STATE OF CALIFORNIA
CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
LOS ANGELES REGION

TIME SCHEDULE ORDER NO. R4-2015-XXXX

REQUIRING THE CITY OF LOS ANGELES, THE COUNTY OF LOS ANGELES, THE LOS ANGELES COUNTY FLOOD CONTROL DISTRICT, THE CITY OF BEVERLY HILLS, THE CITY OF CULVER CITY, THE CITY OF INGLEWOOD AND THE CITY OF WEST HOLLYWOOD TO COMPLY WITH REQUIREMENTS PRESCRIBED IN ORDER NO. R4-2012-0175 (NPDES PERMIT NO. CAS004001)

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The California Regional Water Quality Control Board, Los Angeles Region (Los Angeles Water Board) finds:

1. On November 8, 2012, the Los Angeles Water Board adopted waste discharge requirements and a National Pollutant Discharge Elimination System (NPDES) Permit (Order No. R4-2012-0175) for municipal separate storm sewer system (MS4) discharges within the Coastal Watersheds of Los Angeles County, with the exception of those discharges originating from the City of Long Beach MS4 (Los Angeles County MS4 Permit).

2. The requirements of the Los Angeles County MS4 Permit apply to the Los Angeles County Flood Control District (LACFCD), the County of Los Angeles (County), the City of Los Angeles, the City of Beverly Hills, the City of Culver City, the City of Inglewood, the City of West Hollywood, and 79 other incorporated cities within the LACFCD with the exception of the City of Long Beach.

3. The LACFCD's MS4 conveys both storm water and non-storm water discharges into receiving waters in all of the major watershed management areas within the region, including the Los Angeles River Watershed; San Gabriel River Watershed; the Santa Monica Bay Watershed Management Area, which includes the Ballona Creek watershed; and the Dominguez Channel and Greater Los Angeles/Long Beach Harbors Watershed Management Area.

4. The County owns and maintains MS4s throughout the unincorporated areas of Los Angeles County, which convey both storm water and non-storm water discharges into receiving waters in all of the major watershed management areas within the region, including the Los Angeles River Watershed; San Gabriel River Watershed; the Santa Monica Bay Watershed Management Area, which includes the Ballona Creek watershed; and the Dominguez Channel and Greater Los Angeles/Long Beach Harbors Watershed Management Area. County unincorporated areas make up approximately four percent of the Ballona Creek watershed, covering 3,165 acres in the southern part of the watershed.

5. The Cities of Los Angeles, Beverly Hills, Culver City, Inglewood, and West Hollywood each own MS4s that convey both storm water and non-storm water discharges into receiving waters of the Santa Monica Bay Watershed Management Area, including receiving waters of the Ballona Creek watershed.

6. The LACFCD, the County, and the Cities of Los Angeles, Beverly Hills, Culver City, Inglewood, and West Hollywood anticipate that additional time is necessary to comply with bacteria water quality-based effluent limitations and receiving water limitations applicable to Ballona Creek, Ballona Creek Estuary, and Sepulveda Channel during dry weather as set forth in the Los Angeles County MS4 Permit, and have requested a time schedule order (TSO) for the Los Angeles Water Board's consideration.

BALLONA CREEK WATERSHED

7. The Ballona Creek watershed encompasses approximately 82,000 acres (approximately 128 square miles) and is comprised of the Cities of Beverly Hills and West Hollywood; portions of the Cities of Los Angeles, Inglewood, Culver City, and Santa Monica; unincorporated areas of the County; and State and Federal lands. The jurisdictional land area distribution among agencies in the Ballona Creek watershed is as follows:

Agency	Land Area (acres)
City of Los Angeles	65,272.89
County of Los Angeles	3,164.76
Los Angeles County Flood Control District	*[1]
City of Beverly Hills	3,618.95
City of Culver City	3,125.00
City of Inglewood	1,907.72
City of West Hollywood	1,135.00
City of Santa Monica	217.31
Caltrans	1,651.33
State of California	909.34
US Government	674.49
Total Ballona Creek Watershed Area	81,676.79

8. Ballona Creek flows as an open channel for about 10 miles from the City of Los Angeles (south of Hancock Park) through the City of Culver City, reaching the Pacific Ocean at Playa del Rey. Except for the estuarine section of Ballona Creek, the creek is entirely lined in concrete and is fed by a complex underground network of storm drains. Tributaries of Ballona Creek include Centinela Creek, Sepulveda Canyon Channel, and Benedict Canyon Channel. Ballona Creek meets Ballona Creek Estuary (Ballona Estuary) at Centinela Avenue, where concrete is replaced by grouted riprap side slopes and an earthen bottom. Ballona Estuary flows into the Santa Monica Bay, and its water quality affects the adjacent shoreline of Dockweiler Beach.

BALLONA WATERSHED BACTERIA TOTAL MAXIMUM DAILY LOAD (TMDL)

9. In 1998, Ballona Estuary was placed on California's Clean Water Act Section 303(d) List (303(d) List) as impaired due to "coliform bacteria." In 2002, Ballona Creek was placed on California's 303(d) List as impaired due to "coliform bacteria."

[1] LACFCD owns and operates drainage infrastructure within incorporated and unincorporated areas in the watershed.

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10. **TMDL Adoption**: On June 8, 2006, the Los Angeles Water Board adopted the *Ballona Creek, Ballona Estuary and Sepulveda Channel Bacteria TMDL* (*Ballona Watershed Bacteria TMDL*) to address bacteria impairments in Ballona Creek and Ballona Estuary (Resolution No. R06-011). This TMDL became effective on April 27, 2007. The TMDL assigned the County[2] and the Cities of Los Angeles, Beverly Hills, Culver City, Inglewood, West Hollywood and Santa Monica waste load allocations (WLAs) for bacteria during summer and winter dry weather, which were to be achieved by April 27, 2013.

11. **TMDL Implementation Plans**: The County, individually, and the City of Los Angeles, on behalf of the Ballona Creek Jurisdictional Group (excluding the County), submitted draft Implementation Plans for the *Ballona Watershed Bacteria TMDL* to the Los Angeles Water Board on October 26, 2009 and November 30, 2009, respectively. Both TMDL Implementation Plans recommended best management practices (BMPs) to address dry-weather WLAs. The County's plan recommended nonstructural BMPs to be implemented in County areas. The Cities' plan recommended source control and two low flow treatment facilities (LFTF-1 and LFTF-2).

12. **TMDL Revision**: On June 7, 2012, the Los Angeles Water Board revised the *Ballona Watershed Bacteria TMDL* (Resolution No. R12-008). The revisions adjusted the reference system for freshwaters addressed in the TMDL, the allowable exceedance days, the method and time period for calculating geometric means, and corresponding WLAs and load allocations (LAs) in the TMDL. The revised TMDL became effective on July 2, 2014.

LOS ANGELES COUNTY MS4 PERMIT LIMITATIONS TO IMPLEMENT DRY-WEATHER WLAs

13. The Los Angeles County MS4 Permit includes new water quality-based effluent limitations and corresponding receiving water limitations for bacteria to implement the dry-weather WLAs established in the *Ballona Watershed Bacteria TMDL*. The LACFCD, the County, and the Cities of Los Angeles, Beverly Hills, Culver City, Inglewood, and West Hollywood (collectively, Permittees) are subject to these limitations.[3]

14. **Water Quality-Based Effluent Limitations**: Attachment M of the Los Angeles County MS4 Permit requires that, upon the effective date of the revised *Ballona Watershed Bacteria TMDL,* the Permittees comply with the following daily maximum final water quality-based effluent limitations during dry weather no later than April 27, 2013:

Waterbody	Constituent	Daily Maximum Effluent Limitations (MPN or cfu)
Ballona Estuary	Total Coliform*	10,000/100 mL
	Fecal Coliform	400/100 mL
	Enterococcus	104/100 mL

[2] The LACFCD was not individually identified in the 2006 TMDL, however, was formally included in the 2012 TMDL revision (Resolution No. R12-008).
[3] The City of Santa Monica is also subject to these limitations, but did not request a Time Schedule Order. The city, therefore, is not included in this Time Schedule Order.

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Waterbody	Constituent	Daily Maximum Effluent Limitations (MPN or cfu)
Sepulveda Channel	*E. coli*	235/100 mL
Ballona Creek Reach 2	*E. coli*	576/100 mL
Ballona Creek Reach 1	Fecal coliform	4,000/100 mL

*Total coliform density shall not exceed a daily maximum of 1,000/100 mL, if the ratio of fecal-to-total coliform exceeds 0.1.

15. **Receiving Water Limitations**: Attachment M of the Los Angeles County MS4 Permit requires that, upon the effective date of the revised *Ballona Watershed Bacteria TMDL*, the Permittees shall comply with the following grouped single sample bacteria receiving water limitations during dry weather:

    a. For Ballona Estuary; Ballona Creek Reach 2 at the confluence with Ballona Estuary; and Centinela Creek at the confluence with Ballona Estuary:

Time Period	Annual Allowable Exceedance Days of the REC-1 Marine Water Single Sample Bacteria Water Quality Objectives		Deadline
	Daily Sampling	Weekly Sampling	
Summer Dry Weather (April 1 to October 31)	0	0	April 27, 2013
Winter Dry Weather (November 1 to March 31)	9	2	April 27, 2013

    b. For Sepulveda Channel:

Time Period	Annual Allowable Exceedance Days of the REC-1 Fresh Water Single Sample Bacteria Water Quality Objectives		Deadline
	Daily Sampling	Weekly Sampling	
Dry Weather	5	1	April 27, 2013

    c. For Ballona Creek Reach 2; Ballona Creek Reach 1 at the confluence with Reach 2; and Benedict Canyon Channel at the confluence with Ballona Creek Reach 2:

Time Period	Annual Allowable Exceedance Days of the LREC-1 Fresh Water Single Sample Bacteria Water Quality Objectives		Deadline
	Daily Sampling	Weekly Sampling	
Dry Weather	5	1	April 27, 2013

16. Attachment M of the Los Angeles County MS4 Permit requires that the Permittees shall not exceed the single sample fecal coliform objective of 4,000/100 mL in more than 10% of the samples collected from Ballona Creek Reach 1 during any 30-day period. The Permittees

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shall achieve compliance with this receiving water limitation during dry weather no later than April 27, 2013.

TIME SCHEDULE ORDER REQUEST

17. Pursuant to Part VI.E.4 of the Los Angeles County MS4 Permit, when Permittees anticipate that additional time is necessary to comply with the water quality-based effluent limitations and/or receiving water limitations for State adopted TMDLs where the final compliance deadlines have passed, they may request a time schedule order (TSO) pursuant to Water Code section 13300 for the Board's consideration.

18. The Permittees each submitted letters to the Los Angeles Water Board requesting a TSO to implement the dry-weather bacteria limitations applicable to the Ballona Creek watershed as set forth in Attachment M of the Los Angeles County MS4 Permit pursuant to Water Code section 13300. These requests were received on April 17, 2013 (City of Los Angeles); April 24, 2013 (City of Culver City and City of Inglewood); April 25, 2013 (County and LACFCD jointly); April 26, 2013 (City of West Hollywood); and May 8, 2013 (City of Beverly Hills).

19. The Cities of Los Angeles, Beverly Hills, Culver City, Inglewood, and West Hollywood cite the following justifications in their TSO requests:

    a. Monitoring conducted since June 2009 through the Coordinated Monitoring Plan (CMP) that was established by the *Ballona Watershed Bacteria TMDL* has provided additional information on bacteriological water quality at TMDL compliance locations in Ballona Creek, Ballona Estuary, and Sepulveda Channel that was not available when the draft TMDL Implementation Plan was developed in 2009. These data indicate that a more robust and sophisticated modeling approach is required to identify additional dry weather BMPs in selected subwatersheds to ensure that Ballona Creek, Ballona Estuary, and Sepulveda Channel will meet the receiving water limitations at the individual compliance locations.

    b. Lack of sustainable funding sources for projects identified in the draft TMDL Implementation Plan has caused a delay in the implementation of previously identified projects.

    c. After submittal of the draft TMDL Implementation Plan, a concept report for Low Flow Treatment Facility #2 (LFTF-2) was conducted. The report concluded that the proposed project concept to divert dry weather flows from Sepulveda Channel for treatment in the parkways of the "Oval Streets" area was infeasible.[4]

    d. The draft TMDL Implementation Plan did not include specific structural BMPs to address dry-weather exceedances in Centinela Creek near monitoring station BCB-7. Additional time is needed to consider the feasibility of constructing a low-flow treatment facility or low-flow diversion system to address dry-weather bacteria exceedances in Centinela Creek.

[4] The Permittees have identified a feasible LFTF-2 project alternative since the submittal of their TSO requests.

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20. The Cities of Los Angeles, Beverly Hills, Culver City, Inglewood, and West Hollywood requested a TSO so that they may conduct the following actions:

    a. Implement the Low Flow Treatment Facility #1 (LFTF-1) Project in the upper part of Reach 2 of Ballona Creek, which will treat all dry weather flows from approximately 70% of the watershed;

    b. Conduct a reevaluation and quantitative analysis of the dry weather strategy with identification of alternative and additional structural BMPs to comply with the dry weather requirements; and

    c. Provide for additional time to secure funding and to implement those BMPs identified in the re-evaluation.

21. The County and LACFCD requested a TSO so that they may conduct a study to identify and quantify dry-weather flows from County areas (Low Flow Reconnaissance Study) and have time to implement structural BMPs based on the findings of the study.

WATER QUALITY MONITORING DATA

22. Water quality monitoring of indicator bacteria in Ballona Creek watershed is coordinated by the City of Los Angeles on behalf of the Permittees per the specifications of the Coordinated Monitoring Plan for the *Ballona Watershed Bacteria TMDL*. Nine receiving water monitoring locations have been sampled weekly since June 2009.

23. **Estuary Exceedances (Summer Dry Weather):** The City of Los Angeles provided the Los Angeles Water Board the following summary of summer dry weather bacteria sampling results for Ballona Estuary. The data summary compares the number of exceedances of the single sample objective with the number of allowed exceedances:

Monitoring Locations in Marine Waters Annual Summer Dry Weather Exceedance Days of Single Sample Objectives						
Year	BCB-6 (Ballona Estuary)		BCB-7 (Centinela Creek)		BCB-8 (Ballona Estuary)	
	Actual	Allowed	Actual	Allowed	Actual	Allowed
2009	18	0	18	0	5	0
2010	26	0	27	0	6	0
2011	27	0	27	0	6	0
2012	25	0	27	0	7	0
2013	27	0	30	0	6	0

24. **Estuary Exceedances (Winter Dry Weather):** The City of Los Angeles provided the Los Angeles Water Board the following summary of winter dry weather bacteria sampling results for Ballona Estuary. The data summary compares the number of exceedances of the single sample objective with the number of allowed exceedances:

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Monitoring Locations in Waters Annual Winter Dry Weather Exceedance Days of Single Sample Objectives						
Year	BCB-6 (Ballona Estuary)		BCB-7 (Centinela Creek)		BCB-8 (Ballona Estuary)	
	Actual	Allowed	Actual	Allowed	Actual	Allowed
2009-10	15	2	15	2	5	2
2010-11	12	2	12	2	3	2
2011-12	13	2	12	2	5	2
2012-13	15	2	14	2	4	2
2013-14	18	2	17	2	4	2

25. **Fresh Water Exceedances (Dry Weather)**: The City of Los Angeles provided the Los Angeles Water Board the following summary of dry weather bacteria sampling results from Ballona Creek fresh water sampling locations. The data summary compares the number of exceedances of the single sample objective with the number of allowed exceedances:

Monitoring Locations in Fresh Waters Annual Dry Weather Exceedance Days of Single Sample Objectives										
Year	BCB-1 (BC Reach 1)		BCB-2 (BC Reach 2)		BCB-3 (Ben. Cyn Ch.)		BCB-4 (Sepulveda Ch.)		BCB-5 (BC Reach 2)	
	Actual	Allowed	Actual	Allowed	Actual	Allowed	Actual	Allowed	Actual	Allowed
2009-10	4	*[5]	22	1	22	1	32	1	23	1
2010-11	2	*	18	1	25	1	36	1	22	1
2011-12	6	*	20	1	16	1	40	1	17	1
2012-13	8	*	25	1	25	1	38	1	23	1
2013-14	6	*	28	1	23	1	46	1	21	1

IMPLEMENTED WATERSHED CONTROL MEASURES

26. **City of Los Angeles**: The City of Los Angeles has implemented the following pollution control measures in the Ballona Creek watershed since the effective date of the 2006 *Ballona Watershed Bacteria TMDL*:

    a. Mar Vista Recreation Center Storm Water BMP: Completed in December 2009. This project retains, treats, and beneficially uses storm water within a 243-acre drainage area.
    b. Westside Park Rainwater Irrigation BMP: Completed in August 2011. This project retains, treats, and beneficially uses urban runoff within a 5,000-acre area.
    c. Installation of over 18,000 catchbasin retrofits, 10 trash netting systems, 5 hydrodynamic separators, and one outfall screen.

[5] For Reach 1, Permittees shall not exceed the fecal coliform objective of 4,000/100 mL in more than 10% of the samples collected from Ballona Creek Reach 1 during any 30-day period. Therefore, where weekly sampling is conducted, there are no allowable exceedances of this objective.

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d. Street sweeping at a frequency of once per week or once per month, depending on location.
e. Catchbasin cleaning at a frequency of 3-4 times per year.
f. An outreach and education program to reduce pollutant sources and, specifically, to target dog owners to properly dispose of pet waste.
g. A Standard Urban Storm Water Mitigation Program (SUSMP), through which the city has reviewed over 2,347 applications and issued approximately 1,668 permits for new development and significant redevelopment to residential and commercial facilities within the Ballona Creek watershed to ensure that storm water runoff up to the 85th percentile, 24-hour water quality design volume is treated.
h. Adoption of a Low Impact Development (LID) Ordinance, which became effective in May 2012.

27. **County of Los Angeles**: The County has implemented the following pollution control measures in the Ballona Creek watershed since the effective date of the *2006 Ballona Watershed Bacteria TMDL*:

a. Initiated the Low Flow Reconnaissance Study to identify and quantify dry-weather flows from County areas.
b. Installation of approximately 318 full-capture and partial capture trash control devices on LACFCD catchbasins.
c. Construction of a diversion and filtration system at the lake at the George C. Page Museum in 2012.
d. Street sweeping at a frequency of once per week.
e. Adoption of a countywide LID Ordinance, which became effective in 2009 and was updated in 2014.

28. **Los Angeles County Flood Control District**: The LACFCD has implemented the following pollution control measures in the Ballona Creek watershed since the effective date of the *2006 Ballona Watershed Bacteria TMDL*:

a. ~~Installation of approximately 318 full-capture and partial capture trash control devices on LACFCD catchbasins.~~
b. Annual inspection and maintenance of channels and box culverts, which includes removal of sediment, rotting vegetation, algae mats, and other debris.
c. Ongoing operation and maintenance of the Ballona Creek trash boom located at the intersection of Ballona Creek and Lincoln Boulevard.

29. **City of Beverly Hills**: The City of Beverly Hills has implemented the following pollution control measures in the Ballona Creek watershed since the effective date of the *2006 Ballona Watershed Bacteria TMDL*:

a. Installation of 513 surfgates at city owned catchbasins. The city has also budgeted to install full-capture screens in city owned catch basins in FY14-15.
b. Street sweeping of residential streets once per week and commercial streets six times per week.
c. An outreach program that targets dog owners to reduce bacteria sources.

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30. **City of Culver City**: The City of Culver City has implemented the following pollution control measures in the Ballona Creek watershed since the effective date of the *2006 Ballona Watershed Bacteria TMDL*:

    a. Construction of rain gardens along Ballona Creek near Pearson Street; along Ballona Creek near Jackson Avenue; along Baldwin Avenue at Farrugut Drive; and along Ballona Creek near Overland Avenue.
    b. Construction of two rain garden systems at Culver City Maintenance Yard and Culver City Transfer Station.
    c. Installation of 486 connector pipe screens and 614 automatic retractable screens on city catchbasins to control trash.
    d. Distribution and installation of 395 rain barrels to residents for storm water capture and use.
    e. Street sweeping of once per week and, in the downtown area, street sweeping once per day.
    f. An outreach program that includes distributing pet waste bags to dog owners.
    g. An outreach campaign called "Only Rain in the Drain" launched as part of the city's commercial and industrial inspection program.
    h. Adoption of an LID Ordinance and Green Streets Policy.

31. **City of Inglewood**: The City of Inglewood has implemented the following pollution control measures in the Ballona Creek watershed since the effective date of the *2006 Ballona Watershed Bacteria TMDL*:

    a. Completion of a demonstration rain garden on Regent Street at the fire station.
    b. Installation of 333 full capture systems and partial capture trash control devices in catchbasins within the city.
    c. Street sweeping of industrial/commercial areas three times per week and residential areas once per week.
    d. Catchbasin cleaning at a minimum frequency of two times per year.
    e. An outreach program that includes distributing pet waste bags to dog owners.

32. **City of West Hollywood**: The City of West Hollywood has implemented the following pollution control measures in the Ballona Creek watershed since the effective date of the *2006 Ballona Watershed Bacteria TMDL*:

    a. La Brea Infiltration Parkway Project: Completed on March 2014.
    b. Pet waste disposal educational outreach and enforcement.
    c. Street sweeping of all commercial roadways once per day and all residential streets once per week.
    d. Daily litter pick up performed by a team of maintenance workers.
    e. Pressure washing/steam cleaning of sidewalks along Santa Monica Boulevard frontages six times per year and major intersections once per month.
    f. Homeless and social service outreach programs.
    g. Catchbasin cleaning three times during the wet season and one time during the dry season at all catchbasins.
    h. Adoption of a Green Streets Ordinance.
    i. Through the city's SUSMP, review of over 75 applications and issuance of approximately 60 permits for new development and significant redevelopment to residential and commercial properties within the Ballona Creek watershed to ensure

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that storm water runoff up to the 85th percentile, 24-hour water quality design volume is treated.

PLANNED WATERSHED CONTROL MEASURES

33. The City of Culver City is in the process of conducting a feasibility study for a Centinela Creek low-flow treatment or diversion project at Jefferson Boulevard. Completion of the feasibility study is scheduled for spring 2015.

34. The City of Los Angeles has identified a number of projects in the draft TMDL Implementation Plan submitted in 2009 and through the city's various programs. Of the identified projects, LFTF-1 and LFTF-2 would address non-storm water discharges from approximately 88 percent of the watershed:

Identified City of Los Angeles-led Projects		
Project Name	**Project Status**	**Funding Source / Grant Programs Applied to**
Low Flow Treatment Facility #1 (LFTF-1)	Concept Report completed April 2013; Pre-design underway	Clean Beaches Initiative Round I
Low Flow Treatment Facility #2 (LFTF-2)	Concept Report completed July 2013; cost estimate $5.0M	Funding strategy in progress
Del Rey Lagoon Water Quality Improvement Project	Concept Report completed April 2012; cost estimate $2.0M	Prop 84 Storm water Program, Clean Beaches Initiative 2012
McArthur Park Storm water BMP	Concept Report completed March 2010; cost estimate $3.0M	Funding strategy in progress
Westwood Neighborhood Greenway Project	Concept Report completed August 2011; cost estimate $3.2M	Statewide Park Program; City's Prop O Program; Mayor's 50 Pocket Park Program; MTA Call for Project
Rancho Cienega Sports Complex Regional BMP Project	Concept Report completed August 2011; cost estimate $11.8M	Clean Beaches Initiative Round II 2013
Vermont Avenue Storm water BMP Project	Concept Report completed May 2013; cost estimate $4.0M	IRWMP, MTA Call for Project 2013
USC University Park Neighborhood Rain Gardens	Pre-design, 2014; cost estimate $600K	Santa Monica Bay Restoration Commission Prop 84 Grant 2013

35. **Low Flow Treatment Facility #1**: LFTF-1 proposes to divert, treat, and return non-storm water flows in Ballona Creek Reach 2, addressing approximately 70% of the watershed area. The project would construct a low-flow diversion structure within Ballona Creek that would divert all dry-weather flow to a retrofitted wastewater treatment plant (the North Outfall Treatment Facility) for treatment. The proposed treatment system consists of sedimentation, oil and grease removal, and disinfection with sodium hypochlorite followed by dechlorination. Following treatment, the treated dry-weather flow will be returned to

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Ballona Creek Reach 2. Although chlorination-dechlorination has been identified as the preferred disinfection technology, ultraviolet disinfection has also been proposed as an alternative technology. The project has an approved preliminary funding commitment for a $2.5 million grant through the Clean Beaches Initiative Grant Program

36. **Low Flow Treatment Facility #2**: LFTF-2 proposes to divert, treat, and return non-storm water flows in the Sepulveda Channel, addressing approximately 18% of the watershed area. A funding strategy for this project is in progress.

37. Both LFTF-1 and LFTF-2 may require federal authorization under Clean Water Act section 404 and Certification under Clean Water Act section 401. Additionally, the proposed discharge of treated non-storm water flows may require other permits.

38. **Low Flow Diversion to Sanitary Sewer Alternative**: The City of Los Angeles has also indicated that a diversion to the sanitary sewer system at or downstream of the proposed LFTF-1 location could serve as an alternative control measure to comply with dry weather bacteria requirements. The feasibility, costs, benefits, and impacts of such an alternative have not been evaluated.

PROVISIONS

39. California Water Code section 13300 states:

    "Whenever a regional board finds that a discharge of waste is taking place or threatening to take place that violates or will violate requirements prescribed by the regional board, or the state board, or that the waste collection, treatment, or disposal facilities of a discharger are approaching capacity, the board may require the discharger to submit for approval of the board, with such modifications as it may deem necessary, a detailed time schedule of specific actions the discharger shall take in order to correct or prevent a violation of requirements."

40. Based on an evaluation of routine monitoring data, the Permittees' MS4 discharges to Ballona Creek, Ballona Estuary and Sepulveda Channel are not or may not be able to consistently comply with the applicable final water quality-based effluent limitations and corresponding final receiving water limitations for total coliform, fecal coliform, *E. coli* and *enterococcus* in Attachment M of the Los Angeles County MS4 Permit. Accordingly, pursuant to California Water Code section 13300, a discharge of waste is taking place or threatens to take place that violates requirements prescribed by the Los Angeles Water Board.

41. California Water Code section 13385, subdivisions (h) and (i), require the Los Angeles Water Board to impose mandatory minimum penalties upon dischargers that violate certain effluent limitations. Section 13385(j)(3) exempts violations of an effluent limitation from mandatory minimum penalties "where the waste discharge is in compliance with either a cease and desist order issued pursuant to Section 13301 or a time schedule order issued pursuant to Section 13300, *if all of the [specified] requirements are met*" (emphasis added).

42. In accordance with California Water Code section 13385(j)(3), the Los Angeles Water Board finds that: (a) the bacteria water quality-based effluent limitations applicable to the Permittees' MS4 discharges to Ballona Creek, Ballona Estuary and Sepulveda Channel are

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new effluent limitations in the Los Angeles County MS4 Permit, (b) the Permittees need to implement new or modified control measures in order to comply with the bacteria limitations, and (c) the new or modified control measures cannot be designed, installed, and put into operation within 30 calendar days.

43. Since the time schedule for completion of the actions necessary to bring the waste discharge into compliance exceeds one year from the effective date of this TSO, this TSO includes interim requirements and the dates for their achievement. The interim requirements include both interim water quality-based effluent limitations and corresponding interim receiving water limitations for total coliform, fecal coliform, *E. coli* and *enterococcus* and actions and milestones leading to compliance with the final water quality-based effluent limitations and corresponding final receiving water limitations for these pollutants. This TSO does not exceed five years.

44. This TSO establishes interim water quality-based effluent limitations and corresponding interim receiving water limitations for single samples of total coliform, fecal coliform, *E. coli* and *enterococcus* during summer and winter dry weather. This TSO also requires the Permittees to undertake specific actions to control bacteria in their MS4 discharges to Ballona Creek, Ballona Estuary and Sepulveda Channel and to bring the Permittee's MS4 discharges into compliance with the final water quality-based effluent limitations and corresponding final receiving water limitations for total coliform, fecal coliform, *E. coli* and *enterococcus*. The established time schedule is as short as possible, taking into account the technological, operation, and economic factors that affect the design, development, and implementation of the control measures that are necessary to comply with the final water quality-based effluent limitations and corresponding final receiving water limitations for total coliform, fecal coliform, *E. coli* and *enterococcus.*

45. The interim water quality-based effluent limitations and interim receiving water limitations are set equal to the 95th percentile of the annual exceedance days for the summer dry weather period and the 95th percentile of the annual exceedance days for winter dry weather period calculated using monitoring data from November 2009 through March 2014.

46. California Water Code section 13385(j)(3) requires the LACFCD, the County, and the Cities of Los Angeles, Inglewood, Culver City, Beverly Hills and West Hollywood to each prepare and implement a Pollution Prevention Plan (PPP), either individually or collaboratively, pursuant to California Water Code section 13263.3. Pursuant to California Water Code section 13263.3(d)(1)(D), the Los Angeles Water Board has determined that a PPP is necessary for total coliform, fecal coliform, *E. coli* and *enterococcus*.

47. A TSO is appropriate in this circumstance to allow the Permittees the necessary time to undertake actions either individually or collectively to reduce the amount of bacteria discharged from their respective MS4s to Ballona Creek, Ballona Estuary and Sepulveda Channel. The bacteria exceedances temporarily allowed by this TSO are in the public interest given the multiple environmental benefits associated with directing resources toward and promptly achieving compliance with the final dry-weather water quality-based effluent limitations and corresponding receiving water limitations for bacteria through the implementation of multi-benefit BMPs.

48. Full compliance by the Permittees with their respective applicable requirements in this TSO exempts the Permittees from mandatory minimum penalties only for violations of the final

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water quality-based effluent limitations for total coliform, fecal coliform, *E. coli* and *enterococcus* applicable to their MS4 discharges during dry weather to Ballona Creek, Ballona Estuary and Sepulveda Channel as set forth in Attachment M of the Los Angeles County MS4 Permit, pursuant to California Water Code section 13385(j)(3).

49. As long as the Permittees are in compliance with their respective applicable requirements in this TSO, it is not the Los Angeles Water Board's intention to take an enforcement action for violations of the Receiving Water Limitations for bacteria applicable to Ballona Creek, Ballona Estuary or Sepulveda Channel as set forth in Part V.A and Attachment M of the Los Angeles County MS4 Permit.

50. This TSO is being issued for the protection of the environment. Therefore, issuance of this TSO is exempt from the provisions of the California Environmental Quality Act (Public Resources Code section 21100 et seq.) in accordance with sections 15301 and 15321(a)(2) of Title 14 of the California Code of Regulations.

51. The Los Angeles Water Board has notified the Permittees, and interested agencies and persons of its intent to issue this TSO concerning compliance with waste discharge requirements. The Los Angeles Water Board heard and considered all testimony pertinent to this matter in a public hearing.

52. Any person aggrieved by this action of the Los Angeles Board may petition the State Water Resources Control Board (State Water Board) to review the action in accordance with California Water Code section 13320 and California Code of Regulations, title 23, sections 2050 and following. The State Water Board must receive the petition by 5:00 p.m., 30 days after the date of the Los Angeles Water Board action, except that if the thirtieth day following the date action falls on a Saturday, Sunday, or state holiday, the petition must be received by the State Water Board by 5:00 p.m. on the next business day. Copies of the law and regulations applicable to filing petitions may be found on the Internet at http://www.waterboards.ca.gov/public_notices/petitions/water_quality or will be provided upon request.

IT IS HEREBY ORDERED that, pursuant to California Water Code section 13300, the LACFCD, the County, and the Cities of Los Angeles, Beverly Hills, Culver City, Inglewood, and West Hollywood shall comply with their respective applicable requirements listed below to ensure their MS4 discharges during dry weather to Ballona Creek, Ballona Estuary and Sepulveda Channel comply with the final water quality-based effluent limitations during dry weather and do not cause or contribute to exceedances during dry weather of corresponding receiving water limitations for bacteria in the Los Angeles County MS4 Permit (Order No. R4-2012-0175):

1. **Interim Water Quality-Based Effluent Limitations**: From May 14, 2015 to September 30, 2019, the following apply:

   a. The Permittees' MS4 discharges to Ballona Creek Reach 1; Ballona Creek Reach 2; Ballona Creek Reach 1 at the confluence with Reach 2; Benedict Canyon Channel at the confluence with Ballona Creek Reach 2; and Sepulveda Channel shall not collectively exceed the interim water quality-based effluent limitations for fecal coliform (for discharges to Reach 1) and *E. coli* (for discharges to Reach 2, Benedict Canyon Channel and

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Sepulveda Channel) more than the allowable number of exceedance days provided in the table below, on an annual basis (November 1-October 31):

Annual Allowable Exceedance Days of Fresh Water Single Sample Bacteria Water Quality Objectives (Weekly Sampling)	
Discharge Location	Dry-Weather
Ballona Creek Reach 1	12
Ballona Creek Reach 2 (upper)	30
Benedict Canyon Channel at confluence with Ballona Creek Reach 2	30
Sepulveda Channel	48
Ballona Creek Reach 2 (lower)	26

b. The Permittees' MS4 discharges to Ballona Estuary; Ballona Creek Reach 2 at the confluence with Ballona Estuary; and Centinela Creek at the confluence with Ballona Estuary shall not collectively exceed the interim water quality-based effluent limitations for total coliform, fecal coliform, and *enterococcus* more than the allowable number of exceedance days provided in the table below, on an annual basis (November 1-October 31):

Annual Allowable Exceedance Days of Marine Single Sample Bacteria Water Quality Objectives (Weekly Sampling)		
Discharge Location	Summer Dry-Weather (April 1 – October 31)	Winter Dry-Weather (November 1 – March 31)
Ballona Estuary (upper)	33	19
Centinela Creek at confluence with Ballona Estuary	36	18
Ballona Estuary (lower)	8	6

2. **Interim Receiving Water Limitations**: From May 14, 2015 to September 30, 2019, the following apply:

a. The Permittees' MS4 discharges to Ballona Creek Reach 1; Ballona Creek Reach 2; Ballona Creek Reach 1 at the confluence with Reach 2; Benedict Canyon Channel at the confluence with Ballona Creek Reach 2; and Sepulveda Channel shall not collectively cause or contribute to exceedance of the interim receiving water limitations for fecal coliform (at BCB-1) and *E. coli* (at BCB-2 through BCB-5) for each monitoring location more than the allowable number of exceedance days provided in the table below, on an annual basis (November 1-October 31):

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Annual Allowable Exceedance Days of Fresh Water Single Sample Bacteria Water Quality Objectives (Weekly Sampling)	
Compliance Monitoring Location	Dry-Weather
BCB-1 - Ballona Creek Reach 1	12
BCB-2 - Ballona Creek Reach 2 (upper)	30
BCB-3 - Benedict Canyon Channel at confluence with Ballona Creek Reach 2	30
BCB-4 - Sepulveda Channel	48
BCB-5 - Ballona Creek Reach 2 (lower)	26

b. The Permittees' MS4 discharges to Ballona Estuary; Ballona Creek Reach 2 at the confluence with Ballona Estuary; and Centinela Creek at the confluence with Ballona Estuary shall not collectively cause or contribute to exceedance of the interim receiving water limitations for total coliform, fecal coliform, and *enterococcus* for each monitoring location more than the allowable number of exceedance days provided in the table below, on an annual basis (November 1-October 31):

Annual Allowable Exceedance Days of Marine Single Sample Bacteria Water Quality Objectives (Weekly Sampling)		
Compliance Monitoring Location	Summer Dry-Weather (April 1 – October 31)	Winter Dry-Weather (November 1 – March 31)
BCB-6 - Ballona Estuary (upper)	33	19
BCB-7 - Centinela Creek at confluence with Ballona Estuary	36	18
BCB-8 - Ballona Estuary (lower)	8	6

3. The LACFCD, the County, and the Cities of Los Angeles, Beverly Hills, Culver City, Inglewood and West Hollywood shall implement and complete the following watershed control measures according to the schedules below. In addition to completing the items listed under "Scheduled Tasks", the Permittees shall also complete the tasks listed under either Schedule A or Schedule B:

Scheduled Tasks			
Task	**Description**	**Responsible Permittee**	**Completion Date**
Monitor Ballona Creek Watershed	Continue to monitor the Ballona Creek Watershed in accordance with the Coordinated Monitoring Plan and Coordinated Integrated Monitoring Plan to determine compliance.	All Permittees	Ongoing

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Scheduled Tasks			
Submit Feasibility Study for Centinela Creek Project	Submit feasibility study for a Centinela Creek treatment or diversion project at Jefferson Boulevard.	City of Culver City	June 15, 2015
Submit Low Flow Reconnaissance Study	Submit completed report on Low Flow Reconnaissance Study.	~~LACFCD,~~ County	June 15, 2015
Submit PPP	Submit a Pollution Prevention Plan. The PPP shall include ~~the~~ proposed control measures identified in Findings 33 and ~~-~~ ~~34~~ 35-38, ~~and~~ control measures identified based on the results of the Low Flow Reconnaissance Study, and any additional control measures needed to achieve compliance with limitations for bacteria during dry weather. The PPP shall identify interim tasks and associated schedules for task completion for each project.	All Permittees	July 13, 2015
Submit Evaluation of Diversion Alternative	Submit an evaluation of the alternative to construct a diversion to the sanitary sewer system at or downstream of proposed LFTF-1 site.	City of Los Angeles	May 16, 2016
Update PPP	Update PPP, as necessary, based on Evaluation of Diversion Alternative. If diversion to the sanitary sewer (Schedule B) is selected as the recommended alternative, establish, at a minimum, annual subtasks in the updated PPP that include permitting, CEQA, design, and construction of the diversion facility.	All Permittees	July 13, 2016
Select LFTF-1 or Diversion Alternative	Indicate whether the responsible Permittees will complete LFTF-1 (Schedule A) or complete the diversion to sanitary sewer alternative (Schedule B).	All Permittees	July 13, 2016
Complete PPP Subtasks	Complete subtasks outlined in PPP related to control measures identified in Findings 33-34 and control measures identified based on the results of the Low Flow Reconnaissance Study.	All Permittees	As specified in PPP

Schedule A: LFTF-1 (applicable if LFTF-1 is selected alternative)			
Task	**Description**	**Responsible Permittee**	**Completion Date**
LFTF-1 Permitting and CEQA	Obtain all appropriate permits and complete all CEQA requirements for LFTF-1. Submit a status update.	All Permittees	October 1, 2017
LFTF-1 Design	Complete and submit final design and construction schedule for LFTF-1.	All Permittees	April 1, 2018

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Schedule A: LFTF-1 (applicable if LFTF-1 is selected alternative)			
LFTF-1 Construction	Complete construction of LFTF-1.	All Permittees	April 1, 2019
LFTF-1 Completion	Complete post-construction monitoring at LFTF-1. Submit preliminary results of post-construction monitoring.	All Permittees	September 30, 2019

Schedule B: Low Flow Diversion to Sanitary Sewer (applicable if diversion to sanitary sewer is selected alternative)			
Task	**Description**	**Responsible Permittee**	**Completion Date**
Complete Annual Diversion Subtasks	Complete annual subtasks related to permitting, CEQA, design, and construction of the diversion as outlined in the updated PPP.	All Permittees	As specified in PPP
Diversion Project Completion	Complete Diversion to Sanitary Sewer System.	All Permittees	September 30, 2019

4. The Permittees' MS4 discharges to Ballona Creek, Ballona Estuary and Sepulveda Channel shall achieve full compliance with the final water quality-based effluent limitations and shall not cause or contribute to exceedances of corresponding final receiving water limitations for total coliform, fecal coliform, *E. coli*, and *enterococcus* as soon as possible, but no later than September 30, 2019.

5. The Permittees shall submit a Pollution Prevention Plan (PPP), either individually or collaboratively, for bacteria, with a time schedule for implementation, for approval of the Executive Officer no later than July 13, 2015, pursuant to California Water Code section 13263.3(d)(1)(D). Pursuant to California Water Code section 13263.3(d)(2), the PPP shall include, but is not limited to, all of the following:

   a. An analysis of the bacteria discharged from the Permittees' MS4s into Ballona Creek, Ballona Estuary, Sepulveda Channel, Centinela Creek and Benedict Canyon Channel including a description of the sources of the pollutants, and a comprehensive review of the processes and activities that result in the generation and discharge of the pollutants.
   b. An analysis of the potential for pollution prevention to reduce the generation of the bacteria, including the application of innovative and alternative technologies and any adverse environmental impacts resulting from the use of those methods.
   c. A detailed description of the tasks and time schedules required to investigate and implement various elements of pollution prevention techniques.
   d. A statement of the Permittees' pollution prevention goals and strategies, including priorities for short-term and long-term action, as they relate to reducing levels of bacteria in each of their MS4 discharges to Ballona Creek, Ballona Estuary, Sepulveda Channel, Centinela Creek and Benedict Canyon Channel.

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e. A description of the Permittees' existing pollution prevention methods related to reducing levels of bacteria in each of their MS4 discharges to Ballona Creek, Ballona Estuary, Sepulveda Channel, Centinela Creek and Benedict Canyon Channel.
f. An analysis, to the extent feasible, of the relative costs and benefits of the possible pollution prevention activities.
g. A specification of, and rationale for, the technically feasible and economically practicable pollution prevention measures to reduce discharges of bacteria from the Permittees' MS4s to Ballona Creek, Ballona Estuary, Sepulveda Channel, Centinela Creek and Benedict Canyon Channel selected by each Permittee for implementation.

6. The PPP shall also include the proposed projects identified in Findings 33 and 34 above and, for each project, interim tasks and associated schedules for task completion.

7. The PPP shall also include control measures identified based on the results of the Low Flow Reconnaissance Study, and shall include interim tasks and associated schedules for task completion.

8. The PPP shall also include operation and maintenance plans for existing structural BMPs, including low flow diversions, bio-retention filters, and trash excluders (including trash screens installed in catchbasins) implemented to achieve the final water quality-based effluent limitations and corresponding receiving water limitations addressed by this TSO. For future structural BMPs, implemented to achieve the final water quality-based effluent limitations and corresponding receiving water limitations, including those identified in the Time Schedule Order Tasks table above, an operation and maintenance plan shall be developed and submitted to the Los Angeles Water Board within 60 days of project completion.

9. The PPP shall be updated, as necessary, based on the results of the evaluation of the low flow diversion to sanitary sewer alternative. If diversion to the sanitary sewer system is selected as the recommended alternative, the Permittees shall establish, at a minimum, annual subtasks that include permitting, CEQA, design, and construction of the diversion.

10. **Annual Progress Reports**: The Permittees shall submit annual progress reports, either individually or collaboratively, by December 15th of each year of efforts taken by each agency towards achieving compliance with the final water quality-based effluent limitations and achieving corresponding receiving water limitations for bacteria. The reports shall summarize the progress to date, activities conducted during that fiscal year (i.e., July 1-June 30), including a summary and documentation of non-structural BMPs (e.g., street and parking lot sweeping locations and frequency, catchbasin cleaning, restaurant inspections) and structural BMP operation and maintenance activities outlined in the PPP, and the activities planned for the upcoming fiscal year. In the report(s), the Permittees shall each state whether or not they were in compliance with the interim water-quality based effluent limitations and receiving water limitations for bacteria during the reporting period. The first progress report shall be submitted on December 15, 2016, and will cover May 2015 through June 2016. The Permittees may submit progress reports as separate standalone reports or as part of the annual report required under the Los Angeles County MS4 Permit.

11. **Final Report**: The Permittees shall individually or collaboratively submit a final report on the results of their implementation and evaluation of the selected actions/measures by December 15, 2019. The report shall include: a) a description of the actions/measures implemented; b) the monitoring data collected after the implementation of the selected actions/measures

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including treatment process, if any; and c) an evaluation of the effectiveness of the selected actions/measures, including comparison to final water quality-based effluent limitations and receiving water limitations. The Permittees may submit the final report as a separate standalone report or as part of the annual report required under the Los Angeles County MS4 Permit.

12. All technical and monitoring reports required under this TSO are required pursuant to California Water Code sections 13267 and 13383. The Los Angeles Water Board needs the required information in order to determine compliance with this TSO and the Los Angeles County MS4 Permit. The Los Angeles Water Board believes that the burdens, including costs, of these reports bear a reasonable relationship to the needs for the reports and the benefits to be obtained from the reports.

13. Any person signing a document submitted under this TSO shall make the following certification:

    "I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

14. If any of the identified Permittees fail to comply with any provision applicable to that agency in this TSO, the Los Angeles Water Board may take any further action authorized by law against the agency that is out of compliance. The Executive Officer, or his/her delegee, is authorized to take appropriate enforcement action pursuant, but not limited to, California Water Code sections 13350 and 13385. The Los Angeles Water Board may also refer any violations to the Attorney General for judicial enforcement, including injunction and civil monetary remedies.

15. All other provisions of the Los Angeles County MS4 Permit (Order No. R4-2012-0175) not in conflict with this TSO are in full force and effect.

16. The Los Angeles Water Board may reopen this TSO at its discretion or at the request of any of the identified Permittees, if warranted. Lack of progress towards compliance with the applicable final water quality-based effluent limitations and receiving water limitations addressed by this TSO may be cause for the Los Angeles Water Board to modify the conditions of this TSO.

17. This TSO becomes effective immediately upon adoption by the Los Angeles Water Board. This TSO expires on December 15, 2019.

I, Samuel Unger, Executive Officer, do hereby certify that the foregoing is a full, true and correct copy of an order adopted by the California Regional Water Quality Control Board, Los Angeles Region, on May 14, 2015.

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Samuel Unger
Executive Officer

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