

**Appendix A**  
**Santa Monica Bay Beaches Dry Weather Bacteria TMDL -**  
**Resolution and Basin Plan Amendment**

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**State of California**  
**California Regional Water Quality Control Board, Los Angeles Region**

**RESOLUTION NO. 02-004**  
**January 24, 2002**

**Amendment to the Water Quality Control Plan (Basin Plan) for the Los Angeles Region to Incorporate a Dry Weather Total Maximum Daily Load for Bacteria at Santa Monica Bay Beaches**

**WHEREAS, the California Regional Water Quality Control Board, Los Angeles Region, finds that:**

1. The federal Clean Water Act (CWA) requires the California Regional Water Quality Control Board, Los Angeles Region (Regional Board) to develop water quality objectives which are sufficient to protect beneficial uses for each water body found within its region.
2. A consent decree between the U.S. Environmental Protection Agency (USEPA), Heal the Bay, Inc. and BayKeeper, Inc. was approved on March 22, 1999. This court order directs the USEPA to complete Total Maximum Daily Loads (TMDLs) for all the Los Angeles Region's impaired waters within 13 years. A schedule was established in the consent decree for the completion of 29 TMDLs within 7 years, including completion of a TMDL to reduce bacteria at Santa Monica Bay beaches by March 2002. The remaining TMDLs will be scheduled by Regional Board staff within the 13-year period.
3. The elements of a TMDL are described in 40 CFR 130.2 and 130.7 and section 303(d) of the CWA, as well as in USEPA guidance documents (e.g., USEPA, 1991). A TMDL is defined as "the sum of the individual waste load allocations for point sources and load allocations for nonpoint sources and natural background" (40 CFR 130.2). Regulations further stipulate that TMDLs must be set at "levels necessary to attain and maintain the applicable narrative and numeric water quality standards with seasonal variations and a margin of safety that takes into account any lack of knowledge concerning the relationship between effluent limitations and water quality" (40 CFR 130.7(c)(1)). The provisions in 40 CFR 130.7 also state that TMDLs shall take into account critical conditions for stream flow, loading and water quality parameters.
4. Upon establishment of TMDLs by the State or USEPA, the State is required to incorporate the TMDLs along with appropriate implementation measures into the State Water Quality Management Plan (40 CFR 130.6(c)(1), 130.7). The Water Quality Control Plan for the Los Angeles Region (Basin Plan), and applicable statewide plans, serve as the State Water Quality Management Plans governing the watersheds under the jurisdiction of the Regional Board.
5. Santa Monica Bay is located in Los Angeles County, California. The proposed TMDL addresses documented bacteriological water quality impairments at 44 beaches from the Los Angeles/Ventura County line, to the northwest, to Outer Cabrillo Beach, just south of the Palos Verdes Peninsula.
6. The Regional Board's goal in establishing the above-mentioned TMDL is to reduce the risk of illness associated with swimming in marine waters contaminated with human sewage and

other sources of bacteria. Local and national epidemiological studies compel the conclusion that there is a causal relationship between adverse health effects, such as gastroenteritis, and recreational water quality, as measured by bacteria indicator densities.

7. Interested persons and the public have had reasonable opportunity to participate in review of the amendment to the Basin Plan. Efforts to solicit public review and comment include staff presentations to the Santa Monica Bay Restoration Project's Bay Watershed Council and Technical Advisory Committee between May 1999 and October 2001 and creation of a Steering Committee in July 1999 to provide input on scientific and technical components of the TMDL with participation by the Southern California Coastal Water Research Project, City of Los Angeles, County of Los Angeles Department of Public Works, County Sanitation Districts of Los Angeles County, Heal the Bay, and Santa Monica Bay Restoration Project. In addition, a draft of the TMDL for bacteria at Santa Monica Bay beaches was released for public comment on November 9, 2001; a Notice of Hearing and Notice of Filing were published and circulated 45 days preceding Board action; Regional Board staff responded to oral and written comments received from the public; and the Regional Board held a public hearing on January 24, 2002 to consider adoption of the TMDL.
8. On October 25, 2001, the Regional Board adopted Resolution 2001-018 establishing revised bacteriological water quality objectives for the Water Contact Recreation (REC-1) beneficial use, and the TMDL is intended to accompany and to implement the revised water quality objectives. While the Regional Board has approved the water quality objective change, the change is not yet effective because the State Water Resources Control Board, the Office of Administrative Law, and the USEPA have not yet approved the revised water quality objective.
9. The amendment is consistent with the State Antidegradation Policy (State Board Resolution No. 68-16), in that the changes to water quality objectives (i) consider maximum benefits to the people of the state, (ii) will not unreasonably affect present and anticipated beneficial use of waters, and (iii) will not result in water quality less than that prescribed in policies. Likewise, the amendment is consistent with the federal Antidegradation Policy (40 CFR 131.12).
10. The basin planning process has been certified as functionally equivalent to the California Environmental Quality Act requirements for preparing environmental documents (Public Resources Code, Section 21000 et seq.) and as such, the required environmental documentation and CEQA environmental checklist have been prepared.
11. The proposed amendment results in no potential for adverse effect (de minimis finding), either individually or cumulatively, on wildlife.
12. The regulatory action meets the "Necessity" standard of the Administrative Procedures Act, Government Code, section 11353, subdivision (b).
13. The Basin Plan amendment incorporating a TMDL for bacteria at Santa Monica Bay beaches must be submitted for review and approval by the State Water Resources Control Board (State Board), the State Office of Administrative Law (OAL), and the USEPA. The Basin Plan amendment will become effective upon approval by OAL and USEPA. A Notice of Decision will be filed.

**THEREFORE, be it resolved that pursuant to Section 13240 and 13242 of the Water Code, the Regional Board hereby amends the Basin Plan as follows:**

1. Pursuant to sections 13240 and 13242 of the California Water Code, the Regional Board, after considering the entire record, including oral testimony at the hearing, hereby adopts the amendment to Chapter 7 the Water Quality Control Plan for the Los Angeles Region to incorporate the elements of the Santa Monica Bay Beaches Bacteria TMDL for dry weather as set forth in Attachment A hereto.
2. The Executive Officer is directed to forward copies of the Basin Plan amendment to the State Board in accordance with the requirements of section 13245 of the California Water Code.
3. The Regional Board requests that the State Board approve the Basin Plan amendment in accordance with the requirements of sections 13245 and 13246 of the California Water Code and forward it to OAL and the USEPA.
4. The Basin Plan amendment set forth in Attachment A shall only become effective if the water quality objectives revised by Regional Board Resolution 2001-018, or equivalent water quality objectives, have been approved by the State Board, OAL, and USEPA, and are consistent with the TMDL.
5. If during its approval process the State Board or OAL determines that minor, non-substantive corrections to the language of the amendment are needed for clarity or consistency, the Executive Officer may make such changes, and shall inform the Board of any such changes.
6. The Executive Officer is authorized to sign a Certificate of Fee Exemption.

I, Dennis A. Dickerson, Executive Officer, do hereby certify that the foregoing is a full, true, and correct copy of a resolution adopted by the California Regional Water Quality Control Board, Los Angeles Region, on January 24, 2002.

Original Signed By (01/24/2002)

Dennis A. Dickerson  
Executive Officer

**Attachment A to Resolution No. 02-004**  
**Proposed Amendment to the Water Quality Control Plan – Los Angeles Region to incorporate the**  
**Santa Monica Bay Beaches Bacteria TMDL**

Proposed for adoption by the California Regional Water Quality Control Board, Los Angeles Region on January 24, 2002.

**Amendments:**

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Add:

Chapter 7. Total Maximum Daily Loads (TMDLs) Summaries

7-4 Santa Monica Bay Beaches Bacteria TMDL\*

**List of Figures, Tables and Inserts**

Add:

Chapter 7. Total Maximum Daily Loads (TMDLs)

Tables

7-4 Santa Monica Bay Beaches Bacteria TMDL

7-4.1. Santa Monica Bay Beaches Bacteria TMDL (Dry Weather Only): Elements

7-4.2a. Santa Monica Bay Beaches Bacteria TMDL (Dry Weather Only): Implementation  
Schedule

7-4.2b. Santa Monica Bay Beaches Bacteria TMDL (Dry Weather Only): Implementation  
Schedule

7-4.3. Santa Monica Bay Beaches Bacteria TMDL (Dry Weather Only): Significant Dates

**Chapter 7. Total Maximum Daily Loads (TMDLs) Summaries**  
**Santa Monica Bay Beaches Bacteria TMDL (Dry Weather Only)\***

This TMDL was adopted by:

The Regional Water Quality Control Board on January 24, 2002.

The State Water Resources Control Board on [Insert Date].

The Office of Administrative Law on [Insert Date].

The U.S. Environmental Protection Agency on [Insert Date].

The following table summarizes the key elements of this TMDL.

**Table 7-4.1. Santa Monica Bay Beaches Bacteria TMDL (Dry Weather Only): Elements**

Element	Key Findings and Regulatory Provisions
<b>Problem Statement</b>	Elevated bacterial indicator densities are causing impairment of the water contact recreation (REC-1) beneficial use at many Santa Monica Bay (SMB) beaches. Swimming in waters with elevated bacterial indicator densities has long been associated with adverse health effects. Specifically, local and national epidemiological studies compel the conclusion that there is a causal relationship between adverse health effects and recreational water quality, as measured by bacterial indicator densities.
<b>Numeric Target</b> <i>(Interpretation of the numeric water quality objective, used to calculate the waste load allocations)</i>	<p>The TMDL has a multi-part numeric target based on the bacteriological water quality objectives for marine water to protect the water contact recreation use. These targets are the most appropriate indicators of public health risk in recreational waters.</p> <p>These bacteriological objectives are set forth in Chapter 3 of the Basin Plan, as amended by the Regional Board on October 25, 2001. The objectives are based on four bacterial indicators and include both geometric mean limits and single sample limits. The Basin Plan objectives are as follows:</p> <ol style="list-style-type: none"> <li>1. <u>Rolling 30-day Geometric Mean Limits</u> <ol style="list-style-type: none"> <li>a. Total coliform density shall not exceed 1,000/100 ml.</li> <li>b. Fecal coliform density shall not exceed 200/100 ml.</li> <li>c. Enterococcus density shall not exceed 35/100 ml.</li> </ol> </li> <li>2. <u>Single Sample Limits</u> <ol style="list-style-type: none"> <li>a. Total coliform density shall not exceed 10,000/100 ml.</li> <li>b. Fecal coliform density shall not exceed 400/100 ml.</li> <li>c. Enterococcus density shall not exceed 104/100 ml.</li> <li>d. Total coliform density shall not exceed 1,000/100 ml, if the ratio of fecal-to-total coliform exceeds 0.1.</li> </ol> </li> </ol> <p>The targets apply throughout the year. The compliance point for the targets is the wave wash<sup>1</sup>, where there is a freshwater outlet (i.e., storm drain or creek) to the beach, or at ankle depth at beaches without a freshwater outlet.</p> <p>The geometric mean targets may not be exceeded at any time. For the single sample targets, each existing shoreline monitoring site is assigned an allowable number of exceedance days for two time periods (summer dry weather and winter dry weather as defined in Table 7-4.2a). (A separate amendment will address the allowable number of wet weather exceedance days.)</p> <p>The allowable number of exceedance days is set such that (1) bacteriological water quality at any site is at least as good as at a designated reference site within the watershed and (2) there is no degradation of existing shoreline bacteriological water quality.</p>
<b>Source Analysis</b>	With the exception of isolated sewage spills, dry weather urban runoff conveyed by storm drains and creeks is the primary source of elevated bacterial indicator densities to SMB beaches during dry weather. Limited natural runoff and groundwater may also potentially contribute to elevated bacterial indicator densities during winter dry weather. This

<sup>1</sup> The wave wash is defined as the point at which the storm drain or creek empties and the effluent from the storm drain initially mixes with the receiving ocean water.

	<p>is supported by the finding that historical monitoring data from the reference beach indicate no exceedances of the single sample targets during summer dry weather and on average only three percent exceedance during winter dry weather.</p>
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<b>Loading Capacity</b>	Studies show that bacterial degradation and dilution during transport from the watershed to the beach do not significantly affect bacterial indicator densities at SMB beaches. Therefore, the loading capacity is defined in terms of bacterial indicator densities, which is the most appropriate for addressing public health risk, and is equivalent to the numeric targets, listed above.
<b>Waste Load Allocations</b>	<p>Waste load allocations are expressed as the number of sample days at a shoreline monitoring site that may exceed the single sample targets identified under "Numeric Target." Waste load allocations are expressed as allowable exceedance days because the bacterial density and frequency of single sample exceedances are the most relevant to public health protection.</p> <p>For each shoreline monitoring site and corresponding subwatershed, the allowable number of exceedance days is set for two time periods. These two periods are:</p> <ol style="list-style-type: none"> <li>1. summer dry weather (April 1 to October 31), and</li> <li>2. winter dry weather (November 1 to March 31).</li> </ol> <p>The allowable number of exceedance days for a shoreline monitoring site for each time period is based on the lesser of two criteria (1) exceedance days in the designated reference system and (2) exceedance days based on historical bacteriological data at the monitoring site. This ensures that shoreline bacteriological water quality is at least as good as that of a largely undeveloped system and that there is no degradation of existing shoreline bacteriological water quality.<sup>2</sup>All responsible jurisdictions and responsible agencies<sup>3</sup> within a subwatershed are jointly responsible for complying with the allowable number of exceedance days for each associated shoreline monitoring site identified in Table 7-4.2a below.</p> <p>The three Publicly Owned Treatment Works (POTWs)<sup>4</sup> discharging to Santa Monica Bay are each given individual WLAs of zero (0) days of exceedance during both summer dry weather and winter dry weather.</p>
<b>Implementation</b>	<p>This TMDL will be implemented in two phases over a 6-year period. The regulatory mechanisms used to implement the TMDL will include primarily the Los Angeles County Municipal Storm Water NPDES Permit, the Caltrans Storm Water Permit, the three NPDES permits for the POTWs, and the authority vested in the Executive Officer via 13267 of the Porter-Cologne Water Quality Control Act.</p> <p>Within 3 years of the effective date of the TMDL, summer dry-weather allowable exceedance days and the rolling 30-day geometric mean</p>

<sup>2</sup> In order to fully protect public health, no exceedances are permitted at any shoreline monitoring location during summer dry weather (April 1 to October 31). In addition to being consistent with the two criteria, waste load allocations of zero (0) exceedance days are further supported by the fact that the California Department of Health Services has established minimum protective bacteriological standards – the same as the numeric targets in this TMDL – which, when exceeded during the period April 1 to October 31, result in posting a beach with a health hazard warning (California Code of Regulations, title 17, section 7958).

<sup>3</sup> For the purposes of this TMDL, "responsible jurisdictions and responsible agencies" includes: (1) local agencies that are responsible for discharges from a publicly owned treatment works to the Santa Monica Bay watershed or directly to the Bay, (2) local agencies that are permittees or co-permittees on a municipal storm water permit, (3) local or state agencies that have jurisdiction over a beach adjacent to Santa Monica Bay, and (4) the California Department of Transportation pursuant to its storm water permit.

<sup>4</sup> Hyperion Wastewater Treatment Plant, Joint Water Pollution Control Plant, and Tapia Wastewater Reclamation Facility.

	<p>targets must be achieved. Within 6 years of the effective date, winter dry-weather allowable exceedance days and the rolling 30-day geometric mean targets must be achieved.</p>
<p><b><i>Margin of Safety</i></b></p>	<p>WLAs of zero days of exceedance during the summer include an implicit margin of safety. The WLAs of a maximum of three days of exceedance during winter dry weather include an implicit margin of safety because the maximum allowable days of exceedance are based on samples collected 50 yards downcurrent of the freshwater outlet at the reference beach. Findings from a bacterial dispersion study of selected freshwater outlets show that there is typically significant dilution between the freshwater outlet, the wave wash (the compliance point), and a point 50 yards downcurrent.</p>
<p><b><i>Seasonal Variations and Critical Conditions</i></b></p>	<p>Seasonal variations are addressed by developing separate waste load allocations for two time periods (summer dry weather and winter dry weather) based on public health concerns and observed natural background levels of exceedance of bacterial indicators.</p> <p>The critical period for this dry weather bacteria TMDL is during winter months, when historic shoreline monitoring data for the reference beach indicate that the single sample bacteria objectives are exceeded on average 3% of the dry weather days sampled.</p>

Note: The complete staff report for the TMDL is available for review upon request.

**Table 7-4.3. Santa Monica Bay Beaches Bacteria TMDL (Dry Weather Only): Significant Dates**

Date	Action
120 days after the effective date of the TMDL	Responsible jurisdictions and responsible agencies must submit coordinated shoreline monitoring plan(s), including a list of new sites or sites relocated to the wave wash at which time responsible jurisdictions and responsible agencies will select between daily and weekly shoreline sampling.
120 days after the effective date of the TMDL	<p>Responsible jurisdictions and responsible agencies must identify and provide documentation on 342 potential discharges to Santa Monica Bay beaches listed in Appendix C of the TMDL Staff Report dated January 11, 2002. Documentation must include a Report of Waste Discharge (ROWD) where necessary.</p> <p>Responsible jurisdictions and responsible agencies must identify and provide documentation on potential discharges to the Area of Special Biological Significance (ASBS) in northern Santa Monica Bay from Latigo Point to the County line.</p> <p>Cessation of the discharges into the ASBS shall be required in conformance with the California Ocean Plan.</p>
2 years after effective date of TMDL	Re-open TMDL to re-evaluate allowable winter dry weather exceedance days based on additional data on bacterial indicator densities in the wave wash, a re-evaluation of the reference system selected to set allowable exceedance levels, and a re-evaluation of the reference year used in the calculation of allowable exceedance days.
3 years after effective date of the TMDL	Achieve compliance with allowable exceedance days as set forth in Table 7-4.2a and rolling 30-day geometric mean targets during summer dry weather (April 1 to October 31).
6 years after effective date of the TMDL	Achieve compliance with allowable exceedance days as set forth in Table 7-4.2a and rolling 30-day geometric mean targets during winter dry weather (November 1 to March 31).

**Table 7-4.2a: Santa Monica Bay Beaches Bacteria TMDL Implementation Schedule (Dry Weather Only): Allowable Number of Days that May Exceed Any Single Sample Bacterial Indicator Target for Existing Shoreline Monitoring Stations**

Compliance Deadline			3 years after effective date		6 years after effective date	
Station ID	Location Name	Subwatershed	Summer Dry Weather <sup>a</sup> Apr. 1-Oct. 31		Winter Dry Weather <sup>aa</sup> Nov. 1-Mar. 31	
			Daily sampling (No. days)	Weekly sampling (No. days)	Daily sampling (No. days)	Weekly sampling (No. days)
<i>City of Los Angeles, Environmental Monitoring Division Sites</i>						
S1	Surfrider Beach (breach point) - daily	Malibu Canyon	0	0	3	1
S2	Topanga State Beach	Topanga Canyon	0	0	3	1
S3	Pulga Canyon storm drain - 50 yards east (Will Rogers)	Pulga Canyon	0	0	3	1
S4	Santa Monica Canyon, Will Rogers State Beach	Santa Monica Canyon	0	0	3	1
S5	Santa Monica Municipal Pier - 50 yards southeast	Santa Monica	0	0	3	1
S6	Santa Monica Beach at Pico/Kenter storm drain	Santa Monica	0	0	3	1
S7	Ashland Av. storm drain - 50 yards south (Venice)	Santa Monica	0	0	3	1
S8	Venice City Beach at Windward Av. - 50 yards north	Ballona	0	0	2	1
S10	Ballona Creek entrance - 50 yards south (Dockweiler)	Dockweiler	0	0	3	1
S11	Dockweiler State Beach at Cuiver Bl.	Dockweiler	0	0	3	1
S12	Imperial Highway storm drain - 50 yards north (Dockweiler)	Dockweiler	0	0	2	1
S13	Manhattan State Beach at 40th Street	Hermosa	0	0	1	1
S14	Manhattan Beach Pier - 50 yards south	Hermosa	0	0	1	1
S15	Hermosa Beach Pier - 50 yards south	Hermosa	0	0	2	1
S16	Redondo Municipal Pier - 50 yards south	Redondo	0	0	3	1
S17	Redondo State Beach at Avenue I	Redondo	0	0	3	1
S18	Malaga Cove, Palos Verdes Estates - daily	Palos Verdes	0	0	1	1
<i>Los Angeles County Department of Health Services Sites</i>						
DHS (010)	Leo Carillo Beach (REFERENCE BEACH)	Arroyo Sequit Canyon	0	0	3	1
DHS (009)	Nicholas Beach	Nicholas Canyon	0	0	0	0
DHS (010a)	Broad Beach	Trancas Canyon	0	0	3	1
DHS (008)	Trancas Beach entrance	Trancas Canyon	0	0	0	0
DHS (007)	Westward Beach, SE end	Zuma Canyon	0	0	0	0
DHS (006)	Paradise Cove	Ramirez Canyon	0	0	3	1
DHS (005)	26610 Latigo Shore Drive	Latigo Canyon	0	0	3	1
DHS (005a)	Corral Beach	Latigo Canyon	0	0	3	1
DHS (004)	Puerco Beach	Corral Canyon	0	0	3	1
DHS (003)	Malibu Point, Malibu Colony Dr.	Malibu Canyon	0	0	3	1
DHS (003a)	Surfrider Beach, Malibu, 50 yds.	Malibu Canyon	0	0	3	1
DHS (002)	Malibu Pier	Malibu Canyon	0	0	3	1
DHS (001a)	Las Flores Beach	Las Flores Canyon	0	0	3	1
DHS (001)	Big Rock Beach	Piedra Gorda Canyon	0	0	3	1
DHS (101)	17200 Pacific Coast Hwy.	Santa Ynez Canyon	0	0	3	1
DHS (102)	Bel Air Bay Club, 16801 Pacific	Santa Ynez Canyon	0	0	3	1
DHS (103)	Temescal Storm Drain	Pulga Canyon	0	0	3	1
DHS (104a)	San Vicente Blvd. extended	Santa Monica	0	0	3	1
DHS (104)	Montana Ave. Storm Drain	Santa Monica	0	0	3	1
DHS (105)	Wilshire Blvd., Santa Monica	Santa Monica	0	0	3	1
DHS (106)	Strand Street extended	Santa Monica	0	0	3	1
DHS (106a)	Ashland Storm Drain	Santa Monica	0	0	3	1
DHS (107)	Venice City Beach at Brooks Av.	Ballona	0	0	3	1
DHS (108)	Venice Pier, Venice	Ballona	0	0	3	1
DHS (109)	Topsail Street extended	Ballona	0	0	3	1
DHS (110)	World Way extended	Dockweiler	0	0	3	1
DHS (111)	Opposite Hyperion Plant, 1 mile	Dockweiler	0	0	3	1
DHS (112)	Grand Avenue extended	Dockweiler	0	0	3	1
DHS (113)	26th Street extended	Hermosa	0	0	0	0
DHS (114)	Herondo Street extended	Hermosa	0	0	3	1
DHS (115)	Topaz Street extended	Redondo	0	0	3	1
<i>County Sanitation Districts of Los Angeles County Sites</i>						
LACSD1	Long Point	Palos Verdes	0	0	1	1
LACSD2	Abalone Cove	Palos Verdes	0	0	0	0
LACSD3	Portuguese Bend Cove	Palos Verdes	0	0	1	1
LACSD5	Royal Palms	Palos Verdes	0	0	1	1
LACSD6	Wilder Annex	Palos Verdes	0	0	1	1
LACSD7	Cabrillo Beach, oceanside	Palos Verdes	0	0	1	1
LACSDMC	Malaga Cove	Palos Verdes	0	0	1	1
LACSDBC	Bluff Cove	Palos Verdes	0	0	1	1

Notes: The allowable number of exceedance days during winter dry weather is calculated based on the 10th percentile year in terms of non-rain days at the LAX meteorological station. The number of allowable exceedances during winter dry weather is based on the lesser of (1) the reference system or (2) existing levels of exceedance based on historical shoreline data. <sup>a</sup>Dry weather days are defined as those with <0.1 inch of rain and those days not less than 3 days after a rain day. Rain days are defined as those with >=0.1 inch of rain. <sup>aa</sup> A re-opener is scheduled for two years after the effective date of the TMDL in order to re-evaluate the allowable exceedance days during winter dry weather based on additional monitoring data.

**Table 7-4.2b. Santa Monica Bay Beaches Bacteria TMDL Implementation Schedule (Dry Weather):**  
**Required Reduction in Number of Days Exceeding Single Sample Bacterial Indicator Targets for Existing Shoreline Monitoring Stations**

Compliance Deadline		3 years after effective date	6 years after effective date
Location Name	Subwatershed	Summer Dry Weather (Apr. 1- Oct. 31)	Winter Dry Weather (Nov. 1- Mar. 31)*
<i>City of Los Angeles, Environmental Monitoring Division Sites</i>			
Surfrider Beach (breach point) - daily	Malibu Canyon	48	31
Topanga State Beach	Topanga Canyon	10	8
Pulga Canyon storm drain - 50 yards east (Will Rogers)	Pulga Canyon	4	6
Santa Monica Canyon, Will Rogers State Beach	Santa Monica Canyon	36	7
Santa Monica Municipal Pier - 50 yards southeast (Santa Monica)	Santa Monica	54	22
Santa Monica Beach at Pico/Kenter storm drain (Santa Monica)	Santa Monica	15	20
Ashland Av. storm drain - 50 yards south (Venice)	Santa Monica	16	6
Venice City Beach at Windward Av. - 50 yards north	Ballona	3	0
Ballona Creek entrance - 50 yards south (Dockweiler)	Dockweiler	7	3
Dockweiler State Beach at Culver Bl.	Dockweiler	6	1
Imperial Highway storm drain - 50 yards north (Dockweiler)	Dockweiler	7	0
Manhattan State Beach at 40th Street	Hermosa	1	0
Manhattan Beach Pier - 50 yards south	Hermosa	1	0
Hermosa Beach Pier - 50 yards south	Hermosa	2	0
Redondo Municipal Pier - 50 yards south	Redondo	16	9
Redondo State Beach at Avenue I	Redondo	2	0
Malaga Cove, Palos Verdes Estates - daily	Palos Verdes	1	0
<i>Los Angeles County Department of Health Services Sites</i>			
<b>Leo Carrillo Beach (REFERENCE BEACH)</b>	<b>Arroyo Sequit Canyon</b>	<b>0</b>	<b>0</b>
Nicholas Beach	Nicholas Canyon	7	0
Broad Beach	Trancas Canyon	3	3
Trancas Beach entrance	Trancas Canyon	5	0
Westward Beach, SE end	Zuma Canyon	8	0
Paradise Cove	Ramirez Canyon	16	9
26610 Latigo Shore Drive	Latigo Canyon	11	13
Corral Beach	Latigo Canyon	3	5
Puerco Beach	Corral Canyon	0	7
Malibu Point, Malibu Colony Dr.	Malibu Canyon	23	6
Surfrider Beach, Malibu, 50 yds.	Malibu Canyon	58	25
Malibu Pier	Malibu Canyon	42	14
Las Flores Beach	Las Flores Canyon	18	7
Big Rock Beach	Piedra Gorda Canyon	32	20
17200 Pacific Coast Hwy.	Santa Ynez Canyon	3	9
Bel Air Bay Club, 16801 Pacific	Santa Ynez Canyon	14	5
Temescal Storm Drain	Pulga Canyon	17	0
San Vicente Blvd. extended	Santa Monica	7	0
Montana Ave. Storm Drain	Santa Monica	7	0
Wilshire Blvd., Santa Monica	Santa Monica	15	4
Strand Street extended	Santa Monica	8	6
Ashland Storm Drain	Santa Monica	24	2
Venice City Beach at Brooks Av.	Ballona	3	10
Venice Pier, Venice	Ballona	4	0
Topsail Street extended	Ballona	11	0
World Way extended	Dockweiler	5	1
Opposite Hyperion Plant, 1 mile	Dockweiler	3	4
Grand Avenue extended	Dockweiler	8	5
26th Street extended	Hermosa	5	0
Herondo Street extended	Hermosa	5	1
Topaz Street extended	Redondo	8	12
<i>County Sanitation Districts of Los Angeles County Sites</i>			
Long Point	Palos Verdes	1	0
Abalone Cove	Palos Verdes	1	0
Portuguese Bend Cove	Palos Verdes	1	0
Royal Palms	Palos Verdes	1	0
Wilder Annex	Palos Verdes	1	0
Cabrillo Beach, oceanside	Palos Verdes	1	0
Malaga Cove	Palos Verdes	2	0
Bluff Cove	Palos Verdes	0	0

\* A re-opener is scheduled for two years after the effective date of the TMDL in order to re-evaluate the allowable exceedance days and necessary reductions during winter dry weather based on additional monitoring data.

\*\* Required reductions are based on the assumption of daily sampling.

