City of Malibu

23825 Stuart Ranch Road · Malibu, California · 90265-4861
Phone (310) 456-2489 · Fax (310) 456-3356 · www.malibucity.org

July 16, 2018

Ms. Deborah Smith, Executive Officer
Los Angeles Regional Water Quality Control Board
Attn: Ms. Renee Purdy
320 West 4th Street, Suite 200
Los Angeles, CA 90013

RE: North Santa Monica Bay Coastal Watersheds Coordinated Integrated Monitoring Program Request for Revision

Dear Ms. Smith:

The City of Malibu, County of Los Angeles, and Los Angeles County Flood Control District (collectively the Group) are submitting the proposed revisions to the North Santa Monica Bay Coastal Watersheds Coordinated Integrated Monitoring Program (NSMBCW CIMP). The NSMBCW CIMP was approved on August 5, 2015, and the Group began outfall screening implementation in August 2014 and CIMP implementation in November 2015.

The Group requests a modification of the rainfall trigger for sampling mobilization to increase the probability for successful capture of stormwater samples. Also, a revision to the definition of a qualifying wet weather event will provide consistency in implementation with other CIMPs.

The Group proposes the following revisions, which are summarized in Exhibit A.

1. Page 2; Section 1.2; Paragraph 2 and Page 23; Section 2.2; Paragraph 2 and Page 23; Footnote 9; and Page 26; Table 2-5; and Page 33; Table 3-3. Revise rainfall trigger for sampling mobilization when forecasts predict a 24-hour rainfall depth of at least 0.5 inches at 70% probability 24 hours before the start of the storm event.

2. Page 24; Section 2.2; Paragraph 1. Remove MS4 outfall discharge requirement for qualifying wet weather event.

3. Page 26, Table 2-5. Remove Footnote (a) due to removal of outfall discharge requirement for qualifying wet weather event.

A summary of activated wet-weather sampling events during the 2016-17 and 2017-18 seasons is provided in Exhibit B. Information on predictions, measured rainfall, and whether sampling at each site was successful is included for each event. The repeated efforts to collect samples despite significant amounts of rainfall highlight the need for the proposed revisions.

In accordance with guidance provided by Erum Razzak of Regional Board staff, the City is submitting proposed change sheets for the CIMP. The enclosed sheets show the changes with and without strikeout as requested. Upon your approval, the City will provide a full copy of the CIMP with those changes and a new cover page and footer identifying the revision date.

The Group appreciates your consideration of these proposed revisions, and look forward to working with you and your team during this CIMP revision process. If you have any questions, please contact Andrew Sheldon at (310) 456-2489 Ext. 251 or asheldon@malibucity.org.

Sincerely,

Robert DuBoux
Acting Public Works Director

Enclosures

cc: Reva Feldman, City Manager
Andrew Sheldon, Environmental Sustainability Manager
Paul Alva, County of Los Angeles
Angela R. George-Moody, Los Angeles County Flood Control District

EXHIBIT A

PROPOSED CIMP REVISIONS

#	Description	Rationale	Page #	Section	Para.
1	Improve the rainfall trigger for wet weather event mobilization, particularly as it relates to the first significant rainfall event.	The North Santa Monica Bay Coastal Watersheds are 93.1% vacant, undeveloped land (see CIMP Table 1-1, p. 3). Significant rainfall can and has resulted in little or no flows at outfalls and receiving waters., as noted in Exhibit B.	2 23 26 33	1.2 2.2 Table 2-5 Table 3-3	2 2 NA NA
2	Eliminate the link between definition of a wet weather event and the status of discharge at an outfall.	Existing language could be construed to mean that a storm event does not qualify for wet weather monitoring if any of the CIMP referenced outfalls are not discharging, even though criteria to initiate wet-weather monitoring was originally met. The existing language could be interpreted to mean that additional mobilization events are needed if any of the outfalls are found dry, despite the criteria for initiating monitoring was met.	24	2.2	1
3	Eliminate footnote "a" to Table 2-5. *Receiving Water Monitoring Requirements*	Sample Station NSMBCW-RW2 (Malibu Creek receiving water site) should be sampled despite the status of discharge at sample station NSMBCW-O2 (Civic Center Drain with outfall to Malibu Creek). The status of receiving water quality relative to status of discharge at the outfall is important for assessing the MS4's role in causing/contributing to exceedances of receiving water standards.	26	Table 2-5	NA

EXHIBIT B

North Santa Monica Bay Watershed CIMP, 2017-18 Wet Weather Monitoring Event Summary

Sampling Summary	Subwatershed /Receiving Water	Constituents	Storm 1 1/9/2018	Storm 2 3/2/2018	Storm 3 3/10/2018	Storm 4 3/22/2018
Wet Weather Sites						
NSMBCW-RW1	Zuma Canyon/ Trancas Canyon	Table E-2, aquatic toxicity, Cat. 1-3, TMDL	Sampled	Sampled	Sampled	N/A
NSMBCW-O1		*Cat. 1-3*	Sampled	Sampled	Sampled	N/A
NSMBCW-RW2	Malibu Creek/ Malibu Creek	Table E-2, aquatic toxicity, Cat. 1-3, TMDL	Sampled	Sampled	Sampled	N/A
NSMBCW-O2		*Cat. 1-3*	Not Sampled (no discharge)	Not Sampled (no discharge)	Not Sampled (no discharge)	Not Sampled (no discharge)
NSMBCW-RW3	Garapito Creek/ Topanga Canyon	Table E-2, aquatic toxicity, Cat. 1-3, TMDL	Not Sampled (no access, a mudslide on Topanga Canyon Blvd (Hwy 27) just north of PCH)	Not Sampled (rockfall/mudslide immediately west of sampling location, field crews departed the site without collecting samples)	Not Sampled (no flow observed)	Sampled
Total # of Sites Visited			4	5	5	2
Total # of Sites Sampled			2 RW / 1 OF	2 RW / 1 OF	2 RW / 1 OF	1 RW
Total # of Sites Not Sampled			2	2	2	4

RAINFALL SUMMARY

Predictions 24 Hours Prior to Mobilization				
Gage 454 (Lachusa Patrol)	2.64"	0.75"	0.87"	1.51"
Gage 318 (Topanga Canyon)	3.53"	1.14"	0.61"	2.09"
Gage 320 (Big Rock Mesa)	2.16"	1.05"	0.64"	1.82"
Total Storm Rainfall				
Gage 454 (Lachusa Patrol)	2.72"	3.07"	1.07"	2.48"
Gage 318 (Topanga Canyon)	2.67"	3.14"	0.93"	2.05"
Gage 320 (Big Rock Mesa)	2.05"	1.93"	0.94"	1.62"
Accumulated Rainfall at Time of Sampling - Gage 454 (Lachusa Patrol)				
NSMBCW-RW1	0.72"	2.21"	0.67"	N/A
NSMBCW-O1	0.76"	2.13"	0.67"	N/A
NSMBCW-RW2	1.64"	2.68"	1.05"	N/A
NSMBCW-O2	Not sampled (no discharge)	Not sampled (no discharge)	Not sampled (no discharge)	Not sampled (no discharge)
NSMBCW-RW3	Not Sampled (no access)	Not Sampled (safety concerns)	Not sampled (no discharge)	1.50"
Accumulated Rainfall at Time of Sampling - Gage 318 (Topanga Canyon)				
NSMBCW-RW1	1.02"	1.67"	0.56"	N/A
NSMBCW-O1	1.02"	1.49"	0.56"	N/A
NSMBCW-RW2	1.78"	2.13"	0.90"	N/A
NSMBCW-O2	Not sampled (no discharge)	Not sampled (no discharge)	Not sampled (no discharge)	Not sampled (no discharge)
NSMBCW-RW3	Not Sampled (no access)	Not Sampled (safety concerns)	Not sampled (no discharge)	1.21"
Accumulated Rainfall at Time of Sampling - Gage 320 (Big Rock Mesa)				
NSMBCW-RW1	0.64"	1.53"	0.51"	N/A
NSMBCW-O1	0.64"	1.45"	0.51"	N/A
NSMBCW-RW2	1.4"	1.53"	0.86"	N/A
NSMBCW-O2	Not sampled (no discharge)	Not sampled (no discharge)	Not sampled (no discharge)	Not sampled (no discharge)
NSMBCW-RW3	Not Sampled (no access)	Not Sampled (safety concerns)	Not sampled (no discharge)	0.87"

North Santa Monica Bay Watershed CIMP, 2016-17 Wet Weather Monitoring Event Summary

Sampling Summary	Subwatershed /Receiving Water	Constituents	Storm 1 10/26/2016	Storm 2 11/21/2016	Storm 3 12/16/2016	Storm 4 1/19/17-1/20/17	Storm 5 2/16/17-2/17/17
Wet Weather Sites							
NSMBCW-RW1	Zuma Canyon/ Trancas Canyon	Table E-2, aquatic toxicity, Cat. 1-3, TMDL	Not sampled (dry)	Sampled	Sampled	Sampled	Not sampled
NSMBCW-O1		*Cat. 1-3*	Not sampled (no discharge)	Sampled	Sampled	Sampled	Not sampled
NSMBCW-RW2	Malibu Creek/ Malibu Creek	Table E-2, aquatic toxicity, Cat. 1-3, TMDL	Not sampled (no discharge from NSMBCW-O2)	Not sampled (no discharge from NSMBCW-O2)	Not sampled (no discharge from NSMBCW-O2)	Not sampled (no discharge from NSMBCW-O2)	Not sampled (no discharge from NSMBCW-O2)
NSMBCW-O2		*Cat. 1-3*	Not sampled (no discharge)	Not sampled (no discharge)	Not sampled (no discharge)	Not sampled (no discharge)	Not sampled (no discharge)
NSMBCW-R3	Garapito Creek/ Topanga Canyon	Table E-2, aquatic toxicity, Cat. 1-3, TMDL	Not sampled (dry)	Not sampled (dry)	Sampled	Sampled	Sampled
Total # of Sites Visited			5	5	5	5	3
Total # of Sites Sampled			0 RW / 0 OF	1 RW / 1 OF	2 RW / 1 OF	2 RW / 1 OF	1 RW / 0 OF
Total # of Sites Not Sampled			5	3	2	2	4
Rainfall Summary							
Predicted Amounts			70-75%	70%	>=85%	>=85%	100%
24 hours out			0.3-0.57"	0.41" a	1.87"	1.59" b	5.95"
Total Storm Rainfall							
Gage 454 (Lachusa Patrol)			0.08"	1.02"	1.73"	3.86" a	5.20"
Gage 318 (Topanga Canyon)			0.01"	Unknown	1.75"	3.36" a	4.37"
Gage 320 (Big Rock Mesa)			0.0"	0.75"	1.69"	2.32" a	3.15"
Rainfall at Time of Sampling - Gage 454 (Lachusa Patrol)							
NSMBCW-RW1			NA	0.98"	0.59"	1.38"	Not sampled
NSMBCW-O1			NA	0.98"	0.47"	1.38"	Not sampled
NSMBCW-RW2			Not sampled (no discharge from NSMBCW-O2)	Not sampled (no discharge from NSMBCW-O2)	Not sampled (no discharge from NSMBCW-O2)	Not sampled (no discharge from NSMBCW-O2)	Not sampled (no discharge from NSMBCW-O2)
NSMBCW-O2			Not sampled (no discharge)	Not sampled (no discharge)	Not sampled (no discharge)	Not sampled (no discharge)	Not sampled (no discharge)
NSMBCW-R3			Not sampled (dry)	Not sampled (dry)	0.47"	2.68"	0.31"
Rainfall at Time of Sampling - Gage 318 (Topanga Canyon)							
NSMBCW-RW1			NA	0.98"	0.56"	1.13"	Not sampled
NSMBCW-O1			NA	0.98"	0.53"	1.13"	Not sampled
NSMBCW-RW2			Not sampled (no discharge from NSMBCW-O2)	Not sampled (no discharge from NSMBCW-O2)	Not sampled (no discharge from NSMBCW-O2)	Not sampled (no discharge from NSMBCW-O2)	Not sampled (no discharge from NSMBCW-O2)
NSMBCW-O2			Not sampled (no discharge)	Not sampled (no discharge)	Not sampled (no discharge)	Not sampled (no discharge)	Not sampled (no discharge)
NSMBCW-R3			Not sampled (dry)	Not sampled (dry)	0.53"	2.42"	0.08"
Rainfall at Time of Sampling - Gage 320 (Big Rock Mesa)							
NSMBCW-RW1			NA	0.71"	0.55"	0.98"	Not sampled
NSMBCW-O1			NA	0.71"	0.51"	0.98"	Not sampled
NSMBCW-RW2			Not sampled (no discharge from NSMBCW-O2)	Not sampled (no discharge from NSMBCW-O2)	Not sampled (no discharge from NSMBCW-O2)	Not sampled (no discharge from NSMBCW-O2)	Not sampled (no discharge from NSMBCW-O2)
NSMBCW-O2			Not sampled (no discharge)	Not sampled (no discharge)	Not sampled (no discharge)	Not sampled (no discharge)	Not sampled (no discharge)
NSMBCW-R3			Not sampled (dry)	Not sampled (dry)	0.51"	1.57"	0.04"

a - 48 hours out; b - predicted over a 48 hour period

c - accumulation over 48 hours

3. Characterize pollutant loads in MS4 discharges.
4. Identify source of pollutants in MS4 discharges.
5. Measure and improve the effectiveness of pollutant controls implemented under the Permit.

To implement the MRP, the permittees of the EWMP Group have elected to coordinate their monitoring efforts in accordance with the Permit. This Coordinated Integrated Monitoring Program (CIMP) has been developed to address the required TMDL and other MS4 monitoring elements set forth in the MRP, including receiving water monitoring, outfall based monitoring, regional monitoring, and special studies.

1.2 Definitions

The following definitions apply to this CIMP:

First Significant Rain Event – The first storm event of the storm year with a predicted rainfall of at least ~~0.25~~ 0.5 inch at a seventy percent probability of rainfall at least 24 hours prior to the predicted start of rainfall.

Major Outfall – An MS4 outfall pipe with an inside diameter of 36 inches or greater. [2]

Storm Year – July 1 through June 30. A storm year, as used in the Permit MRP and this CIMP, is therefore consistent with the reporting period established in the Permit.

1.3 Overview of NSMBCW EWMP Area

The EWMP Group's geographical area includes the MS4 jurisdictional areas for the participating agencies within Santa Monica Bay (SMB) Jurisdictional Group (JG) 1, SMB JG 4, and the portion of SMB JG 9 within the City of Malibu's borders. This area is known as the NSMBCW EWMP Area and is shown in Figure 1. It does not include land owned by other jurisdictions, including the State of California and Federal lands.

The NSMBCW EWMP Area encompasses 55,121 acres, including portions of six HUC-12 watersheds, 18 subwatersheds, and 28 freshwater coastal streams as defined by the Los Angeles

[2] A major outfall is defined by the Permit as a "MS4 outfall that discharges from a single pipe with an inside diameter of 36 inches or more or its equivalent (discharge from a single conveyance other than circular pipe that is associated with a drainage area of more than 50 acres); or for MS4s that receive stormwater from lands zoned for industrial activity (based on comprehensive zoning plans or the equivalent), an outfall that discharges from a single pipe with an inside diameter of 12 inches or more or from its equivalent (discharge from other than a circular pipe associated with a drainage area of 2 acres or more)." Given the lack of industrial zoning within the NSMBCW Area, the definition of a major outfall is limited here to an outfall of at least 36 inches in diameter (or equivalent size).

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2.2 Receiving Water Monitoring Frequency

TMDL compliance monitoring sites will continue to be monitored in accordance with existing requirements in each respective monitoring plan, or any approved amendments thereto, which include sampling for fecal indicator bacteria (FIB) daily or weekly depending on the specifications set forth in each approved monitoring plan. Although there are different RWLs for FIB during wet and dry weather, there are no TMDL monitoring requirements dictating that a specific amount of samples must be collected during wet weather. Instead, FIB samples are collected on a regular basis regardless of weather conditions.

Monitoring at receiving water monitoring sites is dictated by local weather conditions, as both wet and dry weather monitoring will occur on an annual basis. Wet weather monitoring will be triggered for mobilization when forecasts predict a 24-hour rainfall depth of at least ~~0.25~~ 0.5 inches at a 70% probability the day before the start of the storm event.[9] Storm event predictions will be taken from the National Oceanic and Atmospheric Administration (NOAA) at the location of each County rain gauge located in the NSMBCW EWMP Area.[10] Rain forecasts for each rain gauge below can be found at the provided links:

- Lachusa Patrol (LA454) - Located at 34°04'35" N, 118°52'51" W at an elevation of 1,620 ft above mean sea level (MSL).
  http://www.wrh.noaa.gov/forecast/wxtables/index.php?lat=34.07697648388134&lon=-118.88151168823242&table=custom&duration=7&interval=6
- Topanga Canyon (LA318) - Located at 34°05'02" N, 118°36'00" W at an elevation of 745 ft MSL.
  http://www.wrh.noaa.gov/forecast/wxtables/index.php?lat=34.08394324461533&lon=-118.60007286071777&table=custom&duration=7&interval=6
- Big Rock Mesa (LA320) - Located at 34°02'22" N, 118°37'07" W at an elevation of 725 ft MSL.
  http://www.wrh.noaa.gov/forecast/wxtables/index.php?lat=34.04455218329944&lon=-118.62290382385254&table=custom&duration=7&interval=6

[9] Because a significant storm event is based on predicted rainfall, it is recognized that this monitoring may be triggered without ~~0.25~~0.5 inches of rainfall actually occurring. In this case, the monitoring event will still qualify as meeting this requirement. Documentation will be provided showing the predicted rainfall depth.

[10] Because real-time precipitation data are required to initiate monitoring, only County rain gauges that are accessible via the County's "Near Real-Time Precipitation Map" are included.

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  http://www.wrh.noaa.gov/forecast/wxtables/index.php?lat=34.08394324461533&lon=-118.60007286071777&table=custom&duration=7&interval=6
- Big Rock Mesa (LA320) - Located at 34°02'22" N, 118°37'07" W at an elevation of 725 ft MSL.
  http://www.wrh.noaa.gov/forecast/wxtables/index.php?lat=34.04455218329944&lon=-118.62290382385254&table=custom&duration=7&interval=6

[9] Because a significant storm event is based on predicted rainfall, it is recognized that this monitoring may be triggered without 0.5 inches of rainfall actually occurring. In this case, the monitoring event will still qualify as meeting this requirement. Documentation will be provided showing the predicted rainfall depth.

[10] Because real-time precipitation data are required to initiate monitoring, only County rain gauges that are accessible via the County's "Near Real-Time Precipitation Map" are included.

The forecast at two of these three locations must meet this specified criterion to initiate monitoring. If monitoring is initiated and samples are collected, these samples will be considered wet weather samples regardless of the total depth of rainfall that is recorded for the storm. ~~If mobilization occurs but no MS4 outfall samples are collected due to a lack of flow, this event will not be considered a wet weather monitoring event.~~ For reporting and verification purposes, actual rainfall totals will be taken from the County's records for each gauge above.

Wet weather monitoring will occur three times per year for the parameters specified herein, with the exception of aquatic toxicity, which will be monitored twice per year. Wet weather monitoring, will include targeting the first significant rain event of the storm year[11] and will be followed up by two additional rain events during the same wet weather season. Monitoring for aquatic toxicity will also target the first significant rain event of the storm year. If precipitation patterns during a given storm year dictate that these triggers cannot be met, documentation will be provided by EWMP Group in its annual report.

Wet weather sampling events will be separated by at least three days of dry conditions (less than 0.1 inches of rainfall each day). Receiving water monitoring will begin as soon as possible after stormwater outfall monitoring in order to be reflective of potential MS4 impacts.

Dry weather monitoring will be conducted twice per year at receiving water monitoring sites for all specified parameters except toxicity. One of the two dry weather monitoring events will occur during the driest month in the NSMBCW EWMP Area according to rain gauge and stream flow records. An analysis of rain gauge and stream flow records was conducted to identify the driest month in the NSMBCW. For such, average monthly precipication totals were reviewed for Topanga Canyon Station and Lachusa Patrol Station. As shown in Table 2-3 below, the lowest average precipitation occurrs in the August/September time frame at both stations.

Table 2-3. Average Monthly Precipitation (in)

Month	Topanga Canyon Station (1990 -2013)	Lachusa Patrol Station (1990 -1997)
January	6.38	6.34
February	6.23	4.97
March	3.09	4.56
April	0.98	0.46
May	0.59	0.47

[11] The term "storm year" is included but not defined in the Permit. However, for consistency with the bacteria TMDLs, the storm year will be taken here to mean July 1 through June 30.

The forecast at two of these three locations must meet this specified criterion to initiate monitoring. If monitoring is initiated and samples are collected, these samples will be considered wet weather samples regardless of the total depth of rainfall that is recorded for the storm. For reporting and verification purposes, actual rainfall totals will be taken from the County's records for each gauge above.

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May	0.59	0.47
June	0.12	0.17

[11] The term "storm year" is included but not defined in the Permit. However, for consistency with the bacteria TMDLs, the storm year will be taken here to mean July 1 through June 30.

Table 2-5. Receiving Water Monitoring Requirements

Wet Weather		Dry Weather		Monitoring Parameters
Frequency[a]	**Requirements**	**Frequency[a]**	**Requirements**	
Three times per year (all parameters except aquatic toxicity) Twice per year (aquatic toxicity)	Sample storm events when forecasts predict a 24-hour rainfall depth of at least ~~0.25~~0.5 inches at a 70% probability the day before the start of the storm event. Sampling events must be separated by a minimum of three dry days (less than 0.1 inch precipitation) Must attempt to sample the first significant storm event	Twice per year (all parameters except aquatic toxicity) Once per year, during the month of August (aquatic toxicity)	Precipitation less than 0.1 inch and not less than 3 days after a day with 0.1 inch precipitation based on 50% of LA County rain gauges One of the sampling events must be during the month of August, which is historically the driest month in the NSMBCW Area	• Flow • Pollutants with TMDLs: o E. coli[ba] o PCB Congeners/ DDT (wet weather only)[ed] o Total nitrogen, nitrate, nitrite, phosphorus[eb] • 303(d)-Listed Constituents: o Selenium, sulfates, pH[eb] o Total and dissolved lead[dc] • TSS • SSC[eb] • Additional constituents per Permit MRP Table E-2.[fd] • Field measurements: pH, dissolved oxygen, temperature, specific conductivity, hardness.[gf] • Aquatic freshwater chronic toxicity (see Appendix C, SOP for details)

~~[a] NSMBCW-RW2 is located immediately downstream of outfall location NSMBCW-O2, which is the only NSMBCW EWMP Group agency-owned major outfall in the Malibu Creek HUC-12. Due to diversions to Malibu Legacy Park and the Civic Center Water Treatment Facility, the outfall only discharges during large storm events. As a result, sampling at NSMBCW-RW2 will only be performed when discharges from the major outfall are present.~~

[ba] Since all receiving water monitoring sites are locate within freshwater, and the Basin Plan has been revised to only include e. coli water quality standards for fecal indicator bacteria (per Regional Board Resolution R10-005), e. coli will be the only indicator bacteria analyzed at the non-CSMP monitoring sites within the NSMBCW EWMP Area.

[eb] At NSMBCW-RW2 (Malibu Creek) only.

[dc] At NSMBCW-RW3 (Topanga Creek) only

[ed] At NSMBCW-RW1 (Trancas Creek) only.

[fe] Parameters in Permit MRP Table E-2 are to be monitored during the first significant storm of the year and during the first year of the monitoring program in August (critical dry month for dry weather receiving water sampling). If any parameter is not detected above the method detection limit (MDL) or the result is below the lowest applicable water quality objective, and is not otherwise required due to a TMDL or being on the 303(d) list, the parameter need not be further analyzed for the remainder of the Permit term. For pollutants that are detected above the lowest applicable water quality objective, additional monitoring will be conducted for the condition under which the exceedance occurred (wet or dry), at the frequency specified in the MRP (i.e., the monitoring frequency will become 3 for a wet weather exceedance, 2 for a dry weather exceedance, or 3/2 for exceedances during both event types) beginning the next monitoring year.

Table 2-5. Receiving Water Monitoring Requirements

Wet Weather		Dry Weather		Monitoring Parameters
Frequency	**Requirements**	**Frequency**	**Requirements**	
Three times per year (all parameters except aquatic toxicity) Twice per year (aquatic toxicity)	Sample storm events when forecasts predict a 24-hour rainfall depth of at least 0.5 inches at a 70% probability the day before the start of the storm event. Sampling events must be separated by a minimum of three dry days (less than 0.1 inch precipitation) Must attempt to sample the first significant storm event	Twice per year (all parameters except aquatic toxicity) Once per year, during the month of August (aquatic toxicity)	Precipitation less than 0.1 inch and not less than 3 days after a day with 0.1 inch precipitation based on 50% of LA County rain gauges One of the sampling events must be during the month of August, which is historically the driest month in the NSMBCW Area	• Flow • Pollutants with TMDLs: o E. coli[a] o PCB Congeners/ DDT (wet weather only)[d] o Total nitrogen, nitrate, nitrite, phosphorus[b] • 303(d)-Listed Constituents: o Selenium, sulfates, pH[b] o Total and dissolved lead[c] • TSS • SSC[b] • Additional constituents per Permit MRP Table E-2.[d] • Field measurements: pH, dissolved oxygen, temperature, specific conductivity, hardness.[f] • Aquatic freshwater chronic toxicity (see Appendix C, SOP for details)

[a] Since all receiving water monitoring sites are locate within freshwater, and the Basin Plan has been revised to only include e. coli water quality standards for fecal indicator bacteria (per Regional Board Resolution R10-005), e. coli will be the only indicator bacteria analyzed at the non-CSMP monitoring sites within the NSMBCW EWMP Area.
[b] At NSMBCW-RW2 (Malibu Creek) only.
[c] At NSMBCW-RW3 (Topanga Creek) only
[d] At NSMBCW-RW1 (Trancas Creek) only.
[e] Parameters in Permit MRP Table E-2 are to be monitored during the first significant storm of the year and during the first year of the monitoring program in August (critical dry month for dry weather receiving water sampling). If any parameter is not detected above the method detection limit (MDL) or the result is below the lowest applicable water quality objective, and is not otherwise required due to a TMDL or being on the 303(d) list, the parameter need not be further analyzed for the remainder of the Permit term. For pollutants that are detected above the lowest applicable water quality objective, additional monitoring will be conducted for the condition under which the exceedance occurred (wet or dry), at the frequency specified in the MRP (i.e., the monitoring frequency will become 3 for a wet weather exceedance, 2 for a dry weather exceedance, or 3/2 for exceedances during both event types) beginning the next monitoring year.
[f] Hardness will be analyzed in the lab, as there is currently no EPA-approved field testing method, and it is not economically or technically feasible to do testing in the field for hardness.

2.3 Receiving Water Monitoring Parameters

Parameters to be monitored at receiving water monitoring sites will include:

Table 3-3. Stormwater Outfall Monitoring Requirements

Wet Weather		
Frequency[a]	**Requirements**	**Monitoring Parameters**
3 times per year	Sample storm events when forecasts predict a 24-hour rainfall depth of at least 0.~~25~~ 5 inches at a 70% probability the day before the start of the storm event. Sampling events must be separated by a minimum of 3 dry days (less than 0.1 inch precipitation) Must attempt to sample the first significant storm event (greater than 0.~~25~~ 5 inch precipitation)	• Flow • Pollutants with TMDLs: o E. coli[b] o PCB Congeners/DDT[c] o Total nitrogen, nitrate, nitrite, phosphorus[c] • 303(d)-Listed Constituents: o Selenium, sulfates, pH[c] • TSS • SSC[c] • Additional constituents per Permit MRP Table E-2.[d] • Field measurements: pH, dissolved oxygen, temperature, specific conductivity, hardness.[e] • Pollutants identified during TIE at the downstream receiving water, or aquatic freshwater chronic toxicity (see Appendix C, SOP for details).[f]

[a] Due to diversions to Malibu Legacy Park and the Civic Center Water Treatment Facility, the outfall NSMBCW-O2 only discharges during large storm events. As a result, the number of samples collected at NSMBCW-O2 will be limited by the infrequency of the discharge.

[b] Since all receiving water bacteria monitoring will only include e. coli based on the revision to the Basin Plan (per Regional Board Resolution R10-005), e. coli will be the only indicator bacteria analyzed at the stormwater outfalls within the NSMBCW EWMP Area.

[c] At NSMBCW-RW1 (Trancas Creek) only.

[d] Additional screening parameters identified in Permit MRP Table E-2 (see Appendix B) are required to be analyzed if and when monitoring at the nearest downstream receiving water monitoring station triggers such sampling. This occurs if a parameter in the receiving water is found to exceed the lowest applicable water quality objective.

[e] Hardness will be analyzed in the lab, as there is currently no EPA-approved field testing method, and it is not economically or technically feasible to do testing in the field for hardness.

[f] Aquatic toxicity monitoring is only required when triggered by downstream receiving water toxicity monitoring from the previous sampling event where a toxicity identification evaluation (TIE) is carried out and inconclusive. If a TIE is conducted at the downstream receiving water and results in the identification of pollutants, then those pollutants must also be monitored at the upstream outfall during the next monitoring event.

3.3 Stormwater Outfall Monitoring Parameters

Parameters monitored at selected outfalls during stormwater monitoring will include:

- Flow. This will be estimated using automated flow meter equipment. If using a flow meter is not feasible, estimates will be made for each outfall based on the time required to fill a container of known volume or the drainage area, impervious cover, and precipitation data from the nearest LA County rain gauge (refer to the SOP in Appendix C).

Table 3-3. Stormwater Outfall Monitoring Requirements

Wet Weather		
Frequency[a]	**Requirements**	**Monitoring Parameters**
3 times per year	Sample storm events when forecasts predict a 24-hour rainfall depth of at least 0.5 inches at a 70% probability the day before the start of the storm event. Sampling events must be separated by a minimum of 3 dry days (less than 0.1 inch precipitation) Must attempt to sample the first significant storm event (greater than 0.5 inch precipitation)	• Flow • Pollutants with TMDLs: o E. coli[b] o PCB Congeners/DDT[c] o Total nitrogen, nitrate, nitrite, phosphorus[c] • 303(d)-Listed Constituents: o Selenium, sulfates, pH[c] • TSS • SSC[c] • Additional constituents per Permit MRP Table E-2.[d] • Field measurements: pH, dissolved oxygen, temperature, specific conductivity, hardness.[e] • Pollutants identified during TIE at the downstream receiving water, or aquatic freshwater chronic toxicity (see Appendix C, SOP for details).[f]

[a] Due to diversions to Malibu Legacy Park and the Civic Center Water Treatment Facility, the outfall NSMBCW-O2 only discharges during large storm events. As a result, the number of samples collected at NSMBCW-O2 will be limited by the infrequency of the discharge.

[b] Since all receiving water bacteria monitoring will only include e. coli based on the revision to the Basin Plan (per Regional Board Resolution R10-005), e. coli will be the only indicator bacteria analyzed at the stormwater outfalls within the NSMBCW EWMP Area.

[c] At NSMBCW-RW1 (Trancas Creek) only.

[d] Additional screening parameters identified in Permit MRP Table E-2 (see Appendix B) are required to be analyzed if and when monitoring at the nearest downstream receiving water monitoring station triggers such sampling. This occurs if a parameter in the receiving water is found to exceed the lowest applicable water quality objective.

[e] Hardness will be analyzed in the lab, as there is currently no EPA-approved field testing method, and it is not economically or technically feasible to do testing in the field for hardness.

[f] Aquatic toxicity monitoring is only required when triggered by downstream receiving water toxicity monitoring from the previous sampling event where a toxicity identification evaluation (TIE) is carried out and inconclusive. If a TIE is conducted at the downstream receiving water and results in the identification of pollutants, then those pollutants must also be monitored at the upstream outfall during the next monitoring event.

3.3 STORMWATER OUTFALL MONITORING PARAMETERS

Parameters monitored at selected outfalls during stormwater monitoring will include:

- Flow. This will be estimated using automated flow meter equipment. If using a flow meter is not feasible, estimates will be made for each outfall based on the time required to fill a container of known volume or the drainage area, impervious cover, and precipitation data from the nearest LA County rain gauge (refer to the SOP in Appendix C).