

## **Receiving Waters Limitation Compliance Report City of Hermosa Beach August 21, 2008**

The City of Hermosa Beach received a Notice of Violation (NOV) from the Los Angeles Regional Water Quality Control Board dated March 4, 2008 stating that the City is in violation of waste discharge requirements established in Board Order No. 01-182 as amended by Orders R4-2006-0074 and Order No R4-2007-0042 (MS4 Permit). Regional Board technical staff had concluded that violations of the Receiving Waters Limitations provisions of Part 2.5 of the MS4 Permit have occurred due to prohibited discharges from the Municipal Separate Storm Sewer System (MS4) that cause or contribute to exceedances of bacterial objectives as established through the Basin Plan Amendment for Santa Monica Bay Beaches during Summer Dry Weather.

Based on the Regional Water Quality Control Board NOV dated March 4, 2008, the City of Hermosa Beach is required to check "yes" to question II.B of the Individual Annual Report (Form U-4) of Los Angeles County Municipal Storm Water Permit Order No. 01-182 and to file a Receiving Water Limitations Compliance Report. As set forth in the City's response to the NOV and in the report that follows, the City does not necessarily concede responsibility for the alleged exceedances that are the subject of the NOV and is providing this information as a good faith means of fully apprising the Regional Board of its activities and to comply with the provisions of the MS4 permit. If the water quality standards by which the alleged exceedances were gauged are found by a court or otherwise to be invalid and the exceedances referenced in the NOV are no longer exceedances of any applicable water quality standards, the City reserves the right to amend its answer to question I.B and withdraw the submittal of the RWL Compliance Report.

The NOV stated that these violations occurred at four shoreline monitoring sites: SMB 5-02, SMB 5-03, SMB 6-01 and SMB 6-05. The City contends that the exceedances of bacteriological indicators which are the subject of the identified violations at SMB 5-2, SMB 5-3 and SMB 6-5 were not associated with, nor were they in the vicinity of, MS4 discharges that are the responsibility of the City of Hermosa Beach because drainage from the City of Hermosa Beach is not tributary to these locations.

**SMB 5-2, 28<sup>th</sup> Street:** As shown in Exhibit A, land area within the City of Hermosa Beach does not contribute runoff via the 28<sup>th</sup> Street storm drain in Manhattan Beach. Therefore, the City of Hermosa Beach is not responsible for any exceedances of bacterial objectives associated with SMB 5-2 monitoring site at the zero point of 28<sup>th</sup> Street storm drain in Manhattan Beach.

**SMB 5-3, Manhattan Pier:** As shown in Exhibit A, land area within the City of Hermosa Beach does not contribute runoff via storm drains that outfall in the vicinity of Manhattan Beach Pier. Therefore, City of Hermosa Beach is not responsible for any exceedances of bacterial objectives associated with the SMB 5-3 monitoring site adjacent to the Pier in Manhattan Beach.

**SMB 6-5, Avenue I, Redondo Beach:** As shown in Exhibit A, land area within the City of Hermosa Beach does not contribute runoff via storm drains that outfall south of Herondo Street. Therefore, the City of Hermosa Beach is not responsible for any exceedances of bacterial objectives associated with SMB 6-5 Avenue I in Redondo Beach.

The following report provides the required elements of the Receiving Waters Limitation Compliance Report for shoreline monitoring site SMB 6-01 under the Santa Monica Bay Beaches Bacteria (SMBBB) TMDL Coordinated Shoreline Monitoring Plan.

## **1. A description of the pollutants that are in exceedance and an analysis of possible sources**

### **Pollutants in Exceedance**

Sampling and analysis at SMB 6-1 has been conducted by Los Angeles County Department of Health Services (DHS) on Mondays under the SMBBB TMDL Coordinated Shoreline Monitoring Plan and by the City of Los Angeles Environmental Monitoring Division on Tuesdays through Fridays as part of the Monitoring and Reporting Program under the MS4 NPDES Permit (MS4 Monitoring).

The NOV indicated that during the two years since the summer dry-weather SMBBB TMDL became effective on July 15, 2006, four exceedance days associated with samples collected at the SMB 6-1 (Herondo) monitoring site under the Coordinated Shoreline Monitoring Plan were identified.

- On Tuesday, October 31, 2006, there was a detection of *Enterococcus* indicator bacteria at 140 MPN/100 in comparison with the target of 104 MPN/100mL.
- On Monday, June 4, 2007, *Enterococcus* was detected at 146 MPN/100mL in comparison with the target of 104 MPN/100mL.
- On Thursday, October 25, 2007, *E. coli* was detected at 1,700 MPN/100 mL, in comparison with the target of 400 MPN/100 mL and *Enterococcus* was detected in the same sample at a concentration of 1,400 MPN/100 mL in comparison with the target of 104 MPN/100mL.
- On Friday, October 26, 2007, *E. coli* was detected at 1,800 MPN/100 mL, in comparison with the target of 400 MPN/100 mL and *Enterococcus* was detected in the same sample at a concentration of 480 MPN/100 mL in comparison with the target of 104 MPN/100mL.

### **Possible Sources of Indicator Bacteria**

It is well documented in the literature that Total coliform, Fecal coliform and *Enterococcus* bacteria, which are the indicator bacteria used in setting recreational standards for water quality and for setting compliance targets under the SMBBB TMDL, are ubiquitous in the natural and developed environments. Consequently indicator bacteria present at a particular shoreline monitoring location may be the result of activity in the immediate vicinity of the monitoring station, e.g., marine mammals, birds, or human recreational activity, or if there is flow of runoff conveyed via a storm drain or even a natural watercourse to the shoreline then the source of indicator bacteria is also likely to be associated with many different land use activities and natural sources within the drainage area tributary to the location of interest.

The Herondo storm drain is owned by the Los Angeles County Flood Control District. Land areas within the City of Hermosa Beach contribute approximately 287 acres or roughly 10% of the Herondo drainage area. The Herondo storm drain outlet is a concrete box 12 feet wide by 5 feet

high and is typically buried in sand during summer dry weather. The storm drain outfall is located just inside the southern border of the City of Hermosa Beach with Redondo Beach. The City of Hermosa Beach owns the beach.

The Herondo storm drain is equipped with a low flow diversion and according to information provided by the Los Angeles County Department of Public Works (County) this diversion:

- has been operational on a continuous basis during the last two summer dry-weather periods,
- has an in-line storage capacity of 12,626 gallons,
- operates 12 hours per day from 6 p.m. to 6 a.m. and has a pump discharge rate of 60 gallons per minute, both limited by the permit from the Sanitation Districts of Los Angeles County.

One lateral storm drain draining an area of 47 acres of Hermosa Beach connects to the Herondo storm drain downstream of the diversion so that it is not intercepted by the diversion.

On several occasions water has been observed ponding on the beach above the buried storm drain outlet during summer dry weather. Jurisdictional Group 5 and 6 agencies have been working with local water agencies to establish understanding of infrequent permitted water agency water discharges to the Herondo storm drain system that, while not a source of bacteria per se, may be sufficiently large so as to exceed the storage capacity of the diversion and result in bypassing of the low flow diversion. Based on information gathered to date from these agencies, we have not identified any specific water utility releases that correlated with an exceedance.

On August 14, 2006, unusual flows were observed ponding on the beach in the vicinity of the Herondo outfall for several hours and then subsided without breaking through to the surf zone. The City of Hermosa Beach Public Works staff investigated areas of the City adjacent to the Herondo storm drain during that time but could identify no unusual sources of water entering the storm drain system via curb and gutter. Results of shoreline monitoring at SMB 6-1 on that day and the following days in that week exhibited no exceedances of any of the indicators, thus at this location it seems that ponded water which does not reach the surf but infiltrates down through the sand does not necessarily have an adverse affect on receiving water quality.

Sampling and analysis at SMB 6-1 has been conducted by Los Angeles County Department of Health Services (DHS) on Mondays under the SMBBB TMDL Coordinated Shoreline Monitoring Plan and by the City of Los Angeles Environmental Monitoring Division (EMD) on Tuesdays through Fridays as part of the Monitoring and Reporting Program under the MS4 NPDES Permit (MS4 Monitoring). It is the City's understanding that the DHS sampling crew has not been making simultaneous observations and completing the SMBBB TMDL South Beach Observation Sheet included in Appendix E of the CSMP which provides details of beach and storm drain conditions at the time of the sampling. EMD has not been reporting observation data for the Tuesday-Friday MS4 Monitoring and until recently it was our understanding that there was no observation data for the MS4 Monitoring. After further inquiry we were informed that EMD has been making observations but had not been reporting it in the monthly monitoring reports and that the information was available in individual files for each day of sampling.

Upon our request, EMD has provided observation data files for the single-sample exceedance days identified in the Notice of Violation. A summary of the observations on those dates are shown in the table below.

**STATION SMB 6-1  
SANTA MONICA BAY BEACHES BACTERIA (SMBBB) TMDL  
SUMMER DRY WEATHER - Observations on NOV Exceedance Days**

DATE	DAY	Flow	Flow Reached Surf	Seaweed	Ocean Debris	Beach Refuse	Other
10/31/2006	Tues	No Flow	No	Moderate	Moderate	Some	Birds
6/4/2007	Mon	<i>DHS does not make observations (Mondays)</i>					
8/9/2007	Marina del Rey TMDL/MS4 Permit reopening incorporated MS4 Monitoring into RWL Compliance						
10/25/2007	Thurs	Ponded	No	--	Some	Some	--
10/26/2007	Fri	Heavy	Yes	Some	Some	Some	--

On October 31, 2006 when there was a detection of Enterococcus at SMB 6-1 of 140 MPN/100 mL, there was no flow or ponding of water observed from the storm drain. Furthermore, the sample collected on the following day, November 1<sup>st</sup>, exhibited no exceedances of any of the indicator targets (this was the first day of the winter dry weather period whereupon the low flow diversion would have been inactivated). Observations did include moderate quantities of seaweed and ocean debris as well as birds and some refuse on the beach all of which could have contributed to the detection identified in the Notice of Violation.

On Monday, June 4, 2007 when there was a detection of Enterococcus at SMB 6-1 of 146 MPN/100 mL, there were no observations made because the sample was collected by DHS. The sample collected on the following day exhibited no exceedances of any of the indicator targets.

During this reporting period on October 25 and 26, 2007 when there were detections of both E. coli and Enterococcus above the single-sample targets identified in the Notice of Violation, ponding was observed on the beach in the vicinity of the outfall on the 25<sup>th</sup> and heavy flow reaching the surf was observed on the 26<sup>th</sup>. Based on inquiries made to local water agencies, no specific water utility releases that correlated with these detections on those dates have been identified. Observations included some seaweed, ocean debris and beach refuse and these conditions could have contributed to the detection on those days.

## 2. A plan to comply with the RWL

The Los Angeles County Department of Public Works completed the installation of a low flow diversion for the Herondo Storm Drain on August 16, 2005. This is the second diversion that has been constructed for this storm drain—an earlier diversion located at the outfall had to be abandoned because tidal influences were causing ocean water to back up into the storm drain through the outfall opening and to be diverted into the sanitary sewer which was an unacceptable operating condition from the Sanitation Districts’ point-of-view.

The current diversion installed in August 2005 is located approximately 1/4 mile upstream from the outfall to avoid tidal influence. Due to this location, one lateral storm drain from Hermosa

Beach connects to the Herondo storm drain downstream of the diversion so that it is not intercepted by the diversion.

The City of Hermosa Beach has been successful in securing a Clean Beaches Initiative Grant from the State Water Resources Control Board to design and construct the Hermosa Strand Infiltration Trench which will divert and infiltrate runoff from storm drain outfalls in Hermosa Beach into a linear infiltration trench constructed along The Strand wall. Phase I of the project is a pilot for the Pier Avenue storm drain which, although much smaller than the Herondo storm drain, is also a tidally influenced storm drain. Phase I is being designed by Los Angeles County Department of Public Works and will include a tide gate to prevent ocean water from entering the diversion structure. Based on lessons learned in the design, operation and monitoring of the Pier Avenue diversion, the City expects to expand the system to provide a secondary infiltration diversion for the Herondo Storm drain at the outfall. This secondary diversion would also intercept runoff from the one small storm drain lateral that enters the main Herondo line downstream of the current primary diversion.

The area draining to SMB 6-1 was identified as a high priority drainage area for winter dry weather and wet weather compliance during a retrospective analysis of historical monitoring conducted as part of the development of the Jurisdictional Groups 5 & 6 Implementation Plan for the SMBBB TMDL. As part of this implementation, Source Identification field work for the two high priority drainage areas in Jurisdictional Groups 5 & 6 (SMB 5-2 and SMB 6-1), including flow tracking of significant dry weather flows and sampling of potential bacterial hot spots, is planned for summer 2009 under the SMBBB TMDL Implementation Plan with a report identifying significant sources and recommended source control techniques anticipated in January 2010. This schedule is dependent on contract authorization by the Jurisdictional Group 5 & 6 Agencies by January 2009. The proposed scope of this work for the two high priority areas includes:

- Drainage Area Study
- Focused reconnaissance of identified land use areas of concern
- Follow up interviews
- Flow tracking of selected storm drain branches
- Confirmatory sampling and analysis
- Prioritization of source controls for identified significant sources
- Fire hydrant flushing program to coordinate the volume and timing of hydrant flushing to ensure that low flow diversion capacity is not exceeded during flushing
- Identify and assess the potential for sanitary sewer infrastructure influence on shoreline water quality

### **3. Changes to the SQMP to eliminate water quality exceedances**

The City continues to implement the Countywide Storm Water Quality Management Plan (SQMP). In addition to the Countywide SQMP the City of Hermosa Beach is also implementing additional activities as they are developed under the Jurisdictional Group 5 & 6 Implementation Plan for the Santa Monica Bay Beaches Bacteria TMDL. The City of Hermosa Beach has undertaken a variety of measures both independently and jointly with its Jurisdictional Group 5 & 6 partners to reduce dry weather flows within the storm drain system and to control sources of bacteria which have the potential to enter the storm drain system.

The cities of Hermosa Beach, Redondo Beach, Torrance and Manhattan Beach, in cooperation with the Santa Monica Bay Restoration Commission, have developed and implemented the Clean Bay Restaurant Certification program targeting food service establishments with exposure to stormwater. The agencies developed a comprehensive 28-point storm water inspection checklist that requires 100% compliance in order for the facility to be awarded a Clean Bay Restaurant Certification by the Santa Monica Bay Restoration Commission. Restaurants are inspected annually under the Clean Bay Restaurant Program.

All City parks and the linear greenbelt are equipped with pet waste collection stations. The City's Dog Regulations include a leash law for all public property, including beaches. Owners are required to carry a visible doggie bag when walking their dogs in the public rights-of-way and must immediately remove and properly dispose of feces.

The City has installed Drain Pac® inserts on all 31 City-owned catch basins plus an additional 10 County-owned basins. These catch basins are also equipped with trash exclusion devices to prevent trash from reaching the ocean and to increase the effectiveness of street sweeping. The City cleans both the City-owned catch basins and the ten County-owned basins equipped with Drain Pac®.

The City implements daily enhanced street sweeping in the downtown/pier commercial area. Municipal parking lots are swept twice per week. Downtown trash enclosures are dry swept and steam cleaned twice per week. The Hermosa Pier pedestrian plaza is steam cleaned twice per month and the wash water is vacuumed and disposed into the sanitary sewer.

#### **4. Enhanced Monitoring to Demonstrate Compliance**

As specified in Table 7-4.3 of the SMBBB TMDL for dry weather, the responsible jurisdictions and agencies were to select between daily and weekly shoreline sampling when preparing the CSMP. Accordingly, under section 4.1 Sampling Schedule, the April 7, 2004 SMBBB TMDL CSMP states that "The proposed compliance monitoring program comprises 67 sites monitored on a weekly basis. All routine samples will be collected on Mondays, and accelerated samples collected on Wednesdays and Fridays." Accelerated sampling is triggered at a monitoring location whenever analysis of a Monday sample indicates that an exceedance has occurred. Weekly sampling resumes for that location once the accelerated sample results demonstrate that bacteria levels no longer exceed the limits. Sampling and analysis at SMB 6-1 has been conducted by Los Angeles County Department of Health Services (DHS) on Mondays under the SMBBB TMDL Coordinated Shoreline Monitoring Plan

Under the Monitoring and Reporting Program (CI 6948) of the MS4 Permit, additional routine monitoring on four other days of the week (Tues-Thurs) has been conducted at monitoring sites SMB 6-1 as well as at selected other sites by the City of Los Angeles Environmental Monitoring Division. When the MS4 Permit was reopened to incorporate the Marina del Rey Bacteria TMDL on August 9, 2007, the Permit was also revised to provide that monitoring data collected through CI 6948 of the MS4 Permit would also be used to assess compliance with the Receiving Waters Limitations.

Thus SMB 6-1 (Herondo) shoreline monitoring site is being monitored for the REC-1 indicator bacteria five days per week and the City does not believe any additional monitoring is needed to demonstrate compliance. Furthermore, this higher frequency of monitoring at SMB 6-1 in comparison to the reference beach and other monitoring sites, which are monitored routinely just once per week, contributes to the perception that there is a higher rate of summer dry weather exceedances at SMB 6-1.

## 5. Results of Implementation

The installation of the low flow diversion in August 2005 has resulted in improved shoreline water quality in the vicinity of SMB 6-1. Because the shoreline monitoring location was relocated in November 2004 to the zero point of the storm drain outfall where previously it had been located 50 yards up coast, comparable data sets are not available to make an accurate comparison of pre- and post-diversion shoreline water quality at this location.

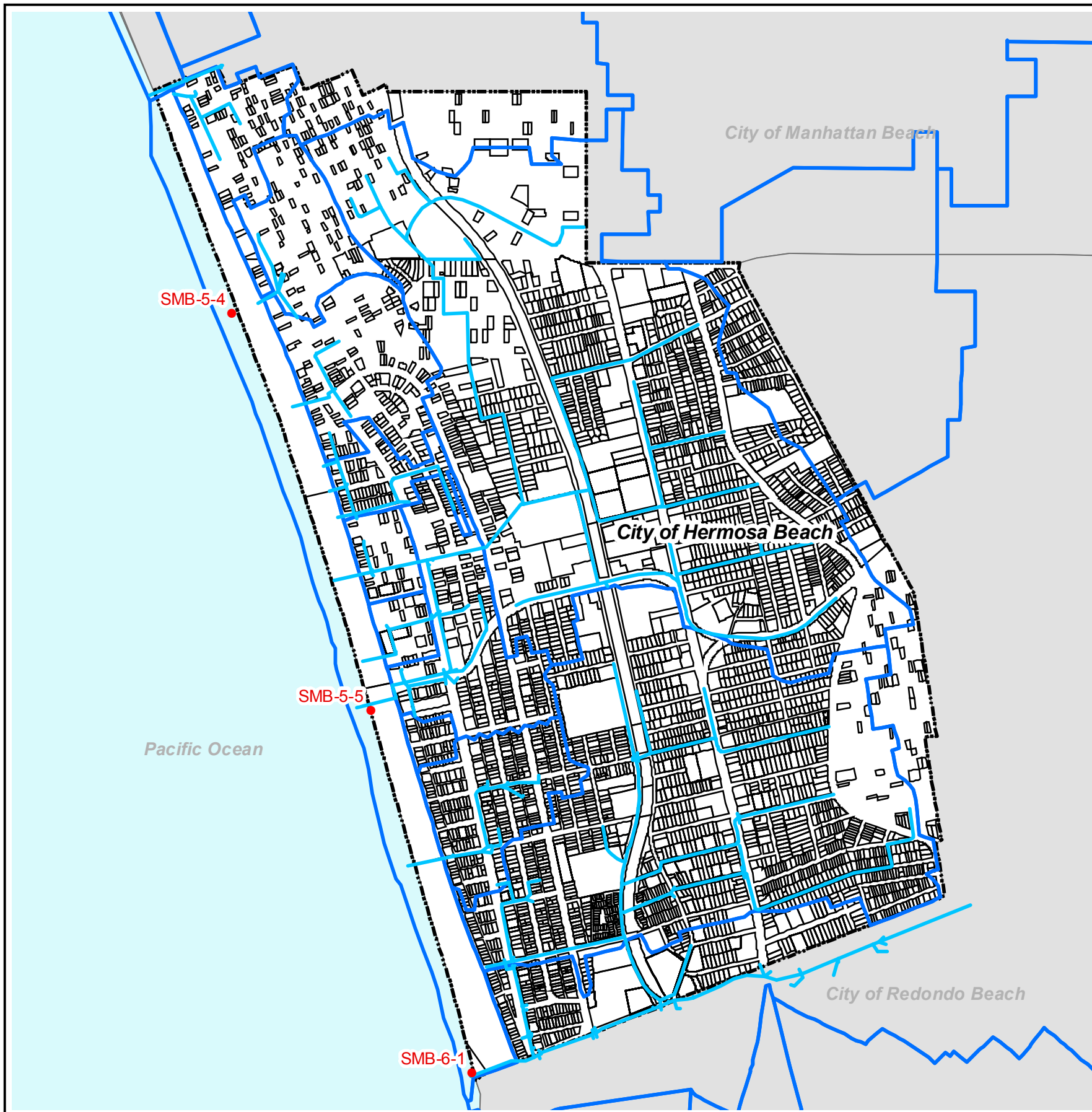
Even so, results of implementation are certainly positive when out of approximately 295 sampling days (less any rain days) over 59 weeks during the summer dry weather reporting periods at SMB 6-1 (Herondo), only four exceedance days were identified in the NOV since the effective date of the Santa Monica Bay Beaches Bacteria TMDL through June 30, 2008.

Other positive results of implementation can be seen via evaluation of effectiveness of source control measures including:

- *Clean Bay Restaurant Certification Program*—The City of Hermosa Beach has implemented the Clean Bay Restaurant Certification program targeting food service establishments with exposure to stormwater. A facility must pass a comprehensive 28-point storm water inspection checklist with 100% compliance in order to be awarded a Clean Bay Restaurant Certification by the Santa Monica Bay Restoration Commission. During the first year of the program (FY 2006-07) 70% of the food service establishments were certified, and in FY 2007-08 85% achieved certification.
- *Grease Control Ordinance*—In order to reduce the incidence of sanitary sewer overflows due to grease blockages, the City has adopted an ordinance amending the plumbing code to require the *retrofitting* of grease removal systems for food service establishments (FSEs) and providing for annual inspection of the grease recovery systems. Only facilities which do no frying of food can be exempted. In December 2005 at the time of the baseline inspection, only 36% of the FSEs were in compliance; now 100% of FSEs are in compliance with the Grease Trap Ordinance.
- *Pet Waste Control*—The City's Dog Regulations include a leash law for all public and private property, including beaches. Owners are required to carry a visible doggie bag when walking their dogs and must immediately remove and properly dispose of feces. City parks and the linear greenbelt are equipped with pet waste collection stations. 110,000 pet waste bags were utilized and an estimated 14 tons of pet waste was collected via these stations during 2006-07.

# Exhibit A

## City of Hermosa Beach Drainage Areas



Manhattan Pier

City of Hermosa Beach

Hermosa Pier

- Stormwater Monitoring Sites
- Storm Drain Lines
- Stormwater Sheds