ATTACHMENT 1 / ATTACHMENT C

Storm Drainage Impact Fee Nexus Study
Storm Drain System Master Plan Update
Costa Mesa, California

FINAL REPORT

February 2026

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Table of Contents

Tables

Figures

Appendices

EXECUTIVE SUMMARY AND INTRODUCTORY SECTIONS

INTRODUCTION

The City of Costa Mesa (City) is one of the ten most populated cities in Orange County, located about 37 miles southeast of Los Angeles and just one mile from the Pacific Ocean. The City encompasses 16 square miles and hosts the Orange County Fair annually at its fairgrounds.

Costa Mesa was originally a part of the vast Rancho Santiago de Santa Ana and later developed as an agricultural area primarily known for lima beans and citrus groves. The City, incorporated in 1953, transitioned from its agricultural roots to a more diversified economy that now boasts various forms of recreation, shopping centers including the South Coast Plaza, and a thriving arts scene anchored by the Segerstrom Center for the Arts and the South Coast Repertory Theater.

The City is part of the Los Angeles-Long Beach-Santa Ana, CA Metropolitan Statistical Area. The California Department of Finance (DOF) estimates that as of January 1, 2025, the City population is 110,304, incorporating the 2020 Census benchmark.

As the resident population and non-resident employment in the City increases, there exists a correlating rise in the need for public infrastructure and services to support the increased demand on the City's infrastructure. California's Assembly Bill 1600 (AB 1600) adopted in 1987 and codified as California Government Code Section 66000 et. seq., allows the City to impose Development Impact Fees on new development within the City. Development Impact Fees (DIFs) are one-time charges on new developments that are collected and used by the City to cover the cost of capital facilities, vehicles, and equipment that are required to serve new growth.

The City currently charges a single Citywide Storm Drainage fee that was last updated in 2006 and were calculated utilizing a Planned Facilities methodology. Although two different drainage sheds were identified in the 2006 fee study, the City adopted a single fee for the entire City. The 2006 fees were not the maximum justifiable fees and a phased in approach was adopted that would have increased the fees to the maximum justifiable fee level after two years. However, following the adoption of the initial fees the fees were not increased and the fees in place remain the fees adopted in 2006. The goal of this update is to calculate the maximum justifiable fee for the required storm drainage improvements necessary to mitigate the impacts of future development on the City's storm drainage network and to ensure compliance with the legal requirements of AB 1600 and AB 602.

NEXUS REQUIREMENT SUMMARY

AB 1600 was enacted by the State of California in 1987 creating the Mitigation Fee Act - Section 66000 et seq. of the Government Code. The Mitigation Fee Act requires that all public agencies

satisfy the following requirements when establishing, increasing, or imposing a fee as a condition of approval of a development project:

1. Identify the purpose of the fee.
2. Identify the use to which the fee is to be put. If the use is financing public facilities, the facilities shall be identified.
3. Determine how there is a reasonable relationship between the fees use and the type of development project on which the fee is imposed.
4. Determine how there is a reasonable relationship between the need for the public facility and the type of development project on which the fee is imposed.
5. Determine how there is a reasonable relationship between the amount of the fee and the cost of the public facility or portion of the public facility attributable to the development on which the fee is imposed.

The purpose of this report is to demonstrate that all fee components comply with the Mitigation Fee Act. The assumptions, methodologies, facility standards, costs, and cost allocation factors that were used to establish the nexus between the fees and the development on which the fees will be charged are summarized in subsequent sections of this report.

In evaluating the City's development impact fee program, it is important to distinguish between revenues available to fund services for the existing population and those that may be used to serve new development. As future residents and workers occupy new development projects, they become part of the City's existing community and begin generating General Fund revenues through property taxes, sales taxes, and other locally collected revenues. These unrestricted General Fund revenues may be used for any lawful municipal purpose citywide, including ongoing operations, maintenance of public facilities, and general governmental services. In contrast, development impact fee revenues are legally restricted and may only be used to construct or expand public facilities needed to accommodate new development. State law also requires the City to track and report the use of these impact fees annually under AB 1600, ensuring that all expenditures are directly tied to growth-related facility needs. This distinction between unrestricted General Fund revenues and restricted impact fee revenues is a core component of the City's nexus analysis and fee methodology.

ASSEMBLY BILL 602

AB 602, enacted by the State of California in 2021, amended Sections 65940.1 and 66019 of, and added Section 66016.5 to the Government Code. AB 602 requires that if a local agency conducts and adopts an impact fee nexus study after January 1, 2022, the local agency shall follow all of the following standards and practices:

1. Before the adoption of an associated development fee, an impact fee nexus study shall be adopted.

2. When applicable, the nexus study shall identify the existing level of service for each public facility, identify the proposed new level of service, and include an explanation of why the new level of service is appropriate.
3. A nexus study shall include information that supports the local agency's actions, as required by subdivision (a) of Section 66001 of the Government Code.
4. If a nexus study supports the increase of an existing fee, the local agency shall review the assumptions of the nexus study supporting the original fee and evaluate the amount of fees collected under the original fee.
5. A nexus study adopted after July 1, 2022, shall calculate a fee imposed on a housing development project proportionately to the square footage of proposed units of the development. A local agency that imposes a fee proportionately to the square footage of the proposed units of the development shall be deemed to have used a valid method to establish a reasonable relationship between the fee charged and the burden posed by the development. A nexus study is not required to comply with the requirements to calculate a fee imposed on a housing development project proportionally to the square footage of the proposed units if the local agency makes the following findings:
    - An explanation as to why square footage is not appropriate metric to calculate fees imposed on housing development project.
    - An explanation that an alternative basis of calculating the fee bears a reasonable relationship between the fee charged and the burden posed by the development.
    - That other policies in the fee structure support smaller developments, or otherwise ensure that smaller developments are not charged disproportionate fees.
6. Large jurisdictions shall adopt a capital improvement plan as a part of the nexus study.
7. All studies shall be adopted at a public hearing with at least 30 days' notice, and the local agency shall notify any member of the public that requests notice of intent to begin an impact fee nexus study of the date of the hearing.
8. Studies shall be updated at least every eight years, beginning on January 1, 2022.
9. The local agency may use the impact fee nexus study template developed by the Department of Housing and Community Development pursuant to Section 50466.5 of the Health and Safety Code.

This report demonstrates that all fee components comply with AB 602. The methodologies performed to calculate the updated fees ensure that the costs for facilities are proportionately spread between existing and future users.

NEXUS STUDY SUMMARY

Purpose

As development occurs in the City, new storm drainage backbone infrastructure and capital facilities are required to mitigate the increase in impervious area created by new development. In 2024, the City adopted the *Proposed Drainage & Water Quality Improvements Storm Drain System Master Plan Update* (Storm Drain Master Plan) prepared by Q3 Consulting. This Storm Drain Master Plan utilized advanced stormwater modeling software to identify economically feasible flood control solutions. The Storm Drain Master Plan summarized the recommended storm drainage infrastructure improvements necessary to ensure the City achieved the desired flood control and water quality standards. The Storm Drain Master Plan did not include analysis or discussions on the potential funding mechanisms available to fund these improvements. Development Impact Fees (DIFs) are one of the funding mechanisms available to the City to fund the required storm drainage backbone infrastructure and capital facilities as well as the related administrative costs through the City's fee program.

During the calculation of the DIFs through discussions with Q3 Consulting, it was identified that the City has two distinct storm drainage watersheds which function independently of each other and the storm drainage systems serving these watersheds are not interconnected. As a result, the fee program contains separate fee categories for the two storm drainage watersheds within the City based on the infrastructure and capital facilities required. Incorporated in this Nexus Study are the Storm Drainage fees for both the Santa Ana and Newport Bay watersheds.

This report is designed to satisfy AB 1600 Nexus requirements, AB 602 guidance, and provide the necessary technical analysis to support the adoption of the updated fees. The fees will be effective 60 days after the City's final action establishing and authorizing the collection of the fees.

Fee Program Costs

Table ES-1 summarizes the total costs of the improvements for each storm drainage watershed identified in the Storm Drain Master Plan as well as the costs attributable to the fee programs, costs to be funded from other funding sources and costs associated with fee program administration.

Table ES-1: Costs Attributable to Fee Programs

Fee Program	Total Storm Drainage Improvement Costs	Costs Attributed to Other Funding Sources	Costs Attributable to the Fee Program [1]	Fee Program Administration
Santa Ana Watershed	$ 47,555,701	$ 35,223,937	$ 12,331,764	$ 606,721
Newport Bay Watershed	$ 64,998,695	$ 40,148,707	$ 24,849,988	$ 1,230,031
Total	$ 112,554,397	$ 75,372,645	$ 37,181,752	$ 1,836,752

Notes:

1 Costs attributable to the fee program includes the portion of the City's existing drainage fund balance that has not been allocated to CIP projects.

Updated Fees

While AB 602 suggests that residential development fees be assessed on a per square foot basis, it has been determined that assessing residential fees on a per acre (AC) basis ties more directly to the impacts of new developments and results in a more equitable fee across all residential land uses. Non-residential land uses will continue to be assessed on a fee per acre (AC) to maintain continuity with the existing fee program. Fees on Accessory Dwelling Units, specialized projects, and rebuild projects are detailed further in Section 6: Implementation and Administration.

Table ES-2 and **Table ES-3** show a summary of the maximum allowable fees per acre for land uses for the Santa Ana Watershed and Newport Bay Watershed respectively. These fees incorporate a 5% program administration markup to account for the costs the City will incur to oversee the implementation and administration storm drainage fees in a manner consistent with the requirements of the Mitigation Fee Act. The fees shown reflect the maximum justifiable fees that can be charged under AB1600. The City can elect to set the fee at any amount below this but by doing so, will create an increased funding gap that must be met through other funding sources.

AB 602 states that "if a nexus study supports the increase of an existing fee, the local agency shall review the assumptions of the nexus study supporting the original fee and evaluate the amount of fees collected under the original fee." The current fee program collects a storm drainage impact fee on a per acre basis and was adopted in 2006. The existing storm drainage fees were calculated utilizing the Planned Facilities Methodology and the maximum justifiable fee spread the necessary system upgrades to existing and future development proportionally to the net change in impervious area. Additionally, the adopted fee study provided discussions related to alternative funding sources to mitigate the funding shortfall from the fee program and set the fees at a reduced level assuming alternative funding sources would be utilized.

In comparison to the updated fees both nexus studies utilize a similar impervious factor across all land use categories with the exception of Medium Density Residential which has had its impervious factor increased from 60 percent to 70 percent to reflect the updated Storm Drainage Master Plan. However, the analysis of the facilities to be funded and the methodology utilized to

calculate the maximum justifiable fee have been updated for this nexus study. The Storm Drain Master Plan developed a new stormwater model using the current Orange County Hydrology Manual guidance to develop the required facilities and the maximum justifiable fee was calculated using System Plan method rather than the planned facilities method to ensure future development funds their fair share of the system at buildout.

Table ES-2: Summary of Maximum Allowable Santa Ana Watershed Storm Drainage Fees

Land Use	Santa Ana Watershed Fee	Program Administration Fee	Total Santa Ana Watershed Fee
Fee per Imperious Acre	$ 104,580	$ 5,229	$ 109,809
Residential (Fee per Acre)			
Low Density Residential	$ 52,290	$ 2,615	$ 54,905
Medium Density Residential	$ 73,206	$ 3,660	$ 76,866
High Density Residential	$ 83,664	$ 4,183	$ 87,847
Non-Residential (Fee per Acre)			
Commercial	$ 94,122	$ 4,706	$ 98,828
Industrial	$ 94,122	$ 4,706	$ 98,828

Table ES-3: Summary of Maximum Allowable Newport Bay Watershed Storm Drainage Fees

Land Use	Newport Bay Watershed Fee	Program Administration Fee	Total Newport Bay Watershed Fee
Fee per Imperious Acre	$ 90,490	$ 4,525	$ 95,015
Residential (Fee per Acre)			
Low Density Residential	$ 45,245	$ 2,262	$ 47,507
Medium Density Residential	$ 63,343	$ 3,167	$ 66,510
High Density Residential	$ 72,392	$ 3,620	$ 76,012
Non-Residential (Fee per Acre)			
Commercial	$ 81,441	$ 4,072	$ 85,513
Industrial	$ 81,441	$ 4,072	$ 85,513

Proposed Fees Comparison with Existing Fees

Table ES-4 shows the comparison between the maximum allowable City of Costa Mesa Storm Drainage fees and the existing fees as well as the Existing Fees escalated by the Engineering News Record Construction Cost Index for Los Angeles (ENR). The latter information is provided to show the increase that would have occurred had the fees been updated regularly since 2006. It is important to note that this comparison does not account for the additional subarea fees that may be applicable depending on the location of the development.

Table ES-4: Maximum Allowable Fees Comparison to Existing Fees

Land Use	Existing Santa Ana Watershed	Escalated Santa Ana Watershed [1]	Maximum Santa Ana Watershed	Percent Change from Existing Fee	Percent Change from Escalated Fee
Residential (Fee per Acre)					
Low Density Residential	$ 6,283	$ 11,016	$ 54,905	874%	498%
Medium Density Residential	$ 7,539	$ 13,218	$ 76,866	1020%	582%
High Density Residential	$ 10,052	$ 17,624	$ 87,847	874%	498%
Non-Residential (Fee per Acre)					
Commercial	$ 11,309	$ 19,828	$ 98,828	874%	498%
Industrial	$ 11,309	$ 19,828	$ 98,828	874%	498%

Notes:

1 The existing fee was escalated based on the change in the Engineering News Record Construction Cost Index for Los Angeles from November 2006 to January 2025 (15,592.48 / 8,893.07).

Land Use	Existing Newport Bay Watershed	Escalated Newport Bay Watershed [1]	Maximum Newport Bay Watershed	Percent Change from Existing Fee	Percent Change from Escalated Fee
Residential (Fee per Acre)					
Low Density Residential	$ 6,283	$ 11,016	$ 47,507	756%	431%
Medium Density Residential	$ 7,539	$ 13,218	$ 66,510	882%	503%
High Density Residential	$ 10,052	$ 17,624	$ 76,012	756%	431%
Non-Residential (Fee per Acre)					
Commercial	$ 11,309	$ 19,828	$ 85,513	756%	431%
Industrial	$ 11,309	$ 19,828	$ 85,513	756%	431%

Notes:

1 The existing fee was escalated based on the change in the Engineering News Record Construction Cost Index for Los Angeles from November 2006 to January 2025 (15,592.48 / 8,893.07).

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Section 1 METHODOLOGY

METHODOLOGY

Imposed fees require various findings to ensure that a reasonable relationship exists between the fee amount and the cost of the facility or portion of the facility attributable to new development. Several methodologies are available to determine fee amounts. The most common methodologies are defined by the "Impact Fee Nexus Study Template" prepared for the California Department of Housing and Community Development by Terner Center for Housing Innovation at UC Berkeley. Choosing the appropriate methodology depends on the type of facility for which the fee is calculated and the availability of documentation to support the fee calculation. Following is a discussion of the methodologies available to calculate the separate fee components in this report.

Existing Inventory Method

The existing inventory method, also known as the "incremental method" uses a facility standard based on an analysis of the ratio of existing facilities to the demand on the facilities by the existing population serviced by those facilities ("existing service population") on a cost per unit or cost per square foot basis. Under this approach, new development funds the expansion of facilities at the same standard currently serving existing development. By definition, the existing inventory method ensures that no facility deficiencies are spread to future development as a result of the fees being established based on the current facility standards serving current residents. In other words, if a deficiency exists in the current facility standards, new development is only required to fund the expansion of facilities at the currently provided standard, and the deficiency must be rectified by funding outside of the fee program. This method is often used when a long-range plan for new facilities is not available.

Planned Facilities Method

The planned facilities method calculates the proposed fee based on the ratio of planned facilities to the increase in demand associated with new development. This method is appropriate when planned facilities have been define by a long-range master plan or expenditure plan which includes specific facilities and cost estimates. As the Planned Facilities Method relies on a long-range master plan that may change as the plan is implemented, fees based on this methodology need to be regularly updated to remain consistent with the project lists and current plans.

System Plan Method

The system plan method utilizes an integrated approach to allocate the cost of existing facilities and the costs of planned facilities to the total development in the study area. This method is appropriate when calculating a systemwide fee in which new development will fund an integrated

system of facilities at the future standard attributable to new development. By spreading the costs of an integrated system incorporating the existing facilities and planned facilities costs to the total development in the study area, this ensures that new development only pays their proportional share of the total system costs and is not responsible for rectifying any existing deficiencies.

PROGRAM ADMINISTRATION

The City, with assistance from consultants, oversees the implementation and administration of the City of Costa Mesa Storm Drainage Impact Fee Program, consistent with the requirements of the Mitigation Fee Act. For both of the storm drainage watershed fees, a 5 percent (5%) Program Administration Fee is added to fund the costs of City's management and ongoing fee program administration, collection, and reporting. This includes costs associated with City staff and consultant time, studies, and administration to support the program. Industry standard ranges from three to six percent (3-6%) for the administrative component of a development fee program based on research completed by Best, Best & Krieger and presented at the California Society of Municipal Finance Officers Orange County Chapter meeting in October of 2025. The administrative functions of the Program Administration Fee include, but are not limited to, the following:

- Annual fee adjustments
- Annual fee reporting
- Additional fee reporting every five years
- Application and tracking of fee credits and reimbursements
- Posting of nexus studies and fee schedules on the City's website
- Periodic nexus study updates
- Staff and consultant time related to fee preparation, collection, tracking, and administration

FUND BALANCE

The fund balances used throughout this analysis were based on the City's reported storm drainage fee fund balances through Fiscal Year 2023-24. **Table 1-1** displays the balances of the existing funds used within this study.

Table 1-1: City of Costa Mesa Impact Fee Fund Balance

Fee Program	Total Impervious Acres	Existing Fund Balance [1] [2]	Unallocated Fund Balance [1] [2]
Santa Ana Watershed	1,941.74	$ 951,442	$ 194,639
Newport Bay Watershed	2,453.67	$ 1,202,286	$ 245,955
Total		$ 2,153,728	$ 440,594

Notes:

1 Fund balance derived from the City of Costa Mesa FY2024-25 Annual Comprehensive Financial Report.

2 Fund balance allocated to the Santa Ana and Newport Bay Watersheds based of the total impervious acres in each watershed.

AB 602 AND FEE COLLECTION ALTERNATIVES

The City has historically charged fees for storm drainage on a per acre basis. As stated in the previous section for AB602, A nexus study adopted after July 1, 2022, shall calculate a fee imposed on a housing development project proportionately to the square footage of proposed units of the development, unless the agency is able to make three additional findings.

The proposed fees will continue to be charged on a per acre basis, consistent with the current fee program. The following section discusses why square footage is not an appropriate metric to calculate the fees imposed on residential housing projects for the storm drainage fees:

- **An explanation as to why square footage is not an appropriate metric to calculate fees imposed on housing development project.** Storm drainage fees should be assessed based on the increase in impervious surface area, as this directly correlates with stormwater runoff. Square footage is not an appropriate metric because multi-story structures with identical footprints do not increase runoff proportionally to their total floor area. Fees that are calculated based on the estimated impervious surface, more accurately account for storm drainage impacts. Higher-density developments typically generate more impervious coverage per acre than lower-density developments, and the fee structure reflects this variation. Using impervious area as the basis for storm drainage fees ensures a hydraulically relevant and equitable assessment of storm drainage impacts.

- **An explanation that an alternative basis of calculating the fee bears a reasonable relationship between the fee charged and the burden posed by the development.** The storm drainage fees are charged on a per acre basis with three different residential fee categories based on the density of development. The fees vary based on the impervious area each land use is expected to generate based on the per acre impervious factors included in the Storm Drain Master Plan. Because the fee is based on the additional impervious acres generated by each land use, this methodology provides a reasonable relationship between the amount of the fee charged and the burden posed by each development.

- **That other policies in the fee structure support smaller developments, or otherwise ensure that smaller developments are not charged disproportionate fees.** The storm drainage fees are structured across various residential land use categories and reflect the relationship between density and impervious area. Higher-density developments typically have more units per acre with smaller unit sizes. Charging fees by acre results in a lower cost per-unit than larger, detached single family residential units which aligns with the expected stormwater generation. The fee calculation is based on the estimated impervious acreage associated with each land use category, ensuring that the fees are proportional to the impacts created by the project. By utilizing an impervious acreage methodology for determining the fee, smaller developments are not charged disproportionate fees.

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Section 2 LAND USE ASSUMPTIONS

LAND USE TYPES

To ensure a reasonable relationship between each fee and the type of development paying the fee, different land use types must be distinguished. The land use categories used in this analysis were derived from the City of Costa Mesa General Plan and are defined below.

- **Low Density Residential:** Detached single-family dwelling units. Includes very low density, low density, and age-restricted units containing less than 8 units per acre.
- **Medium Density Residential:** Intended to support single and multi-family developments with a density of up to 12 units per acre.
- **High Density Residential**: Intended for residential development with a density of up to 20 units per acre.
- **Accessory Dwelling Unit (ADU)**: A second unit, attached or detached from a SFR.
- **Commercial**: All commercial, retail, educational, and mixed-use development.
- **Industrial**: All research and development, manufacturing, and warehouse development.

For purposes of fee calculation, land uses are subject to fees based on the density of the development. For example, the medium density residential fee will be charged for development densities between 8 and 12 units per acre.

Some developments may include more than one land use type, such as an industrial warehouse with living quarters (a live-work designation) or a mixed-use development with both Retail and Residential land uses. In these cases, the fees will be calculated separately for each land use type. Note that an Accessory Dwelling Unit (ADU) is defined as a second unit, attached, or detached from a Single Family Residential (SFR) unit.

GROWTH FORECASTS

Growth projections are used as indicators of demand. In terms of a storm drainage network demand is categorized as impervious area. The City's existing land uses, as well as the City's land use projections at buildout, are critical assumptions used throughout the fee sections that follow in this report. The following resources were used as part of this analysis:

- Existing land use data was provided by the City's Community Development Department.
- Future land use projections were derived from the Storm Drain Master Plan that were based on the City's 2035 General Plan and updated to incorporate the City's certified 6th Cycle Housing Element

Table 2-1: Projected Future Land Use – Santa Ana Watershed

Land Use	Acres [1]
Residential	
Low Density Residential	1,374.18
Medium Density Residential	272.82
High Density Residential	357.17
Non-Residential	
Commercial	375.63
Industrial	488.74

Notes:

1 Future Land Uses is the Santa Ana Watershed were derived from the City of Costa Mesa 2035 General Plan, the City of Costa Mesa Housing Element and the Storm Drainage Master Plan prepared by Q3.

Table 2-2: Projected Future Land Use – Newport Bay Watershed

Land Use	Acres [1]
Residential	
Low Density Residential	989.83
Medium Density Residential	448.11
High Density Residential	464.55
Non-Residential	
Commercial	669.47
Industrial	745.45

Notes:

1 Future Land Uses is the Newport Bay Watershed were derived from the City of Costa Mesa 2035 General Plan, the City of Costa Mesa Housing Element and the Storm Drainage Master Plan prepared by Q3.

Figure 2-1 illustrates the City of Costa Mesa City limits and both of the City's watershed areas: The Santa Ana and Newport Bay watersheds.

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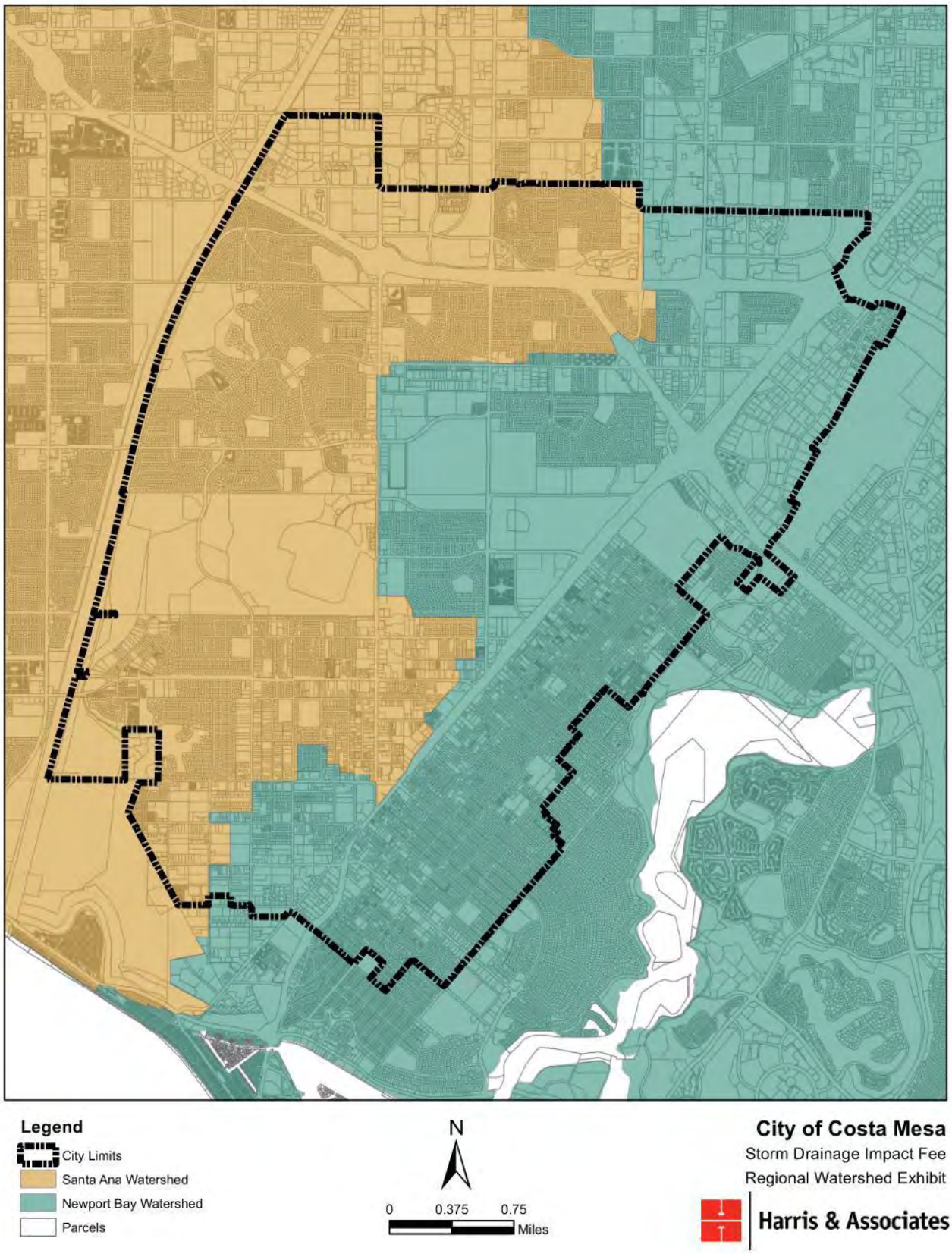
Figure 2-1: City of Costa Mesa Watersheds Map


Legend
City Limits
Santa Ana Watershed
Newport Bay Watershed
Parcels
N
0
0.375
0.75
Miles
City of Costa Mesa
Storm Drainage Impact Fee
Regional Watershed Exhibit
Harris & Associates

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Section 3 SANTA ANA WATERSHED STORM DRAINAGE FEE

BACKGROUND

The City has two major watersheds, the Santa Ana and Newport Bay Watersheds. This section focuses specifically on the Santa Ana Watershed.

The Santa Ana Watershed Storm Drainage Fee is collected for the purpose of maintaining and expanding the capacity of the City's storm drainage system within the Santa Ana Watershed. The Santa Ana Watershed Storm Drainage Fee is calculated using the System Plan Method. The System Plan Method uses an integrated system methodology where the total storm drainage system cost (existing facilities plus future improvements) is divided by the total storm drainage demand, expressed in impervious acres, on the system (existing users and future users). Under this approach, new development funds the expansion of facilities at a proportional rate to the facilities funded by existing development. By definition, the System Plan Method ensures that no facility deficiencies are spread to future development. In other words, if a deficiency exists in the current facility standards, new development is only required to buy into the existing storm drainage system capacity and fund their fair share of the future storm drainage facilities at the same cost per impervious acre as existing development, and the deficiency must be rectified by funding outside of the fee program. Future Development within the City will pay a storm drainage impact fee at building permit issuance to buy into the City's existing storm drainage system and to fund their fair share of the system expansion projects described in this section.

The Storm Drain Master Plan subdivided the City into four subareas for the purpose of modeling a 25-year/24-hour storm event using a rain-on-grid approach in accordance with the Orange County Hydrology Manual. Using the results of the modeling of each subarea, the Storm Drain Master Plan recommended improvements for each model area focusing on flood control and proposing sustainable design methodologies and/or green infrastructure. The North and a portion of the West subareas are within the Santa Ana regional watershed, and the Storm Drain Master Plan modelling identified twenty-one (21) proposed drainage improvement projects to mitigate flooding in conjunction with the existing storm drainage system. These improvements are comprised of construction of new pipes, upsizing of existing pipes, replacement of existing pipes to maintain stormwater capacity and regional stormwater quality improvements. A total of 2% of the costs associated with the corrugated metal pipe replacement has been removed to account for the overlap in linear footage associated with planned upsizing projects. The proposed facilities in the fee program are system backbone improvements that serve the Santa Ana Watershed and do not include on-site infrastructure required by specific development projects. Each development project will be required to construct the specific on-site improvements required to serve their project.

SERVICE POPULATION

Demand for services and the associated facilities for storm drainage facilities are based on the additional impervious acreage that will be generated by new growth in the City through buildout. Impervious surfaces are those that do not allow water to pass through. Impervious acreage is used in the calculation of the Storm Drainage Fee to ensure the relationship between the planned storm drainage facilities the fee will be expended on is related to the impact new development will have on the storm drainage system.

COST SUMMARY AND CIP

The Santa Ana Watershed Storm Drainage Fee will fund the expansion of storm drainage facilities in the Santa Ana Watershed. **Table A-1** in **Appendix A** will also serve as the Santa Ana Watershed Fee Capital Improvement Plan (CIP) list as required by AB 602, which includes the facilities shown in **Table 3-1** which summarizes the future Santa Ana Watershed storm drainage facilities and project costs identified in the Storm Drain Master Plan. Costs were developed based on the current markets on a linear foot basis and include costs for excavation, shoring, bedding, backfill, compaction, removal of excess material, trench resurfacing as well as contingency costs for mobilization, engineering design, surveying, traffic control, environmental permitting, and construction management. **Table 3-2** summarizes the City's existing storm drainage facilities and estimated value within the service area of the Santa Ana Watershed, derived from the hydraulic model utilized in the development of the Storm Drain Master Plan.

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Table 3-1: Santa Ana Watershed Future Improvements Summary

Facility	Location		Total Cost [1]
North Zone			
Harbor Blvd. Line N1	Install 24 & 36 Inch RCP (w/ Surface Restoration)	$	1,511,757.88
Watson Avenue Line N2	Install 18-inch RCP (w/ Surface Restoration)	$	1,760,864.86
McKinley Way Line N3	Install 18, 30, & 36 Inch RCP (w/ Surface Restoration)	$	3,708,777.44
Wimbledon Way Line N4	Install 18 & 36 Inch RCP (w/ Surface Restoration)	$	1,656,265.63
Iowa Street (Inlets Only) - East Side Line N4	Install 18-inch RCP (w/ Surface Restoration)	$	450,234.92
Gisler Ave Line N6	Install 18-inch RCP	$	613,751.14
Iowa Street - West Side Line N7	Catch Basin Inlets (28' L)	$	75,387.50
Mesa Verde Dr. Line N8	Install 18-inch RCP (w/ Surface Restoration)	$	1,038,999.40
Kornat Drive Line N9	Catch Basin Inlets (21'L)	$	69,275.00
Subtotal North Zone Storm Drainage Improvements		$	10,885,313.76
West Zone			
Fairview Park, Upper Canyon SD. Line W1	Install 18-inch RCP	$	1,238,096.25
Canyon Storm Drain Line W2	Install 24, 36 & 48 Inch RCP (w/ Surface Restoration)	$	3,253,575.16
East Canyon Park Line W3	Install 18, 24 & 36 Inch RCP (w/ Surface Restoration)	$	1,274,215.81
16th St./Newport Blvd. Line W6	Install 30-inch RCP (w/ Surface Restoration)	$	1,098,031.03
19th & 18th Street SD Line W7 & W8	Install 18-inch RCP (w/ Surface Restoration)	$	2,381,577.96
Fairview Channel South Model Line W9	Install 18, 24, 42, & 48 Inch RCP (w/ Surface Restoration)	$	12,820,545.93
West of Harbor Blvd. Line W10	Install 18 & 24 Inch RCP (w/ Surface Restoration)	$	1,099,321.26
North of Fairview Channel Line W11	Install 18, 24, & 48 Inch RCP (w/ Surface Restoration)	$	1,695,084.29
Subtotal West Zone Storm Drainage Improvements		$	24,860,447.68
Regional Stormwater Quality Improvements			
Wilson Park	Water Quality Improvements to Meet MS4 Regulations	$	2,538,000.00
Canyon Park	Water Quality Improvements to Meet MS4 Regulations	$	6,067,000.00
Hydrodynamic Separator - Placentia Avenue	Hydrodynamic Separator	$	560,900.00
Subtotal Regional Stormwater Quality Improvements		$	9,165,900.00
Corrugated Metal Pipe Replacement			
Various Locations [2]	Replace Corrugated Metal Pipe Like in Kind to Retain Water Quality	$	2,644,040.00
Subtotal Corrugated Metal Pipe Replacement Improvements		$	2,644,040.00
Total Santa Ana Watershed Storm Drainage Improvements		$	47,555,701.44

Notes:

1 Future facilities and associated costs are inclusive of a soft cost markup of 10% and are derived from the City of Costa Mesa 2024 Storm Drainage Master Plan prepared by Q3.

2 Corrugated Metal Pipe Replacement costs reduced by two percent to account for the overlapping linear footage with upsizing projects.

Source:

City of Costa Mesa 2024 Storm Drainage Master Plan prepared by Q3.

Table 3-2: Santa Ana Watershed Existing Facility Inventory and Summary

Pipe Size [1]	Linear Footage	Cost per LF [2]	Total Cost
Existing Pipes			
18-Inch	13,919.55	*452.52*	$ 6,298,840.48
21-Inch	2,525.83	*468.17*	$ 1,182,523.18
24-Inch	13,239.98	*514.22*	$ 6,808,320.04
27-Inch	3,781.03	*601.94*	$ 2,275,937.58
30-Inch	6,961.12	*586.22*	$ 4,080,717.93
33-Inch	4,113.73	*735.70*	$ 3,026,470.72
36-Inch	11,878.54	658.21	$ 7,818,543.01
39-Inch	766.72	*869.46*	$ 666,634.89
42-Inch	15,840.09	925.60	$ 14,661,646.63
45-Inch	1,372.10	*1,003.23*	$ 1,376,528.33
48-Inch	11,721.44	*1,069.59*	$ 12,537,100.73
51-Inch	4,288.11	*1,136.99*	$ 4,875,544.47
54-Inch	8,291.26	*1,234.14*	$ 10,232,569.22
57-Inch	1,646.98	*1,270.75*	$ 2,092,902.12
60-Inch	8,228.47	*1,522.10*	$ 12,524,591.00
63-Inch	3,155.51	*1,404.52*	$ 4,431,974.15
66-Inch	4,029.57	*1,471.40*	$ 5,929,112.82
69-Inch	1,211.02	*1,538.28*	$ 1,862,890.30
72-Inch	8,141.07	1,707.23	$ 13,898,643.64
78-Inch	2,063.60	*1,738.93*	$ 3,588,450.80
90-Inch	1,622.64	*2,006.45*	$ 3,255,749.52
96-Inch	3,699.29	*2,140.22*	$ 7,917,288.78
114-Inch	1,912.19	*2,541.51*	$ 4,859,848.92
Subtotal Santa Ana Watershed Existing Pipes			$ 136,202,829.26
Existing Structures			
Curb Inlets	509.00	$ 22,000.00	$ 11,198,000.00
Drop Inlets	15.00	$ 22,000.00	$ 330,000.00
Grate Inlet	26.00	$ 22,000.00	$ 572,000.00
Inlet	11.00	$ 22,000.00	$ 242,000.00
Headwall	6.00	$ 8,000.00	$ 48,000.00
Junction	171.00	$ 15,000.00	$ 2,565,000.00
Manhole	263.00	$ 15,000.00	$ 3,945,000.00
Outlet	51.00	$ 8,000.00	$ 408,000.00
Subtotal Santa Ana Watershed Existing Structures			$ 19,308,000.00
Total Santa Ana Watershed Existing Storm Drainage Improvements			$ 155,510,829.26

Notes:

1 Existing storm drainage pipe diameters and lengths derived from the City of Costa Mesa's GIS Database maintained by the Public Works Department.

2 Existing facilities costs per unit derived from the City of Costa Mesa 2024 Storm Drainage Master Plan prepared by Q3.

Source:

City of Costa Mesa Public Works Department.

City of Costa Mesa 2024 Storm Drainage Master Plan prepared by Q3.

FEE METHODOLOGY

The Santa Ana Watershed Storm Drain Fee uses the System Plan methodology for calculating the fee. As stated in the "Impact Fee Nexus Study Template" prepared for the California Department of Housing and Community Development by Terner Center for Housing Innovation at UC Berkeley, the System Plan Method "Estimates the costs for an integrated system of existing and future facilities."

In order to distribute the share of storm drainage system costs to each land use type, the total storm drainage demand of the Santa Ana Watershed through buildout must be calculated. The storm drainage demand factors in terms of impervious acres were sourced from the Storm Drain Master Plan. These demand factors are summarized in **Table 3-3**.

Table 3-3: Impervious Factors

Land Use	Estimated Impervious Factor per Acre
Residential	
Low Density Residential	0.50
Medium Density Residential	0.70
High Density Residential	0.80
Non-Residential	
Commercial	0.90
Industrial	0.90

Notes:
1 Impervious Factors based on the City of Costa Mesa 2024 Storm Drainage Master Plan prepared by Q3.

Source:
City of Costa Mesa 2024 Storm Drainage Master Plan prepared by Q3.

The estimated impervious factors per acre for each land use are then multiplied by the existing land use in the Santa Ana Watershed to calculate existing impervious acres in the Santa Ana Watershed as shown in **Table 3-4**. These impervious acres are added to future development's impervious acres as shown in **Table 3-5** to determine the total impervious acres in in the Santa Ana Watershed under buildout conditions are as shown in **Table 3-6**.

Table 3-4: Existing Santa Ana Watershed Impervious Acres

Land Use	Estimated Impervious Factor per Acre	Acres	Impervious Acres
Residential			
Low Density Residential	0.50	1,430.74	715.37
Medium Density Residential	0.70	522.99	366.09
High Density Residential	0.80	3.26	2.61
Subtotal Residential			1,084.07
Non-Residential			
Commercial	0.90	574.12	516.71
Industrial	0.90	249.92	224.93
Subtotal Non-Residential			741.64
Total Existing Santa Ana Watershed Impervious Acres			1,825.71

Notes:
1 Impervious Factors based on the City of Costa Mesa 2024 Storm Drainage Master Plan prepared by Q3.

Source:
City of Costa Mesa 2024 Storm Drainage Master Plan prepared by Q3.

Table 3-5: Future Santa Ana Watershed Impervious Acres

Land Use	Estimated Impervious Factor per Acre	Acres	Impervious Acres
Residential			
Low Density Residential	0.50	-56.56	-28.28
Medium Density Residential	0.70	-250.17	-175.12
High Density Residential	0.80	353.91	283.13
Subtotal Residential			79.73
Non-Residential			
Commercial	0.90	-198.49	-178.64
Industrial	0.90	238.82	214.94
Subtotal Non-Residential			36.30
Total Future Santa Ana Watershed Impervious Acres			116.03

Notes:
1 Impervious Factors based on the City of Costa Mesa 2024 Storm Drainage Master Plan prepared by Q3.

Source:
City of Costa Mesa 2024 Storm Drainage Master Plan prepared by Q3.

Table 3-6: Buildout Santa Ana Watershed Impervious Acres

Land Use	Estimated Impervious Factor per Acre	Acres	Impervious Acres
Residential			
Low Density Residential	0.50	1,374.18	687.09
Medium Density Residential	0.70	272.82	190.98
High Density Residential	0.80	357.17	285.73
Subtotal Residential			1,163.80
Non-Residential			
Commercial	0.90	375.63	338.07
Industrial	0.90	488.74	439.87
Subtotal Non-Residential			777.94
Total Buildout Santa Ana Watershed Impervious Acres			1,941.74

Notes:
1 Impervious Factors based on the City of Costa Mesa 2024 Storm Drainage Master Plan prepared by Q3.

Source:
City of Costa Mesa 2024 Storm Drainage Master Plan prepared by Q3.

The total Santa Ana Watershed storm drainage system valuation is calculated by taking the City's existing storm drainage improvements for the Santa Ana Watershed and adding in the planned storm drainage improvements for the Santa Ana Watershed. The cost per impervious area is calculated by dividing the total Santa Ana Watershed system valuation by the total impervious acres in the Santa Ana Watershed through buildout. **Table 3-7** calculates the maximum justifiable fee per impervious acre.

Table 3-7: Santa Ana Watershed Improvements Maximum Justifiable Cost per Impervious Acre Calculation

Description		Value
Estimated Future Santa Ana Watershed Project Costs [1]		
North Zone	$	10,885,314
West Zone	$	24,860,448
Regional Water Quality Projects	$	9,165,900
Corrugated Metal Pipe Replacement	$	2,644,040
Total Santa Ana Watershed Storm Drainage Improvements	*$*	*47,555,701*
Existing Pipes [2] [3]	$	155,510,829
Total Santa Ana Watershed System Value	$	203,066,531
Total Impervious Acres at Buildout		1,941.74
Maximum Justifiable fee per Impervious Acre	$	104,580

Notes:

1 Future facilities and associated costs derived from the City of Costa Mesa 2024 Storm Drainage Master Plan prepared by

2 Existing storm drainage pipe diameters and lengths derived from the City of Costa Mesa's GIS Database maintained by the Public Works Department.

3 Existing facilities costs per unit derived from the City of Costa Mesa 2024 Storm Drainage Master Plan prepared by Q3.

Source:

City of Costa Mesa Public Works Department.

City of Costa Mesa 2024 Storm Drainage Master Plan prepared by Q3.

FEE SUMMARY

The Santa Ana Watershed Storm Drainage Fee is based on new development's fair share of the facilities identified for the Santa Ana Watershed in the Storm Drain Master Plan and to buy-in to the City's existing storm drainage facilities for the Santa Ana Watershed.

The Santa Ana Watershed Storm Drainage Fee is calculated using the cost per impervious acre from **Table 3-7**. The Santa Ana Watershed Storm Drainage Fee per impervious acre is then multiplied by the impervious factor for each land use to calculate a fee per acre. **Table 3-8** summarizes the Santa Ana Watershed Storm Drainage Fee.

Table 3-8: Santa Ana Watershed Storm Drainage Fee

Land Use	Fee Per Impervious Acre	Impervious Factor	Fee per Acre	Administration Fee (5%)	Total Fee per Acre
Residential					
Low Density Residential	$ 104,580	0.50	$ 52,290	$ 2,615	$ 54,905
Medium Density Residentia	$ 104,580	0.70	$ 73,206	$ 3,660	$ 76,866
High Density Residential	$ 104,580	0.80	$ 83,664	$ 4,183	$ 87,847
Non-Residential					
Commercial	$ 104,580	0.90	$ 94,122	$ 4,706	$ 98,828
Industrial	$ 104,580	0.90	$ 94,122	$ 4,706	$ 98,828

FEE APPLICABILITY

The Santa Ana Watershed Storm Drainage Fee is imposed on future development in the following cases:

1. New development proposes an improvement, addition or major alteration to an existing structure or construction of an accessory structure, in any form, where the aggregate gross impervious percentage of the parcel as a result of such improvement exceeds the impervious factor for that land use, as shown in **Table 3-3**. The additional impervious gross square footage of the parcel exceeding the impervious factor for that land use is subject to a drainage fee based on the following formula:
    a. Fee = Gross acreage exceeding the impervious factor threshold for that land use acreage x Fee per Impervious Acre
2. New development proposed on vacant land is subject to a drainage fee based on the following formula:
    a. Fee = Gross Parcel Acreage x Fee per Land Use
3. For land use changes, where the impervious factor for the future land uses as identified in **Table 3-3** is greater than the impervious factor of the existing land use as identified in **Table 3-3**, the development is subject to a drainage fee based on the following formula:
    a. Fee = (Drainage Fee per Acre of Future Land Use – Drainage Fee per Acre of Existing Land Use) x Gross Parcel Acreage

The Santa Ana Watershed Storm Drainage Fee is not imposed on future development in the following cases:

1. For accessory dwelling units (ADU) less than 750 square.

2. For reconstruction of existing structures in the event of a disaster where the reconstruction does not increase the impervious area of the parcel.

3. For land use changes where the impervious coefficient for the future land use as identified in the Master Plan of Drainage is less than the impervious coefficient of the existing land use.

CAPITAL IMPROVEMENT PROJECTS AND REVENUE PROJECTIONS

Table 3-9 summarizes the potential fee revenue from the projected future development identified in **Table 3-5**. The revenue collected from the Santa Ana Watershed Storm Drainage Fee will be available to expand the Santa Ana Watershed's storm drainage system to meet the needs of new residents in the Santa Ana Watershed.

Table 3-9: Projected Santa Ana Watershed Storm Drainage Fee Revenue

Land Use	Proposed Fee	Anticipated Growth (Acres)	Anticipated Fee Collection at Buildout [1]	Administration Fee	Unallocated Existing Fund Balance	Total Anticipated Fee Collection at Buildout [1]
Santa Ana Watershed	$ 104,580	116	$ 12,134,417	$ 606,721	$ 194,639	$ 12,935,777
Total						$ 12,935,777

Notes:
1 Total anticipated fee revenue may differ slightly from cost attributable to fee program due to rounding.

Table A-1 in **Appendix A** will also serve as the Storm Drainage Fee CIP list as required by AB 602, which includes the facilities shown in **Table 3-1**. **Table 3-1** identifies the planned facilities that will be funded in part by the Santa Ana Watershed Storm Drainage Fee. These facilities were identified in the Storm Drain Master Plan as necessary to serve the Santa Ana Watershed at buildout. The City will use the CIP facilities identified here to guide their five-year Capital Improvement Plan budget based upon City needs and timing of securing adequate revenue.

Table 3-10 details the proportional allocation of Santa Ana Watershed Storm Drainage fee revenue from the projected future development shown in **Table 3-5** to the proposed Santa Ana Watershed Storm Drainage facilities shown in **Table 3-1**.

Table 3-10: Proportional Allocation of Anticipated Fee Revenue to Proposed Santa Ana Watershed Storm Drainage Facilities

Description	Impervious Acres	Proportion of Impervious Acres	Proportional Share of Buildout Facilities [1]	Anticipated Buildout Facilties Funding [2]	Anticipated Funding Share of Buildout Facilities	CIP Funding [2] [3]
Existing Development	1,825.71	94.02%	$ 190,932,151.46	$ 190,932,113.30	94.02%	$ 35,421,284.04
Future Development	116.03	5.98%	$ 12,134,379.25	$ 12,134,417.40	5.98%	$ 12,134,417.40
Total	1,941.74	100.00%	$ 203,066,530.70	$ 203,066,530.70	100.00%	$ 47,555,701.44

Notes:
1 The proportional share of buildout facilities derived by multiplying the proportion of impervious acres generated by the buildout storm drainage system valuation.
2 Existing Development's fair share of the CIP projects will be derived from a combination of general fund contributions, grants, sales tax measures or other eligible funding sources as established by the City.
3 Future development's fair share of the CIP will not be utilized to rectify any deficiencies in the City's existing facilities.

EXISTING AND PROPOSED LEVEL OF SERVICE

AB 602 states, "When applicable, the nexus study shall identify the existing level of service for each public facility, identify the proposed new level of service and include an explanation of why the new level of service is appropriate." The required findings are as follows.

Identification of the Existing Level of Service

A standard of service refers to adopted policies in law or practice that are either in place for a particular service or are intended to be. There must be sufficient capacity in the storm drainage systems to provide a consistent level of service for all customers at the appropriate service standard. When the existing standards of service are not being met, a deficiency exists.

Per the City's Storm Drainage Master Plan adopted in 2024, the City maintains a storm drainage system that outfalls in two locations, the Santa Ana Rive and Newport Bay. These drainage sheds are further divided into four subareas, north, west, east (north) and east (south). The City conveys stormwater from these subareas to the outfall locations utilizing open channels, closed conduits, catch basins, laterals, manholes, pump stations, and other related facilities. The total length of existing pipelines is approximately 65,150 linear feet or approximately 12.34 miles. As described in the 2024 Storm Drainage Master Plan, a majority of the City's existing storm drainage network does not have the capacity to accommodate stormwater flows under 25-year storm events. The specific locations where the City is not able to accommodate the stormwater runoff from a 25-year storm event is summarized in Appendix C and Appendix D of the 2024 Storm Drainage Master Plan. The upgrade of the storm drainage infrastructure to accommodate the 25-year storm event under current conditions will be funded by existing development's fair share of the Storm Drainage Master Plan's CIP.

Identification of the Proposed Level of Service and Rationale

The Government Code states that the Nexus Study, if appropriate, shall identify the proposed new level of service and include an explanation of why the new level of service is appropriate. Under the System Plan Methodology, the City's storm drainage level of service is defined as meeting the capacity requirements for a 25-year/24-hour design storm event using a rain-on-grid approach, as established in the Orange Cunty Hydrology Manual, while also ensuring the protection of property and maintaining one "dry" lane of travel within a street to allow for emergency vehicles to have access for collector streets and two "dry" lanes for major arterial streets. Under this approach, the City's storm drainage fee is based on an integrated system of existing and planned storm drain facilities, with the future standard attributable to new development calculated by dividing the value of the existing system plus the cost of planned improvements by total horizon-year impervious acres.

Utilizing the proposed level of service is appropriate because:

- It establishes a consistent cost per impervious acres for both existing and future development.
- It ensures new development contributes its proportional fair share of the storm drainage facilities required to mitigate the additional runoff generated by future increases in impervious surface area.
- If new development did not provide funding to mitigate their storm water runoff at the same cost per impervious acre as the costs attributable to existing development, the level of service would decrease citywide and negatively impact both existing and future development through an increase in flood events.
- The System Plan Methodology ensures that new development is not required to remedy existing deficiencies.

Because the proposed City of Costa Mesa's Santa Ana Watershed Storm Drainage fee is utilizing the System Plan Methodology, which calculates the proposed fee utilizing the total value of the existing improvements plus the cost of future improvements and subsequently dividing by the total impervious acres at buildout, future development funds an integrated system of facilities at the future standard applicable to new development. Since the System Plan Method spreads the totality of storm drainage improvements based on the total impervious acres at the horizon year, existing deficiencies are by definition not being spread to future development and new development is not funding a higher level of service that is applied to existing development.

Existing deficiencies identified in Appendix C and Appendix D of the 2024 Storm Drainage Master Plan are not attributable to new development and therefore are not included in the proportional share assigned to future development. New development will fund only its fair share of system expansions needed to serve horizon-year impervious acreage. This proportionate share of the systemwide improvements attributed to existing development, approximately 94.02% of the buildout improvements as shown in **Table 3-10**, will be funded by a combination of alternative funding sources including but not limited to, the City's General Fund, grants and special tax assessments.

The planned capital projects in **Table 3-1** were identified in the Storm Drainage Master Plan to either maintain existing levels of service as growth occurs or to not perpetuate deficiencies.

NEXUS REQUIREMENT SUMMARY

AB 1600 requires that public agencies satisfy five requirements when establishing, increasing, or imposing a fee as a condition of approval of a development project. The required findings are as follows.

Requirement 1: Identify the purpose of the fee.

The purpose of the Santa Ana Watershed Storm Drainage Fee is to fund the facilities that are necessary to convey stormwater runoff from the increased impervious area created by future development in the Santa Ana Watershed to the outfall in the Santa Ana River. To accommodate this increased stormwater runoff, new facilities must be built and/or existing facilities expanded as identified in the 2024 Storm Drain Master Plan and shown in Appendix A, as amended under Government Code 66002.

Requirement 2: Identify the use of the fee.

The Santa Ana Watershed Storm Drainage Fee will be used to fund a portion of the storm drainage projects shown in **Table 3-1**. These storm drainage projects were identified in the Storm Drain Master Plan, as the facilities required to mitigate storm drainage run-off in the Santa Ana Watershed which ensures that new development has adequate capacity in the storm drainage system to handle the additional stormwater runoff.

Requirement 3: Determine how there is a reasonable relationship between the fee's use and the type of development project on which the fee is imposed.

The Santa Ana Watershed Storm Drainage Fee will be used to fund a portion of the new storm drainage facilities and improvements identified in the Storm Drain Master Plan for the Santa Ana Watershed as shown in Appendix A, as amended under Government Code 66002. The fee for each development project is calculated based on the estimated impervious area added by each land use type. This correlation ensures that the fee is equal to the stormwater runoff generated by that specific land use. The EDU calculations based on the impervious factor for each land use are shown in **Table 3-3.** The fee calculations are shown in **Table 3-7** and **Table 3-8**.

Requirement 4: Determine how there is a reasonable relationship between the need for the public facility and the type of development project on which the fee is imposed.

New development requires sufficient capacity in the storm drainage system to convey stormwater runoff created by the increased impervious area within the Santa Ana Watershed. Ensuring there is sufficient capacity to accommodate stormwater runoff in the Santa Ana Watershed storm drainage system requires the construction of new storm drainage lines or upsizing existing storm drainage lines. Each new residential and non-residential development pays an impact fee based on

the amount of impervious area it is expected to add to the Santa Ana Watershed. This calculation is shown in **Table 3-7** and **Table 3-8.**

Requirement 5: Determine how there is a reasonable relationship between the amount of the fee and the cost of the public facility or portion of the public facility attributable to the development on which the fee is imposed.

The storm drainage improvements required to ensure new development in the Santa Ana Watershed service area has sufficient capacity to convey stormwater runoff are shown in **Table 3-1**. Land use projections were identified for the buildout of the City and impervious acres were calculated based on the estimated impervious factors for the various land uses as shown in **Table 3-3**.

To ensure that each land use only pays their fair share of the storm drainage improvements in the Santa Ana Watershed, based on their impervious acres generated, the total system valuation including existing improvements and identified necessary future improvements were spread to the total impervious acres in the Santa Ana Watershed as shown in **Table 3-7**, to calculate the maximum justifiable fee per impervious acre. The calculation to spread the fair share system costs per impervious acre over the various land uses is shown in **Table 3-8**. The fee methodology ensures that each land use only pays for their fair share of capacity in the storm drainage system based on the amount of impervious acres estimated for that land use.

New development accounts for approximately 5.98% of the buildout acres of impervious surface area therefore, new development is funding 5.98% of the total buildout storm drainage network valuation (5.98% of $203.1M which equals $12.1 million). This reflects the proportional share attributable to growth. Therefore, new development is projected to fund approximately $12.1 million of the total $47.5 million in programmed facility improvements. The remaining $35.42 million in required funding will be derived from a combination of other funding sources including but not limited to general fund contributions, special tax assessments and grants as shown in **Table 3-10.**

Section 4 NEWPORT BAY WATERSHED STORM DRAINAGE FEE

BACKGROUND

The City has two major watersheds, the Santa Ana and Newport Bay Watersheds. This section focuses specifically on the Newport Bay Watershed.

The Newport Bay Watershed Storm Drainage Fee is collected for the purpose of maintaining and expanding the capacity of the City's storm drainage system within the Newport Bay Watershed. The Newport Bay Watershed Storm Drainage Fee is calculated using the System Plan Method. The System Plan Method uses an integrated system methodology where the total storm drainage system cost (existing facilities plus future improvements) is divided by the total storm drainage demand, expressed in impervious acres, on the system (existing users and future users). Under this approach, new development funds the expansion of facilities at a proportional rate to the facilities funded by existing development. By definition, the System Plan Method ensures that no facility deficiencies are spread to future development. In other words, if a deficiency exists in the current facility standards, new development is only required to buy into the existing storm drainage system capacity and fund their fair share of the future storm drainage facilities at the same cost per impervious acre as existing development, and the deficiency must be rectified by funding outside of the fee program. Future Development within the City will pay a storm drainage impact fee at building permit issuance to buy into the City's existing storm drainage system and to fund their fair share of the system expansion projects described in this section.

The Storm Drain Master Plan subdivided the City into four subareas for the purpose of modeling a 25-year/24-hour storm event using a rain-on-grid approach in accordance with the Orange County Hydrology Manual. Using the results of the modeling of each subarea, the Storm Drain Master Plan recommended improvements for each model area focusing on flood control and proposing sustainable design methodologies and/or green infrastructure. The East (north), East (south) and a portion of the West subareas are within the Newport Bay regional watershed and the Storm Drain Master Plan modelling identified fifteen (15) proposed drainage improvement projects to mitigate flooding in conjunction with the existing storm drainage system. These improvements are comprised of construction of new pipes, upsizing of existing pipes, replacement of existing pipes to maintain stormwater capacity and regional stormwater quality improvements. A total of 2% of the costs associated with the corrugated metal pipe replacement has been removed to account for the overlap in linear footage associated with planned upsizing projects. The proposed facilities in the fee program are system backbone improvements that serve the Newport Bay Watershed and do not include on-site infrastructure required by specific development projects. Each development project will be required to construct the specific on-site improvements required to serve their project.

SERVICE POPULATION

Demand for services and the associated facilities for storm drainage facilities are based on the additional impervious acreage that will be generated by new growth in the City through buildout. Impervious surfaces are those that do not allow water to pass through. Impervious acreage is used in the calculation of the Storm Drainage Fee to ensure the relationship between the planned storm drainage facilities the fee will be expended on is related to the impact new development will have on the storm drainage system.

COST SUMMARY AND CIP

The Newport Bay Watershed Storm Drainage Fee will fund the expansion of storm drainage facilities in the Newport Bay Watershed. **Table A-1** in **Appendix A** will also serve as the Newport Bay Watershed Storm Drainage Fee Capital Improvement Plan (CIP) list as required by AB 602, which includes the facilities shown in **Table 4-1** which summarizes the future Newport Bay Watershed storm drainage facilities and project costs identified in the Storm Drain Master Plan. Costs were developed based on the current market on a linear foot basis and include costs for excavation, shoring, bedding, backfill, compaction, removal of excess material, trench resurfacing as well as contingency costs for mobilization, engineering design, surveying, traffic control, environmental permitting, and construction management. **Table 4-2** summarizes the City's existing storm drainage facilities and estimated value within the service area of the Newport Bay Watershed, derived from the hydraulic model utilized in the development of the Storm Drain Master Plan.

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Table 4-1: Newport Bay Watershed Future Improvements Summary

Facility	Description		Total Cost
North East Zone			
West Side Line E1N	Install 51 Inch RCP (w/ Surface Restoration) and Appurtenant Facilities	$	3,500,456.16
La Salle Avenue Line E2N	Install 18, 24, 30, & 60 Inch RCP (w/ Surface Restoration)	$	3,298,726.39
Drake Avenue Line E3N	Install 18 & 24 Inch RCP (w/ Surface Restoration)	$	949,313.22
Subtotal North East Zone Storm Drainage Improvements		*$*	*7,748,495.77*
South East Zone			
Santa Ana Ave. Central Line E1s	Install 18, 24, 36, 48, & 72 Inch RCP (w/ Surface Restoration)	$	18,519,864.76
Northwest of E1s Line E2s	Install 18, 24, 36, & 42 Inch RCP (w/ Surface Restoration)	$	3,620,480.35
Orange Ave/ Central Line E3s	Install 18, 42, 60, & 84 Inch RCP (w/ Surface Restoration)	$	10,143,889.95
East side of Newport Coast Line E4s	Install 18, 24, 36, & 42 Inch RCP (w/ Surface Restoration)	$	5,127,020.81
Del Mar Avenue Line E5s	Install 42-inch RCP (w/ Surface Restoration)	$	886,897.51
Irvine Avenue Line E6s	Install 12, 18, & 24 Inch RCP (w/ Surface Restoration)	$	2,560,908.81
E 18th Street Line E7s	Install 12 & 18 Inch RCP (w/ Surface Restoration)	$	324,960.21
Subtotal Storm Drainage Improvements		*$*	*41,184,022.40*
West Zone			
Pomona/17th Storm Drain - Local Alternatives Line W4	Install 18 & 36 Inch RCP (w/ Surface Restoration)	*$*	*6,356,678.06*
East of Harbor Blvd. Line W5	Install 18 & 36 Inch RCP (w/ Surface Restoration)	*$*	*1,542,318.94*
Subtotal Storm Drainage Improvements		*$*	*7,898,997.00*
Regional Stormwater Quality Improvements			
Lions Park	Water Quaility Improvements to Meet MS4 Regulations	*$*	*2,924,000.00*
Hydrodynamic Seperator - Harper Park/18th Street	Hydrodynamic Seperator	*$*	*450,000.00*
Subtotal Regional Stormwater Quality Improvements		*$*	*3,374,000.00*
Corrugated Metal Pipe Replacement			
Various Locations [2]	Replace Corrugated Metal Pipe Like in Kind to Retain Water Quality	*$*	*4,793,180.00*
Subtotal Corrugated Metal Pipe Replacement Improvements		*$*	*4,793,180.00*
Total Newport Bay Watershed Storm Drainage Improvements		$	64,998,695.17

Notes:

1 Future facilities and associated costs derived from the City of Costa Mesa 2024 Storm Drainage Master Plan prepared by Q3.

Source:

City of Costa Mesa 2024 Storm Drainage Master Plan prepared by Q3.

Table 4-2: Newport Bay Watershed Existing Facility Inventory and Summary

Pipe Size [1]	Linear Footage / Quantity		Unit Cost [2]		Total Cost
Existing Pipes					
18-Inch	25,275.27	$	*452.52*	$	11,437,500.49
20-Inch	253.55	$	*451.36*	$	114,439.24
21-Inch	2,583.61	$	*473.92*	$	1,224,437.49
24-Inch	23,700.74	$	*514.22*	$	12,187,502.24
26-Inch	172.40	$	*586.76*	$	101,158.05
27-Inch	1,376.81	$	*609.33*	$	838,931.77
30-Inch	8,399.91	$	*586.22*	$	4,924,162.53
33-Inch	6,122.81	$	*744.74*	$	4,559,892.20
36-Inch	14,418.01	$	658.21	$	9,490,038.50
39-Inch	1,215.43	$	*880.15*	$	1,069,755.21
42-Inch	6,640.36	$	925.60	$	6,146,346.66
45-Inch	3,044.39	$	*1,015.55*	$	3,091,737.78
48-Inch	13,127.00	$	*1,069.59*	$	14,040,468.34
51-Inch	2,808.22	$	*1,150.96*	$	3,232,147.39
54-Inch	17,665.16	$	*1,234.14*	$	21,801,258.17
57-Inch	3,339.12	$	*1,286.37*	$	4,295,331.98
60-Inch	6,451.98	$	*1,522.10*	$	9,820,586.89
63-Inch	1,138.82	$	*1,421.77*	$	1,619,140.02
66-Inch	6,128.83	$	*1,489.48*	$	9,128,743.75
69-Inch	1,750.00	$	*1,557.18*	$	2,725,065.79
72-Inch	2,411.34	$	1,707.23	$	4,116,692.72
78-Inch	1,867.00	$	*1,760.29*	$	3,286,463.20
84-Inch	1,503.72	$	2,126.83	$	3,198,160.28
Subtotal Newport Bay Watershed Existing Pipes				$	132,449,960.69
Existing Structures					
Curb Inlets	607.00	$	22,000.00	$	13,354,000.00
Drop Inlets	36.00	$	22,000.00	$	792,000.00
Grate Inlet	32.00	$	22,000.00	$	704,000.00
Inlet	26.00	$	22,000.00	$	572,000.00
Headwall	4.00	$	8,000.00	$	32,000.00
Junction	279.00	$	15,000.00	$	4,185,000.00
Manhole	302.00	$	15,000.00	$	4,530,000.00
Outlet	52.00	$	8,000.00	$	416,000.00
Subtotal Newport Bay Watershed Existing Structures				$	24,585,000.00
Total Newport Bay Watershed Existing Storm Drainage Improvements				$	157,034,960.69

Notes:

1 Existing storm drainage pipe diamaters and lengths derived from the City of Costa Mesa's GIS Database maintained by the Public Works Department.

2 Existing facilities costs per unit derived from the City of Costa Mesa 2024 Storm Drainage Master Plan prepared by Q3.

Source:

City of Costa Mesa Public Works Department.

City of Costa Mesa 2024 Storm Drainage Master Plan prepared by Q3.

FEE METHODOLOGY

The Newport Bay Watershed Storm Drain Fee uses the System Plan methodology for calculating the fee. As stated in the "Impact Fee Nexus Study Template" prepared for the California Department of Housing and Community Development by Terner Center for Housing Innovation at UC Berkeley, the System Plan Method "Estimates the costs for an integrated system of existing and future facilities."

In order to distribute the share of storm drainage system costs to each land use type, the total storm drainage demand of the Newport Bay Watershed through buildout must be calculated. The storm drainage demand factors in terms of impervious acres were sourced from the Storm Drain Master Plan. These demand factors are summarized in **Table 4-3.**

Table 4-3: Impervious Factors

Land Use	Estimated Impervious Factor per Acre
Residential	
Low Density Residential	0.50
Medium Density Residential	0.70
High Density Residential	0.80
Non-Residential	
Commercial	0.90
Industrial	0.90

Notes:

1 Impervious Factors based on the City of Costa Mesa 2024 Storm Drainage Master Plan prepared by Q3.

Source:

City of Costa Mesa 2024 Storm Drainage Master Plan prepared by Q3.

The estimated impervious factors per acre for each land use are then multiplied by the existing land use in the Newport Bay Watershed to calculate existing impervious acres in the Newport Bay Watershed as shown in **Table 4-4**. These impervious acres are added to future development's impervious acres as shown in **Table 4-5** to determine the total impervious acres in the Newport Bay Watershed as shown in **Table 4-6**.

Table 4-4: Existing Newport Bay Watershed Impervious Acres

Land Use	Estimated Impervious Factor per Acre	Acres	Impervious Acres
Residential			
Low Density Residential	0.50	1,090.43	545.21
Medium Density Residential	0.70	716.04	501.23
High Density Residential	0.80	73.94	59.15
Subtotal Residential			1,105.59
Non-Residential			
Commercial	0.90	859.45	773.51
Industrial	0.90	336.34	302.71
Subtotal Non-Residential			1,076.22
Total Existing Newport Bay Watershed Impervious Acres			2,181.81

Notes:
1 Impervious Factors based on the City of Costa Mesa 2024 Storm Drainage Master Plan prepared by Q3.

Source:
City of Costa Mesa 2024 Storm Drainage Master Plan prepared by Q3.

Table 4-5: Future Newport Bay Watershed Impervious Acres

Land Use	Estimated Impervious Factor per Acre	Acres	Impervious Acres
Residential			
Low Density Residential	0.50	-100.60	-50.30
Medium Density Residential	0.70	-267.93	-187.55
High Density Residential	0.80	390.61	312.49
Subtotal Residential			74.64
Non-Residential			
Commercial	0.90	-189.98	-170.98
Industrial	0.90	409.11	368.20
Subtotal Non-Residential			197.22
Total Future Newport Bay Watershed Impervious Acres			271.86

Notes:
1 Impervious Factors based on the City of Costa Mesa 2024 Storm Drainage Master Plan prepared by Q3.

Source:
City of Costa Mesa 2024 Storm Drainage Master Plan prepared by Q3.

Table 4-6: Buildout Newport Bay Watershed Impervious Acres

Land Use	Estimated Impervious Factor per Acre	Acres	Impervious Acres
Residential			
Low Density Residential	0.50	989.83	494.91
Medium Density Residential	0.70	448.11	313.68
High Density Residential	0.80	464.55	371.64
Subtotal Residential			1,180.23
Non-Residential			
Commercial	0.90	669.47	602.53
Industrial	0.90	745.45	670.91
Subtotal Non-Residential			1,273.44
Total Buildout Newport Bay Watershed Impervious Acres			2,453.67

Notes:
1 Impervious Factors based on the City of Costa Mesa 2024 Storm Drainage Master Plan prepared by Q3.

Source:
City of Costa Mesa 2024 Storm Drainage Master Plan prepared by Q3.

The total Newport Bay Watershed storm drainage system valuation is calculated by taking the City's existing storm drainage improvements for the Newport Bay Watershed and adding in the planned storm drainage improvements for the Newport Bay Watershed. The cost per impervious area is calculated by dividing the total Newport Bay Watershed system valuation by the total impervious acres in the Newport Bay Watershed through buildout. **Table 4-7** calculates the maximum justifiable fee per impervious acre.

Table 4-7: Newport Bay Watershed Improvements Maximum Justifiable Cost per Impervious Acre Calculation

Description		Value
Estimated Future Newport Bay Watershed Project Costs [1]		
North East Zone	$	7,748,496
South East Zone	$	41,184,022
West Zone	$	7,898,997
Regional Water Quality Projects	$	3,374,000
Corrugated Metal Pipe Replacement	$	4,793,180
Total Newport Bay Watershed Storm Drainage Improvements	*$*	*64,998,695*
Existing Pipes [2] [3]	$	157,034,961
Total Newport Bay Watershed System Value	*$*	*222,033,656*
Total Impervious Acres at Buildout		2,453.67
Maximum Justifiable fee per Impervious Acre	$	90,490

Notes:

1 Future facilities and associated costs derived from the City of Costa Mesa 2024 Storm Drainage Master Plan prepared by Q3.

2 Existing storm drainage pipe diameters and lengths derived from the City of Costa Mesa's GIS Database maintained by the Public Works Department.

3 Existing facilities costs per unit derived from the City of Costa Mesa 2024 Storm Drainage Master Plan prepared by Q3.

Source:

City of Costa Mesa Public Works Department.

City of Costa Mesa 2024 Storm Drainage Master Plan prepared by Q3.

FEE SUMMARY

The Newport Bay Watershed Storm Drainage Fee is based on new development's fair share of the facilities identified for the Newport Bay Watershed in the Storm Drain System Master Plan and to buy-in to the City's existing storm drainage facilities for the Newport Bay Watershed.

The Newport Bay Watershed Storm Drainage Fee is calculated using the cost per impervious acre from **Table 4-7**. The Newport Bay Watershed Storm Drainage Fee per impervious acre is then multiplied by the impervious factor for each land use to calculate a fee per acre. **Table 4-8** summarizes the Newport Bay Watershed Storm Drainage Fee.

Table 4-8: Newport Bay Watershed Storm Drainage Fee

Land Use	Fee Per Impervious Acre	Impervious Factor	Fee per Acre	Administration Fee (5%)	Total Fee per Acre
Residential					
Low Density Residential	$ 90,490	0.50	$ 45,245	$ 2,262	$ 47,507
Medium Density Residential	$ 90,490	0.70	$ 63,343	$ 3,167	$ 66,510
High Density Residential	$ 90,490	0.80	$ 72,392	$ 3,620	$ 76,012
Non-Residential					
Commercial	$ 90,490	0.90	$ 81,441	$ 4,072	$ 85,513
Industrial	$ 90,490	0.90	$ 81,441	$ 4,072	$ 85,513

FEE APPLICABILITY

The Newport Bay Watershed Storm Drainage Fee is imposed on future development in the following cases:

1. New development proposes an improvement, addition or major alteration to an existing structure or construction of an accessory structure, in any form, where the aggregate gross impervious percentage of the parcel as a result of such improvement exceeds the impervious factor for that land use, as shown in **Table 4-3**. The additional impervious gross square footage of the parcel exceeding the impervious factor for that land use is subject to a drainage fee based on the following formula:
    a. Fee = Gross acreage exceeding the impervious factor threshold for that land use acreage x Fee per Impervious Acre
2. New development proposed on vacant land is subject to a drainage fee based on the following formula:
    a. Fee = Gross Parcel Acreage x Fee per Land Use
3. For land use changes, where the impervious factor for the future land uses as identified in **Table 3-3** is greater than the impervious factor of the existing land use as identified in **Table 3-3**, the development is subject to a drainage fee based on the following formula:
    a. Fee = (Drainage Fee per Acre of Future Land Use – Drainage Fee per Acre of Existing Land Use) x Gross Parcel Acreage

The Newport Bay Watershed Storm Drainage Fee is not imposed on future development in the following cases:

1. For accessory dwelling units (ADU) less than 750 square.

2. For reconstruction of existing structures in the event of a disaster where the reconstruction does not increase the impervious area of the parcel.

3. For land use changes where the impervious coefficient for the future land use as identified in the Master Plan of Drainage is less than the impervious coefficient of the existing land use.

CAPITAL IMPROVEMENT PROJECTS AND REVENUE PROJECTIONS

Table 4-9 summarizes the potential fee revenue from the projected future development identified in **Table 4-5**. The revenue collected from the Newport Bay Watershed Storm Drainage Fee will be available to expand the Newport Bay Watershed's storm drainage system to meet the needs of new residents in the Newport Bay Watershed.

Table 4-9: Projected Newport Bay Watershed Storm Drainage Fee Revenue

Land Use	Proposed Fee	Anticipated Growth (Acres)	Anticipated Fee Collection at Buildout [1]	Administration Fee	Unallocated Existing Fund Balance	Total Anticipated Fee Collection at Buildout [1]
Newport Bay Watershed	$ 90,490	$ 272	$ 24,600,611	$ 1,230,031	$ 245,955	$ 26,076,597
Total						$ 26,076,597

Notes:
1 Total anticipated fee revenue may differ slightly from cost attributable to fee program due to rounding.

Table A-1 in Appendix A will also serve as the Storm Drainage Fee CIP list as required by AB 602, which includes the facilities shown in **Table 4-1**. **Table 4-1** identifies the planned of the facilities that will be funded in part by the Newport Bay Watershed Storm Drainage Fee. These facilities were identified in the Storm Drain Master Plan as necessary to serve the Newport Bay Watershed at buildout. The City will use the CIP facilities identified here to guide their five-year Capital Improvement Plan budget based upon City needs and timing of securing adequate revenue.

Table 4-10 details the proportional allocation of Newport Bay Watershed Storm Drainage fee revenue from the projected future development shown in **Table 4-5** to the proposed Newport Bay Watershed Storm Drainage facilities shown in **Table 4-1**.

Table 4-10: Proportional Allocation of Anticipated Fee Revenue to Proposed Santa Ana Watershed Storm Drainage Facilities

Description	Impervious Acres	Proportion of Impervious Acres	Proportional Share of Buildout Facilities [1]	Anticipated Buildout Facilties Funding [2]	Anticipated Funding Share of Buildout Facilities	CIP Funding [2] [3]
Existing Development	2,181.81	88.92%	$ 197,432,927.28	$ 197,433,044.46	88.92%	$ 40,398,083.77
Future Development	271.86	11.08%	$ 24,600,728.57	$ 24,600,611.40	11.08%	$ 24,600,611.40
Total	2,453.67	100.00%	$ 222,033,655.86	$ 222,033,655.86	100.00%	$ 64,998,695.17

Notes:
1 The proportional share of buildout facilities derived by multiplying the proportion of impervious acres generated by the buildout storm drainage system valuation.
2 Existing Development's fair share of the CIP projects will be derived from a combination of general fund contributions, grants, sales tax measures or other eligible funding sources as established by the City.
3 Future development's fair share of the CIP will not be utilized to rectify any deficiencies in the City's existing facilities.

EXISTING AND PROPOSED LEVEL OF SERVICE

AB 602 states, "When applicable, the nexus study shall identify the existing level of service for each public facility, identify the proposed new level of service and include an explanation of why the new level of service is appropriate." The required findings are as follows.

Identification of the Existing Level of Service

A standard of service refers to adopted policies in law or practice that are either in place for a particular service or are intended to be. There must be sufficient capacity in the storm drainage systems to provide a consistent level of service for all customers at the appropriate service standard. When the existing standards of service are not being met, a deficiency exists.

Per the City's Storm Drainage Master Plan adopted in 2024, the City maintains a storm drainage system that outfalls in two locations, the Santa Ana Rive and Newport Bay. These drainage sheds are further divided into four subareas, north, west, east (north) and east (south). The City conveys stormwater from these subareas to the outfall locations utilizing open channels, closed conduits, catch basins, laterals, manholes, pump stations, and other related facilities. The total length of existing pipelines is approximately 65,150 linear feet or approximately 12.34 miles. As described in the 2024 Storm Drainage Master Plan, a majority of the City's existing storm drainage network does not have the capacity to accommodate stormwater flows under 25-year storm events. The specific locations where the City is not able to accommodate the stormwater runoff from a 25-year storm event is summarized in Appendix C and Appendix D of the 2024 Storm Drainage Master Plan. The upgrade of the storm drainage infrastructure to accommodate the 25-year storm event under current conditions will be funded by existing development's fair share of the Storm Drainage Master Plan's CIP.

Identification of the Proposed Level of Service and Rationale

The Government Code states that the Nexus Study, if appropriate, shall identify the proposed new level of service and include an explanation of why the new level of service is appropriate. Under the System Plan Methodology, the City's storm drainage level of service is defined as meeting the capacity requirements for a 25-year/24-hour design storm event using a rain-on-grid approach, as established in the Orange Cunty Hydrology Manual, while also ensuring the protection of property and maintaining one "dry" lane of travel within a street to allow for emergency vehicles to have access for collector streets and two "dry" lanes for major arterial streets. Under this approach, the City's storm drainage fee is based on an integrated system of existing and planned storm drain facilities, with the future standard attributable to new development calculated by dividing the value of the existing system plus the cost of planned improvements by total horizon-year impervious acres.

Utilizing the proposed level of service is appropriate because:

- It establishes a consistent cost per impervious acres for both existing and future development.
- It ensures new development contributes its proportional fair share of the storm drainage facilities required to mitigate the additional runoff generated by future increases in impervious surface area.
- If new development did not provide funding to mitigate their storm water runoff at the same cost per impervious acre as the costs attributable to existing development, the level of service would decrease citywide and negatively impact both existing and future development through an increase in flood events.
- The System Plan Methodology ensures that new development is not required to remedy existing deficiencies.

Because the proposed City of Costa Mesa's Newport Bay Watershed Storm Drainage fee is utilizing the System Plan Methodology, which calculates the proposed fee utilizing the total value of the existing improvements plus the cost of future improvements and subsequently dividing by the total impervious acres at buildout, future development funds an integrated system of facilities at the future standard applicable to new development. Since the System Plan Method spreads the totality of storm drainage improvements based on the total impervious acres at the horizon year, existing deficiencies are by definition not being spread to future development and new development is not funding a higher level of service that is applied to existing development.

Existing deficiencies identified in Appendix C and Appendix D of the 2024 Storm Drainage Master Plan are not attributable to new development and therefore are not included in the proportional share assigned to future development. New development will fund only its fair share of system expansions needed to serve horizon-year impervious acreage. This proportionate share of the systemwide improvements attributed to existing development, approximately 88.92% of the future improvements as shown in **Table 4-10**,will be funded by a combination of alternative funding sources including but not limited to, the City's General Fund, grants and special tax assessments.

The planned capital projects in **Table 4-1** were identified in the Storm Drainage Master Plan to either maintain existing levels of service as growth occurs or to not perpetuate deficiencies.

NEXUS REQUIREMENT SUMMARY

AB 1600 requires that public agencies satisfy five requirements when establishing, increasing, or imposing a fee as a condition of approval of a development project. The required findings are as follows.

Requirement 1: Identify the purpose of the fee.

The purpose of the Newport Bay Watershed Storm Drainage Fee is to fund the facilities that are necessary to convey stormwater runoff from the increased impervious area created by future development in the Newport Bay Watershed to the outfall in Newport Bay. To accommodate this increased stormwater runoff, new facilities must be built and/or existing facilities expanded as identified in the 2024 Storm Drain Master Plan and shown in Appendix A, as amended under Government Code 66002.

Requirement 2: Identify the use of the fee.

The Newport Bay Watershed Storm Drainage Fee will be used to fund a portion of the storm drainage projects shown in **Table 4-1**. These storm drainage projects were identified in the Storm Drain Master Plan as the facilities required to mitigate the impact of new development in the Newport Bay Watershed to ensure that the new development would have adequate capacity in the storm drainage system to handle the additional stormwater runoff.

Requirement 3: Determine how there is a reasonable relationship between the fee's use and the type of development project on which the fee is imposed.

The Newport Bay Watershed Storm Drainage Fee will be used to fund a portion of the new storm drainage facilities and improvements identified in the Storm Drain Master Plan for the Newport Bay Watershed as shown in Appendix A, as amended under Government Code 66002. The fee for each development project is calculated based on the estimated impervious area added by each land use type. This correlation ensures that the fee is equal to the stormwater runoff generated by that specific land use. The EDU calculations based on the impervious factor for each land use are shown in **Table 4-3**. The fee calculations are shown in **Table 4-7** and **Table 4-8**.

Requirement 4: Determine how there is a reasonable relationship between the need for the public facility and the type of development project on which the fee is imposed.

New development requires sufficient capacity in the storm drainage system to convey stormwater runoff created by the increased impervious area within the Newport Bay Watershed. Ensuring there is sufficient capacity to accommodate stormwater runoff in the Newport Bay Watershed storm drainage system requires the construction of new storm drainage lines or upsizing existing storm drainage lines. Each new residential and non-residential development pays an impact fee

based on the amount of impervious area it is expected to add to the Newport Bay Watershed. This calculation is shown in **Table 4-7** and **Table 4-8.**

Requirement 5: Determine how there is a reasonable relationship between the amount of the fee and the cost of the public facility or portion of the public facility attributable to the development on which the fee is imposed.

The storm drainage improvements required to ensure new development in the Newport Bay Watershed service area has sufficient capacity to convey stormwater runoff are shown in **Table 4-1**. Land use projections were identified for the buildout of the City and impervious acres were calculated based on the estimated impervious factors for the various land uses as shown in **Table 4-3**.

To ensure that each land use only pays their fair share of the storm drainage improvements in the Newport Bay Watershed, based on their impervious acres generated, the total system valuation including existing improvements and identified necessary future improvements were spread to the total impervious acres in the Santa Ana Watershed as shown in **Table 4-7**, to calculate the maximum justifiable fee per impervious acre. The Newport Bay Watershed storm drainage fee calculation to spread the fair share system costs per impervious acre over the various land uses is shown in **Table 4-8**. The fee methodology ensures that each land use only pays for their fair share of capacity in the storm drainage system based on the amount of impervious acres estimated for that land use.

New development accounts for approximately 11.08% of the buildout acres of impervious surface area therefore, new development is funding 11.08% of the total buildout storm drainage network valuation (11.08% of $222M which equals $24.6 million). This reflects the proportional share attributable to growth. Therefore, new development is projected to fund approximately $24.6 million of the total $65 million in programmed facility improvements. The remaining $40.4 million in required funding will be derived from a combination of other funding sources including but not limited to general fund contributions, special tax assessments and grants as shown in **Table 4-10**.

Section 5 IMPLEMENTATION AND ADMINISTRATION

IMPLEMENTATION

According to the California Government Code, prior to levying a new fee or increasing an existing fee, an agency must hold at least one open and public meeting with at least 30 days' notice. In addition, notice of the time and place of the meeting, including a general explanation of the matter to be considered, and a statement that the data required by this section is available, shall be mailed at least 14 days prior to the meeting to any interested party who files a written request with the local agency for mailed notice of the meeting on new or increased fees or service charges. Any written request for mailed notices shall be valid for one year from the date on which it is filed unless a renewal request is filed.

At least ten days prior to the meeting, the agency must make data on infrastructure costs and funding sources available to the public. Notice of the time and place of the meeting and a general explanation of the matter are to be published in accordance with Section 6062a of the Government Code, which states that publication of notice shall occur for ten days in a newspaper regularly published once a week or more. Two publications, with at least five days intervening between the dates of first and last publication not counting such publication dates, are sufficient. The period of notice commences upon the first day of publication and terminates at the end of the tenth day, including therein the first day.

The new or increased fees shall be effective no earlier than 60 days following the final action on the adoption or increase of the fees. Following adoption of the fees, the fees and supporting information must be placed on the City's website.

FEE PROGRAM ADMINISTRATIVE REQUIREMENTS

The Government Code requires the City to report every year and every fifth-year certain financial information regarding the fees. The City must make available within 180 days after the last day of each fiscal year the following information from the prior fiscal year:

1. Brief description of the type of fee in the account or fund
2. Amount of the fee
3. Beginning and ending balance in the account or fund
4. Amount of fees collected, and the interest earned during the previous year
5. Identification of each public improvement for which fees were expended and the amount of expenditures, including the total percentage of the cost of the public improvement that was funded with fees
6. An identification of an approximate date by which the construction of the public improvement will commence if the local agency determines that sufficient funds have been

collected to complete financing on an incomplete public improvement and the public improvement remains incomplete

7. Description of each interfund transfer or loan made from the account, including the public improvement on which the transferred or loaned fees will be expended, and when each loan will be repaid and the rate of interest the account will receive on the loan
8. Identification of any refunds made once determined that sufficient monies have been collected to fund fee-related projects

On October 11, 2023, California Governor Gavin Newson signed into law AB 516 which amended certain portions of the Mitigation Fee Act related to the annual and five-year reporting requirements. Under AB 516, Requirements 6 and 8 have been expanded to include the following:

6a. Identification of each public improvement identified in the previous report and whether construction began on the approximate date noted

6b. For previously identified projects that did not start construction on the approximate date in the previous report, the reason for the delay and a revised approximate date that the local agency will commence construction, if applicable

8a. For any refunds made, the number of persons or entities identified to receive those refunds

The City must make this information available for public review and must also present it at the next regularly scheduled public meeting not less than 15 days after this information is made available to the public.

For the fifth fiscal year following the first deposit into the account or fund, and every five years thereafter, the City must make the following findings with respect to any remaining funds in the fee account, regardless of whether those funds are committed or uncommitted:

1. Identify the purpose to which the fee is to be put.
2. Demonstrate a reasonable relationship between the fee and the purpose for which it is charged.
3. Identify all sources and amounts of funding anticipated to complete financing any incomplete improvements.
4. Designate the approximate dates on which funding in item (3) above is expected to be deposited into the fee account.

As with the annual disclosure, the five-year report must be made public within 180 days after the end of the City's fiscal year and must be reviewed at the next regularly scheduled public meeting.

FEE ADJUSTMENT PROCEDURES

The City of Costa Mesa Storm Drainage fees may be adjusted periodically to reflect revised facility requirements, receipt of funding from alternative sources (i.e., state or federal grants), revised facilities or costs, changes in demographics, changes in the average unit square footage, or changes in the land use plan. In addition, the fees will be automatically updated each year on July 1st based on the percentage change in the California Construction Cost Index (CCI) from May of the previous year to the most recent May. The base index for the next update shall be the May 2026 CCI.

TIMING OF PAYMENT

Storm drainage fees will be collected pursuant to Title 15-71 of the City of Costa Mesa Municipal Code.

DESIGNATED RESIDENTIAL PROJECTS DEFERRED FEE PAYMENTS

California Senate Bill 937 (SB 937), which became effective on January 1, 2025, significantly delays the collection of fees for residential projects defined as "Designated Residential Development Projects." Specifically, SB 937 states that public agencies may not impose development impact fees on Designated Residential Development Projects until the project receives a Certificate of Occupancy or Temporary Certificate of Occupancy. Furthermore, local agencies may not charge interest on the delayed fee payments for such projects; rather, the fees must reflect the fee amount in place at the time the project's building permits are issued. In addition, the bill extends housing entitlements by 24 months for projects with entitlements issued prior to January 1, 2024, and set to expire on or before December 21, 2025.

SB 937 was designed to incentivize housing production by mitigating the effects of rising construction costs and interest rates, which hinder the financial feasibility of new housing projects. By deferring fee payments with zero interest, SB 937 can help to incentivize housing developers, who must demonstrate financial feasibility to investors and lending institutions before receiving necessary funding. Additionally, by extending entitlements, the bill allows developers more time to raise funding before constructing the project. By providing these incentives to developers, the bill strives to increase housing production, allowing local jurisdictions to fulfill their housing goals.

Housing projects must meet one of the following conditions to be considered a Designated Residential Development Project:

1. 100% of residential units (excluding the manager's unit) are reserved for low-income households.
2. The project meets the requirements regarding a Low Barrier Navigation Center Developments, per Government Code Section 65662.

3. The project is approved by a local government and meets all site-specific criteria, affordability criteria, and objective development standards pertaining to affordable housing developments located in commercial zones or mixed-income housing developments along commercial corridors, as specified by Article 2 (commencing with Section 65912.110) or Article 3 (commencing with Section 65912.120) of Chapter 4.1 of the Government Code.
4. The project is subject to a streamlined ministerial approval process, per Government Code Section 65913.4.
5. The project meets the criteria specified in the Affordable Housing on Faith and Higher Education Lands Act of 2023 (SB4)
6. The project is entitled to a Density Bonus, per Government Code Section 65915.
7. The project features 10 or fewer units.

Although fees are deferred for Designated Residential Development Projects until the project receives a Certificate of Occupancy or Temporary Certificate of Occupancy, it is important to note that public agencies may still collect utility service fees after receiving an application for utility services. In addition, developers may be required to pay development impact fees prior to the Certificate of Occupancy if construction does not commence within five years of the building permit issue date.

CREDITS AND REIMBURSEMENT POLICIES

The City may provide fee credits or reimbursements to developers who dedicate land or construct eligible facilities. Fee credits or reimbursements will be handled pursuant to Title 15-70 of the City of Costa Mesa Municipal Code.

PROGRAMMING REVENUES WITH THE CIP

The City should maintain its Capital Improvement Program (CIP) to adequately plan for future infrastructure needs. The CIP should commit all projected fee revenues and fund balances to specific projects that are necessary to serve growth. The CIP provides documentation necessary for the City to hold funds in a project account for longer than five years if necessary to collect sufficient funds to complete a project. In addition, the CIP is required per AB 602. This report outlines the projects that are to be funded with the fee program and details the CIP that will be adopted in conjunction with the fee study.

Table A-1 in **Appendix A** serves as the City's CIP list as required by AB 602, which includes the facilities discussed in the previous chapters. The City will use the CIP facilities identified in Appendix A to guide their five-year Capital Improvement Plan budgets based upon City needs and timing of securing adequate revenue and will update the anticipated date of construction in the CIP and the City's AB 1600 annual and five-year reports in accordance with Government Code 66002.

FEE REPORTING

Assembly Bill No. 1483, which became effective January 1, 2020, requires that public agencies make the following information available on their website. The following information must be provided:

1. A current schedule of fees, exactions, and affordability requirements imposed by the city, county, or special district, including any dependent special districts, of the city or county applicable to a proposed housing development project, which shall be presented in a manner that clearly identifies the fees, exactions, and affordability requirements that apply to each parcel.
2. All zoning ordinances and development standards, which shall specify the zoning, design, and development standards that apply to each parcel.
3. The list of information required to be compiled pursuant to Section 65940.
4. The current and five previous annual fee reports or the current and five previous annual financial reports, that were required pursuant to AB 1600.
5. An archive of impact fee nexus studies, cost of service studies, or equivalent, conducted by the city, county, or special district on or after January 1, 2018.

Any updates to the above information must be available within 30 days.

ACCESSORY DWELLING UNITS

An accessory dwelling unit (ADU) is a second unit that is attached or detached from a single-family home. Assembly Bill No. 881 approved on October 9, 2019, prohibits charging impact fees for an ADU that is less than 750 square feet. For an ADU that is 750 square feet or larger, storm drainage fees will not be assessed a storm drainage fee unless the parcel's impervious surface exceeds the impervious factor for the parcels land use as the impervious surface area is accounted for in the per acre fee.

SPECIALIZED DEVELOPMENT PROJECTS

The fees in this report may not apply to specialized development projects such as golf courses, cemeteries, sports stadiums, or other specialized land uses. For specialized development projects the City will review the development's impacts to determine the applicable fees. The fee rates presented in this Nexus Study may be reduced, exempted, or waived under certain circumstances as determined by the City. Any exemption or reduction in fees will be based on the City's independent analysis and review of the subject property.

Some developments may include more than one land use type. In these cases, the fee is calculated separately for each land use. The City has the discretion to impose the fees based on the specific aspects of a proposed development regardless of zoning. The fee imposed should be based on the land use type that most closely represents the impacts of the development.

REBUILD OR EXPANSION PROJECTS

The applicability of storm drainage fees for rebuild or expansion projects will be handled pursuant to Title 15-70 of the City of Costa Mesa Municipal Code.

Appendix A: Capital Improvement Plan (CIP)

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Table A-1: Capital Improvement Plan (CIP)

Facility	Total Cost	Fee Program Funding	Funding from Other Funding Sources [1]	Location	Description	Planned Timing
Santa Ana Watershed Facilities						
Harbor Blvd. Line N1	$ 1,511,757.88	$ 392,016.96	$ 1,119,740.91	N-1	Install 24 & 36 Inch RCP (w/ Surface Restoration)	2031
Watson Avenue Line N2	$ 1,760,864.86	$ 456,613.39	$ 1,304,251.46	N-2	Install 18-inch RCP (w/ Surface Restoration)	2033
McKinley Way Line N3	$ 3,708,777.44	$ 961,730.50	$ 2,747,046.93	N-3	Install 18, 30, & 36 Inch RCP (w/ Surface Restoration)	2033
Wimbledon Way Line N4	$ 1,656,265.63	$ 429,489.56	$ 1,226,776.07	N-4	Install 18 & 36 Inch RCP (w/ Surface Restoration)	2038
Iowa Street (Inlets Only) - East Side Line N4	$ 450,234.92	$ 116,751.32	$ 333,483.60	N-5	Install 18-inch RCP (w/ Surface Restoration)	2038
Gisler Ave Line N6	$ 613,751.14	$ 159,153.04	$ 454,598.10	N-6	Install 18-inch RCP	2033
Iowa Street - West Side Line N7	$ 75,387.50	$ 19,548.88	$ 55,838.62	N-7	Catch Basin Inlets (28' L)	2039
Mesa Verde Dr. Line N8	$ 1,038,999.40	$ 269,425.02	$ 769,574.39	N-8	Install 18-inch RCP (w/ Surface Restoration)	2033
Kornat Drive Line N9	$ 69,275.00	$ 17,963.84	$ 51,311.16	N-9	Catch Basin Inlets (21'L)	2039
Fairview Park, Upper Canyon SD. Line W1	$ 1,238,096.25	$ 321,053.22	$ 917,043.03	W-1	Install 18-inch RCP	2030
Canyon Storm Drain Line W2	$ 3,253,575.16	$ 843,691.09	$ 2,409,884.07	W-2	Install 24, 36 & 48 Inch RCP (w/ Surface Restoration)	2030
East Canyon Park Line W3	$ 1,274,215.81	$ 330,419.45	$ 943,796.36	W-3	Install 18, 24 & 36 Inch RCP (w/ Surface Restoration)	2031
16th St./Newport Blvd. Line W6	$ 1,098,031.03	$ 284,732.63	$ 813,298.41	W-6	Install 30-inch RCP (w/ Surface Restoration)	2038
19th & 18th Street SD Line W7 & W8	$ 2,381,577.96	$ 617,571.75	$ 1,764,006.21	W-7 & W-8	Install 18-inch RCP (w/ Surface Restoration)	2031
Fairview Channel South Model Line W9	$ 12,820,545.93	$ 3,324,521.44	$ 9,496,024.49	W-9	Install 18, 24, 42, & 48 Inch RCP (w/ Surface Restoration)	2034
West of Harbor Blvd. Line W10	$ 1,099,321.26	$ 285,067.20	$ 814,254.06	W-10	Install 18 & 24 Inch RCP (w/ Surface Restoration)	2037
North of Fairview Channel Line W11	$ 1,695,084.29	$ 439,555.70	$ 1,255,528.58	W-11	Install 18, 24, & 48 Inch RCP (w/ Surface Restoration)	2033
Regional Stormwater Quality Improvements Wilson Park	$ 2,538,000.00	$ 658,133.86	$ 1,879,866.14	Wilson Park	Water Quality Improvements to Meet MS4 Regulations	2035
Regional Stormwater Quality Improvements Canyon Park	$ 6,067,000.00	$ 1,573,245.92	$ 4,493,754.08	Canyon Park	Water Quality Improvements to Meet MS4 Regulations	2035
Hydrodynamic Separator - Placentia Avenue	$ 560,900.00	$ 145,448.10	$ 415,451.90	Placentia Avenue	Hydrodynamic Separator	2035
Corrugated Metal Pipe Replacement	$ 2,644,040.00	$ 685,631.31	$ 1,958,408.69	Various Locations	Replace Corrugated Metal Pipe Like in Kind to Retain Water Quality	Annually Completed by 2040
Subtotal Santa Ana Watershed Facilities	*$ 47,555,701.44*	*$ 12,331,764.18*	*$ 35,223,937.26*			
Newport Bay Watershed Facilities						
West Side Line E1N	$ 3,500,456.16	$ 1,338,277.52	$ 2,162,178.64	EN-1	Install 51 Inch RCP (w/ Surface Restoration) and Appurtenant Facilities	2032
La Salle Avenue Line E2N	$ 3,298,726.39	$ 1,261,153.17	$ 2,037,573.22	EN-2	Install 18, 24, 30, & 60 Inch RCP (w/ Surface Restoration)	2032
Drake Avenue Line E3N	$ 949,313.22	$ 362,936.85	$ 586,376.36	EN-3	Install 18 & 24 Inch RCP (w/ Surface Restoration)	2032
Santa Ana Ave. Central Line E1s	$ 18,519,864.76	$ 7,080,425.41	$ 11,439,439.35	ES-1	Install 18, 24, 36, 48, & 72 Inch RCP (w/ Surface Restoration)	2036
Northwest of E1s Line E2s	$ 3,620,480.35	$ 1,384,164.59	$ 2,236,315.75	ES-2	Install 18, 24, 36, & 42 Inch RCP (w/ Surface Restoration)	2033
Orange Ave/ Central Line E3s	$ 10,143,889.95	$ 3,878,163.10	$ 6,265,726.85	ES-3	Install 18, 42, 60, & 84 Inch RCP (w/ Surface Restoration)	2035
East side of Newport Coast Line E4s	$ 5,127,020.81	$ 1,960,137.88	$ 3,166,882.93	ES-4	Install 18, 24, 36, & 42 Inch RCP (w/ Surface Restoration)	2031
Del Mar Avenue Line E5s	$ 886,897.51	$ 339,074.38	$ 547,823.13	ES-5	Install 42-inch RCP (w/ Surface Restoration)	2037
Irvine Avenue Line E6s	$ 2,560,908.81	$ 979,074.31	$ 1,581,834.50	ES-6	Install 12, 18, & 24 Inch RCP (w/ Surface Restoration)	2038
E 18th Street Line E7s	$ 324,960.21	$ 124,237.22	$ 200,722.99	ES-7	Install 12 & 18 Inch RCP (w/ Surface Restoration)	2039
Pomona/17th Storm Drain - Local Alternatives Line W4	$ 6,356,678.06	$ 2,430,254.51	$ 3,926,423.55	W-4	Install 18 & 36 Inch RCP (w/ Surface Restoration)	2030
East of Harbor Blvd. Line W5	$ 1,542,318.94	$ 589,651.94	$ 952,667.00	W-5	Install 18 & 36 Inch RCP (w/ Surface Restoration)	2037
Regional Stormwater Quality Improvements - Lions Park	$ 2,924,000.00	$ 1,117,889.58	$ 1,806,110.42	Lions Park	Water Quaility Improvements to Meet MS4 Regulations	2035
Hydrodynamic Seperator - Harper Park/18th Street	$ 450,000.00	$ 172,041.83	$ 277,958.17	Harper Park/ 18th Avenue	Hydrodynamic Seperator	2035
Corrugated Metal Pipe Replacement	$ 4,793,180.00	$ 1,832,505.47	$ 2,960,674.53	Various Locations	Replace Corrugated Metal Pipe Like in Kind to Retain Water Quality	Annually Completed by 2040
Subtotal Newport Bay Watershed Facilities	*$ 64,998,695.17*	*$ 24,849,987.77*	*$ 40,148,707.40*			
Total Planned Storm Drainage Facilities	$ 112,554,396.61	$ 37,181,751.95	$ 75,372,644.66			

Notes:
1 Funding from other funding sources may include grant funding or general fund contributions.