ATTACHMENT O – TMDLS IN THE SANTA MONICA BAY WATERSHED MANAGEMENT AREA

I. SANTA MONICA BAY BEACHES BACTERIA TMDL

A. Permittees subject to the provisions below are identified in Attachment J, Tables J-6 and J-7.

B. Water Quality-Based Effluent Limitations

1. Permittees shall comply with the following water quality-based effluent limitations for discharges to Santa Monica Bay. Permittees shall comply with daily maximum limitations and geometric mean limitations as of the effective date of the Order.

Constituent	Effluent Limitations (MPN or cfu)	
	Daily Maximum	Geometric Mean
Total coliform[1]	10,000/100 mL	1,000/100 mL
Fecal coliform	400/100 mL	200/100 mL
Enterococcus	104/100 mL	35/100 mL

2. Subpart 1 above shall not be applicable upon the effective date of the revised Santa Monica Bay Beaches Bacteria TMDL (Attachment A to Resolution No. R21-001).

3. Upon the effective date of the revised Santa Monica Bay Beaches Bacteria TMDL (SMB Bacteria TMDL), Permittees shall comply with the following water quality-based effluent limitations for discharges to Santa Monica Bay. Permittees shall comply with daily maximum limitations during dry weather as of the effective date of the revised SMB Bacteria TMDL. Permittees shall comply with daily maximum limitations during wet weather and geometric mean limitations no later than the date listed in Table O - 3 for outfalls that discharge to the sub-drainage area for each corresponding beach monitoring location.

Constituent	Effluent Limitations (MPN or cfu)	
	Daily Maximum	Geometric Mean
Total coliform[2]	10,000/100 mL	1,000/100 mL
Fecal coliform	400/100 mL	200/100 mL
Enterococcus	104/100 mL	35/100 mL

C. Receiving Water Limitations

1. Permittees in each defined jurisdictional group shall achieve a 50% reduction from the total wet weather exceedance-day reduction required for the group of beach monitoring locations where there is a freshwater outlet (i.e., MS4 outfall or creek), as identified in Table O - 1, as of the effective date of the Order.

[1] 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.

[2] 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.

2. Permittees shall comply with the grouped[3] single sample bacteria receiving water limitations for all shoreline monitoring locations along Santa Monica Bay beaches where there is a freshwater outlet (i.e., MS4 outfall or creek), as identified in Table O - 2, as of the effective date of the Order.

3. Permittees shall comply with the following geometric mean receiving water limitations for all shoreline monitoring locations along Santa Monica Bay beaches where there is a freshwater outlet (i.e., MS4 outfall or creek), as listed in Table O - 2, calculated weekly as a rolling geometric mean using five or more samples, for six-week periods starting all calculation weeks on Sunday, as of the effective date of the Order:

Constituent	**Geometric Mean (MPN or cfu)**
Total coliform	1,000/100 mL
Fecal coliform	200/100 mL
Enterococcus	35/100 mL

4. Subparts 2 and 3 above shall not be applicable upon the effective date of the revised Santa Monica Bay Beaches Bacteria TMDL (Attachment A to Resolution No. R21-001).

5. Upon the effective date of the revised SMB Bacteria TMDL, Permittees shall comply with the grouped[4] single sample bacteria receiving water limitations, as identified in Table O - 3, for all shoreline monitoring locations along Santa Monica Bay beaches where there is a freshwater outlet (i.e., MS4 outfall or creek), during dry weather as of the effective date of the revised SMB Bacteria TMDL and during wet weather no later than the date listed in Table O - 3 for each monitoring location.

6. Upon the effective date of the revised SMB Bacteria TMDL, Permittees shall comply with the following geometric mean receiving water limitations for all shoreline monitoring locations along Santa Monica Bay beaches where there is a freshwater outlet (i.e., MS4 outfall or creek), as listed in Table O - 3, calculated weekly as a rolling geometric mean using five or more samples, for six-week periods starting all calculation weeks on Sunday, no later than the date listed in Table O - 3 for each monitoring location:

Constituent	**Geometric Mean (MPN or cfu)**
Total coliform	1,000/100 mL
Fecal coliform	200/100 mL
Enterococcus	35/100 mL

[3] The receiving water limitations are group-based and shared among all MS4 Permittees, which includes Caltrans, located within the sub-drainage area to each beach monitoring location.

[4] The receiving water limitations are group-based and shared among all MS4 Permittees, which includes Caltrans, located within the sub-drainage area to each beach monitoring location.

Table O - 1. Interim Wet Weather Single Sample Bacteria Receiving Water Limitations by Jurisdictional Group

Jurisdictional Group	Primary Jurisdiction	Additional Responsible Jurisdictions & Agencies[5]	Subwatershed(s)	Monitoring Location(s)[6]	Interim Single Sample Bacteria Receiving Water Limitations as Maximum Allowable Exceedance Days During Wet Weather[7] (50% Reduction Milestone)
1	County of Los Angeles	Malibu City of Los Angeles (Topanga only) Calabasas (Topanga only)	Arroyo Sequit	SMB 1-1	103
			Carbon Canyon	SMB 1-13	
			Corral Canyon	SMB 1-11, SMB 1-12, SMB O-2	
			Escondido Canyon	SMB 1-8	
			Las Flores Canyon	SMB 1-14	
			Latigo Canyon	SMB 1-9	
			Pena Canyon	SMB 1-16	
			Ramirez Canyon	SMB 1-6, SMB 1-7	
			Solstice Canyon	SMB 1-10	
			Topanga Canyon	SMB 1-18	
			Trancas Canyon	SMB 1-4	
			Tuna Canyon	SMB 1-17	
			Zuma Canyon	SMB 1-5	

[5] The California Department of Transportation (Caltrans) is a responsible agency in each Jurisdiction Group and is jointly responsible for complying with the allowable number of exceedance days. Caltrans is separately regulated under the Statewide Storm Water Permit for State of California Department of Transportation (NPDES No. CAS000003)

[6] The beach monitoring locations SMB O-2, SMB 1-16, SMB 1-17, SMB 4-1, SMB 5-3, and SMB 6-5 are subject to the antidegradation provision. Therefore, there shall be no increase in exceedance days during the implementation period above that estimated for the beach monitoring location in the critical year as identified in Table O - 2 or Table O - 3, as applicable.

[7] For monitoring locations sampled weekly instead of daily, the allowable interim wet weather exceedance days were scaled accordingly.

Jurisdictional Group	Primary Jurisdiction	Additional Responsible Jurisdictions & Agencies[5]	Subwatershed(s)	Monitoring Location(s)[6]	Interim Single Sample Bacteria Receiving Water Limitations as Maximum Allowable Exceedance Days During Wet Weather[7] (50% Reduction Milestone)
2	City of Los Angeles	County of Los Angeles El Segundo (Dockweiler only) Santa Monica	Castlerock	SMB 2-1	91
			Dockweiler	SMB 2-10, SMB 2-11, SMB 2-13, SMB 2-15	
			Pulga Canyon	SMB 2-4, SMB 2-5	
			Santa Monica Canyon	SMB 2-7	
			Santa Ynez Canyon	SMB 2-2, SMB 2-6	
3	Santa Monica	City of Los Angeles County of Los Angeles	Santa Monica	SMB 3-1, SMB 3-2, SMB 3-3, SMB 3-4, SMB 3-5, SMB 3-6, SMB 3-7, SMB 3-8	124
4	Malibu	County of Los Angeles	Nicholas Canyon	SMB 4-1	4
5	Manhattan Beach	El Segundo Hermosa Beach County of Los Angeles Redondo Beach	Hermosa	SMB 5-2, SMB 5-3	32

Jurisdictional Group	Primary Jurisdiction	Additional Responsible Jurisdictions & Agencies[5]	Subwatershed(s)	Monitoring Location(s)[6]	Interim Single Sample Bacteria Receiving Water Limitations as Maximum Allowable Exceedance Days During Wet Weather[7] (50% Reduction Milestone)
6	Redondo Beach	Hermosa Beach Manhattan Beach Torrance County of Los Angeles	Redondo	SMB 6-1, SMB 6-3, SMB 6-5	41
9	County of Los Angeles	County of Ventura Thousand Oaks Agoura Hills Calabasas Westlake Village Malibu Hidden Hills	Malibu	SMB MC-2	N/A

Table O - 2. Allowable Number of Days that may Exceed Single Sample Bacteria Receiving Water Limitations

Station ID[8]	Beach Monitoring Location	Annual Allowable Exceedance Days of the Single Sample Objectives[9]					
		Winter Dry Weather (November 1 – March 31)		Summer Dry Weather (April 1 – October 31)		Wet Weather[10] (November 1 – October 31)	
		Daily Sampling	Weekly Sampling	Daily Sampling	Weekly Sampling	Daily Sampling	Weekly Sampling
SMB 1-1	Leo Carrillo State Beach	9	2	0	0	17	3
SMB 1-4	Trancas Creek	9	2	0	0	17	3
SMB 1-5	Zuma Creek	9	2	0	0	17	3
SMB 1-6	Walnut Creek	9	2	0	0	17	3
SMB 1-7	Ramirez Creek	9	2	0	0	17	3
SMB 1-8	Escondido Creek	9	2	0	0	17	3
SMB 1-9	Latigo Canyon Creek	9	2	0	0	17	3
SMB 1-10	Solstice Canyon Creek	5	1	0	0	17	3
SMB 1-11	Corral Canyon Creek	9	2	0	0	17	3
SMB O-2	Puerco Canyon Storm Drain	0	0	0	0	6	1
SMB 1-12	Marie Canyon Storm Drain	9	2	0	0	17	3
SMB MC-2	Breach Point of Malibu Lagoon	9	2	0	0	17	3
SMB 1-13	Sweetwater Creek	9	2	0	0	17	3

[8] The beach monitoring locations SMB 1-10, SMB O-2, SMB 1-14, SMB 1-16, SMB 1-17, SMB 2-11, SMB 2-13, SMB 3-6, SMB 4-1, SMB 5-3, SMB 6-3. and SMB 6-5 are subject to the antidegradation provision. Therefore, there shall be no increase in exceedance days during the implementation period above that estimated for the beach monitoring location in the critical year as identified in this Table.

[9] The single sample objectives are equivalent to the daily maximum values listed in subpart B.1 above.

[10] Wet weather is defined as days with 0.1 inch of rain or greater and the three days following the rain event.

Station ID[8]	Beach Monitoring Location	Annual Allowable Exceedance Days of the Single Sample Objectives[9]					
		Winter Dry Weather (November 1 – March 31)		Summer Dry Weather (April 1 – October 31)		Wet Weather[10] (November 1 – October 31)	
		Daily Sampling	Weekly Sampling	Daily Sampling	Weekly Sampling	Daily Sampling	Weekly Sampling
SMB 1-14	Las Flores Creek	6	1	0	0	17	3
SMB 1-16	Pena Creek	3	1	0	0	14	2
SMB 1-17	Tuna Canyon Creek	7	1	0	0	12	2
SMB 1-18	Topanga Canyon Creek	9	2	0	0	17	3
SMB 2-1	Castlerock (Parker Mesa) Storm Drain	9	2	0	0	17	3
SMB 2-2	Santa Ynez Storm Drain	9	2	0	0	17	3
SMB 2-4	Pulga Canyon Storm Drain	9	2	0	0	17	3
SMB 2-5	Bay Club Storm Drain	9	2	0	0	17	3
SMB 2-6	Temescal Canyon Storm Drain	9	2	0	0	17	3
SMB 2-7	Santa Monica Canyon	9	2	0	0	17	3
SMB 2-10	Culver Boulevard Storm Drain	9	2	0	0	17	3
SMB 2-11	North Westchester Storm Drain	0	0	0	0	17	3
SMB 2-13	Imperial Highway Storm Drain	4	1	0	0	17	3
SMB 2-15	Grand Avenue Storm Drain	9	2	0	0	17	3
SMB 3-1	Montana Avenue Storm Drain	9	2	0	0	17	3
SMB 3-2	Wilshire Boulevard Storm Drain	9	2	0	0	17	3
SMB 3-3	Santa Monica Pier Storm Drain	9	2	0	0	17	3

Station ID[8]	Beach Monitoring Location	Annual Allowable Exceedance Days of the Single Sample Objectives[9]					
		Winter Dry Weather (November 1 – March 31)		Summer Dry Weather (April 1 – October 31)		Wet Weather[10] (November 1 – October 31)	
		Daily Sampling	Weekly Sampling	Daily Sampling	Weekly Sampling	Daily Sampling	Weekly Sampling
SMB 3-4	Pico-Kenter Storm Drain	9	2	0	0	17	3
SMB 3-5	Ashland Avenue Storm Drain	9	2	0	0	17	3
SMB 3-6	Rose Avenue Storm Drain	6	1	0	0	17	3
SMB 3-7	Brooks Avenue Storm Drain	9	2	0	0	17	3
SMB 3-8	Windward Avenue Storm Drain	9	2	0	0	17	3
SMB 4-1	San Nicholas Canyon Creek	4	1	0	0	14	2
SMB 5-2	28th Street Storm Drain	9	2	0	0	17	3
SMB 5-3	Manhattan Beach Pier southern Storm Drain	3	1	0	0	6	1
SMB 6-1	Herondo Storm Drain	9	2	0	0	17	3
SMB 6-3	Sapphire Street Storm Drain	5	1	0	0	17	3
SMB 6-5	Avenue I Storm Drain	4	1	0	0	11	2

Table O - 3. Allowable Number of Days that may Exceed Single Sample Bacteria Receiving Water Limitations

Station ID[11]	Beach Monitoring Location	Annual Allowable Exceedance Days of the Single Sample Objectives[12]						
		Winter Dry Weather (November 1 – March 31)		Summer Dry Weather (April 1 – October 31)		Wet Weather[13] (November 1 – October 31)		
		Daily Sampling	Weekly Sampling	Daily Sampling	Weekly Sampling	Daily Sampling	Weekly Sampling	Deadline
SMB 1-1	Leo Carrillo State Beach	9	2	0	0	17	3	7/15/2024
SMB 1-4	Trancas Creek	9	2	0	0	17	3	7/15/2024
SMB 1-5	Zuma Creek	9	2	0	0	17	3	7/15/2024
SMB 1-6	Walnut Creek	9	2	0	0	17	3	7/15/2024
SMB 1-7	Ramirez Creek	9	2	0	0	17	3	7/15/2024
SMB 1-8	Escondido Creek	9	2	0	0	17	3	7/15/2024
SMB 1-9	Latigo Canyon Creek	9	2	0	0	17	3	7/15/2024
SMB 1-10	Solstice Canyon Creek	5	1	0	0	17	3	7/15/2024
SMB 1-11	Corral Canyon Creek	9	2	0	0	17	3	7/15/2024
SMB O-2	Puerco Canyon Storm Drain	0	0	0	0	6	1	7/15/2021
SMB 1-12	Marie Canyon Storm Drain	9	2	0	0	17	3	7/15/2024
SMB MC-2	Breach Point of Malibu Lagoon	9	2	0	0	17	3	7/15/2024
SMB 1-13	Sweetwater Creek	9	2	0	0	17	3	7/15/2024

[11] The beach monitoring locations SMB 1-10, SMB O-2, SMB 1-14, SMB 1-16, SMB 1-17, SMB 2-11, SMB 2-13, SMB 3-6, SMB 4-1, SMB 5-3, SMB 6-3. and SMB 6-5 are subject to the antidegradation provision. Therefore, there shall be no increase in exceedance days during the implementation period above that estimated for the beach monitoring location in the critical year as identified in this Table.

[12] The single sample objectives are equivalent to the daily maximum values listed in subpart B.3 above.

[13] Wet weather is defined as days with 0.1 inch of rain or greater and the three days following the rain event.

Station ID[11]	Beach Monitoring Location	Annual Allowable Exceedance Days of the Single Sample Objectives[12]						
		Winter Dry Weather (November 1 – March 31)		Summer Dry Weather (April 1 – October 31)		Wet Weather[13] (November 1 – October 31)		
		Daily Sampling	Weekly Sampling	Daily Sampling	Weekly Sampling	Daily Sampling	Weekly Sampling	Deadline
SMB 1-14	Las Flores Creek	6	1	0	0	17	3	7/15/2024
SMB 1-16	Pena Creek	3	1	0	0	14	2	7/15/2021
SMB 1-17	Tuna Canyon Creek	7	1	0	0	12	2	7/15/2021
SMB 1-18	Topanga Canyon Creek	9	2	0	0	17	3	7/15/2024
SMB 2-1	Castlerock (Parker Mesa) Storm Drain	9	2	0	0	17	3	7/15/2026
SMB 2-2	Santa Ynez Storm Drain	9	2	0	0	17	3	7/15/2026
SMB 2-4	Pulga Canyon Storm Drain	9	2	0	0	17	3	7/15/2026
SMB 2-5	Bay Club Storm Drain	9	2	0	0	17	3	7/15/2026
SMB 2-6	Temescal Canyon Storm Drain	9	2	0	0	17	3	7/15/2026
SMB 2-7	Santa Monica Canyon	9	2	0	0	17	3	7/15/2026
SMB 2-10	Culver Boulevard Storm Drain	9	2	0	0	17	3	7/15/2026
SMB 2-11	North Westchester Storm Drain	0	0	0	0	17	3	7/15/2026
SMB 2-13	Imperial Highway Storm Drain	4	1	0	0	17	3	7/15/2026
SMB 2-15	Grand Avenue Storm Drain	9	2	0	0	17	3	7/15/2026
SMB 3-1	Montana Avenue Storm Drain	9	2	0	0	17	3	7/15/2026

Station ID[11]	Beach Monitoring Location	Annual Allowable Exceedance Days of the Single Sample Objectives[12]						
		Winter Dry Weather (November 1 – March 31)		Summer Dry Weather (April 1 – October 31)		Wet Weather[13] (November 1 – October 31)		
		Daily Sampling	Weekly Sampling	Daily Sampling	Weekly Sampling	Daily Sampling	Weekly Sampling	Deadline
SMB 3-2	Wilshire Boulevard Storm Drain	9	2	0	0	17	3	7/15/2026
SMB 3-3	Santa Monica Pier Storm Drain	9	2	0	0	17	3	7/15/2026
SMB 3-4	Pico-Kenter Storm Drain	9	2	0	0	17	3	7/15/2026
SMB 3-5	Ashland Avenue Storm Drain	9	2	0	0	17	3	7/15/2026
SMB 3-6	Rose Avenue Storm Drain	6	1	0	0	17	3	7/15/2026
SMB 3-7	Brooks Avenue Storm Drain	9	2	0	0	17	3	7/15/2026
SMB 3-8	Windward Avenue Storm Drain	9	2	0	0	17	3	7/15/2026
SMB 4-1	San Nicholas Canyon Creek	4	1	0	0	14	2	7/15/2021
SMB 5-2	28th Street Storm Drain	9	2	0	0	17	3	7/15/2024
SMB 5-3	Manhattan Beach Pier southern Storm Drain	3	1	0	0	6	1	7/15/2021
SMB 6-1	Herondo Storm Drain	9	2	0	0	17	3	7/15/2024
SMB 6-3	Sapphire Street Storm Drain	5	1	0	0	17	3	7/15/2024
SMB 6-5	Avenue I Storm Drain	4	1	0	0	11	2	7/15/2021

II. SANTA MONICA BAY NEARSHORE AND OFFSHORE DEBRIS TMDL

A. Permittees subject to the provisions below are identified in Attachment J, Table J-6.

B. Permittees, except for the City of Manhattan Beach, shall comply with the water quality-based effluent limitation of zero trash discharged to waterbodies within the Santa Monica Bay Watershed Management Area (WMA), into Santa Monica Bay and on the shoreline of Santa Monica Bay as of the effective date of the Order and every water year thereafter.

C. The City of Manhattan Beach shall comply with the final water quality-based effluent limitation of zero trash discharged to waterbodies within the Santa Monica Bay WMA, into Santa Monica Bay and on the shoreline of Santa Monica Bay no later than March 20, 2023, and every water year thereafter.

D. The City of Manhattan Beach shall comply with interim and final water quality-based effluent limitations for trash discharged to waterbodies within the Santa Monica Bay WMA, into Santa Monica Bay or on the shoreline of Santa Monica Bay, per the schedule below:

Permittee	Annual Trash Discharge (gals/yr)	
	Effective Date of the Order	March 20, 2023[14]
Manhattan Beach	500	0

E. Subparts B, C and D above shall not be applicable upon the effective date of the revised Santa Monica Bay Nearshore and Offshore Debris TMDL (Attachment A to Resolution No. R19-004).

F. Upon the effective date of the revised Santa Monica Bay Nearshore and Offshore Debris TMDL (SMB Debris TMDL), Permittees, except for the Cities of Hermosa Beach, Malibu and Manhattan Beach, shall comply with the water quality-based effluent limitation of zero trash discharged to waterbodies within the Santa Monica Bay Watershed Management Area (WMA), into Santa Monica Bay and on the shoreline of Santa Monica Bay as of the effective date of the revised SMB Debris TMDL and every water year thereafter.

G. Upon the effective date of the revised SMB Debris TMDL, the Cities of Hermosa Beach, Malibu and Manhattan Beach shall comply with the final water quality-based effluent limitation of zero trash discharged to waterbodies within the Santa Monica Bay WMA, into Santa Monica Bay and on the shoreline of Santa Monica Bay no later than March 20, 2023, and every water year thereafter.

H. Upon the effective date of the revised SMB Debris TMDL, the Cities of Hermosa Beach, Malibu and Manhattan Beach shall comply with interim and final water quality-based effluent limitations for trash discharged to waterbodies within the Santa Monica Bay WMA, into Santa Monica Bay and on the shoreline of Santa Monica Bay, per the schedule below:

[14] The City of Manhattan Beach shall achieve the final effluent limitation of zero trash discharged for the 2022-2023 water year and every year thereafter.

Permittees	Annual Trash Discharge (gals/yr)	
	Effective Date of the Revised SMB Debris TMDL	March 20, 2023[15]
Hermosa Beach	223	0
Malibu	1,162	0
Manhattan Beach	500	0

I. Permittees shall comply with the interim and final water quality-based effluent limitations for trash per the provisions in Part IV.B.3 of the Order.

III. SANTA MONICA BAY TMDLS FOR DDTS AND PCBS

A. Permittees subject to the provisions below are identified in Attachment J, Table J-6.

B. Permittees shall comply with the following grouped[16] water quality-based effluent limitations expressed as an annual loading of sediment-bound pollutants discharged to Santa Monica Bay as of the effective date of the Order:

Constituent	Annual Effluent Limitations (g/yr)
Total DDTs	27.08
Total PCBs	140.25

C. Compliance with subpart B above shall be determined based on a three-year averaging period.

D. Los Angeles County MS4 Permittees shall design a monitoring program to provide credible annual estimates of the total mass loading of total DDTs and total PCBs to Santa Monica Bay.

IV. TMDLS IN THE MALIBU CREEK SUBWATERSHED

A. Malibu Creek and Lagoon Bacteria TMDL

1. Permittees subject to the provisions below are identified in Attachment J, Table J-6.

2. Water Quality-Based Effluent Limitations

a. Permittees shall comply with the following water quality-based effluent limitations for discharges to Malibu Lagoon. Permittees shall comply with daily maximum limitations and geometric mean limitations as of the effective date of the Order.

[15] The cities of Hermosa Beach, Malibu and Manhattan Beach shall achieve the final effluent limitation of zero trash discharged for the 2022-2023 water year and every year thereafter.

[16] The effluent limitations are group-based and shared among all Los Angeles County MS4 Permittees within the Santa Monica Bay Watershed.

Constituent	Effluent Limitations (MPN or cfu)	
	Daily Maximum	Geometric Mean
Total coliform[17]	10,000/100 mL	1,000/100 mL
Fecal coliform	400/100 mL	200/100 mL
Enterococcus	104/100 mL	35/100 mL

b. Permittees shall comply with the following water quality-based effluent limitations for discharges to Malibu Creek and its tributaries. Permittees shall comply with daily maximum limitations and geometric mean limitations as of the effective date of the Order.

Constituent	Effluent Limitation (MPN or cfu)	
	Daily Maximum	Geometric Mean
E. coli	235/100 mL	126/100 mL

c. Subparts a and b above shall not be applicable upon the effective date of the revised Malibu Creek and Lagoon Bacteria TMDL (Attachment C to Resolution No. R21-001).

d. Upon the effective date of the revised Malibu Creek and Lagoon Bacteria TMDL (Malibu Creek Bacteria TMDL), Permittees shall comply with the following water quality-based effluent limitations for discharges to Malibu Lagoon. Permittees shall comply with daily maximum limitations during dry weather as of the effective date of the revised Malibu Creek Bacteria TMDL and during wet weather no later than July 15, 2026. Permittees shall comply with geometric mean limitations no later than July 15, 2026.

Constituent	Effluent Limitations (MPN or cfu)	
	Daily Maximum	Geometric Mean
Total coliform[18]	10,000/100 mL	1,000/100 mL
Fecal coliform	400/100 mL	200/100 mL
Enterococcus	104/100 mL	35/100 mL

e. Upon the effective date of the revised Malibu Creek Bacteria TMDL, Permittees shall comply with the following water quality-based effluent limitations for discharges to Malibu Creek and its tributaries. Permittees shall comply with daily maximum limitations during dry weather as of the effective date of the revised Malibu Creek Bacteria TMDL and during wet weather no later than July 15, 2026. Permittees shall comply with geometric mean limitations no later than July 15, 2026.

[17] 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.

[18] 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.

Constituent	Effluent Limitation (MPN or cfu)	
	Daily Maximum	Geometric Mean
E. coli	235/100 mL	126/100 mL

3. Receiving Water Limitations

a. Permittees shall comply with the following grouped[19] single sample bacteria receiving water limitations at each monitoring location in Malibu Lagoon south of Pacific Coast Highway as of the effective date of the Order:

Time Period	Annual Allowable Exceedance Days of the Single Sample Objectives[20]	
	Daily Sampling	Weekly Sampling
Winter Dry-Weather (November 1 to March 31)	9	2
Summer Dry-Weather (April 1 to October 31)	0	0
Wet Weather[21] (November 1 to October 31)	17	3

b. Permittees shall comply with the following grouped[22] single sample bacteria receiving water limitations at each monitoring location in Malibu Lagoon north of Pacific Coast Highway, Malibu Creek and its tributaries as of the effective date of the Order:

Time Period	Annual Allowable Exceedance Days of the Single Sample Objective[23]	
	Daily Sampling	Weekly Sampling
Dry-Weather (November 1 to October 31)	5	1
Wet Weather[24] (November 1 to October 31)	15	2

c. Permittees shall comply with the following geometric mean receiving water limitations for monitoring locations in Malibu Lagoon, calculated weekly as a rolling geometric mean using five or more samples, for six-week periods starting all calculation weeks on Sunday, as of the effective date of the Order:

[19] The receiving water limitations are group-based and shared among all MS4 Permittees, which includes Caltrans, located within the sub-drainage area to each receiving water monitoring location.
[20] The single sample objectives are equivalent to the daily maximum values listed in subpart A.2.a above.
[21] Wet weather is defined as days with 0.1 inch of rain or greater and the three days following the rain event.
[22] The receiving water limitations are group-based and shared among all MS4 Permittees, which includes Caltrans, located within the sub-drainage area to each receiving water monitoring location.
[23] The single sample objectives are equivalent to the daily maximum values listed in subpart A.2.a above for Malibu Lagoon and subpart A.2.b above for Malibu Creek and its tributaries.
[24] Wet weather is defined as days with 0.1 inch of rain or greater and the three days following the rain event.

Constituent	Geometric Mean (MPN or cfu)
Total coliform	1,000/100 mL
Fecal coliform	200/100 mL
Enterococcus	35/100 mL

d. Permittees shall comply with the following geometric mean receiving water limitations for monitoring locations in Malibu Creek and its tributaries, calculated weekly as a rolling geometric mean using five or more samples, for six-week periods starting all calculation weeks on Sunday, as of the effective date of the Order:

Constituent	Geometric Mean (MPN or cfu)
E. coli	126/100 mL

e. Subparts a through d above shall not be applicable upon the effective date of the revised Malibu Creek and Lagoon Bacteria TMDL (Attachment C to Resolution No. R21-001).

f. Upon the effective date of the revised Malibu Creek Bacteria TMDL, Permittees shall comply with the following grouped[25] single sample bacteria receiving water limitations at each monitoring location in Malibu Lagoon south of Pacific Coast Highway during dry weather as of the effective date of the revised Malibu Creek Bacteria TMDL and during wet weather no later than July 15, 2026:

Time Period	Annual Allowable Exceedance Days of the Single Sample Objectives[26]	
	Daily Sampling	Weekly Sampling
Winter Dry-Weather (November 1 to March 31)	9	2
Summer Dry-Weather (April 1 to October 31)	0	0
Wet Weather[27] (November 1 to October 31)	17	3

g. Upon the effective date of the revised Malibu Creek Bacteria TMDL, Permittees shall comply with the following grouped[28] single sample bacteria receiving water limitations at each monitoring location in Malibu Lagoon north of Pacific Coast Highway, Malibu Creek and its tributaries during dry weather as of the effective date of the revised Malibu Creek Bacteria TMDL and during wet weather no later than July 15, 2026:

[25] The receiving water limitations are group-based and shared among all MS4 Permittees, which includes Caltrans, located within the sub-drainage area to each receiving water monitoring location.
[26] The single sample objectives are equivalent to the daily maximum values listed in subpart A.2.d above.
[27] Wet weather is defined as days with 0.1 inch of rain or greater and the three days following the rain event.
[28] The receiving water limitations are group-based and shared among all MS4 Permittees, which includes Caltrans, located within the sub-drainage area to each receiving water monitoring location.

Time Period	Annual Allowable Exceedance Days of the Single Sample Objective[29]	
	Daily Sampling	Weekly Sampling
Dry-Weather (November 1 to October 31)	5	1
Wet Weather[30] (November 1 to October 31)	15	2

h. Upon the effective date of the revised Malibu Creek Bacteria TMDL, Permittees shall comply with the following geometric mean receiving water limitations for monitoring locations in Malibu Lagoon, calculated weekly as a rolling geometric mean using five or more samples, for six-week periods starting all calculation weeks on Sunday, no later than July 15, 2026:

Constituent	Geometric Mean (MPN or cfu)
Total coliform	1,000/100 mL
Fecal coliform	200/100 mL
Enterococcus	35/100 mL

i. Upon the effective date of the revised Malibu Creek Bacteria TMDL, Permittees shall comply with the following geometric mean receiving water limitations for monitoring locations in Malibu Creek and its tributaries, calculated weekly as a rolling geometric mean using five or more samples, for six-week periods starting all calculation weeks on Sunday, no later than July 15, 2026:

Constituent	Geometric Mean (MPN or cfu)
E. coli	126/100 mL

B. Malibu Creek Watershed Trash TMDL

1. Permittees subject to the provisions below are identified in Attachment J, Table J-6.

2. Permittees shall comply with the water quality-based effluent limitations for trash per the provisions in Part IV.B.3 of the Order.

3. Permittees shall comply with the water quality-based effluent limitation of zero trash discharged from priority land use areas, as defined in Attachment A of the Order, to Malibu Creek, Malibu Lagoon, Malibou Lake, Medea Creek, Lindero Creek, Lake Lindero, and Las Virgenes Creek in the Malibu Creek Watershed as of the effective date of the Order and every water year thereafter.

C. Malibu Creek Watershed Nutrients TMDL

1. Permittees subject to the provisions below are identified in Attachment J, Table J-6.

2. Water Quality-Based Effluent Limitations for Los Angeles County

[29] The single sample objectives are equivalent to the daily maximum values listed in subpart A.2.d above for Malibu Lagoon and subpart A.2.e above for Malibu Creek and its tributaries.

[30] Wet weather is defined as days with 0.1 inch of rain or greater and the three days following the rain event.

a. Los Angeles County Permittees shall comply with the following grouped[31] interim water quality-based effluent limitations for discharges to waterbodies in the Malibu Creek Watershed, as of the effective date of the Order:

Constituent	Effluent Limitations	
	Summer (April 15 to November 15)	**Winter (November 16 to April 14)**
	Daily Load	**Seasonal Average**
Nitrate as Nitrogen plus Nitrite as Nitrogen	8.0 lbs/day	8.0 mg/L
Total Phosphorus	0.8 lbs/day	N/A

b. Los Angeles County Permittees above Malibou Lake shall comply with the following grouped[32] final water quality-based effluent limitations for discharges to waterbodies in the subwatersheds of Cheeseboro Creek; Hidden Valley Creek; Lindero Creek; Medea Creek; Palo Comado Creek; Potrero Canyon Creek; Triunfo Creek; and Westlake no later than December 28, 2021.

Constituent	Effluent Limitations	
	Summer (April 15 to November 15)	**Winter (November 16 to April 14)**
	Daily Load	**Season Average**
Nitrate as Nitrogen plus Nitrite as Nitrogen	1.6 lbs/day	8.0 mg/L
Total Phosphorus	0.16 lbs/day	N/A

c. Subpart b above shall not be applicable upon the effective date of the revised Implementation Plan for the U.S. EPA-Established Malibu Creek Nutrients TMDL and the U.S. EPA-Established Malibu Creek and Lagoon Sedimentation and Nutrients TMDL to Address Benthic Community Impairments (Implementation Plan for Malibu Creek Nutrients and Sedimentation TMDLs) (Attachment H to Resolution No. R21-001).

d. Upon the effective date of the revised Implementation Plan for Malibu Creek Nutrients and Sedimentation TMDLs, Los Angeles County Permittees above Malibou Lake shall comply with the following grouped[33] final water quality-based effluent limitations for discharges to waterbodies in the subwatersheds of Cheeseboro Creek; Hidden Valley Creek; Lindero Creek; Medea Creek; Palo Comado Creek; Potrero Canyon Creek; Triunfo Creek; and Westlake no later than July 15, 2026.

[31] The effluent limitations are group-based and shared among all Los Angeles County MS4 Permittees located within the Malibu Creek Watershed.

[32] The effluent limitations are group-based and shared among all Los Angeles County MS4 Permittees located within the subwatersheds of Cheeseboro Creek; Hidden Valley Creek; Lindero Creek; Medea Creek; Palo Comado Creek; Potrero Canyon Creek; Triunfo Creek; and Westlake.

[33] The effluent limitations are group-based and shared among all Los Angeles County MS4 Permittees located within the subwatersheds of Cheeseboro Creek; Hidden Valley Creek; Lindero Creek; Medea Creek; Palo Comado Creek; Potrero Canyon Creek; Triunfo Creek; and Westlake.

Constituent	Effluent Limitations	
	Summer (April 15 to November 15)	Winter (November 16 to April 14)
	Daily Load	Season Average
Nitrate as Nitrogen plus Nitrite as Nitrogen	1.6 lbs/day	8.0 mg/L
Total Phosphorus	0.16 lbs/day	N/A

3. Water Quality-Based Effluent Limitations for Ventura County

a. Ventura County Permittees shall comply with the following grouped[34] interim water quality-based effluent limitations for discharges to waterbodies of the Malibu Creek Watershed, as of the effective date of the Order:

Constituent	Weather Condition[35]	Effluent Limitations	
		Summer (April 15 to November 15)	Winter (November 16 to April 14)
		Daily Load	Seasonal Average
Nitrate as Nitrogen plus Nitrite as Nitrogen	Wet Weather	26 lbs/day	8.0 mg/L
	Dry Weather	52 lbs/day	8.0 mg/L
Total Phosphorus	Wet Weather	2.6 lbs/day	N/A
	Dry Weather	4.6 lbs/day	N/A

b. Ventura County Permittees shall comply with the following grouped[36] final water quality-based effluent limitations for discharges to waterbodies of the Malibu Creek Watershed, no later than five years from the effective date of the Order.

Constituent	Effluent Limitations	
	Summer (April 15 to November 15)	Winter (November 16 to April 14)
	Daily Load	Seasonal Average
Nitrate as Nitrogen plus Nitrite as Nitrogen	3.1 lbs/day	8.0 mg/L
Total Phosphorus	0.31 lbs/day	N/A

4. In order to calculate pollutant loading, Permittees are required to measure and report flow at outfalls when sampling during the summer period. In addition, Permittees shall conduct

[34] The effluent limitations are group-based and shared among all Ventura County MS4 Permittees located within the Malibu Creek Watershed.

[35] The U.S. EPA source category “runoff from developed areas” is identified as wet weather MS4 discharges, and “dry weather urban runoff” is identified as dry weather MS4 discharges.

[36] The effluent limitations are group-based and shared among all Ventura County MS4 Permittees located within the Malibu Creek Watershed.

modeling and/or an estimation of pollutant loading from drainage areas not represented by outfall monitoring.

D. Malibu Creek and Lagoon TMDL for Sedimentation and Nutrients to Address Benthic Community Impairments

1. Permittees subject to the provisions below are identified in Attachment J, Table J-6.

2. Los Angeles County Permittees below Malibou Lake shall comply with the following final water quality-based effluent limitations for discharges to waterbodies in the subwatersheds of Cold Creek; Las Virgenes Creek; Malibu Creek; Malibu Lagoon; and Stokes Creek, no later than December 28, 2023.

Constituent	Effluent Limitations	
	Summer (April 15 to November 15)	Winter (November 16 to April 14)
	Seasonal Average (mg/L)	Seasonal Average (mg/L)
Total Nitrogen[37]	1.0	4.0
Total Phosphorus	0.1	0.2

3. Subpart 2 above shall not be applicable upon the effective date of the revised Implementation Plan for the U.S. EPA-Established Malibu Creek Nutrients TMDL and the U.S. EPA-Established Malibu Creek and Lagoon Sedimentation and Nutrients TMDL to Address Benthic Community Impairments (Attachment H to Resolution No. R21-001).

4. Upon the effective date of the revised Implementation Plan for Malibu Creek Nutrients and Sedimentation TMDLs, Los Angeles County Permittees below Malibou Lake shall comply with the following final water quality-based effluent limitations for discharges to waterbodies in the subwatersheds of Cold Creek; Las Virgenes Creek; Malibu Creek; Malibu Lagoon; and Stokes Creek, no later than July 15, 2026.

Constituent	Effluent Limitations	
	Summer (April 15 to November 15)	Winter (November 16 to April 14)
	Seasonal Average (mg/L)	Seasonal Average (mg/L)
Total Nitrogen[38]	1.0	4.0
Total Phosphorus	0.1	0.2

5. Los Angeles County Permittees below Malibou Lake and above gage station F-130 shall comply with the receiving water limitation of a maximum of 1,012 tons per year of sediment load at gage station F-130, no later than December 28, 2025.

6. Compliance with subpart 5 above shall be determined by multiplying the Los Angeles County Permittees allocation fraction of 17.4% by the annual sediment load at gage station

[37] Total Nitrogen is the sum of TKN plus Nitrate-N plus Nitrite-N.
[38] Total Nitrogen is the sum of TKN plus Nitrate-N plus Nitrite-N.

F-130. Due to the variability of sediment transport, the sediment load shall be averaged over a three-year period.

V. TMDLS IN THE BALLONA CREEK SUBWATERSHED

A. Ballona Creek Trash TMDL

1. Permittees subject to the provisions below are identified in Attachment J, Table J-8.

2. Permittees shall comply with the water quality-based effluent limitation of zero trash discharged to waterbodies of the Ballona Creek Watershed as of the effective date of the Order and every water year thereafter.

3. Permittees shall comply with the water quality-based effluent limitations for trash per the provisions in Part IV.B.3 of the Order.

B. Ballona Creek Estuary Toxic Pollutants TMDL

1. Permittees subject to the provisions below are identified in Attachment J, Table J-8.

2. Permittees shall comply with the following grouped[39] mass-based water quality-based effluent limitations, expressed as an annual loading of sediment-bound pollutants discharged to the Ballona Creek Estuary according to the schedules below in subparts 3 and 4 or subparts 6 and 7, as applicable:

Constituent	Annual Effluent Limitations
Cadmium	8.0 kg/yr
Copper	227.3 kg/yr
Lead	312.3 kg/yr
Silver	6.69 kg/yr
Zinc	1003 kg/yr
Total Chlordane	8.69 g/yr
Total DDTs	12.70 g/yr
Total PCBs	21.40 g/yr

3. Permittees shall comply with final water quality-based effluent limitations for sediment-bound cadmium, copper, lead, silver, zinc, total chlordane, and total DDTs discharged to Ballona Creek Estuary, as of the effective date of the Order.

4. Permittees shall comply with interim and final water quality-based effluent limitations for sediment-bound total PCBs discharged to Ballona Creek Estuary, per the schedule below:

[39] The effluent limitations are group-based and shared among all MS4 Permittees within the Ballona Creek subwatershed.

Deadline	Percentage of Total Drainage Area Served by the MS4 required to meet the Effluent Limitations
Effective Date of the Order	50%
January 11, 2025	100%

5. Subparts 3 and 4 above shall not be applicable upon the effective date of the revised Ballona Creek Estuary Toxic Pollutants TMDL (Attachment D to Resolution No. R21-001).

6. Upon the effective date of the revised Ballona Creek Estuary Toxic Pollutants TMDL (Ballona Creek Estuary Toxics TMDL), Permittees shall comply with interim and final water quality-based effluent limitations for sediment-bound cadmium, copper, lead, silver, zinc, total chlordane, and total DDTs discharged to Ballona Creek Estuary, per the schedule below:

Deadline	Percentage of Total Drainage Area Served by the MS4 required to meet the Effluent Limitations
Effective Date of Revised Ballona Creek Estuary Toxics TMDL	75%
July 15, 2026	100%

7. Upon the effective date of the revised Ballona Creek Estuary Toxics TMDL, Permittees shall comply with interim and final water quality-based effluent limitations for sediment-bound total PCBs discharged to Ballona Creek Estuary, per the schedule below:

Deadline	Percentage of Total Drainage Area Served by the MS4 required to meet the Effluent Limitations
Effective Date of Revised Ballona Creek Estuary Toxics TMDL	50%
July 15, 2026	100%

8. Interim Compliance Determination

a. Permittees shall be in compliance with the interim water quality-based effluent limitations for sediment-bound total PCBs by demonstrating any one of the following methods:

i. The total PCBs fish tissue numeric target of 3.6 µg/kg wet is met in species resident to Ballona Creek Estuary; or

ii. The sediment quality condition protective of fish tissue is achieved per the Statewide Enclosed Bays and Estuaries Plan, as amended to address contaminants in resident finfish and wildlife; or

iii. The total PCBs sediment numeric target of 3.2 µg/kg dry is met in bed sediments; or

iv. For sediment-bound total PCBs, Permittees demonstrate that 50% of the total drainage area served by the MS4 is complying with the water quality-based effluent limitation of 21.40 grams per year (g/yr). Alternatively, Permittees shall

attain a 50% reduction in the difference between the total PCBs baseline loading and the water quality-based effluent limitation, as measured at the relevant existing MS4 permit monitoring location and/or at relevant MS4 monitoring stations identified in an approved monitoring plan. Baseline loading is defined as loading estimated when the Ballona Creek Estuary Toxics TMDL was developed in 2005.

b. Subpart 8.a above shall not be applicable upon the effective date of the revised Ballona Creek Estuary Toxic Pollutants TMDL (Attachment D to Resolution No. R21-001).

c. Upon the effective date of the revised Ballona Creek Estuary Toxics TMDL, Permittees shall be in compliance with the interim water quality-based effluent limitations for sediment-bound cadmium, copper, lead, silver, and zinc by demonstrating any one of the following methods:

i. The sediment quality condition of Unimpacted or Likely Unimpacted via the interpretation and integration of multiple lines of evidence as defined in the State's Water Quality Control Plan for Enclosed Bays and Estuaries – Part 1 Sediment Quality (Sediment Quality Provisions) is met; or

ii. The sediment numeric targets, listed below, are met in bed sediments; or

Constituent	Sediment Numeric Target
Cadmium	1.2 mg/kg
Copper	34 mg/kg
Lead	46.7 mg/kg
Silver	1.0 mg/kg
Zinc	150 mg/kg

iii. Permittees demonstrate that 75% of the total drainage area served by the MS4 is complying with the water quality-based effluent limitations for sediment-bound metals listed in subpart B.2 above. Alternatively, Permittees shall attain a 75% reduction in the difference between the baseline loadings and the water quality-based effluent limitations, as measured at the relevant existing MS4 permit monitoring location and/or at relevant MS4 monitoring stations identified in an approved monitoring plan. Baseline loading is defined as loading estimated when the Ballona Creek Estuary Toxics TMDL was developed in 2005.

d. Upon the effective date of the revised Ballona Creek Estuary Toxics TMDL, Permittees shall be in compliance with the interim water quality-based effluent limitations for sediment-bound total chlordane, total DDTs, and total PCBs by demonstrating any one of the following methods:

i. The fish tissue numeric targets, listed below, are met in species resident to Ballona Creek Estuary; or

Constituent	Fish Tissue Numeric Target
Total Chlordane	5.6 µg/kg wet
Total DDTs	21 µg/kg wet
Total PCBs	3.6 µg/kg wet

ii. The sediment quality condition protective of fish tissue is achieved per the Statewide Enclosed Bays and Estuaries Plan, as amended to address contaminants in resident finfish and wildlife; or

iii. The sediment numeric targets, listed below, are met in bed sediments; or

Constituent	Sediment Numeric Target
Total Chlordane	1.3 µg/kg dry
Total DDTs	1.9 µg/kg dry
Total PCBs	3.2 µg/kg dry

iv. For sediment-bound total chlordane and total DDTs, Permittees demonstrate that 75% of the total drainage area served by the MS4 is complying with the water-quality-based effluent limitations listed in subpart B.2 above. Alternatively, for total chlordane and total DDTs Permittees shall attain a 75% reduction in the difference between the baseline loadings and the water quality-based effluent limitations, as measured at the relevant existing MS4 permit monitoring location and/or at relevant MS4 monitoring stations identified in an approved monitoring plan. Baseline loading is defined as loading estimated when the Ballona Creek Estuary Toxics TMDL was developed in 2005.

v. For sediment-bound total PCBs, Permittees demonstrate that 50% of the total drainage area served by the MS4 is complying with the water quality-based effluent limitation of 21.40 g/yr. Alternatively, Permittees shall attain a 50% reduction in the difference between the total PCBs baseline loading and the water quality-based effluent limitation, as measured at the relevant existing MS4 permit monitoring location and/or at relevant MS4 monitoring stations identified in an approved monitoring plan. Baseline loading is defined as loading estimated when the Ballona Creek Estuary Toxics TMDL was developed in 2005.

9. Final Compliance Determination

a. Permittees shall be in compliance with the final water quality-based effluent limitations for sediment-bound cadmium, copper, lead, silver and zinc by demonstrating any one of the following methods:

i. The sediment quality condition of Unimpacted or Likely Unimpacted via the interpretation and integration of multiple lines of evidence as defined in the Sediment Quality Provisions is met; or

ii. The sediment numeric targets, as listed in subpart B.8.c.ii above, are met in bed sediments; or

iii. Permittees demonstrate that 100% of the total drainage area served by the MS4 is complying with the water quality-based effluent limitations for sediment-bound metals listed in subpart B.2 above. Alternatively, Permittees shall attain a 100% reduction in the difference between the baseline loadings and the water quality-based effluent limitations, as measured at the relevant existing MS4 permit monitoring location and/or at relevant MS4 monitoring stations identified in an approved monitoring plan. Baseline loading is defined as loading estimated when the Ballona Creek Estuary Toxics TMDL was developed in 2005.

b. Permittees shall be in compliance with the final water quality-based effluent limitations for sediment-bound total chlordane, total DDTs and total PCBs by demonstrating any one of the following methods:

i. The fish tissue numeric targets, listed in subpart B.8.d.i above, are met in species resident to Ballona Creek Estuary; or

ii. The sediment quality condition protective of fish tissue is achieved per the Statewide Enclosed Bays and Estuaries Plan, as amended to address contaminants in resident finfish and wildlife; or

iii. The sediment numeric targets, listed in subpart B.8.d.iii above, are met in bed sediments; or

iv. Permittees demonstrate that 100% of the total drainage area served by the MS4 is complying with the water quality-based effluent limitations for sediment-bound total chlordane, total DDTs and total PCBs listed in subpart B.2 above. Alternatively, Permittees shall attain a 100% reduction in the difference between the baseline loadings and the water quality-based effluent limitations, as measured at the relevant existing MS4 permit monitoring location and/or at relevant MS4 monitoring stations identified in an approved monitoring plan. Baseline loading is defined as loading estimated when the Ballona Creek Estuary Toxics TMDL was developed in 2005.

10. Permittees shall determine their preferred compliance method(s) to demonstrate compliance with the interim and final water quality-based effluent limitations and shall monitor accordingly.

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

1. Permittees subject to the provisions below are identified in Attachment J, Table J-8.

2. Water Quality-Based Effluent Limitations

a. Permittees shall comply with the following water quality-based effluent limitations for discharges to Ballona Creek Estuary. Permittees shall comply with daily maximum limitations and geometric mean limitations as of the effective date of the Order.

Constituent	Effluent Limitations (MPN or cfu)	
	Daily Maximum	Geometric Mean
Total coliform[40]	10,000/100 mL	1,000/100 mL
Fecal coliform	400/100 mL	200/100 mL
Enterococcus	104/100 mL	35/100 mL

b. Permittees shall comply with the following water quality-based effluent limitations for discharges to Sepulveda Channel. Permittees shall comply with daily maximum limitations and geometric mean limitations as of the effective date of the Order.

Constituent	Effluent Limitation (MPN or cfu)	
	Daily Maximum	Geometric Mean
E. coli	235/100 mL	126/100 mL

c. Permittees shall comply with the following water quality-based effluent limitations for discharges to Ballona Creek Reach 2. Permittees shall comply with daily maximum limitations and geometric mean limitations as of the effective date of the Order.

Constituent	Effluent Limitation (MPN or cfu)	
	Daily Maximum	Geometric Mean
E. coli	576/100 mL	126/100 mL

d. Permittees shall comply with the following water quality-based effluent limitations for discharges to Ballona Creek Reach 1. Permittees shall comply with daily maximum limitations and geometric mean limitations as of the effective date of the Order.

Constituent	Effluent Limitation (MPN or cfu)	
	Daily Maximum	Geometric Mean
Fecal coliform	4000/100 mL	2000/100 mL

e. Subparts a through d above shall not be applicable upon the effective date of the revised Ballona Creek, Ballona Estuary and Sepulveda Channel Bacteria TMDL (Attachment F to Resolution No. R21-001).

f. Upon the effective date of the revised Ballona Creek, Ballona Estuary and Sepulveda Channel Bacteria TMDL (Ballona Creek Bacteria TMDL), Permittees shall comply with the following water quality-based effluent limitations for discharges to Ballona Creek Estuary. Permittees shall comply with daily maximum limitations during dry weather as of the effective date of the revised Ballona Creek Bacteria TMDL and during wet weather no later than July 15, 2026. Permittees shall comply with geometric mean limitations no later than July 15, 2026.

[40] 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.

Constituent	Effluent Limitations (MPN or cfu)	
	Daily Maximum	Geometric Mean
Total coliform[41]	10,000/100 mL	1,000/100 mL
Fecal coliform	400/100 mL	200/100 mL
Enterococcus	104/100 mL	35/100 mL

g. Upon the effective date of the revised Ballona Creek Bacteria TMDL, Permittees shall comply with the following water quality-based effluent limitations for discharges to Sepulveda Channel. Permittees shall comply with daily maximum limitations during dry weather as of the effective date of the revised Ballona Creek Bacteria TMDL and during wet weather no later than July 15, 2026. Permittees shall comply with geometric mean limitations no later than July 15, 2026.

Constituent	Effluent Limitation (MPN or cfu)	
	Daily Maximum	Geometric Mean
E. coli	235/100 mL	126/100 mL

h. Upon the effective date of the revised Ballona Creek Bacteria TMDL, Permittees shall comply with the following water quality-based effluent limitations for discharges to Ballona Creek Reach 2. Permittees shall comply with daily maximum limitations during dry weather as of the effective date of the revised Ballona Creek Bacteria TMDL and during wet weather no later than July 15, 2026. Permittees shall comply with geometric mean limitations no later than July 15, 2026.

Constituent	Effluent Limitation (MPN or cfu)	
	Daily Maximum	Geometric Mean
E. coli	576/100 mL	126/100 mL

i. Upon the effective date of the revised Ballona Creek Bacteria TMDL, Permittees shall comply with the following water quality-based effluent limitations for discharges to Ballona Creek Reach 1. Permittees shall comply with daily maximum limitations during dry weather as of the effective date of the revised Ballona Creek Bacteria TMDL and during wet weather no later than July 15, 2026. Permittees shall comply with geometric mean limitations no later than July 15, 2026.

Constituent	Effluent Limitation (MPN or cfu)	
	Daily Maximum	Geometric Mean
Fecal coliform	4000/100 mL	2000/100 mL

3. Receiving Water Limitations

a. Permittees shall comply with the following grouped[42] single sample bacteria receiving water limitations at each monitoring location in Ballona Creek Estuary and its

[41] 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.

[42] The receiving water limitations are group-based and shared among all MS4 Permittees, which includes Caltrans, located within the sub-drainage area to each receiving water monitoring location.

tributaries, as of the effective date of the Order. Tributaries to Ballona Creek Estuary are Ballona Creek Reach 2 and Centinela Creek, the point of compliance for each tributary is at its confluence with Ballona Creek Estuary.

Time Period	**Annual Allowable Exceedance Days of the REC-1 Marine Water Single Sample Objectives[43]**	
	Daily Sampling	**Weekly Sampling**
Winter Dry-Weather (November 1 to March 31)	9	2
Summer Dry-Weather (April 1 to October 31)	0	0
Wet Weather[44] (November 1 to October 31)	17	3

b. Permittees shall comply with the following grouped[45] single sample bacteria receiving water limitations at each monitoring location in Sepulveda Channel, as of the effective date of the Order:

Time Period	**Annual Allowable Exceedance Days of the REC-1 Freshwater Single Sample Objective[46]**	
	Daily Sampling	**Weekly Sampling**
Dry-Weather (November 1 to October 31)	5	1
Wet Weather[47] (November 1 to October 31)	15	2

c. Permittees shall comply with the following grouped[48] single sample bacteria receiving water limitations at each monitoring location in Ballona Creek Reach 2[49] and its tributaries, as of the effective date of the Order. Tributaries to Ballona Creek Reach 2 are Ballona Creek Reach 1 and Benedict Canyon Channel, the point of compliance for each tributary is at its confluence with Ballona Creek Reach 2.

[43] The single sample objectives are equivalent to the daily maximum values listed in subpart C.2.a above.
[44] Wet weather is defined as days with 0.1 inch of rain or greater and the three days following the rain event.
[45] The receiving water limitations are group-based and shared among all MS4 Permittees, which includes Caltrans, located within the sub-drainage area to each receiving water monitoring location.
[46] The single sample objective is equivalent to the daily maximum value listed in subpart C.2.b above.
[47] Wet weather is defined as days with 0.1 inch of rain or greater and the three days following the rain event.
[48] The receiving water limitations are group-based and shared among all MS4 Permittees, which includes Caltrans, located within the sub-drainage area to each receiving water monitoring location.
[49] In Ballona Creek Reach 2, the greater of the allowable exceedance days under the reference system approach or high flow suspension shall apply.

Time Period	Annual Allowable Exceedance Days of the LREC-1 Freshwater Single Sample Objective[50]	
	Daily Sampling	Weekly Sampling
Dry-Weather (November 1 to October 31)	5	1
Wet Weather[51] (November 1 to October 31)	15	2

d. Permittees shall not exceed the single sample objective of 4000/100 ml in more than 10% of the samples collected from Ballona Creek Reach 1 during any 30-day period as of the effective date of the Order.

e. Permittees shall comply with the following geometric mean receiving water limitations at each monitoring location in Ballona Creek Estuary; at the confluence of Ballona Creek Reach 2 with Ballona Creek Estuary; and at the confluence of Centinela Creek with Ballona Creek Estuary, calculated weekly as a rolling geometric mean using five or more samples, for six-week periods starting all calculation weeks on Sunday, as of the effective date of the Order:

Constituent	Geometric Mean (MPN or cfu)
Total coliform	1,000/100 mL
Fecal coliform	200/100 mL
Enterococcus	35/100 mL

f. Permittees shall comply with the following geometric mean receiving water limitation at each monitoring location in Sepulveda Channel; at each monitoring location in Ballona Creek Reach 2; at the confluence of Ballona Creek Reach 1 with Ballona Creek Reach 2; and at the confluence of Benedict Canyon Channel with Ballona Creek Reach 2, calculated weekly as a rolling geometric mean using five or more samples, for six-week periods starting all calculation weeks on Sunday, as of the effective date of the Order:

Constituent	Geometric Mean (MPN or cfu)
E. coli	126/100 mL

g. Permittees shall comply with the following geometric mean receiving water limitation at each monitoring location in Ballona Creek Reach 1, calculated weekly as a rolling geometric mean using five or more samples, for six-week periods starting all calculation weeks on Sunday, as of the effective date of the Order:

[50] The single sample objective is equivalent to the daily maximum value listed in subpart C.2.c above.
[51] Wet weather is defined as days with 0.1 inch of rain or greater and the three days following the rain event.

Constituent	Geometric Mean (MPN or cfu)
Fecal coliform	2000/100 mL

h. Subparts a through g above shall not be applicable upon the effective date of the revised Ballona Creek, Ballona Estuary and Sepulveda Channel Bacteria TMDL (Attachment F to Resolution No. R21-001).

i. Upon the effective date of the revised Ballona Creek Bacteria TMDL, Permittees shall comply with the following grouped[52] single sample bacteria receiving water limitations at each monitoring location in Ballona Creek Estuary and its tributaries, during dry weather as of the effective date of the revised Ballona Creek Bacteria TMDL and during wet weather no later than July 15, 2026. Tributaries to Ballona Creek Estuary are Ballona Creek Reach 2 and Centinela Creek, the point of compliance for each tributary is at its confluence with Ballona Creek Estuary.

Time Period	Annual Allowable Exceedance Days of the REC-1 Marine Water Single Sample Objectives[53]	
	Daily Sampling	Weekly Sampling
Winter Dry-Weather (November 1 to March 31)	9	2
Summer Dry-Weather (April 1 to October 31)	0	0
Wet Weather[54] (November 1 to October 31)	17	3

j. Upon the effective date of the revised Ballona Creek Bacteria TMDL, Permittees shall comply with the following grouped[55] single sample bacteria receiving water limitations at each monitoring location in Sepulveda Channel, during dry weather as of the effective date of the revised Ballona Creek Bacteria TMDL and during wet weather no later than July 15, 2026:

Time Period	Annual Allowable Exceedance Days of the REC-1 Freshwater Single Sample Objective[56]	
	Daily Sampling	Weekly Sampling
Dry-Weather (November 1 to October 31)	5	1
Wet Weather[57] (November 1 to October 31)	15	2

[52] The receiving water limitations are group-based and shared among all MS4 Permittees, which includes Caltrans, located within the sub-drainage area to each receiving water monitoring location.
[53] The single sample objectives are equivalent to the daily maximum values listed in subpart C.2.f above.
[54] Wet weather is defined as days with 0.1 inch of rain or greater and the three days following the rain event.
[55] The receiving water limitations are group-based and shared among all MS4 Permittees, which includes Caltrans, located within the sub-drainage area to each receiving water monitoring location.
[56] The single sample objective is equivalent to the daily maximum value listed in subpart C.2.g above.
[57] Wet weather is defined as days with 0.1 inch of rain or greater and the three days following the rain event.

k. Upon the effective date of the revised Ballona Creek Bacteria TMDL, Permittees shall comply with the following grouped[58] single sample bacteria receiving water limitations at each monitoring location in Ballona Creek Reach 2[59] and its tributaries, during dry weather as of the effective date of the revised Ballona Creek Bacteria TMDL and during wet weather no later than July 15, 2026. Tributaries to Ballona Creek Reach 2 are Ballona Creek Reach 1 and Benedict Canyon Channel, the point of compliance for each tributary is at its confluence with Ballona Creek Reach 2.

Time Period	**Annual Allowable Exceedance Days of the LREC-1 Freshwater Single Sample Objective[60]**	
	Daily Sampling	**Weekly Sampling**
Dry-Weather (November 1 to October 31)	5	1
Wet Weather[61] (November 1 to October 31)	15	2

l. Upon the effective date of the revised Ballona Creek Bacteria TMDL, Permittees shall not exceed the single sample objective of 4000/100 ml in more than 10% of the samples collected from Ballona Creek Reach 1 during any 30-day period. Permittees shall achieve compliance with this receiving water limitation during dry weather as of the effective date of the revised Ballona Creek Bacteria TMDL and during wet weather[62] no later than July 15, 2026.

m. Upon the effective date of the revised Ballona Creek Bacteria TMDL, Permittees shall comply with the following geometric mean receiving water limitations at each monitoring location in Ballona Creek Estuary; at the confluence of Ballona Creek Reach 2 with Ballona Creek Estuary; and at the confluence of Centinela Creek with Ballona Creek Estuary, calculated weekly as a rolling geometric mean using five or more samples, for six-week periods starting all calculation weeks on Sunday, no later than July 15, 2026:

Constituent	**Geometric Mean (MPN or cfu)**
Total coliform	1,000/100 mL
Fecal coliform	200/100 mL
Enterococcus	35/100 mL

n. Upon the effective date of the revised Ballona Creek Bacteria TMDL, Permittees shall comply with the following geometric mean receiving water limitation at each monitoring location in Sepulveda Channel; at each monitoring location in Ballona Creek Reach 2; at the confluence of Ballona Creek Reach 1 with Ballona Creek Reach 2; and at the confluence of Benedict Canyon Channel with Ballona Creek Reach 2, calculated weekly as a rolling geometric mean using five or more samples,

[58] The receiving water limitations are group-based and shared among all MS4 Permittees, which includes Caltrans, located within the sub-drainage area to each receiving water monitoring location.
[59] In Ballona Creek Reach 2, the greater of the allowable exceedance days under the reference system approach or high flow suspension shall apply.
[60] The single sample objective is equivalent to the daily maximum value listed in subpart C.2.h above.
[61] Wet weather is defined as days with 0.1 inch of rain or greater and the three days following the rain event.
[62] Ibid.

for six-week periods starting all calculation weeks on Sunday, no later than July 15, 2026:

Constituent	Geometric Mean (MPN or cfu)
E. coli	126/100 mL

o. Upon the effective date of the revised Ballona Creek Bacteria TMDL, Permittees shall comply with the following geometric mean receiving water limitation at each monitoring location in Ballona Creek Reach 1, calculated weekly as a rolling geometric mean using five or more samples, for six-week periods starting all calculation weeks on Sunday, no later than July 15, 2026:

Constituent	Geometric Mean (MPN or cfu)
Fecal coliform	2000/100 mL

D. Ballona Creek Metals TMDL

1. Permittees subject to the provisions below are identified in Attachment J, Table J-8.

2. Final Water Quality-Based Effluent Limitations

a. Permittees shall comply with the following grouped[63] dry weather[64] mass-based water quality-based effluent limitations for discharges to Ballona Creek and Sepulveda Channel as of the effective date of the Order, expressed as total recoverable metals:

Constituent	Effluent Limitations Daily Maximum (g/day)	
	Ballona Creek	Sepulveda Channel
Copper	1,457.6	540.6
Lead	805.0	298.7
Zinc	18,302.1	6,790.8

b. In lieu of calculating loads, Permittees may demonstrate compliance with the following dry-weather[65] concentration-based water quality-based effluent limitations for discharges to Ballona Creek and Sepulveda Channel as of the effective date of the Order, expressed as total recoverable metals:

[63] The dry weather effluent limitations are grouped-based and shared among all the MS4 Permittees located within the drainage area.
[64] Dry weather is defined as any day when the maximum daily flow in Ballona Creek is less than 64 cubic feet per second (cfs) measured at Sawtelle Boulevard.
[65] Ibid.

Constituent	Effluent Limitations Daily Maximum (µg/L total recoverable metals)
Copper	35.56
Lead	19.65
Zinc	446.55

c. Permittees shall comply with the following grouped[66] wet weather[67] mass-based water quality-based effluent limitations for discharges to Ballona Creek and its tributaries as of the effective date of the Order, expressed as total recoverable metals:

Constituent	Effluent Limitations Daily Maximum (g/day)
Copper	$1.297 \times 10^{-5} \times Daily\ Storm\ Volume\ (L)$
Lead	$7.265 \times 10^{-5} \times Daily\ Storm\ Volume\ (L)$
Zinc	$9.917 \times 10^{-5} \times Daily\ Storm\ Volume\ (L)$

d. In lieu of calculating loads, Permittees may demonstrate compliance with the following wet weather[68] concentration-based water quality-based effluent limitations for discharges to Ballona Creek and its tributaries as of the effective date of the Order, expressed as total recoverable metals:

Constituent	Effluent Limitations Daily Maximum (µg/L total recoverable metals)
Copper	12.97
Lead	72.65
Zinc	99.17

e. Subparts c and d above shall not be applicable upon the effective date of the revised Ballona Creek Metals TMDL (Attachment G to Resolution No. R21-001).

f. Upon the effective date of the revised Ballona Creek Metals TMDL, Permittees shall comply with the following grouped[69] wet weather[70] mass-based water quality-based effluent limitations for discharges to Ballona Creek and its tributaries no later than July 15, 2026, expressed as total recoverable metals:

[66] The wet weather effluent limitations are grouped-based and shared among all the MS4 Permittees located within the drainage area.
[67] Wet weather is defined as any day when the maximum daily flow in Ballona Creek is equal to or greater than 64 cfs measured at Sawtelle Boulevard.
[68] Ibid.
[69] The wet weather effluent limitations are grouped-based and shared among all the MS4 Permittees located within the drainage area.
[70] Wet weather is defined as any day when the maximum daily flow in Ballona Creek is equal to or greater than 64 cfs measured at Sawtelle Boulevard.

Constituent	Effluent Limitations Daily Maximum (g/day)
Copper	$1.297 \times 10^{-5} \times Daily\ Storm\ Volume\ (L)$
Lead	$7.265 \times 10^{-5} \times Daily\ Storm\ Volume\ (L)$
Zinc	$9.917 \times 10^{-5} \times Daily\ Storm\ Volume\ (L)$

g. Upon the effective date of the revised Ballona Creek Metals TMDL, in lieu of calculating loads, Permittees may demonstrate compliance with the following wet weather[71] concentration-based water quality-based effluent limitations for discharges to Ballona Creek and its tributaries no later than July 15, 2026, expressed as total recoverable metals:

Constituent	Effluent Limitations Daily Maximum (µg/L total recoverable metals)
Copper	12.97
Lead	72.65
Zinc	99.17

3. Permittees shall demonstrate that 100 percent of the total drainage area served by the MS4 complies with the final water quality-based effluent limitations for discharges of metals to Ballona Creek and its tributaries, as of the effective date of the Order.

4. Alternatively, as of the effective date of the Order, Permittees shall attain a 100 percent reduction in the difference between the baseline loadings and the dry and wet weather water quality-based effluent limitations, as measured at the relevant existing MS4 permit monitoring location and/or at relevant MS4 monitoring stations identified in an approved monitoring plan. Baseline loading is defined as loading estimated when the Ballona Creek Metals TMDL was developed in 2005.

5. Subparts 3 and 4 above shall not be applicable upon the effective date of the revised Ballona Creek Metals TMDL (Attachment G to Resolution No. R21-001).

6. Upon the effective date of the revised Ballona Creek Metals TMDL, Permittees shall demonstrate that the following percentage of the total drainage area served by the MS4 complies with the final water quality-based effluent limitations for discharges of metals to Ballona Creek and its tributaries, per the schedule below:

Deadline	Percentage of Total Drainage Area Served by the MS4 required to meet the Effluent Limitations	
	Dry weather	Wet weather
Effective Date of Revised Ballona Creek Metals TMDL	100%	50%
July 15, 2026	100%	100%

7. Upon the effective date of the revised Ballona Creek Metals TMDL, alternatively, Permittees shall attain the following percent reduction in the difference between the

[71] Ibid.

baseline loadings and the dry and wet weather water quality-based effluent limitations, as measured at the relevant existing MS4 permit monitoring location and/or at relevant MS4 monitoring stations identified in an approved monitoring plan:

Deadline	Percent Reduction in the difference between the baseline loadings[72] and the Effluent Limitations	
	Dry weather	Wet weather
Effective Date of Revised Ballona Creek Metals TMDL	100%	50%
July 15, 2026	100%	100%

8. Alternatively, Permittees shall be in compliance with the water quality-based effluent limitations by meeting the dissolved numeric targets during dry-weather and wet-weather in the applicable receiving water.

E. Ballona Creek Wetlands TMDL for Sediment and Invasive Exotic Vegetation

1. Permittees subject to the provisions below are identified in Attachment J, Table J-8.

2. Permittees shall comply with the following grouped[73] annual average mass-based water quality-based effluent limitation for sediment discharged from the Ballona Creek Watershed into Ballona Creek Wetlands, as of the effective date of the Order:

Constituent	Annual Average Effluent Limitation (m^3/yr)
Total Sediment (suspended sediment plus sediment bed load)	44,615

3. To determine compliance with the sediment water quality-based effluent limitations, Permittees shall monitor discharges from the Ballona Creek Watershed for suspended sediment concentration (SSC) and flow.

VI. TMDLS IN MARINA DEL REY SUBWATERSHED

A. Marina del Rey Harbor Mothers' Beach and Back Basins Bacteria TMDL

1. Permittees subject to the provisions below are identified in Attachment J, Table J-8.

2. Water Quality-Based Effluent Limitations

a. Permittees shall comply with the following water quality-based effluent limitations for discharges to Marina del Rey Harbor Back Basins D, E, and F. Permittees shall comply with daily maximum limitations and geometric mean limitations as of the effective date of the Order.

[72] Baseline loading is defined as loading estimated when the Ballona Creek Metals TMDL was developed in 2005.
[73] The sediment effluent limitation is group-based and shared among all MS4 Permittees, which includes Caltrans, located within the Ballona Creek Watershed.

Constituent	Effluent Limitations (MPN or cfu)	
	Daily Maximum	Geometric Mean
Total coliform[74]	10,000/100 mL	1,000/100 mL
Fecal coliform	400/100 mL	200/100 mL
Enterococcus	104/100 mL	35/100 mL

b. Subpart a above shall not be applicable upon the effective date of the revised Marina del Rey Harbor Mothers' Beach and Back Basins Bacteria TMDL (Attachment B to Resolution No. R21-001).

c. Upon the effective date of the revised Marina del Rey Harbor Mothers' Beach and Back Basins Bacteria TMDL (MdRH Bacteria TMDL), Permittees shall comply with the following water quality-based effluent limitations for discharges to Marina del Rey Harbor Back Basins D, E, and F. Permittees shall comply with daily maximum limitations during dry weather as of the effective date of the revised MdRH Bacteria TMDL and during wet weather no later than July 15, 2024. Permittees shall comply with geometric mean limitations no later than July 15, 2024.

Constituent	Effluent Limitations (MPN or cfu)	
	Daily Maximum	Geometric Mean
Total coliform[75]	10,000/100 mL	1,000/100 mL
Fecal coliform	400/100 mL	200/100 mL
Enterococcus	104/100 mL	35/100 mL

3. Receiving Water Limitations

a. Permittees shall comply with the following grouped[76] single sample bacteria receiving water limitations for all monitoring locations in Basins D, E, and F where there are MS4 discharges, as identified below, as of the effective date of the Order.

[74] 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.

[75] 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.

[76] The receiving water limitations are group-based and shared among all MS4 Permittees, which includes Caltrans, located within the sub-drainage area to each receiving water monitoring location.

Station ID	Monitoring Location	Annual Allowable Exceedance Days of the Single Sample Objectives[77]					
		Winter Dry Weather (November 1 – March 31)		Summer Dry Weather (April 1 – October 31)		Wet Weather[78] (November 1 – October 31)	
		Daily Sampling	Weekly Sampling	Daily Sampling	Weekly Sampling	Daily Sampling	Weekly Sampling
MdRH-4	Basin D	9	2	0	0	17	3
MdRH-5	Basin E	9	2	0	0	17	3
MdRH-6	Basin E	9	2	0	0	17	3
MdRH-7	Basin E	9	2	0	0	17	3
MdRH-8	Main Channel	9	2	0	0	17	3
MdRH-9[79]	Basin F	9	2	0	0	8	1

b. Permittees shall comply with the following geometric mean receiving water limitations for monitoring locations in Basins D, E, and F, calculated weekly as a rolling geometric mean using five or more samples, for six-week periods starting all calculation weeks on Sunday, as of the effective date of the Order:

Constituent	Geometric Mean (MPN or cfu)
Total coliform	1,000/100 mL
Fecal coliform	200/100 mL
Enterococcus	35/100 mL

c. Subparts a and b above shall not be applicable upon the effective date of the revised Marina del Rey Harbor Mothers' Beach and Back Basins Bacteria TMDL (Attachment B to Resolution No. R21-001).

d. Upon the effective date of the revised MdRH Bacteria TMDL, Permittees shall comply with the following grouped[80] single sample bacteria receiving water limitations for all monitoring locations in Basins D, E, and F where there are MS4 discharges, as identified below, during dry weather as of the effective date of the revised MdRH Bacteria TMDL and during wet weather no later than July 15, 2024.

[77] The single sample objectives are equivalent to the daily maximum values listed in subpart A.2.a above.
[78] Wet weather is defined as days with 0.1 inch of rain or greater and the three days following the rain event.
[79] The monitoring location MdRH-9 is subject to the antidegradation implementation provision in the TMDL; therefore, there shall be no increase in exceedance days during the implementation period above that estimated for the monitoring location in the critical year as identified in this Table.
[80] The receiving water limitations are group-based and shared among all MS4 Permittees, which includes Caltrans, located within the sub-drainage area to each receiving water monitoring location.

Station ID	Monitoring Location	Annual Allowable Exceedance Days of the Single Sample Objectives[81]					
		Winter Dry Weather (November 1 – March 31)		Summer Dry Weather (April 1 – October 31)		Wet Weather[82] (November 1 – October 31)	
		Daily Sampling	Weekly Sampling	Daily Sampling	Weekly Sampling	Daily Sampling	Weekly Sampling
MdRH-4	Basin D	9	2	0	0	17	3
MdRH-5	Basin E	9	2	0	0	17	3
MdRH-6	Basin E	9	2	0	0	17	3
MdRH-7	Basin E	9	2	0	0	17	3
MdRH-8	Main Channel	9	2	0	0	17	3
MdRH-9[83]	Basin F	9	2	0	0	8	1

e. Upon the effective date of the revised MdRH Bacteria TMDL, Permittees shall comply with the following geometric mean receiving water limitations for monitoring locations in Basins D, E, and F, calculated weekly as a rolling geometric mean using five or more samples, for six-week periods starting all calculation weeks on Sunday, no later than July 15, 2024:

Constituent	Geometric Mean (MPN or cfu)
Total coliform	1,000/100 mL
Fecal coliform	200/100 mL
Enterococcus	35/100 mL

B. Marina del Rey Harbor Toxic Pollutants TMDL

1. Permittees subject to the provisions below are identified in Attachment J, Table J-8.

2. Permittees shall comply with the following grouped[84] mass-based water quality-based effluent limitations, expressed as an annual loading of sediment-bound pollutants discharged to Marina del Rey Harbor according to the schedule below in subpart 3 or subpart 5, as applicable:

[81] The single sample objectives are equivalent to the daily maximum values listed in subpart A.2.c above.
[82] Wet weather is defined as days with 0.1 inch of rain or greater and the three days following the rain event.
[83] The monitoring location MdRH-9 is subject to the antidegradation implementation provision in the TMDL; therefore, there shall be no increase in exceedance days during the implementation period above that estimated for the monitoring location in the critical year as identified in this Table.
[84] Effluent limitations are group-based and shared among all MS4 Permittees within the Marina del Rey subwatershed.

Constituent	Annual Effluent Limitations
Copper	2.26 kg/yr
Lead	3.10 kg/yr
Zinc	9.96 kg/yr
Total Chlordane	0.0332 g/yr
Total PCBs	1.51 g/yr
Total DDTs	0.10 g/yr
p,p'-DDE	0.15 g/yr

3. Permittees shall comply with the final water quality-based effluent limitations for sediment-bound pollutants discharged to Marina del Rey Harbor, as of the effective date of the Order.

4. Subpart 3 above shall not be applicable upon the effective date of the revised Marina del Rey Harbor Toxic Pollutants TMDL (Attachment E to Resolution No. R21-001).

5. Upon the effective date of the revised Marina del Rey Harbor Toxic Pollutants TMDL (MdRH Toxics TMDL), Permittees shall comply with interim and final water quality-based effluent limitations for sediment-bound pollutants discharged to Marina del Rey Harbor, per the schedule below:

Deadline	Percentage of Total Drainage Area Served by the MS4 required to meet the Effluent Limitations
Effective Date of Revised MdRH Toxics TMDL	50%
July 15, 2024	100%

6. Interim Compliance Determination

a. Upon the effective date of the revised MdRH Toxics TMDL, Permittees shall be in compliance with the interim water quality-based effluent limitations for sediment-bound copper, lead, zinc, total chlordane, p,p'-DDE, and total DDTs by demonstrating any one of the following methods:

i. The sediment quality condition of Unimpacted or Likely Unimpacted via the interpretation and integration of multiple lines of evidence as defined in the State's Sediment Quality Provisions is met; or

ii. The sediment numeric targets, listed below, are met in bed sediments; or

Constituent	Sediment Numeric Target
Copper	34 mg/kg
Lead	46.7 mg/kg
Zinc	150 mg/kg
Total Chlordane	0.5 µg/kg
Total DDTs	1.58 µg/kg
p,p'-DDE	2.2 µg/kg

iii. Permittees demonstrate that 50% of the total drainage area served by the MS4 is complying with the water quality-based effluent limitations for sediment-bound pollutants listed in subpart B.2 above. Alternatively, Permittees shall attain a 50% reduction in the difference between the baseline loadings and the water quality-based effluent limitations, as measured at the relevant existing MS4 permit monitoring location and/or at relevant MS4 monitoring stations identified in an approved monitoring plan. Baseline loading is defined as loading estimated when the MdRH Toxics TMDL was developed in 2005.

b. Upon the effective date of the revised MdRH Toxics TMDL, Permittees shall be in compliance with the interim water quality-based effluent limitations for sediment-bound total PCBs by demonstrating any one of the following methods:

i. The fish tissue numeric target for total PCBs of 3.6 µg/kg is met in species resident to Marina del Rey Harbor; or

ii. The sediment quality condition protective of fish tissue is achieved per the Statewide Enclosed Bays and Estuaries Plan, as amended to address contaminants in resident finfish and wildlife; or

iii. The sediment numeric target for total PCBs of 3.2 µg/kg is met in bed sediments; or

iv. Permittees demonstrate that 50% of the total drainage area served by the MS4 is complying with the water quality-based effluent limitation for sediment-bound total PCBs listed in subpart B.2 above. Alternatively, Permittees shall attain a 50% reduction in the difference between the baseline loading and the water quality-based effluent limitation, as measured at the relevant existing MS4 permit monitoring location and/or at relevant MS4 monitoring stations identified in an approved monitoring plan. Baseline loading is defined as loading estimated when the MdRH Toxics TMDL was developed in 2005.

7. Final Compliance Determination

a. Permittees shall be in compliance with the final water quality-based effluent limitations for sediment-bound copper, lead, zinc, total chlordane, p,p'-DDE and total DDTs by demonstrating any one of the following methods:

i. The sediment quality condition of Unimpacted or Likely Unimpacted via the interpretation and integration of multiple lines of evidence as defined in the Sediment Quality Provisions is met; or

ii. The sediment numeric targets, listed in subpart B.6.a.ii above, are met in bed sediments; or

iii. Permittees demonstrate that 100% of the total drainage area served by the MS4 is complying with the water quality-based effluent limitations for sediment-bound pollutants listed in subpart B.2 above.

b. Permittees shall be in compliance with the final water quality-based effluent limitations for sediment-bound total PCBs by demonstrating any one of the following methods:

i. The fish tissue numeric target for total PCBs of 3.6 µg/kg is met in species resident to Marina del Rey Harbor; or

ii. The sediment quality condition protective of fish tissue is achieved per the Statewide Enclosed Bays and Estuaries Plan, as amended to address contaminants in resident finfish and wildlife; or

iii. The sediment numeric target for total PCBs of 3.2 µg/kg is met in bed sediments; or

iv. Permittees demonstrate that 100% of the total drainage area served by the MS4 is complying with the water quality-based effluent limitation for sediment-bound total PCBs listed in subpart B.2 above.

8. Permittees shall determine their preferred compliance method(s) to demonstrate compliance with the interim and final water quality-based effluent limitations and shall monitor accordingly.