



DATE: October 16, 2018

TO: Mayor and City Council

FROM: Director of Utilities & Environmental Services

SUBJECT Installation of Trash Reduction Infrastructure in the Storm Drain System - Resolution Authorizing the City Manager to Sign a Letter of Intent to Partner with Caltrans

RECOMMENDATION

That Council adopts the attached resolution authorizing the City Manager to sign a letter of intent to partner with Caltrans and to negotiate terms of a cooperative agreement.

SUMMARY

The City of Hayward and Caltrans are among those required by the San Francisco Bay Regional Water Quality Control Board (Water Board) to reduce trash in the storm drain system by 100% by 2022. Caltrans is interested in partnering with the City to treat stormwater from portions of the 880-freeway located in Hayward. Staff is seeking Council authorization to negotiate terms of a cooperative agreement to install trash reduction infrastructure.

BACKGROUND

Municipal Regional Permit – The National Pollutant Discharge Elimination System (NPDES) program was established in 1972 by the federal Clean Water Act (CWA). In 1986, the NPDES program was amended to regulate stormwater runoff and established a permitting structure for municipal discharge to the waters of the state. The Municipal Regional Permit (MRP) is a stormwater permit adopted by the San Francisco Bay Regional Water Quality Control Board (Water Board). The MRP regulates municipalities within Alameda, Contra Costa, Santa Clara, San Mateo counties as well as the cities of Fairfield, Suisun, and Vallejo. The MRP requires stormwater pollution prevention control measures for both public and private properties and activities including municipal operations, development, inspections, response to illicit discharges, education and outreach, water quality monitoring, and specific controls for pollutants of concern identified by the Water Board. Provision C.10 of the MRP mandates “Trash Load Reduction,” which requires municipalities to reduce trash loads from municipal storm drain systems by 40% by 2014, 70% by 2017, 80% by July 1, 2019, and 100% by 2022.

Hayward's Trash Reduction Efforts – The City of Hayward's trash reduction reported for fiscal year 2016/2017, was 79.3% and was calculated as follows:

full trash capture devices	45.3%
plastic bag & polystyrene bans	10%
on-land pick up	19%
additional creek cleanups	5%
Total:	79.3%

The City currently has two large full trash capture devices, 179 small full trash capture devices and four large connector pipe screens in Sulphur Creek off Skywest Drive. The small full trash capture devices and connector pipe screens are screens placed in storm drain inlets or storm drain pipes and the large full trash capture devices are hydrodynamic separator (HDS) units connected to large storm drain pipes under the street. The City installed its first HDS unit in Tennyson Road near Tyrrell Avenue in 2012. This unit is typically cleaned once a year and a video showing the cleaning is available online¹. In 2017, a HDS unit was installed in Patrick Avenue as part of the Hayward Youth-Based Trash Capture, Reduction, and Watershed Education Project, which is a four-year program funded by a grant from the Environmental Protection Agency, approved by Council on May 26, 2015². The installation of the Patrick Avenue HDS unit was witnessed by students from Hayward High School³.

Existing Full Trash Capture Devices				
Type	Location	Acres Treated	Date Installed	Funded by
80 small devices	Jackson Triangle, Downtown, & A St.	320	2012	Federal & State Grants coordinated by ABAG
Large device (HDS)	Tennyson & Tyrrell	150	2012	Federal & State Grants coordinated by ABAG
99 small devices	South Hayward between 880 & Mission	400	2016 & 2017	Used Oil Grant Funds (from CalRecycle)
Four above-ground connector pipe screens	Sulphur Creek near Skywest Blvd., Sueirro St., & West A St.	792	2016	EPA Grant
Large device (HDS)	Patrick Avenue	196	2017	EPA Grant

¹ Video of CDS unit cleaning: <https://www.youtube.com/watch?v=ejhJWxAHK30>

² Council report from May 26, 2015:

<https://hayward.legistar.com/MeetingDetail.aspx?ID=454184&GUID=7CD463F3-CFEB-4ADB-B836-DFC19D7730F0&Options=&Search=>

³ Video of CDS installation: <https://www.youtube.com/watch?v=DpqnRKxaMHg>

The reduction reported in the 2017/2018 annual stormwater report was 60.6%. The decrease in reported trash reduction is due to a decrease in the observed effectiveness of volunteer litter pickups. The trash assessment methodology required by the Water Board specifies municipalities must conduct at least four assessments per year in order to claim credit for litter pickup activities. For the areas that were cleaned by the Keep Hayward Clean and Green Task Force in FY 2017/2018, staff completed five assessments and found the areas were not staying clean, which prevented the City from taking additional credit for these activities. Also, some Task Force cleanups occurred in areas already treated by trash capture devices so the City could not take additional credit in these areas. The Task Force rotates the areas they choose to clean year to year and unfortunately, some of the areas cleaned in FY 2017/2018 were already treated by devices.

DISCUSSION

Similar to the Water Board's trash reduction requirements for local jurisdictions, Caltrans is also required to reach 100% trash reduction by 2022. Caltrans reached out to several cities to partner on the installation and maintenance of devices to treat land under their jurisdiction. In many cases, the ideal placement for a trash capture device is at a downstream location where the acreage treated by a single device can be maximized. Staff worked with Caltrans to identify three potential locations for three hydrodynamic separator (HDS) units that would treat 1,255 acres (1,128 acres of City responsibility and 127 acres of Caltrans' right of way) with devices on West Street at Clawiter Road, Tennyson at 880, and Folsom Avenue near Havana Avenue. The locations of the three devices are attached. (see Attachment III). To satisfy their C.10 obligations, Caltrans is offering to fund the cost of the devices and the cost of installation, which is estimated to be approximately \$1.8 million. The City would be responsible for contracting and managing the installations and maintaining the devices after installation. Staff estimates that approximately 23% of additional trash reduction would be accomplished with these installations.

Staff is seeking Council authorization to submit a letter of intent to Caltrans and to begin negotiations for a cooperative agreement. Staff will return to Council with agreement terms and a request to include the project in the City's Capital Improvement Program.

Additional Trash Reduction Efforts - In addition to the Caltrans proposal, staff is evaluating potential trash capture infrastructure (large or small devices) in the Arf Avenue area. It is estimated that approximately 6% additional trash reduction may be gained with this project. Past and potential trash reduction efforts are shown in the maps in Attachment IV.

Below is a table with estimated trash reduction credit by fiscal year given current trash reduction implementation and projected projects for the future.

Fiscal Year	Trash Reduction Activities	Reduction Credit	
2016/2017	Full Trash Capture Devices	45.3%	
	On-land volunteer pick-up	19%	
	Product bans	10%	
	Additional creek cleanups	5%	
	Total	79.3%	
2017/2018	Full Trash Capture Devices	45.3%	
	On-land volunteer pick-up	0%	
	Product bans	10%	
	Additional creek cleanups	5%	
	Total	60.6%	
2018/2019 (estimated)	Full Trash Capture Devices: (45 new small devices in the Harder Road/Mission area and possible new device(s) on Arf Avenue)	~54.3%	
	On-land volunteer pick-up*	?	
	Product bans**	10%	
	Additional creek cleanups	5%	
	Total	~69.3%	
2023/2024 (estimated)	Full Trash Capture Devices: (addition of 3 new HDS units partially funded by Caltrans)	~77.3%	
	On-land volunteer pick-up	?	
	Product bans	10%	
	Additional creek cleanups	5%	
	Total	~92.3%	

* The credit the City takes from the volunteer on-land pick up may not be sustainable or reliable given the assessments during fiscal year 2017/2018.

** The additional 10% credit the City takes for the disposable plastic bag and polystyrene bans may not be available given Water Board trends in allowable credits that are projected for future stormwater permits.

ECONOMIC IMPACT

The installation of trash capture infrastructure will not have a significant impact on Hayward's economy.

FISCAL IMPACT

As noted above, Caltrans has offered to pay for the cost of three HDS trash capture devices and the cost of installation. The Caltrans contribution for the three devices is estimated to be approximately \$1.8 million. The City would be responsible for contracting and managing the installations. According to the Caltrans proposal, the City would also be responsible for

maintaining and cleaning the devices in perpetuity. Staff will return to Council with cost estimates for all the above.

STRATEGIC INITIATIVES

This agenda item supports the Complete Communities Strategic Initiative. The purpose of the Complete Communities initiative is to create and support structures, services, and amenities to provide inclusive and equitable access with the goal of becoming a thriving and promising place to live, work and play for all. This item supports the following goal and objective:

Goal 1: Improve quality of life for residents, business owners, and community members in all Hayward neighborhoods.

Objective 4: Create resilient and sustainable neighborhoods

Keeping Hayward's creeks and storm drain system clean will improve quality of life and create more sustainable neighborhoods.

SUSTAINABILITY FEATURES

Installation of trash capture devices and compliance with Provision C.10 of the MRP will result in cleaner creeks and cleaner stormwater entering the San Francisco Bay.

PUBLIC CONTACT

Staff intends to build upon the work completed as part of the Hayward Youth-Based Trash Capture, Reduction, and Watershed Education Project, funded by the EPA, and continue to educate Hayward youth and raise awareness about the importance of keeping our streets and waterways clean. Prior to device installation, staff will notify neighboring properties of potential construction-related impacts.

NEXT STEPS

The funds for the Caltrans-funded project may not be available until 2023, which is past the 2022 Water Board mandate. Staff will work with Caltrans to expedite the project. Staff will return to Council with tentative terms for a cooperative agreement with Caltrans and to request that the project be included in the City's Capital Improvement Program. Staff will also continue to investigate additional opportunities for infrastructure and/or programs that may help the City meet the Water Board's mandate by 2022.

Prepared by: Erik Pearson, Environmental Services Manager

Recommended by: Alex Ameri, Director of Utilities & Environmental Services

Approved by:

A handwritten signature in black ink, appearing to read 'K. McAdoo', written in a cursive style.

Kelly McAdoo, City Manager