



CITY OF CUPERTINO

FEE REPORT

2019 CLEAN WATER AND STORM PROTECTION FEE

FEBRUARY 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 CUPERTINO

CITY COUNCIL

Steven Scharf, Mayor
Liang Chao, Vice Mayor
Darcy Paul, Councilmember
Rod Sinks, Councilmember
Jon Willey, Councilmember

INTERIM CITY MANAGER

Timm Borden

PUBLIC WORKS DEPARTMENT

Roger Lee, Acting Director

ENGINEER OF WORK

Jerry Bradshaw, SCI Consulting Group

TABLE OF CONTENTS

INTRODUCTION AND EXECUTIVE SUMMARY	1
OVERVIEW	1
CITY’S FACILITIES	1
STORMWATER FUNDING BACKGROUND	2
LEGAL REQUIREMENTS OF STORMWATER FEE	2
FACILITIES AND SERVICES	4
FINANCIAL NEEDS AND REVENUE REQUIREMENTS.....	5
SUMMARY OF CLEAN WATER AND STORM PROTECTION SYSTEM NEEDS.....	5
ANNUAL REVENUE REQUIREMENT.....	6
RATE STRUCTURE ANALYSIS.....	7
SINGLE-FAMILY RESIDENTIAL PARCELS AS BENCHMARK	7
NON-SINGLE-FAMILY RESIDENTIAL PARCELS	9
LOW IMPACT DEVELOPMENT RATE ADJUSTMENT.....	11
STORMWATER FEE CALCULATION	12
ANNUAL COST INDEXING	14
MANAGEMENT AND USE OF STORMWATER FUNDS.....	14
APPENDICES	15
APPENDIX A – REGULATORY ASSESSMENT & COST AND REVENUE ANALYSIS.....	15
APPENDIX B –PERCENTAGE OF IMPERVIOUS AREA ESTIMATIONS	28
APPENDIX C – STORMWATER RATES FROM OTHER MUNICIPALITIES	30

LIST OF TABLES

TABLE 1 – SUMMARY OF PROGRAM REVENUES	5
TABLE 2 – SUMMARY OF PROGRAM COSTS	6
TABLE 3 – ESTIMATE OF ANNUAL REVENUE REQUIREMENT	6
TABLE 4 – SUMMARY OF SINGLE-FAMILY RESIDENTIAL PARCELS	9
TABLE 5 – SUMMARY OF NON-SFR PARCELS.....	10
TABLE 6 – LOW IMPACT DEVELOPMENT RATE ADJUSTMENT ANALYSIS	12
TABLE 7 – PROPOSED 2019 CLEAN WATER & STORM PROTECTION FEE SCHEDULE	13
TABLE 8 – PERCENT OF IMPERVIOUS AREA FROM STORM DRAIN MASTER PLAN.....	28
TABLE 9 – PERCENTAGE OF IMPERVIOUS SURFACE FROM STORM DRAIN MASTER PLAN	29
TABLE 10 – RECENT STORM DRAIN BALLOT MEASURES.....	31
TABLE 11 – SAMPLE OF RATES FROM OTHER MUNICIPALITIES.....	32

INTRODUCTION AND EXECUTIVE SUMMARY

OVERVIEW

The City of Cupertino (“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, and compliance with all state and federal regulations associated with the National Pollutant Discharge Elimination System² (“NPDES”) permit.

Since 2013 the City’s Public Works Department has developed several planning documents pertaining to its Clean Water and Storm Protection program (“Program”). These include the Trash Reduction Plan (2014), the Green Infrastructure Plan currently under development (to be completed in 2019) and the Storm Drain Master Plan (“SDMP,” completed in 2018). 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 a dedicated, sustainable revenue stream to fund the City’s Clean Water and Storm Protection needs. The first phase included exploring potential funding sources, estimating user rate ranges for various budget scenarios, and conducting a public opinion survey of Cupertino residents and property owners to determine storm drain-related priorities and willingness to support a fee for these services. The City Council has now embarked on the second phase: implementation of a funding mechanism. This Fee Report is the first step in that process.

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 system is comprised of integrated storm drain pipes, inlets, outfalls, culverts, and ditches which divert stormwater to local creeks to prevent flooding. As the community grew and neighborhoods and business districts expanded, the City’s storm drainage system was developed. 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.

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.

The operations and maintenance (“O&M”) side of the Program has also developed many activities that support a clean water supply 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 drain pipes were installed approximately 50 or more years ago, leaving the City with a system that is approaching the end of its useful life. Moreover, as noted in the Storm Drain Master Plan, some of the drainage system does not have adequate capacity.

STORMWATER FUNDING BACKGROUND

The City historically has funded its clean water program and storm drain maintenance activity primarily through two sources: The General Fund and the Storm Drainage Service Charge³ established in 1992. The 1992 charge, established at \$12 per year for single-family residential and \$144 per acre for commercial parcels, has not been increased since its inception.⁴ For more than a decade, the General Fund has carried the increasing burden of the Program. 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 system in a time of competing demands on the General Fund point toward the need for developing a separate, dedicated and sustainable funding stream. As many other municipalities in California have done, including San Jose and Palo Alto, the City of Cupertino 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 XIIC 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;

³ Cupertino Municipal Code Chapter 3.36.

⁴ This “freeze” on the stormwater fees are due primarily to the stringent requirements of Proposition 218 for a ballot measure to increase fees.

- 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.

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) and outfall structures. The natural creek system that runs throughout the City serves as the backbone of the City's system. While primary maintenance of those creeks is the responsibility of the Santa Clara Valley Water District, the City, through its Program, collaborates with the Water District for creek stewardship and educational activities. 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 lens 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.

The 2018 SDMP contains a thorough set of maps and lists of various elements within the stormwater system. Those descriptions are the basis for this Report.

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 Clean Water and Storm Protection system needs. This analysis is contained in a technical memorandum dated February 20, 2019 from the firm of Larry Walker Associates and is included in Appendix A of this Report. This analysis reviewed existing revenues and estimated the true costs to the Program of preventing local flooding and remaining in compliance with the current NPDES permit, commonly known as the Municipal Regional Permit ("MRP") issued by the Water Board to all Phase 1 permittees in the San Francisco Bay area. The first MRP was issued in 2009. The second MRP was issued in 2015 and is referred to as MRP 2.0.

PROGRAM REVENUES

The first step of the analysis was to review the revenues available to the City's Program. Based on information provided by the City, the existing revenues are projected through Fiscal Year 2023-24 as shown in Table 1 below. These values are drawn from Appendix A, Table 1.

TABLE 1 – SUMMARY OF PROGRAM REVENUES

Revenue Category	Shown in thousands					
	Current 2018-19	Future 2019-20	2020-21	2021-22	2022-23	2023-24
Stormwater Charges	\$ 370	\$ 370	\$ 370	\$ 370	\$ 370	\$ 370
Other Revenue	\$ 9	\$ 9	\$ 9	\$ 9	\$ 9	\$ 9
General Fund Transfer In	\$ 818	\$ -	\$ -	\$ -	\$ -	\$ -
TOTAL Revenues	\$ 1,197	\$ 379	\$ 379	\$ 379	\$ 379	\$ 379

PROGRAM COSTS

The City's Program is influenced primarily by the requirements to prevent local flooding and to comply with the MRP 2.0. Cost estimates were based on budgetary and supplemental information provided by the City. 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, and Clean Water Program⁵ Costs. These categories reflect how the City generally allocates funds to implement its day-to-day storm drainage-related operations.

⁵ The City's Budget document uses "Non-Point Source" as the name for the Clean Water program.

More detailed information can be found in Appendix A. The program costs are summarized in Table 2 below. The total costs shown in the right-hand column is for the five future years. These values are drawn from Appendix A, Table 2.

TABLE 2 – SUMMARY OF PROGRAM COSTS

Category	Shown in thousands						TOTAL
	Current 18-19	Future 19-20	20-21	21-22	22-23	23-24	
O & M	\$ 477	\$ 552	\$ 569	\$ 586	\$ 603	\$ 622	\$ 2,932
Clean Water	\$ 721	891	918	964	994	1,025	4,792
TOTAL COSTS	\$ 1,197	\$ 1,443	\$ 1,487	\$ 1,550	\$ 1,597	\$ 1,647	\$ 7,724

ANNUAL REVENUE REQUIREMENT

The proposed fee is scheduled to begin in Fiscal Year 2019-20. Therefore, the data presented in Appendix A for prior years do not factor into the analysis. What remains is a five-year window in which projected revenue sources and projected costs are presented.

Over the five fiscal years, the projected costs exceed revenues by \$6.0 million. This is the amount that the proposed Clean Water and Storm Protection Fee would need to generate in order to bring the Program into balance. The resulting revenue requirement is therefore based on an annual revenue, adjusted for inflation at 3.0% per year over the five-year period, that totals \$6.0 million over those five years. These projections are summarized in Table 3 below.

TABLE 3 – ESTIMATE OF ANNUAL REVENUE REQUIREMENT

Category	Shown in thousands						TOTAL
	Current 18-19	Future 19-20	20-21	21-22	22-23	23-24	
Revenues	na	\$ 379	\$ 379	\$ 379	\$ 379	\$ 379	\$ 1,895
Expenditures	na	1,443	1,487	1,550	1,597	1,647	7,724
Shortfall	na	\$(1,064)	\$(1,108)	\$(1,171)	\$(1,218)	\$(1,268)	\$(5,829)
Revenue Requirement *		\$ 1,098	\$ 1,131	\$ 1,165	\$ 1,200	\$ 1,236	\$ 5,828

* Revenues are increased by 3.0% annually for inflation

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. As noted earlier, all properties that shed stormwater into the City's system are served by that system. In compliance with Proposition 218, the proposed 2019 Clean Water and Storm Protection Fee will only be imposed on properties that shed water, directly or indirectly, into the City's 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.

Cupertino 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.) Therefore, the range of SFR was broken into four size categories as shown in Table 4 below with the medium category containing the largest number of parcels.

The City's 2018 SDMP includes an analysis of the %IA for Cupertino.⁸ The SDMP findings of %IA for various land uses were used as a basis for this Report. Since the categories in the SDMP don't completely align with the rate categories established in this Report, some adjustments were made. A summary of these adjustments is shown in Appendix B.

The median sized SFR parcel is 0.17 acre (approximately 7,405 square feet), which is also the median parcel size for the medium SFR rate category. That size of parcel is considered

⁶ *Stormwater Utility Survey, 2017, page 2, Western Kentucky University.*

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 496 multiplex parcels in the City, which were distributed to the same four parcel size categories as the other SFRs. Any residential structure with five or more units is categorized as multi-family residential ("MFR"), which is calculated separately.

⁸ Section 2.2.3, page 2-6 of the City of Cupertino Storm Drain Master Plan.

to fall into the low-density residential category of the SDMP, which is reported to have a %IA of 55%. Therefore, the median parcel in Cupertino contains 4,073 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.

$$\begin{aligned}
 1 \text{ SFE} &= \%IA \times \text{Median Parcel Size} \\
 &= 55\% \times 7,405 \text{ sf} \\
 &= 4,073 \text{ sf}
 \end{aligned}$$

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 (4,073 sf) for the benchmark category of medium-sized parcels as shown in the following formula:

$$\text{SFE per Parcel} = \frac{\text{Median ISA}}{4,073}$$

SPECIAL NOTES ON 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: High density where they tend to have units on multiple floors (similar to apartment buildings), and medium density where they are only one unit high (i.e., townhomes). 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 (3,354 sf) and SFE per parcel as a small-lot SFR parcel.

For the high-density condominium units, further analysis was done. Fourteen condominium complexes with 1,246 units were identified throughout the City. Using aerial photographs, measurements were made of the impermeable areas. A strong trend was found such that the average ISA per unit was 1,099 square feet. Therefore, the high-density condominiums are assigned an ISA of 1,099 square feet. This is 33% of the ISA for the medium-density condominiums.

Table 4 below shows a summary of the SFEs for single-family residential parcels.

TABLE 4 – SUMMARY OF SINGLE-FAMILY RESIDENTIAL PARCELS

Lot Type	Parcel Size Range		Total Parcels*	Total Acres*	Median	% IA**	I S A	SFE per Parcel
					Parcel Size			
	<u>Acres</u>				<u>SF</u>		<u>SF</u>	
Small	under	0.13	1,526	159	4,792	70%	3,354	0.82
Medium	0.13 to	0.22	8,958	1,510	7,405	55%	4,073	1.00
Large	0.23 to	0.40	1,542	420	11,326	45%	5,097	1.25
Extra Large	over	0.40	345	460	27,878	35%	9,757	2.40
Condos 1	(one story)		2,221	95	na	na	3,354	0.82
Condos 2+	(2+ stories)		1,246	46	na	na	1,099	0.27
			15,838	2,690				

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

NON-SINGLE-FAMILY RESIDENTIAL PARCELS

Unlike the SFR parcels, the non-SFR parcels can vary widely in size as well as 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:

$$SFE \text{ per Acre} = \frac{(43,560 \text{ sf} / \text{acre}) \times \% IA}{4,073 \text{ sf}}$$

where 4,073 square feet is the amount of ISA in one SFE.

Table 5 below shows a summary of resulting the non-single-family parcel SFEs for each non-SFR land use category.

TABLE 5 – SUMMARY OF NON-SFR PARCELS

Land Use Category	Total Parcels*	Total Acres*	% I A**	SFE per Acre
Multi-Family (Apartments)	79	200	65%	6.95
Commercial / Retail / Industrial	256	441	85%	9.09
Office	217	372	65%	6.95
Church / Institutional	39	98	55%	5.88
School (w/playfield)	16	329	40%	4.28
Park	3	53	15%	1.60
Vacant (developed)	134	153	5%	0.53
Open Space / Agricultural	240	1,192	na	
TOTAL	984	2,837		

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

** %IA is taken from Appendix B

Each individual parcel's SFE is then calculated by multiplying the parcel size (in acres⁹) times the SFE per acre for that land use category, as shown in the following formula:

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

DEVELOPED VACANT¹⁰ PARCELS

Developed vacant parcels are devoid of obvious structures or improvements but are distinguished from undeveloped vacant land 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. 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.

⁹ Parcel size for non-SFR parcels is calculated to the tenth of an acre or portion thereof.

¹⁰ "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.

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						
C.2	Program Management					Does not lessen Program Management burden
	Municipal Operations					Reduces storm flows in minor storm, reducing burden on operations
Clean Water Program						
C.1	Permit Compliance					Is a small part of overall Program Compliance
C.2	Municipal Operations					Does not lessen Municipal Operations compliance burden
C.3	New Development and Redevelopment					Is all about C.3
C.4	Industrial and Commercial Site Controls					Provides controls
C.5	Illicit Discharge Detection and Elimination					Does not lessen Illicit Discharge burden
C.6	Construction Site Control					Does not lessen Construction Controls burden
C.7	Public Information and Outreach					Aids in educating property owners
C.8	Water Quality Monitoring					Does not lessen WQ Monitoring burden
C.9	Pesticides Toxicity Control					Capture & infiltration may filter out pesticides
C.10	Trash Load Reduction					Many C.3 devices are considered a partial trash capture device
C.11	Mercury Controls					Capture & infiltration may filter out pollutants
C.12	PCBs Controls					Capture & infiltration may filter out pollutants
C.13	Copper Controls					Capture & infiltration may filter out pollutants
C.17	Annual Reports					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:

$$SFE \text{ Rate} = \frac{\text{Annual Revenue Requirement}}{\text{Total SFEs}}$$

Or, using numbers from the analysis:

$$SFE \text{ Rate} = \frac{\$1,097,787}{24,713.810} = \$44.42 \text{ per SFE}$$

This SFE rate amount is then multiplied by the SFEs per parcel or acre for the various land use categories to arrive at the Stormwater Fee Rate Schedule shown in Table 7 below.

TABLE 7 – PROPOSED 2019 CLEAN WATER & STORM PROTECTION FEE SCHEDULE

Land Use Category	SFE Rate	Proposed Fee FY 2019-20
Single-Family Residential *		
Small (under 0.13 acre)	0.824	\$ 36.58 per parcel
Medium (0.13 to 0.22 acre)	1.000	\$ 44.42 per parcel
Large (0.23 to 0.40 acre)	1.251	\$ 55.58 per parcel
Extra Large (over 0.40 acre)	2.396	\$ 106.42 per parcel
Condominium 1 (1 story)	0.824	\$ 36.58 per parcel
Condominium 2+ (2+ stories)	0.270	\$ 11.99 per parcel
Non-Single-Family Residential **		
Multi-Family Residential	0.695	\$ 30.88 per 0.1 acre
Commercial / Retail / Industrial	0.909	\$ 40.38 per 0.1 acre
Office	0.695	\$ 30.88 per 0.1 acre
Church / Institutional	0.588	\$ 26.13 per 0.1 acre
School (w/playfield)	0.428	\$ 19.00 per 0.1 acre
Park	0.160	\$ 7.13 per 0.1 acre
Vacant (developed)	0.053	\$ 2.38 per 0.1 acre
Open Space / Agricultural		no charge
Low Impact Development Adjustment ***		25% Fee Reduction

* SFR category also includes duplex, triplex and four-plex units.

** Non-SFR parcel size is calculated to the tenth of an acre or portion thereof.

*** Low Impact Development Adjustment only applies to condominium and non-single-family properties.

ANNUAL COST INDEXING

The 2019 Clean Water and Storm Protection Fee is subject to an annual adjustment tied to the Consumer Price Index-U for the San Jose 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 2019 Clean Water and Storm 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 (Clean Water and O&M) are used as a reasonable model of future revenue needs and are not intended to be binding on future use of funds.

The specific assumptions utilized in this Report, the specific programs or projects listed, and the division of revenues and expenses between the two primary categories (Clean Water and O&M) are used as a reasonable model of future revenue needs and are not intended to be binding on future use of funds.

Dated: February 20, 2019

Engineer of Work

By 
Jerry Bradshaw, License No. C48845

APPENDICES

APPENDIX A – REGULATORY ASSESSMENT & COST AND REVENUE ANALYSIS

On the following pages is a regulatory assessment and cost and revenue analyses, drawn from a technical memorandum prepared for this project by Larry Walker Associates. The information contained in this Appendix forms a basis for the fee calculations in the main body of this Fee Report and is referenced as appropriate.

Memorandum



DATE: February 20, 2019

TO: Susan Barnes, SCI Consulting Group

SUBJECT: Fee Study Report: Regulatory Assessment
& Cost and Revenue Analysis

Cc: Jerry Bradshaw, SCI Consulting Group
Cheri Donnelly, City of Cupertino
Jo Anne Johnson, City of Cupertino
Karen Ashby, Larry Walker Associates

Rachel Warren
Airy Krich-Brinton

1480 Drew Ave., Suite 100
Davis, CA 95618
530.753.6400
RachelW@lwa.com
AiryK@lwa.com

1. INTRODUCTION

In the early 1990s, in response to the federal Clean Water Act (CWA) amendment of 1987 to address urban stormwater runoff pollution from Municipal Separate Storm Sewer Systems (MS4s) and the pending federal National Pollutant Discharge Elimination System (NPDES) regulations that would implement the amendment, the San Francisco Bay Regional Water Quality Control Board (Regional Water Board) issued municipal stormwater Phase I NPDES permits to the countywide urban areas of Santa Clara, Alameda, San Mateo, and Contra Costa. These countywide areas had individual permits until 2009, when the Regional Water Board issued a Municipal Regional Stormwater Permit (MRP).¹ The MRP was subsequently reissued in 2015.²

The current MRP regulates stormwater discharges from municipalities in Alameda, Contra Costa, San Mateo, and Santa Clara counties (including the City of Cupertino), as well as the cities of Fairfield, Suisun City, and Vallejo in Solano County. The MRP includes requirements for the following components, including an increased focus on requirements for control of specific pollutants to address some of the more persistent water quality issues:

- C.1 Discharge Prohibitions and Receiving Water Limitations
- C.2 Municipal Operations
- C.3 New Development and Redevelopment
- C.4 Industrial and Commercial Site Controls
- C.5 Illicit Discharge and Elimination
- C.6 Construction Site Controls
- C.7 Public Information and Outreach

¹ Order R2-2009-0074 as amended by Order No. R2-2011-0083

² Order No. R2-2015-0049

- C.8 Water Quality Monitoring
- C.9 Pesticides Toxicity Controls
- C.10 Trash Reduction
- C.11 Mercury Controls
- C.12 PCBs Controls
- C.13 Copper Controls
- C.14 Bacterial Controls
- C.15 Exempted and Conditionally Exempted Discharges
- C.16 Discharges to Areas of Special Biological Significance
- C.17 Annual Reports

The City of Cupertino (City) is committed to water quality and watershed stewardship by continuing to build a safer, healthier, and more aesthetically pleasing community through programs, initiatives, and ordinances that align with MRP activities. Over the years, the range of actions taken by the City has greatly increased in response to evolving regulatory requirements and community needs.

As a part of the stormwater program initiative, the City leverages its resources by participating in a comprehensive effort in the Santa Clara Valley, the Santa Clara Valley Urban Runoff Pollution Prevention Program (SCVURPPP), which was initiated in 1990 and is organized, coordinated, and implemented in accordance with a memorandum of agreement (MOA) between its 15 member agencies. The Santa Clara Valley collaboration is further supplemented by participation in the regional Bay Area Stormwater Management Agencies Association (BASMAA). In addition to directly benefitting member agencies with access to better science, the regional collaborations enhance technical approaches and ensure consistent messaging to the public and community decision makers. Implemented when the first stormwater permits were issued to Santa Clara Valley permittees, the collaboration has effectively assisted member agencies in maintaining stormwater programs that achieve federally and State-mandated water quality regulations.

The purpose of this Technical Memorandum is to develop a planning-level cost estimate for the full costs of implementing the stormwater program, which may be used to support a funding measure for the City’s storm drain operations and maintenance and Clean Water Program needs. The assessment includes a summary of known revenues and estimates of prior year, current year, and future implementation costs of the stormwater program.³ This information may also be used in the future to budget program funding and/or to identify other potential funding sources. This memorandum is organized as follows:

1. Introduction
2. Approach
3. Results and Discussion
 - 3.1. Overall Summary
 - 3.2. City Expenditures

³ Prior year is fiscal year 2017-2018; current is fiscal year 2018-2019; future is fiscal years 2019-2020 through 2023-2024.

2. APPROACH

To understand the funding needs for the stormwater program, the “true” costs for full implementation of the MRP requirements must be understood. However, tracking and compiling staff time and resources across multiple departments can be a complex and time-consuming process. To identify the implementation costs for the City as comprehensively and efficiently as possible, an interview was conducted with key City staff, which included structured questions and discussions regarding the agency’s staffing, implementation approach for the range of MRP requirements, prior and current stormwater program revenues, and the estimated costs for program implementation. The revenues and expenditures were compiled and assigned to two main categories, which reflects how the City generally allocates funds to implement its day-to-day stormwater-related operations:

- **Operations and Maintenance (O&M):** This includes ongoing and routine activities supporting the O&M of the stormwater infrastructure, including inspection and cleaning of storm drain inlets, storm drain lines, and trash capture devices, as well as street sweeping management (primarily MRP provision C.2).
- **Clean Water Program:** This includes ongoing and routine activities that are directly related to water quality improvement, such as implementation of the MRP requirements, participation in the SCVURPPP, clean creek programs, community outreach, business and construction site inspections, street sweeping, and implementation of the City’s trash reduction plan (all MRP provisions, with the exception of green infrastructure projects).

3. RESULTS AND DISCUSSION

A summary and discussion of total City costs for implementation of the MRP during the prior year (2017-2018), current year (2018-2019), and future years (2019-2020 through 2023-2024), is provided within this section. The cost information is presented in two ways: a summary of City expenditures by cost category (O&M and Clean Water Program) (**3.1. Overall Summary**) and a detailed breakdown of expenditures (**3.2. City Expenditures**) as they relate to the two cost categories. The approach and assumptions used to develop each of these summaries are described below. All costs are in present-value dollars.

3.1. Overall Summary

Costs for the full implementation of the stormwater program were estimated based on budgetary and supplemental information provided by the City. The approach and assumptions used were as follows:

- The revenue and expenditures for 2017-2018 and 2018-2019 were based on the City’s 2018 and 2019 Adopted Budgets.
- Future revenue was assumed to be the same as that for the current fiscal year, 2018-2019, without the transfers in from the General Fund (i.e., \$379,000) (**Table 1**).
- The category-specific expenditure totals in **Table 2** were taken directly from the detailed City Expenditures for 2017-2018 through 2023-2024 (see **Section 3.2, Table 4**).
- Future cost projections were based on the available costs from 2017-2018, information obtained during City staff interviews, and a percentile multiplier (3% for personnel costs and non-personnel costs and 3.57% for participation in SCVURPPP). Additional details

regarding assumptions for future, potential cost increases related to specific MRP provisions are provided in **3.2. City Expenditures.**

This page left intentionally blank for printing purposes

The estimated revenue for 2017-2018 through 2023-2024 is shown in **Table 1** and **Figure 1**.

Table 1. Overall Summary of Revenue

Revenue Category	Prior ^[a]	Current ^[a]	Future - Projected				
	2017-2018	2018-2019	2019-2020	2020-2021	2021-2022	2022-2023	2023-2024
O&M Fund 100-85							
Total Fund Revenue	\$1,700	\$0	\$0	\$0	\$0	\$0	\$0
Transfer in (General Fund)	\$448,250	\$476,503	\$0	\$0	\$0	\$0	\$0
Clean Water Program Fund 230-81							
Fines and forfeitures	\$6,000	\$9,000	\$9,000	\$9,000	\$9,000	\$9,000	\$9,000
Charges for services	\$380,000	\$370,000	\$370,000	\$370,000	\$370,000	\$370,000	\$370,000
Transfer in (General Fund)	\$375,720	\$341,785	\$0	\$0	\$0	\$0	\$0
Total Revenue	\$1,211,670	\$1,197,288	\$379,000	\$379,000	\$379,000	\$379,000	\$379,000

[a] Values are from the City's *Fiscal Year 2018-2019 Adopted Budget*⁴ (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)).

⁴ <https://www.cupertino.org/home/showdocument?id=21776>

The total estimated expenditures for 2017-2018 and 2018-2019 (based on the 2018 and 2019 Adopted Budgets) and the total estimated expenditures for the next five years, organized by cost category, are shown in **Table 2** and **Figure 1**.

Table 2. Overall Summary of Total Estimated Costs for MRP, by Cost Category and Fiscal Year

Cost Category	Prior ^[a]	Current ^[a]	Future – Projected				
	2017-2018	2018-2019	2019-2020	2020-2021	2021-2022	2022-2023	2023-2024
O&M Fund 100-85	\$449,950	\$476,503	\$552,000	\$569,000	\$586,000	\$603,000	\$622,000
Clean Water Program Fund 230-81	\$761,720	\$720,785	\$891,000	\$918,000	\$964,000	\$994,000	\$1,025,000
Total Expenses	\$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*⁵ (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)).

⁵ <https://www.cupertino.org/home/showdocument?id=21776>

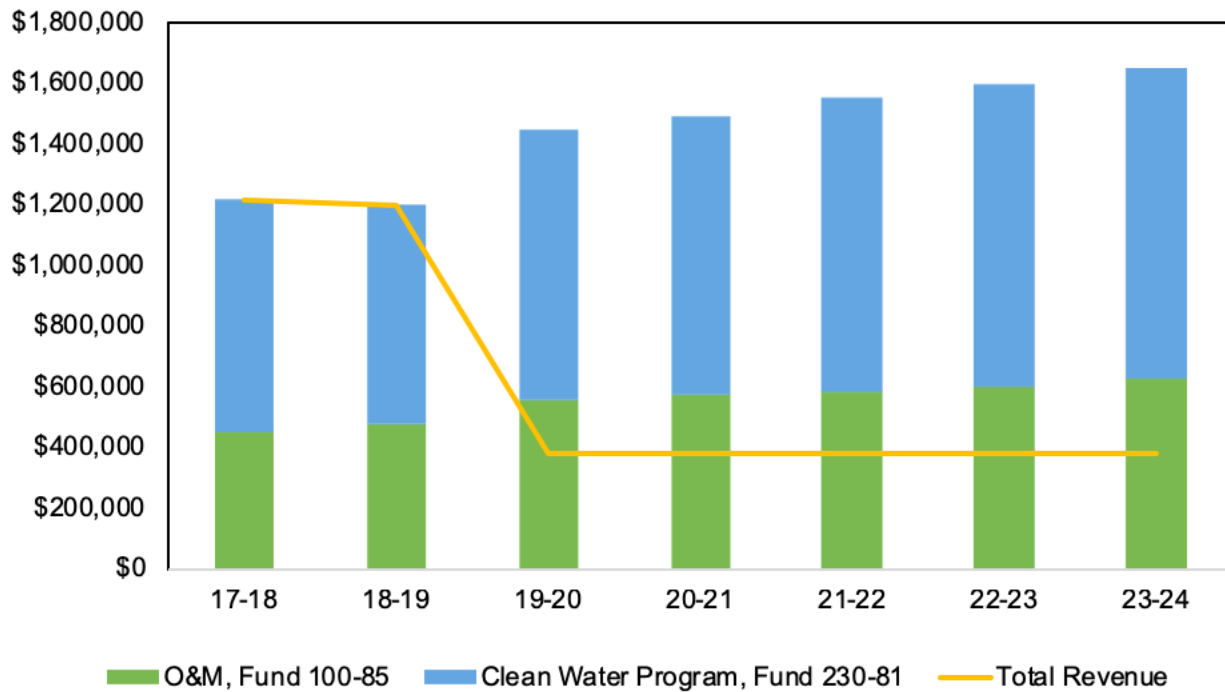


Figure 1. Overall Summary of Total Estimated Costs and Revenue for MRP, by Cost Category and Fiscal Year

3.1.1. Overall Summary: Discussion

Below are a few key observations regarding the overall estimated expenditures:

- During the observed time period, the estimated cost of stormwater program implementation will exceed the estimated, dedicated revenue (**Figure 1**).
- The Clean Water Program costs account for the larger portion (62%, as a seven-year average) of the City’s stormwater-related costs.
- Overall, it is anticipated that the City’s stormwater program will spend similar percentages on O&M and the Clean Water Program annually. Additional, one-time cost increases are included for the Clean Water Program in FY 2021-2022, based on potential increases in MRP requirements (as described in **3.2. City Expenditures**).
- Based on the information available and the assumptions made, the total cost of the stormwater program is expected to increase by 36% between 2017-2018 and 2023-2024 (**Figure 1**). However, it should be noted that the cost increase could be greater depending upon the requirements of the final, renewed MRP.
 - Between 2018-2019 and 2019-2020, a 21% increase in the total cost of the stormwater program is anticipated to occur. This increase is based on a thorough evaluation of the City personnel and non-personnel costs required to implement the current MRP provisions and provide storm protection (as described in **3.2. City Expenditures**).

3.2. City Expenditures

Costs for the implementation of the stormwater program for the MRP were estimated based on budgetary and supplemental information provided by the City. When determining which costs to include, the City considered, at a minimum, the following:

- Labor;
- Materials;
- Contract Services;
- Contingencies; and
- Cost Allocation.

The following key pieces of information were provided by the City:

- “Fund 230-81 - Environmental Programs FY17_18 Expenditure (Actual)” spreadsheet, which details the expenditures for the Clean Water Program by expense type for FY 2017-2018.
- “Fund 230-81 - Environmental Programs FY17_18 Revenue (Actual)” spreadsheet, which details the revenues for the Clean Water Program by expense type for FY 2017-2018.
- “Fund 230-81 - Environmental Programs FY18_19 Expenditure (Budget)” spreadsheet, which details the amended budget and expenditures to date for the Clean Water Program by expense type for FY 2018-2019.
- “Fund 230-81 - Environmental Programs FY18_19 Revenue (Budget)” spreadsheet, which details the amended budget and revenues to date for the Clean Water Program by expense type for FY 2018-2019.
- “100-85-818 FY17_18 Expense (actual)” spreadsheet, which details the expenditures for O&M by expense type for FY 2017-2018.
- “100-85-818 FY18_19 Expense (Budget)” spreadsheet, which details the amended budget and expenses to date for O&M by expense type for FY 2018-2019.
- Hard copy tables describing the staff positions under “230-81-802 Env Mgmt Cln Crk Strm Drain – Environmental Programs – Non Point Source” and “FTE – General Fund.”
- Hard copy “Resolution 18-039, Schedule B – Engineering” describing the various fees effective July 1, 2018.
- The City’s *Fiscal Year 2018-2019 Adopted Budget*⁶ detailing the revenue, expenditure, and General Fund Costs for the 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).

⁶ <https://www.cupertino.org/home/showdocument?id=21776>

The approach and assumptions used were as follows:

- All costs were identified as O&M Costs or Clean Water Program Costs (**Table 4**).
- The City’s “Cost Allocation” for each fund, which includes overhead costs such as Human Resources, Finance, and Information Technology Support, are divided as follows:
 - The full Cost Allocation amount for O&M (Fund 100-85) is accounted for under Provision C.2.
 - The Cost Allocation amount for Clean Water Program (Fund 230-81) is allocated proportionally to specific MRP provisions based on the identified labor costs.
- The City’s contribution to SCVURPPP was determined as follows:
 - Based on the Memorandum of Agreement, the City's annual, proportional cost share is 2.46% of the annual SCVURPPP Program Budget.
 - The City's payment history (July 2008 through July 2018) was used to determine the average annual increase in the City’s contribution (3.57%). This multiplier was used to estimate contributions for future years.
 - The total SCVURPP contribution was distributed equally amongst the MRP provisions (C.2 through C.13).
- Future costs were projected as follows:
 - Future projections were based on the available costs from 2017-2018 and a percentile multiplier (3% for personnel costs and non-personnel costs and 3.57% for participation in SCVURPPP). This is based on preliminary feedback from Regional Water Board staff that the MRP should not change significantly. However, if significant changes are made to the MRP during the renewal process, then the estimates should be modified accordingly.
 - Implementation costs for specific MRP provisions are anticipated to require an additional increase during the first year of the next MRP term.⁷ These increases were applied as additive percent increases only for FY 2021-2022. These are preliminary estimates, and the actual cost increases are to be determined upon adoption of the new MRP. These provisions, the anticipated, potential cost increase for each, and the rationale for the potential increase are as follows:
 - **C.3 New Development and Redevelopment (5%)**. This estimated increase is based on potential expansion of the C.3 requirements to small projects and single-family residences, which would necessitate updating the application materials and guidance, including the C.3 Technical Guidance. In addition, there will be increased costs associated with enhanced O&M requirements for green infrastructure projects. This does not include costs for implementation/installation of green infrastructure projects.

⁷ The current MRP expires on December 31, 2020. If the MRP is reissued on schedule, the new MRP will begin to be implemented on January 1, 2021. These increases have been applied to the anticipated, first full year of implementation of the new MRP, beginning July 1, 2021.

- **C.10 Trash Load Reduction (7.5%).** This estimated increase is based on anticipated, new monitoring/assessment costs and implementation requirements, including the assessment of private catchments. In addition, by 2022, the City will need to achieve 100% reduction of the trash load from its base trash generation level; based on the 2017-2018 Annual Report, the City is currently achieving 93% reduction.
- **C.11 Mercury Controls and C.12 Polychlorinated Biphenyls (PCBs) Controls (7.5%).** This estimated increase is based on implementation of new programs for building demolition to address mercury and PCBs.
- **C.17 Annual Reports (5%).** This estimated increase is based on anticipated changes in reporting requirements and the potential for some increased costs related to electronic reporting (via EPA) and cost reporting (via the state).
 - o No incremental projections were made for expenses described as “one-time costs.”

The total expenditures for 2017-2018 (prior year) and 2018-2019 (current year), based on the adopted budgets for those years, and the total, estimated expenditures for the next five years (future), organized by cost category (fund) and MRP provision, are shown in **Table 4**.⁸ Only total fund values are included for 2017-2018 and 2018-2019.

⁸ The total costs for each cost category (fund) are also summarized in **Table 2**.

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>	<i>\$449,950</i>	<i>\$476,503</i>	<i>\$552,000</i>	<i>\$569,000</i>	<i>\$586,000</i>	<i>\$603,000</i>	<i>\$622,000</i>
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>	<i>\$761,720</i>	<i>\$720,785</i>	<i>\$891,000</i>	<i>\$918,000</i>	<i>\$964,000</i>	<i>\$994,000</i>	<i>\$1,025,000</i>
	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 B –PERCENTAGE OF IMPERVIOUS AREA ESTIMATIONS

Section 2.2.3 of the Storm Drain Master Plan (SDMP, 2018) provided information about the percentage of impermeable area (%IA) for various land use types. Table 8 below summarizes that information.

TABLE 8 – PERCENT OF IMPERVIOUS AREA FROM STORM DRAIN MASTER PLAN

Land Use	% I A
Commercial/Industrial	85
Very Low Density Res.	35
Low Density Res.	55
Low-Medium Density Res	70
Medium Density Res	80
High Density Res.	75
Medium-High Density Res.	70
Open Water	100
Parks/Open Space	15
Public (Schools, Gov't, etc.)	45
Quasi-Public/Institutional	65
Transportation/Right of Way	90
Undeveloped	0

Several of the SDMP land use types were the same as the rate categories for this Report. However, some of the rate categories in this Report did not precisely match the land uses in the SDMP, so adjustments were made. Table 9 below shows the SDMP categories on the left side and the Fee Report rate categories on the right side. The ones in green matched sufficiently to use them outright. The ones in beige required some adjustments, which are explained below the Table.

TABLE 9 – PERCENTAGE OF IMPERVIOUS SURFACE FROM STORM DRAIN MASTER PLAN

Storm Drain Master Plan		Fee Report	
Low-Medium Density Res	70	70	Small SFR
Low Density Res.	55	55	Medium SFR
		45	Large SFR
Very Low Density Res.	35	35	Very Large SFR
Quasi-Public/Institutional	65	65	Multi-Fam
Commercial/Industrial	85	85	Comm/Indust
Quasi-Public/Institutional	65	65	Office
Public (Schools, Gov't, etc.)	45	55	Institutional
		40	Schools
Parks/Open Space	15	15	Parks
Undeveloped	0	5	Vacant
		0	Open Space

EXPLANATION OF ADJUSTMENTS TO %IA

- Large Single-Family Residential – This category falls between the Medium and Very Large categories without a corresponding land use in the SDMP. That gap was split evenly to arrive at a %IA of 45%. This created an array of %IA for the residential rate categories that aligns well with other communities and associated fee reports.
- Institutional & Schools – The SDMP grouped schools with other governmental uses, however the Fee Report distinguishes between governmental/institutional uses and schools (with play field areas). The SDMP blended rate of 45% was used as a basis to split the Fee Report categories to arrive at %IA values of 55% and 40%, respectively. Again, these values align relatively well with other communities and associated fee reports.
- Vacant & Open Space – The SDMP assigned a value of 0% for the undeveloped land use while the Fee Report distinguishes between open space/natural terrain and vacant land that has been developed (but not improved). It is assumed that the SDMP blended the two categories, which was split for the Fee Report categories to arrive at %IA values of 5% and 0%, respectively. Further justification for the %IA of zero for open space land is provided in the body of the Fee Report. Again, these values align relatively well with other communities and associated fee reports.

APPENDIX C – 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 10 on the following page, in roughly chronological order. Amounts are annualized and are for single family residences or the equivalent.

TABLE 10 – 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
Los Angeles Flood Control	Successful	\$ 83.00	2018	Special Tax
City of Los Altos	In Process	NA	NA	Balloted Property-Related Fee
City of Alameda	Studying	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 10 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 11 below. Amounts are annualized and are for single family residences or the equivalent.

The City's proposed \$44.42 SFR rate is well within the range of stormwater rates adopted by other municipalities.

TABLE 11 – SAMPLE OF RATES FROM OTHER MUNICIPALITIES

Municipality	Annual Rate	Type of Fee
Bakersfield	\$ 200.04	Property-Related Fee
Culver City	\$ 99.00	Special Tax
Davis	\$ 84.94	Property-Related Fee
Elk Grove	\$ 70.08	Property-Related Fee
	\$ 190.20	Property-Related Fee
Hayward	\$ 28.56	Property-Related Fee
Los Angeles	\$ 27.00	Special tax
Palo Alto	\$ 136.80	Property-Related Fee
Redding	\$ 15.84	Property-Related Fee
Sacramento (City)	\$ 135.72	Property-Related Fee
Sacramento (County)	\$ 70.08	Property-Related Fee
San Bruno	\$ 46.16	Property-Related Fee
San Clemente	\$ 60.24	Property-Related Fee
San Jose	\$ 91.68	Property-Related Fee
Santa Cruz	\$ 109.08	Special Tax
Stockton *	\$ 221.37	Property-Related Fee
Vallejo Sanitation and Flood Control District	\$ 23.64	Property-Related Fee
West Sacramento	\$ 144.11	Property-Related Fee
Woodland	\$ 5.76	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.