (MS4) Discharges within the Coastal Watersheds of Los Angeles County, Except Those Discharges Originating from the City of Long Beach MS4 (posted December 5, 2012)”. Final Order R4-2012-0175, http://www.waterboards.ca.gov/losangeles/water_issues/programs/stormwater/municipal/index.shtml (November 2013)

State of California Water Resources Control Board. “2010 Integrated Report (Clean Water Act Section 303(d) List” April 2010, http://www.waterboards.ca.gov/water_issues/programs/tmdl/integrated2010.shtml. (January 2014)

Los Angeles Regional Water Quality Control Board, “Total Maximum Daily Load for Toxic Pollutants in Dominguez Channel and Greater Los Angeles and Long Beach Harbor Waters”. Resolution No. R11-008, Effective Date: March 23, 2012, http://www.waterboards.ca.gov/losangeles/board_decisions/basin_plan_amendments/technical_documents/bpa_66_R11-008_td.shtml (June 2013)

Anchor QEA, L.P., “Coordinated Compliance, Monitoring, and Reporting Plan Incorporating Quality Assurance Project Plan Components” June, 2013, http://www.waterboards.ca.gov/losangeles/board_decisions/basin_plan_amendments/technical_documents/66_New/09232013/1aDraftCCMRP62413.pdf (January 2014)

United States Environmental Protection Agency, “Los Cerritos Channel Total Maximum Daily Loads for Metals”. March 2010

Los Angeles Regional Water Quality Control Board, “Total Maximum Daily Load for Organochlorine (OC) Pesticides, Polychlorinated Biphenyls (PCBs), Sediment Toxicity, Polycyclic Aromatic Hydrocarbons (PAHs), and Metals for Colorado Lagoon”. Resolution No. R09-05, Adopted Date: October 1, 2009, http://www.waterboards.ca.gov/losangeles/board_decisions/basin_plan_amendments/technical_documents/bpa_65_R09-005_td.shtml (January 2014)

Kinnetic Laboratories, Inc., “Final Colorado Lagoon TMDL Monitoring Plan (CLTMP) Colorado Lagoon Organochlorine Pesticides, PCBs, Sediment Toxicity, PAHs, and Metals TMDL” December, 2012

Los Cerritos Channel Watershed Group, “Coordinated Integrated Monitoring Plan for the Los Cerritos Channel Watershed Monitoring Group” February 2015

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APPENDIX A: LACFCD Background Information

In 1915, the Los Angeles County Flood Control Act was adopted by the California State Legislature after a disastrous regional flood took a heavy toll on lives and property. The act established the LACFCD and empowered it to manage flood risk and conserve stormwater for groundwater recharge. In coordination with the United States Army Corps of Engineers the LACFCD developed and constructed a comprehensive system that provides for the regulation and control of flood waters through the use of reservoirs and flood channels. The system also controls debris, protects existing vegetal covers, collects surface storm water from streets, and replenishes groundwater with storm water and imported and recycled waters. The LACFCD covers the 2,753 square-mile portion of Los Angeles County south of the east-west projection of Avenue S, excluding Catalina Island. It is a special district governed by the County of Los Angeles Board of Supervisors, and its functions are carried out by the Los Angeles County Department of Public Works. The LACFCD service area is shown in **Figure A-1**.

By statute, the LACFCD has limited powers and purposes, which places constraints on the types of projects and activities which the LACFCD may fund. Unlike cities and counties, the LACFCD does not own or operate any municipal sanitary sewer systems, public streets, roads, or highways. The LACFCD operates and maintains storm drains and other appurtenant drainage infrastructure within its service area. The LACFCD has no planning, zoning, development permitting, or other land use authority within its service area. The permittees that have such land use authority are responsible under the Permit for inspecting and controlling pollutants from industrial and commercial facilities, development projects, and development construction sites. (Permit, Part II.E, p. 17.)

The MS4 Permit language clarifies the unique role of the LACFCD in storm water management programs: “[g]iven the LACFCD’s limited land use authority, it is appropriate for the LACFCD to have a separate and uniquely-tailored storm water management program. Accordingly, the storm water management program minimum control measures imposed on the LACFCD in Part VI.D of this Order differ in some ways from the minimum control measures imposed on other Permittees. Namely, aside from its own properties and facilities, the LACFCD is not subject to the Industrial/Commercial Facilities Program, the Planning and Land Development Program, and the Development Construction Program. However, as a discharger of storm and non-stormwater, the LACFCD remains subject to the Public Information and Participation Program and the Illicit Connections and Illicit Discharges Elimination Program. Further, as the owner and operator of certain properties, facilities and infrastructure, the LACFCD remains subject to requirements of a Public Agency Activities Program.” (Permit, Part II.F, p. 18.)

Consistent with the role and responsibilities of the LACFCD under the Permit, the WMPs and CIMPs reflect the opportunities that are available for the LACFCD to collaborate with permittees having land use authority over the subject watershed area. In some instances, the opportunities are minimal, however the LACFCD remains responsible for compliance with certain aspects of the MS4 permit as discussed above.

During the development of the CIMP, LACFCD infrastructure was evaluated for monitoring opportunities. The LACFCD will be collaborating with the groups for all of the monitoring.

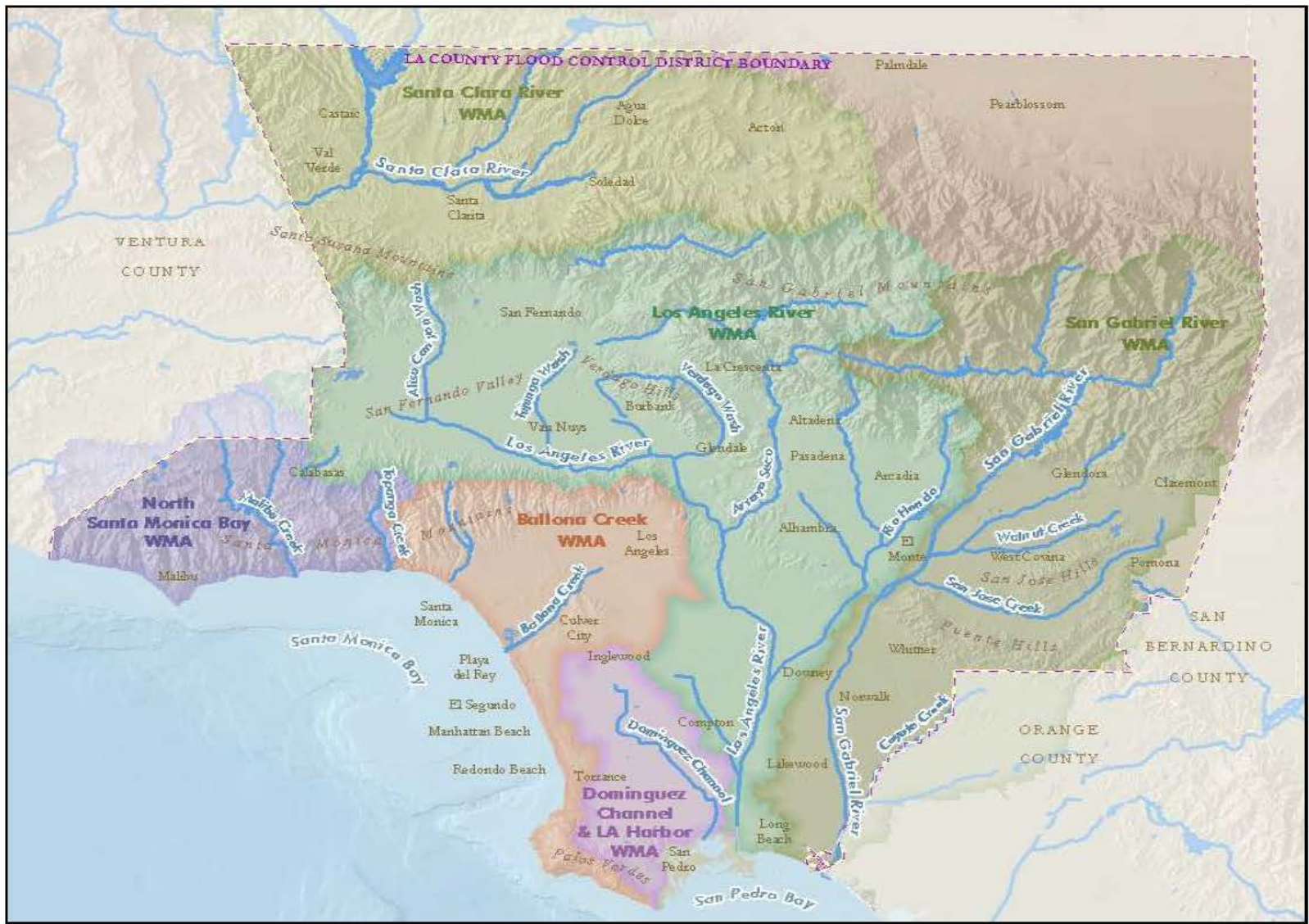


Figure A-1 Los Angeles County Flood Control District Service Area

APPENDIX B: Non-Stormwater Outfall Screening Form

NON-STORMWATER OUTFALL INSPECTION FORM

Name of Inspector: _____ Date: _____ [dry-weather months]
 Time: _____
 Outfall ID: [alpha-numeric] Previous Inspection Date(s): _____
 Name of Receiving Water Body: _____

Channel Stationing: _____ Outfall Long./Lat.: _____

Narrative Description of Location: [nearest cross streets, whether outlet is on east or west side of channel, notable landmarks nearby, etc.]

Diversion Structures Upstream or Downstream:

Outfall Dimensions:

Photo IDs: [take photos of outfall and downstream receiving water]

Discharge Characteristics:

Observed Flow Size:

- No Flow
- Trickle
- Garden Hose
- Fire Hydrant

Estimate of Flow Rate:

Water Quality Meter:

- pH
- Temperature
- DO
- Electrical Conductivity

Odor:

- Yes
- No

Description:

Color: [Recommended to use Color Wheel]

- None
- Yellow
- Brown
- White
- Gray
- Other: _____

Clarity:

- Clear
- Slightly Cloudy
- Opaque
- Other: _____

Receiving Water Characteristics:

Conveyance:

- Concrete Channel
- Trapezoidal
- Soft Bottom Channel
- Armored Sides
- Natural Creek
- Pipe or Box

Low Flow Channel:

- Yes
- No

Water Flow:

- Dry
- Ponding
- Flowing
- Tidal

Weather:

- Sunny Partly Cloudy Overcast Fog

Site Information:

- Flap Gate Yes No
 In Street Yes No
 Parking Close By Yes No
 Safe to Collect Samples Yes No If no, why not?
 Traffic Control Required Yes No

How is the outfall accessed? [adder, manhole, etc. and if not accessible, describe why and provide suggestions on alternate access points, if any.]

Source ID:

Known: Yes No ID, if Known:

- IC/ID Conditionally Exempt Essential Conditionally Exempt Non-Essential Multiple Sources Upstream Source

Comments:

Los Angeles Regional Water Quality Control Board

August 11, 2015

Ms. Gail Farber, Director
County of Los Angeles
Department of Public Works
Watershed Management Division, 11th Floor
900 South Fremont Avenue
Alhambra, CA 91803

Ms. Gail Farber, Chief Engineer
Los Angeles County Flood Control District
Department of Public Works
Watershed Management Division, 11th Floor
900 South Fremont Avenue
Alhambra, CA 91803

FINAL APPROVED WATERSHED MANAGEMENT PROGRAM (WMP) FOR THE ALAMITOS BAY/LOS CERRITOS CHANNEL WATERSHED MANAGEMENT AREA, PURSUANT TO THE LOS ANGELES COUNTY MUNICIPAL SEPARATE STORM SEWER SYSTEM (MS4) PERMIT (NPDES PERMIT NO. CAS004001; ORDER NO. R4-2012-0175)

Dear Ms. Farber:

On November 8, 2012, the California Regional Water Quality Control Board, Los Angeles Region (Los Angeles Water Board) adopted Order No. R4-2012-0175, *Waste Discharge Requirements for Municipal Separate Storm Sewer System (MS4) Discharges within the Coastal Watersheds of Los Angeles County, except those Discharges Originating from the City of Long Beach MS4* (hereafter, LA County MS4 Permit). The LA County MS4 Permit allows Permittees the option to develop either a Watershed Management Program (WMP) or an Enhanced Watershed Management Program (EWMP) to implement permit requirements on a watershed scale through customized strategies, control measures, and best management practices (BMPs). Development of a WMP or EWMP is voluntary and allows a Permittee to address the highest watershed priorities, including complying with the requirements of Part V.A (Receiving Water Limitations), Part VI.E and Attachments L through R (Total Maximum Daily Load Provisions), by customizing the control measures in Parts III.A (Prohibitions – Non-Storm Water Discharges) and VI.D (Minimum Control Measures), except the Planning and Land Development Program.

On April 28, 2015, on behalf of the Los Angeles Water Board, I approved, with conditions, the WMP for the Alamitos Bay/Los Cerritos Channel Watershed Management Area (WMA). My approval letter directed the County of Los Angeles (County) and Los Angeles County Flood Control District (LACFCD) to submit a final WMP that satisfies all the conditions listed in the letter no later than May 28, 2015. On May 28, 2015 the County and LACFCD submitted a final WMP, as directed.

After review of the final WMP submitted by the County and LACFCD on May 28, 2015, I have determined that the WMP satisfies all of the conditions identified in my April 28, 2015 approval letter. The WMP dated May 28, 2015 constitutes the final approved WMP for the Alamitos Bay/Los Cerritos Channel Watershed Management Area.

The Los Angeles Water Board appreciates the participation and cooperation of the County and LACFCD in the implementation of the LA County MS4 Permit. If you have any questions, please contact Rebecca Christmann at Rebecca.Christmann@waterboards.ca.gov or by phone at (213) 576-5734. Alternatively, you may also contact Ivar Ridgeway, Chief Storm Water Permitting Unit, at Ivar.Ridgeway@waterboards.ca.gov or by phone at (213) 620-2150.

Sincerely,



Samuel Unger, P.E.
Executive Officer

cc: Angela George, Los Angeles County Flood Control District
Jolene Guerrero, County of Los Angeles, Department of Public Works
William Johnson, County of Los Angeles, Department of Public Works

Los Angeles Regional Water Quality Control Board

August 18, 2015

Ms. Gail Farber, Director
County of Los Angeles
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Watershed Management Division, 11th Floor
900 South Fremont Avenue
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Ms. Gail Farber, Chief Engineer
Los Angeles County Flood Control District
Department of Public Works
Watershed Management Division, 11th Floor
900 South Fremont Avenue
Alhambra, CA 91803

FINAL APPROVED ALAMITOS BAY/LOS CERRITOS CHANNEL WATERSHED MANAGEMENT AREA COORDINATED INTEGRATED MONITORING PROGRAM, PURSUANT TO ATTACHMENT E, PART IV.B OF THE LOS ANGELES COUNTY MUNICIPAL SEPARATE STORM SEWER SYSTEM (MS4) PERMIT (NPDES PERMIT NO. CAS004001; ORDER NO. R4-2012-0175)

Dear Ms. Farber:

The Los Angeles Regional Water Quality Control Board (Los Angeles Water Board or Board) has reviewed the final monitoring program submitted on July 7, 2015 by the County of Los Angeles (County) and the Los Angeles County Flood Control District (LACFCD) for the Alamitos Bay/Los Cerritos Channel (AB/LCC) Watershed Management Area (WMA). This monitoring program was submitted pursuant to the provisions of NPDES Permit No. CAS004001 (Order No. R4-2012-0175), which authorizes discharges from the municipal separate storm sewer system (MS4) operated by 86 municipal Permittees within Los Angeles County (hereafter, LA County MS4 Permit). The LA County MS4 Permit allows Permittees the option to develop and implement a coordinated integrated monitoring program (CIMP) that achieves the five Primary Objectives set forth in Part II.A of Attachment E and includes the elements set forth in Part II.E of Attachment E. These programs must be approved by the Executive Officer of the Los Angeles Water Board.

On June 24, 2015, on behalf of the Los Angeles Water Board, I approved, with conditions, the County's and LACFCD's CIMP for the AB/LCC. My approval letter directed the County and LACFCD to submit a final CIMP that satisfies all the conditions listed in the letter no later than July 8, 2015. On July 7, 2015 the County and LACFDC submitted its final CIMP, as directed.

After review of the County's and LACFCD's final CIMP submitted on July 7, 2015, I have determined that the County's and LACFCD's CIMP satisfies all of the conditions identified in my June 24, 2015 approval letter. The CIMP submitted on July 7, 2015 hereby constitutes the final

approved CIMP for the AB/LCC WMA. Additional direction on requirements for follow-up monitoring when aquatic toxicity is present in downstream receiving waters has been provided in separate correspondence, and must be followed as part of the County's and LACFCD's final approved CIMP for the Alamitos Bay/Los Cerritos Channel Watershed Management Area.

The Los Angeles Water Board appreciates the participation and cooperation of the County and LACFCD in the implementation of the LA County MS4 Permit. If you have any questions, please contact Ms. Rebecca Christmann of the Storm Water Permitting Unit by electronic mail at Rebecca.Christmann@waterboards.ca.gov or by phone at (213) 576-5734. Alternatively, you may also contact Mr. Ivar Ridgeway, Chief of the Storm Water Permitting Unit, by electronic mail at Ivar.Ridgeway@waterboards.ca.gov or by phone at (213) 620-2150.

Sincerely,



Samuel Unger, P.E.
Executive Officer

cc: Angela George, Los Angeles County Flood Control District
Jolene Guerrero, County of Los Angeles, Department of Public Works
William Johnson, County of Los Angeles, Department of Public Works