



## Legislation Details (With Text)

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**Title:** Receive this Report on the City's Municipal National Pollutant Discharge Elimination System (NPDES) Storm Water Requirements, Activities and Expenditures (Public Works Director Katsouleas).  
RECEIVE REPORT

**Sponsors:**

**Indexes:**

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**Attachments:** 1. Table of Requirements and Expenditures, 2. Storm Water Informational Memo, 3. Measure W Regional and Local Return Funding Estimates, 4. NPDES Storm Water Permit (Web-Link Provided)

Date	Ver.	Action By	Action	Result
10/1/2019	1	City Council Regular Meeting		

**TO:**  
Honorable Mayor and Members of the City Council

**THROUGH:**  
Bruce Moe, City Manager

**FROM:**  
Stephanie Katsouleas, Public Works Director  
Shawn Igoe, Utilities Manager

**SUBJECT:**  
Receive this Report on the City's Municipal National Pollutant Discharge Elimination System (NPDES) Storm Water Requirements, Activities and Expenditures (Public Works Director Katsouleas).  
**RECEIVE REPORT**

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**RECOMMENDATION:**  
Receive this report regarding the City's Municipal National Pollutant Discharge Elimination System (NPDES) Storm Water Permit requirements, activities and expenditures.

**FISCAL IMPLICATIONS:**  
The City's total annual budget for storm water-related activities to comply with the NPDES Storm Water Permit (Permit) totals \$1.8 million, inclusive of a variety of expenditures across multiple divisions within Public Works and other City departments. The attached table provides more specific information of the City's storm water funding allocations, such as street sweeping, landscape maintenance, employee training, storm water monitoring, contract services and capital improvement projects. Collectively, these efforts help reduce pollutants from entering the Municipal Separate Storm Sewer System (MS4).

## **BACKGROUND:**

In December 2012, the Los Angeles Regional Water Quality Control Board (Regional Board) issued an updated 5-year Municipal NPDES Storm Water Permit that requires cities and counties to implement Phase I requirements addressing three fundamental elements:

- i. A requirement to effectively prohibit non-storm water discharges through the MS4;
- ii. Requirements to implement controls to reduce the discharge of pollutants to the maximum extent practicable; and
- iii. Other provisions the Regional Water Board has determined appropriate for the control of such pollutants.

Manhattan Beach has been subject to Phase I requirements since 1992 through a series of permits issued by the Regional Board. Not surprisingly, addressing the increasing social and regulatory issues surrounding storm water management are costly, but may be largely invisible to the general public.

On July 17, 2018, staff provided City Council a summary of the City's storm water program and Permit compliance activities, which included (see also the Storm Water Memo attachment):

- Background on the Los Angeles County Storm Water NPDES program
- The City's Enhanced Watershed Management Program (EWMP)
- The City's Coordinated Integrated Monitoring Program (CIMP)
- Outreach responsibilities and efforts
- Individual storm water compliance activities carried out by the City
- Regional funding sources, grants and opportunities
- Future NPDES permit considerations
- Ongoing challenges to the 2012 NPDES storm water permit

At that meeting, City Council directed staff return with additional information on which storm water compliance tasks are performed in-house, which tasks are outsourced, and to evaluate whether outsourced tasks could be accomplished with in-house resources. Our review is structured according to the key activities implemented by the City to comply with the 2012 Permit and adopted EWMP, which is described in the MCM and WMP attachment. Permit compliance categories include:

1. Discharge prohibitions (Part III of the Permit);
2. Effluent Limitations and Receiving Water Limitations (Parts IV and V of the Permit);
3. Standard Provisions (Part VI.A of the Permit);
4. Monitoring and Reporting Program (Part VI.B and Attachment E of the Permit);
5. Watershed Management Program and Annual Assessment & Reporting (Part VI.C, XVII, XVIII and XIX of the Permit);
6. Minimum Control Measures (Part VI.D of the Permit); and
7. Total Maximum Daily Loads (TMDLs) (Part VI.E of the Permit)

This report also provides an overview of:

- The physical condition of the storm water collection system (e.g., conditional assessment)
- Anticipated rehabilitation costs as part of the 5-Year CIP
- Permit-related expenses and sources of funds for implementation

## **DISCUSSION:**

Within the seven Permit categories listed above, the City utilizes a combination of internal and external resources to implement the activities undertaken to comply with the Permit's requirements. The attached table itemizes how these resources are specific deployed, and are generally summarized as follows:

### **1. Discharge Prohibitions**

This section of the permit requires cities to maintain records of discharges to the storm drain system, ensure proper best management practices are in place (BMPs), control irrigation runoff, review monitoring data collected under # 3 below, and conduct enforcement.

While most of these activities are performed in-house, staff does utilize external resources to assist with developing and updating outreach materials, for printing costs of those materials, and for landscape maintenance services.

### **2. Effluent Limitations and Receiving Water Limitations**

This section of the Permit calls for reducing pollutant loads to the maximum extent possible, which is achieved through the compliance activities carried out in the other five sections of the Permit summarized below.

### **3. Standard Provisions**

This section of the Permit calls for establishing the legal authority to enforce the Permit. Manhattan Beach long ago adopted ordinances that establish legal authority to enforce permit requirements, most of which are included under Title 5 (Sanitation and Health), Title 7 (Public Works) and Title 9 (Building Regulations) of the Municipal Code. These sections are periodically updated to ensure compliance with new Permit conditions as they arise. Development of and updates to the Municipal Code are coordinated through the City Attorney's office.

### **4. Monitoring and Reporting Program**

This section of the Permit calls for conducting and reporting on routine monitoring of storm water effluent to ensure pollutants loads are within established limits. The City contracts out for monitoring services for Santa Monica Bay and Dominguez Channel watersheds as part of a joint effort with other local municipalities and the County. Internal resources are used to review monitoring results and gather data to identify potential spikes in effluent limits. Consultant services are used to synthesize the data for inclusion into the NPDES annual report.

### **5. Watershed Management Program and Annual Assessment & Reporting**

This section of the Permit calls for developing a comprehensive Watershed Management Program to carry out the provisions of the permit, reporting on those efforts, seeking and securing funding for program activities, and controlling other pollutants not identified in a Total Maximum Daily Load (TMDL).

As authorized in the 2012 Permit, the City elected to participate in a regional Enhanced Watershed Management Program (EWMP), which identifies larger regional projects that reduce storm water pollution. The City also implements its own Minimum Control Measures (MCM, see below) to help meet Permit compliance objectives. An overview of these programs and the City's efforts are outlined in the MCM and EWMP attachment, which includes a list of CIP projects designed to address storm water discharges and pollutants. Implementation of

the MCM and EWMP is carried out using a combination of internal and external resources.

## **6. Minimum Control Measures**

This section of the Permit calls for implementing individual activities to control storm water pollution, and conducting enforcement as necessary to ensure compliance. Specific focus is given to implementing public education and outreach, tracking commercial and industrial facilities activities, managing development activities, monitoring construction activities, minimizing pollutants at public facilities, and eliminating illegal connections to the storm drain system. This work is carried out using a combination of internal and external resources.

## **7. Total Maximum Daily Loads (TMDLs)**

This section of the Permit calls for ensuring compliance with TMDLs, which include addressing bacteria, DDT, PCBs, heavy metals and other toxic pollutants. This effort is carried out primarily with external resources due to water quality monitoring and technical analysis of potential CIPs that will achieve TMDL compliance. No resource changes are recommended to this structure.

## **Repairing and Upgrading the City's Storm Drain System**

A Storm Water System Conditional Assessment (SWSCA) was completed in 2013 using closed circuit television (CCTV) to investigate the current structural and operational conditions of the City's storm drain system. This effort included:

- Conducting research and field reconnaissance of the City's storm drain system and creating/updating Geographic Information System (GIS) files after inspecting approximately 14.5 miles of the City's storm drains and laterals.
- Calibrating the City's GIS storm drain network files with the CCTV Pipeline Observation System Management application software.
- Completing a structural and operational storm drain system assessment. The assessment was compliant with the National Association of Sewer Service Companies Pipeline Assessment and Certification Program, which rates the condition of storm drain pipe segments on a scale of one to five, with five being the worst.
- Creating a 10-year storm drain repair and replacement program based on results of the assessment.

Review and analysis of the CCTV inspections led to the development of CIP plan to address the City's highest risk storm drains over ten years at a cost of approximately \$4 million. The work includes storm drain pipe rehabilitation and replacement, with a focus on both structurally defective and operationally deficient storm drains. Staff also added various storm water outfall rehabilitation projects to the CIP totaling \$250,000, bringing the total cost of recommended projects to \$4,250,000 over ten years.

## **Capital Improvement Projects to Treat Storm Water**

Attached to this staff report is a list of recommended individual and joint CIP projects that will help achieve Permit compliance for storm water discharges within the Santa Monica Bay and Dominguez Channel watersheds. Because the infiltration and green street the projects listed are still conceptual in nature, only "order-of-magnitude" estimates have been provided. Collectively, the list of CIP projects ranges from a low of \$35 million to a high of \$66 million for construction, and from \$1.1

million to \$1.7 million annually for operations and maintenance. For the multi-jurisdictional projects identified, the Beach Cities watershed group will collectively be responsible for funding, designing, constructing, and maintaining them. Each city's contribution will be based on the proportional geographic area of the project's watershed.

The two storm water CIP projects on the list that are located fully within Manhattan Beach, but not yet part of the City's adopted five-year CIP, include:

- **An infiltration project along the beach:** This would consist of installing infiltration media at the eastern edge of the beach to capture storm water flows that would otherwise be discharged into the ocean. Like the City's existing greenbelt infiltration basin, the final installation would be undetectable to beach-goers. If this project is not feasible, then the City will evaluate an infiltration opportunity at Polliwog Park.
- **Distributed green street projects:** Green street projects typically divert storm water runoff to treatment devices and/or infiltration basins and other pervious surfaces. Drywells are also used to assist with capturing and treating, and then infiltrating water in smaller footprint areas.

The various individual and joint project deadlines included in the attachment are designed to comply with the following key deadlines:

- 50% Reduction in wet weather bacteria by 2018 (in compliance)
- 20% Annual trash load reduction from 2016 through 2020 (in compliance)
- 100% Reduction in wet weather bacteria by 2021
- 100% Reduction in dry and wet weather bacteria by 2032
- 100% Reduction in toxicity, copper, lead, and zinc by 2032

### Project Funding

As partially detailed in the attached table, Manhattan Beach allocates \$1.8 million annually toward storm water Permit compliance and CIP implementation activities. To offset these costs, the City collects approximately \$340,000 annually through its storm water assessment (as part of property taxes), leaving a balance of \$1.46 million annually that is covered by the General Fund. The recent passage of Measure W will provide Manhattan Beach approximately \$410,000 annually, with 70% directed to new storm water control measures (CIPs) and 30% available for existing maintenance and operations (per the guidelines of the Measure). The \$410,000 represents Manhattan Beach's share of the approximately \$300 million that will be generated and distributed annually in Los Angeles County through the local return and regional grant programs.

Notably, there is still a tremendous shortfall in funding for the implementation of the larger individual and joint CIP projects listed in the attachment. Measure W's regional grant program is estimated to provide \$18.4 million annually in funding, on a competitive basis, for qualifying storm water projects located in the South Santa Monica Bay watershed area. Manhattan Beach and other South Bay cities will be submitting grant applications for these projects as they are more fully vetted in the coming years.

### Internal and External Expenditures

With Storm water encompassing a broad area of mandates, the City has refined its use of internal and external resources to assist with Permit requirements over the past two decades, as summarized in the attached table. Overall, the expenditures can be grouped into the following categories:

**Internal Expenditures: \$529,715**

\$281,357	Staff Resources (direct implementation and project oversight)
\$248,358	Internal Charges (admin, software, pumps, motors)

**External Expenditures: \$1,275,598**

\$378,000	Street Sweeping
\$89,918	Storm Water Monitoring
\$710,000	CIP Projects
\$97,680	Various Consultant Services

Utilizing consultants and contractors to support internal staff efforts has proven to be cost effective given the City's existing staffing resources. In particular, in the areas of staff training, data analysis, and pooling of resources, hiring consultants is a far more cost effective approach than increasing City staff to conduct these tasks, and it has the added benefit of securing specific expertise on an as-needed basis. Additionally, using contractors for street sweeping, monitoring and landscape maintenance is advantageous over expanding the role of Public Works to bring them in-house. For these reasons, staff does not recommend any changes to this structure given the financial and personnel expertise efficiencies of the current mix of internal and external resources used.

In conclusion, staff recommends that City Council receive this report regarding the City's Municipal National Pollutant Discharge Elimination System (NPDES) Storm Water Permit requirements, activities and expenditures.

**ATTACHMENTS:**

1. Table of Permit Requirements and Expenditures
2. Storm Water Informational Memo
3. Measure W Regional and Local Return Funding Estimates
4. NPDES Storm Water Permit (Web-Link Provided)