

# FINAL REPORT

City of San Bruno

## Street Sweeping and Catch Basin Waste Removal Cost Allocation Study

*Submitted electronically: April 7, 2023*



April 7, 2023

Mr. Matthew Lee  
Public Works Director  
City of San Bruno  
567 El Camino, CA 94066

**SUBJECT: Street Sweeping and Catch Basin Waste Removal Cost Allocation Study – Final Report**

Dear Mr. Lee:

R3 Consulting Group, Inc. (R3) was asked by the City of San Bruno (City) to conduct a Street Sweeping and Catch Basin Waste Removal Cost Allocation Study to estimate the portion of the City's costs for street sweeping and catch basin waste removal that may be eligible for cost recovery via a fee paid by the City's solid waste service provider, Recology, pursuant to its exclusive solid waste collection agreement with the City. This Report provides the results of the analysis.

This study was based on the City's current reported costs for street sweeping and for removal and disposal of waste collected in storm drain catch basins. Using the information provided by the City, R3 calculated the proportion of these costs that may be attributed to the collection of solid waste generated within the City. The calculated annual fee amount based on our analysis is \$798,993, in current year dollars. This amount can be escalated by the Consumer Price Index or other reasonable escalation factors in future years to keep up with the increasing cost of providing these services.

This analysis is based on underlying assumptions for which reasonable ranges exist, including but not limited to estimated amounts of waste collected by the City's street sweeping and in its catch basins that might, in fact, originate from outside the City. Where feasible, we have applied conservative logic to such assumptions, meaning that the resulting calculation of attributable costs are intentionally low in order to provide for a defensible analysis.


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We appreciate the opportunity to be of service to the City. Should you have any questions regarding this Report or need any additional information, please don't hesitate to reach out directly.

Sincerely,



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# The Nexus Between Solid Waste Collection and Street Sweeping and Catch Basin Waste Removal

The City maintains a storm water collection system comprised of streets, gutters, and inlets/catch basins to collect and manage storm water. Removal of solid waste from this system is important to both proper storm water control and to preventing solid waste from degrading water quality. This has been an increasingly important focus of the National Pollutant Discharge Elimination System (NPDES) over the last 10 year and is now a common storm water quality requirement for cities in the NPDES permit process.

Most of the solid waste that the City must remove from its storm water collection system is generated within the City on private and public properties, which are all generally required to subscribe to solid waste collection services from City's exclusive solid waste service provider, Recology. The City establishes fees that subscribers must pay for Recology's collection services in accordance with Proposition 218. Under Proposition 218, solid waste collection fees do not require voter approval but are subject to majority protest by property owners or ratepayers and require proportionality and a public hearing.

When Recology or individual waste generators do not properly manage the collection of solid waste, a percentage of the solid waste generated in the City ends up in the City's storm water collection system, where it must be removed by the City. The City removes solid waste generated on private and public properties from its storm water collection system through street sweeping and clearing catch basins. Street sweeping captures solid waste that ends up in public streets as a result of improper collection. Solid waste that is not captured by street sweeping is collected in catch basins and collected when the City clears the basins. Both of these activities are an essential part of solid waste collection in the City.

Based on the nexus between street sweeping and solid waste collection, many jurisdictions fund a portion of their street sweeping costs via a fee paid by the solid waste service provider in an amount that is proportionate to the cost of providing solid waste collection services to ratepayers. Some cities (e.g., Solano Beach, Carlsbad and Signal Hill) similarly fund removal of solid waste from catch basins based on the nexus with solid waste collection through a similarly apportioned fee charged to the solid waste service provider.

## Street Sweeping and Catch Basin Waste Removal Costs

### Street Sweeping

The City provided information to R3 documenting a total of \$557,112 in current annual street sweeping costs, which are net of reimbursements to the City from CalTrans for the sweeping of El Camino Real. Total annual costs are summarized in the following table.

**Table 1: Total Annual Street Sweeping Costs**

Street Sweeping Costs	Total
Cost per Hr.	\$ 212.61
Total Hours	2,602
<b>- Total Street Sweeping Costs</b>	<b>\$ 553,211</b>
CalTrans reimbursement for sweeping El Camino Real	20,411
Reimbursement Amt. Allowed	(16,500)
<b>Reimbursement amount not allowed</b>	<b>\$ 3,911</b>
<b>Total Street Sweeping Cost excluding CalTrans Reimb.</b>	<b>\$ 557,122</b>

## Catch Basin Waste Removal

The City provided information to R3 documenting a total of \$478,259 in catch basin waste removal costs, which includes planned capital expenses associated with purchase and installation of new catch basin waste capture inserts (\$400,000 estimated over 10 years). Total annual costs are summarized in Table 2, below.

**Table 2: Total Annual Catch Basin Waste Removal Costs**

Catch Basin Waste Removal Costs	Total
Maintenance Worker II's	\$ 129,422
Mark-up with fringe @ 36%	46,592
<b>- Total Labor Costs before administrative fees</b>	<b>\$ 176,013</b>
Vactor	117,000
Truck(s) w/Tools	58,721
Arrow board truck	29,361
<b>- Total Equip. Costs before administrative fees</b>	<b>\$ 205,082</b>
<b>- Total Costs before administrative fees</b>	<b>\$ 381,095</b>
Administrative Fee @ 15%	57,164
Additional Catch Basin Inserts (Est. \$400,000 over 10 years)	\$ 40,000
<b>Total Cost for Cleaning Waste Capture Devices</b>	<b>\$ 478,259</b>

## Allocation Methodology

### Street Sweeping

To determine the percentage of street sweeping costs that can be allocated to ratepayers served by Recology, the City could consider either the proportion of parcels receiving street sweeping services in the City that are attributable to ratepayers or the proportion of street sweeping miles served that are attributable to ratepayer properties.

To calculate the proportion of parcels receiving street sweeping services in the City that are attributable to ratepayers, R3 compared the number of solid waste customer accounts (10,542 accounts), which does not include school and other governmental properties, to the total number of parcels that receive the City's street sweeping service (12,934 parcels). Based on this methodology, the City could attribute 81.5% of its total annual street sweeping costs to solid waste generated by ratepayers. This is the proportion recommended by R3 because it is the more conservative of the methodologies reviewed.

To calculate the proportion of street sweeping miles served that are attributable to ratepayer properties, R3 compared the number of street sweeping miles along residential and commercial properties (192 miles) to the total number street sweeping miles along all properties (210 miles). Based on this methodology, the City could attribute 91.4% of its total street sweeping costs to solid waste generated by ratepayers.

Both of the above allocation methodologies assume that all waste in the streets is generated within the City, and the results do not account for the possibility of waste generated outside of the City being collected via street sweeping operations. To account for this probability, R3 recommends applying a further 5% reduction factor to the allocations, which is based on City-reported figures that 17% of traffic in the City is “pass-through” traffic, and State of California figures that up to 25% of drivers litter on streets (17% times 25% yields 4.25%, which has been rounded up to 5% for the purposes of this analysis). Applying this reduction factor yields a 77.4% allocation for the recommended methodology (81.5% times 95%) and an 86.8% allocation for the alternative methodology. This report uses the lower 77.4% allocation for calculating the proportion of street sweeping expenses to Recology’s ratepayers.

### **Catch Basin Waste Removal**

To determine the percentage of catch basin clearance costs that can be allocated to ratepayers served by Recology, R3 compared the number of catch basins serving public streets (approximately 1,273) to the total number of catch basins in the City (1,414), which includes basins on private and public properties). This yields a ratio of 90%. R3 recommends applying the same 5% reduction factor to account for the possibility of waste generated from outside the City being littered on City streets. R3 further recommends applying an additional 10% reduction factor to account for the fact catch basin clearance includes removal of sediment, which is not considered to be solid waste. Application of these two reduction factors yields a 76.9% allocation (90% times 95% times 90%) for calculating the proportion of catch basin waste removal expenses attributable to Recology’s ratepayers.

## **Fee Calculation**

Taking the total annual costs of street sweeping in the City (\$557,122) times the allocation factor associated with street sweeping services provided to solid waste generators and ratepayers (77.4%) yields \$431,212 as the proportionate allocation.

Taking the total catch basin waste removal costs in the City (\$478,259) times the allocation factor associated with catch basin waste removal services provided to solid waste generators and ratepayers (76.9%) yields \$367,781 as the proportionate allocation.

The total of the above yields \$798,993 in costs eligible for fee recovery in fiscal year 2023-24, which may be escalated by the percentage change in the Consumer Price Index or other escalation factor to keep up with increases in costs in future years.