



CITY OF ALAMEDA

FEE REPORT

WATER QUALITY AND FLOOD PROTECTION FEE

JULY 2019

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

ENGINEER OF WORK:
SCI Consulting Group
4745 MANGELS BOULEVARD
FAIRFIELD, CALIFORNIA 94534
PHONE 707.430.4300
FAX 707.430.4319
WWW.SCI-CG.COM

CITY OF ALAMEDA

CITY COUNCIL

Marilyn Ezzy Ashcraft, Mayor
John Knox White, Vice Mayor
Tony Daysog, Councilmember
Jim Oddie, Councilmember
Malia Vella, Councilmember

CITY MANAGER

Eric Levitt

PUBLIC WORKS DEPARTMENT

Liam Garland, Director

ENGINEER OF WORK

Jerry Bradshaw, SCI Consulting Group

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INTRODUCTION

OVERVIEW

The City of Alameda (“City”) has engaged SCI Consulting Group to study, make recommendations, and assist in the implementation of a funding approach for its municipal separate storm sewer system¹ (“MS4”) including environmental programs, maintenance and operations, capital improvements, and compliance with all state and federal regulations associated with the National Pollutant Discharge Elimination System² (“NPDES”) permit.

Since 2008 the City’s Public Works Department has developed several planning documents pertaining to its Storm Drainage Program (“Program”). These include the Storm Drain Master Plan (2008), Storm Drain Pump Station Study (2011), Storm Drain Outfall Assessment (2013), Long-Term Trash Load Reduction Plan (2014), South Shore and Bay Farm Island Lagoon Operations Studies (2015), 18-Inch and 55-Inch Sea Level Rise Studies (2008 and 2016), and the Storm Drain Master Plan Update Memorandum (2017). Other planning documents currently in development include the Green Infrastructure Plan and the Climate Action and Resiliency Plan. These plans made it clear that the Program would need to expand its levels of service to achieve the goals of responsible environmental stewardship and smart investment in the City’s aging infrastructure.

In 2018, the City embarked on a two-phase project to determine the feasibility of implementing an increase to the City’s storm drain fees to fund the City’s Clean Water and Flood Protection needs. The first phase evaluated the feasibility of increasing the City’s storm drainage fees and included exploring potential funding sources, estimating user rate ranges for various budget scenarios, and conducting a public opinion survey of Alameda residents and property owners to determine storm drain-related priorities and willingness to support a fee increase for these services. The results of the feasibility evaluation showed that the community valued the storm drainage system and was willing to invest in improvements to service and pursuing projects that would ensure environmental stewardship and protection from flooding.

The City Council has now embarked on the second phase: implementation of a funding mechanism. This Fee Report, the first step in that process, incorporates information from the feasibility phase, establishes needs and associated revenues required, and presents a fee structure that is fair and meets all legal requirements. Subsequent steps in this implementation phase include a public hearing and a ballot proceeding over the coming months.

¹ In this report, the terms “storm sewer,” “storm drainage,” “storm protection,” and “stormwater” are used interchangeably, and are considered to be synonymous.

² Created in 1972 by the Clean Water Act, the NPDES permit program is authorized by the EPA to allow state governments to perform many permitting, administrative, and enforcement aspects of the program.

CITY'S FACILITIES

The City operates and maintains a storm drainage system, as it is empowered to do per Government Code Sections 38900 and 38901. This complex system is comprised of integrated storm drainage pipes, inlets, outfalls, culverts, pump stations, lagoons and sea walls and perimeter levees to prevent flooding. As the community grew and neighborhoods and business districts expanded, the City's storm drainage system was developed. Parts of the system may date back nearly 100 years.

When the first NPDES permit was issued in the early 1990s, the City recognized the fiscal burden these new clean water requirements would bring and established a property fee on most parcels to fund this activity. Since that time the City has worked diligently and efficiently to continue meeting the ever-increasing requirements of the NPDES permit, while the State's clean water requirements have evolved into a comprehensive environmental stewardship program.

The operations and maintenance ("O&M") side of the Program has also developed many activities that support clean water goals and maintain the City's aging infrastructure to protect the neighborhoods and businesses from local flooding. On average, the industry-standard life expectancy of a storm drain system is approximately 60 years. The majority of the City's storm drainage pipes were installed more than 50 years ago, leaving the City with a system that is approaching the end of its useful life. Moreover, as noted in the storm drainage planning documents, some of the drainage system does not have adequate capacity.

The City's complex storm drainage system has evolved to meet the unique needs dictated by the City's flat topography and location along the tidal waters of San Francisco Bay. The system's balance has historically protected the City from flooding from storm runoff as well as tidal influences. Climate change is bringing about new challenges with a predicted rise in sea level of more than two feet of elevation as well as more frequent and more intense storms. These challenges were summarized in the 2017 Storm Drain Master Plan Update Memorandum and are also being incorporated into the Climate Action and Resiliency Plan being drafted this year. While the City's storm drainage system (designed primarily to convey storm runoff to the Bay) must adapt to these changes, it alone cannot supply the full scope of remedies to meet these climate change challenges. Therefore, the fee recommendations in this Report will not fully address climate change.

STORMWATER FUNDING BACKGROUND

The City historically has funded its storm drainage program primarily through two sources: The General Fund and the Storm Water Utility Fee established in 1992. Although it was increased over the years, the last inflation adjustment, authorized in 2001, was implemented in 2005. Due to changes in the law the City can no longer increase the fee without the approval of property owners through a ballot measure.³ For that reason, the storm drain

³ This "freeze" on the stormwater fees is due primarily to the stringent requirements of Proposition 218 for a ballot measure to increase fees. See next section for more details.

fees have not been increased in nearly 15 years. As a result, the City has needed to limit capital expenditures and keep operations and maintenance activities to a less than desirable level of service, mostly responding to storm-related emergencies and basic regulatory compliance.

The scale and projected needs of the storm drainage system point toward the need for asking property owners to approve an increase in storm drainage fees in order to ensure a dedicated and sustainable funding stream. As many other municipalities in California have done, including Berkeley, Culver City, Palo Alto and San Jose, the City of Alameda is considering developing a new, additional, more secure and predictable source of funding for the Program. This Fee Report is the first step in that process, should the City decide to proceed.

LEGAL REQUIREMENTS OF STORMWATER FEE

This Report calculates the Stormwater Fee as a property-related fee. Property-related fees are subject to the requirements of Articles XIII C 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 requirements of Article XIID, 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; and
- 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 a 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) before new or increased fees could be authorized. However, fees for water, sewer and refuse collection were 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 ruling⁴ 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. Subsequent to that date, the City Alameda did not authorize any further inflation adjustments.

FACILITIES AND SERVICES

The City operates and maintains a municipal separate storm sewer system within the City's boundaries. The system is made up of man-made drainage systems including, but not limited to, curbs and gutters, ditches, culverts, pipelines, manholes, catch basins (inlets), outfall structures, pump stations, lagoons, and sea walls and perimeter levies. The system serves the entire City.

The primary storm drainage service provided by the City is the collection, conveyance, and overall management of the stormwater runoff from parcels. By definition, all parcels that shed stormwater into the City's system, either directly or indirectly utilize, or are served by, the City's storm drainage system. The need and necessity of this service are derived from property improvements, which historically have increased the amount of stormwater runoff from the parcel by constructing impervious surfaces such as rooftops, pavement areas, and certain types of landscaping that restrict or retard the percolation of water into the soil beyond the conditions found in the natural, or unimproved, state. As such, open space land (in a natural condition) and agricultural lands that demonstrate stormwater absorption equal to or greater than natural conditions, are not charged a fee. Other vacant land that was once improved or has been prepared for future improvements do not qualify as open space or natural land and will typically be charged a fee.

A critical service provided by management of the City's storm drainage system is compliance with all water quality requirements through the City's NPDES permit. This service ensures that all parcels within the City are monitored and, in some cases, individually regulated to ensure such compliance. This applies to parcels that drain directly to the Bay as well as all other parcels in the City. For this reason, all parcels (other than natural open space and agricultural) are included in the fee structure.

The storm drainage planning documents referenced above contain thorough sets of maps and lists of various elements within the stormwater system. Those descriptions are the basis for this Report.

⁴ Howard Jarvis Taxpayers Association v. City of Salinas, No. H022665.Sixth Dist. June 3, 2002.

FINANCIAL NEEDS AND REVENUE REQUIREMENTS

SUMMARY OF CLEAN WATER AND STORM PROTECTION SYSTEM NEEDS

As part of the fee implementation task, the SCI team conducted an analysis of the City's Water Quality and Flood Protection system needs. This analysis included information from several source planning documents as well as recommendations from City staff members.

PROGRAM REVENUES

The first step of the analysis was to review the revenues available to the City's Program. Based on information provided by in the City's draft 2019-21 budget, the existing revenues are projected through Fiscal Year 2020-21 as shown in Table 1 below. Revenues are projected to not increase with the exception of the existing Storm Water Utility Fee, which will experience growth only through the addition of new properties to the rate base.

TABLE 1 – SUMMARY OF PROGRAM REVENUES

Revenue Source	<i>Shown in thousands</i>	
	FY 2019-20	FY 2020-21
Storm Water Utility Fees	\$ 2,197	\$ 2,237
Base Reuse Properties	238	238
Lagoon Service Agreement	50	50
Interest & Other	8	8
Transer In - General Fund	67	67
Transer In - Re-Use	-	-
Total Budgeted Revenues	\$ 2,559	\$ 2,599

PROGRAM COSTS

The City's Program is influenced primarily by the requirements to prevent local flooding and to comply with the Municipal Regional Permit ("MRP 2.0").⁵ Cost estimates were based on budgetary and supplemental information provided by the City as well as the following storm drainage planning documents:

- Storm Drain Master Plan (2008)
- Storm Drain Pump Station Study (2011)
- Storm Rain Outfall Assessment (2013)
- Long-Term Trash Load Reduction Plan (2014)

⁵ NPDES permits for most Bay Area cities are administered by the Bay Area Water Quality Control Board. In 2009, they brought all those cities in this region under a single permit called the Municipal Regional Permit. The renewed MRP, 2015, is referred to as MRP 2.0.

- South Shore and Bay Farm Island Lagoon Operations Studies (2015)
- 18-Inch and 55-Inch Sea Level Rise Studies (2008 and 2016)
- Storm Drain Master Plan Update Memorandum (2017)

In broadly assessing the Program's costs and following the City's current Budget structure, two main categories were used: Operations and Maintenance ("O&M") Costs, which include compliance with the MRP 2.0, and Capital Improvement Program ("CIP") costs. These categories reflect how the City generally allocates funds to implement its day-to-day storm drainage-related programs.

In addition, SCI worked closely with City staff from both the Engineering Division and the Storm Drain Maintenance Division to develop priorities for a sustainable Water Quality and Flood Protection program. These documents and additional input from City staff resulted in the following needs recommendations.

O&M costs are relatively stable from year to year and present a firm basis for a fee structure. Table 2 below shows the budgeted O&M expenditures contained in the City's draft 2019-21 budget.

TABLE 2 – SUMMARY OF OPERATIONS & MAINTENANCE COSTS

Element	<i>Shown in thousands</i>	
	FY 2019-20	FY 2020-21
Operations & Maintenance		
Storm Drainage O & M	\$ 2,920	\$ 3,066
Street Sweeping	1,326	1,383
Total Operations & Maintenance Costs	<u>\$ 4,246</u>	<u>\$ 4,449</u>

The CIP costs shown in Table 3 below are a compilation of high-priority capital improvement projects derived from all sources totaling approximately \$30 million. Costs are shown as one-time project expenses and include all phases such as environmental, permitting, design, and construction. Costs are expressed in 2019 dollars. These projects are taken from a larger list of project needs including 87 high-, moderate- and low-priority projects totaling approximately \$170 million. A full listing of all projects is shown in Appendix A.

TABLE 3 – SUMMARY OF HIGH-PRIORITY CAPITAL IMPROVEMENT PROJECTS

<i>Shown in thousands</i>		<i>Shown in thousands</i>	
Category / Project	2019 Cost	Category / Project	2019 Cost
Pipes / Lagoons		Environmental	
Shoreline Culvert	\$ 400	Green Infrastructure	\$ 2,100
BFI Gate Opener	400	Trash Capture	1,025
Bayview Weir Rehab	200	Environmental Subtotal	\$ 3,125
Tidal Protecton of Outfalls	1,800	Operational Enhancements	
Veterans Court	1,910	Outfall Upgrades	\$ 197
Lagoon Walls	7,500	Intersection Culverts	2,100
Seawall @ BFI Gate	500	Ponding Improvements	1,500
Dredge Lagoon - South	600	Line Clean & Video	788
Dredge Lagoon - BF	600	Lagoon	1,082
Pipes / Lagoons Subtotal	\$ 13,910	Ops Enhancement Subtotal	\$ 5,667
Pump Stations		TOTAL High-Priority CIP	
Arbor	\$ 3,570		\$ 30,022
Webster	1,050		
Central/Eastshore	2,700		
Pump Stations Subtotal	\$ 7,320		

ANNUAL REVENUE REQUIREMENT

Since stormwater fees are subject to voter approval, it is recommended that a fee be structured in the beginning to be steady over the long term as well as sustainable. Unlike other utilities (e.g., water and sewer) where the fees can be reviewed and re-set at five-year (or less) intervals, stormwater fees are usually set at a level that can be increased annually in accordance with a predetermined formula or index for many years to come. As a result, the revenue requirements must be expressed in annual terms that will reflect future years' needs (with the formulaic adjustments).

While the O&M costs are shown in Table 2 as annual costs, the CIP costs in Table 3 are shown as lump-sum, one-time costs. Therefore, the CIP costs must be annualized. Further, the \$30 million CIP costs are more than can be paid for through a reasonable fee amount. As a result, portions of the CIP are identified for funding from other sources such as General Fund, other City funds, grants or future bond funds. Finally, the revenue needs shown below in Table 4 convert the CIP costs to annual amounts based on an assumed 15-year, pay-as-you-go expenditure plan.

TABLE 4 – ESTIMATE OF ANNUAL REVENUE REQUIREMENT

Element	Shown in thousands			
	Estimated Current Costs	Less Costs Funded By Other Sources	Net Program Costs	Net Program Annualized Costs ^A
Operations & Maintenance				
Storm Drainage O & M	\$ 2,920	\$ -	\$ 2,920	\$ 2,920
Street Sweeping	1,326	-	1,326	1,326
O & M Subtotal	<u>\$ 4,246</u>	<u>\$ -</u>	<u>\$ 4,246</u>	<u>\$ 4,246</u>
Capital Improvement Program				
CIP Pipes & Lagoons	\$ 13,910	\$ (4,692)	\$ 9,218	\$ 615
CIP Pumps Stations	7,320	(3,750)	3,570	238
CIP - G.I. & Trash Capture	3,125	(1,000)	2,125	142
CIP - Operational Enhancements	5,667	(2,500)	3,167	211
Capital Improvement Subtotal	<u>\$ 30,022</u>	<u>\$ (11,942)</u>	<u>\$ 18,080</u>	<u>\$ 1,205</u>
Total Annual Rev Req't				<u>\$ 5,451</u>
Less Existing Revenue				
Total Budgeted Revenues (Existing Fees + misc)				(2,559)
Net Revenue Requirement				<u>\$ 2,892</u>

A - Capital costs are amortized over a 15-year pay-as-you-go period

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 the 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 Water Quality and Flood Protection Fee 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).

SINGLE-FAMILY RESIDENTIAL PARCELS AS BENCHMARK

The most widely used method of establishing storm drainage rates⁶ is to use the average or median single-family residential parcel⁷ ("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 ("ISA") must be established.

Alameda 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 279 SFR parcels was selected, and the ISA of each sample parcel was measured using aerial photographs. This sample data forms the basis for determining the median ISA, which will then be the basis for determining the SFE.

The range of SFR parcels was grouped into three size categories based on trends that emerged in the %IA. The median sized SFR parcel is 0.11 acre (approximately 4,792 square feet), which is also the median parcel size for the medium SFR rate category. The average %IA for the medium size group was found to be 59.33%. Therefore, the median parcel in Alameda contains 2,843 square feet of impervious surface area ("ISA") as shown in the calculation below. This will be used as the benchmark (1 SFE) for all other size categories and other non-residential land uses.

⁶ *Stormwater Utility Survey*, 2017, page 2, Western Kentucky University. Other common names for this benchmark unit are Equivalent Runoff Unit (ERU) and Equivalent Drainage Unit (EDU).

⁷ The SFR category also includes multiplex parcels of two, three or four units, since the lot development characteristics do not vary significantly from the SFR parcels of similar size. In all, this includes the approximately 1,783 multiplex parcels in the City, which were distributed to the same three parcel size categories as the other SFRs. Any residential parcel with five or more units is categorized as apartments, which is calculated separately.

$$\begin{aligned}
 1 \text{ SFE} &= \%IA \times \text{Median Parcel Size} \\
 &= 59.33\% \times 4,792 \text{ sf} \\
 &= 2,843 \text{ sf}
 \end{aligned}$$

This becomes the basis for calculating the SFEs for all other types of land uses. The %IA for each size category was applied to the median size parcel in that category to calculate its median ISA. The SFE per parcel for each size category is a simple ratio of the median ISA for each category to the ISA (2,843 sf) for the benchmark category of medium-sized parcels as shown in the following formula:

$$\text{SFE per Parcel} = \frac{\text{Median ISA}}{2,843}$$

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). For the medium-density condominium units, the presence of common areas with landscape features make them very similar to the small-lot SFR parcels, and therefore they are assigned the same ISA (1,739 sf) and SFE (0.6118) per parcel as a small-lot SFR parcel.

For the high-density condominium units, further analysis was done. Twelve condominium complexes with 1,246 units were sampled throughout the City. Using aerial photographs, measurements were made of the impermeable areas. The average ISA per unit was 895 square feet. Therefore, the high-density condominiums are assigned an ISA of 895 square feet. This is 31.48% of the ISA for the median SFR, resulting in an SFE of 0.3148 per parcel.

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

TABLE 5 – SUMMARY OF RESIDENTIAL PARCELS

Lot Type	Parcel Size Range		# of		Median ISA (sf) ^B	SFE per Parcel
	Acres	Square Footage	Parcels ^A	Acres ^A		
Small	under 0.08	under 3,266	2,171	133.74	1,739	0.6118
Medium	0.08 to 0.14	3,266 to 6,316	9,899	1,052.35	2,843	1.0000
Large	over 0.14	over 6,316	2,164	394.08	3,100	1.0906
Condo - Med Density^C		na	2,899	665.68	na	0.6118
Condo - Hi Density		na	1,419	497.98	na	0.3148
		TOTAL	18,552	2,743.83		

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

B From Table 12, Appendix B.

C Medium-density condominiums are assumed to be similar to Small category of SFR

NON-RESIDENTIAL PARCELS

Unlike the residential parcels, the 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 their %IA characteristics (as shown in Appendix B). 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:

$$\frac{(43,560 \text{ sf} / \text{acre}) \times \% IA}{2,843 \text{ sf} / \text{SFE}} = \text{SFE per Acre}$$

where 2,843 square feet is the amount of ISA in one SFE.

Table 6 below shows a summary of resulting parcel SFEs for each non-residential land use category.

TABLE 6 – SUMMARY OF NON-RESIDENTIAL PARCELS

Land Use Category	# of		% Imperv	SFE per
	Parcels ^A	Acres ^A	Area ^B	Acre
Apartments	719	295.42	76.0%	11.643
Commercial / Retail / Industrial	662	1,093.01	90.7%	13.894
Office	131	211.06	64.0%	9.808
Church / Institutional	146	127.81	72.5%	11.110
School w/Playfield	20	384.84	51.8%	7.938
Park	163	336.39	5.0%	0.766
Vacant (developed)	185	224.96	5.0%	0.766
Open Space / Agricultural	691	1,701.61	not charged	
TOTAL	2717	4,375.10		

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

B %IA is from Table 12, Appendix B.

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 partially duplicative of the acreages assigned to the individual units. For these reasons, and because there are relatively few such condominiums in the City, the full site acreage for each complex of condominiums has been apportioned to the individual units. From that, their SFEs are calculated in the normal method.

DEVELOPED VACANT⁸ PARCELS

Developed vacant parcels are devoid of obvious structures or improvements but are distinguished from natural open space by one of several characteristics. Typically, a developed 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 developed 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.

⁸ "Vacant" in this Report refers to land that is devoid of improvements. It does not refer to land with vacant buildings or improvements, which would continue to shed water to the MS4 the same as if they were occupied.

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 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.

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.

RATE CREDITS

LOW IMPACT DEVELOPMENT RATE CREDIT

The MRP 2.0 (as well as previous permits) 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 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 MRP 2.0-required LID, other parcel owners may elect to follow LID guidelines voluntarily.

The section of the MRP 2.0 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. Based on a detailed study

done for a similar city in the Bay Area⁹ (operating under the same MRP 2.0), 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 LID 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 LID for 26% to 50% of the site acreage, the credit shall be 12.5%. For any parcel that implements LID for 25% or less of the site acreage, the credit shall be 6.3%.

DIRECT DRAIN RATE CREDIT

Some parcels along or near the shoreline drain directly into the Bay and do not contribute flows to the City's storm drain system. Those parcels do not place additional burden on the physical storm drainage infrastructure, but the City does provide a certain level of storm drainage system service in two significant ways:

- **NPDES Compliance:** Compliance with the MRP 2.0 applies to all parcels within the City limits including those that drain directly to the Bay. The City's Program must continue to perform task such as monitoring compliance with pollutant and trash generation, illicit discharges and Provision C.3 regulation. In addition, certain activities such as beach clean-ups provide a direct benefit to shoreline parcels. The impact to this Program element is not reduced due to a direct-drain status.
- **Shared Facilities:** All parcels in the City benefit from a well-maintained storm drainage system that keeps roads clear of flooding and infrastructure failures that could impede the movement of people, goods and emergency vehicles. These parcels also benefit from a reduced chance of flooding and the damage to private property that can accompany such instances.

An estimate of the costs of the various O&M Program elements determined that approximately 33% of the costs are related to NPDES compliance as shown in Table 7 below. CIP costs were not included in this analysis due to the variability of the funding and project impacts on the NPDES program.

In addition, it is conservatively estimated that an additional 10% of the costs can be linked to the shared facilities element. Therefore, it is determined that direct-drain parcels shall receive a credit of $(100\% - 33\% - 10\% =)$ 57% of their otherwise-calculated fee.

⁹ City of Cupertino, CA, *2019 Clean Water and Storm Protection Fee Report*, February 2019, pages 11 and 12, as reproduced in Appendix C of this Report.

TABLE 7 – SUMMARY OF SINGLE-FAMILY RESIDENTIAL PARCELS

Element	Net Program Annualized Costs	% NPDES Compliance	NPDES Costs
Operations & Maintenance			
Storm Drainage O & M	\$ 2,920	25%	\$ 730
Street Sweeping	1,326	50%	663
Operations & Maintenance Subtotal	\$ 4,246		\$ 1,393
Portion of Costs Attributable to NPDES Compliance			33%

ALAMEDA POINT RATE CREDIT

The City's existing storm drainage infrastructure does not serve some parcels on Alameda Point similar to the direct-drain situation discussed above. While the reach of City storm drainage infrastructure may be extended in the future, it is determined that such parcels be treated as direct-drain parcels until such time as they are served by City storm drainage infrastructure. This type of reclassification of a parcel's landuse shall not require further balloting under Proposition 218.¹⁰

CUMULATIVE CREDITS

There are two independent types of credits available under this rate structure: LID and direct drain (including both shoreline parcels and certain Alameda Point parcels). Accordingly, a parcel may qualify for both credits. In such cases, the credit multipliers are compounded in the following manner:

$$\begin{aligned}
 \text{LID Multiplier} &= 0.75 \\
 \text{Direct Drain Multiplier} &= 0.43 \\
 \text{Multiplier for dual credit} &= 0.75 \times 0.43 = 0.32
 \end{aligned}$$

This equates to a credit of (100% - 32% =) 68% for parcels qualifying for both credits.

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:

¹⁰ California Government Code Section 53750(h)(3).

$$\begin{aligned}
 \text{SFE Rate} &= \frac{\text{Annual Revenue Req't}}{\text{Total SFEs}} \\
 &= \frac{\$2,892,100}{37,079.320} \\
 &= \mathbf{\$78.00 \text{ per SFE}}
 \end{aligned}$$

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 below. It should also be noted that the proposed rates shown below **are in addition to** the existing storm water utility fees charged by the City.

Appendix D has information about stormwater rate initiatives done by other municipalities and rates adopted by other municipalities.

TABLE 8 – PROPOSED 2019 WATER QUALITY & FLOOD PROTECTION FEE SCHEDULE

Land Use Category	SFE Rate	Proposed Fee FY 2019-20
Residential ^A		
Small <i>Under 0.08 ac</i>	0.6118	\$ 47.72 per parcel
Medium <i>0.08 to 0.14 ac</i>	1.0000	\$ 78.00 per parcel
Large <i>over 0.14 ac</i>	1.0906	\$ 85.06 per parcel
Condo - Med Density	0.6118	\$ 47.72 per parcel
Condo - Hi Density	0.3148	\$ 24.55 per parcel
Multiple SFR on single parcel pays 16% higher rate		
Non-Residential ^B		
Apartment	11.6429	\$ 908.12 per acre
Commercial / Retail / Industrial	13.8945	\$1,083.74 per acre
Office	9.8081	\$ 765.01 per acre
Church / Institutional	11.1096	\$ 866.52 per acre
Institutional w/Playfield	7.9385	\$ 619.18 per acre
Park	0.7662	\$ 59.76 per acre
Vacant (developed)	0.7662	\$ 59.76 per acre
Open Space / Agricultural		no fee

A - Residential category also includes duplex, triplex and four-plex units.

B - Non-Residential parcel size is calculated to the hundredth of an acre.

These rates are proposed to be maximum rates. If the City chooses to propose, adopt or implement rates that are lower than these, the reductions should be uniform across all rate classes in order to preserve the proportionality and remain in compliance with Proposition 218.

ANNUAL COST INDEXING


The 2019 Water Quality and Flood Protection 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. NOTE: In order for the City's dedicated storm drainage revenue sources to satisfy cost requirements into the future, the annual adjustment for each property may be calculated based upon the sum of the Water Quality and Flood Protection Fee and the existing Storm Water Utility Fee.

MANAGEMENT AND USE OF STORMWATER FUNDS

The City shall deposit into a separate account(s) all Water Quality and Flood Protection 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.

Dated: July 03, 2019

Engineer of Work

By 
 Jerry Bradshaw, License No. C48845

APPENDICES

APPENDIX A – FULL LIST OF CAPITAL PROJECT NEEDS

All figures are shown in thousands

TABLE 9 – LIST OF CAPITAL IMPROVEMENT PROJECTS – ALL PRIORITIES

Category / Project	Area	2019 Cost	Priority Levels		
			High	Moderate	Low
Pipes / Lagoons					
1 Shoreline Culvert		400	400		
2 Bay Farm Island Gate Opener	Bay Farm	400	400		
3 Bayview Weir Rehab	Bayview	200	200		
4 Tidal Protection of Outfalls	Citywide	1,800	1,800		
5 Veterans Court	Bay Farm Island	1,910	1,910		
6 Lagoon Walls	South Shore	15,000	7,500	7,500	
7 Seawall @ BFI Gate	Bay Farm Island	500	500		
8 Dredge Lagoon - South Shore	South Shore	600	600		
9 Dredge Lagoon - BFI	Bay Farm Island	600	600		
10 Bayview Weir	Bay Farm Island	12,000		12,000	
11 Gibbons	Eastside	3,180		3,180	
12 Thompson	Eastside	1,170			1,170
13 High	Eastside	3,390		3,390	
14 Fernside	Eastside	1,910			1,910
15 Washington	Eastside	850			850
16 Calhoun	Eastside	320			320
17 Grand	North Central	3,500		3,500	
18 Willow	North Central	3,070		3,070	
19 Walnut	North Central	2,440			2,440
20 Oak Ave	North Central	2,120			2,120
21 Park	North Central	640			640
22 Everett	North Central	950			950
23 Broadway	North Central	640		640	
24 Pearl	North Central	850		850	
25 Tilden	North Central	530			530
26 Cambridge	North Central	950			950
27 Constitution	Northside	4,660		4,660	
28 West Atlantic	Northside	4,130			4,130
29 East Atlantic (1)	Northside	850			850
30 East Atlantic (2)	Northside	640			640
31 New Outfall	Northside	4,980		4,980	
32 Main St	Northside	530			530
33 Webster (2)	Northside	150			150
34 3rd Street	Northside	850			850
35 Webster (3)	Northside	1,170			1,170

Category / Project	Area	2019 Cost	Priority Levels		
			High	Moderate	Low
Pipes / Lagoons (continued)					
36 Chapin	Northside	320			320
37 Paru	Northside	1,800			1,800
38 Bay Sherman	Northside	1,910			1,910
39 Main St (2)	Northside	850			850
40 5th Street	Northside	1,480			1,480
41 Pacific St	Northside	1,170			1,170
42 Fountain	South Shore	1,590			1,590
43 Mound	South Shore	530			530
44 Franciscan	South Shore	1,590			1,590
45 Harbor Light	South Shore	2,440		2,440	
46 Rosewood	South Shore	1,170		1,170	
47 Pearl	South Shore	950			950
48 Alameda Park	South Shore	1,800		1,800	
49 3rd	South Shore	530			530
50 Willow	South Shore	50			50
51 S Shore Center W	South Shore	1,170			1,170
52 Regent	South Shore	530			530
53 Park	South Shore	530			530
54 Page	South Shore	1,590			1,590
55 Webster	South Shore	950			950
56 Ballena	South Shore	850			850
57 Paru	South Shore	100			100
58 Shoreline	South Shore	640			640
59 Dublin Way	Bay Farm Island	950			950
60 Island Drive	Bay Farm Island	80			80
61 Verdemar Drive	Bay Farm Island	1,170			1,170
62 Robert Davey Jr Dr	Bay Farm Island	210			210
63 Mecartney Road	Bay Farm Island	1,270			1,270
64 Arvington	Bay Farm Island	950			950
65 Camelia	Bay Farm Island	1,270			1,270
66 Fitchburg	Bay Farm Island	640			640
67 Holly	Bay Farm Island	1,170			1,170
68 Pipe Extension No	Northside	1,480			1,480
69 Pipe Extension NC	North Central	1,590			1,590
70 Pipe Extension So	South	1,910			1,910
71 Pipe Extension Ea	Eastside	210			210
Pipes / Lagoons Subtotal		115,320	13,910	49,180	52,230
Pump Stations					
72 Arbor	North Central	3,570	3,570		
73 Webster	Westside	1,050	1,050		
74 Central/Eastshore	Eastside	2,700	2,700		
75 Golf Course	Bay Farm Island	1,170		1,170	

Category / Project	Area	2019 Cost	Priority Levels		
			High	Moderate	Low
Pump Stations (continued)					
76 Harbor Bay I	Bay Farm Island	950		950	
77 Harbor Bay II	Bay Farm Island	1,170		1,170	
78 Main Street	Westside	320		320	
79 Northside	Westside	2,440		2,440	
80 Third Street	Westside	640		640	
Pump Stations Subtotal		14,010	7,320	6,690	-
Environmental					
81 Green Infrastructure	Citywide	2,100	2,100		
82 Trash Capture	Citywide	1,025	1,025		
Environmental Subtotal		3,125	3,125	-	-
Operational Enhancements					
83 Outfall Upgrades	Citywide	1,319	197	363	759
84 Intersection Culverts	Citywide	16,500	2,100	5,700	8,700
85 Ponding Improvements	Citywide	3,500	1,500	1,500	500
86 Line Clean & Video	Citywide	3,150	788	1,103	1,260
87 Lagoon	South Shore & Bay Farm Island	13,376	1,082	12,294	-
Ops Enhancements Subtotal		37,845	5,667	20,960	11,219
TOTALS					
		170,300	30,022	76,830	63,449

APPENDIX B –PERCENTAGE OF IMPERVIOUS AREA ESTIMATIONS

For most land use categories, a sample of parcels was analyzed using aerial photography and other data to determine the average percentage of impervious area (“%IA”). Table 10 below shows the results of that analysis.

TABLE 10 – PERCENT OF IMPERVIOUS AREA FROM SAMPLING RESULTS

Land Use Category	# of Parcels	# Parcels Analyzed	Total Acres		
			Total Acres Sampled	Impervious Area	Impervious Area ^A
Single-Family Residential					
Small <i>Under 0.08 ac</i>	2,171	47	2.84	1.89	1,739 sf
Medium <i>0.08 to 0.14 ac</i>	9,899	189	19.94	11.83	2,843 sf
Large <i>over 0.14 ac</i>	2,164	43	8.79	3.68	3,100 sf
Condo Med-Density ^B	2,899		not sampled		
Condo Hi-Density	1,419	1,048	27.55	21.53	895 sf
Non-Single-Family Residential					
Multi-Family Residential	719	35	61.83	46.98	75.98%
Commercial / Retail / Industrial	662	58	16.41	14.88	90.68%
Office	131	23	42.26	27.05	64.01%
Church / Institutional	146	31	24.62	17.85	72.50%
Institutional w/Playfield	20	9	48.70	25.23	51.81%
Park ^C	163		not sampled		
Vacant (developed) ^C	185		not sampled		
TOTAL	20,578	1,483	252.94	170.92	na

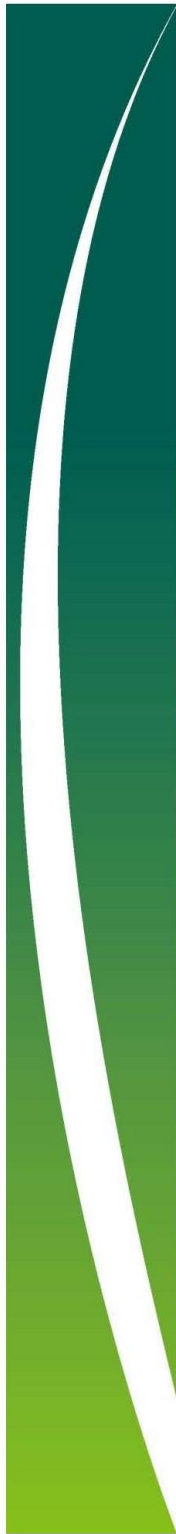
A For Residential, impervious area is the median value of all parcels analyzed. For Non-Residential, impervious area is expressed as a percentage of parcel area (Total IA/Total Acres sampled).

B Condominium – Not sampled as explained on Page 11 of this Report.

C Park and Vacant – Park and Vacant parcels were estimated to have a 5% impervious area based on other similar municipalities.

APPENDIX C – LOW IMPACT DEVELOPMENT RATE CREDIT ANALYSIS

On the following pages is an analysis done for the City of Cupertino in February 2019 that estimated the extent that low impact development (“LID”) reduces the impact on the City’s storm drain system. Cupertino is similar to the City of Alameda in that both are mid-sized cities with similar land use patterns, storm drainage systems, and magnitude of costs and needs. Further, both cities operate under the same MRP 2.0.



CITY OF CUPERTINO

FEE REPORT

2019 CLEAN WATER AND STORM PROTECTION FEE

FEBRUARY 2019

PURSUANT TO THE ARTICLES XIIC & 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

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	
Operations & Maintenance						
	Program Management	Grey				Does not lessen Program Management burden
C.2	Municipal Operations		Yellow			Reduces storm flows in minor storm, reducing burden on operations
Clean Water Program						
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:

Table 4. City Estimated Expenditures for MRP, by Cost Category (Fund) and Fiscal Year

Fund	MRP Provision	Prior ^[a]	Current ^[a]	Future – Projected ^[b]				
		2017-2018	2018-2019	2019-2020	2020-2021	2021-2022	2022-2023	2023-2024
Fund 100-85, Operations & Maintenance								
	Program Management			\$59,000	\$61,000	\$63,000	\$65,000	\$67,000
C.2	Municipal Operations			\$493,000	\$508,000	\$523,000	\$539,000	\$555,000
	<i>Fund Total</i>	\$449,950	\$476,503	\$552,000	\$569,000	\$586,000	\$603,000	\$622,000
Fund 230-81, Clean Water Program								
C.1	Permit Compliance			\$23,000	\$24,000	\$25,000	\$25,000	\$26,000
C.2	Municipal Operations			\$148,000	\$153,000	\$157,000	\$162,000	\$167,000
C.3	New Development and Redevelopment			\$70,000	\$72,000	\$77,000	\$80,000	\$82,000
C.4	Industrial and Commercial Site Controls			\$83,000	\$86,000	\$88,000	\$91,000	\$94,000
C.5	Illicit Discharge Detection and Elimination			\$129,000	\$133,000	\$137,000	\$141,000	\$145,000
C.6	Construction Site Control			\$43,000	\$44,000	\$46,000	\$47,000	\$49,000
C.7	Public Information and Outreach			\$118,000	\$122,000	\$126,000	\$129,000	\$133,000
C.8	Water Quality Monitoring			\$11,000	\$11,000	\$12,000	\$12,000	\$13,000
C.9	Pesticides Toxicity Control			\$21,000	\$21,000	\$22,000	\$23,000	\$23,000
C.10	Trash Load Reduction			\$130,000	\$134,000	\$148,000	\$152,000	\$157,000
C.11	Mercury Controls			\$24,000	\$25,000	\$27,000	\$27,000	\$28,000
C.12	PCBs Controls			\$51,000	\$52,000	\$57,000	\$59,000	\$61,000
C.13	Copper Controls			\$11,000	\$11,000	\$12,000	\$12,000	\$13,000
C.17	Annual Reports			\$29,000	\$30,000	\$33,000	\$34,000	\$35,000
	<i>Fund Total</i>	\$761,720	\$720,785	\$891,000	\$918,000	\$964,000	\$994,000	\$1,025,000
	Total	\$1,211,670	\$1,197,288	\$1,443,000	\$1,487,000	\$1,550,000	\$1,598,000	\$1,646,000

[a] Values are from the City's *Fiscal Year 2018-2019 Adopted Budget*⁹ (2018 Adopted Budget and 2019 Adopted Budget for both Non-Point Source (Fund 230-81) (p. 407-409) and Storm Drain Maintenance (Fund 100-85) (p. 434-435)).

[b] Each value for the fiscal years under the "Future – Projected" column is considered to be estimated and has been rounded to the nearest \$1,000; thus, summing individual values may result in a slightly different total than those shown in the "Fund Total" and "Total" rows.

⁹ <https://www.cupertino.org/home/showdocument?id=21776>

APPENDIX D – STORMWATER RATES FROM OTHER MUNICIPALITIES

There have been relatively few voter-approved local revenue measures in the past 15 years to support stormwater programs in California. A summary of those efforts plus some others in process or being studied is shown in Table 11 on the following page, in roughly chronological order. Amounts are annualized and are for single family residences or the equivalent.

TABLE 11 – RECENT STORM DRAIN BALLOT MEASURES

Municipality	Status	Annual Rate	Year	Mechanism
San Clemente	Successful	\$ 60.15	2002	Balloted Property-Related Fee
Carmel	Unsuccessful	\$ 38.00	2003	Balloted Property-Related Fee
Palo Alto	Unsuccessful	\$ 57.00	2003	Balloted Property-Related Fee
Los Angeles	Successful	\$ 28.00	2004	Special Tax - G. O. Bond
Palo Alto	Successful	\$ 120.00	2005	Balloted Property-Related Fee
Rancho Palos Verde	Successful , then recalled and reduced	\$ 200.00	2005, 2007	Balloted Property-Related Fee
Encinitas	Unsuccessful	\$ 60.00	2006	Non-Balloted Property-Related Fee adopted in 2004, challenged, balloted and failed in 2006
Ross Valley	Successful, Overturned by Court of Appeals, Decertified by Supreme Court	\$ 125.00	2006	Balloted Property-Related Fee
Santa Monica	Successful	\$ 87.00	2006	Special Tax
San Clemente	Successfully renewed	\$ 60.15	2007	Balloted Property-Related Fee
Solana Beach	Non-Balloted, Threatened by Lawsuit, Balloted, Successful	\$ 21.84	2007	Non-Balloted & Balloted Property-Related Fee
Woodland	Unsuccessful	\$ 60.00	2007	Balloted Property-Related Fee
Del Mar	Successful	\$ 163.38	2008	Balloted Property-Related Fee
Hawthorne	Unsuccessful	\$ 30.00	2008	Balloted Property-Related Fee
Santa Cruz	Successful	\$ 28.00	2008	Special Tax
Burlingame	Successful	\$ 150.00	2009	Balloted Property-Related Fee
Santa Clarita	Successful	\$ 21.00	2009	Balloted Property-Related Fee
Stockton	Unsuccessful	\$ 34.56	2009	Balloted Property-Related Fee
County of Contra Costa	Unsuccessful	\$ 22.00	2012	Balloted Property-Related Fee
Santa Clara Valley Water District	Successful	\$ 56.00	2012	Special Tax
City of Berkeley	Successful	varies	2012	Measure M - GO Bond
County of LA	Deferred	\$ 54.00	2012	NA
San Clemente	Successful	\$ 74.76	2013	Balloted Property-Related Fee
Vallejo San & Flood	Successful	\$ 23.00	2015	Balloted Property-Related Fee
Culver City	Successful	\$ 99.00	2016	Special Tax
Palo Alto	Successful	\$ 163.80	2017	Balloted Property-Related Fee Reauthorization of 2005 Fee
Town of Moraga	Unsuccessful	\$ 120.38	2018	Balloted Property-Related Fee
City of Berkeley	Successful	\$ 42.89	2018	Balloted Property-Related Fee
City of Los Altos	In Process	NA	NA	Balloted Property-Related Fee
County of San Joaquin	Studying	NA	NA	Balloted Property-Related Fee
City of Sacramento	Studying	NA	NA	Balloted Property-Related Fee
City of Salinas	Studying	NA	NA	NA
City of Santa Clara	Studying	NA	NA	Balloted Property-Related Fee
County of San Mateo	Studying	NA	NA	NA
County of El Dorado	Studying	NA	NA	NA
County of Orange	Studying	NA	NA	NA
County of Ventura	Studying	NA	NA	NA

In addition to the agencies listed above in Table 11 that have gone to the ballot for new or increased Stormwater Fees, there are several other municipalities throughout the State that have existing Stormwater Fees in place. Some of these rates are summarized in Table 12 below. Amounts are annualized and are for single family residences or the equivalent.

The City's proposed \$78.00 SFR rate is well within the range of stormwater rates adopted by other municipalities.

TABLE 12 – SAMPLE OF RATES FROM OTHER MUNICIPALITIES

Municipality	Annual Rate	Type of 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.

APPENDIX E - LIST OF ACRONYMS AND ABBREVIATIONS

%IA	Percent Impervious Area
C.3	Provision C.3 of the MRP – New Development and Redevelopment
CIP	Capital Improvement Program
CPI	Consumer Price Index (from the Bureau of Labor & Statistics)
FY	Fiscal Year
G.I.	Green Infrastructure
GO Bond	General Obligation Bond
ISA	Impervious surface area
LID	Low impact development
MFR	Multi-family residential
MRP	Municipal Regional Permit (current version is MRP 2.0)
NPDES	National Pollution Discharge Elimination System (EPA)
O&M	Operations and maintenance
sf	Square feet
SFE	Single-family equivalent
SFR	Single-family residential