

2023

# **City of San Mateo**

## Stormwater Fee Report

July 2023  
Final Report



**SCI Consulting Group**  
Public Finance Consulting Services

4745 Mangels Boulevard  
Fairfield, California 94534  
707.430.4300  
[www.sci-cg.com](http://www.sci-cg.com)

## City of San Mateo - Acknowledgements

---

### **City Council**

Amourence Lee, Mayor  
Lisa Diaz Nash, Deputy Mayor  
Adam Loraine, Council Member  
Rob Newsom Jr., Council Member  
Rich Hedges, Council Member

---

### **Senior Staff**

Drew Corbett, City Manager  
Azalea Mitch, P.E., Director of Public Works

---

### **Consultant Team (SCI Consulting Group & LWA)**

Edric Kwan, P.E., Vice President/Senior Engineer (SCI)  
Jerry Bradshaw, P.E., Senior Engineer (SCI)  
Chris Coulter, Senior Consultant/Project Manager (SCI)  
Karen Ashby, Vice President (LWA)

## Table of Contents

<b>Introduction .....</b>	<b>1</b>
Background.....	1
Legal Requirements of Property-Related Fees.....	2
<b>Financial Needs &amp; Revenue Requirements .....</b>	<b>4</b>
Summary of Financial Needs.....	7
Annual Revenue Requirement .....	8
<b>Rate Structure Analysis .....</b>	<b>12</b>
Single-Family Residential Parcels as Benchmark.....	12
Non-Residential Parcels.....	14
Rate Credits .....	16
Summary of SFEs and Revenues by Rate Category .....	17
Stormwater Fee Calculation .....	18
Billing Methodologies.....	19
Annual Cost Indexing.....	20
Management and Use of Stormwater Funds .....	20
<b>Appendices .....</b>	<b>21</b>
Appendix A – PDP Rate Credit Basis .....	22
Appendix B – Stormwater Rates in Other Cities.....	26

## List of Tables

Table 1 - Total Stormwater Program Costs.....	6
Table 2 –Capital Improvement Program.....	7
Table 3 – Estimated Revenue Needs .....	8
Table 4 – Needs Summary and Financial Scenarios.....	9
Table 5 - SFE Summary for Residential Parcels .....	13
Table 6 - SFE Summary for Non-Residential Parcels .....	14
Table 7 - Allocation of Revenue by Category .....	18
Table 8 - Stormwater Fee Schedule .....	19
Table 9 – Recent Stormwater Fee Ballot Measures & Outcomes.....	26
Table 10 – Samples of Stormwater Rates Around the State .....	27

## Introduction

### Background

#### Stormwater Funding Background

The City of San Mateo, through its Public Works Department, operates and maintains various stormwater and storm drain facilities and performs activities necessary to prevent flooding, preserve surface water quality, enhance recreation, and ensure compliance with all legal requirements. Facilities include surface water features such as creeks, channels, and Marina Lagoon, underground stormwater conveyance and pumping systems, and trash capture devices. Necessary activities include operations, maintenance, capital improvement master planning, infrastructure and green infrastructure construction, compliance with the Municipal Regional Stormwater Permit, and overall system management and administration.

Through the years of the City's growth and up to the early 1990s, the City's stormwater system was primarily viewed as a drainage system that collected rainwater and conveyed it away from developed areas. However, beginning in the early 1990s the City was required to comply with newly-enacted environmental laws that have evolved over the past three decades into a comprehensive set of regulations. These regulations, embodied by the Municipal Regional Stormwater Permit, have significantly changed how the City and private property owners approach land use decisions. This new paradigm has placed stormwater management at the leading edge of land use practices – on par with other community priorities such as transportation, housing, and major utility services. The result is that many municipalities across the state and nation are now considering storm drainage as a major utility.

As the scope of stormwater management has grown, so, too, have the costs of these activities. Stormwater management has historically been funded through the City's General Fund – unlike the City's other utilities (water, wastewater and garbage) that all rely on separate, dedicated user fees to fund necessary activities. As the cost of stormwater management grows, it places greater stress on the General Fund where it must compete with a wide range of other priorities such as public safety and community services.

#### Project Background

On July 1, 2019, the City issued a Request for Proposals for a Storm System Activities Funding Analysis ("Analysis"). SCI Consulting Group ("SCI") was selected and awarded a professional services agreement by City Council on October 19, 2019 to develop the Analysis consisting of three tasks: 1) evaluate projected financial needs; 2) evaluate potential funding sources; and 3) develop revenue options and recommendations.

At the May 17, 2021 Council study session, staff presented an overview of the Analysis, which recommended the development of a storm drain utility fee to fund the activities needed to operate, maintain, and improve the system. On August 16, 2021, SCI's agreement was amended with the additional tasks: 4) conduct statistically valid community polling; 5) prepare a Proposition 218-compliant property-related fee engineering and nexus/justification report ("Fee Report"); 6) implement a Proposition 218-compliant fee ballot measure process; and 7) assist with public information and educational outreach strategies. On March 20, 2023, SCI's agreement was amended with the additional task: 8) conduct statistically valid community polling.

## Legal Requirements of Property-Related Fees

Property-related fees are subject to the requirements of Articles XIIIC and D of the State Constitution, which were approved by voters in 1996 through Proposition 218, as well as the Proposition 218 Omnibus Implementation Act (Government Code Sections 53750 – 53758).

Any property-related fee must comply with the requirements of Article XIIID, Section 6. These include the following:

- Revenues derived from the fee shall not exceed the funds required to provide the property-related service.
- Revenues derived from the fee shall not be used for any purpose other than that for which the fee was imposed.
- The amount of a fee upon any parcel or person as an incident of property ownership shall not exceed the proportional costs of the service attributable to the parcel.
- No fee may be imposed for a service unless that service is actually used by, or immediately available to, the owner of the property in question. Fees based on potential or future use of service are not permitted. Standby charges, whether characterized as charges or assessments, shall be classified as assessments and shall not be imposed without compliance with the assessment section of the code.
- No fee may be imposed for general governmental services including, but not limited to, police, fire, ambulance or library services where the service is available to the public at large in substantially the same manner as it is to the property owners.

The procedural requirements of Proposition 218 require that new or increased property-related fees submit to the following two-step process: 1) a 45-day public protest period culminating in a public hearing, and 2) a ballot proceeding whereby it must be approved by a 50% simple majority of property owners (or a two-thirds supermajority of registered voters) voting before new or increased fees could be authorized. However, fees for water, sewer and refuse collection are exempt from the second step.

In the years following the passage of Proposition 218, there was uncertainty whether stormwater fees qualified as a type of sewer fee and therefore were not subject to the ballot proceeding requirement. The California Sixth Appellate District Court clarified the question in a 2002 ruling<sup>1</sup> that found stormwater fees did not qualify as a type of sewer fee, and new or increased fees must be approved through a ballot proceeding.

This voter approval requirement creates a significant barrier for municipalities to set stormwater fees. As a result, municipalities typically look for other, non-balloted funding options to assist in the funding for stormwater activities.

Despite these barriers, a property-related fee is the most common type of dedicated, sustainable funding source used by stormwater utilities throughout the State (indeed, throughout the Country). Other balloted mechanisms typically require a higher approval threshold (i.e., two-thirds majority). Non-balloted funding mechanisms are worth pursuing but are typically considered as supplement funding sources since they can rarely generate the level of revenue required to support the enterprise.

---

<sup>1</sup> Howard Jarvis Taxpayers Association v. City of Salinas, No. H022665.Sixth Dist. June 3, 2002.

## Financial Needs & Revenue Requirements

As part of the Funding Analysis task, the SCI team conducted an analysis of the City's Stormwater and drainage needs. A report titled "*Stormwater Funding Analysis*" was presented to the City Council on May 17, 2021 and is referenced herein. This analysis reviewed the City's stormwater services and related financial accounts and presented options for funding the City's resources required to conduct all necessary and beneficial stormwater activities.

This Fee Report is intended to update the previous Funding Analysis work and serve as the Fee Study and basis for a potential Proposition 218 Property Related Fee Balloting. For the purpose of conducting this study, the SCI Team created a proposed stormwater utility that would fund the City's stormwater activities. The revenues required to fund the proposed stormwater utility are based on the previous Funding Analysis work and comprise all of the City's stormwater system activities and needs identified to date.

This comprehensive stormwater utility included basic drainage and flood control aspects of the stormwater program. In addition, the City is also required to comply with state and federal clean water regulations in accordance with the National Pollution Discharge Elimination System ("NPDES"); a framework of laws and regulations governed by the federal Clean Water Act. In the San Francisco Bay region, these regulations are embodied in the Municipal Regional Permit ("MRP") which is issued to 76 cities on a five-year cycle. Those cost elements are also included in the proposed stormwater utility.

For purposes of this Report, those costs and needs were divided into three elements: Operations and maintenance ("O&M"), additional operating needs, and capital projects ("CIP"). These costs were then used to develop a 30-year forecasting tool, or model, that enabled the Team to create various cost/revenue scenarios and perform various analyses.

The recommended revenue requirement of \$4 million described below was based on a 30-year model that produced various scenarios for expenditures among the three cost elements, allowing the City to implement stormwater system projects based on a new fee revenue source of \$4 million in the first year.

---

### Storm Water Operations and Maintenance Needs

This section addresses the O&M needs as well as projected additional operating needs. That includes the eight baseline budget elements and the additional needs identified as part of Funding Analysis task work and updated for Fiscal Year 2023-24 ("FY 24"), as shown in Table 1.

The first step was to forecast costs for the current level of effort, or baseline costs. The total revenue required for baseline operating costs of the stormwater system was estimated to be \$3.2 million for FY 22. Costs for the succeeding fiscal years have been increased by a factor of 3% annually to account for inflation, resulting in baseline operating costs of approximately \$3.2 million for FY 24. These cost trends are then escalated at 3% per year for future years.

The second step was to incorporate the City's true costs of compliance with the MRP. The MRP compliance evaluation estimated the costs at \$841,000 for FY 22 and this figure has been increased to \$892,000 for FY 24. It should be noted that these costs are included in the \$3.2 million estimated for all operating costs; they are not additive. Therefore, the MRP compliance effort represents 28% of all baseline operating costs.

The third step established additional needs that should be included in the proposed stormwater utility structure. As shown in the Funding Analysis Report, the work identified as critical additional needs can be categorized as protection from flooding, and mitigation and removal of trash and pollution. The estimated costs for these additional operating needs for FY 24 are summarized as follows:

- \$305,750 for Operations and Maintenance<sup>2</sup>
- 2.2 full-time equivalent Maintenance Worker II for creek and inlet cleaning
- Green infrastructure maintenance (contract services)
- \$238,800 for MRP Trash Capture Compliance<sup>3</sup>
- \$118,000 for other MRP Compliance
- Additional industrial / commercial inspections
- Allowance for MRP renewal costs

The results of that analysis showed that approximately \$663,000 additional funding would be needed annually by FY 24. This, combined with the baseline operating costs, would bring the total FY 24 operating budget to \$3.9 million. The financial review produced a 30-year forecasting tool, or model, that would enable the Team to create various cost/revenue scenarios and perform various analyses. The result of this analysis for operations and maintenance of the stormwater system is shown in Table 1.

---

<sup>2</sup> Based on information from Operations staff in an email dated April 29, 2020.

<sup>3</sup> From LWA memo, Appendix A, Table 2

**Table 1 - Total Stormwater Program Costs**

<i>in thousands</i>						
Prog Sub-			Program	FY 22	FY 23	FY 24
Fund	#	Prog		\$ 466	\$ 480	\$ 495
10	4676	1	Stormwater Pollution	\$ 466	\$ 480	\$ 495
10	4677	1	Marina Lagoon	499	514	529
10	4679	1	Storm and Flood	189	195	201
21	4678	1	Waste Mgt - Disposal	393	405	417
21	4678	2	Waste Mgt - Special Events	35	36	37
72	4672	1	Envir Compl - Pollution Prev	232	239	247
72	4675	3	Sewer Mtce - Pump Repair	312	321	331
72	4675	5	Storm Sewer Mtce	887	913	941
			<b>Baseline Costs</b>	<u>\$ 3,014</u>	<u>\$ 3,104</u>	<u>\$ 3,197</u>
			<b>Additional Needs</b>	<u>\$ -</u>	<u>-</u>	<u>663</u>
			<b>TOTAL OPERATING COSTS</b>	<u><u>\$ 3,014</u></u>	<u><u>\$ 3,104</u></u>	<u><u>\$ 3,860</u></u>

Table 1 shows a 3-year cost window; however, these costs were forecast for 30 years as part of the 30-year rate model discussed in a later section.

### Capital Project Needs

The Funding Analysis task work evaluated Capital costs using information from three primary sources: 1) The FY 21 Capital Improvement Program (“CIP”); 2) The 2018 Marina Lagoon Dredging Assessment; and 3) The 2004 Storm Drain Master Plan. Cost estimates for the latter were escalated from 2004 to 2024 using the Construction Cost Index published by the Engineering News Record. Capital costs for a full enterprise program were compiled into a single Capital Improvement Program (“CIP”) totaling \$139 million (FY 22), and escalated to \$174 million (FY 24).

However, as discussed in the 2021 Financial Analysis, the Marina Lagoon project was restructured to include an initial dredging project estimated at \$9.7 million and the remaining work placed into a capital maintenance program based on annualized life-cycle costs of \$2.0 million (FY 24). The \$9.7 million project has been escalated to approximately \$12 million for FY 24. The result of the CIP analysis is shown in table 2.

**Table 2 –Capital Improvement Program**

Project	<i>FY 20 Cost</i>	FY 24 Cost *	in thousands		
			Tier 1	Tier 2	Tier 3
Storm Drain Condition Assessment	\$ 1,000	\$ 1,232	\$ 1,232	\$ -	\$ -
Storm Drain Master Plan Update	115	142	142	-	-
Green Infrastructure Program **	na	1,733	1,733	-	-
Pacific Blvd Drainage Channel Rehab	600	739	739	-	-
Creek & Lagoon Routine Mtce Permitting	380	468	468	-	-
First Lagoon Dredging	9,700	11,951	-	11,951	-
16th Avenue Drainage Area	9,521	11,730	5,764	-	5,967
19th Avenue Drainage Area	11,972	14,750	7,254	-	7,496
Laurel Creek Drainage Area	9,567	11,788	7,178	-	4,610
Coyote Point Drainage Area	17,050	21,006	14,098	-	6,909
Detroit Drive Drainage Area	5,728	7,057	4,907	-	2,150
San Mateo Creek Drainage Area	2,620	3,229	999	-	2,229
<b>Total Revenue Requirement</b>	<b>\$ 68,253</b>	<b>\$ 85,825</b>	<b>\$ 44,513</b>	<b>\$ 11,951</b>	<b>\$ 29,361</b>

\*Costs were escalated based on the three-year rise in ENR Construction Cost Index from 12,764.52 to 14,977.94 plus 5% estimated for the current year.

\*\*Green Infrastructure Program was added to CIP after the 2021 Financial Analysis.

By converting the Marina Lagoon dredging project to an annual program, its large, one-time capital cost can be removed from the CIP which resulted in an adjusted CIP of \$68 million and has been escalated to \$86 million (FY 24). This amount was then incorporated into the 30-year financial model resulting in an annual capital cost beginning at approximately \$3.1 million.

### Summary of Financial Needs

Total stormwater program costs, including baseline Operations and Maintenance, additional operating needs, and annual capital projects costs result in a total annual funding need beginning at approximately \$9 million. A summary of the financial needs is shown in Table 3.

**Table 3 – Estimated Revenue Needs**

<i>in thousands</i>	
<b>Estimated FY 24 Revenue Needs</b>	
Baseline O&M	\$ 3,197
Additional O&M Needs	663
<b>Subtotal Operating Costs</b>	<b><u>\$ 3,860</u></b>
Lagoon Capital Maintenance (annualized)	2,016
Capital Improvement Program*	
Tier 1: High Priority Projects	1,622
Tier 2: First Lagoon Dredging	436
Tier 3: Medium- and High-Priority Projects	1,070
<b>TOTAL REVENUE Requirement</b>	<b><u>\$ 9,004</u></b>

*\* CIP is amortized over 30 years*

### Annual Revenue Requirement

As part of the overall effort to implement a stormwater fee designed to provide projects best suited to the community's priorities, and overall needs of the stormwater program, the City directed SCI to conduct public opinion surveys to better understand community values and priorities, effectiveness of messaging strategies, and willingness to pay for various levels of service. The surveys projected current ballot support for a new stormwater fee at a maximum rate of \$8 per month for an average single family home. An \$8 per month fee would generate annual revenues at a maximum of \$4 million in the first year. While this level of support is not adequate to create a fully self-funded, \$9 million-per-year enterprise, the community's current willingness to pay can fund most of the enterprise when combined with current stormwater funding.

### Revenue Scenarios

The financial needs discussed above can be broken down into two categories: annual costs for operations and one-time costs for the CIP. In order to develop an annual cash flow model, the one-time CIP costs must be annualized. The method for doing this is a 30-year rate model developed by SCI. This comprehensive model inputs an assumed FY 24 revenue stream and balances those with annual costs including operations, pay-as-you-go ("PayGo") capital, resulting in a fund balance that also serves as the fund reserves (assumed to be 20% of annual operating costs). The annual PayGo capital serves to spend down the backlog of CIP needs such that by year 31 the backlog is near zero.

According to the Community Polling task work, the community is willing to pay \$4 million annually towards the full stormwater enterprise annual revenue need of \$9 million. However, the costs for the existing baseline levels of service shown in Table 1 of approximately \$3.2 million are already funded through other City sources. If that funding remains in place, the net stormwater need would be (\$9 million - \$3.2 million =) \$5.8 million. While the \$4 million revenue potential falls short of that amount, it funds almost 70% of that need.

The City has indicated that the highest priority needs are the additional O&M and the annualized lagoon costs, or \$663,000 and \$2,016,000, respectively, leaving approximately \$1,353,000 annually for CIP needs. However, the true costs of lagoon dredging are somewhat unknown at this time. The estimates shown in this report are based on the 2018 dredging analysis done for the City, which identified two sets of costs based on what type of soil is found in the bottom of the lagoon. If soil contaminates are under certain levels, the soil can be hauled to a nearby landfill (about 15 miles away). However, if the contaminates are above certain levels, the soil will need to be hauled to a specialty landfill that would likely be much further away and require more stringent containment and transportation requirements thereby doubling the costs. The annualized dredging costs of \$2 million are for the more stringent case. The true annualized costs could be \$1 million, \$2 million, or somewhere in between. The contamination amounts will not be known until dredging begins and testing is done on the soil.

**Table 4 – Needs Summary and Financial Scenarios**

Estimated FY 24 Needs		in thousands		
		Scenario 1	Scenario 1	Scenario 1
Baseline Costs	\$ 3,197	\$ -	\$ -	\$ -
Additional Needs	663	663	663	663
Subtotal Operating Costs	<u>\$ 3,860</u>	<u>\$ 663</u>	<u>\$ 663</u>	<u>\$ 663</u>
Marina Lagoon Dredging	2,016	2,016	1,512	1,008
Capital Improvement Program*				
<i>Tier 1: High Priority Projects</i>	1,622	1,353	1,622	1,622
<i>Tier 2: First Lagoon Dredging</i>	436	-	235	436
<i>Tier 3: Medium- and High-Priority Projects</i>	1,070	-	-	303
TOTAL REVENUE Requirement	<u>\$ 9,004</u>	<u>\$ 4,032</u>	<u>\$ 4,032</u>	<u>\$ 4,032</u>

\* CIP is amortized over 30 years

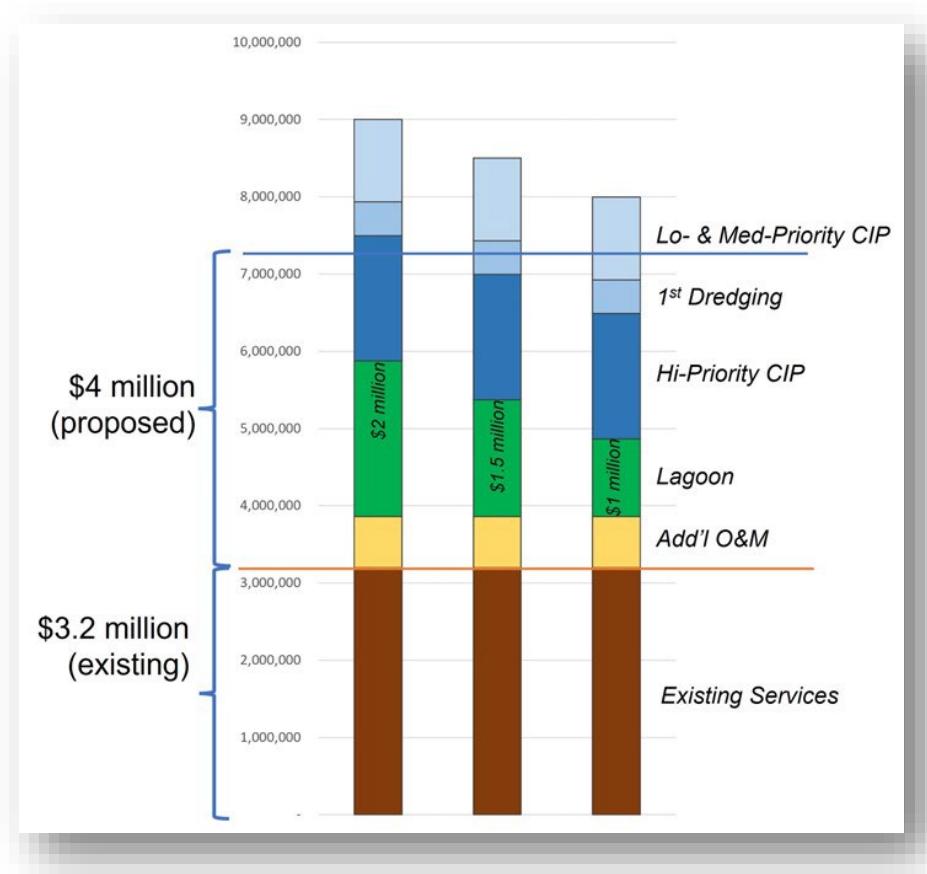
Funded from other sources

Deferred Funding

Partially Deferred Funding

If the lagoon costs are reduced, there would be more of the \$4 million revenue available for other CIP needs. For the purposes of the 30-year financial model, three levels of lagoon funding are modeled and are shown in Table 4. Figure 1 illustrates how a lower lagoon cost allows for more of the CIP need to be met for the three scenarios.

**Figure 1 – Comparison of Lagoon Scenarios**



These scenarios show that there is flexibility in how the \$4 million revenue stream can be programmed. The City typically evaluates its operating and capital priorities annually during the budget cycle where this flexibility will be useful. An enhanced Operations and Maintenance program providing increased protection from flooding and property damage is enabled by full funding for additional operational needs, while CIP investment toward infrastructure rehabilitation provides needed strengthening of the City's aging storm drain system. While the scenarios are not binding, they are illustrative of what the City could provide in future years. The scenarios include only PayGo capital instead of debt financing. Recent sensitivity analyses have shown that the costs associated with debt financing decreases the overall CIP capacity by approximately \$10 million depending on amount and length of debt.

---

### **Revenue Requirement Recommendations**

Based on the overall Stormwater needs and community priorities and support levels, it is recommended that a FY 24 revenue stream of \$4 million be used as a basis of the proposed rate structure. The comparison of the three scenarios shown above illustrate that, although the revenue falls short of the fully self-funded enterprise goal of \$9 million, it can accomplish many of the most important goals when combined with the existing funding structure of approximately \$3.2 million. This revenue requirement has the following advantages:

- Funding for additional Operations and Maintenance work
- Funding of the CIP for critical infrastructure strengthening and improvements
- Funding of Marina Lagoon dredging

## Rate Structure Analysis

Proposition 218 states that the amount of a fee upon any parcel shall not exceed the proportional costs of the service attributable to that parcel. It also states that no fee may be imposed for a service unless that service is actually used by, or immediately available to, the owner of the property. In compliance with Proposition 218, the proposed Stormwater Fee, if approved by property owners, will only be imposed on properties that shed water, directly or indirectly, into the City's system or are otherwise served by the system. Additionally, the amount of use attributed to each parcel is proportionate to the amount of stormwater runoff contributed by the parcel, which is, in turn, proportionate to the amount of impervious surface area on a parcel (such as building roofs and pavements).

The impervious surface area method of apportioning the cost of Stormwater management has become the industry standard over recent decades. It is accepted across the nation as the best and most equitable method. However, there is variability in how impervious surface area is put to use, depending on the types of data and technology available for measuring or estimating this variable.

### Single-Family Residential Parcels as Benchmark

The most widely used method of establishing storm drainage rates is to use the average single-family residential parcel ("SFR") as the basic unit of measure, or benchmark, which is called the single-family equivalent, or "SFE." Since the metric for this fee structure is impervious surface area, a benchmark amount of impervious surface area ("IA") must be established.

The City has a wide range of sizes of SFR parcels, which have varying percentages of impervious area ("%IA"). Generally, smaller, denser parcels tend to have a higher proportion of impervious area than larger, less dense parcels, which tend to have a lower percentage of impervious area. (This can be best visualized by the fact that larger residential properties tend to have a larger proportion of pervious landscaping, and therefore a smaller proportion of impervious area.) A random sample of 385 SFR parcels was selected across all lot sizes, and the IA of each sample parcel was measured using aerial photographs. This sample data forms the basis for determining the average IA, which will then be the basis for determining the SFE.

The range of SFR parcels was grouped into four size categories based on trends that emerged in the IA data (small, medium, large and extra-large). For each size group, the total IA on the sampled parcels were divided by the number of parcels sampled to arrive at the average amount of IA for each size group. For the medium SFR category, 273 parcels were sampled with a total of 859,960 square feet of IA, resulting in an average IA of 3,150 SF. This will be used as the benchmark (1 SFE) for all other size categories and other non-residential land uses.

---

### Condominiums

Condominium units are particularly difficult to categorize as they are often on very small individual parcels yet share larger common areas that are made up of landscaped (pervious) areas, parking lots and shared roofs, and other recreational uses (either pervious or impervious). The data for these variables is not readily available, so some assumptions are made about their characteristics.

Condominiums can be grouped into two categories: Medium-density where there is only one level of residential units (e.g., townhomes) and high-density where there are multiple levels of residential units (similar to apartment buildings).

In numerous prior studies, a strong trend emerged for these two types of condominiums where the medium density IA was approximately two-thirds that of a medium SFR, and the high density IA was approximately one-third that of a medium SFR. Since the medium SFR is benchmarked as one SFE, the SFE values for these types of condominiums are set at 0.6694 SFE and 0.33870 SFE, respectively.

Additionally, most condominium sites include common parcels for parking areas, greenbelts, and other common facilities. Since these represent aspects that are also common to SFR parcels (driveway/garage for parking, front/back yards), these common parcels are considered included in the rate for each residential unit. In some cases where a condominium site includes extraordinary improvements on common parcels such as sport courts, swimming pools, or recreation centers, they may be charged separately.

Table 5 shows a summary of the SFEs for residential parcels.

**Table 5 - SFE Summary for Residential Parcels**

Lot Type	Parcel Size Range		# of Parcels <sup>A</sup>	Acres <sup>A</sup>	Average IA (sf)	SFE per Parcel
	Acres	Square Footage				
<b>Small</b>	under 0.11	under 4,792	2,137	165.01	2,187	<b>0.6943</b>
<b>Medium</b>	0.11 to 0.17	4,793 to 7,405	13,795	1,800.70	3,150	<b>1.0000</b>
<b>Large</b>	0.18 to 0.23	7,406 to 10,019	2,218	441.20	3,906	<b>1.2399</b>
<b>Very Large</b>	Over 0.23	over 10,019	1,419	507.37	4,362	<b>1.3848</b>
<b>Condo - 1 Level</b>		na	1,641	163.34	2,109	<b>0.6694</b>
<b>Condo - 2+ Levels</b>		na	5,384	538.40	1,067	<b>0.3387</b>
		<b>TOTAL</b>	<b>26,594</b>	<b>3,616</b>		

A Numbers of Parcels and Acres do not factor into the basis of the SFE calculation; they are shown for informational purposes only.

## Non-Residential Parcels

Unlike the residential parcels, non-residential parcels can vary widely in size as well as impervious characteristics. For this reason, the parcels have been grouped into land use categories according to their %IA characteristics. The SFE for each land use category is based on a per-acre basis, so size can be a variable in the calculation of the fee. The SFE-per-acre can be computed for each category using the following formula:

$$\frac{(43,560 \text{ sf/acre}) \times \% \text{ IA}}{3,150 \text{ sf/SFE}} = \text{SFE per Acre}$$

where 3,150 square feet is the amount of IA in one SFE. Table 6 shows a summary of SFEs for each non-residential land use category.

**Table 6 - SFE Summary for Non-Residential Parcels**

Land Use Category	# of Parcels <sup>A</sup>	Acres <sup>A</sup>	% Imperv Area	SFE per Acre
Commercial / Retail / Industrial	976	570.24	90.8%	12.562
Office / Apt / Institutional	1,062	912.76	74.0%	10.228
School w/Playfield	27	305.35	64.4%	8.905
Park	56	437.78	5.0%	0.691
Vacant (developed)	51	33.45	5.0%	0.691
Open Space / Agricultural	0	0.00	not charged	
<b>TOTAL</b>	<b>2,172</b>	<b>2,259.58</b>		

A Aggregate numbers of Parcels and Acres do not factor into the basis of the SFE calculation; they are shown for informational purposes only.

Each individual parcel's SFE is then calculated by multiplying the parcel size (in acres) times the SFE per acre for that land use category, as shown in the following formula:

$$\text{Parcel Size (acres)} \times \text{SFE per Acre} = \text{SFE}$$

---

### Non-Residential Condominiums

Non-residential condominium parcels such as commercial or office condominiums cannot be charged on the acreage of the individual unit because that would omit the acreage of the common areas, which are often parking lots with high %IA. In turn, the common area acreage data is sometimes duplicative of the acreages assigned to the individual units. For these reasons, the full site acreage for each complex of condominiums has been apportioned to the individual units, prorated on the basis of the individual unit's floor space (when available). From that, their SFEs are calculated in the normal method.

---

### Graded Vacant Parcels

Graded vacant parcels are devoid of obvious structures or improvements but are distinguished from natural open space by one of several characteristics. Typically, a graded vacant parcel has been graded to be ready for building construction (possibly as part of the original subdivision or adjacent street grading). In some cases, the parcel previously contained a structure or improvement that has been removed, but its fundamental alteration from a natural state remains. Although graded vacant parcels may have significant vegetative cover, the underlying soil conditions resulting from grading work or previous improvements usually cause some rainfall to runoff into the storm drainage system. The %IA for developed vacant parcels is reasonably assumed to be 5%, which is also used as a minimum value of imperviousness for any land use type (excluding open space and agricultural land – see next section). Vacant parcels that have significant impervious paving remaining from prior improvements may be classified as Commercial or some other classification best representing the %IA of the parcel.

---

### Open Space and Agricultural Parcels are Not Charged

The City's storm drain system was developed in response to land development over many decades. Tracts of land that have not yet been developed, or have been used primarily for agricultural purposes, have not created an impact on the system beyond the natural condition, and are therefore considered to receive no service from the system. In practical terms, these parcels generate no additional storm runoff beyond the natural condition. For these reasons, open space and agricultural parcels are not charged a Fee.

---

### Hybrid Parcels

Some parcels may have improvements as well as significant open space areas. For such hybrid parcels that contain a residence, the open space acreage does not increase the fee because residential parcels are not charged on a per-acre basis. Rather, they are charged based on the average IA for that size category.

For such parcels that contain non-residential improvements (which are charged on a per-acre basis), the chargeable acreage should be adjusted downward to reflect the improved area only, leaving the open space area "invisible" to the fee calculation. Where parcels have been found in this category, that acreage adjustment has been made.

---

### Other Parcels

Parcels that do not fall within the land use descriptions listed above may be placed into the category having the closest %IA characteristics.

---

### Other Non-Charged Parcels

Parcels such as streets, detention basins, or rights of way for drainage appurtenances are considered part of the drainage system and thus are not charged a Stormwater fee.

Other parcels that may not be charged include sliver parcels that function as part of another parcel or railroad rights of way that contain established internal drainage retention features (ballast).

## Rate Credits

---

### Low Impact Development Rate Credit

The City's NPDES Permit requires certain properties to install structural BMPs<sup>4</sup> intended to treat Stormwater runoff and attenuate Stormwater flows. These facilities are typically designed to capture a portion of the storm flows, retain them, and enable them to filter through a landscape, be used as an alternative water supply, or infiltrate into the ground. While this is intended to help filter pollutants from the water, it also can reduce the parcel's stormwater runoff quantity to some extent, which in turn can reduce a parcel's impact on the system. In addition to Permit-required measures, other parcel owners may elect to follow these guidelines voluntarily.

---

<sup>4</sup> BMP is an acronym for "best management practices." In this context, BMPs refer to permanent facilities built on-site that mitigate Stormwater impacts of certain regulated development projects.

The section of the NPDES Permit that requires structural BMPs is Provision C.3 (New Development and Redevelopment)). Compliance with C.3 is a well-established and convenient metric on which to base customer activities that further Program goals and affect Program costs. C.3 compliance can reduce impacts on many of the Program elements. Based on a detailed study<sup>5</sup> done for a similar city in the Bay Area, it has been determined that compliance with Provision C.3 equates to a reduction of Program impacts of approximately 25% based on the overall Program costs. Based on that analysis, C.3-compliant parcels shall receive a credit of 25% of their otherwise-calculated fee.

Some non-residential parcels may implement structural BMPs for only a portion of the parcel acreage. Since that effort and reduction in impacts to the City's storm drainage system should be recognized, those parcels should receive a partial credit. For any parcel that implements structural BMPs for 26% to 50% of the site acreage, the credit shall be 12.5%. For any parcel that implements structural BMPs for 25% or less of the site acreage, the credit shall be 6.3%.

### Summary of SFEs and Revenues by Rate Category

SFEs are calculated for each parcel according to the methodology described above. The allocation of revenues is reflected by the SFEs. A summary of those revenues/SFEs is shown by Rate Category in Table 7. In addition, the number of parcels and acreage for each rate category is shown.

---

<sup>5</sup> A study was conducted for the City of Cupertino on Santa Clara County. Excerpts from that study are included in Appendix A.

**Table 7 - Allocation of Revenue by Category**

Category	Parcels	%	Acres	%	SFEs	%
Small	2,137	7.4%	142,376	2.8%	1,483.08	3.5%
Medium	13,795	48.0%	1,324,320	30.6%	13,795.00	32.6%
Large	2,218	7.7%	264,031	7.5%	2,750.32	6.5%
X-Large	1,419	4.9%	188,671	8.6%	1,965.32	4.6%
Condo 1	1,641	5.7%	105,392	2.8%	1,097.83	2.6%
Condo 2+	5,384	18.7%	175,217	9.2%	1,825.18	4.3%
<b>Residential Totals</b>	<b>26,594</b>	<b>92.4%</b>	<b>2,200,006</b>	<b>61.5%</b>	<b>22,916.73</b>	<b>54.2%</b>
Comm / Indust	976	3.4%	687,684	9.7%	7,163.37	16.9%
Office / Apt / Institutional	1,062	3.7%	882,234	15.5%	9,189.94	21.7%
Institutional w/ Field	27	0.1%	261,037	5.2%	2,719.14	6.4%
Park	56	0.2%	29,040	7.5%	302.50	0.7%
Graded Vacant	51	0.2%	2,219	0.6%	23.11	0.1%
<b>Non-Residential Totals</b>	<b>2,172</b>	<b>7.6%</b>	<b>1,862,214</b>	<b>38.5%</b>	<b>19,398.06</b>	<b>45.8%</b>
<b>TOTAL</b>	<b>28,766</b>		<b>4,062,220</b>		<b>42,314.79</b>	

### Stormwater Fee Calculation

The primary metric in this analysis is the SFE as illustrated above. To arrive at the fee amount for the various land use categories, the total City-wide SFEs must be divided into the total revenue requirement to arrive at the rate per SFE. The \$4,032,000 revenue requirement was used for this calculation. Using the analysis above, that calculation is represented by the following formula:

$$\begin{aligned}
 SFE \text{ Rate} &= \frac{\text{Annual Revenue Req't}}{\text{Total SFEs}} \\
 &= \frac{\$4,032,000}{42,315} \\
 &= \textbf{\$96 per Year} \\
 &(\text{= \$8 per Month})
 \end{aligned}$$

This SFE rate amount is then multiplied by the SFEs per parcel or per acre for the various land use categories to arrive at the Stormwater Fee Rate Schedule shown in Table 8.

**Table 8 - Stormwater Fee Schedule**

Land Use Category		Proposed Monthly Fee FY 2024-25		
Residential *				
Small	Under 0.11 ac	\$	5.55	per parcel
Medium	0.11 to 0.17 ac	\$	8.00	per parcel
Large	0.18 to 0.23 ac	\$	9.92	per parcel
Extra Large	Over 0.23 ac	\$	11.08	per parcel
Condominium - 1 Level		\$	5.35	per parcel
Condominium - 2+ Levels		\$	2.71	per parcel
Non-Residential **				
Commercial / Industrial		\$	100.50	per acre
Office / Apartment / Institutional		\$	81.82	per acre
Institutional w/ Field		\$	71.24	per acre
Park		\$	5.53	per acre
Vacant (developed)		\$	5.53	per acre
Open Space / Agricultural		not charged		

\* Single-Family Residential category also includes du- tri- and four-plex units

\*\* Non-SFR parcels size is calculated to a hundredth of an acre

Appendix B has information about stormwater rate initiatives implemented by other municipalities and rates adopted by other municipalities.

## Billing Methodologies

The proposed rate structure is recommended to be billed once a year through the property tax bill system. There are many upsides to this system.

- The recommended structure is not dependent on monthly water consumption. It is reliant on property imperviousness that is derived from land use and statistical analyses (already done for this Report). These factors rarely change from year to year, and when they do change (new construction or development being the primary cause), those changes are easy to incorporate on an annual basis from other existing data sets (e.g., City building permits, county tax assessor use code changes).
- As an annual billing, there is less administrative action needed prior to the July/August deadline for tax bill charges.

- Delinquencies are virtually a non-factor since property owners typically pay their tax bills promptly and routinely. While property tax bill delinquencies do occur, the County's Teeter Plan ensures that direct charges are paid to the local agencies despite the delinquency.<sup>6</sup>
- Third-party agencies are relieved of the burden of billing on behalf of the City.
- There is no additional work needed to conform to a tax bill format. The data for this Report has been developed at the parcel level because the Proposition 218 balloting procedures require that each affected parcel receive a ballot. Therefore, the data is already in the correct format for the annual property-tax billing method.

On the downside, the County charges the local agencies for the convenience of collecting such charges on the property tax bill, in the amount of \$1.42 per parcel. For the City, that would amount to approximately \$40,000 annually, or approximately one percent.

### Annual Cost Indexing

The 2025 Stormwater Fee is subject to an annual adjustment tied to the Consumer Price Index-U for the San Francisco Bay Area as of December of each succeeding year (the "CPI"), with a maximum annual adjustment not to exceed 3%. Any change in the CPI in excess of 3% shall be cumulatively reserved as the "Unused CPI" and shall be used to increase the maximum authorized rate in years in which the CPI is less than 3%. The maximum authorized rate is equal to the maximum rate in the first fiscal year the Fee was approved adjusted annually by the lower of either 3% or the change in the CPI plus any Unused CPI as described above.

### Management and Use of Stormwater Funds

The City shall deposit into a separate account(s) all Stormwater Fee revenues collected and shall appropriate and expend such funds only for the purposes outlined by this Report. The specific assumptions utilized in this Report, the specific programs and projects listed, and the division of revenues and expenses between the two primary categories (O&M and CIP) are used as a reasonable model of future revenue needs and are not intended to be binding on future use of funds.

---

<sup>6</sup> The County has a sophisticated procedure in place for delinquencies, that may include foreclosure on a property.

## Appendices

The following appendices are provided:

Appendix A – PDP Rate Credit Basis

Appendix B – Stormwater Rates in Other Cities

## Appendix A – PDP Rate Credit Basis

On the following pages is an analysis done for the City of Cupertino in February 2019 that estimated the extent that structural BMPs (referred to as “low impact development”, or “LID”) reduces the impact on the City’s storm drain system. Cupertino is similar to the City of San Mateo in that both are mid-sized cities with similar land use patterns, storm drainage systems, and magnitude of costs and needs.



## **CITY OF CUPERTINO**

### **FEE REPORT**

### **2019 CLEAN WATER AND STORM PROTECTION FEE**

FEBRUARY 2019

PURSUANT TO THE ARTICLES XIIIIC & D OF THE CALIFORNIA CONSTITUTION,  
AND THE GOVERNMENT CODE SECTIONS 38900 – 38901 ET AL.

ENGINEER OF WORK:  
**SCIConsultingGroup**  
4745 MANGELS BOULEVARD  
FAIRFIELD, CALIFORNIA 94534  
PHONE 707.430.4300  
FAX 707.430.4319  
[WWW.SCI-CG.COM](http://WWW.SCI-CG.COM)

#### OPEN SPACE AND AGRICULTURAL PARCELS ARE NOT CHARGED

The City's storm drain system was developed in response to land development over the many decades. Tracts of land that have not yet been developed, or have been used primarily for agricultural purposes, have not created an impact on the system beyond the natural condition, and are therefore considered to receive no service from the system. In practical terms, these parcels generate no additional storm runoff beyond the natural condition. For these reasons, open space and agricultural parcels are not charged a Fee.

#### HYBRID PARCELS

Some parcels may have both improvements as well as significant open space areas. For such parcels that contain a residence, the open space acreage does not increase the fee because residential parcels are not charged on a per-acre basis. Rather, they are charged based on the median ISA for that size category.

For such parcels that contain non-residential improvements (which are charged on a per-acre basis), the chargeable acreage should be adjusted downward to reflect the improved area only, leaving the open space area "invisible" to the fee calculation. Where parcels have been found in this category, that acreage adjustment has been made.

#### LOW IMPACT DEVELOPMENT RATE ADJUSTMENT

The current NPDES Permit requires certain properties to construct stormwater treatment and attenuation facilities, also known as low impact development ("LID"). These facilities are typically designed to capture a portion of the storm flows, retain them, and enable them to infiltrate into the ground. While this is intended to help filter pollutants from the water, it also can reduce the parcel's stormwater runoff quantity to some extent, which in turn can reduce a parcel's impact on the system. In addition to NPDES-required LID, other parcel owners may elect to follow LID guidelines voluntarily.

The section of the MRP that requires LID facilities is Provision C.3 (New Development and Redevelopment). Compliance with C.3 is a well-established and convenient metric on which to base customer activities that further Program goals and affect Program costs. C.3 compliance can have impacts to many of the Program elements. In order to analyze the extent to which C.3 compliance will impact Program costs, each Program element was rated with one of four impact levels: none (0%), minor (25%), medium (50%), and major (80%). By applying those impact levels to the costs of each Program element, it was determined that compliance with Provision C.3 equates to approximately 25% of the overall Program costs. Table 6 below shows the results of that analysis.

Based on that analysis, a commensurate reduction in the fees for certain C.3-compliant parcels is warranted. However, C.3 compliance brings with it some additional administrative burdens to verify ongoing compliance. While this burden is relatively minor, for single-family parcels where the annual fee is also relatively small, the administrative burden negates the LID benefits to the program. Therefore, single-family residential parcels do not qualify for the reduced fee. Conversely, C.3 compliance for condominiums is typically accomplished on a collective basis, so the minor administrative burden is spread across many parcels

making it insignificant. Therefore, a 25% reduction in fees will be applied to all C.3-compliant parcels that are either non-single-family or condominium.

**TABLE 6 – LOW IMPACT DEVELOPMENT RATE ADJUSTMENT ANALYSIS**

MRP Provision	Impact Level				Notes
	None	Minor	Medium	Major	
<b>Operations &amp; Maintenance</b>					
Program Management					Does not lessen Program Management burden
C.2 Municipal Operations		Yellow			Reduces storm flows in minor storm, reducing burden on operations
<b>Clean Water Program</b>					
C.1 Permit Compliance		Yellow			Is a small part of overall Program Compliance
C.2 Municipal Operations	Grey				Does not lessen Municipal Operations compliance burden
C.3 New Development and Redevelopment				Green	Is all about C.3
C.4 Industrial and Commercial Site Controls			Blue		Provides controls
C.5 Illicit Discharge Detection and Elimination	Grey				Does not lessen Illicit Discharge burden
C.6 Construction Site Control	Grey				Does not lessen Construction Controls burden
C.7 Public Information and Outreach		Yellow			Aids in educating property owners
C.8 Water Quality Monitoring	Grey				Does not lessen WQ Monitoring burden
C.9 Pesticides Toxicity Control		Yellow			Capture & infiltration may filter out pesticides
C.10 Trash Load Reduction			Blue		Many C.3 devices are considered a partial trash capture device
C.11 Mercury Controls		Yellow			Capture & infiltration may filter out pollutants
C.12 PCBs Controls		Yellow			Capture & infiltration may filter out pollutants
C.13 Copper Controls		Yellow			Capture & infiltration may filter out pollutants
C.17 Annual Reports	Grey				Does not lessen reporting requirements

#### STORMWATER FEE CALCULATION

The primary metric in this analysis is the SFE as illustrated above. To arrive at the fee amount for the various land use categories, the total City-wide SFEs must be divided into the total revenue requirement to arrive at the rate per SFE. Using the analysis above, that calculation is represented by the following formula:

## Appendix B – Stormwater Rates in Other Cities

**Table 9 – Recent Stormwater Fee Ballot Measures & Outcomes**

Recent Stormwater Fee Ballot Measures				
Agency	Year	Annual Amount	Type	Support Level
City of Sacramento	2022	\$ 207	Fee	52%
<i>Vallejo Flood &amp; Storm</i>	<i>2022</i>	<i>\$ 54</i>	<i>Fee</i>	<i>32%</i>
City of Davis	2021	\$ 157	Fee	61%
<i>City of San Bruno</i>	<i>2021</i>	<i>\$ 154</i>	<i>Fee</i>	<i>36%</i>
City of Alameda	2019	\$ 129	Fee	57%
City of Cupertino	2019	\$ 56	Fee	51%
<i>City of Los Altos</i>	<i>2019</i>	<i>\$ 88</i>	<i>Fee</i>	<i>44%</i>
City of Berkeley	2018	\$ 96	Fee	61%
Los Angeles County	2018	\$ 83	Tax	69%
<i>Town of Moraga</i>	<i>2018</i>	<i>\$ 120</i>	<i>Fee</i>	<i>48%</i>
City of Palo Alto	2017	\$ 164	Fee	64%
City of Culver City	2016	\$ 99	Tax	74%

*NOTE: Brown font indicates a failed ballot measure*

**Table 10 – Samples of Stormwater Rates Around the State**

Municipality	Annual Rate	Type of Fee
Alameda	\$ 134	Property-Related Fee
Bakersfield	\$ 200	Property-Related Fee
Culver City	\$ 99	Special Tax
Davis	\$ 85	Property-Related Fee
Elk Grove	\$ 70	Property-Related Fee
Hayward	\$ 29	Property-Related Fee
Los Angeles	\$ 27	Special tax
Los Angeles County	\$ 83	Special tax
Palo Alto	\$ 164	Property-Related Fee
Redding	\$ 16	Property-Related Fee
Sacramento (City)	\$ 136	Property-Related Fee
Sacramento (County)	\$ 70	Property-Related Fee
San Bruno	\$ 46	Property-Related Fee
San Clemente	\$ 60	Property-Related Fee
San Jose	\$ 92	Property-Related Fee
Santa Cruz	\$ 109	Special Tax
Stockton *	\$ 221	Property-Related Fee
Vallejo Sanitation and Flood Control District	\$ 24	Property-Related Fee
West Sacramento	\$ 144	Property-Related Fee
Woodland	\$ 6	Property-Related Fee

\* This is the calculated average rate for the City of Stockton, which has 15 rate zones with rates ranging from \$3.54 to \$651.68 per year.

(This Page Intentionally Left Blank)