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Title: Receive Report on Storm Water Monitoring Data and Consider Whether to Make Any Modifications to Storm Water Program Activities Including Street Sweeping and Power Washing Schedules (Public Works Director Katsouleas).
DISCUSS AND PROVIDE DIRECTION

Sponsors:

Indexes:

Code sections:

Attachments: 1. Storm Water Budget Detail, 2. Storm Water Monitoring Data, 3. PowerPoint Presentation

Date	Ver.	Action By	Action	Result
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TO:
Honorable Mayor and Members of the City Council

THROUGH:
Bruce Moe, City Manager

FROM:
Stephanie Katsouleas, Public Works Director
Justin Gervais, Interim Utilities Manager

SUBJECT:
Receive Report on Storm Water Monitoring Data and Consider Whether to Make Any Modifications to Storm Water Program Activities Including Street Sweeping and Power Washing Schedules (Public Works Director Katsouleas).
DISCUSS AND PROVIDE DIRECTION

RECOMMENDATION:
Staff recommends that City Council receive this report on storm water monitoring data collected over the past three years and provide direction on modifications to storm water program activities, including street sweeping and power washing schedules.

FISCAL IMPLICATIONS:
The fiscal implications are unknown at this time and will depend on direction given by City Council. Under the Storm Water Fund, \$271,102 is budgeted for citywide weekly street sweeping services, and another \$78,898 is budgeted for sweeping parking lots and the Strand, and power washing of the Strand and blue tile crosswalks on variable frequencies, for a total of \$350,000. The remaining budget items in the Storm Water Fund are for capital projects, mandatory compliance activities,

utilities, internal services charges, staffing, and materials and supplies (see attachment) The savings that can be achieved in the Storm Water Fund will depend on service level reductions or other recommended actions provided by City Council.

BACKGROUND:

Manhattan Beach provides street sweeping and power washing services throughout the entire City. The street sweeping schedule varies from twice-weekly service in most commercial zones to weekly service in all residential zones and a few commercial zones. Other storm water funded services include:

- Parking lot sweeping, ranging from weekly to five times per week, depending on the location and time of year the services are provided.
- Power washing of the downtown sidewalks on a twice weekly basis in tandem with the street sweeping schedule.
- Twice-weekly power washing of the Pier during the summer, and weekly during the rest of the year.
- Bi-monthly sidewalk power washing in the North Manhattan Beach Business Improvement District during the summer and shoulder months, and monthly during the remainder of the year.
- Daily sweeping of the Strand during the week, and spot cleaning of the trash cans along the Strand.
- Weekly power washing of the Strand during the summer months and monthly during the non-summer months
- Downtown and Pier porter services and miscellaneous cleaning as needed.

On March 25, 2020, the City suspended street sweeping, parking lot cleaning, and power washing services citywide due to the COVID-19 pandemic and the statewide stay at home orders. Street sweeping services resumed along major street corridors on May 11, 2020, along Ocean Drive on April 20, 2020, and on all remaining streets within the City on June 15, 2020.

On June 25, 2020, staff presented a comprehensive overview of the City's storm water program, with a focus on the City's various storm water expenditures (attached) and potential budget savings opportunities. During that presentation, staff discussed which expenditures are necessary to comply with the Los Angeles County's Storm Water National Pollutant Discharge Elimination Program (NPDES) permit, and which expenditures are not required but are City policy. The two largest expenditures in the Storm Water Fund include \$350,000 for citywide street sweeping, parking lot sweeping, power washing the downtown area and along the Strand, and crosswalk cleaning; and \$300,000 for the capital improvement program.

The storm water NPDES permit requires street sweeping as a pollution prevention measure and identifies different frequency requirements for residential, commercial and industrial zones, as follows:

- Residential Zone: Once per year
- Commercial Zone: Once a month
- Industrial Zone: Twice a month

However, Manhattan Beach sweeps all areas of the City a minimum of once per week, well in excess

of Storm Water NPDES permit requirements. Additionally, the permit does not require power washing of any right-of-way (ROW) surfaces, although Manhattan Beach has a robust power washing schedule for high pedestrian traffic areas such as downtown and the Strand.

After receiving the storm water presentation on June 25, 2020, City Council directed staff to return with a more detailed analysis of monitoring data related to the street sweeping program to help determine whether the nearly 3-month suspension of street sweeping service had any discernable impact on pollutant loads reaching Santa Monica Bay and Dominguez Channel. This data, in turn, might aid in City Council's decision on whether to temporarily or permanently reduce the weekly street sweeping frequency in Manhattan Beach's residential zones (which represent 95% of the City).

DISCUSSION:

Bacteria and Chemical Pollutant Loads

Staff evaluated rainfall and monitoring data for March, April, and May for the past three years (2018, 2019 and 2020), which spanned the time period that street sweeping was suspended, and thus represent a good annual comparison for review purposes. Staff's goal was to ascertain whether the suspension of street sweeping resulted in higher pollutants loads reaching receiving waters due to an increased accumulation of bacteria, oil and grease and heavy metals. Because there was rainfall later in the season in 2020 when compared to 2018 and 2019, wet-weather monitoring samples were available approximately two weeks and eight weeks after street sweeping was suspended. Notably, the 2018, 2019, and 2020 spring precipitation records show the following:

- 2018: eleven days of rain in March
- 2019: six days of rain in March and six days in May
- 2020: eight days of rain in March, six days in April, and four days in May

Data for enterococcus, fecal coliform and total coliform is collected daily, while other constituents are collected semi-annually. The monitoring data we reviewed showed the following (see attachment):

- Enterococcus, fecal and total coliform levels were highest in 2020 when compared to 2018 and 2019, although fecal and total coliform had similar rates over the three-year period.
- Six constituents never exceeded the permitted limit thresholds over the three-year period: suspended solids, cyanide, cadmium, chromium, lead and silver.
- Two constituents exceeded the permitted limits in 2019, but did not exceed them in 2018 and 2020: nickel and soluble sulfide.
- Two constituents exceeded the permitted limits in all three years: copper and Zinc
- Chemical Oxygen Demand (COD) and oil and grease are monitored but do not have permitted limits. However, the exceedances for both were the lowest in 2020.

Of the ten non-bacteria constituents monitored, seven had their highest loads recorded in calendar year 2019, when there was no change in the street sweeping frequency. Silver was the only pollutant to record its highest load in 2020. Overall, this data suggests that less frequent street sweeping did not negatively contribute to the amount of chemical pollutant loads reaching the ocean.

Catch Basin Pollutant Loads (Trash and Debris)

The City currently maintains 440 catch basins and eight continuous deflection device (CDS) units, which are cleaned of trash and debris at various frequencies based on their location and

accumulation rate. However, all of the City's catch basins are cleaned in April and May, at the end of the rainy season, and again in September and October, just prior to the beginning of the rainy season, to remove accumulated trash and debris. Hotspot catch basins are cleaned on a more frequent basis, depending on their historical loads and known accumulation rates.

Some of the City's catch basins have trash and debris capture devices, which have been very effective in preventing debris from entering the ocean. Prior to installing these trash capture devices, the City collected an average of 12 cubic yards from its catch basins annually. Post-installation, that amount has nearly doubled, suggesting the devices are quite good at reducing the amount of trash reaching the ocean.

Although the City suspended street sweeping between March and June 2020, it is somewhat difficult to determine whether this resulted in a significant increase in the volume of trash debris captured in the City's catch basins. As mentioned above, City staff normally clears out catch basins in April and May. However, due to the onset of COVID-19 in mid-March, this work did not occur until after July 2020. This delay resulted in lower trash and debris volumes being recorded for fiscal year (FY) 2019-2020 and higher volumes being recorded for fiscal year 2020-2021. This, combined with increased pedestrian activities and take-out food, inhibited staff's ability to accurately assess the impacts that suspending street sweeping activities for three months has had on the amount of trash and debris reaching the storm drain system. In pulling out and reappportioning a segment of volume of trash collected this fiscal year and adding it back into the FY 2019-2020 column, and then comparing that to the three previous years, there appears to be a steady increase in the amount of trash and debris reaching the storm drain system in the downtown area and other commercial corridors, independent of street sweeping frequency. Lastly, the majority of increased loads of trash and debris was observed in commercial corridors, and less so in residential neighborhoods, based on staff feedback after clearing storm drains and CDS units.

Street Sweeping Frequencies of Other Municipalities

Municipal street sweeping frequencies vary throughout the state, with schedules ranging from weekly to monthly as a standard practice. A quick google search revealed alternative street sweeping schedules for the following urban cities:

Twice Monthly

Brea
Dublin
Irvine
Rancho Palos Verdes
Riverside
San Francisco

Monthly

Berkeley
Davis
Livermore
Mountain View
Pleasant Hill
San Diego
San Jose
Santa Monica (covid-related)

Notably, all of these cities are required to comply with the Clean Water Act rules and regulations, and with Storm Water NPDES specific pollutants of concern. Like Manhattan Beach, other cities use a variety of pollution control devices and approaches to achieve NPDES compliance for trash and debris, bacteria and heavy metals.

Staff recommends that City Council review the monitoring data provided with this staff report and

determine whether to direct staff modify the current street sweeping schedule in Manhattan Beach or take other cost-cutting measures. Options may include:

- Keeping the current street sweeping and power washing schedule as-is and do not reduce the storm water budget.
- Modifying the street sweeping citywide to monthly, twice monthly or even quarterly citywide (excluding downtown) for the FY 2020-2021 rainy season and reevaluate next summer the impacts this schedule has had on pollutant loads.
- Modifying the street sweeping schedule to monthly in residential zones only for the FY 2020-2021 rainy season and reevaluate next summer the impacts this schedule has had on pollutant loads.
- Reducing parking lot sweeping frequencies.
- Other budget reduction options in the storm water fund (e.g., crosswalk cleaning, power washing, capital infrastructure projects).

The cost savings that can be achieved by reducing street sweeping, parking lot sweeping, and power washing schedules, the CIP program or other elements of the storm water program will be based on City Council direction given to staff.

PUBLIC OUTREACH:

Public outreach was conducted via social media alerting the community about the temporary suspension of street sweeping in March 2020, and its reinstatement in June 2020. No public outreach has been conducted regarding potential alterations to the current street sweeping frequency.

ENVIROMENTAL REVIEW:

The City has reviewed the proposed activity for compliance with the California Environmental Quality Act (CEQA) and has determined that the activity is not a "Project" as defined under Section 15378 of the State CEQA Guidelines; therefore, pursuant to Section 15060(c)(3) of the State CEQA Guidelines the activity is not subject to CEQA. Thus, no environmental review is necessary.

LEGAL REVIEW: The City Attorney has reviewed this report and determined that no legal analysis is needed.

ATTACHMENTS:

1. Storm Water Budget Detail
2. Storm Water Monitoring Data
3. PowerPoint Presentation