



Staff Report

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Honorable Mayor and Members of the Hermosa Beach City Council Regular Meeting of September 19, 2016

STORMWATER UPDATE (Environmental Analyst Kristy Morris)

Recommended Action:

Receive an update on City of Hermosa Beach actions for complying with the 2012 MS4 permit requirements.

Background:

The Los Angeles Regional Water Quality Control Board, (Regional Board) adopted the National Pollutant Discharge Elimination System Municipal Separate Storm Sewer System Permit Order No. R4-2012-0175 (MS4 Permit), effective on December 28, 2012. The permit requires that the Los Angeles County Flood Control District (LACFCD), the County of Los Angeles, and 84 of the 88 cities (excluding Avalon, Long Beach, Palmdale, and Lancaster) within Los Angeles County comply with the prescribed elements of the MS4 Permit.

The MS4 Permit identifies the City of Hermosa Beach as a permittee that is responsible for compliance with the MS4 Permit requirements and on December 26, 2013 the city entered into a Memorandum of Understanding (MOU) with the cities of Manhattan Beach, Redondo Beach and Torrance, and Los Angeles County to collaborate in the development of a Draft and Final Enhanced Watershed Management Program (Beach Cities EWMP) and a Draft and Final Coordinated Integrated Monitoring Program (CIMP).

The final Beach Cities EWMP was submitted and approved by the Executive Officer of the Regional Board via letter dated April 18, 2016 (EWMP Approval Letter) and the final CIMP was approved on November 12, 2015. The EWMP Approval Letter directs the Beach Cities WMG to begin implementing the EWMP immediately and compliance will be determined based on compliance actions, milestones and schedules included in the EWMP and listed in the EWMP Approval Letter.

The Beach Cities EWMP identifies regional structural watershed control measures (Regional Structural Projects) that when implemented together with specified distributed structural control measures (Distributed Structural Projects) and nonstructural measures described below, are designed to achieve compliance with interim and final water quality goals. Recommended Regional and Distributed Structural Projects located in Hermosa Beach include: 1) Hermosa Beach Infiltration

Trench, 2) Hermosa Beach Greenbelt Infiltration, and 3) Distributed Green Streets.

Furthermore, implementing nonstructural (e.g., programmatic) BMPs that target the pollutants identified in the EWMP are prioritized over structural BMPs due to their lower relative cost. Examples include new or enhanced pet waste controls (ordinance, signage, etc.), Clean Bay Restaurant Program, enhanced street sweeping, increased catch basin and storm drain cleaning and incentivizing the public to decrease the amount of stormwater runoff from their property, via downspout disconnection programs and rain barrels.

Additionally, beginning in 2001, redevelopment projects were required by the Permit (via the Standard Urban Stormwater Management Program [SUSMP]) to incorporate stormwater treatment BMPs into their projects if their project size exceeded specified thresholds. The 2001 MS4 Permit SUSMP redevelopment requirements were applied between 2003 and 2015 for the SMB EWMP area. The 2012 MS4 Permit established new criteria for redevelopment projects, requiring certain sized projects to capture, retain, or infiltrate the 85th percentile design storm or the 0.75-inch design storm, whichever is greater, via the implementation of LID BMPs. The Green Streets Policy and LID ordinance adopted by City Council on May 26, 2015 established this criteria for permit compliance.

This study session provides an update on the City's progress in complying with the 2012 MS4 permit requirements by implementing the actions described in the Beach Cities EWMP.

Analysis:

The EWMP includes both existing and proposed regional and distributed structural BMPs to address water quality targets in the SMB Watershed. Because bacteria were identified as the controlling pollutant of concern, infiltration BMPs were prioritized as they are most effective for addressing bacteria. Table 1 shows the proposed Structural BMPs and the implementation schedule. A description of each proposed project located in Hermosa Beach is provided below.

Table 1. Proposed Project Sequencing in the Santa Monica Bay Watershed

COLOR KEY	Funding Phase	Design Phase			Construction/ Installation Phase			
BMP Location/Name		Timeline						
		2015	2016	2017	2018	2019	2020	2021
Santa Monica Bay Watershed	Catch basin retrofits for trash							
	Manhattan Beach Infiltration Trench ¹							
	Manhattan Beach Green streets application in SMB-5-02							
	Hermosa Beach Greenbelt Infiltration ¹							
	Hermosa Beach Infiltration Trench							
	Redondo Beach Park #3							
	Green streets application in SMB-6-01 for All Cities							

Hermosa Beach Greenbelt Infiltration

The Hermosa Beach Greenbelt Infiltration project is the highest priority project of those proposed for the Herondo Storm Drain system in the Beach Cities EWMP. It would be located in Hermosa Beach between Valley Dr. and Ardmore Ave. just off Herondo Street at the southern border of the City with Redondo Beach. The Project will construct a system to capture and infiltrate 544 acrefeet of storm water runoff during the 90th percentile rain year, as defined by the Santa Monica Bay Beaches Bacteria TMDL, from a 2,914 acre area which constitutes 98% of the Herondo storm drain tributary area, the largest storm drain system within the Beach Cities EWMP. The project will divert stormwater from the Herondo Storm Drain through a pretreatment system designed to remove trash and gross solids, through a forebay where fine silt settles out, and then into an infiltration gallery (Attachment 1). The project will be constructed below the trail along Veterans Parkway which lies above highly permeable sandy dune soil. The Project will include installation/restoration of native coastal dune scrub habitat along the parkway trail.

Hermosa Beach Infiltration Trench

The Hermosa Beach Infiltration Trench is proposed to be located at the outfall of the Herondo Storm Drain on the beach at the southernmost section of beach in Hermosa Beach at the border with Redondo Beach. Due to its strategic location at the foot of the Herondo drainage system, this subsurface trench will serve as the final step of a series of regional structural projects to ensure there is no discharge from this outfall up to the critical number of exceedance days to meet the wet-weather Santa Monica Bay Beaches Bacteria TMDL. Drainage area to this project is 2,957 acres, and the project as proposed will have a potential subsurface footprint of 7,700 square feet (1.5 acres), a design diversion flow rate of 26 cubic feet per second, and an infiltration rate of 12.5 in/hr due to the

highly permeable sandy soil (Attachment 2).

Distributed Green Streets

Distributed green streets are proposed in the Beach Cities EWMP to provide the remaining runoff reduction (infiltration) needed in combination with the reduction provided by proposed regional projects to attain the Wet-Weather Santa Monica Bay Beaches Bacteria TMDL. Each of the cities tributary to the Herondo Storm drain system are responsible for implementing green street projects to address runoff from existing development. The City of Hermosa Beach's proportional share of green street projects would require retrofitting at least 35 acres of existing development with green street projects. Two proposed green street projects in Hermosa Beach will address this requirement and will also serve to eliminate dry weather runoff to support attainment of the Dry-Weather Santa Monica Bay Beaches Bacteria TMDL for portions of the city which are not currently served by a low flow diversion.

2nd Street and Hermosa Avenue Green Street

The Hermosa Avenue Green Street Project is proposed for the intersection of Hermosa Avenue and 2nd Street. The project will divert storm water and dry weather runoff from a 47acre coastal area that would otherwise discharge directly to the beach (Attachment 3). The project will infiltrate storm water into highly pervious natural dune soils by retrofitting a street scape with a variety of green infrastructure solutions including: infiltration planters, subsurface infiltration galleries and pervious paving. The multi-benefit project will also include traffic calming enhancements such as landscape bulb-outs to improve pedestrian and bicycling safety, revitalization of the southern entrance to Hermosa Beach on Hermosa Avenue, and promote economic vitality for businesses in the immediate project vicinity.

Beach Drive Pervious Concrete Repaving Project

The Beach Drive Pervious Concrete Repaving Pilot Project (CIP No. 15-162) will replace the existing concrete swale on Beach Drive between 6th and 11th Street with Permeable Concrete which would divert dry-weather and some stormwater runoff from storm drains that discharge directly to the beach. Staff are currently reviewing the condition of existing sewer infrastructure on Beach Drive to determine if maintenance and repair is required prior to commencing the pavement replacement project in early 2017.

In addition to distributed green street projects, the EWMP requires the City to retrofit all City and County-owned catch basins with trash capture/exclusion devices by 2020. The City has 14 Connector Pipe Screens along Pier Ave (certified full-capture devices inside catch basin) and 35 automatic retractable screens on high priority catch basins (excludes trash, increases effectiveness of street sweeping). The City will install trash capture devices on approximately 20 percent of the remaining catch basins annually over the next five (5) years to achieve compliance by 2020.

Nonstructural BMPs

The EWMP identifies a variety of nonstructural BMPs that can effectively control point source pollutants when implemented simultaneously. The City is currently implementing the following source control BMPs.

- Low Impact Development & Green Street Policy requirements
- Clean Bay Restaurant Program and automotive and nursery facility inspections
- Green Matrix Requirements for Public Events (source control of trash)
- Pet waste collection stations: in parks, along Strand and greenbelt
- Smoke-free zones, Polystyrene food service ware ban, and plastic bag ban (non-degradable, non-recyclable plastic waste/trash)
- Water Conservation & Water Efficient Landscape Ordinances (reduces dry weather runoff)

Funding

Staff are actively pursuing grant funding for the design and construction of regional and distributed stormwater projects. On May 12, 2015 staff presented the Hermosa Avenue Green Street project to the South Bay Steering Committee of LA Integrated Regional Water Management Plan (IRWMP) for inclusion in the OPTI project database for future funding consideration. On June 14, 2016 staff also presented the Hermosa Beach Infiltration Trench and Hermosa Beach Greenbelt Infiltration projects for inclusion in the OPTI project database.

On March 30, 2016 staff submitted a proposal to the Coastal Conservancy Proposition 1 Round 3 program requesting \$525,000 for engineering, planning and design of the Hermosa Greenbelt infiltration system at two potential sites. The proposal was prepared by the City of Redondo Beach consultants Blais and Associates with assistance from staff and McGowan Consulting. On July 6, 2016 staff received notification from the Coastal Conservancy that the proposal was not successful and Los Angeles County projects submitted in Round 3 are currently being considered with Round 4 applications.

On April 15, 2016 staff with the assistance of McGowan Consulting, submitted two (2) pre-proposals to the State Water Resources Control Board (SWRCB) Prop 1 Storm Water Grant Program (SWGP) for the Hermosa Beach Greenbelt Infiltration and Hermosa Avenue Green Street projects. SWRCB staff provided comments and on July 8, 2016, staff submitted a full proposal requesting \$3,099,400 for engineering, planning and design, construction/implementation, and monitoring/reporting of the Hermosa Greenbelt infiltration system. SWRCB has not notified applicants regarding the status of proposals.

Additionally, City Council approved the Annual Sewer Service Charge on June 23, 2015. The fee will fund maintenance, operation, servicing, and improvements to the City's sewer collection system. The User Utility Tax (UUT) funds that were previously used for these expenditures have been transferred from the General Fund to the Storm Drain Fund to provide a dedicated funding stream for stormwater projects.

Furthermore, The Beach Cities EWMP commits the cities and County to establishing a memorandum of understanding (MOU) for implementation of the EWMP to address how the group will investigate and pursue funding for Regional Structural Projects described in the EWMP including delineation of responsibility, funding milestones, methods to secure funding and other joint EWMP implementation activities, including pursuit of joint grant opportunities for funding stormwater projects. The draft MOU is currently being reviewed by staff and the City Attorney and will be presented to City Council at a future meeting for review and approval.

Fiscal Implications:

There are no fiscal implications

Attachments:

1. Hermosa Beach Greenbelt Infiltration Project
2. Hermosa Beach Infiltration Trench Project
3. Hermosa Avenue Green Street Project

Respectfully Submitted by: Kristy Morris, Environmental Analyst

Noted for Fiscal Impact: Viki Copeland, Finance Director

Approved: Tom Bakaly, City Manager