

Ballona Creek Watershed Management Group EWMP Adaptive Management Report December 2018



Ballona Estuary

**Los Angeles County Municipal Stormwater Permit
 (Order No. R4-2012-0175 as amended by State Board Order WQ 2015-0075)
 NPDES No. CAS004001**

WMP / EWMP Group	Ballona Creek Watershed Management Group
Permittees	City of Los Angeles, Unincorporated County of Los Angeles, and the Los Angeles County Flood Control District, City of Beverly Hills, City of Culver City, City of Inglewood, City of West Hollywood, City of Santa Monica
Date	December 15, 2018



Introduction

Ballona Creek is regulated by seven TMDLs that were assigned to the watershed by the Los Angeles Water Quality Regional Board (Regional Board) and the United States Environmental Protection Agency (USEPA) between 2002 and 2015 (Table 1). The TMDLs require reductions in a variety of pollutants including trash, bacteria, metals, toxics, sediment and invasive species within the Ballona Wetlands. As a watershed that drains to the Santa Monica Bay, the Ballona Creek watershed is also subject to Santa Monica Bay's Debris TMDL and DDT/PCB TMDL. Meeting the wet weather requirements of the Ballona Creek Metals and Bacteria TMDLs is the greatest challenge for the Ballona Creek watershed.

Table 1. TMDLs for the Ballona Creek watershed.

TMDL	Regional Board Order	Effective Date
Ballona Creek Trash	2001-014	August 28, 2002
Ballona Creek Estuary Toxics Pollutants	2005-008	November 11, 2006
Ballona Creek, Ballona Estuary, and Sepulveda Channel Bacteria	2006-011	April 27, 2007
Ballona Creek Metals	2007-015	October 31, 2008
Ballona Creek Wetlands Sediment and Invasive Exotic Vegetation	EPA TMDL	NA
Santa Monica Bay Debris	R10-010	March 20, 2012
Santa Monica Bay DDTs and PCBs	EPA TMDL	NA

The MS4 permittees within the Ballona Creek Watershed (collectively, the Ballona Creek Watershed Management Group or BC WMG) have a long history of working together as a watershed and jointly developed the Enhanced Watershed Management Program (EWMP) and Coordinated Integrated Monitoring Program (CIMP) for the BC watershed. The BC WMG have regular monthly watershed meetings, cost-share all watershed initiatives, and have complied with all programmatic EWMP requirements such as annual reporting, the Report of Waste Discharge, Dry Weather Bacteria Time Schedule Order projects, CIMP implementation, and significant outfall studies.

The Ballona Creek EWMP was adopted by the Regional Board on April 20, 2016. The Regional Board's EWMP approval letter details that as part of the adaptive management process, the MS4 Permittees must evaluate progress toward achieving applicable Water Quality Based Effluent Limitations (WQBELs) and Wasteload Allocations (WLAs) outlined in Attachment M of the LA County MS4 Permit in relation to the approved milestones set forth in the EWMP, along with discussion of:

- 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.

This Adaptive Management Report by the BC WMG complies with Section VI.C.8.a of the LA County MS4 Permit. The analyses in this report were informed by the experience of the BC

WMG working together to address the Ballona Creek TMDLs listed in Table 1 and through the collection and analysis of watershed data. Data from receiving water and outfall monitoring of the Coordinated Integrated Monitoring Program (CIMP) as well as information gathered from each agency during their respective efforts to implement watershed control measures provide the basis for the changes outlined in this Adaptive Management Report. The most notable modification being proposed concerns the 2019 interim milestone for implementation of the BC EWMP. A Ballona Creek Watershed time extension letter, requesting an extension and modification of this milestone is included as Attachment A of this Adaptive Management Report, and is further discussed below in Section 8.

1. Assessment of Progress Toward Achieving Interim/Final WQBELs and RWLs

The BC WMG assesses progress toward achieving TMDL WQBELs and WLAs through implementation of the CIMP of the Ballona Creek watershed. Water quality data are submitted to the Regional Board on an annual basis. This section summarizes the status of compliance. More detailed analyses can be found in the section 6 of MS4 Permit Annual Report for FY 17/18 from the BC WMG.

Ballona Creek Trash TMDL

The BC Trash TMDL became effective on August 28, 2002. The BC WMG has complied with this TMDL through the installation of a combination of full capture, partial capture systems, and/or institutional controls as reported in the MS4 Permit Annual Report of the BC WMG.

Ballona Creek Estuary Toxic Pollutants TMDL

The BC Toxic Pollutants TMDL requires water quality monitoring and TMDL effectiveness monitoring to determine the condition of the Ballona Creek and the Ballona Creek Estuary, and to assess the effectiveness of implementation efforts. BC WMG has met the 2017 interim milestones of 25% reduction for PCBs and 75% reduction for all other toxic constituents.

Ballona Creek, Ballona Estuary, and Sepulveda Channel Bacteria TMDL

The milestones of the BC Bacteria TMDL are 100% compliance for dry weather by 2013 and 100% compliance for wet weather by 2021. The BC WMG (except the City of Santa Monica) requested a Time Schedule Order for the dry weather requirements as that milestone was not met. The Regional Board issued Time Schedule Order No. R4-2015-0108, which is in effect from May 14, 2015 to September 30, 2019. The BC WMG is implementing three regional projects (Low Flow Treatment Facilities 1 and 2, and Mesmer Low Flow Diversion) to comply with the BC Bacteria TMDL dry weather requirements.

The wet weather requirements of the BC Bacteria TMDL are one of the greatest challenges for the BC WMG. The number of allowable exceedances day during wet weather are usually not met. The TMDL requires compliance by 2021.

Ballona Creek Metals TMDL

Current milestones of the BC Metals TMDL are 100% compliance for dry weather and 50% compliance for wet weather (both by 2016). There were no dry weather exceedances during this reporting year. Attainment of the 2016 wet weather milestones was determined by averaging the results of all three wet weather sampling events. The 50% compliance milestone was met for dissolved lead and zinc. Zinc, during wet weather, is the critical pollutant for the BC watershed, which is driving the implementation cost and schedule of the BC EWMP. Even though the 50% compliance milestone was met, the BC WMG will have to implement a large number of stormwater projects in order to meet the 100% milestone by 2021.

Santa Monica Bay Nearshore and Offshore Debris TMDL

The Santa Monica Bay Nearshore and Offshore Debris TMDL (SMB Debris TMDL) became effective in 2012 and has a final Waste Load Allocation (WLA) of zero trash in receiving water bodies by 2020. The current compliance milestone for this TMDL is a 60% reduction of trash by 2018, which was met through implementation of a combination of full capture, partial capture systems, and/or institutional controls. The SMB Debris TMDL incorporates the BC Trash TMDL by reference with additional requirements to implement a Plastic Pellets Monitoring and Reporting Plan (PMRP).

Santa Monica Bay DDTs and PCBs TMDL

The Santa Monica Bay DDTs and PCBs TMDL became effective in 2012 and it is established by the USEPA. The TMDL recommends an evaluation of the WLAs on a three-year basis. USEPA TMDLs do not specify a timeline for compliance, but the BC EWMP and CIMP specified a 2017 milestone (refer to Section 6.6 of the Watershed Form of the MS4 Permit Annual Report of the BC WMG). Currently, the milestones for DDTs and PCBs are being met.

Ballona Creek Wetlands TMDL for Sediment and Invasive Exotic Vegetation TMDL

The BC Wetlands TMDL was issued by the USEPA. It is also an antidegradation TMDL, which requires the BC WMG to monitor the discharge of sediment from the watershed. The BC WMG is complying with the WLA for sediment.

Overall, the BC WMG is on track with meeting the compliance requirements of the Trash and Debris TMDLs, as well as compliance with the dry weather requirements of other TMDLs. However, major challenges remain for the BC Watershed in meeting the final WQBELs and WLAs for wet weather bacteria and metals TMDLs.

2. Assessment of Progress in Achieving Improvement in Water Quality in MS4 Discharges

Improvements of water quality in MS4 discharges is evaluated by long-term trends analyses of the water quality in receiving waters as well as MS4 discharges at the outfall. Receiving water trends analyses cover the period of 2000 to 2018 as further detailed in Section 6.3 of the Watershed Form of the MS4 Permit Annual Report for FY 2017/18. The dry weather water quality in most receiving water bodies in the BC watershed have stayed the same or have improved except for selenium in Ballona Creek Reach 2, Centinela Creek, and Sepulveda Channel, dissolved zinc in Sepulveda Channel, and indeno(1,2,3-cd)pyrene in Ballona Estuary (Table 2). Wet weather water quality has stayed the same or has improved in most BC water bodies except for several metals (Table 3).

Table 2. Water Column Dry Weather Trend Analysis Results Using 95% Confidence Level
(Improving: + No Change: = Declining: X No Assessment: O)

Category	Constituent	Water Body/ Location					
		Ballona Creek Estuary	Ballona Creek Reach 1	Ballona Creek Reach 2	Centinela Creek	Sepulveda Channel	Benedict Canyon Channel
Fecal Indicator Bacteria	<i>E. coli</i>	O	=	=	=	+	+
	Enterococcus	=	O	O	O	O	O
	Total Coliform	X	O	O	O	O	O
Metals	Copper (Total)	+	+	+	=	+	O
	Copper (Dissolved)	=	+	+	=	=	O
	Lead (Total)	+	+	+	=	+	O
	Lead (Dissolved)	+	+	+	+	+	O
	Mercury (Total)	=	+	=	O	O	O
	Nickel (Total)	=	O	O	O	O	O
	Nickel (Dissolved)	=	O	O	O	O	O
	Selenium (Total)	O	O	X	X	X	O
	Zinc (Total)	O	=	=	=	=	O
	Zinc (Dissolved)	O	=	=	+	X	O
Nutrients	Ammonia as N	O	O	=	O	=	O
Semivolatile Organic Compounds	Dibenzo(a,h)anthracene	=	O	O	O	O	O
	Indeno(1,2,3-cd)pyrene	X	O	O	O	O	O

Table 3. Wet Weather Trend Analysis Results Using 95% Confidence Level

(Improving: + No Change: = Declining: X No Assessment: O)

Category	Constituent	Water Body/ Location					
		Ballona Creek Estuary	Ballona Creek Reach 1	Ballona Creek Reach 2	Centimela Creek	Sepulveda Channel	Benedict Canyon Channel
Fecal Indicator Bacteria	<i>E. coli</i>	O	=	=	=	=	=
	Enterococcus	=	O	O	O	O	O
	Total Coliform	=	O	O	O	O	O
Metals	Cadmium (Total)	O	=	=	=	O	O
	Cadmium (Dissolved)	O	=	+	=	O	O
	Copper (Total)	=	=	X	X	=	O
	Copper (Dissolved)	=	=	X	=	=	O
	Lead (Total)	O	=	X	X	X	O
	Lead (Dissolved)	O	=	=	=	=	O
	Mercury (Total)	=	=	+	O	O	O
	Selenium (Total)	O	O	+	=	+	O
	Silver (Total)	=	=	=	=	O	O
	Silver (Dissolved)	+	+	+	+	O	O
	Zinc (Total)	=	X	X	=	=	O
	Zinc (Dissolved)	=	X	X	=	=	O
Chlorinated Pesticides	4,4'-DDE	O	O	=	=	O	O
	4,4'-DDT	O	O	O	+	O	O
	A-Chlordane	O	O	+	O	O	O
	G-Chlordane	O	O	+	O	O	O
Semi-volatile Organic Compounds	Chrysene	O	O	O	+	O	O
	Indeno(1,2,3-cd)pyrene	O	O	=	=	O	O
	Benzo(a)anthracene	O	O	O	+	O	O
	Benzo(k)fluoranthene	O	O	O	+	O	O

Stormwater outfall data is only available for a limited number of pollutants beginning from 2015-2016 as the first year of CIMP implementation. Table 4 shows the results of trend analyses at stormwater outfall site BC_SW_FAI.

Table 4. Stormwater Outfall Trend Analysis Results Using 95% Confidence Level

(Improving: + No Change: = Declining: X No Assessment: o)

Category	Constituent	BC_SW_FAI
Fecal Indicator Bacteria	E. coli	=
Metals	Cadmium (Total)	=
	Cadmium (Dissolved)	=
	Copper (Total)	=
	Copper (Dissolved)	=
	Lead (Total)	=
	Lead (Dissolved)	=
	Mercury (Total)	=
	Silver (Total)	=
	Silver (Dissolved)	=
	Zinc (Total)	=
Zinc (Dissolved)	=	
Chlorinated Pesticides	4,4'-DDE	=
	4,4'-DDT	+
	A-Chlordane	=
	G-Chlordane	=
Semi-volatile Organic Compounds	Chrysene	=
	Benzo(a)anthracene	=

3. Assessment of Progress Toward Achieving Interim Milestones

The BC EWMP includes an Implementation Plan for control measures to reduce pollutant loads and achieve milestones that correspond to attainment of receiving water limits (RWLs) and water quality based effluent limits (WQBELs). The EWMP Implementation Plan is expressed as two parts: [1] the control measures that will be implemented to address Water Quality Priorities and achieve EWMP milestones and [2] the corresponding volumes of stormwater to be managed by each jurisdiction through implementation of stormwater management projects (e.g., LID, distributed green streets, and regional projects). The Ballona Creek Watershed Permittees

have made significant progress towards the implementation of the compliance recipes outlined in the EWMP. Table 5 lists the stormwater management projects that have been completed by the individual BC watershed agencies since December 2012. More projects have been implemented prior to the effective date of the current MS4 Permit.

Table 6. Projects completed in the Ballona Creek since the effective date of the MS4 Permit

Project	Lead Agency	Status
Catch Basin Retrofits	City of Los Angeles County of Los Angeles Los Angeles Flood Control District City of Beverly Hills City of Culver City City of Inglewood City of West Hollywood City of Santa Monica	Completed
Olympiad Dr, Et Al Green Streets	County of Los Angeles	Completed
Westside Water Quality Improvement Project	City of Santa Monica	Completed
Mar Vista Rec. Center Stormwater Capture Project	City of Los Angeles	Completed
USC Rain Gardens	City of Los Angeles	Completed
Transfer Station Rain Garden Project	City of Culver City	Completed
Transfer Station Stormwater Capture and Diversion	City of Culver City	Completed

Many other projects are currently in progress. Table 7 lists the stormwater management projects that the BC WMG is currently working on at different stages of implementation, but with all projects beyond the “concept report phase”. Aside from these stormwater management projects, the BC WMG is also implementing three regional projects to comply with the Time Schedule Order for the dry weather requirements of the BC Bacteria TMDL: Low Flow Treatment Facilities 1 and 2, and the Mesmer Low Flow Diversion projects. The projects are currently in the design phase. The Environmental Impact Report (EIR) was certified in the summer of 2018, and the Cities of Los Angeles and Culver City are moving forward with obtaining the necessary permits

from California Department of Fish and Wildlife, Regional Board, LACFCD, and US Army corps of Engineers. Further details on the implementation of this Time Schedule Order is provided in the Attachment 2 of the MS4 Permit Annual Report.

Table 7. Stormwater management projects currently in progress in the BC Watershed

Project	Lead Agency	Phase / Estimated Completion
Ladera Park Regional Stormwater Capture Project	County of Los Angeles	Design / October 2019
La Cienega Park and Frank Fenton Field Retention/ Infiltration Regional Project	Cities of Beverly Hills, Los Angeles, and West Hollywood	Planning / Spring 2019
Culver Boulevard Median Project	City of Culver City	Design / Winter 2020
Melrose Ave Complete Street Project	City of West Hollywood	Design / Winter 2019
Santa Monica Boulevard Green Streets Project	City of Beverly Hills	Construction / Winter 2018
Monteith Park & View Park Green Alley Stormwater Capture Project	County of Los Angeles	Design / Fall 2021
Westwood Neighborhood Greenway Project	City of Los Angeles	Pre-Design / Fall 2020
Burton Way Median Green Street Project	City of Beverly Hills	Design / Winter 2020
Vermont Avenue Stormwater Capture and Green Street Project	City of Los Angeles	Completion / Fall 2021
Baldwin Avenue Rain Garden	City of Culver City	Construction / Fall 2018
Centinela Avenue Hybrid Green Street Project	City Santa Monica and City of Los Angeles	Planning / 2019
La Brea Green Street	City of Inglewood	Completion / Winter 2019

The BC WMG is also continued developing the green street implementation strategies. For example, the City of Los Angeles developed a methodology for rapidly identifying and prioritizing distributed/green streets within its city boundary. This has resulted in the development of the following twelve concept reports, which are awaiting funding to move forward to design and construction: Arlington Avenue Green Street; Cochran Avenue Green Street; Magnolia Avenue Rain Garden & Green Street; North Pico-Union Neighborhood Stormwater Strategy; Pico-Olive Stormwater BMP; Queen Anne Place Green Street; South Hoover Green Street; South Occidental Boulevard Stormwater BMP; South Vermont Avenue Forebay Green Street; Venice Boulevard Green Street BMP; West 42nd Street Forebay Green Street; West Manchester Avenue Green Street BMP. In addition, the County of Los Angeles formed an internal Green Streets Task Force to develop a Green Streets Master Plan which will include feasibility investigations, site specific evaluations, and geotechnical testing to identify opportunities for green street projects in the County unincorporated areas. The County of Los Angeles Green Streets Master Plan and Alley Master Plan are currently being developed and expected to be completed in early 2020. The City of Beverly Hills has contracted out work to develop a stormwater compliance master plan for its City. Lastly, the City of Inglewood has adopted the policy to consider green street elements in its capital improvement projects.

The BC EWMP sets 75% interim milestone for the volume of stormwater to be captured and the volume of BMP capacity to be built by 2019. Table 8 shows that the volume of BMP capacity constructed in the BC watershed since the effective date of the MS4 Permit versus the 75% interim milestone volume requirements by BC EWMP. Despite the significant progress accomplished to date, the BC WMG will not meet the 2019 interim implementation milestone as described in the BC EWMP. The BC WMG therefore requests a time extension of this milestone as further discussed in Section 8 of this report.

Table 8. BMP capacity completed in the BC watershed since the effective date of the MS4 permit versus the 75% interim milestone for implementation by 2019

	LID	Green Street	Regional Projects	Total
2011 to 2018	23.83	0.19	0	24.02
2019 - 75% Milestone	178	237	723	1138

4. Re-Evaluation of Water Quality Priorities

The BC EWMP identifies water quality priorities in three categories:

1. The highest priority of water body pollutant combinations as established by TMDLs.
2. High priority of water body pollutant combinations as identified on the 303(d) list.
3. Medium priority of water body pollutant combinations with other exceedances of RWLs.

Category 1 Water Quality Priorities

There has been no change in the TMDLs for the Ballona Creek watershed since the approval of the EWMP. The BC WMG is currently assessing the feasibility of performing a scientific study for site specific objectives for zinc in the Ballona Creek Watershed. The BC WMG may pursue this study in collaboration with the Regional Board and watershed stakeholders if found feasible.

Category 2 Water Quality Priorities

The USEPA approved the 2016 303(d) list on April 6, 2018. There are no additions or delistings of pollutants in the Ballona Creek watershed.

Category 3 Water Quality Priorities

The BC WMG did not identify any other pollutants that would warrant inclusion as category 3 water quality priorities.

Overall, there is no change in the water quality priorities of the BC watershed since the approval of the BC EWMP in April 2016. The BC WMG will be performing a rerun of the Reasonable Assurance Analysis (RAA) for the BC EWMP in 2021 and will reconsider estimated pollutant loading and BMP effectiveness at that time. If there are any changes in water quality priorities between now and 2021, they will be accounted for in the upcoming RAA rerun.

5. Assessment of New Information from Sources Other than the CIMP

CIMP monitoring provides the bulk of information that the BC WMG uses to evaluate the EWMP and its effectiveness as a watershed management program. This CIMP information is provided to the Regional Board during each annual reporting cycle.

As the BC watershed is highly urbanized with many areas having poor infiltration rates, several BC WMG agencies are looking into non-potable uses of stormwater as one of the highest priorities. Use options include potable water offset for landscape irrigation and diversion of stormwater to the sewer system to increase the potential for producing recycled water at the Hyperion Water Reclamation Plant. The County Department of Public Health recently issued guidelines for the safe use of captured stormwater in landscape irrigation. These guidelines are likely to have impact on the design and construction of multi-benefit projects where the use of stormwater for landscape irrigation is being considered.

Relevant third-party research within the BC watershed includes the Bight 2018 by Southern California Coastal Water Research Program (SCCWRP). The BC WMG values this research and will continue to support it, but does not recommend any immediate changes to the BC EWMP from this effort.

6. Assessment of Regional Water Board Recommendations

No specific recommendations for changes to the Ballona Creek EWMP have been received from the Regional Board since the EWMP was approved.

7. Assessment of Recommendations from Watershed Stakeholders and the Public

While the BC WMG has performed extensive public outreach as part of each project within the watershed, no specific recommendations for changes to the BC EWMP have been received from watershed stakeholders or the public, since the EWMP was approved. The BC WMG will continue to foster dialogue with all interested parties regarding individual projects and the EWMP.

8. Proposed Modifications to the Watershed Management Program

As discussed in Section 4, there are no changes in the water quality priorities for the BC watershed that would require modifications to the BC EWMP at this time.

The BC WMG may consider modifications to the BC CIMP, but will recommend these via the CIMP adaptive management process as described in Section 6.7 of the MS4 Permit Annual Report for FY 17/18.

The BC WMG requests a time extension for the 2019 interim implementation milestone of the BC EWMP. The request for this extension is included as Attachment A to this Adaptive Management Report. Approval by the Regional Board will allow the BC WMG members to continue their implementation efforts as outlined in Table 7. The recent approval of Measure W by Los Angeles County voters will likely help fund these projects, as well as other projects that still are in the concept report phase.

The University of California at Los Angeles (UCLA) recently showed interest in joining the BC WMG as an option for compliance with its Phase II MS4 Permit. Discussions between UCLA and the BC WMG are in the early stages; but, if agreed by all parties, the addition of UCLA to the BC WMG and associated changes to the BC EWMP will be addressed during the EWMP revision and rerun of the Reasonable Assurance Analysis in 2021. The BC WMG will consult with Regional Board staff for additional guidance on how to best incorporate UCLA into the Ballona Creek EWMP.

The BC EWMP divides the BC watershed into approximately 200 catchment areas, each with its own compliance recipe with a unique stormwater capture volume and BMP capacity to be implemented. Compliance recipes for individual catchment areas provide guidance of where to focus implementation efforts across the watershed. However, as the catchment areas are much smaller than the area of the BC watershed, individual compliance recipes create a level of detail direction that limits the ability of the BC WMG to implement stormwater management projects.

This particularly is the case when resources for implementation are limited and flexibility is needed to design and construct a stormwater management project in the BC watershed regardless of the compliance recipe of the catchment area in which the project is located. The BC WMG, therefore, recommends that the compliance recipes of catchment areas only be used by the BC WMG to guide implementation efforts. The BC WMG recommends that evaluation of compliance with the interim and final implementation milestones of the EWMP be at the subwatershed level (for the Ballona Creek watershed: the Sepulveda Channel, Centinela Creek, and Ballona Creek mainstem subwatersheds).

Related to the previous item, the BC WMG also recommends that the Regional Board considers credit trading between members of the BC WMG for the implementation of stormwater management projects. Drainage areas of regional projects often cross jurisdictional boundaries, requiring the collaboration and financial support of all agencies with land in the drainage area. However, when one or more agency is not able to participate in a regional, multi-jurisdictional project, the project could potentially be delayed, postponed, or reduced in scope. Credit trading would allow a BC agency outside of the project drainage area to participate in the project and receive a commensurate compliance credit. The BC WMG recommends that this type of credit trading be based on BMP capacity. The agency not being able to participate in the project would have to build additional BMP capacity elsewhere in the watershed, so that credit trading is neutral to overall watershed obligations.

As noted earlier, the two major challenges for the BC WMG are lack of adequate funds and time to comply with the wet weather WQBELs and final WLAs of the BC Bacteria and Metals TMDLs, as these two TMDLs drive the implementation cost and schedule of the BC EWMP. Both TMDLs have final compliance milestones by 2021 and it can be projected that the BC WMG will find it challenging to meet these final milestones. Several other watersheds in the western part of LA County are likely facing similar challenges with other TMDLs that have final milestones by 2021. The BC WMG recommends that the Regional Board and permittees discuss the challenges of and options for meeting the final TMDL compliance milestones.

9. Conclusion

The BC WMG has made significant progress with the implementation of the BC EWMP, resulting in overall improvements of the water quality of receiving waters in the BC watershed. However, significant challenges remain. The passing of Measure W will provide new opportunities for funding the stormwater projects identified in the EWMP that will improve water quality working towards achieving compliance of the water quality priorities within the Ballona Creek Watershed. Accordingly, the key request of the BC WMG for adaptive management of the BC EWMP is the extension of the 75% compliance interim milestone for EWMP implementation. Additionally, the BC WMG would like to request a meeting with Regional Board staff to discuss our proposals for credit trading and the compliance evaluation by subwatershed instead of catchment area, as both proposals would increase the flexibility of the BC WMG to implement stormwater management projects.

Attachment A

Time Extension Request for
75% EWMP Implementation Interim Milestone

CITY OF LOS ANGELES

CALIFORNIA



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December 13, 2018

Ms. Deborah Smith, Executive Officer
California Regional Water Quality
Control Board - Los Angeles Region
320 West 4th Street, Suite 200
Los Angeles, CA 90013

Attention: Chris Lopez

Dear Ms. Smith:

REQUEST FOR TIME EXTENSION OF THE 2019 INTERIM MILESTONE OF BALLONA CREEK WATERSHED ENHANCED WATERSHED MANAGEMENT PROGRAM

The Ballona Creek Watershed Management Group (BC WMG) is requesting a time extension for the July 2019 interim milestone of its Enhanced Watershed Management Program (BC EWMP). The BC WMG consists of the Cities of Beverly Hills, Culver City, Inglewood, Los Angeles, Santa Monica, and West Hollywood, the Unincorporated County of Los Angeles, and Los Angeles County Flood Control District. The City of Los Angeles is the lead agency of the BC WMG and has prepared this request on behalf of all BC WMG members.

Ballona Creek Enhanced Watershed Management Program

On February 2, 2016, the BC WMG submitted its last revision of the BC EWMP to the California Regional Water Quality Control Board, Los Angeles Region (Los Angeles Water Board), which was approved on April 20, 2016. The BC EWMP provides a detailed strategy with the actions by the BC WMG for compliance with the MS4 Permit and the TMDLs that are applicable to the Ballona Creek watershed. The BC EWMP also specifies an interim milestone of 75% implementation of LID, green streets, and regional stormwater projects by 2019. Collectively, these structural control measures are planned to be implemented to primarily address the wet weather requirements of the Ballona Creek Bacteria and Metals TMDLs by 2021.

zero waste • one water

AN EQUAL EMPLOYMENT OPPORTUNITY - AFFIRMATIVE ACTION EMPLOYER

Recyclable and made from recycled waste



Progress toward water quality compliance

The BC WMG is subject to seven TMDLs (Total Maximum Daily Loads): bacteria, metals, toxics, trash, wetlands sediment and invasive vegetation, and the Santa Monica Bay TMDLs for debris and DDTs and PCBs. The efforts by the BC WMG have significantly improved the water quality in the Ballona Creek watershed. We refer to the Watershed Forms of the MS4 Permit Annual Reports, submitted by the BC WMG to the Los Angeles Water Board for reporting years 2015-16, 2016-17, and 2017-2018 for detailed water quality analyses. This section briefly summarizes the progress towards meeting TMDL compliance milestones.

1. Ballona Creek, Ballona Estuary and Sepulveda Channel Bacteria TMDL

In May 2015, the Los Angeles Water Board issued a Time Schedule Order (TSO) (Order No. R4-2015-0108) for the dry weather requirements of the Bacteria TMDL and setting interim Receiving Water Limitations (RWLs) during implementation of the TSO by the BC WMG. All interim dry weather RWLs have been met during reporting years 2015-16, 2016-17, and 2017-18 except one monitoring location in lower Ballona Creek Reach 2 in 2017-18 (please refer to Attachment 2 of MS4 Permit Annual Report: Bacteria TMDL Time Schedule Order Annual Report). Meeting the RWLs for wet weather remains a significant challenge.

2. Ballona Creek Metals TMDL

This TMDL specifies final RWLs and WQBELs for dry weather by January 11, 2016, which was met in reporting years 2015-16, 2016-17, and 2017-18. The 50% interim milestone for wet weather by 2016 were consistently met for dissolved lead and dissolved zinc in reporting years of 2015-16, 2016-17, and 2017-18. Meeting the final wet weather requirements by 2021 will be a significant challenge.

3. Ballona Creek Estuary Toxic Pollutants TMDL

The Amended Ballona Creek Estuary Toxic Pollutants TMDL became effective on October 26, 2015. During reporting years 2016-17 and 2017-18, the 2017 interim milestone for 25% reduction of PCBs and the interim milestone for 75% reduction of all other TMDL constituents were met.

4. Ballona Creek Trash TMDL

Since 2001, the BC WMG agencies have established and implemented BMP programs to reduce trash, which are comprised of full-capture systems, partial capture devices, and institutional controls across the watershed. In September 2015, the BC WMG agencies completed retrofitting the catch basins and attained the 100% reduction goal. In 2015, the Los Angeles Water Board revised the Ballona Creek Trash TMDL and included the requirement to develop and implement the Trash Monitoring and Reporting Plan (TMRP). The BC WMG submitted the TMRP in 2016, which was approved by the Los Angeles Water Board Board on December 14, 2017. The BC WMG is in compliance with the BC Trash TMDL requirements as reported in the Individual Forms of the MS4 Permit Annual Report of the BC WMG.

5. Ballona Creek Wetland Sediment and Invasive Exotic Vegetation

The Ballona Creek Wetlands TMDL for Sediment and Invasive Exotic Vegetation was developed by the USEPA and it includes WLAs expressed as an annual loading of sediment discharged to the Ballona Wetlands. The sediment discharged in the reporting years 2015-16, 2016-17, and 2017-18 were less than the WLA.

6. Santa Monica Bay DDTs and PCBs TMDL

The Santa Monica Bay (SMB) TMDL for DDTs and PCBs was developed by the USEPA and includes WLAs expressed as an annual loading of sediment-bound pollutants discharged to Santa Monica Bay. The BC EWMP uses the compliance schedule of the Amended BC Toxic Pollutants TMDL to establish the compliance schedule for the SMB TMDL for DDTs and PCBs. The 2017 interim milestones of the 75% reduction of total DDTs and the 25% reduction of total PCBs were met for reporting years of 2016-17 and 2017-18.

7. Santa Monica Bay Nearshore and Offshore Debris TMDL

Compliance with the interim milestones of this TMDL is evaluated as the implementation of trash capture devices in the watershed. The BC WMG is in compliance as reported in the MS4 Permit Annual Reports.

Progress with Implementation

The BC WMG is making significant progress with the implementation of regional and green street BMPs that have been identified in the BC EWMP. A comprehensive list of the BC WMG’s efforts to implement the BC EWMP projects can be found in Section 2 of the MS4 Permit Annual Reports for reporting years 2015-16, 2016-17, and 2017-18. Table 1 summarizes the projects and programs that have been completed since the adoption of the latest MS4 Permit in December 2012:

Table 1. Projects/programs completed in the BC watershed.

Project/program name	Agency	Status	Estimated Cost
Catch Basin Retrofits	All WMG agencies	Completed	\$ 21.6 M
Safe, Clean Water Program	County of Los Angeles	Active	NA
Polystyrene Ban	Culver City	Active	NA
Measure CW (dedicated funding for Stormwater BMP implementations)	Culver City	Active	NA
Transfer Station Stormwater Capture and Diversion Project	Culver City	Completed	\$ 1.4 M
Transfer Station Rain Garden Project	Culver City	Completed	\$ 213,000
Mar Vista Recreation Center Stormwater Capture	Los Angeles	Completed	\$ 4.5 M
University Park Rain Gardens	Los Angeles	Completed	\$ 600,000
Ballona Creek Green Street Identification and Prioritization Methodology	Los Angeles	Completed	NA
Westside Park Rainwater Irrigation	Los Angeles	Completed	\$ 8.3 M
Westside Water Quality Improvement Project	Santa Monica	Completed	\$ 1.7 M

Many other projects are underway in the Ballona Creek watershed as summarized in Table 2. A total estimated amount of \$95 million for watershed-wide implementation of regional projects and green streets is currently in design and/or construction phases. The project completion dates in Table 2 are tentative, or to be determined (TBD) after completion of the project design. In addition, many BC WMG agencies are also preparing concept reports for new distributed green streets and regional projects in the Ballona Creek watershed. Now that Measure W (Safe, Clean Water Program) has been approved by the voters of Los Angeles County, these projects are more likely to receive funding.

Table 2. Projects/programs currently in progress in the BC watershed.

Project/program name	Agency	Status	Estimated Cost
Burton Way Median Green Streets and Water Efficient Landscape Project - Phase I	Beverly Hills	Design, project completion by 2021	\$ 3.7 M
Green Streets on Santa Monica Boulevard	Beverly Hills	Construction, project completion by 2018	\$ 500,000
La Cienega Park and Frank Fenton Field Regional Project – Feasibility Study	Beverly Hills (lead)	Feasibility, project completion TBD	\$ 238,000
Ladera Park Stormwater Capture Project	County of Los Angeles	Design, project completion by 2019	\$ 10.2 M
Monteith Park and View Park Green Alley Stormwater Capture Project	County of Los Angeles	Pre-design, project completion by 2021	\$ 3.8 M
Culver Boulevard Stormwater Treatment and Reuse Project	Culver City	Design, project completion by 2020	\$ 16 M
Baldwin Avenue Rain Garden	Culver City	Construction, project completed 2018	\$ 52,000
Stormwater Quality Master Plan	Culver City	Completion in 2019	\$ 625,000
Mesmer Low Flow Diversion	Culver City (lead)	Design, project completion TBD	\$ 1.38 M
La Brea Green Street	Inglewood	Design, project completion TBD	\$ 9 M
Westwood Neighborhood Greenway	Los Angeles	Design, project completion by 2021	\$ 5.4 M
Rancho Park Golf Course Regional Project	Los Angeles	Feasibility, project completion TBD	\$ 4.4 M
Vermont Avenue Stormwater Capture and Green Street Project	Los Angeles	Design, project completion by 2021	\$ 3.7 M
Low Flow Treatment Facility #1	Los Angeles (lead)	Design, project completion TBD	\$ 24 M
Low Flow Treatment Facility #2	Los Angeles (lead)	Design, project completion TBD	\$ 8 M
Melrose Avenue Complete Street Project	West Hollywood	Design, project completion by 2019	\$ 4 M
West Hollywood Park Phase II	West Hollywood	Construction, project completion by 2019	TBD

Time Extension Request

Many projects are underway in the Ballona Creek watershed, and more projects are likely to be funded by anticipated revenues from the Safe, Clean Water Program. Despite these efforts, the BC WMG does not anticipate that the 75% implementation milestone of the BC EWMP will be met by July 2019 (Table 3).

Table 3. Progress towards 75% BC EWMP interim implementation milestone (acre-ft)

	LID	Green Street	Regional Projects	Total
2011 to 2018	23.83	0.19	0	24.02
2019 - 75% Milestone	178	237	723	1138

The BC WMG requests additional time to complete the projects that already are in progress, and fund new projects for design and construction in the Ballona Creek watershed. As the 75% implementation milestone is close to the final implementation milestone by 2021, the BC WMG requests that the 75% interim milestone be extended to 2021 and be evaluated simultaneously with the final implementation milestone by 2021.

Figures 7-5 through 7-14 of the BC EWMP provide the overall targets for the implementation of regional projects and green streets, expressed as structural BMPs capacities, to be implemented by 2019 and 2021. This is summarized in Tables 4 and 5 below.

Table 4. Regional Project BMP capacity required for compliance (acre-feet)

Milestone	County of Los Angeles	City of Los Angeles	City of West Hollywood	City of Culver City	City of Beverly Hills	City of Inglewood	City of Santa Monica
2019	31.2	583.3	18.8	31.0	20.5	24.1	13.7
2021	16.3	634.7	19.6	30.7	16.9	16.6	2.1
Total	47.5	1218	38.4	61.7	37.4	40.7	15.8

Table 5. Green Street BMP capacity required for compliance (acre-feet)

Milestone	County of Los Angeles	City of Los Angeles	City of West Hollywood	City of Culver City	City of Beverly Hills	City of Inglewood	City of Santa Monica
2019	5.0	192.3	3.6	14.9	16.1	4.1	1.4
2021	2.3	85.5	1.7	4.7	23.0	3.2	0.3
Total	7.3	277.8	5.3	19.6	39.1	7.3	1.7

The BC WMG is requesting the following modifications:

Proposed Table 4. Regional Project BMP capacity required for compliance (acre-feet)

Milestone	County of Los Angeles	City of Los Angeles	City of West Hollywood	City of Culver City	City of Beverly Hills	City of Inglewood	City of Santa Monica
2021	47.5	1218	38.4	61.7	37.4	40.7	15.8
Total	47.5	1218	38.4	61.7	37.4	40.7	15.8

Proposed Table 5 – Green Street BMP capacity required for compliance (acre-feet)

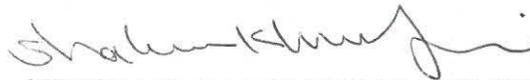
Milestone	County of Los Angeles	City of Los Angeles	City of West Hollywood	City of Culver City	City of Beverly Hills	City of Inglewood	City of Santa Monica
2021	7.3	277.8	5.3	19.6	39.1	7.3	1.7
Total	7.3	277.8	5.3	19.6	39.1	7.3	1.7

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California Regional Water Quality
December 13, 2018
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The BC WMG is committed to improving the water quality of receiving water bodies in the Ballona Creek watershed and we look forward to continuing our collaboration with the Los Angeles Water Board and watershed stakeholders.

If you have any questions about this request or wish to discuss this further, please contact me at (213) 485-0587 or Shahram.Kharaghani@lacity.org or your staff may contact Hubertus Cox at (213) 485-3984 or Hubertus.Cox@lacity.org.

Sincerely,



SHAHRAM KHARAGHANI, PhD, PE, BCEE
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