Stormwater Division Funding Strategy January 2021

In Response to Recommendation #5 of the Performance Audit of the City of San Diego's Stormwater Division

Presented To

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Contents

Figures

Tables

Appendices

Acronyms/Abbreviations

Acronym/Abbreviation	Definition
AB	Assembly Bill
ACP	Alternative Compliance Program
ACWA	Association of California Water Agencies
ASBS	Areas of Specific Biological Significance
BMP	best management practice
CAFR	Comprehensive Annual Financial Report
CAO	Office of the City Attorney
CAP	Climate Action Plan
CASQA	California Stormwater Quality Association
CDBG	Community Development Block Grant
CIP	Capital Improvements Program
City	City of San Diego
CMP	corrugated metal pipe
CSAC	California State Association of Counties
CWA	Clean Water Act
CWSRF	Clean Water State Revolving Fund
DIF	development impact fee
DoF	Department of Finance
DSD	Development Services Department
DWR	Department of Water Resources
ECP	Engineering and Capital Projects
EDA	U.S. Economic Development Administration
EIFD	Enhanced Infrastructure Financing District
EPA	U.S. Environmental Protection Agency
ESD	Environmental Services Department
FBA	Facilities Benefit Assessment
FCIP	Fire Company Inspection Program
FEMA	Federal Emergency Management Agency
FY	fiscal year
GI	green infrastructure
GO	general obligation
HCF	hundred cubic feet

Acronym/Abbreviation	Definition
IBA	Office of the Independent Budget Analyst
IGP	Industrial General Permit
IP	integrated planning
IRWM	Integrated Regional Water Management
JRMP	Jurisdictional Runoff Management Plan
LOI	letter of interest
LRB	Lease Revenue Bond
MS4	Municipal Separate Storm Sewer System
MWMP	Municipal Waterways Maintenance Plan
NFIP	National Flood Insurance Program
NTE	not to exceed
O&M	operations and maintenance
Outlook	Five-Year Financial Outlook
PUD	Public Utilities Department
SB	Senate Bill
SDPD	San Diego Police Department
SFR	single-family residence
SWD	Stormwater Division
SWELL	Stewardship: Water Education for Lifelong Leadership
SWRCB	State Water Resources Control Board
TMDL	total maximum daily load
TOT	Transient Occupancy Tax
TSW	Transportation and Stormwater Department
WAMP	Watershed Asset Management Plan
WCB	Wildlife Conservation Board
WER	water effects ratio
WIFIA	Water Infrastructure and Financing Innovation Act
WQIP	Water Quality Improvement Plan

1.0 Introduction

The City of San Diego (City) is home to miles of streams, rivers, bays, lagoons, beaches, and the Pacific Ocean. The diverse neighborhoods, local wildlife and habitats, and world-class recreation areas that make San Diego a desirable place to live, work, and play rely on safe, clean water. The City's Stormwater Division (SWD) is responsible for managing stormwater to safeguard water quality as well as to reduce the risk of flooding, pursue the use of stormwater as a resource, and protect and revitalize natural habitats and recreation areas.

Stormwater management requires a massive, largely hidden infrastructure system that needs to function seamlessly. Below City streets are over 1,148 miles of storm drain pipes that connect to over 69 miles of channels that convey floodwaters away from homes and businesses and function as a network of arteries critical to City residents' health and safety.

The SWD, which is part of the Transportation and Stormwater Department (TSW), is made up of engineers, water quality scientists, planners, policy makers, field crews, and other personnel who work to build, maintain, and modernize efficient stormwater infrastructure—infrastructure critical to supporting safe, sustainable, and thriving San Diego communities. The SWD's work also lays the foundation for San Diego to meet and exceed the requirements of the Clean Water Act (CWA) and addresses the mounting challenges of increased urbanization and a changing climate.

This document, the "Funding Strategy," was developed in response to one of the recommendations detailed in the report on the June 2018 SWD performance audit conducted by the Office of the City Auditor (OCA) entitled "The Stormwater Division Can Further Improve the Efficiency of Its Infrastructure Maintenance and Code Enforcement Efforts, but the City Ultimately Needs to Address Significant Stormwater Funding Shortages" [1] (hereafter referred to as "Audit"). As highlighted in the Audit, the expanding portfolio of SWD services and responsibilities has significantly increased costs and widened the gap between needed and available funding. This chronic underfunding has contributed to mounting deferred operations and maintenance (O&M) of the stormwater network and a growing backlog of essential projects and activities that, left unaddressed, can lead to flooding, water quality impairments, property damage, sinkholes, higher future costs, potential fines, and public liability costs. Inadequate funding for the SWD might also have large-scale and long-term impacts on the City's financial health if deferment and infrastructure degradation persist. This Funding Strategy document provides a thorough response to the Audit Report's finding that stormwater funding is insufficient to meet current and future needs and addresses the Audit Report's Recommendation #5 by preparing a long-term strategy to secure additional funding.

The Funding Strategy was developed in consultation with the City of San Diego's Office of the Independent Budget Analyst (IBA), the Office of the City Attorney (CAO), the Office of the City Treasurer, the Mayor's Office, the Department of Finance (DoF), and the Debt Management

[1] City of San Diego. 2018. *Performance Audit of the Stormwater Division*. Office of the City Auditor. https://www.sandiego.gov/sites/default/files/18-023_storm_water_division_0.pdf.

Department. Its development was supported by a consultant team comprised of the Conservation and Natural Resources Group California; Tetra Tech; Stantec; Kayuga Solution; Villa Civil; Action Research; and Fairbank, Maslin, Maullin, Metz & Associates, Inc. The consultant team provided strategic input on policy and Funding Strategy recommendations, developed the technical basis for the Funding Strategy, developed the Watershed Asset Management Plan (WAMP), performed financial modeling, and conducted public opinion research.

Note: All dollar values reported throughout this Funding Strategy are in 2020 dollars unless specified.

Note: Bolded statements throughout this Funding Strategy are included for emphasis.

1.1 Audit Findings and Recommendations

The Audit found that stormwater funding is not sufficient to meet current and future needs and that the City has not taken the action necessary to develop and pursue a long-term funding strategy (Finding 2). This finding highlights the fact that stormwater needs have increased significantly over time because of a compounding of historical underfunding of Capital Improvements Program (CIP) and O&M needs, the impact of increasingly stringent regulatory requirements, and low levels of state and federal financial support. The large funding gap referenced in the Audit Report (estimated at $459 million by fiscal year [FY] 2023 and reported in 2018 dollars) cannot be closed by cost saving, efficiencies, and current revenue sources alone.[2] As a result, the Audit Report recommends that the City develop a long-term funding strategy (Audit Recommendation #5) to meet the needs identified in the SWD's long-term master plan documents, the WAMP[3] and the Jurisdictional Runoff Management Plan (JRMP). The identified needs include potential future compliance cost implications that could result from negotiations with the Regional Water Quality Control Board (Regional Board) to use the U.S. Environmental Protection Agency's (EPA's) Integrated Planning Framework.[4] The Audit Report recommends SWD coordinate with the City's IBA and CAO to evaluate funding options that could significantly contribute to closing the existing funding gap, including continued/increased reliance on the City's General Fund, general obligation (GO) bonds, a general tax ballot measure, and increasing the existing stormwater fee, among others. Beyond coordination with the IBA and CAO, the Audit Report identified stakeholder engagement as an integral element of developing an effective funding strategy, including both stakeholders internal to the City and external stakeholders like organizations, associations, other public agencies, and residents.

[2] This funding gap was updated by the SWD in October 2020 as part of the WAMP 2.0 and is summarized in Section 4.2.

[3] The WAMP 2.0 quantifies the total funding need for the SWD and includes O&M and CIP cost projections for all SWD programs. The WAMP 2.0 presents a method and findings for evaluating and prioritizing efforts based on a business risk exposure score.

[4] The JRMP has not been updated and included into the WAMP 2.0 because of delays in the issuance of a new Municipal Separate Storm Sewer System (MS4) Permit for the San Diego Region, expected in late 2020 or early 2021. Similarly, the SWD is in the assessment and engagement phase for inclusion of integrated planning into MS4 Permit compliance and has not been explicitly included in the WAMP 2.0 to date.

The Audit Report specifies that, if the Funding Strategy in response to Audit Recommendation #5 includes a recommendation to pursue a funding mechanism that requires voter approval, the SWD should conduct a resident survey or surveys to gauge voter support. Input and feedback from the survey(s) should then be incorporated into the strategy, specifically as related to refinement of and the plan to pursue the recommended funding mechanism (Audit Recommendation #6).

Audit Finding 2 states that awareness and understanding of what the SWD does and the associated funding needs are insufficient. In response to this finding, the Audit Report recommends that a strategic communications plan be developed (Audit Recommendation #4), and that stakeholder and public input should be incorporated into the Funding Strategy (Audit Recommendation #5) through mechanisms such as focus groups, interviews, meetings, and surveys. The SWD has developed a strategic communications plan that has been reviewed and updated, most recently in October 2020, and resulted in a refresh of the SWD purpose, mission, vision, goals, branding, and Think Blue website that will aid in more effective and comprehensive communication (see Section 2.0).

1.2 Previous Studies and Reports

The growing cost of providing SWD services, and funding and resource needs have been clearly documented in many previous reports and studies. This section summarizes those reports and their key findings as they relate to stormwater.

2013 WAMP (updated most recently in 2020)[5]

The 2013 WAMP, or WAMP 1.0, was developed as a long-range planning document for the entire SWD program, including an estimate of the cost to provide SWD services to their intended levels. The 2013 WAMP estimated the value to replace known stormwater assets, which was estimated at $3.49 billion (in 2013 dollars) and looked at a long-range forecast (100 years) for total investment to meet desired service levels of $19.98 billion (in 2013 dollars), or an average of $199.8 million per year (in 2013 dollars). The FY2013 City Adopted Budget referenced in the 2013 WAMP was $34.5 million (in 2013 dollars), which was determined to be insufficient to meet SWD needs and would result in a growing backlog and deferred O&M and CIP investment. The 2013 WAMP has been updated as part of the WAMP 2.0 effort to incorporate assets and programs associated with the SWD's growing services, capture the impacts of evolving regulations and compliance requirements, and quantify other City assets that the SWD now operates or maintains. A further discussion of SWD services and programs included in the WAMP 2.0 is presented in Section 2.3, and the SWD funding need from the updated WAMP 2.0 is included in Section 3.0.

[5] City of San Diego. July 2013. *Watershed Asset Management Plan*. Stormwater Division. https://www.sandiego.gov/sites/default/files/wamp2013.pdf.

FY2022–FY2026 Five-Year Financial Outlook[6]

The City Five-Year Financial Outlook (Outlook) is completed annually and serves as the long-range fiscal planning guide and framework for the annual budget for the next fiscal year (FY2022). The Outlook focuses on baseline revenues and expenditures, including the impacts on the City from the coronavirus disease 19 (COVID-19) pandemic and maintaining the service levels reflected in the FY2021 Adopted Budget. The Outlook projects that economic recovery will begin in FY2022. The Outlook states that baseline projections indicate that expenditures will outpace revenues for FY2022 through FY2025, with revenues projected to exceed expenditure growth (at FY2021 service levels) in FY2026. With respect to stormwater, the Outlook acknowledges that storm drain fees do not increase over time, even to account for inflation or growth.

FY2021 Adopted Budget[7]

The City of San Diego's FY2021 Adopted Budget is $4.02 billion, which is a $323-million decrease from the FY2020 Adopted Budget. The total SWD FY2021 Adopted General Fund budget is $47.5 million, representing a $4.5 million net decrease over the FY2020 Adopted Budget. The FY2021 Adopted Budget includes significant reductions in stormwater compliance planning, reporting, monitoring, and implementation; environmental permitting services; pump station O&M and repairs; channel inspection and cleaning; and development of a stormwater inspection or reinspection fee program[8]. The FY2021 Adopted CIP budget is $1.0 million. **Future CIP projected needs in the FY2021 Adopted Budget total $1.04 billion for which funding sources have not yet been identified.**

The FY2021 Adopted Budget does include the creation of a stand-alone SWD from a budgetary perspective in recognition of the high-quality and essential public services that the SWD provides and as a reflection of the dedicated funding needs associated with this work.[9]

Review of the FY2021 Proposed Budget—Analysis by the IBA (Report 20-06)[10]

The IBA reviewed and reported on the FY2021 Proposed Budget in April 2020. Highlights related to stormwater included unfunded critical strategic expenditures for the stormwater pipe repair team and additional street sweeping staff, reductions in the stormwater budget of $4.9 million, the proposed separation of SWD from TSW and formation of a stand-alone department, and the financial impact of the City's aging infrastructure. The $4.9-million budget reductions in FY2021

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[6] City of San Diego. December 2020. *Fiscal Year 2022-2026 Five-Year Financial Outlook*. https://www.sandiego.gov/sites/default/files/fy2022-2026-five-year-financial-outlook-revised-11-23-2020-w-attachments.pdf.

[7] City of San Diego. August 2020. *Fiscal Year 2021 Adopted Budget*. https://www.sandiego.gov/sites/default/files/fy21ab_full.pdf.

[8] City of San Diego. August 2020. *Fiscal Year 2021 Adopted Budget. Stormwater Summary*. https://www.sandiego.gov/sites/default/files/fy21ab_v2stormwater.pdf.

[9] Official creation of the Stormwater Department is subject to City Council vote, which is pending.

[10] City of San Diego. April 2020. *Review of the Fiscal Year 2021 Proposed Budget. Analysis by the Office of the IBA Report 20-06*. https://www.sandiego.gov/sites/default/files/iba_report_20-06_review_of_fy21_proposed_budget.pdf.

include drainage engineering, channel O&M, flood risk reduction activities, watershed planning and compliance-related consultant support, habitat mitigation, water quality monitoring, and street sweeping operations. According to the IBA's report**, these budget reductions as stated pose a potential increased risk of flooding and erosion as well as a reduction in the SWD's ability to meet stormwater-related compliance requirements for water quality and habitat mitigation.**

The Citywide CIP faces significant reductions from the economic downturn and might result in more emergencies in the future because of the inability to proactively address failing assets. The IBA's report highlighted 10 emergency stormwater projects in FY2020 that required funds to be taken from stormwater and other transportation projects to pay back lending projects, which were also paid at a premium. The report states that, the more often assets can be replaced proactively, the further limited funding will be able to go. In addition, the review states that **"Stormwater, existing facilities, and traffic signals make up almost 90% of the priority needs funding gap"** and that percentage is anticipated to grow as more projects are deferred.

Performance Audit of TSW's Street Sweeping Section[11]

Street sweeping is an essential service that cleans San Diego communities, targeting trash and pollution to prevent them from entering waterways and adversely impacting water quality. As a result, street sweeping has been identified and committed to as a strategy for compliance with CWA requirements. An audit of the Street Sweeping Section was conducted to evaluate whether the current program has sufficient processes in place for an effective street sweeping program, follows industry best practices or other established criteria, and effectively prioritizes street sweeping routes and schedules. The Street Sweeping Audit presented three major findings, including that data collected should be used as part of an adaptive management process for sweeping to maximize program effectiveness (e.g., modifying and adding routes or frequency of sweeping). The Street Sweeping Audit also highlighted that, while the program generates some revenue from parking enforcement citations, it is not achieving cost recovery and experienced a steady decline in revenue from citations from FY2017 through FY2020 (COVID-19 had a significant impact on FY2020 revenues because of the suspension of parking enforcement).[12]

[11] City of San Diego. September 2020. *Performance Audit of the Transportation and Stormwater Department's Street Sweeping Section*. Office of the City Auditor. https://www.sandiego.gov/sites/default/files/21-003_streetsweeping.pdf.

[12] "Cost recovery" means that revenue collected from a revenue-generating activity is equal to or greater than the cost of the activity for which the revenue is collected.

Exhibit 13 from the Street Sweeping Audit is replicated below for reference and compares the Street Sweeping and Parking Enforcement budget against actual parking enforcement revenues (Table 1-1).

Table 1-1. Comparison of Annual Street Sweeping Budget and Annual Parking Citation Revenue[13]

	FY2017	FY2018	FY2019	FY2020
Street Sweeping Full Time Employees	38	38	38	38
Street Sweeping Budget	$6,128,542	$6,274,727	$6,567,363	$6,608,418
Parking Enforcement Citation Revenue – Actual	$5,136,758	$4,631,564	$4,149,958	$3,434,203
Difference	$(991,757)	$(1,643,163)	$(2,417,405)	$(3,174,215)[14]
Citation Revenue as % of Budget	84%	74%	63%	52%

The SWD has agreed to make the recommendations outlined in the Street Sweeping Audit by June 2022; however, some of the recommendations such as comprehensive reassessment of routes, priorities, posting, staffing, and sweeper types will require additional funding.

Fiscal Year 2021–2025 Five-Year Capital Infrastructure Planning Outlook[15]

The FY2021–2025 Five-Year Capital Infrastructure Planning Outlook (CIP Outlook) presents CIP needs and funding for the next 5 fiscal years and is a planning tool to support budget decisions and allocation of resources to meet the City's strategic goals and provide core services.[16] The CIP Outlook enables the City to monitor and evaluate funding while looking at emerging priorities and needs Citywide. The CIP Outlook presents updated WAMP 2.0 CIP needs that estimate a funding need of $1.48 billion over the FY2022–FY2026 period, which is a $518.8-million increase from the FY2021–FY2025 CIP Outlook and is primarily due to unfunded needs from previous fiscal years being carried forward, updating stormwater assets and inclusion of new assets not included in previous estimates, updating compliance costs to account for current regulations, and refinement of costs based on 2020 dollars (e.g., estimated inflation). Potential funding sources for the stormwater CIP need over this period are identified as development impact fees (DIFs), TransNet, and financing. It should be

[13] City of San Diego. September 2020. *Performance Audit of the Transportation and Stormwater Department's Street Sweeping Section*. Exhibit 13. Office of the City Auditor. https://www.sandiego.gov/sites/default/files/21-003_streetsweeping.pdf.

[14] FY2020 citation revenue will be significantly impacted by the COVID-19 pandemic. The City stopped distributing parking citations from the middle of March 2020 through September 2020; therefore, the SWD only collected citation revenue during the first three quarters of the FY.

[15] City of San Diego. *Fiscal Year 2021-2025 Five-Year Capital Infrastructure Planning Outlook*. https://www.sandiego.gov/sites/default/files/fy21-25-cip-outlook.pdf.

[16] The FY2022–FY2026 CIP Outlook is anticipated to be released in January 2021.

noted that, in fact, only $1.0 million was budgeted for stormwater CIP in the FY2021 Adopted Budget.

Comprehensive Annual Financial Report—Fiscal Year Ended June 30, 2020[17]

The Comprehensive Annual Financial Report (CAFR) of the City of San Diego is prepared in accordance with Section 111 of the City Charter. Specific to stormwater, the FY2020 CAFR states that current funding levels are insufficient to meet estimated costs and that the current storm drain fee covers only a small portion of the City's annual stormwater expenses. The CAFR notes that the WAMP has identified significant capital investment needs and that addressing deferred maintenance and high-risk storm drains is a need. In FY2020 capital expenditures for drainage projects was limited to $19.6 million for the entire existing stormwater system. The CAFR also notes several ongoing regulatory negotiations and studies that are underway in an effort to progress toward compliance, also noting that the City could face fines and third-party litigation of compliance deadlines are not met. The CAFR states that an estimated $3.89 billion ($1.59 billion for operating costs and $2.30 for capital costs) is needed for stormwater compliance implementation costs for the period of FY2021 through FY2035. The CAFR references the development of this Funding Strategy and recommended implementation actions, including to further reduce costs and maximize efficiencies, continue to invest in stormwater program innovation, maximize existing funding sources, grants and loans, and to pursue development of a dedicated funding mechanism for stormwater.

2016 Stormwater Fee Study[18]

The 2016 Stormwater Fee Study was completed as part of a response to the Settlement Agreement and Release between San Diegans for Open Government/Coastal Environmental Rights Foundation and the City by a third party. The 2016 Fee Study was developed to conceptually evaluate ways for a fee to pay for the costs of the stormwater program. The study was conducted for a 20-year period from 2016 through 2035 and estimated a total cost need of $3.18 billion over that period. Two scenarios were looked at to fully fund stormwater needs—a scenario in which 100% of the CIP requirements would be financed and a scenario in which fees were collected in excess of revenue requirements in early years to reduce the amount of debt issued.

[17] City of San Diego. December 2020. CAFR. https://www.sandiego.gov/sites/default/files/cafr-2020.pdf
[18] City of San Diego. September 2019. *Stormwater Fee Study*. Geosyntec Consultants. https://www.sandiego.gov/sites/default/files/csd_stormwaterfeestudy_submission.pdf.

2.0 Stormwater Division

The SWD is a cohesive, multifaceted operation that works year-round to protect and enhance San Diego's communities through exceptional public service and infrastructure that not only reflect the importance of clean water and flood control, but also that stormwater is a valuable resource that supports public health, the economy, the environment, and our water supply. SWD responsibilities and services have expanded greatly over time, prompting a recent refresh of mission and goals (Section 2.1) in response to several external influences or "drivers" (Section 2.2), which has expanded essential services and created new programs that clearly articulate the breadth and complexity of SWD's work (Section 2.3). An update of the WAMP in 2020 was needed to capture the associated increase in costs and define the funding needs for the services the SWD provides (Section 3.0).

2.1 Purpose, Vision, Mission, and Goals

The SWD recently completed a refresh of its purpose, vision, mission, and goals to more accurately reflect programs and services that have evolved over time in response to a variety of different drivers (Section 2.2). As part of this refresh, the Think Blue logo and website also have been updated to reflect the full array of SWD programs and services and the Division's movement toward more modern, innovative, and integrated approaches.

Purpose: To protect and enhance San Diego's vibrant communities through exceptional public service and infrastructure that not only reflect the importance of clean water and flood control, but also that stormwater is a valuable resource which supports public health, the economy, the environment, and our water supply.

Vision: The Stormwater Division envisions a San Diego where innovation and efficiency are the backbone of our approach to clean water and flood control; where our infrastructure adapts to meet the needs of our growing population and changing climate to ensure people, homes, and businesses are safe from flooding; where we manage stormwater as a resource to promote sustainability and resiliency; where water quality is a point of pride; and where we work together to protect, restore, and enhance waterways for our communities and wildlife for future generations.

Mission: The Stormwater Division works in all weather conditions to build, maintain, and modernize efficient stormwater infrastructure that lays the foundation for safe, sustainable, and thriving San Diego communities. We achieve this through innovative and strategic stormwater management to safeguard water quality, reduce pollution and the risk of flooding, pursue the use of stormwater as a resource to enhance water supplies, and protect and restore natural habitats and recreation areas.

Goals: In order to improve the quality of life and create more resilient and sustainable San Diego communities, the Stormwater Division works to achieve the following goals (Figure 2-1):

- **Protecting safe, clean water**: To protect our local streams, rivers, bays, and beaches from pollution and degradation and maintain the highest possible standards of water quality that are critical to the health and safety of residents and visitors.
- **Safeguarding our communities from floods**: To improve our infrastructure, ensure public safety, and protect our communities from flooding through proactive O&M and innovation.
- **Using stormwater as a resource**: To increase our capacity for stormwater capture and reuse in an effort to boost our local water supply.
- **Providing community benefits**: To safeguard outdoor recreation opportunities by preventing pollution and improving water quality for activities such as swimming, fishing, and surfing. To create multi-benefit green spaces and partner with community members to enhance parks, increase access to open space, and otherwise transform our urban environment.
- **Restoring the environment**: To use the best science and technology available to restore local waterways by reducing the negative impact of pollution and urbanization on our watersheds and ensuring that local habitats remain beautiful, clean, and safe for generations to come.
- **Encouraging public partnership**: To empower every resident, business, and visitor with the tools and resources to become part of an informed and active community of water guardians, where we share our expertise, seek feedback, and engage in an active dialogue with community members.

Figure 2-1. SWD mission and goals.

2.2 Stormwater Drivers

To manage, protect, and maintain water quality, flood-safe communities, and healthy habitats, the SWD must continually adapt to meet constantly evolving circumstances, referred to here as "drivers." These include urbanization, a changing climate, and stormwater-related water quality regulations, drainage requirements, and mitigation requirements. In addition, there are drivers that go beyond those codified in current regulations and reflect overall City priorities, including creating a sustainable and resilient San Diego and addressing aging infrastructure throughout the City. The SWD must also ensure that communities of concern are not disproportionately impacted and ensure that an equitable approach to addressing these drivers is taken. Each of these drivers has led to the broadening of SWD responsibilities over time and are summarized in this section.

2.2.1 Urbanization

Urbanization contributes to stormwater management challenges by increasing the levels of impervious surfaces in the City, causing more water to run off into roads and into the stormwater system. In addition, rather than percolating into the ground, stormwater is forced to flow over these surfaces, picking up toxins and pollutants on the way that may eventually end up in creeks, rivers, streams, bays, and the Pacific Ocean. Further, increased density exacerbates the risk of flooding by increasing stressors on stormwater infrastructure like erosion, degradation, and clogging from trash and debris. A growing population places greater demand on SWD services, increasing the need for already limited existing funding, resources, and staff.

2.2.2 Aging Infrastructure

The SWD is responsible for managing a vast stormwater conveyance system, which includes the curb and gutter system along streets, pipes, channels, pump stations, large basins designed to hold stormwater, levees, and drainage ditches. The average age of pipes and stormwater structures, which include inlets, outlets, manholes, and cleanouts to maintain the pipes, is more than 47 years with significant variability throughout the City depending on when each area was developed. Many of the oldest components of the stormwater system were installed as far back as the early 1900s and are over 100 years old. All infrastructure has a "useful life," which is defined as the period during which the infrastructure can meets its designed service level, at the end of which the infrastructure needs to be replaced or upgraded. Many of the City's stormwater infrastructure components are past their useful life, especially a subset of stormwater pipes made from corrugated metal (also known as corrugated metal pipes [CMPs]).

CMPs have a useful life of 35 years, and their age and state of disrepair of this set of CMPs have contributed to the **1,832 current known existing and unrepaired pipe failures citywide** (Figure 2-2). A complete summary of the known pipe failures and locations of other asset degradation is provided in Appendix E, which presents the FY2021 Community Flood Risk Assessment. The FY2021 Assessment highlights locations of concern by Council District and demonstrates their widespread and diverse nature. These areas include channels, levees, stormwater structures, drainage ditches, and areas known to flood due to undersized or lack of stormwater infrastructure.

Figure 2-2. Pipe failures can cause sinkholes that pose risks to public health and safety and cause road closures like the one shown at Park Village Drive and Darkwood Road.

To protect San Diego communities from flooding, sinkholes, and more costly failures in the future, the SWD must replace and strengthen the existing infrastructure system in a proactive manner. Continued replacement of aging infrastructure once failures occur diverts funding and resources to more costly one-off projects rather than strategic enhancements that could be coordinated with other City departments within City right-of-way to provide upgrades to streets, mobility, and other City infrastructure and services.

2.2.3 A Changing Climate

Climate change is expected to drastically change precipitation patterns, with more frequent, longer, and drier droughts; sea level rise; and fewer, more intense rain events projected (Figure 2-3). These projected shifts would have dramatic implications for all the City's water management, particularly stormwater. More intense storms with more water falling in shorter periods of time will require innovative and adaptive management of the existing stormwater management system.

Figure 2-3. More intense rain events can overwhelm the existing stormwater system and cause flooding like this aftermath at Palm Avenue and Beyer Boulevard.

In planning for these projected developments, the City has a vision to prepare for the impacts of climate change, including reducing greenhouse gas emissions, planning for more intense climate-related events like wildfires and rainstorms, and preparing for prolonged periods of drought and water supply challenges. The City is preparing several plans to address these issues such as the Climate Action Plan (CAP) 2.0, the Resilient San Diego Plan, and the SWD WAMP 2.0 to identify opportunities for integrated project and planning efforts. Because of the importance of these shared goals across the City, the SWD has expanded its perspective beyond traditional water quality and flood management objectives and invested in integrated planning (IP) and projects to maximize

investment and to include broader sustainability and resilience factors. Example projects and efforts include stormwater harvesting and implementing green infrastructure (GI).

2.2.4 Regulatory Requirements

The City's commitment to clean waterways has added an important dimension to the services provided by the stormwater system. In addition, the role that increased and evolving regulations play in expanding SWD responsibilities, along with attendant costs, cannot be overstated. Nearly all the City's rivers and streams are considered impaired under the federal CWA, and regulations have become more stringent over time. The most significant cause of the increased and growing need for SWD funding is related to regulatory compliance for water quality, floodplain management, and compensatory mitigation. The City is committed to protecting our water quality, addressing sources of contamination, and investing in keeping waters and neighborhoods clean and safe. To synthesize the requirements in many of these regulatory requirements, the City has developed several strategic plans, including the JRMP, Water Quality Improvement Plans (WQIPs) for each of the watershed management areas that the City belongs to as a permittee, and the Municipal Waterways Maintenance Plan (MWMP). The City continually supports efforts to advance regional, scientifically valid, and cost-effective approaches to protect public health and the environment and improve upon these plans like optimizing catch basin and inlet cleaning, as shown in Figure 2-4.

Figure 2-4. The SWD has optimized the cleaning of stormwater structures like inlets and catch basins to remove pollution, trash, and debris and to protect waters and the ocean from pollution. Regular cleaning also minimizes clogging of the stormwater.

2.2.4.1 Clean Water Act

The CWA provides the structure for regulating discharges of pollutants into waters of the United States and regulates standards of quality for surface waters. The CWA prohibits unlawful discharges from specific point sources such as a municipal stormwater system into navigable waters unless a permit is obtained as part of the National Pollutant Discharge Elimination System permit program with numeric action-level

requirements. The CWA Section 303(d) list identifies impaired water bodies based on available data for water quality that do not meet applicable standards. The list also identifies a priority ranking of water bodies for the development of total maximum daily loads (TMDLs) to address the water quality impairments. The CWA allows for states to enforce its provisions and California does so primarily through the Porter-Cologne Act.

2.2.4.2 Porter-Cologne Act

The Porter-Cologne Act is the primary governing law for water quality regulations in California and establishes the program to protect water quality and beneficial uses of water in the State and applies to both point and nonpoint sources of pollution. The Porter-Cologne Act established nine Regional Boards based on hydrogeological barriers as well as the State Water Board, each of which is charged with implementing Porter-Cologne Act provisions.

2.2.4.3 Water Quality Control Plan (Basin Plan)

The Water Quality Control Plan for the San Diego Region is also called the "Basin Plan." It designates beneficial uses for waters in the San Diego Region and is approved by the San Diego Regional Board. The Basin Plan establishes water quality objectives, including TMDLs, and their implementation plans to protect and restore specific water bodies.

2.2.4.4 Total Maximum Daily Loads

A TMDL is representative of the amount of a particular pollutant that can be assimilated by a water body without impacting its beneficial uses (e.g., swimming, fishing, and biological health). TMDLs may contain a single water body and pollutant combination or multiple water body and pollutant combinations to address impairments.

The City is currently listed as a responsible party for four adopted TMDLs: (1) Chollas Creek diazinon TMDL, (2) Chollas Creek dissolved copper, lead, and zinc TMDLs, (3) Revised Project II–Twenty Beaches and Creeks in San Diego Region (including Tecolote Creek) indicator bacteria TMDL, and (4) Los Peñasquitos Lagoon silt/ sedimentation TMDL. In addition, the City has received an approved alternative approach for the Famosa Slough nutrient TMDL through successful negotiations with and commitments to the San Diego Regional Board. Additional pollutant and water body combinations are included on the 303(d) list; however, they have not been formally adopted as TMDLs.

2.2.4.5 Municipal Separate Storm Sewer System Permit

The San Diego Regional Municipal Separate Storm Sewer System (MS4) Permit (No. R9-2013-0001) was adopted in May 2013 and identifies specific requirements for permittees to manage allowable discharges, including satisfying TMDLs, developing planning documents, inspections and enforcement of activities impacting the MS4, monitoring, and reporting. These requirements are

meant to protect surface water throughout the San Diego Region from potential impacts of MS4 discharges. The MS4 Permit expired in June 2018; however, it has been extended and remains in effect until the next Permit is reissued by the Regional Board, which is expected in late 2020 or early 2021.

2.2.4.6 Statewide Trash Amendments

The California Statewide Trash Amendments—the Amendment to the Water Quality Control Plan for Ocean Waters of California and Part 1 Trash Provisions of the Water Quality Control Plan for Inland Surface Waters, Enclosed Bays, and Estuaries of California—were adopted in April 2015. The Trash Amendments introduced specific guidance for trash elimination efforts, including requiring permittees w to select one of two tracks to implement trash controls in areas that generate the highest amounts of trash: Track 1 (Install and Maintain Full Capture Systems) or Track 2 (Demonstrate Full Capture Equivalency). The City selected and is implementing the Track 2 approach that will combine installing structural trash collection devices with implementing practices like street sweeping and catch basin cleaning. Compliance with the Statewide Trash Amendments is required by 15 years past the implementing date of the MS4 Permit and no later than December 2, 2030.

2.2.4.7 Toxicity Control Provisions

The Toxicity Control Provisions were adopted by the State Water Board on December 1, 2020. These provisions are designed to provide consistent protection of aquatic life and beneficial uses in waters throughout the State by protecting aquatic habitats and biological life from the effects of known and unknown toxicants. In addition, the Toxicity Control Provisions will provide consistent protection of aquatic life through the establishment of statewide numeric water quality objectives for aquatic toxicity, a statewide statistical approach to analyzing test results, and a consistent yet flexible program of implementation. These requirements will supersede regional basin plans, except for water body-specific requirements such as TMDLs or site-specific objectives (Chollas Creek Water Effects Ratio [WER]).

2.2.4.8 Areas of Special Biological Significance

Areas of Specific Biological Significance (ASBSs) are areas designated by the State Water Board as ocean areas requiring protection of species and biological communities to the extent that maintenance of natural water quality is assured by the implementation of the General Exception requirements.[19] The City's implementation of nonstructural and structural best management practices (BMPs) complies with these requirements to protect natural water quality during wet- and dry-weather conditions. Low-flow diversions currently installed at nine locations are intended to eliminate non-stormwater discharges to the ASBSs during dry weather. Furthermore, the City's implementation of BMPs is in accordance with the schedule required in the General Exception. The

[19] General Exception to the California Ocean Plan for ASBS Waste Discharge Prohibition for Stormwater and Nonpoint Source Discharges, with Special Protections (March 2012, amended June 2012).

City continues to maintain and implement existing BMPs and to perform monitoring in the ASBSs per the General Exception to protect and assess maintenance of natural water quality.

2.2.4.9 Mitigation Requirements

Mitigation is required when stormwater CIP projects or O&M efforts impact wetlands or other sensitive environmental resources. Stormwater features like channels and debris basins are frequently in low-lying areas through which stormwater can flow, which often leads to sediment buildup and vegetation growth. This often creates wetland habitat in state, federal, and local jurisdictional areas. When vegetation and sediment need to be removed to preserve the capacity of the stormwater system and prevent flooding, it must be replaced elsewhere in the watershed. In San Diego, opportunities to fund or create wetland habitat are limited due to the arid climate and scarcity of viable locations. Mitigation is required (or compensatory) and, with stormwater infrastructure, it typically must be implemented at a different location because of the urban nature of many of the channels as well as the need to prevent flooding. Providing mitigation in advance of potential impacts to wetlands is important so channel and other stormwater infrastructure projects can obtain the necessary authorizations and permits. The cost associated with mitigation can vary significantly by project (e.g., from $250,000 to $500,000 per acre) due to the type of mitigation (e.g., creating versus enhancing existing wetlands), mitigation ratios, and factors like ownership or easements. Current projections that draw from the MWMP estimate a 35-acre need between FY2021 and FY2029 for a total cost that could range between $9 million to $18 million during that timeframe.

2.2.4.10 Floodplain Management Requirements

Floodplain management requirements were established by the National Flood Insurance Program (NFIP) to provide federally supported flood insurance in communities that adopt those ordinances. Although the list of requirements is extensive, they can be summarized into four basic rules: (1) communities must use the most updated flood maps, (2) permits are required for all development in the Special Flood Hazard Area as indicated by the Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map, (3) development cannot increase the flood hazard to other properties, and (4) new, improved, or damaged buildings must be protected from 100-year flood damage. The City is a participant in the NFIP, which requires that the City institutes adequate land use and development control measures for preventing and reducing property damage from flooding and ensures that projects within or fringing upon a floodway or floodplain comply with FEMA regulations and requirements.

2.3 Stormwater Services and Programs

To adjust to or address the many and varied stormwater drivers and deliver on its mission and goals, the SWD maintains and manages an enormous, largely unseen system comprised of many interconnected components—from streets to pipes to GI—that work together to support a safe and thriving San Diego. To put the other dollar numbers in this report in context, the current stormwater system has a total replacement value of over $5.76 billion (Figure 2-5).[20] This replacement value is indicative of the total costs anticipated to replace the entire existing system once specific system components reach their full life expectancy and need to be replaced. It should be noted the full life expectancy of many assets extends past the forecast period of the funding strategy, which is through FY2040. The majority of the total replacement cost is attributed to the 1,148 miles of pipes ($4.44 billion over their full life expectancy, or 77% of the total stormwater system replacement cost)[21].

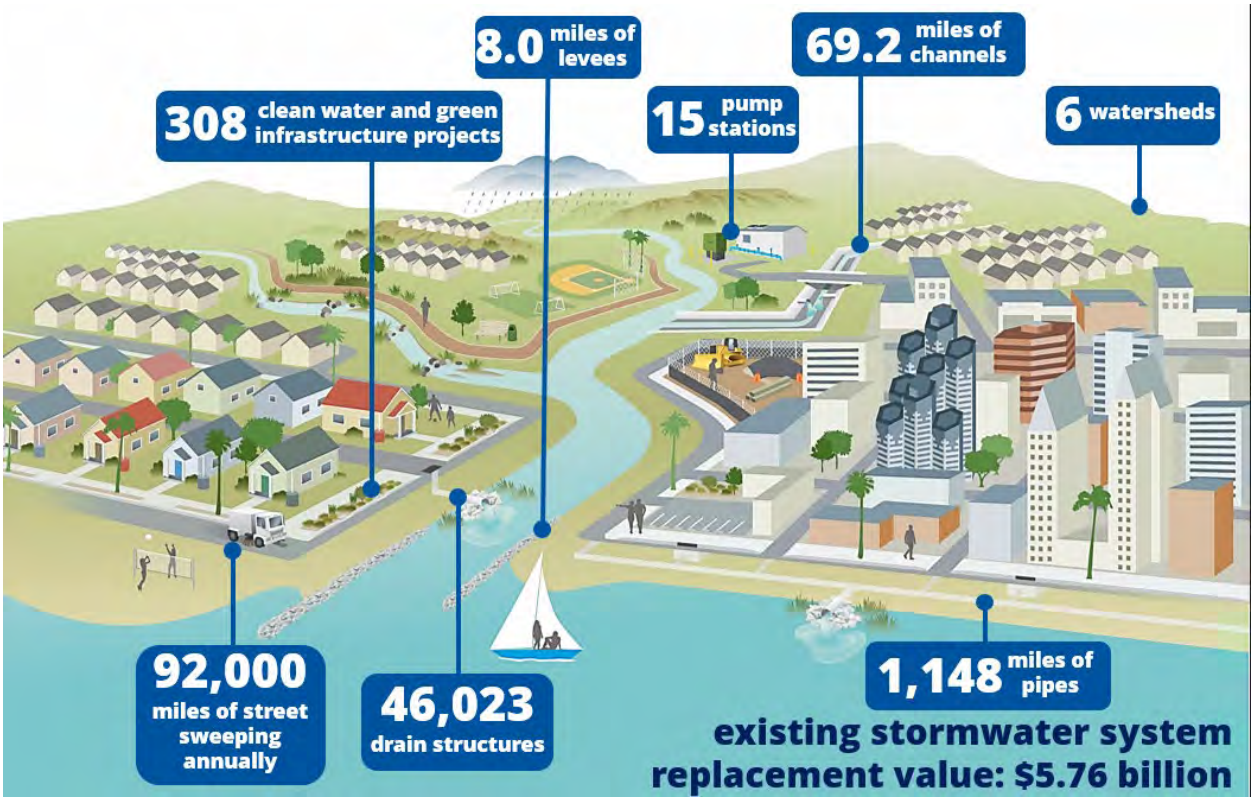

Figure 2-5. San Diego's stormwater system is composed of many diverse and interconnected components that need to function seamlessly to meet the SWD goals. The replacement value of the current system is $5.76 billion.

[20] What it would cost to replace the existing stormwater system (e.g., pipes, inlets, channels, pump stations, GI, and so forth), in other words, the current "value" of the system. The replacement value does not include O&M for the system or the cost of adding new system components like those required for compliance.

[21] The total replacement value for other asset categories includes $365.2 million for channels and drainage ditches, $18.7 million for compliance BMPs, and $939.8 million for all other stormwater system components.

Through experience, research, sound science, and pilot testing, the SWD is modernizing stormwater management for San Diego and is functionally organized around several essential programs described within this section:

- Clean Water Program
- Flood-Safe Communities Program
- Clean Streets, Green Streets Program
- Habitat and Community Enhancement Program
- Stormwater Harvesting Program
- Education, Outreach, and Engagement Program

Many of these programs have an O&M component and a CIP component, each of which is inherently related to provide the desired outcomes. The distinction between O&M and CIP is important from a funding perspective as there are different processes and funding sources in place for each component (as discussed in Section 4.0).

2.3.1 Clean Water Program

The Clean Water Program provides San Diego with safe, clean water and centers around meeting and exceeding the requirements of the CWA (Figure 2-6). Protecting local waters from pollution requires a multifaceted approach that starts in each neighborhood through efforts like trash management and inspection of illicit discharges and carries through the stormwater system and out into streams, lakes, bays, and the Pacific Ocean where monitoring is conducted to assess water quality and environmental health.

Figure 2-6. San Diego residents enjoying safe, clean water near the outlet of the Los Peñasquitos Lagoon into the Pacific Ocean.

One important aspect of the Clean Water Program is ***planning and innovation***. The SWD has developed a number of plans to guide the Clean Water Program, including the citywide JRMP and WQIPs for each of the six watershed management areas of which the City is a member: the San Diego Bay, San Diego River, Mission Bay, San Dieguito, Los Peñasquitos, and Tijuana River watershed management areas.[22] Adaptively managing implementation of these plans to evaluate progress and identify opportunities for innovation is essential. Recent efforts include developing integrated engineering plans that use high-resolution geospatial data to inform the siting and sizing of projects that provide water quality, environmental, and flood protection benefits and the initiation of a trash capture pilot study that tests different trash capture devices to evaluate their effectiveness and the ease with which SWD crews can perform O&M (Figure 2-7). These devices will soon be located throughout the City so ensuring that they work and can be efficiently maintained when installed is critical for a cost-effective trash capture program. In addition, the City is considering the developing an integrated plan to implement the program that can be used to meet multiple CWA requirements (e.g., stormwater, wastewater, and so forth). The Integrated Planning Framework enables the City to evaluate requirements and obligations across regulations to most effectively prioritize and sequence investments to comprehensively meet human health and water quality objectives for different pollutants (e.g., trash, metals, bacteria, nutrients, and so forth), while considering the City's and its citizens' ability to fund the obligations. Often water quality regulations (e.g., TMDLs, statewide trash policy, and so forth) require years to develop and incorporate into permits, which can delay critical implementation efforts. An IP approach prioritizes more efficient, sustainable, and comprehensive solutions for implementation such as GI and larger scale stormwater capture projects that improve water quality, manage flood risk, and potentially augment local water demand.

Figure 2-7. Trash capture devices are installed in inlets to prevent trash and debris from clogging the stormwater system and causing pollution. This device was installed as part of a pilot program to evaluate effectiveness and ease with which O&M can be performing.

[22] City of San Diego. 2015. *City Initiatives–Water Quality Improvement Plans*. Stormwater Division New Permit Programs web page on the City of San Diego website. https://www.sandiego.gov/stormwater/regulations/newpermitprog/city.

Another significant aspect of the Clean Water Program is its ***inspections and compliance***, which broadly encompasses all stormwater-related inspections, code enforcement, parking enforcement associated with street sweeping operations, monitoring and assessment, permit management, and compliance activities. These efforts are central to minimizing the deposition and mobilization of pollution and trash throughout the City so they do not end up in our creeks, rivers, streams, bays, and ultimately the Pacific Ocean. SWD teams respond to reports of illicit discharges and runoff through San Diego's Get it Done application to ensure that potential pollutant sources at the neighborhood scale are assessed (Figure 2-8). A conceptual illustration of Clean Water Program stormwater elements that can be coordinated with private property owners is shown in Figure 2-8.

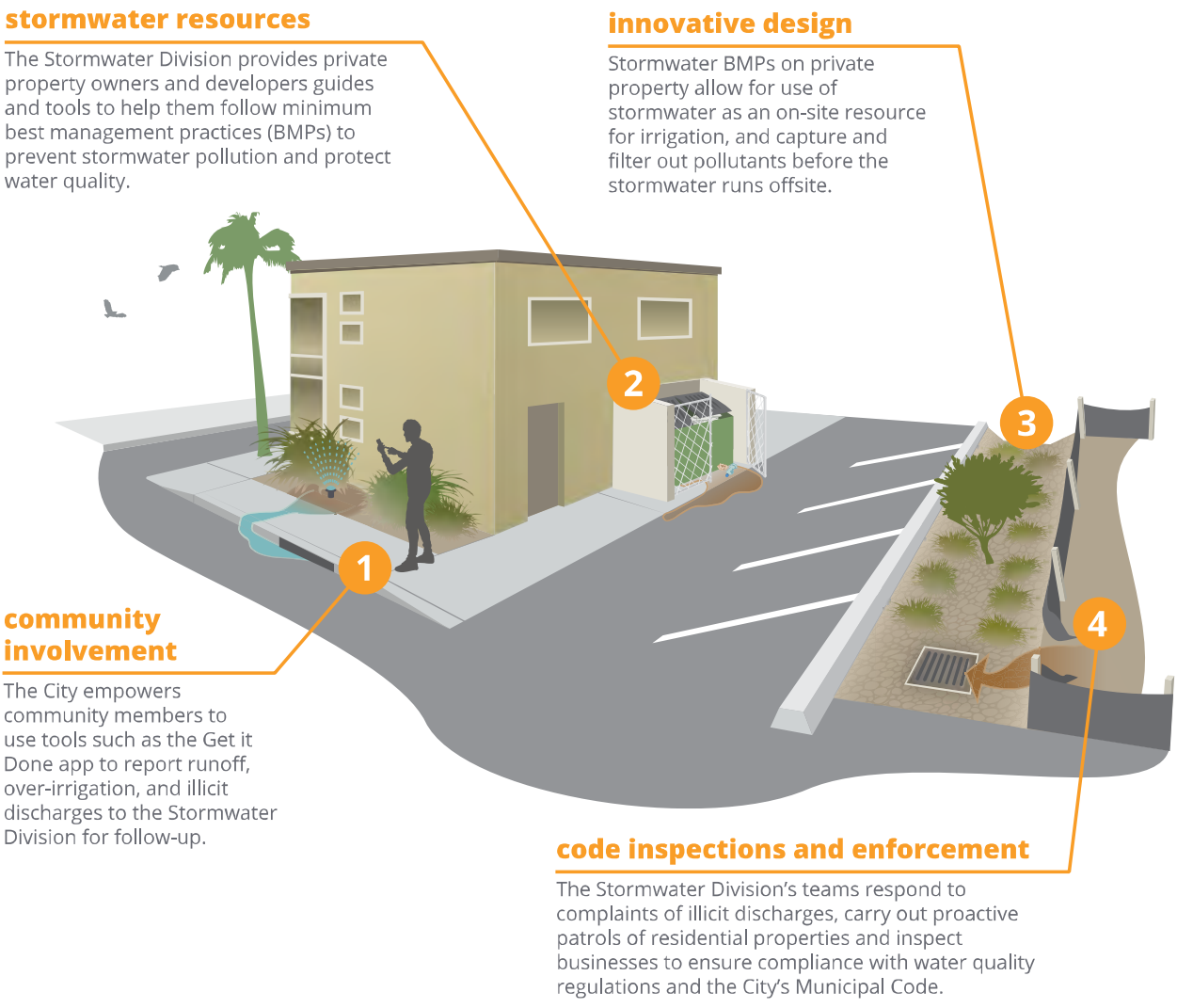

Figure 2-8. Conceptual schematic of stormwater elements and opportunities for coordination on private property.

The SWD closely coordinates many of these activities with other City departments. Inspections and enforcement for development projects, construction sites, and treatment control BMPs are coordinated with the Development Services Department (DSD). Inspections and enforcement for water conservation and concerns related to water and sewer are coordinated with the Public Utilities Department (PUD). Trash and homelessness abatement in canyons and the San Diego River are coordinated as part of CleanSD with the Environmental Services Department (ESD) to ensure that trash and large debris from homeless encampments do not adversely impact downstream water quality. Monitoring for water quality and environmental health throughout the City allows for an understanding of the successes of the Clean Water Program and identifies areas requiring further investigation. These investigations can include identifying the sources of different pollutants or provide a better understanding of the dynamic relationship between the living environment and stormwater runoff for specific water bodies.

Figure 2-9. Illicit discharges that can cause pollution to enter the stormwater system are investigated by SWD.

O&M efforts related to the Clean Water Program include the planning and innovation and inspections and compliance activities, as well as O&M of the existing stormwater system for removal of trash and pollution. This includes installation and O&M of trash capture devices, inspections, and O&M of GI and other stormwater BMPs, street sweeping, and catch basin cleaning.

CIP projects related to the Clean Water Program include GI (see also green streets in Section 2.3.3) and large-scale stormwater capture projects that may also provide environmental, water supply, and flood protection benefits. GI is a strategy to protect local water bodies used by the SWD at many scales, from smaller sites to entire neighborhoods. When paired with traditional stormwater infrastructure, it works to manage stormwater for safe and sustainable communities. A conceptual schematic of GI and the many benefits that it can provide is shown in Figure 2-10. These CIPs are broadly referred to as “Water Quality CIPs” in the Five-Year CIP.

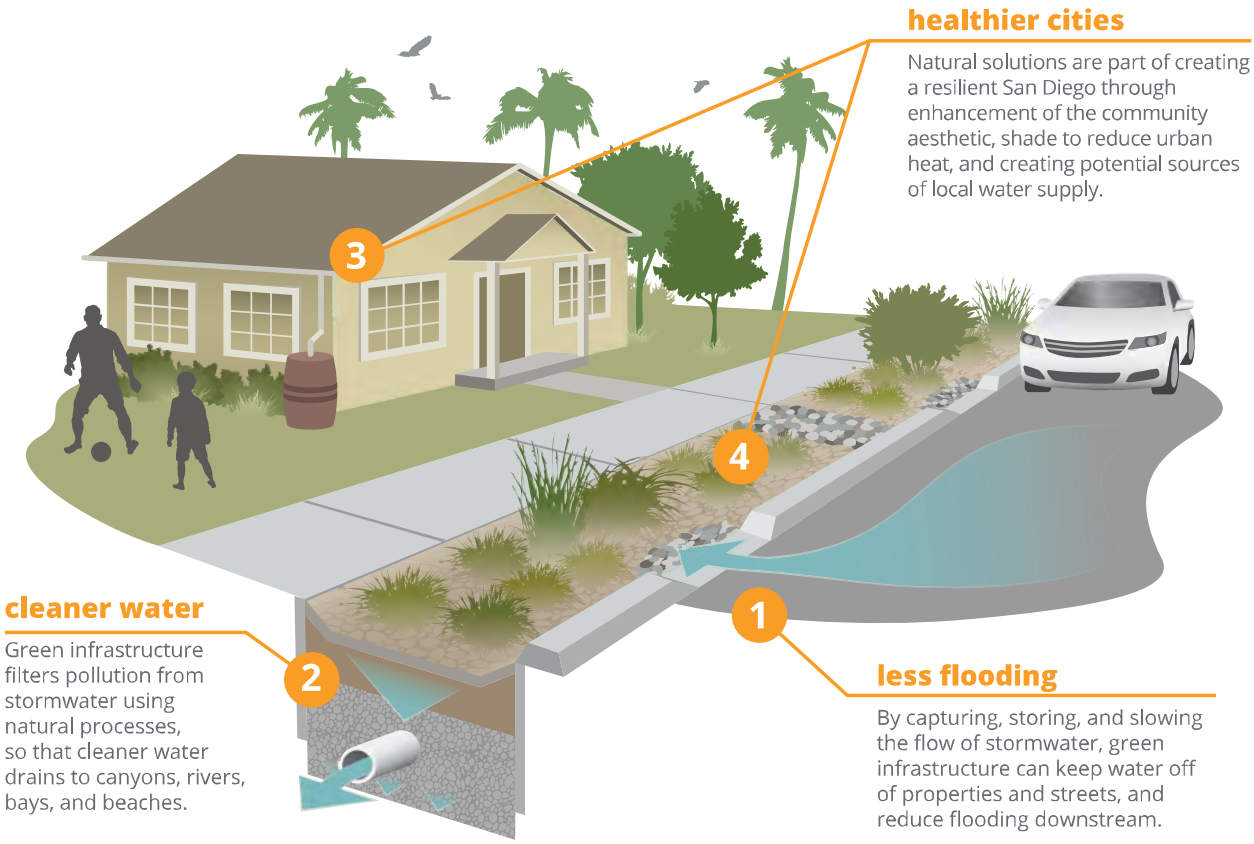

Figure 2-10. Conceptual schematic of GI and associated benefits.

2.3.2 Flood-Safe Communities Program

The SWD works in all weather conditions to build, maintain, and modernize the City's stormwater system. When it rains, the stormwater system quickly moves stormwater off the streets and into the massive, interconnected network that eventually empties into the Pacific Ocean. Prior to and during storms, SWD Storm Patrol team members are dispatched to areas with known infrastructure limitations (e.g., undersized inlets, failed pipes, and destabilized slopes) to inspect and prepare stormwater infrastructure and ensure community protection measures are deployed. The storm preparation crews are routinely required to manually operate and manage vulnerable stormwater infrastructure due to failures that have yet to be addressed. This includes mobilizing to install backup generators for the City's pump stations and position temporary wet-weather bypass pumps in flood prone areas. During storms, the Storm Patrol teams are on call to respond to instances of flooding, slope failures, and downed trees and branches to protect public safety (Figure 2-11).

Figure 2-11. Storm Patrol teams mobilize to assess impacts from rainfall, like the mudslide in December 2019 on 6th Avenue at the State Route 163 on and off ramps that resulted from a broken storm drain pipe that was discovered during investigation.

However, efforts to protect communities do not end when the sun comes out. As described elsewhere in this document, the SWD operates and maintains a vast stormwater system that includes over 1,148 miles of storm drain pipes, 69 miles of channels, 82 miles of drainage ditches or brow ditches, 15 pump stations, 8 miles of levees, and over 46,000 stormwater structures that include inlets, outfalls, cleanouts, culverts, manholes, energy dissipation devices, outfalls, spillways, tide gates, and headwalls, as illustrated in Figure 2-12.

Capital investments for Flood-Safe Communities include the repair, replacement, or upgrade of the existing stormwater system infrastructure and construction of new infrastructure where known flooding or system capacity issues exist. In recent years, CIP investment for Flood-Safe Communities has been primarily allocated to emergency failures resulting from the inability to proactively upgrade infrastructure due to funding limitations. The goal of the program is ultimately to transition to proactive repairs, replacements, and upgrades to prevent emergencies and ensure stormwater is safely conveyed away from streets and property to prevent flooding.

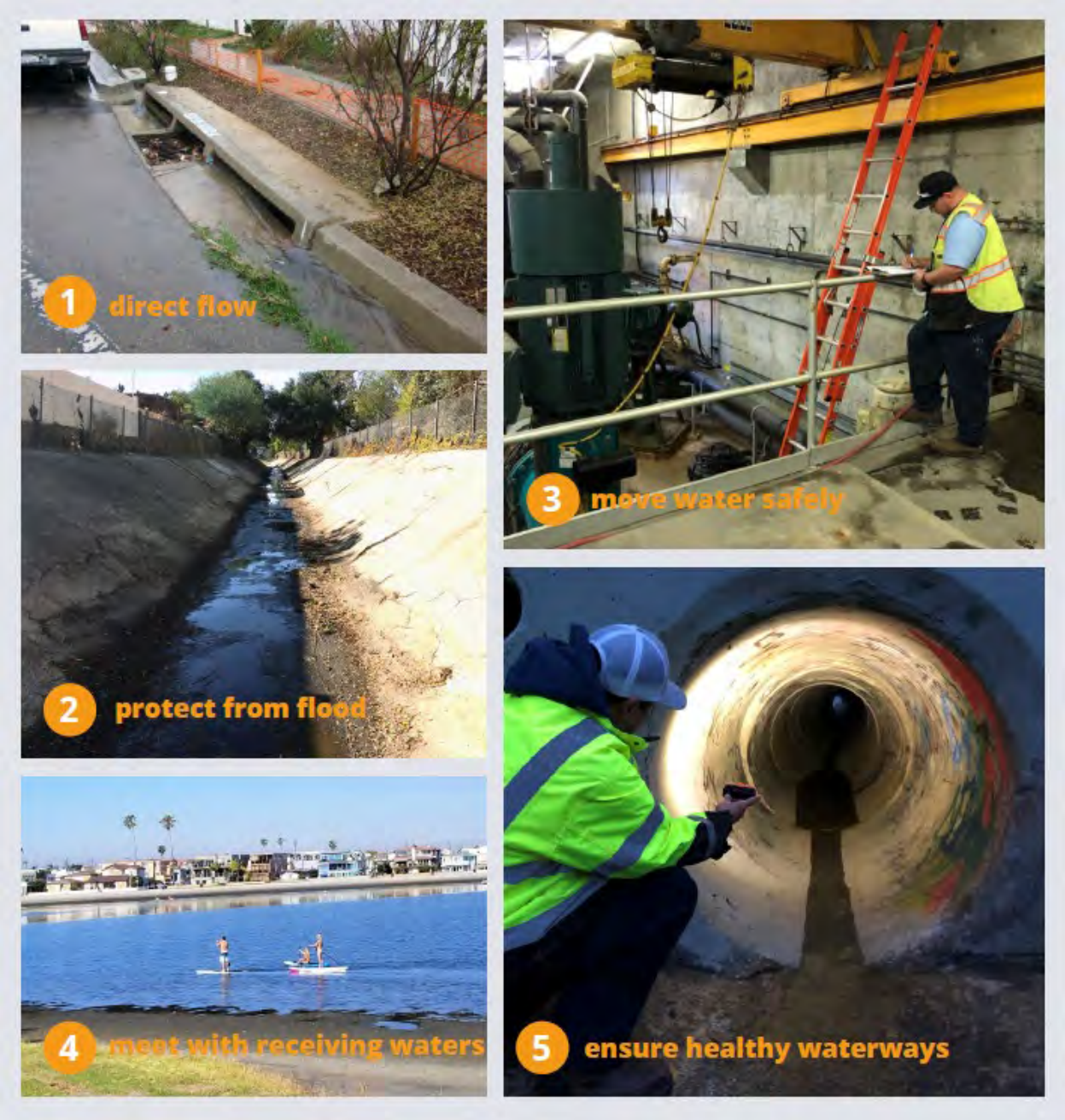

Figure 2-12. The SWD team regularly inspects, operates, and maintains the City's stormwater system, which includes inlets, channels, pump stations, outfalls, and pipes.

2.3.3 Clean Streets, Green Streets Program

The Clean Streets, Green Streets Program focuses on meeting numerous City goals for neighborhood livability, sustainable development, adding green spaces, smart stormwater management, and protecting clean water. The Program is centered around stormwater management along City streets and rights-of-way and involves coordination with other divisions and departments like the TSW Streets Division and the Sustainability Department. This includes O&M efforts like street sweeping and catch basin cleaning to strategically target pollution and trash at its source and keep streets and neighborhoods clean. The SWD has a fleet of 29 sweepers that routinely covers 2,700 miles of streets and removes 220,000 pounds of trash and debris per year (Figure 2-13). The SWD has upgraded some of the older sweepers with vacuum sweepers and enhanced routes that are driven by data to improve efficiencies by more than 30%. Additionally, the first electric cycle track sweeper was added to the SWD fleet in November 2020 to support mobility and sustainability goals in addition to providing water quality benefits.

Figure 2-13. Street sweeping is an essential public service that leads to clean communities and streets.

A conceptual schematic of a street sweeper and the benefits that street sweeping provides as part of the Clean Streets, Green Streets Program is shown in Figure 2-14.

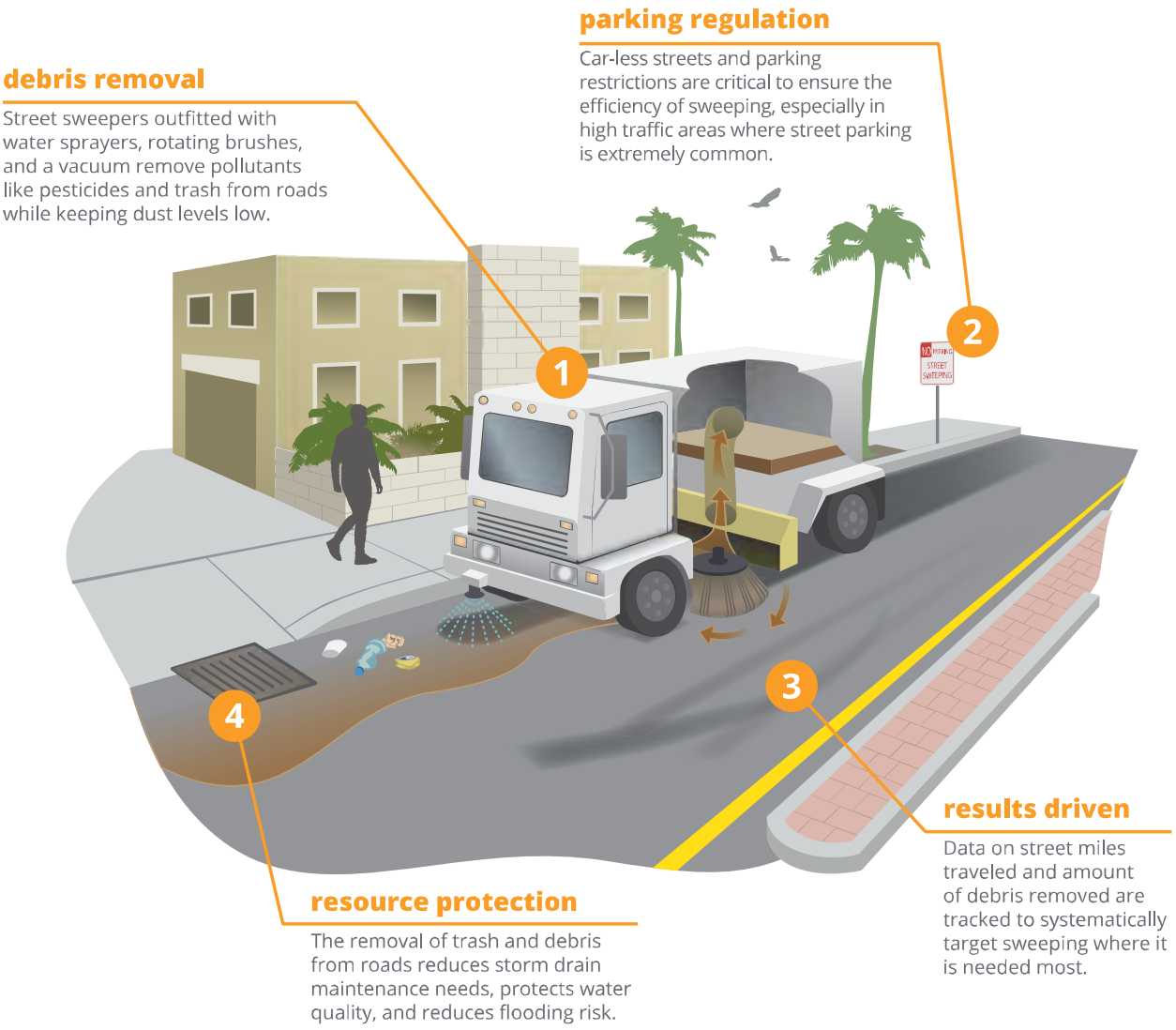

Figure 2-14. Conceptual schematic of a street sweeper and the beneficial outcomes that street sweeping supports.

In addition, the Clean Streets, Green Streets Program involves the implementation of BMPs like trash capture inserts in catch basins and GI such as vegetated parking strips (Figure 2-15) along streets to manage, capture, and filter or remove pollutants and trash before they travel further downstream. Other types of GI include bioretention, filtration systems, infiltration basins, swales, subsurface vaults, and vegetated filters strips. GI along streets is often designed with other street improvements in mind such as sidewalks, bike lanes, and curb and gutter enhancements. Additional information on GI is included in Section 2.3.1.

Figure 2-15. Green infrastructure along streets like this vegetated parking strip at Bannock Avenue adds green space and removes pollution from stormwater runoff.

2.3.4 Habitat and Community Enhancement Program

Enhancements to San Diego communities and the many local, diverse habitats within the City are inherent to other SWD programs. However, the SWD also has specific efforts that are central to the Habitat and Community Enhancement Program that include habitat and stream revitalization and integration of community features like trails and bike paths along water bodies (Figure 2-16). A conceptual schematic of stream revitalization is shown in Figure 2-17. The SWD often coordinates with the Parks and Recreation Department and local community groups like Groundworks Chollas when developing these initiatives.

One example of working with another organization to develop an initiative is the Los Peñasquitos Lagoon restoration project that will improve salt marsh habitat in the Lagoon through reducing the amount of sediment and fresh water entering it, providing vector (e.g., mosquito) control, reducing flood risk for properties adjacent to Carroll Canyon Creek, and creating up to 84 acres of salt marsh habitat. The restoration will be completed in two phases, and Phase I is currently in the planning, design and permitting phase. The City is pursuing funding for the project through a variety of grants.

Figure 2-16. Stream revitalization projects also provide flood management and water quality benefits, along with community amenities like trails (Chollas Creek).

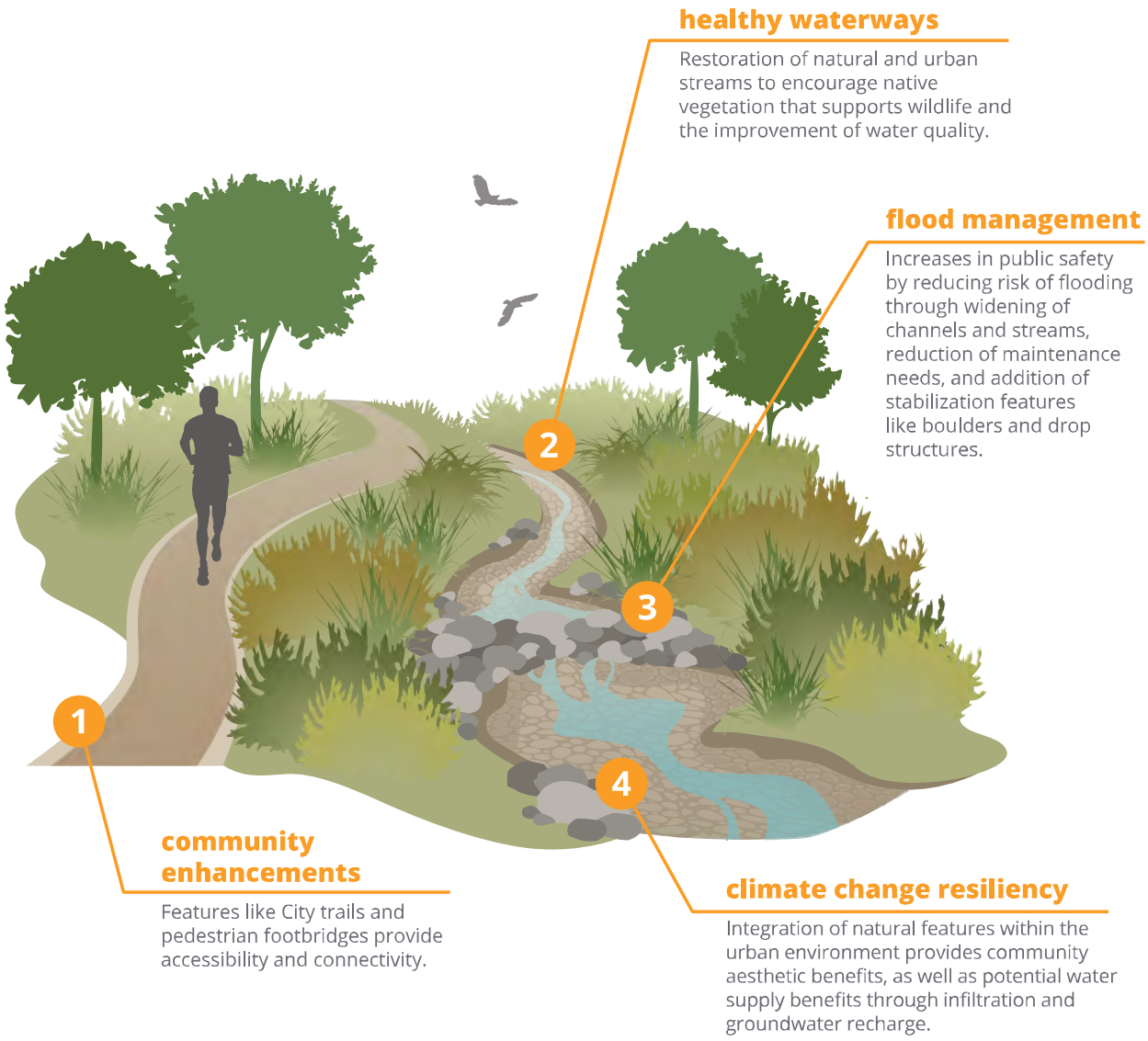

Figure 2-17. Conceptual schematic of stream revitalization.

2.3.5 Stormwater Harvesting Program

The Stormwater Harvesting Program is founded in the paradigm of managing stormwater as a resource rather than as a nuisance or waste. Stormwater harvesting, or stormwater capture and use, is the practice of collecting and storing stormwater for eventual beneficial use. Depending on the extent of treatment, the captured stormwater can be used for a variety of applications such as on-site reuse and watering, irrigation, wash water, use in water features like fountains, or conveying it to the sanitary sewer system for recycling and eventual potable use. Statewide and national initiatives on water conservation, capture, and reuse reflect that this is a growing priority and may become codified in state and federal regulations in the future. SWD and PUD are assessing the

viability of eight different stormwater harvesting technologies that could capture stormwater for use at varying scales throughout the City. Some of the technologies, including residential rain barrels, GI, dry weather diversions, and wetland and stream restoration, are already being implemented and provide additional benefits in conjunction with water conservation and water quality. For example, the City's existing water conservation program, which is a collaboration between SWD and PUD, offers rebates for the following practices:

- **Rain barrels:** Rain barrels capture stormwater runoff and prevent pollution from reaching the stormwater system and providing water to be used for on-site irrigation or watering (Figure 2-18).
- **Downspout redirects:** Devices that redirect rainwater from rain gutters to a pervious landscaped area that naturally filters pollution from runoff.
- **Sustainable landscaping and turf conversions:** These features help reduce outdoor water use.

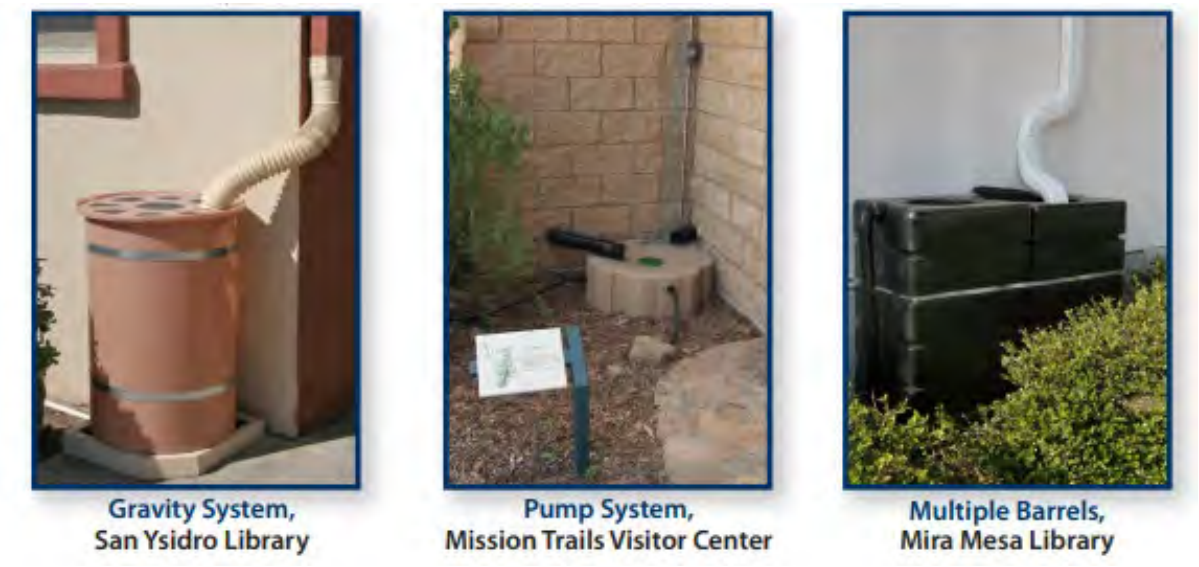

Figure 2-18. Rain barrel system types throughout San Diego.

Other technologies like low-flow diversions to the sewer system during dry weather, stormwater diversion to the Pure Water San Diego Program,[23] or stormwater diversion for recycled water are being evaluated in coordination with PUD for their feasibility and potential contributions to the City water supply. A conceptual schematic of potential stormwater harvesting technologies including diversion of stormwater for treatment is shown in Figure 2-19. The SWD and PUD plan to continue evaluating stormwater harvesting options in FY2021.

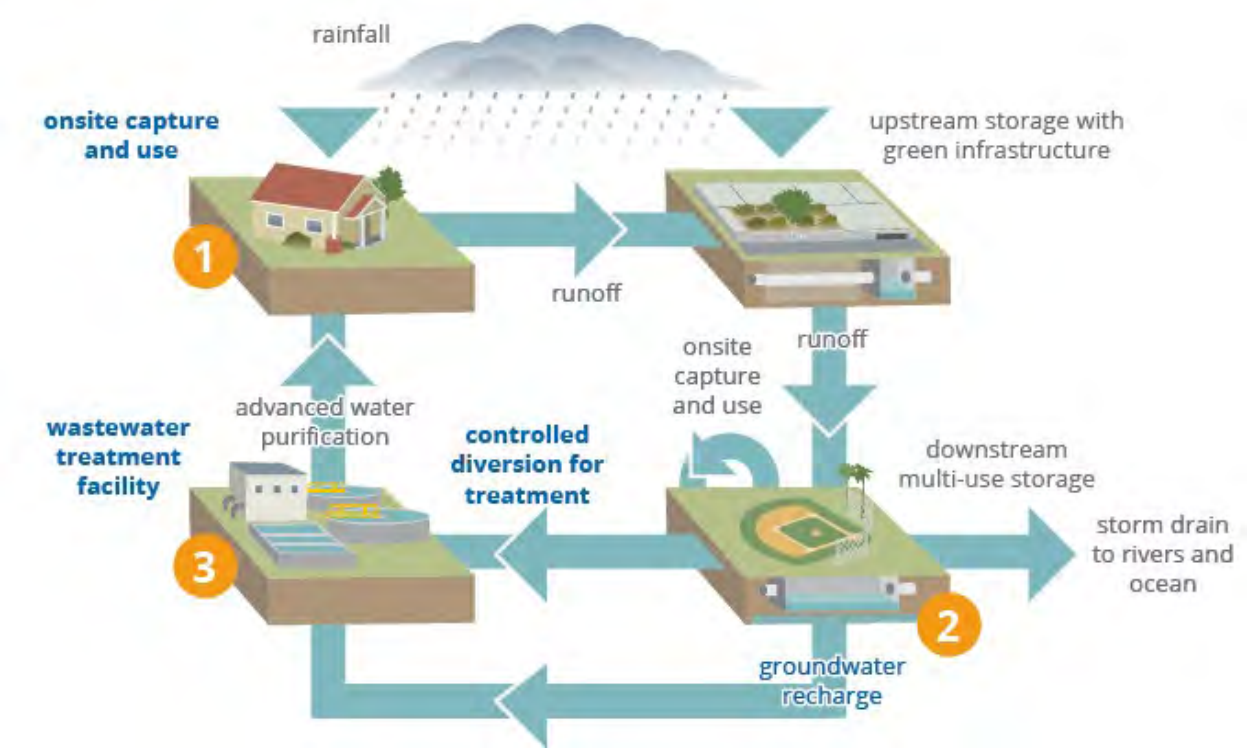

Figure 2-19. Conceptual schematic of stormwater harvesting technologies that are being evaluated by SWD and PUD.

2.3.6 Education, Outreach, and Engagement Program

Effective education, outreach, and engagement are pillars of stormwater management and are integrated into the day-to-day activities and strategic efforts the SWD undertakes to achieve its goals. They are also integral to stormwater compliance efforts, including the MS4 Permit, WQIPs, and JRMP, through educating local businesses, industry, and residents about their role and responsibility in preventing stormwater pollution and increasing awareness about stormwater in general. Strategic communications were also identified as critical for a successful stormwater program in the 2018 SWD Audit Report (Recommendation #4), which recommended the development of a Strategic Communications Plan. The SWD implements a variety of communication

[23] Pure Water San Diego is the City's phased and multi-year program that will utilize water purification technology to clean recycled water and provide safe, high-quality drinking water. https://www.sandiego.gov/public-utilities/sustainability/pure-water-sd.

strategies from the recent relaunch of the Think Blue website (www.ThinkBlue.org), to stakeholder presentations, to stenciling on storm drain inlets, to distributing instructional fact sheets for stormwater permit holders. The SWD also partners with local organizations like I Love a Clean San Diego to sponsor cleanups throughout the City (Figure 2-20). Other efforts that include Project SWELL (Stewardship: Water Education for Lifelong Leadership) are partnerships between SWD, San Diego Coastkeeper, and San Diego Unified School District to enhance existing curricula related to the environment and stormwater.

Figure 2-20. SWD partners with local organizations like I Love a Clean San Diego to clean up trash and debris throughout the City (Tijuana River Valley).

3.0 SWD Funding Needs

This section presents the revised WAMP 2.0 SWD funding need (Section 3.1), a discussion of efficiencies the SWD has realized to date to maximize the limited funding that has been historically allocated (Section 3.1.1), observed impacts of deferred action due to funding limitations (Section 3.1.2), and the consequences of continued inaction related to funding and unanticipated events (Section 3.1.3). The SWD first developed a WAMP (WAMP 1.0) in 2013 as a long-range planning document for the entire SWD program to comprehensively assess what the full scope of costs were to provide SWD services to their intended levels. The WAMP 1.0 was updated in 2020 and is referred to as the WAMP 2.0 throughout this Funding Strategy. Key terms and concepts from the WAMP 2.0 include the following:

- **SWD funding need:** The total O&M and capital costs incurred or planned to be incurred by SWD to provide stormwater services as determined by the WAMP 2.0 to advance SWD goals and compliance requirements. For the Funding Strategy, the funding need is reported as either an annual need or total need over the period of FY2021 through FY2040. The funding need is not the same as a rate-payer cost of service study like those developed by PUD for utility rates and is not intended to be the basis for a specific rate. Rather it refers to the funding needs of the SWD to provide essential services.
- **Replacement value:** The cost to replace the existing stormwater system (e.g., pipes, inlets, channels, pump stations, GI, etc.), which is considered the "value" of the system as determined by the WAMP 2.0 ($5.76 billion). This replacement value is included to provide context for the magnitude of assets that SWD manages and represents the total costs anticipated to replace the entire existing system once specific system components reach their full life expectancy and need to be replaced. The replacement value does not include O&M for the system or the cost of new system components like those required for compliance. The timeframe for replacement of the existing stormwater system extends beyond the forecast period for the SWD funding need for the Funding Strategy (FY2021–FY2040) due to replacement life cycles for some assets extending up to 100 years. It is anticipated that the cost of replacing elements of the system that will be past their useful life between now and FY2040 will be $455 million, with the remaining system replacement occurring after this forecast period[24].
- **Current or baseline funding:** Baseline funding for the SWD is equivalent to the approved budget for FY2021 of $48.5 million. Further detail is provided in Section 4.1.
- **Funding gap:** The difference between baseline funding and the projected SWD funding need from the WAMP 2.0. For the Funding Strategy, the funding gap is reported as either an annual gap or total gap over the period of FY2021 through FY2040.

[24] Other costs beyond the replacement costs noted can be found in the WAMP 2.0 located at the following link: https://www.sandiego.gov/stormwater/plansreports

A conceptual illustration of the relationship between the SWD funding need, baseline funding, the funding gap and deferred action is presented in Figure 3-1.

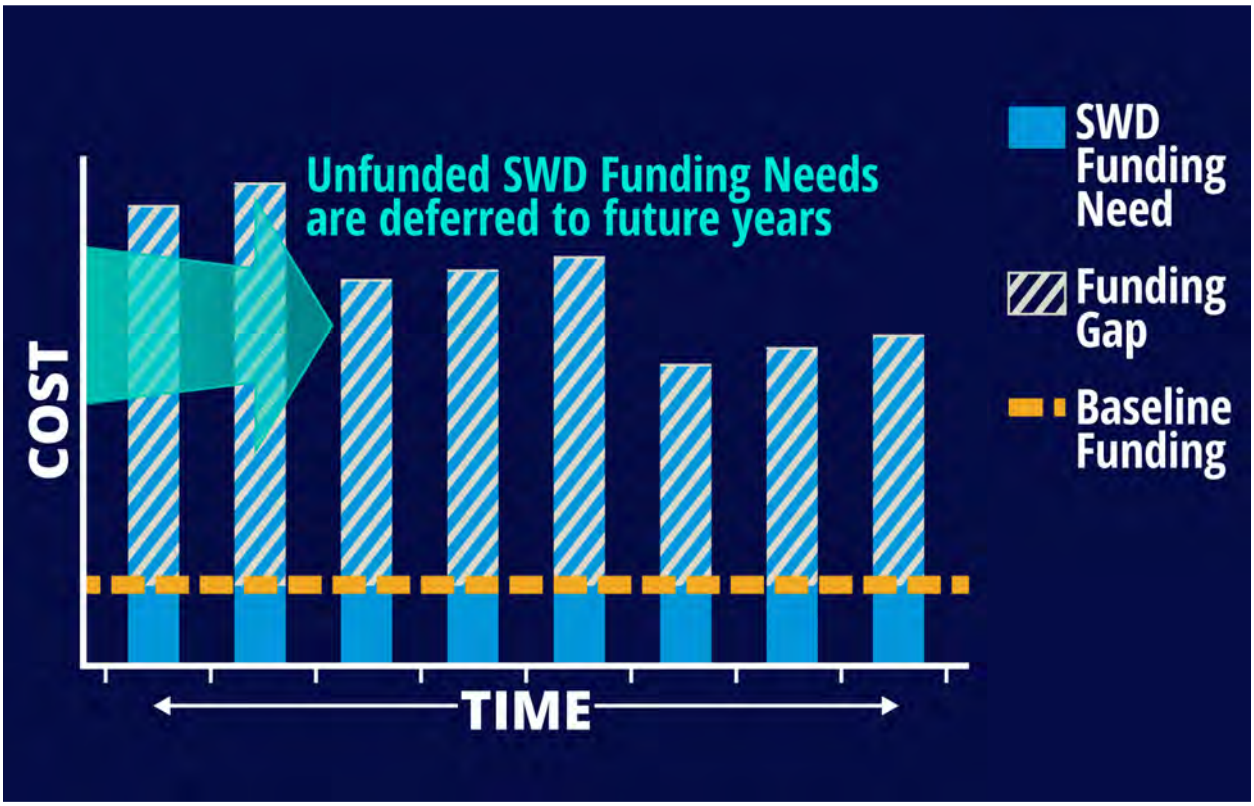

Figure 3-1. Conceptual illustration of the relationship between SWD funding need, baseline funding, funding gap, and deferred action.

The 2013 WAMP estimated the total replacement value of existing SWD assets (e.g., pipes, channels, inlets, etc.) at $3.49 billion (in 2013 dollars) and the total average annual SWD funding need was estimated at $199.8 million per year (in 2013 dollars) over a 100-year forecast period. Since 2013, the SWD has expanded characterization of the stormwater system through condition assessments, taken on responsibility for stormwater assets that were previously managed by other departments or entities like levees and stormwater assets in parks. Most significantly, SWD has developed WQIPs and water-quality related programs to better understand and quantify compliance needs.

3.1 WAMP 2.0 SWD Funding Need

The SWD funding need in the WAMP 2.0 has been updated from 2013 to incorporate assets and programs associated with the SWD's expanding services, capture the impacts of evolving regulations and compliance requirements, and quantify other City assets that the SWD now operates or maintains. The updated SWD funding need also accounts for the deferred CIP and deferred O&M backlog costs that have accumulated due to past funding limitations. The SWD funding need reflects

efficiencies that the SWD has implemented since the 2013 WAMP such as optimizing cleaning routes based on observed data to increase pollutant removal per route.

The SWD funding need is broken into two primary categories that are referred to as O&M and CIP, each of which is described in detail in Section 2.3 for each SWD program. O&M costs include planned activities like street sweeping, stormwater system maintenance, inspections, and monitoring and a backlog of needed routine channel maintenance that has accumulated due to underfunding over time ($95.3 million of backlog in routine channel maintenance). The increase in O&M costs over time is largely attributed to the corresponding increase in O&M for the growing number of water quality BMPs that are needed to meet CWA requirements and are planned to be constructed throughout the period highlighted. There are also O&M costs associated with program administration and staff costs associated with agency mandates, cleanup, abatement, and litigation. Costs associated with stormwater CIPs include (1) the repair and rehabilitation of existing assets that require a CIP, (2) the upgrade of existing assets to increase capacity or enhance benefits provided through a retrofit, and (3) the construction of new stormwater features.

The overall SWD funding need shown in Figure 3-2 is based purely on SWD needs and timing is based on deadlines for replacement and rehabilitation that are determined by assets' useful life or deadlines based on meeting CWA milestones. **The average annual funding need over the 20-year forecast period is $273.7 million**, which represents an additional annual funding need of $28 million per year from the 2013 per year when escalated to 2020 dollars. This increase is largely attributable to underfunded needs in previous years that have carried over and new SWD services. **The total SWD funding need over the 20-year forecast period (FY2021 through FY2040) is $5.47 billion.**

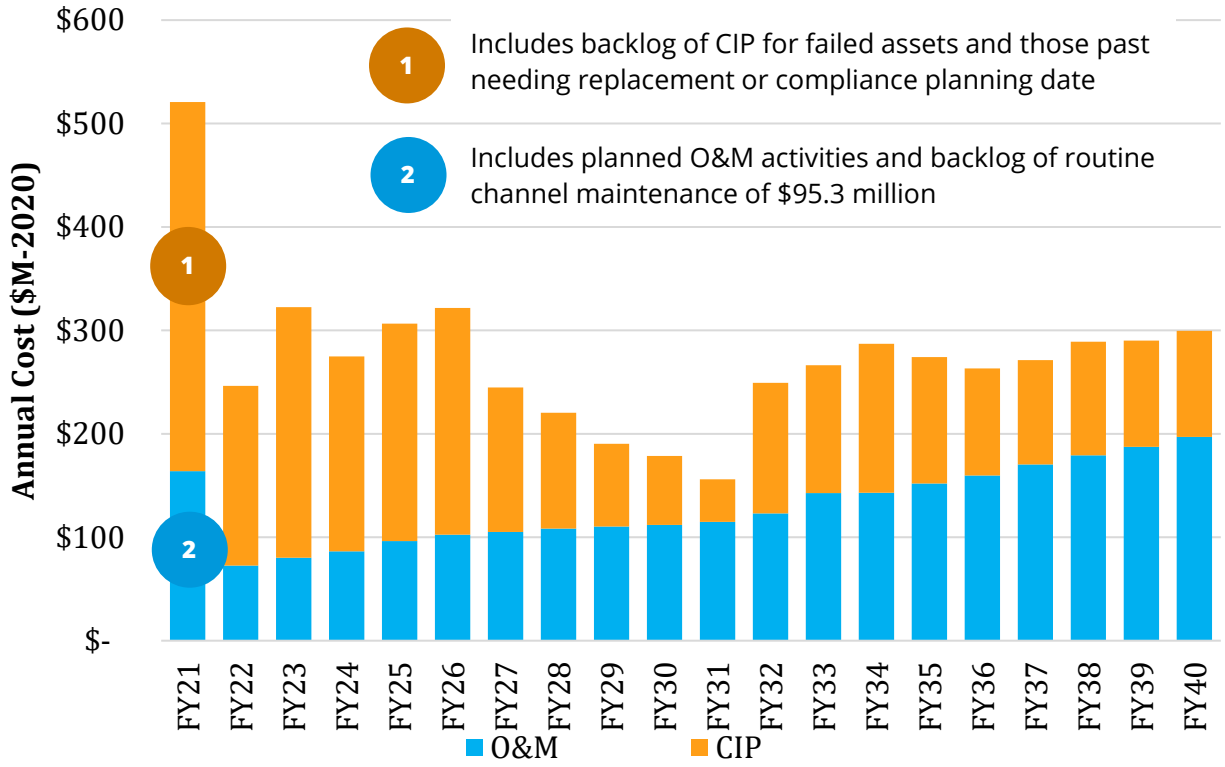

Figure 3-2. 20-year SWD funding need by category of O&M and CIP.

As shown in Figure 3-2, the large spike in costs shown in FY2021 is attributed to the backlog that has accumulated over time for both O&M activities (e.g., channel maintenance and enhanced street sweeping) and CIPs for failed assets, assets anticipated to fail per the WAMP 2.0 assessment, and compliance CIPs that have been delayed or deferred due to funding limitations. The SWD funding need for FY2021 is over $520.9 million dollars, while the approved budget (O&M and CIP) for FY2021 is $48.5 million, resulting in a funding gap in FY2021 of over $473.0 million. The implications of this shortfall and the SWD's approach to managing the funding gap are described in detail in Section 4.2.

The 20-year SWD funding need can also be broadly characterized between:

- Costs to maintain and improve the current stormwater conveyance system and
- Costs for programs that benefit safe, clean water and help achieve stormwater compliance (see Figure 3-3).

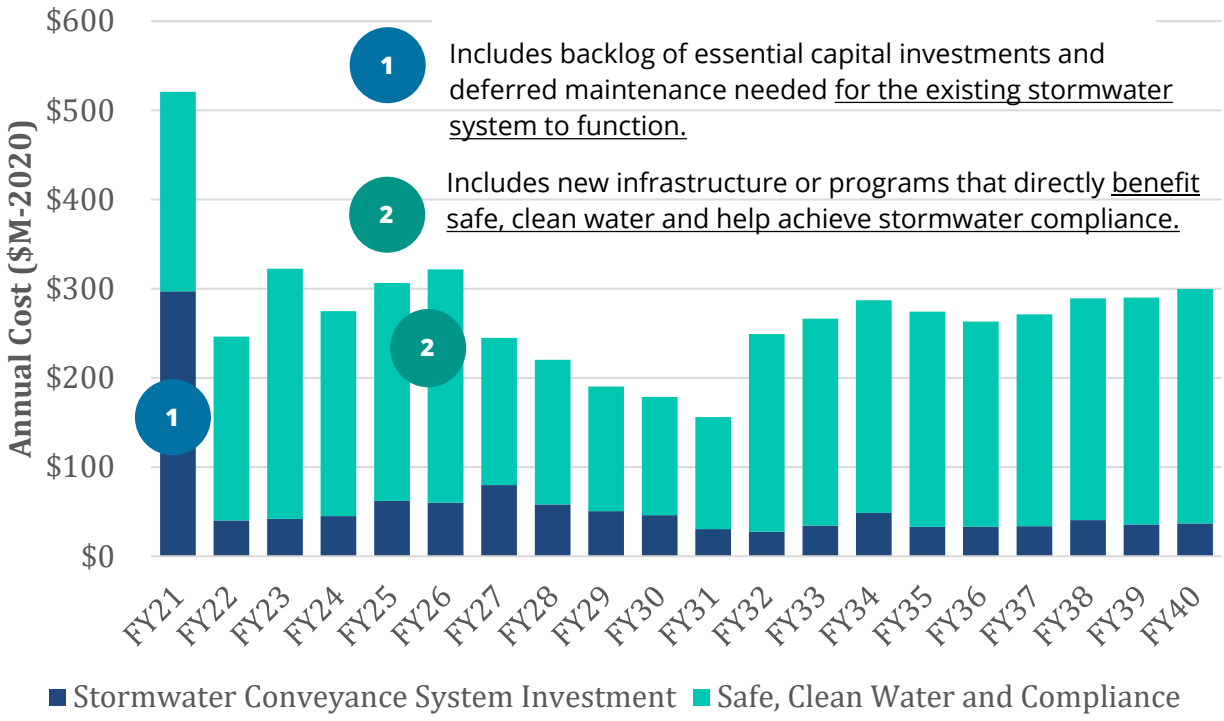

Figure 3-3. 20-year SWD funding need by broadly categorized "stormwater conveyance system investments" and "safe, clean water and stormwater compliance".

Over the forecast period of FY2021 through FY2040, **the funding need for O&M and essential capital investments for the existing stormwater conveyance system is $1.13 billion** (21% of the total SWD funding need)**,** including $297 million in FY2021 that includes deferred capital investments and deferred maintenance of the existing stormwater system[25]. **The funding need for programs that directly benefit safe, clean water and stormwater compliance over the forecast period is $4.34 billion** and represents over 79% of the total SWD funding need[26]. The stormwater compliance funding need is noted in the FY2020 CAFR (although through FY2035) and it is noted that forecasted needs far outpace current spending levels and projected future budget allocations.

[25] Through FY2040, the $1.13 billion of funding needed for investment into the existing stormwater system is estimated to be needed for both O&M of the existing system ($721 million) and CIPs to proactively repair, upgrade, and replace system components ($413 million).
[26] Through FY2040, the $4.34 billion of funding needed for safe, clean water and stormwater compliance is estimated to be needed for non-capital activities like street sweeping, compliance studies, inspections, enforcement, monitoring etc. ($2.81 billion) and stormwater compliance CIPs ($1.53 billion)

Additional detail on how the SWD funding need was developed, the assumptions related to cost components and spread over time, and the level of certainty in the data is available in the WAMP 2.0.[27]

3.1.1 Realized Efficiencies

The SWD funding need includes cost efficiencies or savings that the SWD has realized to date and will carry through current and future efforts, including those identified and subsequently implemented from the 2013 WAMP. These efficiencies include the development of integrated engineering plans that assess both stormwater system capacity for flood management (e.g., pipes, channels, and so forth) and water quality project features to prioritize integrated and cost-effective stormwater management solutions. The SWD has also instituted processes to collect data in the field using tablets and integrate the information into the asset management system to optimize activities, reduce uncertainty in asset characteristics, and inform effectiveness of O&M. One example is optimizing the storm drain cleaning program through identification of specific locations that require increases or decreases in cleaning frequencies based on historical data (rather than cleaning at a fixed frequency across the system regardless of need). A similar approach was taken with the street sweeping program to maximize the benefits of sweeping in areas that have an observed higher need for cleaning (e.g., commercial corridors and more densely populated areas). Additional efficiencies and evaluations of the street sweeping program will be implemented in accordance with the recommendations of the Street Sweeping Audit by June 2022.

The SWD has been successful in negotiating with the Regional Board to use a site-specific WER for the Chollas Creek copper and zinc TMDL, which resulted in a **saving of approximately $880.0 million (in 2013 dollars) over 20 years.**[28] The SWD has also been engaging with the Regional Board on a coordinated citywide approach to address bacteria that reflects advancements in understanding and locally collected data referred to as the "Bacteria Tactical Plan." This approach emphasizes source control strategies and coordinated efforts that will address other pollutants (e.g., trash capture devices) and shifts away from a structural BMP-focused approach that may be less effective. This compliance pathway has not officially been approved by the Regional Board; however, the City has already initiated implementation of some of the recommendations.

Additionally, the City has evaluated the opportunity for extending the useful life for certain CMP segments by lining of the pipes with concrete and using an in-house pipe repair team rather than going through the full CIP process for eligible projects.[29] This study was completed in FY2020 and indicated that savings on the order of approximately $423 (or 48%) per lineal foot could be realized

[27] City of San Diego. 2017. Water Quality Improvement Plans. Stormwater Division Plans and Reports web page on the City of San Diego website. https://www.sandiego.gov/stormwater/plansreports.

[28] City of San Diego. 2014. *Development of Site-specific Water Quality Objectives for Trace Metals in Chollas Creek: Water-Effect Ratio Study for Copper and Zinc and Recalculation for Lead*. Transportation and Stormwater Division.

[29] City of San Diego. 2019. *City-wide Corrugated Metal Pipe Assessment – Public Response to Stormwater Audit*.

by using an in-house pipe repair team and approximately $365 (or 42%) per lineal foot by lining CMP segments to extend their useful life. When extrapolated Citywide, these adjustments could result in more than $37 million for the CMP repair and replacement program as a whole. This evaluation also determined that doubling of the in-house pipe repair team (phased over FY2020 and FY2021) would allow for incremental increases in capability to allow for the current backlog of repairs past their useful life to be completed by FY2025 and that, by FY2027, the repairs would be able to address CMP segments reaching expiration in real time. **The SWD has prioritized additional in-house pipe repair staff in budget requests for both FY2020 and FY2021 and was not allocated the funding for additional staff with either request.** In addition, funding that has been provided for the current in-house pipe repair team in FY2021 for lining has been redirected to fund emergency projects. The impact of these unfunded requests is the prolonged and continually increasing dependence on vulnerable assets throughout the City that have passed their useful life and may lead to failures, flooding, and sinkholes. The SWD is taking an alternate approach to minimizing the reliance on these pipe segments by using temporary wet-weather pumps; however, that action has a significant financial and resource impact as well that is further described in Section 3.1.2. Without additional and sustained funding to repair and address the backlog of pipes near failure, it is anticipated that an increase in failed assets and emergency repairs or rehabilitation will occur.

3.1.2 Deferred Action

Deferred action refers to the deferment of planned O&M activities and CIP investments that have been delayed past their necessary completion date and result from funding limitations and other resource constraints. Deferred O&M includes activities like channel O&M and clearing, inlet and drain cleaning, pump station O&M, minor pipe repairs and replacements, and O&M of stormwater BMPs (e.g., GI, sediment basins, detention ponds, or multi-benefit capture facilities). Deferred CIP projects include repair and replacement of assets that are past their useful life and the deferred construction of new projects like those needed to address water quality concerns due to funding and resource limitations.

Each year, the City targets specific goals for routine O&M activities and CIP investments to adequately maintain and replace failing infrastructure. However, these goals are consistently impacted by program funding shortfalls that come about when routine O&M activities must be deprioritized in order to respond to unplanned activities and emergencies related to failed stormwater infrastructure. The problem is cyclical: The inability to fund routine O&M and CIP projects continues to result in more and more failed infrastructure, which forces the City to apply "Band-Aid" or short-term O&M strategies to failed infrastructure, and the cycle repeats. As a result of this cycle, annual stormwater funding continues to be deferred from normal operational strategies and capital investment to address consequential emergencies and liabilities (see Section 3.1.3). For example, as of November 2020, SWD was using bypass pumps to temporarily divert stormwater runoff at 24 locations where storm drains had either failed but not yet been replaced due to a lack

of funding (16 locations) or where the system is deficient and needs to be retrofitted or upgraded (eight locations) (Figure 3-5). Many of these locations have been managed with this inadequate and costly strategy for several years. **As of FY2020, the City had invested more in accumulated pipe bypass activities ($16.6 million) at these sites than it would have cost to replace or upgrade the failed pipes ($14.1 million).**[30] If the SWD continues to operate temporary bypass pumps at these locations rather than upgrade the system, an additional $107.9 million in O&M costs and potential liabilities could be incurred through the period of FY2021 to FY2040.

Figure 3-4. Stormwater staff operate bypass pumps at pipe failure locations (Prairie Mound Way shown) as a temporary mitigation measure due to funding being unavailable to permanently repair or upgrade the pipe.

Coupled with other deferments in O&M activities and deferred capital investment, the **SWD is anticipated to accumulate over $1.57 billion in emergency remedial actions, claims, and productivity loss due to deferred O&M by FY2040** if this cycle is not broken.[31] While this estimate is not explicitly included in the WAMP 2.0 and the SWD funding need, it serves as an indication of

[30] An analysis for bypass pump costs was completed following the FY2020 wet season for locations that required temporary pumps to be operational. The number of pumps and locations may change each year as additional failures occur or as bypass locations are fixed as an emergency CIP or through the CIP process.
[31]The SWD conducted a deferred action analysis in FY2020 that evaluated the financial impact of potential liabilities, productivity loss, and emergency remedial actions based on impacts and costs to date for emergency projects, claims, and fines against the City.

increasing risk that the City is subject to if SWD continues to be underfunded at such a staggering level.

3.1.3 Consequences of Inaction and Unanticipated Events

Deferred maintenance and deferred capital investment can result in system failure such as flooding and sinkholes and can also impact the ability to meet regulatory compliance deadlines and expose the City to increased liabilities and lawsuits. Furthermore, emergencies that result from system failures can require diversion of funding from other programs. For instance, in FY2020, $26 million was diverted from other City divisions to address imminent health and safety hazards from stormwater emergencies.

While the WAMP 2.0 is a powerful tool for cataloguing assets and strategic planning, the activities and costs forecasted are based on the best available knowledge for predicted conditions and identified needs and cannot fully capture the financial and human resources impacts of emergencies, failures, fines, liabilities, underfunding, and other unforeseen events. On nearly an annual basis, depending on the intensity and duration of the rainy season, the SWD must divert resources and manpower to manage emergency replacement or repairs. These emergencies often occur when pipes that are past their replacement date or are stressed beyond their designed capacity fail, which in turn may cause flooding, sinkholes, erosion, and other stormwater system failures. When an emergency is reported, the SWD evaluates the extent of the failure and determines whether an in-house repair team can adequately fix the issue or whether the project needs to go through the CIP process and transfer to the City Engineering and Capital Projects (ECP) Department. Costs for in-house emergency repairs and replacements result in a further delay of completion on other planned SWD maintenance and CIP efforts. Emergency contracts follow a prescribed emergency contracting process that includes premium pricing for mobilization, time, and materials for the emergency response. The costs associated with these emergency repairs and CIPs are not planned within the SWD budget each year and funding has historically been transferred from other planned and budgeted stormwater and transportation projects. In addition, if a failure qualifies as an emergency, the City cannot upgrade the asset and must do only the minimum to remove the emergency risk, which results in the repair still requiring full replacement in the future. This results in inefficiencies, additional costs, and repetitive work. **So far in FY2021, there are a total of 1,971 known failure or serious asset degradation locations that have been identified and could pose a potential risk to public health and safety due to the potential for flooding or structural collapse (Figure 3-5).** Appendix E presents additional detail on the FY2021 known failure and asset degradation locations by type and Council District. The number of locations that can be addressed is restricted by funding and resource availability. It is anticipated that six of these locations will be addressed through maintenance or repair in FY2021.

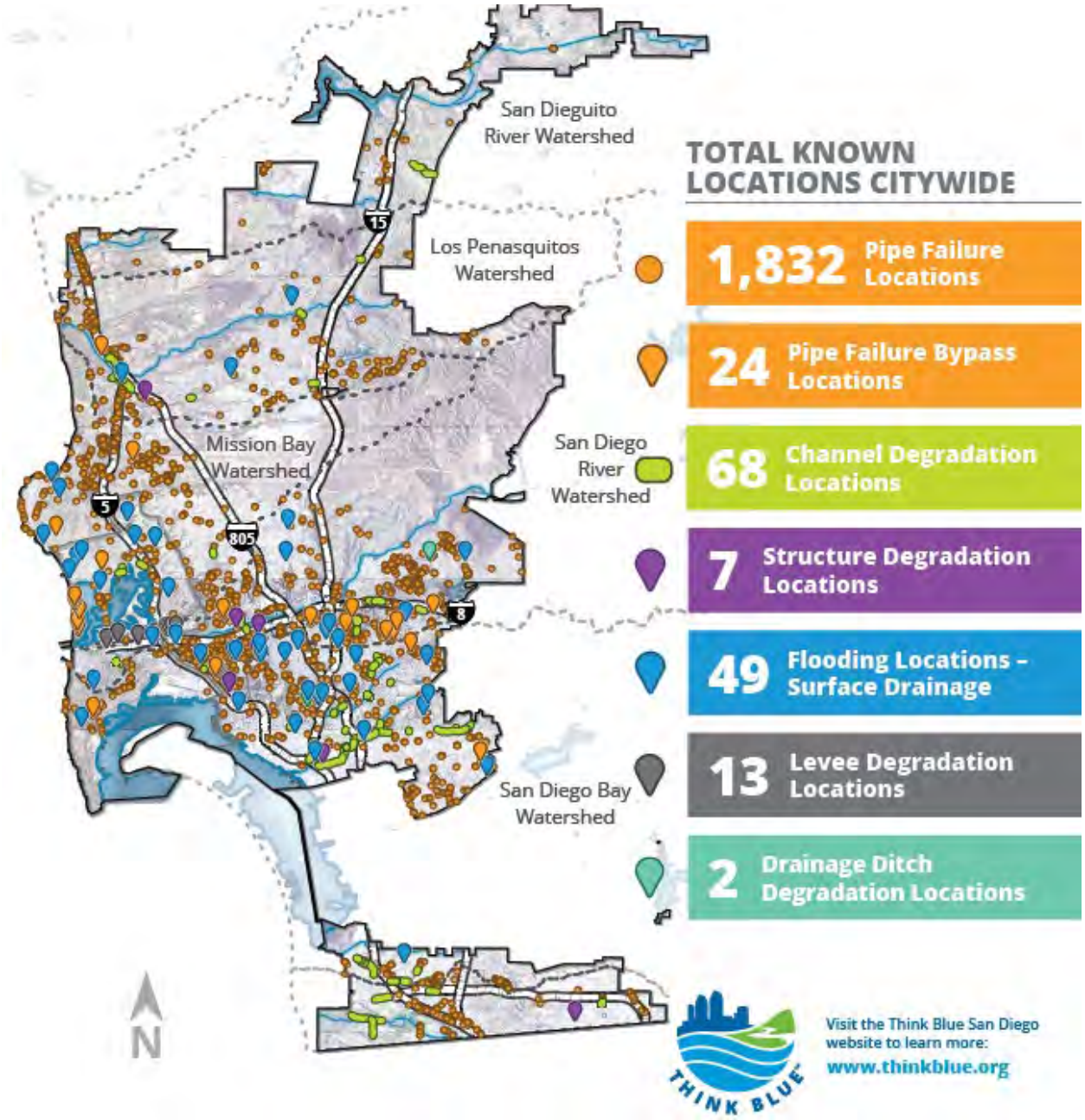

Figure 3-5. FY2021 known stormwater failure or degradation locations identified as part of the annual community flood risk assessment.

Emergency CIPs are tracked at the project level and often have longer term impacts that extend to surrounding areas due to the complexity and interconnectedness of the projects, like additional failures downstream in the storm drain system. Emergency CIP projects are also more costly than planned CIPs because they are not competitively bid. **In FY2019 there were 10 emergency CIP projects costing a total of over $23.4 million. In FY2020 there were eight new emergency CIP projects identified with total costs of over $17.4 million. As of January 2021, there have been six new emergency CIP projects identified in FY2021 with an estimated cost of over $3.8 million.** The largest emergency that occurred in FY2020 was the Crest Canyon Emergency Storm Drain Replacement located within Crest Canyon Park, which is the result of a failed storm drain that led to a number of sinkholes and continued to destabilize throughout the rainy season (Figure 3-6). Additional funding will be needed for emergency CIPs in FY2021 as the rainy season continues. Funding will need to come from defunding other City projects, including outside of stormwater and transportation, until a new revenue source is identified, such as General Fund supported note and bond offerings. **For context, the total citywide FY2021 Adopted CIP budget is $367.5 million in new funding, which includes both Enterprise and General Fund project allocations, of which the SWD was allocated $1.0 million.**

Figure 3-6. Sinkhole at Crest Canyon Park resulting from a failed CMP (FY2020).

Emergency repairs and replacements are symptomatic of the aging stormwater conveyance system and highlight the impact that deferred O&M and replacement has on exacerbating the already staggering backlog and diversion of resources against necessary planned activities. Other consequences of inaction can include claims, litigation, and fines filed against the City (or SWD specifically) for stormwater-related concerns. Claims that are filed against the City for stormwater issues typically result from the impacts of deferred O&M or deferred capital investment, including flooding, inaccessibility to critical roads or businesses, and property damage. Between FY2015 and FY2020, the City was liable for 324 claims for over $6.6 million. Successful claims are paid from the City's Public Liability Fund, which is managed by the Risk Management Department, and highlight the citywide impact that insufficient funding and deferred action can have.

In addition, the SWD is responsible for complying with the MS4 Permit under the federal Clean Water Act, which has several upcoming regulatory deadlines that are heavily impacted by current funding limitations and timeline requirements. A summary of the water quality impairments by

general pollutant category that the City must address, often in coordination with other municipalities and partners, is shown in Figure 3-7 (Appendix F includes a complete FY2021 environmental water quality impairment summary). If the SWD does not meet MS4 Permit requirements, it is possible that the RWQCB could levy fines and penalties on the City of $10,000 per day per violation and the US EPA could levy additional penalties of up to $55,800 per day per violation. Every discharge from the storm drain system in violation could be assessed separately. These fines are traditionally paid out of the SWD operating budget and can have a significant impact on SWD's ability to provide essential and critical services. To date, the SWD has received four compliance-related actions, with two of the actions resulting in financial penalties for a total financial impact of nearly $4.2 million ($2.1 million paid directly to regulatory agencies and the remaining $2.1 million dedicated to supplementary or enhanced compliance projects agreed to with the agencies). The SWD may also be at risk for private citizen lawsuits for noncompliance with the CWA if underfunding leads to failure to achieve compliance with the CWA.

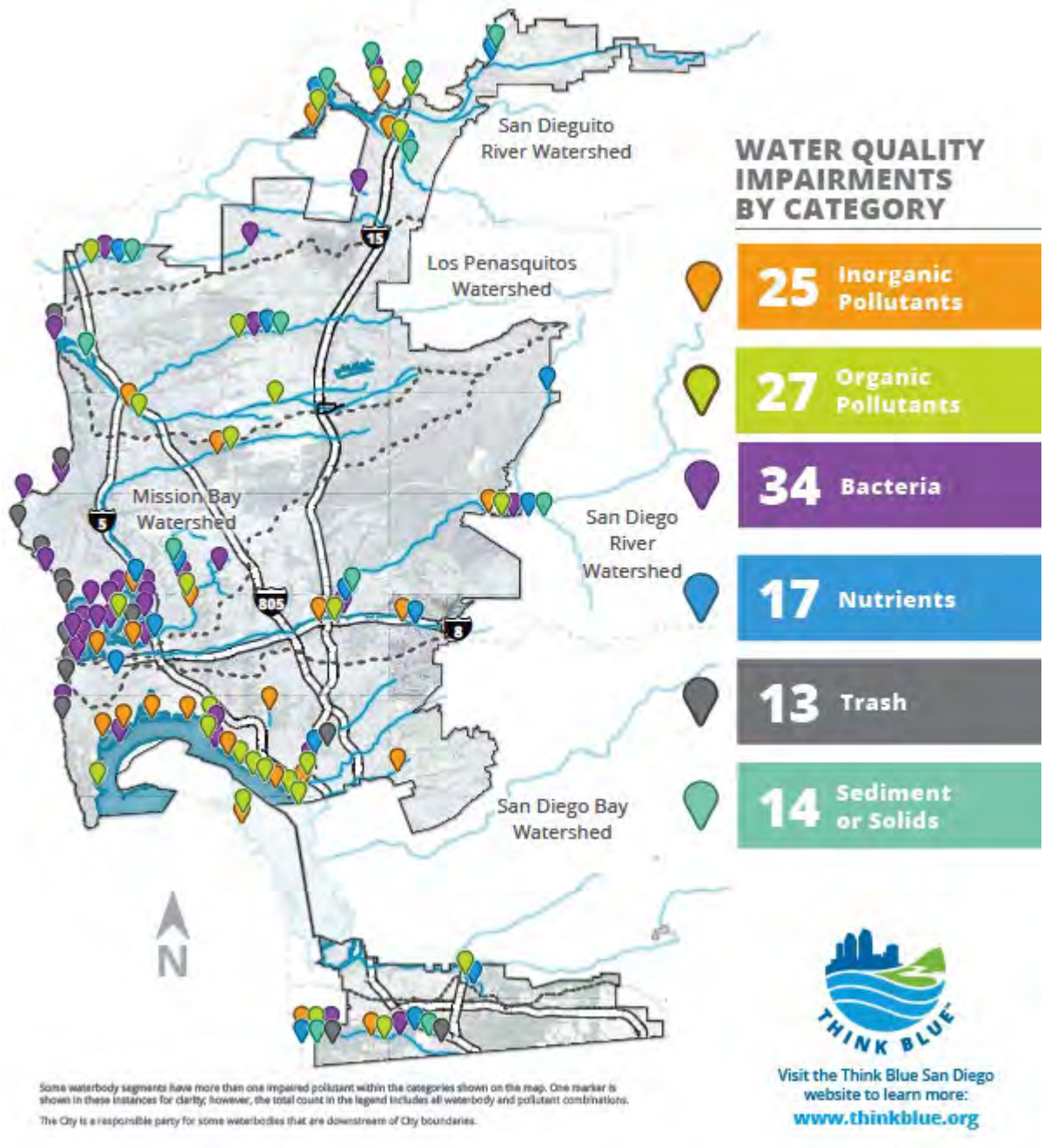

Figure 3-7. Water quality impairments by general pollutant category that the City must address as of FY2021.

4.0 Historical and Current Funding

Historical funding and expenditures for the SWD have been evaluated previously as part of the 2013 WAMP, 2016 Stormwater Fee Study, and most recently the 2018 Audit. Historical expenditures cover both O&M costs and stormwater CIP costs: Total historical expenditures for FY2016 through FY2020 and adopted budget for FY2021 broken down by O&M and CIP are included in Figure 4-1.

The O&M budget supports daily operations and routine work, including salaries, benefits, supplies, and administrative costs and includes the activities described in Section 2.3. Actual expenditures for O&M decreased by approximately 10% per year from FY2017 to FY2019, increased slightly in FY2020, and then dropped significantly in FY2021 due to funding limitations and COVID-19 impacts on the economy, which has required that SWD staff prioritize the most critical expenditures and activities and implement efficiencies to operate within the limited budget.

Historical CIP investment levels have averaged approximately $20.0 million per year over the past five years (FY2016 through FY2020) and have been generally classified into water quality projects like GI, replacement, and repair of stormwater conveyance components and flood risk management projects. CIP budgets were cut significantly to $1.0 million in FY2021 and will result in an increase in backlog to $367.0 million in CIP investment going into FY2022 if additional funding is not added throughout the fiscal year.[32]

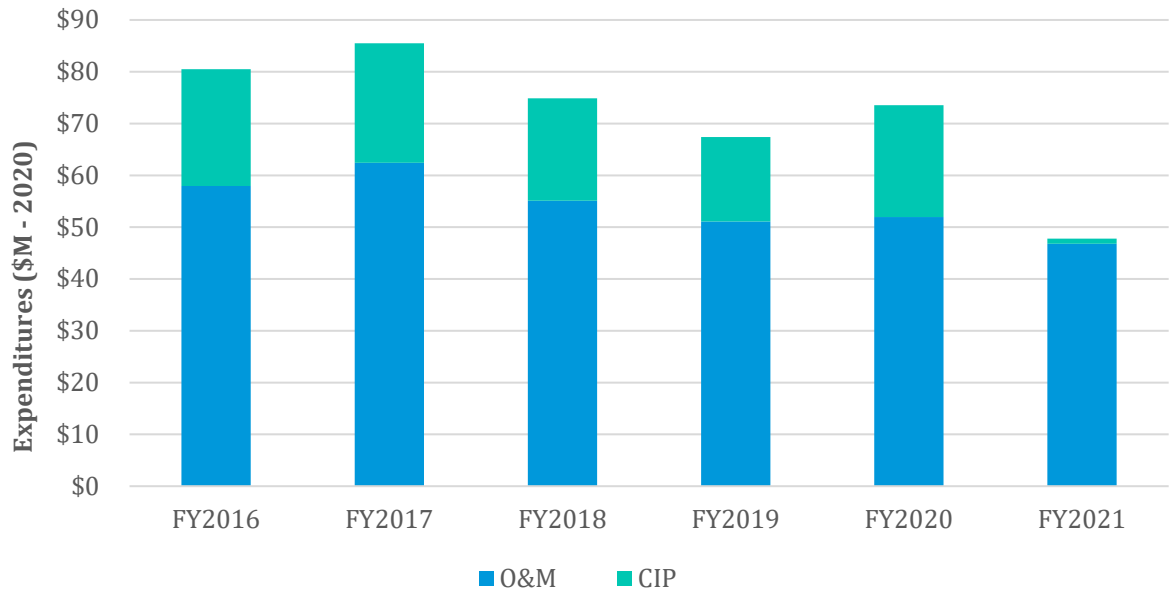

Figure 4-1. Historical expenditures (FY2016-FY2020) and adopted budget for FY2021.

Historically, the primary funding source for the SWD has been the City General Fund. The SWD generates a limited amount of revenue through three sources: (1) parking citations from the street

[32] It is anticipated that approximately $26 million in emergency CIP funds may be added for stormwater CIPs through the fiscal year to address projects that pose an imminent and serious public health and safety concern.

sweeping program, (2) revenue from an existing storm drain fee, and (3) fines from stormwater enforcement. While each of these funding sources has historically been allocated to the SWD, they are legally unrestricted and are subject to City discretion as part of the annual budget process. Other ancillary funding sources that have historically varied annually include grants, TransNet, transient occupancy tax (TOT), and other restricted funds (e.g., the Parking Meter District Fund). A summary of these historical sources from FY2016 through the adopted FY2021 budget is shown in Figure 4-2.

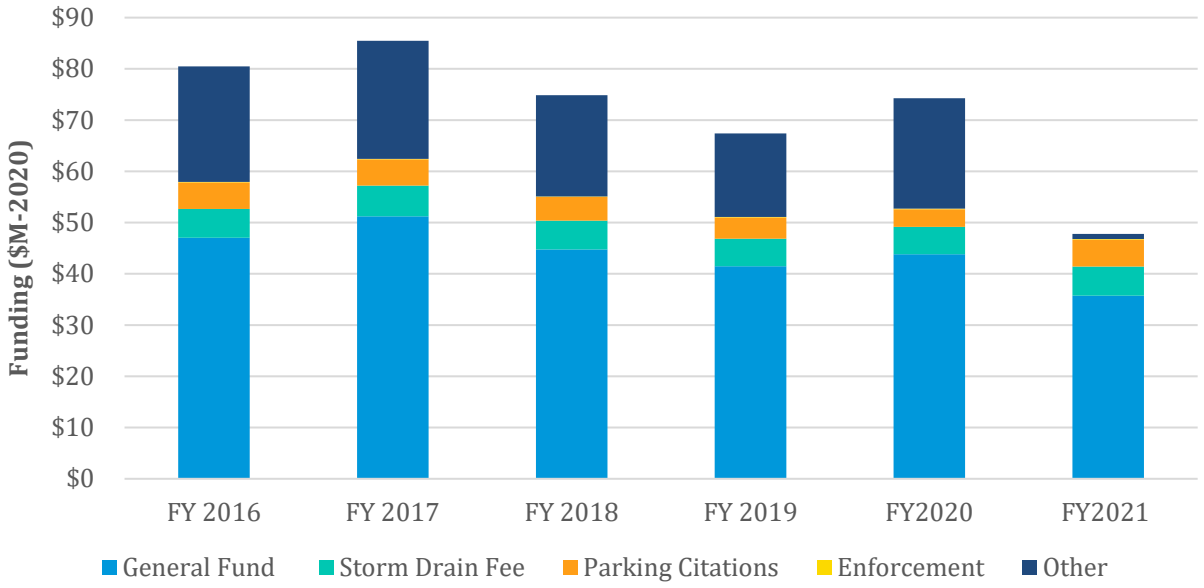

Figure 4-2. Historical (FY2016–FY2020) and budgeted FY2021 funding sources.

Due to significant changes in the Citywide budget and allocations resulting from impacts from COVID-19, the Funding Strategy uses the budget for FY2021 as the "base year" for future funding availability. The following subsections characterize the current FY2021 funding sources, the funding gap, and the anticipated impacts on service levels if current funding levels remain the same.

4.1 Current Funding (FY2021)

Current funding for FY2021 is based off the FY2021 Adopted Budget, with additional detail provided for specific revenue source or fund allocations. When compared to the FY2020 Adopted Budget of $2.6 million, the FY2021 Adopted Budget represents an overall decrease of 61% ($1.6 million decrease). The reduction is largely due to a net decrease in CIP funding. The funding sources for FY2021 are identified in Table 4-1 with designation of the entity that has the authority to allocate these existing revenue streams (either the SWD itself or the City as an unrestricted or restricted revenue option).

Table 4-1. FY2021 Adopted SWD Budget Funding Sources

Projected Funding Source	Amount
SWD Discretion/Authority	
Stormwater Enforcement and Other Fines	$125,000
City Discretion/Authority	
Parking Citations for Street Sweeping	$5,250,000
TOT	$1,000,000
Other General Fund[a]	$34,846,439[a]
Storm Drain Fee (Existing)	$5,700,000
City Discretion/Authority (Restricted)	
TransNet (for CIP)	$1,000,000
Parking Meter District Fund	$600,000
External Discretion/Authority	
Grants and State or Federal Loan Programs	$0[b]
TOTAL	***$48,521,439***

Notes:
[a] The $34,846,439 General Fund line item is reflective of the FY2021 budgeted O&M expenditure amount for SWD minus budgeted revenue or transfers for TOT and the Parking Meter District Fund.
[b] The SWD has applied for, or is in the process of applying for, grants and loans including WIFIA and CWSRF to fund specific SWD projects. The grants and loans have not been awarded so no funds from grants are being assumed at this time.

The SWD O&M expenses are primarily funded by the following sources:

- **Storm Drain Fee revenue**: The City currently generates on average $5.7 million per year in revenue from the existing storm drain fee. This fee is charged to City parcels on a monthly basis as a $0.95 per parcel fee to residential parcels and a $0.0647 per hundred cubic feet

(HCF) fee to commercial parcels. These revenues support the General Fund, have been allocated to the SWD to date, and are considered functionally limited for spending on other expenditures; however, the allocation of the revenues is subject to City discretion and not legally restricted. Rates have not been adjusted since the current fee amounts were adopted in 1996.

- **Parking citations**: The SWD issues parking citations on posted street sweeping routes within the City to help ensure the efficiency of street sweeping operations at removing debris and trash from the roadway. Parking citations are issued for "violation of signs", which is a total citation amount of $52.50 that includes a state surcharge of $12.50. The City receives $40 per citation issued, with additional fines for delinquent payments. These revenues support the General Fund and have historically been allocated to the SWD; however, the allocation of the revenues is subject to City discretion and is not legally restricted. Parking citations yield approximately $4.0 million to $5.3 million per year with a high degree of variability from year to year. It is estimated that revenues from FY2021 will be decreased due to suspended parking citations through September 2020. Parking citation revenue collected is currently not sufficient to recover costs for the street sweeping program, which is estimated at $6.3 million for FY2021; therefore, this work is not cost neutral.
- **Stormwater enforcement**: The SWD issues fines as an enforcement measure for stormwater violations within the City. Although the City has historically budgeted approximately $125,000 in revenue from these enforcement measures, actual revenue has rarely surpassed $100,000, which does not even cover the cost of issuing and enforcing the fines (estimated at $0.5 million per year); therefore, this work is not cost neutral.
- **Other General Fund revenue**: Other General Fund revenue is historically and currently the largest source of revenue for the SWD. The variety of General Fund-supporting revenue sources are allocated across City departments on an annual basis. Other ***General Fund revenue for the SWD has declined since FY2017; however, total General Fund expenditures across the City have increased over that time.*** This funding source for stormwater is hard to predict given that the City must balance many competing needs and adapt to ever-changing economic conditions.

The SWD CIP program is funded by a variety of funding sources, including TransNet, financing, and impact fees, among other funding sources as follows:

- **TransNet Fund**: Funding from the City's TransNet Fund has historically been used to meet a small, routine portion of stormwater infrastructure investment needs, varying from approximately $1.0 million to $2.0 million per year. In FY2021, $1.0 million in CIP funding was budgeted from TransNet, which will be used for known emergency CIP projects for already failed assets.
- **Grant funding**: The SWD is continually tracking and pursuing grant funding to help meet a portion of stormwater CIP investment needs. Recent grant applications have been

developed for the U.S. Economic Development Administration (EDA) Disaster Supplemental Funding, California Natural Resources Agency (CNRA) Proposition 68 Urban Flooding Grant, CNRA Urban Greening Grant, Ocean Protection Council Coastal Resilience Grant, Department of Water Resources (DWR) Coastal Watershed Flood Risk Reduction Grant, and the Wildlife Conservation Board (WCB) Stream Flow Enhancement Program. None have been confirmed or awarded.

- **Debt financing**: Although not specifically called out in Table 4-1, the City has leveraged debt financing to meet additional CIP investment needs by distributing high costs for long-life assets over the life of the assets. A total of $68 million in long-term bond and short-term note proceeds from past issuances was allocated to the SWD from FY2009 to FY2020; however, allocations year over year have varied.[33] General Fund Lease Revenue Bonds (LRBs) have been the primary mechanism for debt financing of SWD CIP investments.
- **Impact Fees and Facilities Benefit Assessments (FBAs)**: Funding from the impact fees and Facilities Benefit Assessments (FBAs) is intended to be used for projects associated with serving new development. As such, development-related stormwater infrastructure projects have historically been funded from these two sources. Funding is project specific and highly variable and future water CIP investments could vary from approximately $2.0 million to $20 million in any given year. No funding is anticipated for FY2021.
- **Clean Water State Revolving Fund (CWSRF) Loan:** The SWD submitted applications for the South Mission Bay Storm Drain Improvements and Green Infrastructure Project ($16.7 million) and Los Peñasquitos Lagoon Restoration Phase 1 ($27.4 million) in December 2019. The South Mission Bay Storm Drain Improvements and Green Infrastructure Project was recently selected by the State to negotiate with the City as a possible CWSRF loan. This loan would need to be repaid by City funds over time.
- **Water Infrastructure Finance and Innovation Act of 2014 (WIFIA) Loan:** The City has submitted a letter of interest (LOI) for a WIFIA loan on $516 million of various stormwater projects. If invited to apply and the City's application is approved, the City will be eligible for a WIFIA loan of $250 million, with the caveat that the City would need to match 51% of the total project cost ($266 million). A decision to invite the City to apply for the loan is likely to come in the third quarter of FY2021. This loan would need to be repaid from City funds over time.
- **Infrastructure Fund**: The Infrastructure Fund has historically been used to fund SWD CIP projects; however, it is not anticipated that additional funds will be deposited into the Infrastructure Fund in the future.

[33] City of San Diego. 2020. Draft Appendix A City Government and Financial Information.

4.2 Funding Gap and Cost Impacts

The current stormwater funding level of $48.5 million for FY2021 results in a single-year funding gap of $472.3 million. If funding levels remain the same, the following funding gaps are anticipated (Figure 4-3):

- Five-year total funding gap (FY2021–FY2025) of $1.43 billion;
- Twenty-year planning horizon total funding gap of $4.50 billion (FY2021–FY2040); and
- Average annual funding gap of $225.1 million per year (FY2021–FY2040).

This does not account for the potential additional $1.57 billion in "unplanned" liabilities, emergencies, and failures that could result from deferred O&M and CIP investment but are not explicitly included in the WAMP 2.0 due to uncertainty (Section 3.1.2).

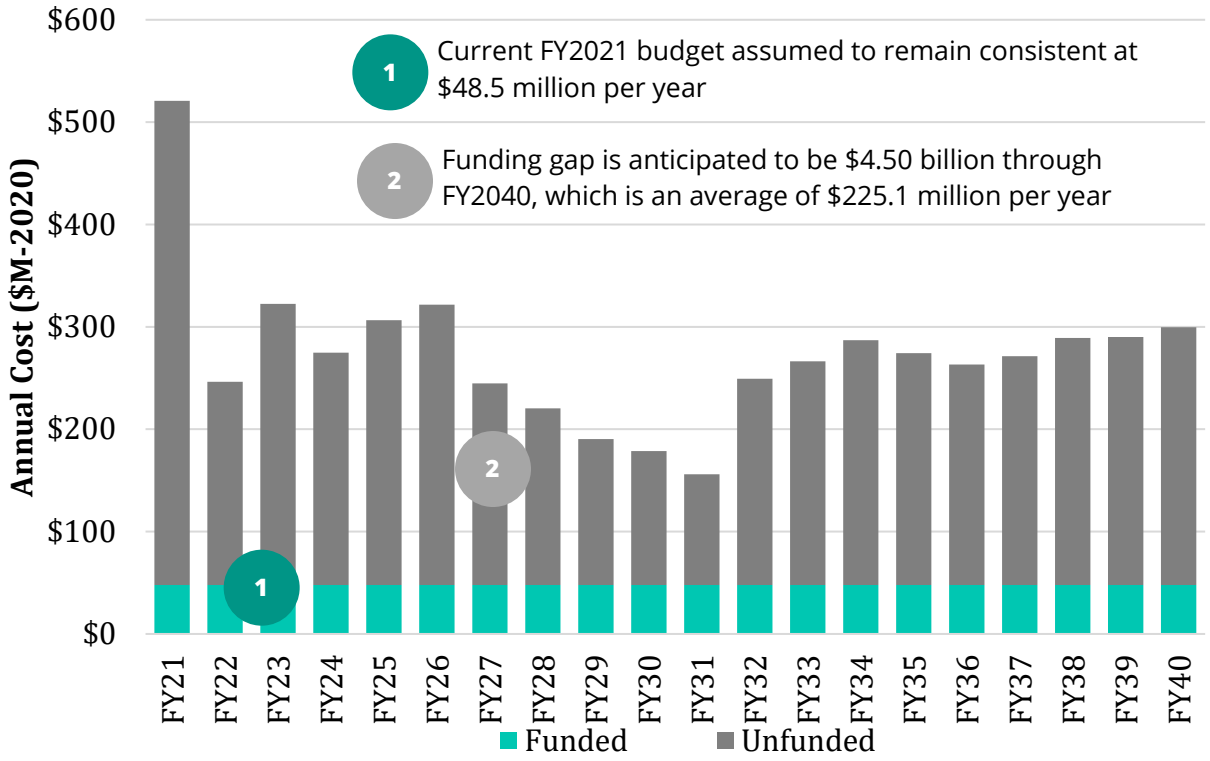

Figure 4-3. SWD projected funding gap for FY2021–FY2040 based on the SWD funding need from the WAMP 2.0.

As the budget for FY2021 has been adopted, the unfunded need for FY2021 ($472.3 million) largely must carry over to future years. For O&M there is a total unfunded need of $116.4 million in FY2021, of which $95.3 million is attributed to routine channel maintenance needs that will need to be carried into future years (spread over the next 10 fiscal years to account for projecting staffing,

environmental permits, and funding). The remaining $21.0 million shortfall is for other O&M activities for which a total of $8.8 million will be carried over to FY2022 and includes activities that must be completed in future years like strategic planning and compliance studies and BMP O&M. The $12.2 million O&M unfunded needs that are not carried over represent activities completed on an annual basis such as inspections or drain cleaning and are assumed to resume being performed to meet their designated level of service in future years and do not accumulate. The impacts on the stormwater system and public health and safety associated with continual deferment of both O&M and CIP costs are detailed in Sections 3.1.2 and 3.1.3; however, the cost implications of unfunded needs can be seen through the continued accumulation or "snowplow" of costs in the upcoming years that will continue to grow if a funding source is not identified (Figure 4-4).

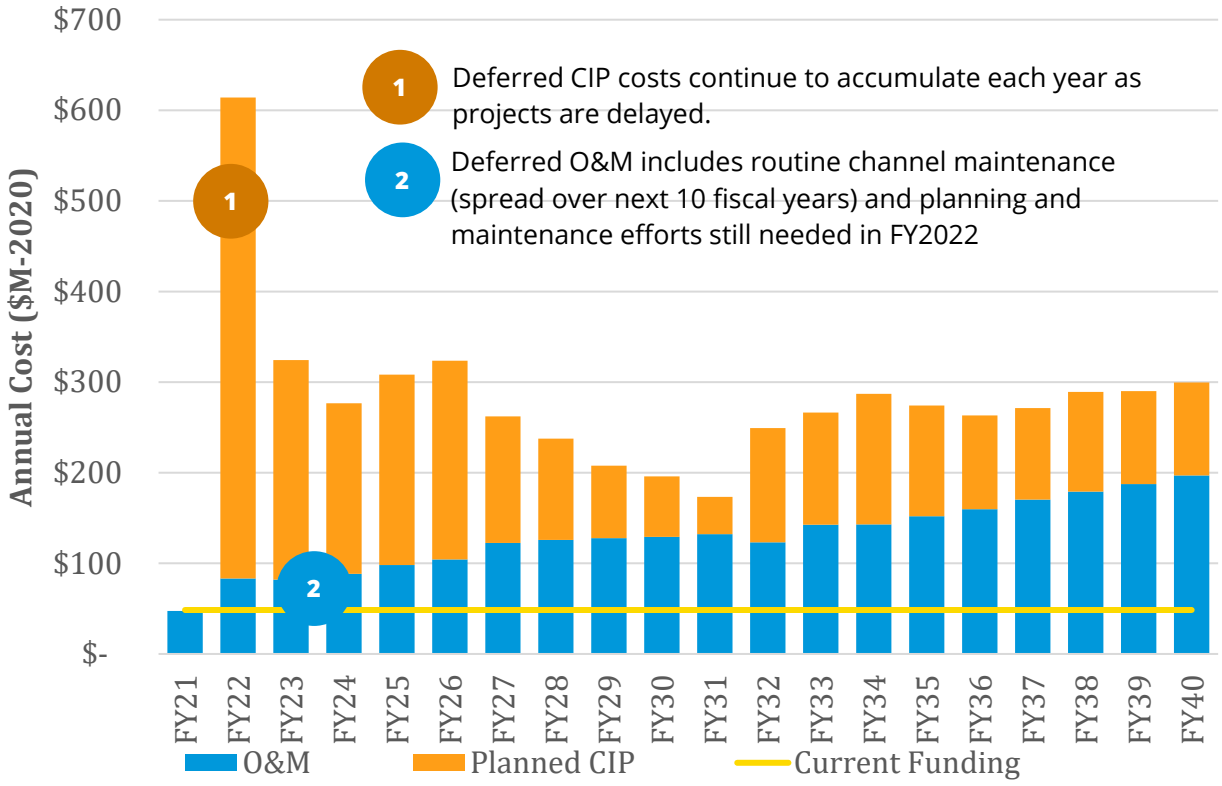

Figure 4-4. 20-year adjusted costs to account for deferment of FY2021 unfunded need.

Because no additional funding for new, planned CIP projects are included in the FY2021 Adopted Budget, the costs for CIP project phasing must be incorporated for future years to represent when project costs will be incurred (e.g., planning, design, construction). CIP project costs are spread across 3-5 years depending on whether a project must be accelerated to meet compliance deadlines such as TMDL deadlines. The redistributed costs to account for unfunded O&M and CIP costs in FY2021 and CIP project phasing to show potential execution timelines are shown in Figure 4-5. Separation of Clean Water Program CIPs that include GI and regional capture projects and Flood-

safe Communities CIPs like pipe repairs and replacements are also indicated to demonstrate variability over time for different investment needs.

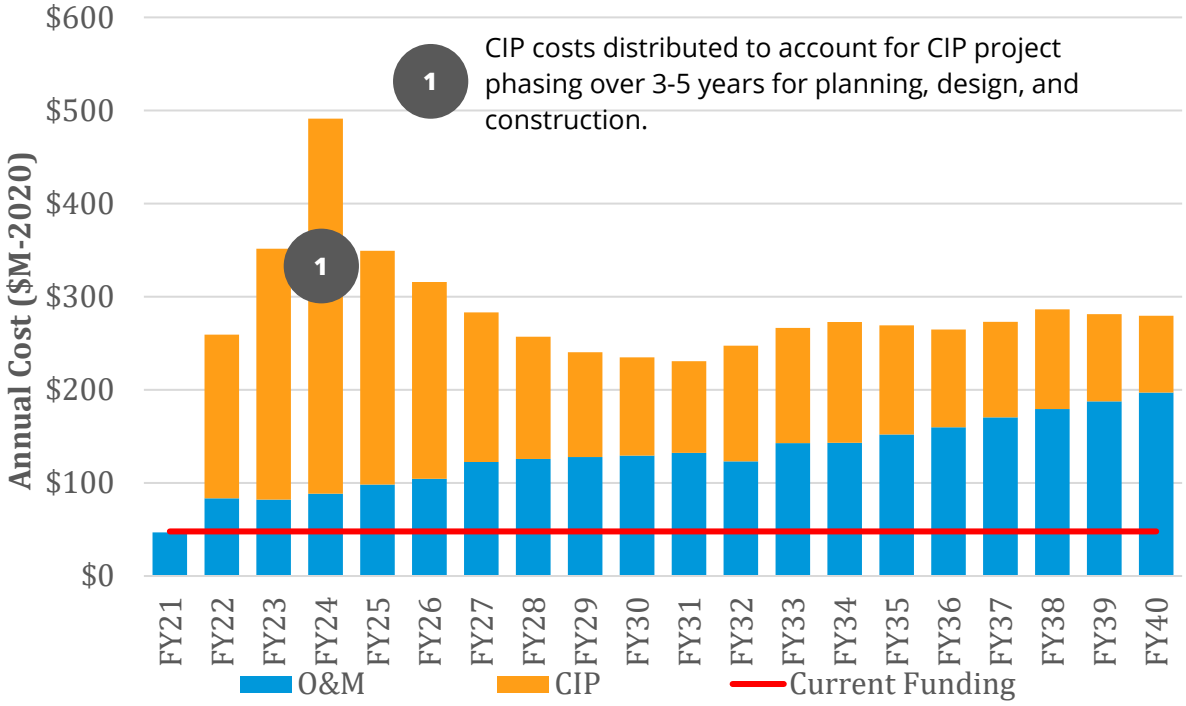

Figure 4-5. 20-year adjusted costs to account for deferment of FY2021 unfunded need, prioritization of deferred actions, and CIP project phasing.

4.3 How did the SWD get here?

As stated in the Audit, the SWD funding gap has been well-documented and yet actions to substantially increase stormwater revenues have not increased in over 20 years. San Diego's stormwater infrastructure and programs were originally designed with the primary goal of managing local flood risk, but over the years, expanded water quality requirements, aging infrastructure, urbanization, and a changing climate are making it more difficult for the SWD to fulfill its core services for the citizens of San Diego without additional funding. Furthermore, much of the City's stormwater infrastructure is nearing the end of its useful life and needs repair or replacement. Stormwater generates modest revenues through stormwater enforcement, street sweeping parking citations, and the existing storm drain fee (annual total of approximately $11.1 million). Enforcement and parking citation revenues are largely dependent upon the number of fines and citations and currently do not recover enough revenue to cover the costs for their respective programs. The current storm drain fee was implemented in FY1991 and last increased in FY1996 prior to the passage of Proposition 218, which poses restrictions for potentially raising the fee (see Section 4.3.1).

Other available City funding for stormwater (e.g., General Fund, TransNet, TOT) supports numerous other City departments and services. As such, allocations for the SWD are determined on an annual basis as part of the budget process and have never historically been sufficient to meet SWD funding needs. Additionally, state and federal funding support for stormwater through grant and loan programs has not increased at the same rate as widespread stormwater funding needs, resulting in limited and highly competitive opportunities. The ability of the SWD to secure funding has also been greatly hampered by restrictions imposed by Proposition 218 (see below).

4.3.1 Proposition 218

California Proposition 218 has complicated the process of in raising revenues for stormwater management. It is a constitutional amendment passed by a vote of the people in 1996 that restricts the ability of local governments and special districts to raise revenues. Proposition 218 requires local governments and special districts to secure voter approval before raising taxes and created different thresholds of voter approval based on whether the tax was a general tax or specific tax.

Additionally, Proposition 218 introduced new constraints for property-related fees by requiring clear identification of the need for revenue and limitation on how the revenue could be used. For example, Proposition 218 requires any proposal for a new or increased property-related fee to show a clear link/nexus between the fee being levied and the service it ultimately funds

One major barrier to new stormwater fees or fee increases is the two-step public approval process required. The first step, which is similar to the process used for water and sewer rates, requires a local agency to send written notices to all impacted property owners 45 days before holding a public hearing on the potential rate increase. If a majority of property owners protest/vote against the new fee or rate increase, the local agency may not levee a new or increase an existing property-related fee. If the local agency does not receive a majority objection against the new fee or rate increase, the second step is for the local agency to conduct a property-owner vote within 45 days after the public hearing and obtain a majority approval of all impacted voting property owners or 2/3 approval from the electorate.

By contrast, Proposition 218 does not require the two-step or voter-approval requirements for rate increases for “sewer, water, and refuse collection services,”

These hurdles have greatly exacerbated the challenge of funding stormwater management by severely restricting the available avenues for generating funds at the local level. The current San Diego stormwater fee was approved prior to the passage of Proposition 218, so raising or replacing the existing fee would need to be done consistent with Proposition 218 provisions.

5.0 Funding Strategy—Funding Options Evaluation

To develop a comprehensive and technically sound Funding Strategy, the SWD took the following steps, which are further detailed in this section:

- Identify funding options, financing strategies, and opportunities to reduce the SWD funding need through efficiencies and innovations (Section 5.1).
- Evaluate potential funding strategy options through a set of criteria, including whether the options can be considered cost recoverable for the SWD (Section 5.2.2).
- Benchmark against other jurisdictions for stormwater funding (Section 5.2.3).
- Engage stakeholders (Section 5.3).
- Prioritize funding options (Section 5.4).

5.1 Identify Options

Options identified as part of the Funding Strategy include those for strategic considerations (e.g., IP to provide an IP approach that accounts for additional CWA benefits, extended deadlines, and affordability for ratepayers), efficiencies, funding sources, and financing options. The options listed in this Funding Strategy are exhaustive for both those that could support the SWD directly and those that could support it indirectly (e.g., by supporting the General Fund or Citywide CIP or state product impact fees that could reduce pollution). Identified funding options were classified into the following subcategories based on discretion or authority to allocate funds to the SWD:

- **SWD Discretion/Authority:** Only allocation of code enforcement fine revenues from citations or civil penalties are entirely within TSW discretion.[34]
- **City Discretion/Authority:** These funding sources include both existing, increases to existing, or new funding sources that the City has allocation discretion over and include SWD BMP inspection fees, revenue from parking citations, TOT, the Infrastructure Fund, and the General Fund.
- **City Discretion/Authority (Restricted):** A subset of the funds over which the City has some discretion are somewhat restricted for specific use and include revenue sources such as TransNet, impact fees, FBA, Mission Bay Park Improvement Fund, Capital Outlay Fund, Regional Parks Improvement Fund, Sewer Utility Enterprise Fund, Water Utility Enterprise Fund, Parking Meter District Fund, Airports Enterprise Fund, Development Services Enterprise Fund, Golf Course Enterprise Fund, and Recycling Enterprise Fund. Some of these

[34] SWD is currently a division under the TSW; therefore, the Director of TSW currently has discretion for levying code enforcement fines and also allocation of funds. Per the FY2021 Adopted Budget, the SWD may become its own Department in FY2021 pending City Council vote.

funds may be directed to stormwater projects and programs where consistent with their intended purposes.

- **External Discretion/Authority (No public vote required):** Funding sources that are external to City discretion and do not require a ballot measure include numerous grant programs relevant to SWD services. These funding programs are summarized in Appendix A.
- **External Discretion/Authority (Public vote required):** Funding sources that are external to City discretion and require a ballot measure and/or protest vote include local City options such as new parcel taxes, property-related fees, special assessment taxes, increases to existing City taxes or fees, millage increase (Ad valorem), or repeal of the People's Ordinance (which would eliminate free solid waste service for City residents). At the state level, options include potential State GO bonds, an increase to the gasoline tax, and State product impact fees.
- **Financing:** Identified financing options include the CWSRF Loan Program, General Fund LRBs, Enhanced Infrastructure Financing District (EIFD) bonds, Section 108 Community Development Block Grant (CDBG) Load Guarantees from Housing and Urban Development Agency, revenue bonds, GO bonds, and the WIFIA Program. Each of these options has an inherent complexity tied to a funding or repayment source necessitating careful consideration as part of the larger Funding Strategy rather than as stand-alone options.

Each of these options was evaluated using the criteria in Section 5.2, and detailed characterization and findings for each are presented in Section 6.0.

5.2 Evaluate Funding Options

Options identified in the Funding Strategy were each evaluated against specific criteria depending on their type, including whether they are related to cost saving or efficiency opportunities, programmatic considerations that may not decrease the SWD funding need but may expedite service delivery or allow for alternate delivery timelines, funding or financing options, or long-term funding mechanisms. In addition, the benchmarking analysis and success factors that were identified by the Audit were expanded to inform the funding strategy process and approach to implementation.

5.2.1 Program Considerations and Efficiencies

Regular identification and characterization of potential SWD efficiencies and approaches to managing the SWD program more efficiently have been integrated into daily activities. Often, these efficiencies are identified by SWD team members during their normal course of business, such as enhancing field data collection techniques to inform future O&M frequencies. One example of this has been applied to the channel O&M program through the development of the MWMP, which will

establish an effective and streamlined program that allows specific facilities to be maintained as needed to reduce flood risk while minimizing impacts and potential adverse effects on the environment from the O&M activities. Other program-specific efficiencies include the optimization of catch basin cleaning and street sweeping routes.

Other opportunities have been identified through exploring optional regulatory pathways such as the Alternative Compliance Program (ACP) and IP, which will allow for more cohesive approaches to stormwater management. These pathways often involve significant stakeholder engagement and technical analyses to implement and are on a longer timeline for implementation and realization of efficiencies than other efforts.

Evaluation metrics for each of these different efficiencies are based on a quantitative estimation (or qualitative estimation, if data are unavailable) of the magnitude of potential cost saving or cost avoidance (e.g., for regulatory noncompliance or litigation). In some cases, costs for the program may increase in the long run due to incorporation of additional features or project components outside of traditional stormwater; however, the City- and community-wide benefits could be commensurately greater, so they become a more efficient use of funds due to benefits they provide.

5.2.2 Funding Option Evaluation Criteria

Each of the funding and financing options were evaluated using a standard set of criteria that are summarized in Table 5-1 to present uniform characteristics for each of the sources. A summary of these findings for each funding option is presented in Appendix B. In addition, consideration was given to SWD revenue-generating activities such as stormwater enforcement fines, parking citations for street sweeping, and inspections and reinspection's for cost recovery purposes.

Table 5-1. Funding Option Evaluation Criteria

Criteria Category	Criteria	Description
Sufficiency	Magnitude for SWD (FY2021 Current)	Magnitude or range in magnitude that could be provided by the funding source.
	Magnitude for SWD (Potential Addition or Increase)	Magnitude or range in magnitude that could be provided by the funding source.
	Status/Duration	Period over which the funding source may be applicable (e.g., perpetual revenue or specific duration [e.g., grant]).
Stability/ Sustainability	Payment Type	Intervals and mechanism by which revenue stream could be provided (e.g., one time, at milestones, or continuously via monthly/annually revenue streams).
	Variability / Volatility	Potential, extent, and duration for revenue to fluctuate and evaluation of risk of non-recovery.
	Increases Permitted?	Ability for SWD or the City to purposefully increase revenue (e.g., fee increase) as needed.
Limitations	Funding Restrictions	Limitations to programs, activities, specific projects, locations, etc. that can be funded.
Approvals	Decision-Making Authority	Requirement or recommendation for public vote, council vote, advisory panel, consensus, and so forth.
	Approval Process	Approval requirements and process.

5.2.3 Benchmarking and Success Factors

Benchmarking of other communities is important to inform the analysis about (1) how other stormwater programs are being funded; (2) the extent to which their respective efforts to increase funding have been successful; (3) and why those efforts were or were not successful. The Audit identified 15 municipalities in California that were benchmarked to evaluate efforts related to obtaining new dedicated revenues (e.g., fee, tax, bond) for stormwater needs and identify some success factors and lessons learned through pursuit of those revenues.[35] The SWD built upon the

[35] Note that 15 municipalities were benchmarked and referenced in the Audit and that only 10 were included in Audit Exhibit 15 as having stormwater specific fees. The City of Long Beach tax is not stormwater-specific but does fund stormwater needs.

Audit benchmarking to assess additional criteria related to dedicated revenues for each of these municipalities (e.g., year of increase, approval process, estimated revenue, eligible expenditures, methodology, exemptions or reductions, credits, escalations, sunset clauses, and governance structure). The benchmarking was also updated for recently passed funding measures (e.g., Measure W or the Safe Clean Water Program in Los Angeles [LA] County) and added six additional municipalities in California with relevant funding measure information (City of San Francisco, City of Berkeley, City of Santa Monica, City of Del Mar, City of Santa Cruz, and the Santa Clara Valley Water District). Four additional municipalities outside of California (Washington, DC; Philadelphia; Detroit; and Seattle) were also evaluated for stormwater fee or tax amounts to provide national context for potential ratepayer impacts for stormwater services, noting that these municipalities are not subject to the requirements of Proposition 218. A summary of the analysis is included in Section 6.7.1.1, with additional detail presented in Appendix C.

The SWD also benchmarked other City Departments and local municipalities for inspection and reinspection fee amounts for services for which fees are applicable, parking citations from street sweeping, and stormwater enforcement fines. The findings from this benchmarking effort are included in Section 6.3, Section 6.4.1, and Section 6.4.2, respectively.

Additionally, success factors for developing and executing effective funding strategies were synthesized and these findings are summarized in Section 6.1.

5.2.4 Long-Term Funding Mechanism Design and Considerations

Evaluation of a potential dedicated stormwater funding mechanism, whether a fee or tax, requires additional analyses to inform revenue contributions and viability and to guide stakeholder discussions. In addition, definition of the program that a ballot measure will fund is essential as additional programs beyond SWD core services may be necessary for inclusion and success. The overarching process for development of a ballot measure is presented in Figure 5-1, noting that the process is highly iterative and the focus of the response for Audit Recommendation #5 for the Funding Strategy is focused on demonstration of the need for additional funding.

Figure 5-1. Funding mechanism and ballot-program development process.

Several rate methodologies and considerations could be evaluated for ratepayer impacts and revenue generation potential, including the following:

- **Revenue target:** Revenue targets will be determined by the interaction of a variety of factors, including the funding need/gap, internal and external stakeholder preferences, ratepayer impacts, and voter willingness to pay.
- **Methodology:** The method by which a tax or fee would be assessed and applied to a ratepayer (e.g., flat parcel, land-use based, intensity of development, and impervious cover) can be included.
- **Tiers:** Tiers can be included within each larger methodology to further refine how rates are applied (e.g., small, medium, or large single-family residence (SFR) tier within the land-use-based method).
- **Base rate and additional components:** A base rate could be applied to a specific component of the SWD program (e.g., connection to the storm drain system) and additional components depending on services provided to the ratepayer.
- **Escalations:** Escalations over time can be included in a rate schedule.
- **Reductions or discounts:** Reductions and/or discounts for ratepayers can be included to account for variability, affordability, or equity (e.g., low-income areas, vacant land, and so forth).
- **Exemptions:** Exemptions can be included for specific ratepayers or land uses (e.g., government parcels, institutional facilities, and religious institutions); however, this is only applicable to taxes (fees cannot have exemptions due to nexus requirements).
- **Credits or rebates:** Credits or rebates may be offered for ratepayers who participate in eligible stormwater-related programs (e.g., residential rain barrels, downspout disconnections, and so forth).
- **Sunset clause:** Sunset clauses can be included so that a funding measure will cease to be in effect after a specific date, unless further legislative action or a vote is taken to extend it.

If Audit Recommendation #6 is pursued, the methodologies and considerations to be evaluated will be iteratively informed by stakeholder input to determine palatability and impacts on ratepayers (e.g., reductions for low-income areas). Similarly, affordability for ratepayers will be tested through stakeholder engagement and surveys to determine a range of total revenue generation scenarios (cash receipts) that may be possible. For these scenarios, potential continued support from current funding sources (e.g., General Fund, parking citations, and so forth) and financing options will be considered to better meet SWD funding needs.

5.3 Engage Stakeholders

Stakeholder engagement is an essential component of developing an effective funding strategy to (1) articulate what the SWD does, the services it provides, inform why the funding of those services is necessary, and the implications of not funding at the levels needed, (2) inform stakeholders about Audit Recommendation #5 to develop a Funding Strategy, (3) cover the high-level process and timeline, and (4) solicit input and feedback on different funding options. The stakeholder engagement process that was developed involved the following key steps that were often iterative in nature based on engagement outcomes and findings:

- **Identification of stakeholders:** Stakeholders were identified that were both internal to the City and external entities or groups.
- **Selection of engagement/communication methods:** The appropriate communication methods or forums were identified for different stakeholder groups (e.g., public meeting, presentations, surveys, focus groups, etc.).
- **Determination of timing and content**: The timing and content for specific stakeholder engagement activities was assessed to inform Funding Strategy development and refinement at the appropriate intervals.

Due to the COVID-19 pandemic and statewide restrictions on public assembly and in-person engagement, adaptations for stakeholder engagement were needed and some efforts are still on hold. A high-level summary of the in-progress or completed stakeholder engagement components for Audit Recommendation #5 response are presented in Table 5-2.

Table 5-2. In-progress or Completed Stakeholder Engagement Timeline

Engagement Activity	Audit-Related Outcomes	Status/ Date	Stakeholders
Community Presentations	• Rec #4 (Communications) – Understanding of stormwater and SWD • Rec #5 (Funding Strategy) – Understanding of current SWD funding and funding needs	Ongoing	Multiple, including: • San Diego Chamber of Commerce • Water Reliability Coalition • Chollas Creek Coalition
Baseline Focus Groups	• Rec #4 (Communications) – Understanding of stormwater and SWD • Rec #5 (Funding Strategy) – Understanding of current SWD funding and funding needs	Complete – May 2019	General Public – 3 group meetings conducted in Mira Mesa, Otay Mesa, and Pacific Beach to draw from all Council Districts
Think Blue Survey (awareness and understanding)	• Rec #4 (Communications) – Awareness, understanding, and value of stormwater	Complete – October 2019	General Public
Stakeholder Interviews	• Rec #4 (Communications) –SWD communications and branding • Rec #5 (Funding Strategy) – Awareness of funding limitations	Complete – December 2019	• SWD Staff (2) • Other City Staff (1) • Regulators (1) • NGOs (1)
Update Audit Committee	• Rec #4 (Communications) – SWD overview, value, and services • Rec #5 (Funding Strategy) – Overview and schedule	Complete – December 2019	Audit Committee
IBA Coordination	• Rec #4 (Communications) – SWD overview, value, and services • Rec #5 (Funding Strategy) – Feedback on Funding Strategy	Ongoing with review and approval of the Funding Strategy complete in January 2021	IBA
DoF Coordination	• Rec #5 (Funding Strategy) – Feedback on Funding Strategy	Ongoing with review and approval of the Funding Strategy complete in January 2021	DoF
CAO Coordination	• Rec #5 (Funding Strategy) – Feedback on Funding Strategy	Ongoing with review and approval of the Funding Strategy complete in January 2021	CAO

Engagement Activity	Audit-Related Outcomes	Status/ Date	Stakeholders
Debt Management Coordination	• Rec #5 (Funding Strategy) – Feedback on Funding Strategy	Ongoing with review and approval of the Funding Strategy complete in January 2021	Debt Management
Office of the City Treasurer Coordination	• Rec #5 (Funding Strategy) – Feedback on Funding Strategy	Ongoing with review and approval of the Funding Strategy complete in January 2021	Office of the City Treasurer
Mayor's Office Coordination	• Rec #4 (Communications) – SWD overview, value, and services • Rec #5 (Funding Strategy) – Overview and schedule • Rec #5 (Funding Strategy) – Feedback on Funding Strategy	Ongoing	Mayor's Office
Communications Web-Based Survey	• Rec #4 (Communications) – Understanding and values within SWD activities and across broader community and City interests	Conducted Q1/Q2 FY2021	General Public, with equal representation from each Council District
Survey (Values)	• Rec #4 (Communications) – Understanding and values within SWD activities and across broader community and City interests	Conducted Q2 FY2021	General Public, conducted in English and Spanish with equal representation from each Council District and cross section of demographics

Note: NGOs = nongovernment organizations.

The SWD coordinated an internal City technical working group that included the SWD, the Mayor's Office, CAO, DoF, Debt Management, and Office of the City Treasurer that provided feedback and input into the funding options and recommended approach for this Funding Strategy. Coordination with each of these entities will be essential for Funding Strategy implementation and potential further evaluation of a stormwater funding measure.

The SWD will continue stakeholder engagement efforts related to Funding Strategy implementation and further assessment of a stormwater funding mechanism as part of Audit Recommendation #6 with consideration of shifting conditions and economic impacts of COVID-19.

5.4 Prioritize Funding Options

Ultimately, the funding options, financing options, and program considerations were prioritized using the evaluation criteria and stakeholder feedback to date. The SWD also considered the authority needed and process by which the options could be implemented as well as appropriate timing for implementation given the economic downturn and impacts of COVID-19. Prioritized options are described in Section 7.0.

6.0 Funding Strategy—Findings

Analysis of the Funding Strategy funding options (see Appendix B) shows that, in a scenario where the SWD maintains current funding levels and after maximizing existing funding at the City's discretion (both restricted and unrestricted), a significant funding gap would still remain, underscoring the need for a dedicated long-term funding source.

This section presents the common success factors highlighted to develop and implement an effective Funding Strategy as well as the Funding Strategy findings for each of the major categories of potential program considerations and efficiencies, funding options, and financing options. Where available, current and forecasted funding levels for the SWD are identified and options that are not currently deemed viable or a priority for pursuit of funding are denoted. Benchmarking information from local communities and those around the state are included for context and reference as well. A comprehensive findings table for funding and financing options is presented in Appendix B to supplement this section.

6.1 Funding Strategy Success Factors

Audit Recommendation #5 identified the need for the SWD to develop a long-term Funding Strategy that identifies and employs the strategies and lessons learned from other California municipalities that have successfully passed funding measures for increased stormwater funding. The Audit included a review of several California municipalities that had passed successful stormwater funding measures and presented some success factors from that review. This section builds upon the Audit with success factors from additional jurisdictions and a broader synthesis of success factors for voter-approved stormwater funding measures.

Despite the stormwater funding measure adoption challenges created by Proposition 218, several jurisdictions in California have successfully implemented stormwater fees or taxes. As illustrated in Section 6.7.1, a variety of funding strategies, fee/tax structures, and other features have yielded successful stormwater funding measures. Across all jurisdictions, there are a few common strategic elements that have resulted in success at the ballot box (Figure 6-1). Consideration of these strategies has informed the development and will continue to inform implementation of the City's stormwater Funding Strategy.

Figure 6-1. Common funding measure success factors.

6.1.1 Strategic Program Design

Development and cohesion of strategic programmatic outcomes and a general program framework are necessary for a successful funding measure. Programmatic visions should ultimately reflect what people value since they will be making the final decision on whether to pay for it via a fee or tax. Additional funding program refinements should be made with decision makers, stakeholders, and voters in mind. A final program is likely to be a combination of priority program goals identified by the City and a series of voter-supported elements. Often a program that provides more benefits can garner more support. For example, the Santa Clara Valley Water District went through a long, iterative process to develop its funding program and special parcel tax that passed in 2012—the program was the culmination of 18 months of public input and program refinement. In the end, core supportive arguments featured program elements like funding for community water shortage protection and investment in long-term water supply projects. The special tax was supported by most newspapers and environmental groups and was endorsed by several elected officials and community leaders.

Further, programmatic decisions should inform decisions related to an appropriate funding mechanism, as many funding mechanisms restrict the flexibility in how revenues are spent. Program design and funding measure decisions should be made in tandem. In 2018, Berkeley decided to pursue a second stormwater fee rather than altering its Clean Stormwater Fee approved in 1991. Pursuing adoption of a new, distinct Storm Drainage Fee helped to mitigate the risk of losing the existing Clean Stormwater Fee in the event the new fee was voted down or challenged. This choice limited implementation of Berkeley's stormwater program to that which it had previously funded, rather than expanding it in scope to include other benefits.

6.1.2 Research-driven Decision Making

It is critical that decisions regarding a funding measure program, messaging, and timing are driven by data from public opinion research. Even if the City or SWD have a sense of what constituents want, identify with, or are motivated by, public opinion surveys often yield surprising results. Because of this, it is important to employ public opinion research at several milestone points during the development of a funding measure to help shape and refine the approach. After desired outcomes and a program framework are identified, early public opinion research can be used to test constructs, values, and effective language or messaging. Later on, as program development approaches deadlines for determining placement on a ballot and final language, public opinion research can be used to test the viability of a funding measure, like arguments for and against, message refinement, and likelihood of voter approval that can inform a go, no-go decision.

For example, in 2015 in Contra Costa County, the California State Association of Counties (CSAC), the League of California Cities (League), and the Association of California Water Agencies (ACWA) collaborated on a ballot measure that would authorize local agencies to set ratepayer fees for water, sewer, flood control, and stormwater management.[36] However, public opinion surveys conducted prior to an election indicated that opposition exceeded support, meaning the ballot measure would fail to get majority support. As a result, CSAC, the League, and ACWA decided not to move forward with the ballot measure. Notably, public opinion research indicated that voters supported the benefits such a funding measure could provide, like protecting water quality, upgrading aging infrastructure, and expanding conservation efforts.[37]

6.1.3 Commitment of Resources

The development of funding measures—from identifying desired outcomes to developing a program to realize them to eventually placing a funding measure on a ballot and educating the public—requires a significant amount of resources in the form of staffing and funding. Development of a full program can be especially resource-intensive, as it may require staff or subcontractors to provide technical support and modeling as well as a robust stakeholder engagement process that results in tweaks to programmatic elements over time. Since a funding program, or expenditure plan, is so significant to making the case to the public for a funding measure, ensuring adequate resources are allocated to the development of it is key.

For the property-related fee passed in Palo Alto in 2002, the City Manager appointed a Blue-Ribbon Committee to work with staff to review funding needs and identify a funding mechanism to meet the CIP and O&M funding needs. The Committee provided recommendations for increased rates as

[36] California State Association of Counties (CSAC). n.d. "CSAC Issue Brief: California Water Conservation, Flood Control and Stormwater Management Act of 2016." https://www.counties.org/sites/main/files/file-attachments/water_conserv_flood_ctrl_stormwtr_mgmt_act_-_csac_issue_brief_-_february_2016.pdf

[37] "Stormwater Initiative." 2016. *Contra Costa County*. https://www.contracosta.ca.gov/5816/Stormwater-Funding-Initiative

well as for creating an oversight committee, inclusion of a sunset clause, and capping the inflation rate.

6.1.4 Support of Elected Officials and other Decision Makers

Identifying a local champion or champions who support and can help bolster the effort can be an important asset during pursuit of a funding measure. Decision makers, especially elected officials like mayors or City councilmembers, drive critical resources to the effort, including awareness among their public and stakeholder constituencies, financial support, and operational support like personnel to help develop the funding measure.

For example, the general sales tax passed in the City of Long Beach in 2016 was initially proposed by the Mayor and was passed easily by the City Council to place the funding measure in front of voters. In LA County in 2018, the special parcel tax, Measure W, had the support of the Mayor of LA, the Mayor of Long Beach, four of the five sitting County Supervisors, the American Federation of Labor and Congress of Industrial Organizations, and local environmental groups. Two of the five County Supervisors championed the ballot measure from its inception. This supervisorial support resulted in easier access to funding for consultants, public opinion research, and communications as well as to local agency personnel directed to advance program development.

6.1.5 Strategic Relationship Management

A funding measure has a variety of key audiences: stakeholders, decision makers, and the voters. Understanding perspectives across and within each of these audiences can help with relationship management and considerations about how to approach individuals or groups. For example, some stakeholders might be natural champions for a stormwater funding measure, while others may be more likely to take issue with the prospect of a tax or fee. Knowing who to leverage as champions and having a plan for managing more oppositional voices can be beneficial to funding measure development. Active engagement and some programmatic additions or concessions may even enable a broad coalition of supportive stakeholders to emerge.

The 2006 Clean Beaches and Ocean Parcel Tax in Santa Monica had the support of the local State Assembly Member, the Mayor Pro Tempore, and prominent local environmental groups. Additionally, many residents and community leaders supported the ballot measure, particularly due to cultural values embodied in beach health. Those who opposed the parcel tax claimed that the plan was developed with no residential input and not enough scientific analysis.[38] Similarly, the fee approved in San Clemente in 2007 included a broad coalition of support led by a community group that was formed to campaign for the continuation of the City's previous fee. Partly as a result, local media coverage of the effort was favorable and highlighted the trash reduction benefits the existing fee has produced.

[38] "Measure V: Clean Beaches and Ocean Parcel Tax City of Santa Monica." 2006. *League of Women Voters of California Education Fund.* http://www.smartvoter.org/2006/11/07/ca/la/meas/V/.

6.1.6 Compelling Communications

Communication to a broad audience is key in making the case for a funding measure to explain the connection between a fee or tax and benefits on the ground and in communities. Key messages should be based on data derived from public opinion research and that which is most compelling or informative for the targeted audience. A website can support this goal most effectively. Ultimately, public education about a funding measure should be targeted at a diverse audience via a variety of platforms, from mailers and billboards to digital advertisements and social media to TV and radio ads—potentially in multiple languages to align with local demographics. For many communication efforts, the goal is message repetition, so aiming to saturate communication channels to the point at which key constituencies engage with messaging multiple times can improve recognition of the effort and its benefits.

For its Measure CW in 2016, Culver City procured the support of a marketing firm to provide support in driving voter outreach and access to information about the measure. Articles were written in many local newspapers providing an overview of the tax and illustrating that Culver City could not meet state and regional clean water regulatory requirements with existing stormwater funds. Moreover, the public was informed that the failure to pass the tax would result in either cuts to other Culver City services and programs, such as public safety, or Culver City would possibly be subject to fines if it could not meet regulatory requirements.[39] Several other jurisdictions also managed robust public communications, including Berkeley, which held several public meetings and prepared a list of frequently asked questions[40] and a fact sheet[41] used on the City of Berkeley's website and distributed widely via neighborhood message boards, as well as local environmental and community groups supporting the ballot measure. Santa Cruz made the economic case for a flood fee by projecting that homeowners benefitting from the flood improvement projects would spend less annually in stormwater rates than the amount they were paying for flood insurance.

6.1.7 Careful Consideration of Timing

Choosing the election when a funding measure will appear on the ballot can have a significant impact on likelihood of passage. Each election—local, primary, or general—generally garners a specific level of turnout, a voter pool demographic, and a different number of ballot issues. For example, local elections will generally have lower turnout and fewer ballot measures, while a Democratic primary might have a significant share of Democratic voters casting their votes. In addition to these generally knowable factors, it is important to consider what other issues might be on the ballot and broader issues that might impact perception of the stormwater funding measure.

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[39] *Measure CW: The Clean Water, Clean Beach Parcel Tax*. 2016. Culver City. https://www.culvercitypd.org/Home/ShowDocument?id=5783.

[40] City of Berkeley. 2018. *City of Berkeley Proposition 218- 2018 Clean Stormwater Frequently Asked Questions*. https://www.berkeleyside.com/wp-content/uploads/2018/05/Fact-Sheet-2018-Stormwater-Fee-Initiative.pdf.

[41] City of Berkeley. 2018. *2018 Clean Stormwater Fee Initiative Fact Sheet*. https://www.berkeleyside.com/wp-content/uploads/2018/05/Fact-Sheet-2018-Stormwater-Fee-Initiative.pdf.

This is especially pertinent now with the ongoing COVID-19 pandemic, which has had broad sweeping impacts on the economy.

6.2 Program Considerations and Efficiencies

The SWD has already successfully identified and implemented to some degree a number of efficiencies that include a scientific basis for compliance in the Chollas Creek watershed and utilization of in-house pipe repair teams or pipe lining instead of the full, costly CIP process applicable to the projects (estimated total cost saving of $37.0 million for the program through FY2029). Continued identification of efficiencies is a priority for the SWD and a number have been identified through the WAMP 2.0 development and SWD adaptive management processes. A number of these efficiencies are focused on streamlining O&M activities and centralizing data to reduce the time needed for routine activities. Others, like the continued prioritization of street sweeping routes and the addition of another in-house pipe repair team, will require initial financial investments to start up; however, the long-term benefits and cost saving outweigh those start-up costs. **Both the street sweeping support and in-house pipe repair team were requested in the FY2021 budget but were not funded.**

In addition, the SWD has identified opportunities for strategic planning and SWD program innovation that should continue to be evaluated to best prioritize and sequence investments at the City level to meet and exceed SWD program goals summarized in this section.

6.2.1 Integrated Planning Framework

The EPA's Integrated Planning Framework provides an integrated approach to planning and implementation that can be used to meet multiple CWA requirements (e.g., stormwater, wastewater, and so forth). The Integrated Planning Framework enables the City to evaluate requirements and obligations across regulations to best prioritize and sequence investments to comprehensively meet human health and water quality objectives for different pollutants (e.g., trash, metals, bacteria, and nutrients), while considering the City's and its citizens' ability to fund the obligations. Often water quality regulations (e.g., TMDLs, statewide trash policy, and so forth) require years to develop and incorporate into permits, which can delay critical implementation efforts. An IP approach prioritizes more efficient, sustainable, and comprehensive solutions for implementation such as GI and larger scale stormwater capture projects that improve water quality, manage flood risk, and potentially augment local water demand. A key component of the Framework is a commitment to implementation, as demonstrated through attainment of tangible milestones, in order to maintain compliance under the Framework. The SWD is currently evaluating CWA compliance needs in an IP context to quantify the estimated City-wide financial impact on meeting requirements, while considering various options for implementation approaches. Various timelines and milestones for implementation are being considered to account for the impact on the typical ratepayer and to

assess capabilities of fund investments. Continued development of the Framework and coordination with the Regional Board and other stakeholders is anticipated to continue through FY2022; however, progress has been slowed due to funding limitations in FY2021. If the SWD is able to fully develop the Framework in the future, it might have implications for the WAMP 2.0 based on the type, magnitude, and timing of projected funding needs.

6.2.2 Alternative Compliance Program

The ACP is an optional compliance pathway included in the MS4 Permit that allows for priority development projects to achieve compliance off-site if the projects meet specific criteria. The SWD has developed a specific off-site ACP that will maintain stormwater requirements but will also provide opportunities for more centralized projects and potential for accelerated project delivery through partnerships with private industry and developers. The primary financial benefits for the City associated with accelerated project delivery include a reduction in potential compliance risk (and associated fines) through faster project implementation and a reduction in the long-term total capital burden for projects constructed by developers and industry. Under the ACP, the SWD would assume long-term O&M costs; however, the projects are anticipated to be large, centralized BMPs that are more efficient to maintain than a larger number of decentralized projects. The Environmental Impact Report for the ACP will be completed by September 2021 and, if approved, the program will be initiated in July 2022.

6.3 SWD Discretion/Authority—Stormwater Enforcement and Fines

The SWD currently has sole discretion over one funding source[42]: whether to levy and how to allocate revenues from stormwater code enforcement fines for violations of the City's Municipal Code due to the adverse impact on safely managing stormwater, protecting water quality and public health, and potential impacts on the City's ability to meet regulatory requirements. Stormwater enforcement fines can be increased by the TSW Director in accordance with the amounts specified in the Municipal Code and are directly allocated back to the SWD. If the SWD was to increase fine amounts beyond those identified in the Municipal Code, City Council approval of an ordinance would be required as well as coordination with all other City departments that have code enforcement teams. The magnitude and number of these fines varies year to year with the number of enforcement actions and the associated fines collected (e.g., illicit discharges or development-related fines). Code enforcement citations are typically charged against violators with penalties of $100, $250, $500, $750, or $1,000 per violation. The SWD currently administers citation amounts based on the severity of the violation using a matrix developed in 2004 that charges $100 for

[42] The SWD is currently a division under TSW; therefore, the Director of TSW technically has discretion and authority over code enforcement revenue allocations. The FY2021 Adopted Budget included a budget line item for the SWD to become a stand-alone department and is pending City Council vote.

moderate offenses, $250 for major offenses, and $500 for severe offenses and does not use the $750 or $1,000 citation amounts permissible in the Municipal Code.

Civil penalties are also issued in varying amounts based on the type of pollutant discharged, previous discharge history, proximity to a receiving water, discharge amount, impairment status of the receiving water, and attempt to prevent the discharge. There is no specified maximum amount.

SWD revenues from stormwater enforcement and fines have averaged approximately $100,000 million annually over the period of FY2016–FY2020. Based on the FY2021 budget for enforcement activities conducted by the SWD ($0.6 million), revenues would need to increase to approximately $0.5 million to achieve cost recovery (an average increase of 500%) and could be increased beyond that to disincentivize future violations (Figure 6-2) or mitigate the impact of initial violations.

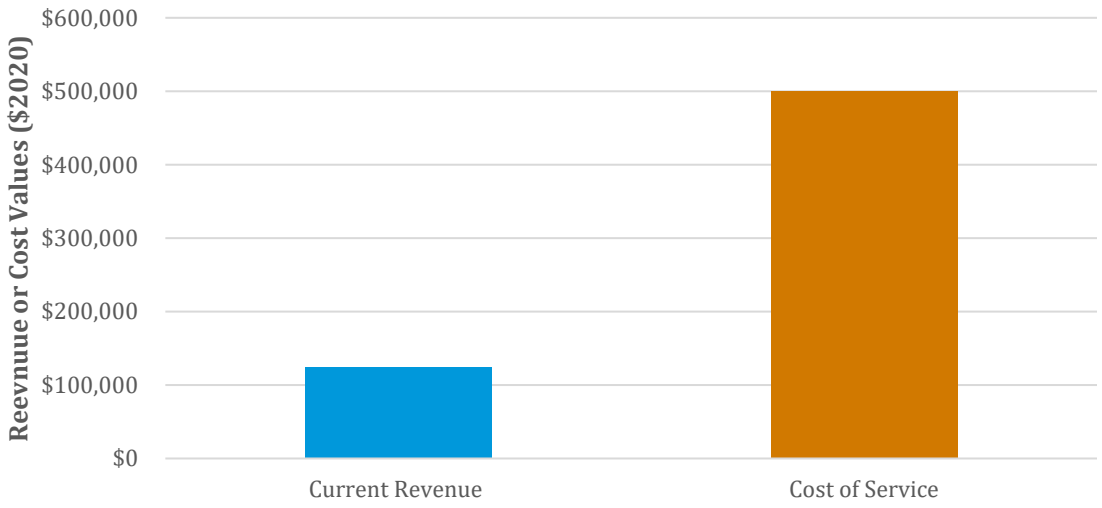

Figure 6-2. Current revenue from SWD enforcement and fines compared to costs.

A summary of the total revenue and number of citations and civil penalties over the past 5 fiscal years is presented in Figure 6-1. In order to target cost recovery, citation amounts should be designated as $500 for moderate offenses, $750 for major offenses, and $1,000 for severe offenses (increasing two rate categories for each offense severity).

Table 6-1. Total Revenue and Number of Code Enforcement Citations and Civil Penalties FY2016–FY2020

Fiscal Year	Total Revenue (# of citations)	Total Revenue (# of civil penalties)
2016	$130,057 (232)	$8,618 (2)
2017	$94,477 (220)	$6,670 (2)
2018	$96,558 (293)	$0 (0)
2019	$91,743 (152)	$ 4,275 (3)
2020	$ 54,709 (88)	$ 48,451 (1)

A number of local municipalities were benchmarked to determine magnitudes of administrative citations and civil penalties for code enforcement violations (Table 6-2). The SWD currently charges comparable administrative citation amounts; however, all the other municipalities increase rates based on repeat offenses rather than severity of offense. Consideration for updating the enforcement and fine matrix could also be given to increasing citation amounts for repeat offenses.

Table 6-2. Benchmarking of Local Municipalities for Stormwater Enforcement Administrative Citation and Civil Penalty Fine Amounts

Municipality	Administrative Citation	Civil Penalty
Carlsbad	NTE $100 for 1st NTE $200 for 2nd NTE $500 for each additional	NTE $2,500 per day
Encinitas	NTE $500 for 1st and 2nd NTE $1,000 for 3rd	NTE $1,000 per day
El Cajon	NTE $100 per day for 1st NTE $200 per day for 2nd NTE $500 per day for 3rd NTE $1,000 per day for 4th NTE $2,500 per day for each additional (includes recovery of fines for penalties from RWQCB against City)	Noncommercial venture $50 per day Commercial venture $100 per day Business or property owner allowing operation of a business $2,500 per day
National City	$100 for 1st $200 for 2nd $500 for each additional	NTE $2,500 per day
Chula Vista	$100 for 1st $200 for 2nd $500 for each additional	NTE $2,500 per day
La Mesa	NTE $200 for 1st NTE $400 for 2nd NTE $1,000 for each additional	Noncommercial venture $50 per day Commercial venture $100 per day

Notes: NTE = not to exceed.

Stormwater enforcement and fines are exempt from the requirements of taxes and fees under Proposition 218. However, these revenues currently constitute an expense rather than a net revenue source due the failure to achieve cost recovery. Counterintuitively, ramping up the enforcement program without increasing fines could increase the funding deficit rather than increasing revenue. Nevertheless, implementing increases in enforcement and fines in the near-term would hold violators accountable and disincentivize further violations.

6.4 City Discretion

A number of existing funding sources could be enhanced, or new funding sources could be made available to the SWD at the discretion of the City and following the City's budget process.[43] These funding sources include both sources of revenue from SWD activities (e.g., inspection fees and parking citations) and contributions from other unrestricted City funds (e.g., the Infrastructure Fund and General Fund). For FY2021 the SWD is budgeted to receive a total of $46.8 million from these funds, including $5.3 million from parking citation revenue, $5.7 from the storm drain fee, $1.0 million from the TOT, and $34.8 million from other General Fund funding. These funding sources make up over 96% of the total revenue the SWD is estimated to receive in FY2021. Increases or additions of new unrestricted City discretionary funding are determined as part of the annual budgeting process and magnitudes are not legally restricted or committed to the SWD year over year. This section summarizes each of the sources evaluated, including whether the sources are anticipated as a viable funding option into the future.

6.4.1 Inspection and Reinspection Fees

Stormwater management on private properties, including commercial and industrial properties, is an important and substantial component in Citywide protection of clean water and management of flood risk. Many of these properties have nonstructural stormwater BMPs like elimination of illicit discharges, spill prevention and response, waste management, and structural BMPs like filtration devices or GI. The SWD regularly inspects industrial and commercial facilities and structural BMPs to ensure that the measures being implemented or maintained meet requisite City standards for protecting water quality and ultimately downstream environmental health. The SWD incurs costs associated with both initial and routine inspections as well as reinspection for violations or follow-up actions. The FY2021 budget for industrial, commercial, and structural BMP inspections is approximately $1.4 million per year.

Currently, no inspection fees are charged to the parties being inspected for either initial inspections or re-inspections for violations or follow-up actions. As identified in the Audit (Audit Recommendation #9), implementation of new inspection or reinspection fees and development of a more robust policy for inspection in accordance with San Diego's Municipal Code is a means for both reducing pollution and achieving cost recovery. These fees can be calculated based on the time, materials, and administrative costs associated with conducting inspections and administering the overall program ($1.4 million per year).

Other comparable City programs that collect inspection fees include the DSD Neighborhood Code Compliance Program and the Fire Department's Fire Company Inspection Program (FCIP), both of which perform inspections to determine compliance with the San Diego Municipal Code. The FCIP has both a first inspection fee that ranges between $240 and $480 based on the inspection area and a reinspection fee of $300 that is billed only on the third scheduled inspection. The DSD

[43] https://www.sandiego.gov/iba/citizens-guide-to-the-citys-budget-process.

Neighborhood Code Compliance Program charges a fee on the third scheduled inspection (second reinspection) that is either $264 or $295 depending on the personnel performing the reinspection.

Other municipalities were also benchmarked for inspection and reinspection fees based on inspection fee type (e.g., for industrial or commercial facilities or structural BMP inspections). The fees varied within each category among the municipalities based on a variety of factors, including whether fees are charged as annual fees, the size or complexity of the property, land-use type, proximity to receiving waters, duration of inspection, time and materials cost recovery basis, and/or number of inspections (Table 6-3).

Inspection and reinspection fees must be approved by the City Council and do not require a public vote. The revenues collected would support the General Fund and allocation to the SWD would be based on City discretion.

Table 6-3. Benchmarking of Inspection and Reinspection Fees for Municipalities in California

Municipality	Industrial and/or Commercial		Structural BMP Projects	
	1st Inspection	2nd+ Inspection	1st Inspection	2nd+ Inspection
San Diego	-	-	-	-
Neighboring Jurisdictions				
Chula Vista[a]	$425 $680 (high priority)	-	$680	-
El Cajon	$130 (Restaurants) $280 (high priority and <100,000 sq. ft.) $500 (high priority and >100,000 sq. ft.)	-	$250 (< 3 BMPs) $340 (> 3 BMPs)	-
La Mesa	$55[b]	$301	-	-
National City	$150 (< 2 ac.) $200 (> 2 ac.)	$125	$250 (< 10 BMPs) $350 (> 10 BMPs)	$150
Santee	$151	-	$144	-
Encinitas	-	-	-	-
Carlsbad	-	-	-	-
Agencies Outside San Diego County				
Huntington Beach	$119 $336 (high priority industrial)	$119	$158	-
Long Beach[c]	$155 (non-IGP) $290 (IGP)	$135 (non-IGP) $265 (IPG)	-	-
LA (County)[c]	$58-$292 (based on facility type)	-	$277	-
Menifee	$390	-	-	-
Torrance	$29 (small) $57 (medium) $114 (large)	-	-	-

Notes: ac. = acres; IGP = Industrial General Permit; sq. ft.= square feet.
[a] Initial fee covers an additional reinspection.
[b] Drive-by type inspection.
[c]Annual fees.

6.4.2 Street Sweeping Parking Citations

Street sweeping is an essential component of stormwater management due to its dual water quality and flood management benefits associated with removal of trash, debris, sediment, and other pollutants. Street sweepers prevent potential pollutants from being transported into the stormwater conveyance system and ultimately into the bays and ocean, helping keep our waterways clean and aiding in compliance with clean water regulations. Additionally, it prevents larger materials from becoming lodged in inlets, drains, and gutters and reduces the chance of localized flooding when it rains. In order to maximize effectiveness of street sweeping, parking lanes and curbs need to be clear of parked vehicles so street sweepers can have access to curbs where trash and pollutants tend to accumulate. Parking citations associated with street sweeping operations serve to deter disruptions to SWD street sweeping operations.

The San Diego Municipal Code provides the authorization of street sweeping zone establishment to the City Manager, while the City Council has the authority to modify the magnitude of parking citation fines. Parking citations for street sweeping currently fall under the "violation of signs" fee amount, which is used by the San Diego Police Department (SDPD) and other entities for enforcement of numerous different sign types. To increase the amount of parking citations for street sweeping, coordination would be required with other City departments and SDPD. In addition, the California Vehicle Code allows for municipalities to set their own fine amounts; however, they should be comparable to other local agencies (e.g., for "violation of signs"). Revenues from the street sweeping parking citation program support the General Fund, where allocations are based on City discretion. Revenues from parking citations have historically been allocated to the SWD due to the clear nexus with both street sweeping and parking enforcement operations. Historical revenues have been relatively steady, ranging from $4.0 to $5.0 million per year, although these revenues have trended down in recent years (FY2020 revenue was $3.4 million). Revenue for FY2020 and FY2021 was impacted by the suspension of parking citations from March to October 2020 as a result of the COVID-19 pandemic.

Parking citation revenues could be increased in a number of ways: (1) by increasing the citation fine amount to achieve cost recovery, (2) by extending the street sweeping zones for which citations may be written to additional areas within the City, and (3) by increasing the frequency and number of enforcement officers to levy citations. The FY2021 SWD budget for both parking enforcement and street sweeping activities totals approximately $6.3 million per year. To achieve cost recovery through an increase of fine amounts, parking citations would need to increase by approximately 20% to adjust budgeted revenue from $5.3 million to $6.3 million per year. The current parking citations are $52.50, with $40.00 of the citation going to the City and a $12.50 surcharge going to the State. By increasing the citation amount that goes to the City by 20%, the estimated citation amount would be approximately $63.00 (the City portion would be $50.50; the state surcharge fee would remain constant at $12.50).

The second two options for increasing parking revenue (increase in posted street sweeping zones or an increase in enforcement) are needed to meet enhanced street sweeping regulatory compliance commitments to meet CWA and Trash Amendment requirements and prevent trash and pollutants from entering the stormwater conveyance system. These options would also have offsetting costs for the SWD due to the need for additional resources to expand patrol routes or increase patrol frequencies. Based on the staff and equipment needed to add 6,000 miles of streets swept per year, an additional cost of approximately $1.4 million per year would be incurred by the SWD. Potential revenue from the additional routes is estimated to be $80,000 per patrolled route based on past citations and route data[44]. Without an increase in citation amounts, the addition of the two routes would actually cost the SWD an additional amount and increase the funding gap by approximately $0.6 million per year. The increase in citation amounts to achieve cost recovery (for the additional street sweeping miles) would be 47% or an increase of the total fine to $77.00 per citation. All the scenarios for increasing revenues from citation penalties assume that significant changes in behavior and reductions in the number of citations issued per route do not occur.

A number of local municipalities and educational institutions were benchmarked by the Office of the City Treasurer in February 2020 to assess comparable fine amounts for "violation of signs" Municipal Code violations and are summarized in order by highest fine amount in Table 6-4. If the City were to pursue an increase in street sweeping violations under the current violation type, the increase would need to be comparable to these magnitudes per the California Vehicle Code.

Table 6-4. Benchmarking of Local Municipalities for "Violation of Signs" Municipal Code Violation Amounts

Municipality	Violation Amount
University of California, San Diego	$65.00
California State, San Marcos	$65.00
City of Oceanside	$58.00
City of Encinitas	$53.00
City of San Diego	**$52.50**
San Diego Community College	$50.00
City of Chula Vista	$47.50
City of Escondido	$46.00
City of La Mesa	$42.50
Port of San Diego	$40.00
City of National City	$35.00
City of Del Mar	$33.00

[44] Additional potential revenue assumes that $40 per citation issued is allocated to SWD, that there are 94 citations per mile patrolled, and that there are 21 miles per route.

Municipalities vary significantly in whether they enforce street sweeping at all (e.g., Encinitas has a "violation of signs" amount but does not enforce street sweeping). In addition, where citations are issued for street sweeping, revenues generally support the General Fund and are not restricted nor allocated for stormwater in most cases.

6.4.3 Transient Occupancy Tax Allocations

The TOT was established to advance the City's economic health by (1) promoting the City as a visitor destination, (2) supporting programs that increase hotel occupancy and attract industry, (3) developing, enhancing, and maintaining visitor-related facilities, and (4) supporting the City's cultural amenities and natural attractions. Of the revenues that are collected, approximately 52% is allocated to the General Fund, 38% is allocated to the special programs to promote the City's tourism, and the remaining 10% is allocated by the City Council for any purpose. In FY2021, the total budgeted amount to be contributed to the General Fund was $90.5 million (5.6% of General Fund revenues).

Note: The effects of the COVID-19 pandemic on tourism will significantly impact TOT revenues for FY2021 (anticipated at -36.71% per the FY2021 Adopted Budget), which will have an impact on overall General Fund revenues and the portion of the TOT that can be allocated with City Council discretion.

Transferring a portion of the TOT specifically to the SWD would fall under either the Safety and Maintenance of Visitor-Related Facilities or Capital Improvements categories of eligible programs under the TOT policy. Funds would be limited to projects that help achieve the goals of the TOT, and any transfer would have to be approved by the City Council and the impact on other competing program funding requirements considered. Since the TOT is an established tax, the funds could potentially be available to the SWD in the near-term if projects are deemed appropriate.

The SWD is budgeted to receive $1.0 million in TOT funds for FY 2021, an amount that is expected to remain consistent into the future; however, these allocations are subject to modification by the City Council as part of the annual budget process.

6.4.4 Infrastructure Fund

The Infrastructure Fund was approved in 2016 with the passage of Proposition H, establishing a dedicated source of revenue to fund General Fund infrastructure projects. The Infrastructure Fund is used exclusively for "the acquisition of real property, construction, reconstruction, rehabilitation, repair, and O&M of infrastructure, including associated financing and personnel costs.[45]" The SWD is an asset-managing division and is identified as a potential beneficiary of the fund. Similar to allocation of revenue from the General Fund, the SWD is eligible for portions of the annual revenue in due consideration of other City department infrastructure needs. However, per the FY2021 Adopted Budget, no funding is anticipated for the SWD in FY2021. It is also possible that no funding

[45] City of San Diego, n.d. "City of San Diego FY18 Proposed Budget." https://www.sandiego.gov/sites/default/files/fy18pb_v2infrastructurefund.pdf

will be allocated in FY2022, after which the funding source for the Infrastructure Fund is set to expire; therefore, no future funding is anticipated to support the SWD.

6.4.5 General Fund

The City General Fund generates revenue through a variety of sources, of which the primary contributors are property taxes, sales taxes, the TOT, and franchise fees. The General Fund supports most City-wide services, except for enterprise-funded services, which necessitates an annual budgeting process that partitions available funding by weighing priorities and needs across numerous departments, including SDPD, Fire-Rescue, Library, and Parks and Recreation.

The City General Fund provides SWD revenue in the form of direct funds transfers, through special assessments, and with proceeds from bond sales supported by general tax revenues. Historically, the General Fund has provided direct funding for SWD programmatic needs (O&M) and bond financing for CIP projects. This has been a reliable, ongoing revenue source (although allocations can vary from year to year and have been generally decreasing steadily since FY2017) to the extent that the General Fund revenues, other General Fund expenditures, and funding priorities remain relatively consistent. Contributions from the General Fund have historically ranged from approximately $45.0 million to $60.0 million per year, depending on need and funding availability. In FY2021 the SWD is anticipated to receive $34.8 from other General Fund sources, excluding funding from specific sources that include parking citations from street sweeping, TOT, and the storm drain fee. While this General Fund support could potentially be increased to meet future SWD funding needs, without increasing General Fund revenue (e.g., increase in taxes), this increase would most likely require budget cuts to other City departments.

6.5 City Discretion/Authority (Restricted)

In addition to the potential new and enhanced City funding sources presented in Section 6.4, additional revenue could be allocated to SWD funding needs from restricted City funds, each of which are dedicated to funding specific functions or activities within the City and require approval from City officials and/or an oversight board. For FY2021, a total of $1.6 million is estimated from these sources for the SWD, including $1.0 million from TransNet and $0.6 million from the Parking Meter District Fund.

Note: Each of these sources for the SWD could in fact decrease over time and is not considered a dedicated revenue stream. Each of the potential funding sources, or grouped funding sources where denoted, are outlined in this section with full evaluation findings presented in Appendix B.

6.5.1 TransNet Fund

TransNet is a half-cent sales tax add-on for local transportation projects that was originally approved in 1988 and, subsequently, extended in 2004 for another 40 years. The primary purpose of TransNet funds is to reduce traffic congestion and to support essential transportation improvements that increase safety and improve air quality. Approximately 30% of TransNet revenues are transferred to the General Fund to support transportation O&M activities, while approximately 70% of the revenues are designated for specific right-of-way-related infrastructure improvements (approximately $20 million per year). TransNet may fund transportation components of non-transportation CIP projects that are within the right-of-way, which could include stormwater projects, provided the improvements relieve traffic congestion.

Forecasted allocations of TransNet funds to the SWD are estimated between $1.0 million to $2.0 million per year.

6.5.2 Capital Outlay Fund

The City's Capital Outlay Fund is funded by the sale of City-owned property and is used exclusively for the acquisition, construction, and completion of permanent public improvements. Such investments in CIP projects are typically directed toward asset-managing General Fund departments, including the SWD. The Capital Outlay Fund has historically provided CIP funding to the SWD and remains a viable source in the future; however, funds often support debt service for LRBs and then remaining funds are allocated to CIP projects. Because the primary source of revenue for the Capital Outlay Fund is the sale of City-owned property, additional revenue to the fund can vary from year to year. Additionally, as with many City funds, the Capital Outlay Fund provides funding for multiple City departments and the City must, therefore, balance competing needs. For FY2021, there is no additional funding planned for SWD; however, no long-term reliance on the Capital Outlay Fund is assumed due to the high degree of variability.

6.5.3 Impact Fees and Facilities Benefit Assessments

Impact fees and FBAs are one-time assessments on new development and redevelopment projects, where developers "buy into" the existing infrastructure and facilities, and/or pay for the additional capacity required to serve new developments. The City has divided regions into (1) FBA areas, where new development is anticipated and historically all of the funds for public facilities are distributed over the community planning area through the Public Facilities Financing Plan, and (2) DIF areas, where there are urbanized communities and the fee is reflective of impacts to redevelopment or further build-out conditions.[46] The amount of a DIF is specific to each community planning area and is updated when there are community plan updates or amendments using a four-phase process: initiation, analysis, review, and approval.

[46] City of San Diego, n.d. "City of San Diego FY19 Impact Fee Schedule." https://www.sandiego.gov/sites/default/files/feeschedule.pdf

The City's DoF has the authority to reallocate Impact Fee Community Funds-funded appropriations between City Council-approved projects to expedite the use of Community Funds in accordance with requirements of California Statute Government Code Sec. 66000 (commonly referred to as Assembly Bill [AB] 1600).[47] However, AB 1600 also requires that any new fees must meet the requirements regarding the cost nexus of the fees, approval, adoption, and reporting.

Current forecasts anticipate allocating approximately $62.0 million in CIP funding from DIF and FBA sources combined over the forecast period of FY2021–FY2025.[48] For FY2021, $2.0 million was anticipated to be allocated to the SWD but was reduced as a result of budget reductions. The City could enhance the allocation of the current FBA and DIF receipts to the SWD or establish a separate stormwater DIF component to provide additional revenue to the SWD to fund projects associated with meeting additional capacity needs. The upper threshold for allocations that could fund the SWD is estimated to be $20.0 million per year. Depending on the mechanism by which the existing impact fee is transferred or increased, revenues could become available for SWD in either the near- or long-term.

6.5.4 Mission Bay Park Improvement District and Regional Parks Improvement Funds

The Mission Bay Park Improvement District Fund and the Regional Parks Improvement Fund provide funding for noncommercial CIP improvements in San Diego Regional Parks, including Balboa Park, Chollas Lake Park, Mission Bay Park, Mission Trails Regional Park, Otay River Valley Park, Presidio Park, and San Diego River Park. The Mission Bay Park Improvement District and the Regional Parks Improvement Funds are funded by a share of lease revenue in Mission Bay. Each year, $20.0 million from lease revenue supports the General Fund, with the remaining revenue split between the Mission Bay Park Fund (65% of remaining revenue) and the other parks (35% of remaining revenue). The FY2021 budget identified $7.9 million from the Mission Bay Park Improvement Fund and $3.3 million from the Regional Parks Improvement Fund for CIP projects, none of which was allocated to stormwater projects.

A share of funding for SWD CIP improvements could be provided by these funds for projects within the parks. Funding would be limited to stormwater projects that meet the investment criteria established for the two respective funds. For example, stormwater projects could include restoration of wetlands and wildlife habitat, as well as deferred O&M projects that help manage stormwater and protect public safety and the environment within park areas. A portion of funding for future stormwater projects within these parks could be provided by an allocation of these funds; however, it is anticipated that no funds will be allocated to SWD for FY2021 or in the near-term due to the economic impacts of COVID-19 and Citywide priorities for CIP spending as a result.

[47] City of San Diego. June 25, 2018. "An Ordinance Adopting the Annual Budget for Fiscal Year 2019 and Appropriating the Necessary Money to Operate the City of San Diego for Fiscal Year 2019."
[48] City of San Diego. *Fiscal Year 2021-2025, Five-Year Capital Infrastructure Planning Outlook*. https://www.sandiego.gov/sites/default/files/fy21_25outlook.pdf.

6.5.5 Parking Meter District Funds

Parking Meter Districts Funds provide funding for regulation, management, and control of the parking of vehicles and management and control of traffic (including vehicular, bike, and pedestrian), which affects or is affected by the parking of vehicles in the parking meter zones. Expenditures may include, but are not limited to, increasing the parking supply, managing existing parking inventory, providing for extraordinary O&M and landscaping activities, providing pedestrian or vehicular safety, and CIP that support these purposes. Annually, each Community Parking District Advisory Board develops, with community input, and recommends to City Council an annual plan and budget for proposed improvements and activities. The 2019 CAFR reported a fund balance of $35.6 million at the end of FY2019.

The SWD currently anticipates receiving approximately $0.6 million in FY2021 from Parking Meter District Funds. Future allocations of these Funds are subject to the City budget process; however, it is anticipated that the amount will stay largely consistent.

6.5.6 Water and Sewer Utility Enterprise Funds

Support from other utilities could be provided for stormwater projects to the extent that it can be shown that the project is being used to provide a potable or non-potable water source by a water purveyor, sewer benefits from reductions of utility-imposed costs on, or benefits received from, related SWD services (e.g., stormwater infiltration into collection systems, or water quality management within watersheds of leakage from sewer or water systems).[49] Support would be limited by the designated cost and benefit provisions per Proposition 218. Implications for the originating utility would need to be assessed to determine the impacts on that utility's overall revenue needs and potential means for recuperation (e.g., potentially prompting the need for further rate increases through the Proposition 218 process). Per the FY2019 CAFR, the Sewer and Water Utility Funds had net incomes of $34.0 million and $35.0 million (before contributions and transfers), respectively.

Support from other City utilities would be dependent on the nature of the support or the cost-sharing agreement for specific projects or O&M benefiting both the utility and the SWD. This may be viable for mutually beneficial projects such as stormwater harvesting and alignment with the Pure Water Program or shared operating costs such as utility billing. The SWD is currently evaluating the viability of stormwater harvesting and has identified several potential options that can contribute to water supply. As these options are refined, potential opportunities for collaboration and cost sharing will be considered; however, for FY2021, it is assumed that no funding will be allocated to the SWD from these utilities.

[49] The City does enter into Service Level Agreements (SLAs) for services related to other entities; however, they are typically for specific projects or work orders.

6.5.7 Other Enterprise Funds

Several additional enterprise funds exist within the City and could be considered as possible funding sources to meet specific funding needs if a clear nexus exists and is demonstrated. These enterprises are listed below with the net income reported in the FY2019 CAFR:

- Airports Enterprise Fund (-$2.2 million)
- Development Services Enterprise Fund (-$5.2 million)
- Environmental Services Enterprise Fund ($2.1 million)
- Golf Course Enterprise Fund ($5.1 million)
- Recycling Enterprise Fund ($3.5 million)

Two of the funds reported a negative net income, therefore, would be unlikely to provide funds due to their respective funding shortfalls. Like the Water and Sewer Enterprise Funds, funding from the other three enterprise funds would likely come in the form of cost-sharing agreements for either multipurpose CIPs that benefit both the SWD and the participating enterprise, or for services provided to the enterprise by the SWD. For example, a detention basin could be constructed on a City golf course to beautify the golf course while providing needed stormwater retention within the watershed. No revenue is anticipated from these other enterprise funds for SWD in FY2021.

6.6 External Discretion (No Public Vote)—Grants

Grants are near-term, temporary sources of revenue that can meet either CIP or O&M spending needs. They are typically competitive and have specific objectives and requirements that applicants must align with to be considered for funding, including potential funding match and reporting requirements. Importantly, regularity, amount, and duration of distinct grant opportunities are variable and will need to be considered individually for suitability. The SWD has compiled and maintains information on grants that may align with SWD needs (see Appendix A). There are several grant programs that have been identified as priority opportunities for SWD, due to factors like near-term funding availability, program purpose, and continuity of funding. These grant programs are highlighted in Table 6-5 along with notes on whether the SWD has recently submitted applications for grant funding. A complete list of grants that were reviewed in preparing this Funding Strategy is included in Appendix A.

Table 6-5. Priority Grant Opportunities (as of January 2021)

Agency, Program Name	Funding Source	Eligible Expenditures	Award Limits (if applicable)	Available	Notes
EDA Disaster Supplemental Funding	Federal Economic Adjustment Assistance Program	Projects that help regions recover from the economic harm and distress resulting from floods and tornados in 2017–2019	Not specified	$587M	Application submitted for Maple Canyon Restoration–award has not been decided.
FEMA Flood Mitigation Assistance Grant Program	Federal Pre-Disaster Fund	Planning and mitigation projects that are part of a FEMA-approved hazard mitigation plan to reduce future flood losses	Up to $10M per project	$160M	Ongoing funding source: annual solicitations released late summer; application submitted for Auburn Creek project–award has not been decided.
U.S. Army Corps of Engineers Continuing Authorities Program	Varied	Planning and construction of varied water resources projects, pertaining to rivers and harbors, aquatic ecosystem restoration, flooding, and other water resource issues	Up to $100,000 for feasibility, $5M for shoreline protection, $10M for all other projects	Not specified	Guided by nine separate legislative authorities; ongoing funding source covering many purposes.
EPA CWA Section 319 Nonpoint Source Pollution Grant	Varied	Projects that reduce or mitigate the effects of nonpoint source pollution in California waters	$200,000 to $800,000	$4M	Application planned for various load reduction programs.
CalTrans Stormwater Management Program	CalTrans	Planning and construction of stormwater treatment facilities through cooperative implementation agreements	Not specified	Ongoing, not specified	Ongoing funding source: SWD submitted Alamo and Salvation BMP for funding but was not awarded.

Agency, Program Name	Funding Source	Eligible Expenditures	Award Limits (if applicable)	Available	Notes
CNRA Urban Greening Grant Program	Greenhouse Gas Reduction Fund	Projects that reduce GHGs and plant trees, reduce building energy use through greening, and/or reduce commuter vehicle miles traveled	Not specified	$28.5M	Application submitted for Logan Heights South GI project– award has not been decided.
CNRA Urban Flood Protection Program	Proposition 68	LID and multi-benefit projects in urbanized areas that address flooding, like stormwater capture and reuse, restoration of urban streams and watersheds, and increasing permeable surfaces to help reduce flooding	$200,000 to $6M	$87.5M	Application submitted for Maple Canyon Restoration Phase 1– award has not been decided.
Ocean Protection Council Coastal Resilience Grant Program	Proposition 68	Multi-benefit ecosystem, watershed protection, and restoration projects	$100,000 to $2M	$10M	Applications submitted for South Mission Beach GI and Los Peñasquitos Lagoon Restoration 1 projects. Neither project was awarded funding.
SWRCB Stormwater Grant Program	Proposition 1	Multi-benefit stormwater management projects focused on water capture like GI, rainwater and stormwater capture, and stormwater treatment facilities	$250,000 to $10M	$100M	Applications submitted for Logan Heights South GI and South Mission Beach GI–awards have not been decided.
State Coastal Conservancy Grants	Proposition 1	Multi-benefit ecosystem and watershed protection and restoration projects	$50,000 to $1M	Unknown (to be announced in 2021)	No projects currently submitted.

Agency, Program Name	Funding Source	Eligible Expenditures	Award Limits (if applicable)	Available	Notes
DWR Integrated Regional Water Management (IRWM) Implementation Grant Program	Proposition 1	Projects included in an adopted IRWM Plan that address critical water management needs of the IRWM Region, including all aspects of stormwater management	Up to $18M	$22M	Program likely to receive additional funding in future with same or similar grant program requirements. SWD applied for funding for the Logan Heights GI Project but was not awarded funding.
DWR Coastal Watershed Flood Risk Reduction Grant Program	Proposition 1	Projects that reduce flood risk with fish and wildlife enhancements in coastal watersheds	Not specified	$24.3M	SWD submitted concept proposals for Los Peñasquitos Lagoon Restoration Design and South Mission Beach Storm Drain Improvements and GI–awards have not been decided.
WCB Stream Flow Enhancement Program	Proposition 1	Projects that are reliable water supplies, the restoration of important species and habitat, and more resilient and sustainably managed water resources	Not specified	$90M	SWD submitted application for Los Peñasquitos Lagoon Restoration–awards have not been decided.

Note: CalTrans = California Department of Transportation; GHG = greenhouse gas; M = million; SWRCB = State Water Resources Control Board.

In addition to these key opportunities, numerous other programs from state and federal sources have been identified as being aligned with the SWD core program goals of improving water quality, managing flood risk, increasing water capture or reuse, providing community benefits (e.g., recreation, parks, open space), and providing public education and partnership and additional grant and loan programs will likely become available in future years. To illustrate where public grant opportunities fit into the mosaic of SWD goals, the grants in Appendix A have been sorted into one of these categories according to primary program purpose. It should be noted that, while some of these programs have a single purpose, many support multiple purposes across categories.

The City requires City Council approval for the application for grants for all CIP projects (regardless of amount) and noncapital projects that are over $1.0 million. The SWD is regularly identifying and characterizing projects that are suitable for available grant funding; however, the timing of receipt of revenue, limitations of SWD staff to track and pursue grants, project readiness, availability of matching funds, and other funding limitations are often obstacles.

6.7 External Discretion (Public Vote)

A number of funding options that require a ballot measure could either increase total revenue that the City receives and would be allocated as part of the City budgeting process or provide a long-term dedicated revenue stream for stormwater and possibly related activities specifically as an enterprise fund. A benchmarking analysis was conducted of municipalities throughout California that have dedicated stormwater funding (e.g., fee, tax, or bond), building upon the effort described in the Audit. Section 6.7.1 summarizes the findings from the benchmarking effort as it relates to ballot measure-related funding with additional detail provided in Appendix C. A number of the potential ballot measure options could provide dedicated revenue streams for SWD activities, including a special parcel tax or a property-related fee. There are many differences, some of them nuanced, between the approach and structure, the potential revenue, program to be funded, and ratepayer impact of each approach.

Sections 6.7.1.2 through 6.7.2.6 present evaluated funding options, including options beyond dedicated stormwater funding that would increase overall revenue for the City. For each of these funding options, restrictions on how funds could be spent (e.g., CIP versus O&M, restricted use, and so forth) and the process for passing a funding measure were identified. Funding options not currently recommended for pursuit are also identified within their respective subsections. A summary of potential ballot measure-required options recommended for further evaluation and refinement through stakeholder engagement and surveys as part of Audit Recommendation #6 also is provided.

6.7.1 Dedicated Stormwater Funding Mechanism (Ballot)

If the SWD were to maximize existing funding sources and cost recovery for current revenue-generating activities, an additional $3.8 million per year in funding could be allocated to support the SWD (total SWD of $52.3 million per year) (see Figure 6-3 for the magnitude of current and potential future funding options where the magnitude is greater than $0). This potential increase in funding would still support less than 20% of the annual average funding need. There would still be a significant funding gap that would average $221.5 million per year and total $4.43 billion for the forecast period of FY2022–FY2040 (Figure 6-3).[50]

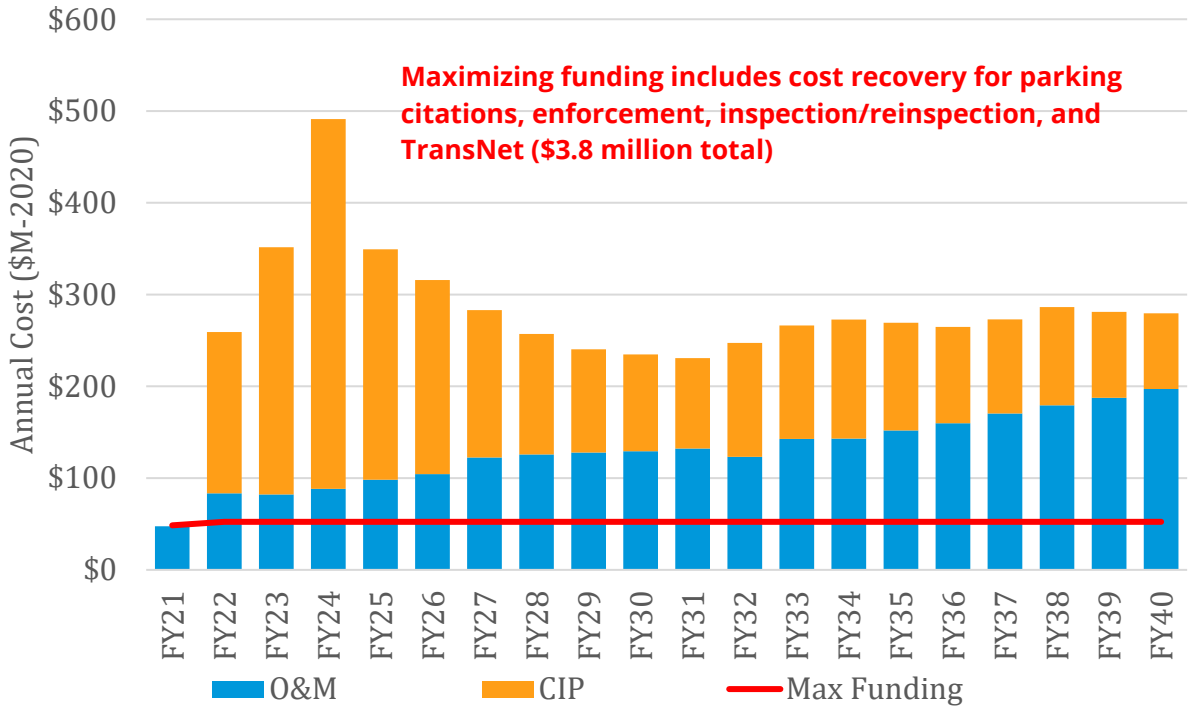

Figure 6-3. 20-year SWD funding need (accounting for deferment of FY2021 unfunded need and project phasing) with existing funding and cost recovery maximized.

[50] The funding gap is calculated as the difference between the SWD funding need from the WAMP minus the maximum potential increase in existing funding options as detailed in

Table 6-6.

Table 6-6. Summary of Current (FY2021) Magnitude and Potential Addition or Increase in Magnitude for Existing Funding Options Where the Potential is Greater than $0

Funding Option	Magnitude (FY2021 Current)	Magnitude (Potential Addition or Increase)
SWD DISCRETION		
Stormwater Enforcement and Fines	$125,000	$503,000 (cost recovery) to $1,006,000 (dis-incentivization)
SWD Discretion Subtotal	***$125,000***	***$503,000 to $1,006,000***
CITY DISCRETION		
Inspection and Reinspection Fees	$0	$1,400,000 (cost recovery)
Street Sweeping Parking Citations	$5,250,000	$6,300,000 (cost recovery) to $7,700.000 (cost recovery plus additional routes needed for compliance)
TOT	$1,000,000	$1,000,000
Existing Storm Drain Fee	$5,700,000	$5,700,000
Other General Fund	$34,846,439	$34,846,439 (assumed constant)
City Discretion (Unrestricted) Subtotal	***$46,796,439***	***$14,400,000 (no General Fund) to $49,246,439 (with General Fund, cost recovery target)***
CITY DISCRETION (RESTRICTED)		
TransNet	$1,000,000	$1,000,000 to $2,000,000
Parking Meter District Funds	$600,000	$600,000
City Discretion (Restricted) Subtotal	***$1,600,000***	***$2,600,000***
EXTERNAL DISCRETION/AUTHORITY (GRANTS)		
Grants Subtotal (see Appendix A for detailed information)	***$0***	***$0 to variable based on award***
EXTERNAL DISCRETION/AUTHORITY (BALLOT MEASURE)		
Other Stormwater Funding Mechanism(s)	$0	Amount TBD if Audit Recommendation #6—design a funding mechanism—is pursued
External Discretion/Authority (Ballot Measure) Subtotal		***$0 to variable/whatever dollar amount targeted for long-term funding mechanism (tax, fee, etc.)***

Funding Option	Magnitude (FY2021 Current)	Magnitude (Potential Addition or Increase)
FINANCING		
Financing Subtotal	***$0***	***$0 to variable based on need, City discretion for General Fund financing, cash flow, and application success based on financing option***
TOTAL	**$48,521,439**	**$52,349,439 (existing sources)** ***Bottom line: Projected average annual need is $273.7 million, so after maximizing existing funding sources, a minimum of $221.5 million is needed to fill the funding gap.***

As a reference, the existing storm drain fee is budgeted to generate $5.7 million in revenue annually and supports only 2% of the average annual stormwater funding need. The SWD will need to consider and further evaluate a potential fee or tax funding mechanism, including various methodologies and other factors to estimate ratepayer impacts and revenue generation potential. The factors that the City will need to consider include the following:

- **Revenue target:** Revenue targets will be determined by the interaction of a variety of factors, including the funding need/gap, internal and external stakeholder preferences, ratepayer impacts, and voter willingness to pay.
- **Methodology:** Another factor is the method by which a tax or fee would be assessed and applied to a ratepayer (e.g., flat parcel, land-use based, intensity of development, or impervious cover.).
- **Tiers:** Tiers can be included within each larger methodology to further refine how rates are applied (e.g., small, medium, or large SFR tier within the land-use based method).
- **Base rate and additional components:** A base rate could be applied to a specific component of the SWD program (e.g., connection to the storm drain system) and additional components depending on services provided to the ratepayer.
- **Escalations:** Escalations over time can be included in a rate schedule.
- **Reductions or discounts:** Reductions and/or discounts for ratepayers can be included to account for variability, affordability, or equity (e.g., low-income areas, vacant land, and so forth).

- **Exemptions:** Exemptions can be included for specific ratepayers or land uses (e.g., government parcels, institutional facilities, and religious institutions); however, this is only applicable to taxes (fees cannot have exemptions due to nexus requirements).
- **Credits or rebates:** Credits or rebates may be offered for ratepayers who participate in eligible stormwater-related programs (e.g., residential rain barrels, downspout disconnections, and so forth).
- **Sunset clause:** A sunset clause can be included so that a funding measure will cease to be in effect after a specific date, unless further legislative action or a vote is taken to extend it.

Further assessment of the scenarios for revenue, customer impacts, and funding mechanism structure and methods will need to be completed iteratively in coordination with stakeholder engagement and surveys as part of Audit Recommendation #6.

6.7.1.1 Stormwater Funding Measure Benchmarking

Twenty-six municipalities were benchmarked for current stormwater-related funding measures, including San Diego (22 within California and 4 outside of California to inform potential ratepayer impacts for other large urban areas that are not subject to Proposition 218). While some of these municipalities are in varying stages of evaluating new or increased funding measures, only successful measures are summarized within this section. Each of these jurisdictions faces drivers similar to those the SWD faces to varying degrees, including urbanization, CWA regulations and compliance, aging infrastructure, and climate change.

Of the 22 California jurisdictions included in the stormwater funding measure benchmarking (including San Diego), 10 of them have passed new and successful stormwater funding measures (fee or tax) since Proposition 218 was enacted: Berkeley, Culver City, Del Mar, LA County Flood Control District, Long Beach, Oceanside, San Clemente, San Francisco,[51] Santa Clara Valley Water District, and Santa Monica.

Of the 11 California jurisdictions that initially developed a funding mechanism prior to the existence of Proposition 218—like the City's stormwater fee, which was approved in 1991 and last increased in 1996—five of them have successfully raised it since Proposition 218 took effect: Palo Alto, Sacramento, San Jose, Santa Clarita, and the Vallejo Flood and Wastewater District. Berkeley, Santa Cruz, Santa Monica, and Washington, DC, have more than one dedicated funding measure for stormwater management; however, a combined estimated monthly SFR bill is presented in Table 6-7 to present relative customer impacts. A summary of the jurisdictions with successful funding measures is presented in Table 6-7, with detail on the mechanism type, year of last increase or approval, whether the latest date was before or after Proposition 218 was in place, and what the amount of the estimated median monthly SFR rate is. A complete benchmarking assessment is

[51] San Francisco has a combined sewer and stormwater system, which approves stormwater-related rates as an enterprise.

included Appendix C. Italicized municipalities are outside of California and not subject to Proposition 218.

Table 6-7. Stormwater Ballot Measure Benchmarking Summary

Jurisdiction	Funding Mechanism	Pre-Prop 218	Latest Approval	Typical SFR Bill (monthly)
City of Detroit	*Property-related fee*	*n/a*	*2020*	*$25.04*
Washington, DC[a]	-- *Property-related fee* *Property-related fee*	*n/a*	-- *2018* *2020*	*Total: $22.19* *$2.67* *$19.52*
San Francisco[b]	Sewer utility		2018	$21.31
City of Seattle	*Property-related fee*	*n/a*	*2020*	*$15.29 to $58.76*
City of Philadelphia	*Property-related fee*	*n/a*	*2019*	*$14.03*
City of Palo Alto	Property-related fee	✓[c]	2017	$13.65
City of Del Mar	Property-related fee		2019	$13.11
City of Sacramento	Property-related fee	✓[c]	2016	$11.31
City of Santa Monica[a]	-- Special parcel tax Property-related fee	✓	-- 2006 1995	Total: $10.00 $7.00 (max) $3.00
City of Santa Cruz[a]	-- Property-related fee Property-related fee	✓	-- 1994 1994	Total: $9.09 $7.32 $1.77
Culver City	Special parcel tax		2016	$8.25
City of Berkeley[a]	-- Property-related fee Property-related fee	✓	-- 1991 2018	Total: $8.00 $4.42 $3.58
City of San Jose	Property-related fee	✓[c]	2011	$7.87
LA County Flood Control District	Special parcel tax		2018	$6.92
City of San Clemente	Property-related fee		2013	$6.23
Santa Clara Valley Water District	Special parcel tax		2012	$4.65
City of Santa Clarita	Property-related fee	✓[c]	2009	$2.08
Vallejo Flood and Wastewater District	Property-related fee	✓[c]	2017	$1.97
City of LA	Property-related fee	✓	1994	$1.92
City of Oceanside	Property-related drainage impact fee		2007	$1.50
City of San Diego	**Property-related fee**	✓	**1996**	**$0.95**
City of Chula Vista	Property-related fee	✓	1991	$0.70

Jurisdiction	Funding Mechanism	Pre-Prop 218	Latest Approval	Typical SFR Bill (monthly)
City of Long Beach	General sales tax		2016	Median SFR n/a 1% for first 6 years; 0.5% for next 4 years

Notes: max = maximum; n/a = not applicable.
[a] Some municipalities have two separate funding mechanisms that may fund separate components of stormwater needs, were passed at different times, or are different types of mechanisms.
[b] SFPUC is a combined storm sewer system and charges a monthly service fee for customers not already charged separately for water and sewer services through SFPUC, primarily unmetered properties like vacant parcels and parking lots.
[c] Initial funding mechanism instated prior to Proposition 218; more recent rate increases passed with voter or property owner approval.

6.7.1.2 Increase Existing Storm Drain Fee

The current storm drain fee is collected as a surcharge on the water utility bills and is a flat monthly fee of $0.95 for SFRs, regardless of property size or the amount of water used. For multifamily, commercial, industrial, institutional, and other properties, the monthly fee is charged at a rate of $0.0677 per HCF of water used. Rates have not been adjusted since 1996. Revenue has been consistent over the past 10 years, within +/-5% of the annual $5.7 million average. Because the storm drain fees are tied to the number of SFR water service recipients and to other property type water use, the ratepayer base for this drainage fee is not expected to grow appreciably in the future. In addition, when customers do not pay their water or sewer bills (due to disputes or other reasons), stormwater revenues may be marginally impacted.

With the storm drain fee's current configuration as a utility fee, the ratepayer base is fairly inclusive as it does not exclude customers based on their taxable status. Any increases in the storm drain fee must be developed and adopted in accordance with the requirements set forth under Proposition 218 related to a cost nexus and the notification and public approval process. Note that Senate Bill (SB) 231 allowed for the inclusion of stormwater in the definition of "sewer" for purposes of rate-setting and voting requirements, although this is expected to be challenged in the courts and would need to be carefully considered.

6.7.1.3 Special Tax (Parcel Tax)

A "special tax" (as defined under Article XIII (C) of the California Constitution) can be established to generate revenues specifically earmarked to finance the revenue needs of the SWD. Special taxes may be established in perpetuity or as a limited term tax, depending on the SWD's needs and the political viability of passing such a tax. Special taxes require a two-thirds majority approval for adoption. **Because special taxes are voted on by the general public, they do not have the same cost-of-service requirements of property-related fees and can, therefore, include exemptions, discounts, and other incentive programs.** Special taxes may include an escalation factor via an

adopted rate schedule or with an annual adjustment for inflation if specified; however, any change in the calculation methodology after the tax is in place will require voter approval.

As a result of Proposition 13, special taxes cannot be imposed based on property value. Instead, taxes for stormwater would most likely be a "per-parcel" tax, apportioned according to the property square footage or estimated impervious surface, or as a flat charge. Proceeds of a special tax count toward a local government's Gann appropriation limit.

A special tax could be designed to meet the entirety of the SWD funding need; however, the political viability of a tax increase of that magnitude will need to be tested as part of Funding Strategy implementation.

6.7.1.4 General Tax with Special Advisory (Parcel Tax)

A "general tax" (as defined under Article XIII (C) of the California Constitution) may be used as a perpetual or limited term funding source to meet the revenue requirements of the SWD; however, the funds are not earmarked for a specific use. Instead, a nonbinding special advisory is used to provide guidance on how the funds are intended to be spent. Like special taxes, a general tax is not required to adhere to the same cost-of-service requirements of a property-related fee. General taxes require a simple majority approval from voters, but these votes must be held during a general election. A schedule of increases or a formula specifying the basis for inflationary adjustments may be adopted with the tax; however, any change in the tax or the escalation methodology would require additional voter approval. Taxes charged as a percentage cannot include a schedule of or methodology for increases in the original adoption.

Due to Proposition 13, general taxes cannot be imposed based on property value. Instead, taxes would most likely be a per-parcel tax, apportioned according to the property square footage or estimated impervious surface, or as a flat charge. Proceeds of a general tax count toward a local government's Gann appropriation limit.

A general tax could be designed to meet the entirety of the SWD funding need; however, the political viability of a tax increase of that magnitude will need to be tested as part of Funding Strategy implementation.

6.7.1.5 Property-Related Fee—Proposition 218 Approach

A property-related fee may be established for stormwater funding purposes, requiring clear cost-based justification for the fees charged to each parcel or property owner (see Section 4.3.1 for additional details on Proposition 218). These fees can be structured to meet all or a portion of SWD's revenue requirements associated with providing stormwater infrastructure and services. An adopted fee schedule may include a set schedule of fee increases over a defined period (typically 3–5 years), or a formula to calculate automatic fee adjustments for inflation, provided the adjustment

method is specific and clearly justified. **Establishing a property-related fee requires a cost-of-service analysis to demonstrate that the fee charged does not exceed the cost of serving ratepayers. Similarly, the fee charged to a parcel or person may not exceed the proportional cost of service attributable to the parcel. This precludes the ability to exempt specific properties (e.g., government, institutional, or vacant land) and provides limited flexibility in allocation of funds if there is not a clear nexus.**

The property-related fee approval process would be subject to Proposition 218 requirements, which require either two-thirds majority approval from the electorate or majority support of affected property owners who return ballots. The property owner ballot approach also includes a protest vote (a two-step process explained in Section 4.3.1).

6.7.1.6 Property Related Fee—SB 231 Approach

In September 2017, Governor Brown signed SB 231, which amended the definition of "sewer" under Article XIIIC and XIIID of the California Constitution to include both sanitary and storm sewers. This legislation was intended to allow cities to establish stormwater fees as a property-related fee under the same requirements applied to water, sanitation (sewer), and solid waste utilities by an action of City Council. The requirements for a cost-of-service study and clear nexus for the fee basis and the services to ratepayers as Proposition 218 still apply.

Currently, no communities have sought to establish a new stormwater fee using this approach. According to the California Stormwater Quality Association (CASQA), the Howard Jarvis Taxpayers Association, a California lobbying and policy organization, has indicated they intend to challenge any community that attempts to institute a stormwater fee using this approach.[52] As such, the development of a new property-related fee for stormwater services based on the passage of SB 231 carries a high degree of legal risk and is currently not recommended for further pursuit.

6.7.1.7 Property-Related Fee—AB 2403

AB 2403 was signed in 2014 and clarifies the definition of water under Proposition 218 to include urban runoff and other potential sources of water. This could allow for a property-related fee that includes stormwater as a resource to be exempt from the two-thirds vote required under Proposition 218 for stormwater and instead be subject to a 50% majority protest of landowners. As the SWD continues to plan for a water capture and water supply program, it will continue to track developments of successful fees using this approach and consider it as part of the stormwater harvesting evaluation process.

[52] CASQA. Funding Resources Overview and Background. https://www.casqa.org/resources/funding-resources/overview-and-background.

6.7.1.8 Property Related—Special Assessment

A "special assessment" (as defined under Article XIII (D) of the California Constitution) is a charge to property owners who receive a "special benefit" from public programs over and above that received by the general public. Special assessments apportion the costs associated with public improvements to properties based on each property's proportional benefit received.[53] A special assessment may be a perpetual funding source that can be calculated to recover a portion or all of the costs associated with the SWD. Assessments may also include a formula to calculate automatic fee adjustments for inflation, provided the adjustment method is clearly defined and justified. For purposes of stormwater project funding, development of a special assessment could potentially require the creation of separate assessments for individual watersheds based on the distinct costs of the stormwater management program within each watershed.

A comprehensive engineer's report completed by a professional engineer licensed in California is required as the legal basis for the assessment. Establishing the special assessment as a perpetual revenue source would likely require regular updates to the engineer's report to maintain adherence to Proposition 218's special assessment requirements over time. The engineer's report must include the following:

- An estimate of costs to be recovered by the special assessment and the period they are to be collected;
- Identification of parcels receiving a special benefit from the capital improvements or services; and
- Calculation and method of apportionment of the special benefit to property owners within the district.

Note: Increases to property values do not constitute a special benefit, and the "cost to serve" is not itself a sufficient basis for apportioning benefits.

Special assessments require a vote of affected property owners by mail-in ballot. The ballots must be preceded by a mailed notice 45 days before ballots are due. Approval of the assessment is achieved by a majority vote of mailed ballots. Votes are weighted by financial obligation of the property owners. Special assessments would be considered an equitable form of revenue generation to the extent a special benefit can be determined and apportioned to those property owners receiving the benefit.

The costs associated with development of a special assessment engineer's report and the need to fund SWD City-wide (rather than in special areas throughout the City) have resulted in this option not being currently pursued as part of the Funding Strategy; however, the SWD will continue to track this option.

[53] Publicly owned parcels are not exempt from assessments unless the parcels receive no special benefit from the program, which is unlikely given the nature of the stormwater program. Also, because assessments are not defined as taxes, they are not subject to Proposition 13 limitations.

6.7.2 Non-Stormwater Dedicated Ballot Measure

There are additional ballot-related options that could contribute to increases in overall funding for the City or reduce costs to the City or SWD through impact fees or charging for trash collection by repeal of the People's Ordinance. These options would not result in a dedicated revenue source for SWD; however, they could have implications on the long-term funding needs for the SWD if pursued.

6.7.2.1 State Product Impact Fees

State product impact fees are a potential revenue source that could add a surcharge to the sale or generation of specific projects that could contribute to water quality impairments (e.g., zinc in tires). However, statewide coordination would be needed, with scientific backing to demonstrate a quantifiable impact of the product on the environment or ecosystem. Fees of this type have a long horizon for acceptance, and a subsequent additional timeline prior to contributions potentially impacting SWD funding. These fees or taxes could be applied to products contributing to environmental impacts, but none currently exist for stormwater or flood risk management activities.

The City will track potential opportunities at the statewide level for product impact fees and continue to educate residents, businesses, and industries on the benefits of managing pollutants at their source.

6.7.2.2 Sales Tax Add-on

SB 566 authorized cities to establish a combined local sales tax rate of 2.00%. The City currently has a combined sales tax rate of 8.75%, including the 7.25% statewide base sales tax and 1.50% local sales tax, allowing for up to 0.50% in additional sales taxes.[54] All local sales taxes are subject to voter approval under Propositions 62 and 218. Increases in sales tax revenues would serve as an enhancement to the General Fund and would be subject to City discretion in allocations and the budget process. An increase of 0.25% on the sales tax could increase revenues by approximately $75 million per year. Due to sales tax revenues not being guaranteed for SWD funding, a sales tax add-on is not the highest priority ballot-measure option for the Funding Strategy. However, as a General Fund-reliant division, the SWD will continue to educate and engage internal stakeholders as part of the budget process.

6.7.2.3 Increase Transient Occupancy Tax

TOT allocations for the SWD are presented in Section 6.4.3, with anticipated revenue to the SWD from the TOT (via the General Fund) of $1.0 million in FY2021. The most recent attempt to increase the TOT was in March 2020, which was to increase the tax on overnight lodging guests within a tiered range from 1.25% to 3.25%. It did not pass. If the TOT were to increase, fund allocations would be limited to projects that help achieve the goals of the TOT, and any allocation would have to be approved by City Council and the impact on other competing program funding requirements

[54] California Department of Tax and Fee Administration, April 1, 2019. "California City and County Sales and Use Tax Rates." https://www.cdtfa.ca.gov/taxes-and-fees/sales-use-tax-rates.htm.

considered. The anticipated reduction in TOT revenues from the COVID-19 pandemic, the economic variability, relatively low historical allocations for the SWD and limited application of the funds to SWD programs and services each makes increases to the TOT a lower priority ballot measure for the SWD to pursue. However, as a General Fund-reliant division, the SWD will continue to educate and engage internal stakeholders as part of the budget process.

6.7.2.4 Millage Increase (Ad valorem)

Another funding option that could increase the General Fund revenue could be through the allowance of Proposition 46 (1986) for local governments to raise property tax rates above 1% of assessed value at the time of purchase (Proposition 13 limits) specifically for repayment of municipal bonds tied to "real property," which could be interpreted as applicable to property acquisition related to CIP projects or infrastructure associated with improvements on those properties. A millage increase would require a two-thirds voter approval on a general election ballot and could be used to finance CIP infrastructure bonds but not O&M. For evaluation purposes, a $100.0-million bond issuance at a 5% interest rate could require approximately $6.5 million in annual debt service, which correlates roughly to a 0.003% increase in total property tax revenues (or 0.30 per $100 in assessed value). Due to revenues not being guaranteed for SWD funding, a millage increase is not the highest priority ballot-measure option for the Funding Strategy. However, as a General Fund-reliant division, the SWD will continue to educate and engage internal stakeholders as part of the budget process.

6.7.2.5 California State Gasoline Tax and SB 1

The California State gasoline tax went into effect in 1923 to fund the State's highway system at a rate of 2 cents per gallon. Over time, the gasoline tax was increased incrementally, and the revenues were restricted to use for funding construction, improvement, and O&M of public streets and transit. SB 1, the Road Repair and Accountability Act of 2017, was approved in April 2017 (enacted November 1, 2017) to automatically increase in line with the consumer price index. The gasoline tax is considered a special revenue fund by the City as it is received for a specifically identified purpose. Allocation of funds from the gasoline tax could finance only a portion of the SWD's expenses to the extent that stormwater projects align with, or necessitate, improvements to public streets. However, the likelihood of transfer of these funds would depend on the City revenue needed to repair and maintain public streets and whether additional funds could be transferred for integrated SWD projects. The limited applicability and competing City need for the gasoline tax revenues make pursuit of increases a low priority for the SWD.

6.7.2.6 Repeal of the People's Ordinance

The People's Ordinance was enacted in 1919 and provides no-fee trash collection for many San Diego residents. A report by the San Diego County Grand Jury estimated that the People's Ordinance cost the City approximately $52.7 million per year (in 2009 dollars), of which a large portion is paid

for through the General Fund.[55] Repeal of the People's Ordinance would allow the City to establish fees for trash services and reduce the reliance on the General Fund. A repeal of the People's Ordinance would need to go through the ballot process and would not result in enough revenue from the General Fund to meet all the SWD's needs even if all the previously committed funds went to the SWD. At the City level, this option is not being pursued at this time.

6.8 Financing

A new or increased funding source based on the funding options stated above may create ongoing revenue. This ongoing revenue can be leveraged into short-term or long-term financing to fund capital program priorities. Certain financing methods may require a vote of San Diegans for debt approval and raising tax revenue to repay the debt, while certain funding options may just require a vote of San Diegans for levy and collection of revenue. California State Constitution debt limitations arising from Proposition 13 and the City Charter determine what financing would need a vote of San Diegans.

Financing for SWD projects could be used when accelerated spending beyond the annual revenue available is needed and enables long-range planning and multiple-year initiatives to be implemented. Debt financing allows investment in long-life assets to be distributed over the life of the asset, enhancing intergenerational equity among current and future residents of the City. It is likely a dedicated stormwater funding mechanism (e.g., a property-related fee or special tax), if adopted, would not fully meet the SWD annual funding gap and that financing could be a means for balancing ratepayer impacts and funding needs over time (see the debt financing scenario in Section 6.7.1). In general, leveraging financing options with the revenue generated by new funding options like a stormwater fee could provide an additional option for the City to meet needs. Currently the SWD is supported by the General Fund and financing decisions are made by the Debt Management Department, DoF, the Mayor's Office, and City Council for non-enterprise departments. If the SWD were to pursue a dedicated stormwater funding mechanism and become an enterprise-funded division, it, too, would be involved in the financing decisions. The SWD needs to consider debt policy guidelines on affordability of additional debt for existing revenues. A new funding source can be used to finance CIP with new incoming revenues. In addition, potential loan programs like the CWSRF and WIFIA are presented as the SWD plans to submit applications for both programs in FY2021 (a LOI has been submitted for WIFIA).

6.8.1 Bond Financing

Bond financing is a means of long-term borrowing that governments frequently use to raise money, often for long-lived infrastructure assets and CIPs. A number of bonds are available and are discussed in this section.

[55] San Diego County, 2009. Time for Repeal of the People's Ordinance. https://www.sandiegocounty.gov/grandjury/reports/2008-2009/PeopleOrdinanceReport.pdf

6.8.1.1 General Fund Lease Revenue Bonds and Notes

The City has historically financed a portion of SWD CIP needs, primarily using General Fund LRBs and notes, which are lease obligations secured by an installment sale through a lease-back arrangement between a municipality and other public entity. The general operating revenues of the City are used to make lease payments, which are in turn used to pay debt service on the long-term bonds and short-term notes (Commercial Paper). These obligations do not constitute indebtedness under the California constitutional debt limitation and, therefore, are not subject to voter approval. These have been the City's most common form of financing for stormwater projects to date.

6.8.1.2 Enhanced Infrastructure Financing District Bonds

EIFD bonds were authorized under state law in 2014 to aid in funding a broad range of public CIP facilities (including flood control and drainage) by capturing the increment of property tax revenue generated within the district above the base year established at formation.[56] The statute authorizes municipalities and counties to create the district and use financing with district voter approval to leverage property tax increments generated within the district. The district may finance the purchase, construction, expansion, or improvement of projects with a useful life of 15 years or longer. Property tax increment generated within the EIFD can be used to cash-fund projects and/or pay debt service on bonds issued to fund the projects. The EIFDs rely on the City's property tax revenue for funding as such City General Fund will have to forego the tax revenue committed to the district for the duration of the district's life.

6.8.1.3 Revenue Bonds

Revenue bonds are another type of municipal bond or long-term financing, which is secured by the revenues (e.g., rates) generated by a special fund such as a utility enterprise (e.g., water or wastewater utilities). Revenue bonds are typically used to fund public infrastructure and CIP projects for the enterprise/utility and are highly variable based on need and revenue sufficiency to meet debt service obligations. Utility revenues are typically funded by rates and charges. Revenue bonds issued by a special fund are authorized to be issued under the state constitution debt limitations exception. The City Charter (Section 90.1) also permits revenue bond offerings for the stormwater system without a voter debt approval.

6.8.1.4 General Obligation Bonds

GO bonds are a type of municipal bond in which the bond repayments (interest and principal) are guaranteed by the total ad valorem tax revenue generated by the relevant government entity or agency. These tax-exempt bond financings are issued for public infrastructure and CIP improvements. GO bonds do require a two-thirds voter approval via a general, primary, or special election or a regularly scheduled local election.

[56] State of California, n.d. California Government Code § 53398.50-58

All the bonds discussed above also qualify as Green Bonds or Environmental Improvement Bonds (EIBs) and can be marketed to investors if the projects receiving funding from Green Bonds meet certain green standards and offer positive environmental or climate change benefits. Quantifiable metrics are recommended to track environmental benefits associated with financed projects, which requires consideration related to demonstration and tracking for the City.

6.8.2 State and Federal Loan Financing

State and federal loans are additional financing options for the SWD and often have competitive application processes and match requirements for award. State and federal loan financing programs that are relevant for SWD are presented below.

6.8.2.1 Clean Water State Revolving Fund

CWSRF loans are issued by a federal-state partnership that provides financial assistance for a wide range of water quality infrastructure projects. While CWSRF loans are typically issued for utilities, eligible projects can include, but are not limited to, green infrastructure projects and stormwater reduction and treatment projects.[57] The CWSRF loans are highly competitive and do not have sufficient financing resources to meet all applicant needs.

6.8.2.2 Water Infrastructure and Financing Innovation Act Loans

Established by the WIFIA, this program is a loan program administered by the EPA. WIFIA loans are intended to fund eligible water and wastewater projects that fall under the CWA and Safe Drinking Water Act. WIFIA loans could likely have lower interest rates than GO or revenue bonds. Loan repayment terms can be more flexible than bonds. WIFIA selection criteria are divided into three categories: (1) project impact, (2) project readiness, and (3) borrower creditworthiness.[58] Program administrators also take into consideration the diversity of projects in terms of type and geographic location to ensure WIFIA loan funds are distributed across the United States.

The SWD has submitted an LOI for a WIFIA loan that would cover $222 million of high-risk pipe replacements, $69 million for green infrastructure, $180 million for revitalization and restoration of natural waterways, $41 million for pump station upgrades, and $4 million for rehabilitation of stormwater features. The City would be requesting a loan of $250 million, with the City matching 51% (or $266 million). It is anticipated that the EPA will decide on whether the City may apply for the loan described in the LOI in January 2021, at which point the City would need to prepare an application and have the application approved by a City Council vote in 2021. The actual amount of the application, if the City is permitted to apply, is subject to revision.

[57] California SWRCB, June 19, 2018. "Clean Water State Revolving Fund and the Water Quality, Supply, and Infrastructure Improvement Act of 2014 (Proposition 1 – Chapter 5, Section 79723) Intended Use Plan." https://www.epa.gov/cwsrf

[58] United States Environmental Protection Agency, March 2019. "WIFIA Program Handbook."

6.8.2.3 Section 108 CDBG Loan Guarantees

Section 108 of the Housing and Community Development Act of 1974 (Section 108) provides for a loan guarantee as part of the CDBGs. Section 108 can provide communities with a source of financing for economic development, rehabilitation of housing, public facilities (e.g., streets, sidewalks, etc.), and other development projects, including projects that could provide resiliency against natural disasters.[59] Section 108 funds can also be used for financing infrastructure related to an overall project, which could include stormwater assets associated with a project or green street features that are considered a public facility. Disaster resiliency projects could not duplicate funding available from FEMA or the U.S. Army Corps of Engineers. Through the Section 108 program, state and local governments can leverage CDBG formula allocations through federally guaranteed loans. The amount of these low-interest loans is limited by the annual CDBG allocation to a municipality. Loans cannot be greater than five times the annual allocation, minus any outstanding Section 108 commitments or principal balances on Section 108 loans. The City could currently borrow up to $36 million through this program and has used Section 108 financing in the past.

6.9 Stakeholder Engagement

Stakeholder engagement is a critical component of a successful funding strategy and potential funding mechanism. While some stakeholder engagement occurred prior to the pandemic, unfortunately additional engagement during the development of this document was limited. Limitations were due in part to the closure of call centers used for public opinion surveys, postponement of all large gatherings or public meetings, and alternative priorities of the City and public. The engagement that has been conducted includes individual stakeholder interviews, internal City engagement, focus groups, and a telephone survey in FY2019. To date, key stakeholder engagement has been focused on increasing understanding and awareness of the SWD and the stormwater funding gap. A web-based survey and phone survey were conducted in the second quarter of FY2021 to identify public preferences and values as specified in Audit Recommendation #5.

[59] United States Department of Housing and Urban Development, n.d. “Section 108 Loan Guarantee Program Fact Sheet.” https://www.hudexchange.info/programs/section-108/

7.0 Funding Strategy Implementation

The historical and long-term funding gap for stormwater has led to imminent regulatory compliance concerns and a backlog of infrastructure repairs that cannot be overcome without a dedicated funding mechanism. This section presents recommended Funding Strategy implementation actions and consideration of the findings and success factors identified in other municipalities through benchmarking. In general, this approach to implementing the Funding Strategy will accomplish the following:

- Maximize and accelerate implementation of efficiencies.
- Increase investment in SWD program innovation.
- Maximize existing funding sources, grants, and loans.
- Pursue development of a long-term dedicated stormwater funding mechanism (a tax or fee).

For each of these actions, a recommended plan to pursue it is discussed in this section to guide its implementation.

Note: Other funding options described in Section 6.0 are not recommended for pursuit at this time and, therefore, are not discussed in this section.

7.1 Maximize and Accelerate Implementation of Efficiencies

Two foundational elements of the Funding Strategy are to (1) reduce the cost of service and (2) implement efficiencies. The efficiencies identified and recommended herein are part of the SWD's ongoing adaptive management efforts, which center around maximizing benefits even with limited funding and restricted resources. As noted in the 2018 Audit Report, cost reductions and efficiencies are insufficient to fully close the funding gap; however, the SWD will continue to identify and incorporate efficiencies as part of fiscally responsible best practices and to increase the value of existing resources.

Funding need reductions can be achieved in a number of ways, including reducing or eliminating sources of pollution, using new and improved technologies, and developing innovative plans and projects. For example, the SWD is successfully implementing a "source control first" approach in the Famosa Slough watershed, where code enforcement and irrigation runoff reductions have contributed to elimination of nearly all illicit discharges. Another discrete example includes the source control and adaptive water quality management efforts through the Bacteria Tactical Plan, which is a collaborative effort with PUD and ESD to revise the compliance strategy for bacteria to reflect scientific advancements and understanding bacteria-related issues. The Bacteria Tactical Plan shifts focus from the more costly structural-based solutions (stormwater CIPs for water quality) to lower cost strategies like source reduction and abatement (e.g., waste removal, trash management, sewer assessments and cleanups, illicit discharge management, and public engagement and

outreach). Once implemented, this approach creates cost efficiencies by reducing long-term infrastructure CIP and maintenance costs.[60]

In addition, the SWD will continue to identify and implement efficiencies and cost reductions such as using the in-house pipe repair team and optimizing posted street sweeping routes in alignment with the Street Sweeping Audit among other O&M efforts. For existing efforts, the SWD will quantify the cost efficiencies and benefits and will identify and implement cost-saving measures in daily O&M and planning, where possible. Maximizing efficiencies will require engaging with other City departments (e.g., DSD, ECP, and so forth) to promote coordinated and effective handoffs City-wide, especially as it relates to the CIP process and development-related stormwater needs.

It is important to note that, in order to achieve many of these efficiencies, investments may be required. For efficiencies where additional resources or investments are needed (e.g., an additional in-house pipe repair team), the SWD will continue to prioritize these requests via the annual budgeting process.

Plan to pursue: The SWD will continue to pursue and identify efficiencies at all levels, including daily O&M activities, to ensure that all available funding is optimized for providing cost-effective, essential stormwater services.

Required approval or action prior to implementation: Efficiencies may require additional resources or investments for implementation. SWD will prioritize these requests as part of the annual budget process, which will require City Council approval for adoption.

Initial actions include:

- **Additional pipe repair crew:** SWD has identified the need for an additional in-house pipe repair crew to perform more cost efficient and timely repairs. Continue to prioritize an additional in-house pipe repair crew as part of all General Fund requests in FY2022.
- **Optimize street sweeping routes:** Analyze street sweeping frequencies in alignment with the Street Sweeping Audit by December 2021 and modify routes or frequencies in FY2023.

7.2 Increase Investment in SWD Program Innovation

The SWD will strategically evaluate opportunities to advance its goals through innovative partnerships and other efforts. The SWD has recently invested in integrated engineering plans that identify and prioritize projects that provide flood management, water quality, habitat revitalization, community benefits, and potential water supply benefits. By planning for and strategically assessing projects through a multi-benefit lens that includes other City priorities like CAP 2.0 and equity, the

[60] Budget estimates for FY2021 through FY2025 were developed with nearly $5.5 million needed for implementation in FY2021. Approximately $0.3 million of the need is funded in FY2021, which will result in an extension of the timeframe needed to implement the recommendations in the Bacteria Tactical Plan through FY2026; this may increase the risk of noncompliance fines and third-party litigation.

SWD will be able to increase the cost-efficiency of investments by maximizing the benefits and impact of each project. In addition, the SWD has already invested in evaluating and refining the ACP and IP framework, and will continue to assess and implement these programs as funding allows.

The SWD is also committed to strategic use of data to support innovation in asset management such as through implementation and integration of WAMP 2.0 into business practices and activities; innovative tools, and processes including the ongoing development of a data management dashboard, which will allow for "real-time" optimization of activities, often resulting in significant cost savings.

Plan to pursue: The SWD will continue to pursue opportunities to innovate for cost savings and efficiencies at all levels, including development of a strategic data management system/dashboard, development of integrated engineering plans, and coordination with other City-wide efforts like CAP 2.0 to focus on equity and resiliency to ensure that San Diego remains a thriving and vibrant City.

Required approval or action prior to implementation: Program innovations may require additional resources or investments for implementation. SWD will prioritize these requests as part of the annual budget process, which will require City Council approval for adoption.

In addition, some innovations (e.g., IP framework, ACP, etc.) may require resource agency or regulatory agency approval.

Initial actions include:

- **Development and implementation of analytical tools:** The SWD will develop analytical tools and data dashboard(s) to track performance metrics and allow for optimized, real-time decision making in FY2022.
- **ACP:** The Environmental Impact Report for the ACP will be completed by September 2021 and, if approved, the program will be presented to City Council for approval in January 2022 for program implementation by July 2022.
- **IP Framework:** Continued development of the IP Framework and coordination with the Regional Board and other stakeholders is anticipated to continue through FY2023 as part of the RWQCB's MS4 Permit reissuance process. Based on the Regional Board's MS4 Permit reissuance schedule, SWD will develop an IP outline, gather key stakeholder input, and formulate key recommendations for discussion with the RWQCB in FY2022.
- **Stormwater harvesting:** In partnership with PUD, SWD is investigating opportunities to integrate stormwater capture activities to achieve both water quality and water supply goals by developing a comprehensive stormwater harvesting strategy. SWD will complete the development of a Stormwater Harvesting Case Study for Dry Weather Flow Diversion in Q4 FY2021. SWD will also perform in-depth analysis for Stormwater Diversion for Indirect Potable Use and Recycled Water to determine technical, regulatory, and funding constraints

by Q4 FY2021. Specific opportunities for stormwater harvesting and diversion will be further developed through a feasibility study in FY2023. Stakeholder input will be gathered throughout this process to maximize stormwater capture potential, improve water quality, and support water supply considerations.

7.3 Maximize Existing Funding Sources, Grants, and Loans

Several funding options that already support or exist as potential revenue sources for the SWD include funding sources subject to SWD or City discretion for allocation as part of the annual budget process and financing for CIPs, grants, and loans. Where the SWD generates revenue (e.g., parking citations for street sweeping, stormwater enforcement and fines, and BMP and facility inspections and reinspection), cost recovery will be prioritized. Section 6.0 demonstrates the impact that maximizing cost recovery and existing funding sources will have on the SWD funding need if other current funding sources remain constant (General Fund, current storm drain fee, TOT). The estimated additional annual funding is $3.8 million on top of baseline funding ($48.5 million per year) for a potential total of $52.3 million per year. The plan to pursue each of these funding or financing sources is specified in the subsections below.

7.3.1 Funds Subject to SWD Discretion/Authority

SWD revenues from stormwater enforcement and fines have averaged approximately $100,000 annually over the period of FY2016–FY2020. Based on the budget for enforcement activities conducted by the SWD, revenues would need to increase to approximately $0.5 million to achieve the desired cost recovery. While cost recovery will support enforcement activities, it should be noted that the total revenues from stormwater enforcement and fines will cover only a small portion of SWD funding needs (less than $1.0 million per year [in 2020 dollars]).

Plan to pursue: The SWD plans to implement a new code enforcement structure in accordance with the San Diego Municipal Code to target cost recovery.

Required approval or action prior to implementation: The Director of TSW has the authority to approve the fine structure if the rates align with the current San Diego Municipal Code rate schedule.

Initial actions:

- Develop proposed fine structure and implement stakeholder engagement and outreach in FY2022.
- Implement new structure for stormwater enforcement and fines early in FY2023.

7.3.2 Funds Subject to City Discretion/Authority

The SWD will pursue cost recovery for the street sweeping parking citation program as well as develop an inspection and reinspection fee program for facility and BMP inspections where cost recovery will be the basis. Timing for implementation of these cost recovery revenue sources will be closely coordinated with stakeholders, City policy makers, and other City departments (e.g., SDPD for modification of parking citation violation amounts for "violation of signs"). Currently, the total additional revenue from these programs needed to be cost neutral is $3.5 million (in 2020 dollars); it should be noted that this revenue will address only a small portion of the SWD O&M and CIP funding needs.

Other City discretionary sources include the other General Fund sources, Capital Outlay Fund, DIF, FBA, TransNet, potential Sewer and Water Fund support, and other restricted enterprise funds that need to be allocated annually as part of the budget process. For some of the funds, there are location-based or project-based limitations on where funds can be spent. These funding sources are not reliably assumed to support SWD funding needs due to competing critical City services and funding needs. Given the instability of these sources, the SWD budget can *decrease* from baseline funding levels, as was the case in FY2021 due to overall economic instability and changes in City priorities for allocations.

Plan to pursue: The SWD will continue to do the following:

- **General:** Educate and engage with other City departments, City Council, and the Mayor's Office on the purpose and vision of the SWD, what services and benefits the SWD provides, and the impacts of the funding gap on SWD service levels (e.g., deferred O&M and CIP investment, regulatory compliance risks, public health, and safety impacts) to ensure that the maximum funding subject to City discretion and authority is allocated to the SWD.

- **General:** Identify opportunities that align with other City planning efforts and CIPs to create efficiencies and cost-sharing opportunities at the City level, as well as create opportunities for SWD projects to receive funds from restricted funds.

- **Street sweeping parking enforcement fines:** SWD plans to further evaluate and pursue cost recovery for the street sweeping program, in coordination with other City departments that utilize the "violation of signs" fine category.

- **Stormwater inspection and reinspection fees:** SWD plans to develop an inspection and reinspection fee program for industrial and commercial facilities and stormwater BMPs.

Required approval or action prior to implementation: Pursuit of existing funding sources may require additional resources or investments for implementation. SWD will prioritize these requests as part of the annual budget process, which will require City Council approval for adoption.

Where updates to or creation of revenue generating activities are recommended, the following is required:

- **Street sweeping parking enforcement fines:** The San Diego Municipal Code provides the authorization of street sweeping zone establishment to the City Manager, while the City Council has the authority to modify the magnitude of parking citation fines.
- **Stormwater inspection and reinspection fees**: Enaction of an industrial/commercial facility and BMP inspection program will require City Council approval.

Initial actions:

- **Street sweeping parking enforcement fines:** Pursue cost recovery for the street sweeping parking citation program by increasing enforcement fines (and/or optimize posted street sweeping routes). Analysis of street sweeping frequencies and enforcement fines will be completed by December 2021 in alignment with the Street Sweeping Audit. Route or frequency modifications and(or) enforcement fines will be updated in FY2023.

- **Stormwater inspection and reinspection fees:** Develop an inspection and reinspection fee program for industrial and commercial facilities and BMP inspections where cost recovery will be the basis. Program recommendations will be made, and City Council approval will be sought in FY2022

7.3.3 External (to City) Discretion/Authority—Grants

As part of the SWD planning processes, projects are continually being identified that could be viable candidates for grant funding. By tracking the core purpose(s) of available grant programs in conjunction with project characterization, the SWD will be best equipped to have projects ready for submittal should the timing and grant requirements align with SWD priorities. The following should be noted relative to grant funding:

- Long-term planning for grant fund availability is uncertain due to the variability and inconsistency of grant opportunities.

- Grant tracking and application development is completed by SWD staff who manage other primary functions and a future budget request for SWD grant support and administration may be necessary to fully maximize this funding source.

- Upfront or seed funding is often needed to position SWD projects to be competitive for grant opportunities. For example, funds are often needed for initial project design, matching funding, and/or support for grant writing and grant management staff.

Plan to pursue: Grant opportunities will continue to be researched, tracked, and pursued where appropriate to augment other revenue streams.

Required approval or action prior to implementation: City Council approval is required for all CIP project grants regardless of amount and non-capital projects that are greater than $1.0 million.

Initial actions (ongoing): SWD and DoF staff will identify shovel-ready projects and grant opportunities, develop grant applications, and administer successful grant awards.

7.3.4 Financing

Financing for the SWD is largely dependent on the availability of revenue to repay outstanding and future debt obligations. While the SWD is still a General Fund-reliant entity, financing decisions are made at the City-wide level. Current General Fund debt capacity has been impacted by COVID-19 and other competing priorities but will continue to be evaluated on an annual basis as part of the budget and CIP planning process.

The SWD will continue to identify and pursue financing for SWD projects, including the full suite of options outlined in this report. The SWD submitted an LOI in October 2020 to WIFIA for a loan of $250 million and plans to submit two CWSRF applications for the South Mission Bay Storm Drain Improvements and Green Infrastructure Project ($16.7 million) and Los Peñasquitos Restoration Phase 1 ($27.4 million) in early 2021. It should be noted that repayment for these financing options will need to be closely coordinated with Debt Management and DoF as financing is inextricably linked to City revenues and fund balances.

Plan to pursue: The SWD will continue to identify and pursue financing opportunities, as appropriate. Note: As part of Funding Strategy implementation, financing would likely complement a dedicated SWD funding mechanism.

Required approval or action prior to implementation: City Council approval for financing options varies by initiative and will be coordinated on a case-by-case basis.

Initial Actions (ongoing): Pending City Council approval, SWD staff will support financing efforts for stormwater project in coordination with DoF.

7.4 Pursue Development of a Dedicated, Long-Term Funding Mechanism

Under the scenario where the SWD implements to the maximum extent feasible all other funding strategy approaches as described above, a significant funding gap would still remain; this underscores the urgent need for a dedicated long-term funding source. The Audit specifies that, if the Funding Strategy in response to Audit Recommendation #5 includes the pursuit of a funding mechanism that requires voter approval, the SWD should conduct a resident survey or surveys to gauge voter support. Input and feedback from the survey(s) should then be incorporated into the Funding Strategy, specifically related to refinement of and the plan to pursue the recommended funding mechanism (Audit Recommendation #6).

Evaluation and benchmarking of funding mechanism options showed that most successful post-Proposition 218 funding measures were either property-related fees or special taxes that required a vote of property owners or the public.

Plan to Pursue: In alignment with Audit Recommendation #6, the design of a funding mechanism would require an iterative process that includes the following primary components beginning in January 2021 (Q3 FY2021):

- **Expenditure Plan:** To support the development of a potential stormwater funding mechanism, the program to be funded will need to be clearly and succinctly described. This would be drafted as part of an initial Expenditure Plan that would provide an overview of the goals and outcomes of the funding program, specifics on what types of projects and programs could be included, eligible recipients and expenditures, and program governance and oversight/accountability. Development of the Expenditure Plan would be an iterative process to incorporate stakeholder feedback and preferences, as appropriate.

- **Stakeholder Engagement:** Stakeholder education and engagement, surveys, and focus groups would be conducted to enable input and feedback to help shape the funding measure.

- **Funding Mechanism Considerations:** As part of the development of a potential funding mechanism, various methodologies and other considerations may be evaluated for ratepayer impacts and revenue generation potential. These factors include, but are not limited to, amount of revenue to target, method by which a tax or fee might be assessed, whether to escalate the rate over time, whether to provide reductions or exemptions, and whether to include a sunset clause. Development of a potential funding mechanism will be an iterative process informed by public opinion surveys and incorporating stakeholder feedback and preferences, as appropriate. Development of a funding measure will also

include evaluation of and coordination with other California municipalities and City departments that may also be pursuing upcoming funding measures.

Required approval or action prior to implementation: Approval for a funding mechanism to be placed on the ballot will ultimately rest with the City Council, but there will be many iterations that will require approval at all levels of City decision-making and City Council will likely want to approve iterations through the process.

Initial Actions: The funding measure evaluation and assessment process will require extensive stakeholder engagement and outreach, including City Council briefings, throughout the duration of the effort. Major milestones in the funding measure development process, including timing for stakeholder engagement steps to allow for sufficient information to be collected prior to the next General Election (November 2022) should a stormwater funding measure be pursued, are summarized as:

- Stakeholder education and engagement on SWD services and value – Ongoing
- SWD Funding Strategy funding needs, implementation, and program design – Ongoing
- Survey (Values and Funding Strategy) – Q2 FY2021 (complete)
- Draft Expenditure Plan and initial stormwater funding mechanism scenarios – Q4 FY2021
- Survey (Feasibility of a Ballot Measure) – Q4 FY2021
- Engage internal and external stakeholders and solicit feedback on plan – Q4 FY2021 through Q2 FY2022
- Report out on FY2021 activities and results of Survey (Feasibility of a Ballot Measure) – Q1 FY2022
- Survey (Refinement of a Ballot Measure) – Q1 FY2022
- Report out on stakeholder engagement activities and Survey (Refinement of a Ballot Measure) – Q2 FY2022
- Survey (General Viability of a Ballot Measure) – Q3 FY2022
- Submit Audit Recommendation #6 response, report on Survey (General Viability of a Ballot Measure), and draft ballot measure and Expenditure Plan submitted to the Rules Committee of City Council – Q3 FY2022
- Survey (Specific Ballot Measure Viability) – Q4 FY2022

- Report out on Survey (Specific Ballot Measure Viability) and final ballot measure and Expenditure Plan – Q4 FY2022

7.5 The Consequences of not Pursuing Additional Funding

The consequences of not actively pursuing and implementing this Funding Strategy could have significant and long-lasting impacts, including:

Reduction in service levels: Services for the City of San Diego residents and neighborhoods will be impacted. Each of the SWD programs has specific and defined levels of service to provide San Diego with safe, clean water and protect public safety. For examples, these include the number of streets swept per year, miles of channels maintained, quantity of trash capture devices installed, or quantity of water quality samples to monitor health of waterbodies. The SWD has continually seen these service levels and drivers increase year over year without a corresponding increase in funding, which requires prioritization of which services can and cannot be provided. Implications include items such as deferment of O&M or CIP that will likely impact public safety and potential violations and fines due to noncompliance with regulatory or mitigation requirements.

- **Failure to protect and improve water quality that is critical to San Diego's quality of life and tourist economy:** The diverse neighborhoods, local wildlife and habitats, and world-class recreation areas that make San Diego a desirable place to live, work, vacation and play rely on safe, clean water. Effective stormwater quality management requires a comprehensive array of pollution prevention activities such as storm drain cleaning and street sweeping, and innovative stormwater system improvements like GI designed to stop polluted stormwater from reaching our coastal waters where it can cause beach closures. Inadequate funding for stormwater infrastructure in recent years has caused an increasing number of GI projects to be halted and defunded in order to fund costly stormwater emergencies. This inefficient diversion of funding has stalled the City's efforts to protect and improve water quality at San Diego's most treasured natural coastal assets.

- **Failure to meet regulatory compliance deadlines:** The SWD is responsible for stormwater MS4 Permit compliance and has several upcoming regulatory deadlines that are heavily impacted by current funding limitations and timeline requirements. The SWD has a robust nonstructural water quality management program that includes activities like street sweeping, drain cleaning, code enforcement, monitoring, and watershed planning; however, meeting regulatory targets using these practices alone is insufficient. The WQIPs identify the need to invest in CIP projects like GI and regional stormwater capture projects to protect the environment and meet compliance deadlines. If the SWD does not meet MS4 Permit

requirements, it is possible that the Regional Board could levy fines and penalties on the City of $10,000 per day per violation and the EPA could levy additional penalties of up to $55,800 per day per violation. Every discharge from the storm drain system in violation could be assessed separately and these fines would likely be paid from the SWD General Fund operating budget, which would further exacerbate funding limitations. Litigation from third parties for noncompliance is also a concern and would result in significant additional cost. If funding is not identified for stormwater compliance, there may also be impacts to the City's bond rating and borrowing capacity.

- **Increase in number and frequency of infrastructure failures:** Repair and replacement of aging or degrading infrastructure is critical to ensure public health and safety; however, the SWD is unable to perform proactive repairs and replacement due to funding limitations. All the SWD available budget for CIPs in recent years has been spent on emergency projects that have already failed and cause further health and safety risks like sinkholes and flooding. When emergencies occur, funds are required to be taken from other projects within and external to SWD (like TSW's CIPs), which requires further identifying funds to pay back lending projects. These emergency projects are paid for at a premium cost and divert significant funding and resources Citywide.[61] In addition, these failures often result in public liability payouts due to injuries (or loss of life) and private property damages. To protect environmental health and public safety, the SWD must have funding to initiate proactive repairs, replacements, and improvements to prevent additional emergency failures that will likely increase in frequency due to continued deterioration and aging.

- **Diversion of resources from strategic and integrated efforts:** The SWD has identified numerous opportunities for strategic planning both inclusive to stormwater and in alignment with broader City objectives. These efforts include the IP to strategically evaluate all CWA requirements cohesively; stormwater harvesting to augment local water supply needs (coordination with PUD); large-scale stormwater capture projects that provide multiple benefits (coordination with Department of Park and Recreation and others); and coordination with other departments on infrastructure CIP projects where efficiencies can be leveraged by completing construction at the same time. However, each of these efforts often requires resources to plan, evaluate, and engage with appropriate stakeholders and community members. Without additional funding, the SWD often has to identify near-term projects that have low cost-effectiveness rather than strategic, long-term, and high-value projects.

7.6 Vision for the Future

Stormwater services are essential to protecting and maintaining the safety, livability, and sustainability of San Diego's diverse communities and our environment. The SWD is committed to

[61] Review of the Fiscal Year 2021 Proposed Budget, IBA (2020). IBA Report 20_06.

and has demonstrated the expertise and ability to provide these services; however, as described in this Funding Strategy, **the SWD's ability to provide critical City services, maintain the existing system, meet regulatory requirements, and innovate and modernize for the future is unsustainably and severely impacted by inadequate funding.**

Successful implementation of this Funding Strategy will allow SWD to transition from being largely reactive to being proactive, innovative, and forward looking. The implementation approach outlined herein will allow the SWD to protect our communities from flooding; to ramp up investments in clean water projects; and to invest in modern, multi-benefit projects like clean, green streets and stormwater harvesting that also advance the City's CAP 2.0 efforts and progress toward an equitable and resilient San Diego.

The SWD envisions a San Diego stormwater system for everyone's benefit where innovation and efficiency are the backbone of the approach to clean water and flood control; where infrastructure adapts to meet the needs of a growing population and changing climate to ensure people, homes, and businesses are safe from flooding; stormwater is managed as a resource to promote equity, sustainability, and resilience; where water quality is a point of pride; and where the SWD protects, restores, and enhances waterways for local communities and wildlife for future generations. Successful implementation of this Funding Strategy will help make this vision a reality.

Appendix A: Grants

Introduction

Grants can be a near-term, temporary source of revenue that is often initiative, program, or project specific. Grants are often competitive and have specific objectives and requirements that applicants must align with to be considered for funding, including potential match requirements and other commitments from applicants. To be competitive for grant funding often necessitates that the City's projects have advanced beyond the preliminary design phase and are "shovel-ready", and that sufficient sources of funding are available to supply the matching funds requested or required by the grant program.

Importantly, regularity, amount, and duration of distinct grant opportunities are variable and need to be considered individually for suitability. Most grant programs depend on an appropriation from state or federal sources as part of the annual budgeting process, so funds can be inconsistent. Applying for grant funds requires adequate staffing to track the varied programs and funding sources, write compelling grant proposals, and administer grants that have been awarded. Currently SWD staff that track and apply to grants have other primary responsibilities and are not fully dedicated to grant application and administration.

This Appendix identifies potential grant options that may align to varying degrees with the Stormwater Department's (SWD) programmatic objectives. There are several grant programs that have been identified as priority opportunities for SWD due to factors like near-term funding availability, program core purpose, or continuity of funding into the future. Those are included in Table A- 1.

Table A- 1. Priority grant opportunities (as of December 2020)

Agency, Program Name	Funding Source	Eligible Expenditures	Award Limits (if applicable)	Available	Notes
U.S. Economic Development Association (EDA) Disaster Supplemental Funding	Federal Economic Adjustment Assistance Program	Projects that help regions recover from the economic harm and distress resulting from floods and tornados in 2017-2019	Not specified	$587M	Application submitted for Maple Canyon Restoration – award has not been decided.
U.S. FEMA Flood Mitigation Assistance (FMA) Grant Program	Federal Pre-Disaster Fund	Planning and mitigation projects that are part of a FEMA-approved HMP to reduce future flood losses	Up to $10M per project	$160M	Ongoing funding source: annual solicitations released late summer; application submitted for Auburn Creek project—award has not been decided.

Agency, Program Name	Funding Source	Eligible Expenditures	Award Limits (if applicable)	Available	Notes
U.S. Army Corps of Engineers (USACE) Continuing Authorities Program	Varied	Planning and construction of varied water resources projects, pertaining to rivers and harbors, aquatic ecosystem restoration, flooding, and other water resource issues	Up to $100,000 for feasibility, $5M for shoreline protection, $10M for all other projects	Not specified	Guided by nine separate legislative authorities; ongoing funding source covering many purposes
EPA Clean Water Act Section 319 Nonpoint Source Pollution Grant	Varied	Projects that reduce or mitigate the effects of nonpoint source pollution in California waters	$200,000 to $800,000	$4M	Application planned for various load reduction programs.
CalTrans Stormwater Management Program	CalTrans	Planning and construction of stormwater treatment facilities through cooperative implementation agreements	Not specified	Ongoing, not specified	Ongoing funding source: SWD submitted Alamo and Salvation BMP for funding but was not awarded
CNRA Urban Greening Grant Program	Greenhouse Gas Reduction Fund	Projects that reduce GHGs and which plant trees, reduce building energy use through greening, and/or reduce commuter vehicle miles traveled	Not specified	$28.5M	Application submitted for Logan Heights South GI project—award has not been decided.
CNRA Urban Flood Protection Program	Proposition 68	LID and multi-benefit projects in urbanized areas that address flooding, like stormwater capture and reuse, restoration of urban streams and watersheds and increasing permeable surfaces to help reduce flooding	$200,000 to $6M	$87.5M	Application submitted for Maple Canyon Restoration Phase 1—award has not been decided.
Ocean Protection Council Coastal Resilience Grant Program	Proposition 68	Multi-benefit ecosystem, watershed protection, and restoration projects	$100,000 to $2M.	$10M	Applications submitted for South Mission Beach GI and Los Peñasquitos Lagoon Restoration 1 projects. Neither project was awarded funding.

Agency, Program Name	Funding Source	Eligible Expenditures	Award Limits (if applicable)	Available	Notes
SWRCB Stormwater Grant Program	Proposition 1	Multi-benefit stormwater management projects focused on water capture, like green infrastructure, rainwater and stormwater capture, and stormwater treatment facilities	$250,000 to $10M	$100M	Applications submitted for Logan Heights South GI and South Mission Beach GI—awards have not been decided.
State Coastal Conservancy Grants	Proposition 1	Multi-benefit ecosystem and watershed protection and restoration projects	$50,000 to $1M	Unknown (to be announced in 2021)	No projects currently submitted.
DWR Integrated Regional Water Management (IRWM) Implementation Grant Program	Proposition 1	Projects included in an adopted IRWM Plan that address critical water management needs of the IRWM Region, including all aspects of stormwater management	Up to $18M	$22M	Program likely receive additional funding in future with same or similar grant program requirements. SWD applied for funding for the Logan Heights GI Project but was not awarded funding.
DWR Coastal Watershed Flood Risk Reduction Grant Program	Proposition 1	Projects that reduce flood risk with fish and wildlife enhancements in coastal watersheds.	Not specified	$24.3M	SWD submitted concept proposals for Los Peñasquitos Lagoon Restoration Design and South Mission Beach Storm Drain Improvements and GI—awards have not been decided.
Wildlife Conservation Board (WCB) Stream Flow Enhancement Program	Proposition 1	Projects that ore reliable water supplies, the restoration of important species and habitat, and a more resilient and sustainably managed water resources	Not specified	$90M	SWD submitted application for Los Peñasquitos Lagoon Restoration—awards have not been decided.

In addition to these prioritized opportunities, numerous other programs from state and federal sources have also been identified as having alignment with the SWD program goals to varying degrees. Details on the primary purposes of each of these grants, as well as the funding availability (total magnitude or specific

grant thresholds), are presented within this Appendix. The grants are organized by their primary program purpose, which may align with one of the SWD program goals specifically (e.g., clean, safe water, flood management, stormwater as a resource, providing community benefits) or may align with broader goals like climate change. It is worth noting that while some of these programs have a single purpose, many fund multiple benefits across categories and prioritize integrated projects. The type of grants included herein can generally be categorized as:

1. State bond-funded programs, like those funded through Proposition 1 and Proposition 68
2. CalTrans ongoing funding for permit-related cooperative agreement grants
3. California cap-and-trade-funded grants for projects that reduce greenhouse gases
4. Federal grants from Bureau of Reclamation (BOR), FEMA, Economic Development Administration, and the Department of Housing and Urban Development

It should be noted that the grants that are active and/or have funding available change frequently, as do the grant eligibility and application requirements. This Appendix serves as a snapshot for potential grants; however, the SWD will maintain a grant tracking and project tracking database to regularly assess opportunities.

Core Purpose – Water Quality and Integrated Watershed Planning

Caltrans Stormwater Management Program

Purpose: Funds local agencies' planning and construction of stormwater treatment facilities through cooperative implementation agreements as part of CalTrans' efforts to comply with their stormwater permits. This program has been used widely throughout California to fund regional stormwater capture projects.

Funding: No dedicated funding source. Funding amounts are limited and vary from year to year. Projects can be considered at any time as they are identified. New agreements expected to be pursued statewide once 2018 projects are completed in 2020.

Proposition 1 DWR Integrated Regional Water Management (IRWM) Implementation Grant Program

Purpose: Provides funding for projects included in an adopted IRWM Plan that address critical water management needs of the IRWM Region. This may include all aspects of stormwater resource management, including planning and implementation, as well as disadvantaged community involvement.

Funding: There is a total of $41.5 million total funding available for San Diego IRWM Region with approximately $22 million remaining. The Round 2 solicitation is expected to be released in Fall 2021.[1]

Proposition 1 DWR Coastal Watershed Flood Risk Reduction Grant Program

Purpose: Provides funding for projects in coastal areas that focus on multi-benefit flood risk reduction efforts that may address flood risk and protect public safety, enhance coastal ecosystems, and promote stewardship of natural resources and public access to these areas.

Funding: There is a total of $24.3 million available for the FY2020 solicitation, with awards yet to be determined.[2]

U.S. BOR WaterSMART Cooperative Watershed Management Program (CWMP) Grant

Purpose: Provides cost-shared financial assistance to address water supply, water quality concerns, and resolve and prevent water conflicts through the formation of a watershed group who develops and implements a watershed plan.

Funding: Two grant rounds take place each year. Maximum grants awards of $50,000 annually for up to two years. [3]

Clean Water Act Section 319 Nonpoint Source Pollution Grant

Purpose: Provides grant funding to reduce or mitigate the effects of nonpoint source pollution in California waters. Funding is typically awarded for implementation projects, but some funding is provided for planning efforts as well.

Funding: The available funding for the 2021 solicitation round is estimated at $4 million with an estimated amount per awards of $250,000 to $800,000. [4]

Core Purpose – Flood Risk Management

Proposition 68 CNRA Urban Flood Protection Grant Program

Purpose: Funds low impact development and multi-benefit projects in urbanized areas that address flooding. Project types can also include stormwater capture and reuse, restoration of urban streams and watersheds and increasing permeable surfaces to help reduce flooding.

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[1] California Department of Water Resources. https://water.ca.gov/Work-With-Us/Grants-And-Loans/IRWM-Grant-Programs/Proposition-1/Implementation-Grants

[2] California Department of Water Resources. June 2020. "Coastal Watershed Flood Risk Reduction Program Final Guidelines and Proposal Solicitation."https://water.ca.gov/-/media/DWR-Website/Web-Pages/Work-With-Us/Grants-And-Loans/Coastal-Watershed-Flood-Risk-Reduction/CWFRRP-Final-Guidelines-2020-PSPa.pdf?la=en&hash=38E9C066C32D0147F472BD2DE947840654C1F518

[3] United States Department of the Interior Bureau of Reclamation, May 22, 2019. "Cooperative Watershed Management Program Grants." https://www.usbr.gov/watersmart/cwmp/

[4] State Water Resources Control Board, November 2020. 2021 Clean Water Act Section 319 Nonpoint Source Pollution Grants. https://www.grants.ca.gov/grants/2021-clean-water-act-section-319-nonpoint-source-pollution-grant/

Funding: Currently available funding is $87.5 million. The first of two funding rounds took place in summer 2020, with awards yet to be announced.[5] Grant awards can vary between $200,000 and $6 million.

U.S. Economic Development Administration (EDA) Disaster Supplemental Funding

Purpose: Funds projects that help regions recover from the economic harm and distress resulting from Presidentially declared disasters, including floods and tornados in 2017-2019.[6] Future eligibility depends on whether a disaster is declared.

Funding: In 2019, $587 million was appropriated. No minimum or maximum awards.[7]

U.S. FEMA Building Resilient Infrastructure and Communities (BRIC) Program

Purpose: Awards planning and project grants to assist municipalities in implementing Building Resilient Infrastructure and Communities (BRIC) program to reduce overall risk to the population and structures from future disasters.

Funding: Annual funding solicitations are released in late summer. For Fiscal Year 2020, FEMS will distribute up to $500 million, with $446.4 million allocated for competitive mitigation projects, $33.6 million for state and territory applicants, and $20 million for tribes[8].

U.S. FEMA Flood Mitigation Assistance (FMA) Grant Program

Purpose: Helps communities fund planning and mitigation projects that are part of a FEMA-approved HMP to reduce future flood losses. [9]

Funding: Annual funding solicitations are released in late summer. For Fiscal Year 2020, there is $160 million available, with maximum grants of $10 million for community flood mitigation projects.

U.S. FEMA Hazard Mitigation Grant Program (HMGP) for State / Local Governments

Purpose: Funding is available to local governments that have an approved Local HMP[10] only after the State Governor requests that a "Presidential Major Disaster" declaration is made for a disaster-affected area.

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[5] California Natural Resources Agency, 2020. Urban Flood Protection Grants Programs. https://resources.ca.gov/grants/ufp

[6] U.S. Economic Development Administration Disaster Supplemental Funding, n.d. https://www.eda.gov/disaster-recovery/supplemental/

[7] EDA Disaster Supplemental Funding, Official Notice of Funding Opportunity. https://www.grants.gov/web/grants/view-opportunity.html?oppId=319126

[8] Federal Emergency Management Agency, 2020. "Before You Apply for Building Resilient Infrastructure and Communities (BRIC) Funds" https://www.fema.gov/grants/mitigation/building-resilient-infrastructure-communities/before-apply

[9] Federal Emergency Management Agency, n.d. "Flood Mitigation Assistance Grant Program." https://www.fema.gov/flood-mitigation-assistance-grant-program

[10] San Diego is a participating jurisdiction in the *Multi-Jurisdictional Hazard Mitigation Plan for San Diego County* (2017). More information can be found at: https://www.sandiegocounty.gov/content/dam/sdc/oes/emergency_management/HazMit/2017/County-HazMit-Plan-2017-Sections-1-7-with-Appendixes-BOS-Approved.pdf

Funding: Grant amounts vary.[11]

U.S. Army Corps of Engineers (USACE) Continuing Authorities Program

Purpose: Program that funds projects managed by nine legislative authorities under which the Corps of Engineers can plan, design, and implement certain types of water resources projects primarily focused along shorelines, streams, and channels. Projects are focused on flooding, restoration, and other water resource issues that are within a specific range of size, cost, scope, and complexity.[12]

Funding: Maximum award of $100,000 for a feasibility study, $5 million for emergency stream bank and shoreline protection projects, and $10 million for all other projects.

Core Purpose – Stormwater as a Resource (Capture and Reuse)

California Proposition 1 SWRCB Stormwater Grant Program (SWGP)

Purpose: Focuses on funding multi-benefit stormwater management projects focused on water capture which may include, but are not limited to, green infrastructure, rainwater harvesting and stormwater treatment facilities.

Funding: There is $100 million in available funding remaining, with awards for capital projects varying from $250,000 to $10 million.[13]

Metropolitan Water District (MWD) Future Supply Actions Funding Program

Purpose: Funds pilot projects and technical studies implemented by MWD member agencies that focus on removing barriers to the development of four water resources: groundwater, recycling, seawater desalination, and stormwater supplies.[14]

Funding: The last funding round was in 2018. The next funding round has yet to be announced.

SWRCB Water Recycling Funding Program (WRFP)

Purpose: Funds planning and construction related to water recycling projects that use treated municipal wastewater and/or treated groundwater from sources contaminated by human activities. Planning activities may include feasibility studies for recycled water projects and facility planning studies to determine the feasibility of using recycled water to offset potable water consumption.

Funding: This program has received funding from both Proposition 1 and the Clean Water State Revolving Fund (CWSRF). There is $625 million available from Proposition 1, and funding available from the CWSRF

[11] Federal Emergency Management Agency, n.d. "The Hazard Mitigation Grant Program Guide for State/Local Governments." https://www.fema.gov/hazard-mitigation-grant-program-guide-state/local-governments

[12] United States Army Corps of Engineers, n.d. "Continuing Authorities Program." https://www.nae.usace.army.mil/Missions/Public-Services/Continuing-Authorities-Program/

[13] California State Water Board. Stormwater Grant Program (Proposition 1). https://www.waterboards.ca.gov/water_issues/programs/grants_loans/swgp/prop1/

[14] Metropolitan Water District of Southern California. http://www.mwdh2o.com/AboutYourWater/Planning/Funding-Programs/Innovative-Supplies-Funding

varies annually. Applications accepted on a rolling basis. There is a maximum award of $75,000 for planning activities and $15 million for construction.[15]

U.S. BOR WaterSMART Water and Energy Efficiency Grants

Purpose: Provides 50/50 cost-share funding for projects that conserve water, use water more efficiently, and contribute to water supply reliability in the western United States.

Funding: Two to three grant rounds take place each year. Grant awards range between $300,000 and $1 million annually, for two to three fiscal years. [16]

U.S. BOR WaterSMART Small-Scale Water Efficiency Projects Grants

Purpose: Provides 50/50 cost-share funding for small water efficiency improvements that have been previously identified as part of planning efforts.

Funding: Two to three grant rounds take place each year. Maximum grant up to $75,000 in match per project.[17]

Core Purpose - Ecosystem Restoration or Revitalization

Proposition 1 Wildlife Conservation Board (WCB) Stream Flow Enhancement Program

Purpose: Projects that result in enhanced stream flows to support the availability and quality of water in streams and restore functional ecological flows in streams that are a priority for fish and wildlife, remove barriers for enhanced flows in nature, and allocation of resources for infrastructure for evaluating stream flow conditions.

Funding: $200 million allocated, with about $90 million of available funding remaining. Grant awards between $50,000 and $1 million. Next solicitation will take place summer 2021.[18]

Proposition 1 State Coastal Conservancy Grants

Purpose: Multi-benefit ecosystem and watershed protection and restoration projects. Priority project types include water sustainability improvements, anadromous fish habitat enhancement, wetland restoration, urban greening, and projects that serve disadvantaged communities.

Funding: FY2021 solicitations will be released in July 2021. The 2020 solicitation includes $2 million for Southern California.

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[15] California State Water Board. Water Recycling Funding Program. https://www.waterboards.ca.gov/water_issues/programs/grants_loans/water_recycling/

[16] United States Department of the Interior Bureau of Reclamation, May 22, 2019. "Water and Energy Efficiency Grants." https://www.usbr.gov/watersmart/weeg/index.html

[17] United States Department of the Interior Bureau of Reclamation, May 22, 2019. "Small-Scale Water Efficiency Projects." https://www.usbr.gov/watersmart/swep/index.html

[18] Coastal Conservancy. Proposition 1 Grants. https://scc.ca.gov/grants/proposition-1-grants/

Proposition 68 State Coastal Conservancy Grants

Purpose: Creating parks, enhancing river parkways, and protecting coastal forests and wetlands that serve disadvantaged communities. For FY19/20 the only available funds from Proposition 68 are for overnight coastal accommodations, coastal redwood forests, and a variety of San Francisco Bay projects.[19]

Funding: Proposals accepted on an on-going basis.

Greenhouse Gas Reduction Fund (GGRF) State Coastal Conservancy Climate Ready Program

Purpose: Multi-benefit projects that use natural systems to assist coastal communities in adapting to the impacts of climate change, such as improving natural areas and expanding green spaces, infiltration of stormwater, water quality improvements, coastal and riparian wetland restoration, or increasing shoreline protection while restoring ecological function and creating habitat.

Funding: No funding available in 2020.[20]

GGRF CDFW Wetlands Restoration for Greenhouse Gas Reduction Program

Purpose: Planning and implementation projects that restore coastal tidal wetlands to achieve quantifiable GHG benefits and co-benefits, with priority for projects that benefit disadvantaged communities.[21]

Funding: Most recent awards announced in 2019. Next solicitation to be determined.

Proposition 68 Ocean Protection Council Coastal Resilience Grant Program

Purpose: Multi-benefit ecosystem, watershed protection, and restoration projects. In general, priority project types include water sustainability improvements, anadromous fish habitat enhancement, wetland restoration, urban greening, and projects serving disadvantaged communities. For the funding announced in 2020, the priority issue area is coastal resiliency and nature-based adaptation strategies to sea level rise impacts.

Funding: $56.million allocated, with $10 million available in 2020-21 solicitation.[22] Awards range from $100,000 to $2 million.[23]

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[19] Coastal Conservancy. Proposition 68 Grants. https://scc.ca.gov/grants/proposition-68-grants/
[20] Coastal Conservancy and California Climate Investments, n.d. "Climate Ready Program." https://scc.ca.gov/climate-change/climate-ready-program/
[21] California Department of Fish and Wildlife, May 2019. "Wetlands Restoration for Greenhouse Gas Reduction Grant Program Project Solicitation and Evaluation Guidelines (Draft)." https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=168966&inline
[22] Ocean Protection Council, 2020. "Coastal Resilience Solicitation is Open." https://www.opc.ca.gov/prop-68-funding/
[23] Ocean Protection Council, August 24, 2020. "Proposition 68 Coastal Resilience solicitation." https://www.opc.ca.gov/webmaster/_media_library/2020/08/Prop-68-Coastal-Resilience-Solicitation_update082420.pdf

Core Purpose – Climate Change and Resiliency

GGRF CNRA Urban Greening Grant Program

Purpose: Projects that reduce greenhouse gases and provide a wide variety of benefits like environmental, health, and community revitalization, and which plant trees, reduce building energy use through greening, and/or reduce commuter vehicle miles traveled.[24]

Funding: $28.5 million available for Fiscal Year 2020. No minimum or maximum grant awards.

CNRA Environmental Enhancement & Mitigation Program

Purpose: Projects that offset negative environmental impacts from transportation projects through planting trees, acquiring, or enhancing natural lands, and/or mitigating the impact of transportation projects through environmental enhancement.

Funding: Up to $13.4 million anticipated to be available in early 2021 solicitation. Maximum awards of $1.0 million for acquisition or $500,000 for other projects.[25]

Proposition 68 DPR Statewide Park Development and Community Revitalization Program

Purpose: Creation of new parks and recreation opportunities in underserved communities where there is a critical lack of park space and poverty, with an emphasis on recreational features like wetlands, sport fields, and active spaces.

Funding: $395.3 million in funding available. Maximum award per project is $8.5 million.[26] The next solicitation is scheduled for spring 2021.

GGRF Strategic Growth Council Transformative Climate Communities Program

Purpose: Community-scale, community-led development and infrastructure projects that achieve major environmental, health, and economic benefits in California's most disadvantaged communities.[27]

Funding: Grants to recipients in select communities range from $20 million to $60 million. Last solicitation took place in early 2020, with the timing for the next solicitation to be determined.

CalTrans Sustainable Transportation and Adaptation Planning Grant Program

Purpose: Supports planning at local and regional levels that advances climate change efforts related to the transportation system, including natural and green infrastructure adaptation plans. Priority projects address deficiencies in disadvantaged communities and communities vulnerable to climate change impacts.

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[24] State of California Natural Resources Agency, "Urban Greening Grant Program" https://resources.ca.gov/grants/urban-greening/

[25] https://resources.ca.gov/CNRALegacyFiles/grants/wp-content/uploads/2019/04/2019-Final-EEM-Guidelines-v2.pdf

[26] California Department of Parks and Recreation, n.d. "SPP Grant Program." http://www.parks.ca.gov/?page_id=29939

[27] California Strategic Growth Council. Transformative Climate Communities Resources. http://sgc.ca.gov/programs/tcc/resources/

Funding: There is $34 million available for the 2021-2022 solicitation. Applications are due in early 2021. Awards from $1 million to $100 million.[28]

U.S. Department of Housing and Urban Development & California Department of Housing and Community Development Community Development Block Grants (CDBG)

Purpose: Projects that support low-income areas or create jobs such as acquisition of real property, relocation or demolition, rehabilitation of residential and non-residential structures, construction of public facilities and improvements, activities relating to energy conservation and renewable energy resources, and provisions of assistance to business to encourage economic development and job creation and retention.[29]

Funding: Solicitations take place annually. Next solicitation round to be determined.

[28] California Department of Transportation, January 2018. "Caltrans Sustainable Transportation Planning Grant Program Application Guide." http://www.dot.ca.gov/hq/tpp/grant_files/FY_18-19/01_FINAL_JAN18_STPGrantGuideFY2018-19.pdf
[29] City of San Diego, June 2019. "City of San Diego FY20-24 Consolidated Plan." https://www.sandiego.gov/sites/default/files/cosdfy2024conplan.pdf

Appendix B: Funding Options Evaluation

Funding Option Evaluation Criteria

Each of the funding and financing options included in the Funding Strategy were evaluated using a standard set of criteria, summarized in Table B-1, below, to present uniform characteristics for each of the sources. Additional criteria (spending milestones and application cycles and competitiveness) for financing options that are administered by entities external to the City of San Diego (City) were also added for applicable programs.

Detailed findings for each of these criteria are included in Table B-3 through Table B-5 in this Appendix and are separated by whether they are funding sources subject to Stormwater Division (SWD) or City discretion, external discretion to the City and require a ballot measure or are financing options. A summary for the magnitudes for current FY2021 funding and potential addition or increase of funding are presented in Table B-2. Note that grant options are presented in a separate Appendix A.

Table B-1. Funding option evaluation criteria.

Criteria Category	Criteria	Description
Sufficiency	Magnitude/Amount for SWD (FY2021 Current)	Current magnitude or amount allocated for SWD based on the adopted FY2021 budget.
	Magnitude/Amount for SWD (Potential Addition or Increase)	Magnitude or range in magnitude that could be provided by the funding source for SWD.
	Status/Duration	Period over which the funding source may be applicable (e.g., perpetual revenue or specific duration (e.g., grant).
Stability/ Sustainability	Payment Type	Intervals and mechanism by which revenue could be provided (e.g., one-time, at milestones, or continuously via monthly/annual revenue streams).
	Variability / Volatility	Potential, extent, and duration for revenue to fluctuate and evaluation of risk of non-recovery.
	Increases Permitted?	Ability for SWD or the City to purposefully increase revenue (e.g., fee increase) as needed.
Limitations	Funding Restrictions	Limitations to programs, activities, specific projects, locations, etc. that can be funded. Legal considerations specific to SWD are noted, where applicable.
Approvals	Decision Making Authority	Requirement or recommendation for public vote, Council vote, advisory panel, consensus, etc.
	Approval Process	Approval requirements, and process.

Funding Option Evaluation Summary

For ease of reference, a summary of the magnitude of current (Fiscal Year [FY] 2021 Adopted Budget) and potential future funding options where the magnitude is greater than $0 is presented in Table B-2 (other funding options where the magnitude is anticipated to be $0 are included in other tables but omitted from B-2 as a summary). Funding options that are not anticipated to contribute future funding to the SWD or that are not recommended for further pursuit are not explicitly included in the summary table, but are detailed in Tables B-3, B-4, and B-5. Additionally, some of the funding sources such as bonds, property-related fees, or special taxes could potentially be scaled to address more or even all of the funding gap but are shown here as $0 because they are not yet developed. Options where there exists extreme variability to external discretion (e.g., grants, financing, ballot measure) or nuanced relationships between funding and financing, a narrative rather than a dollar amount is provided. Within the context of the Funding Strategy, cost recovery means that the target for a revenue generating activity is equal or greater than the cost of the activity that the revenue is collected for.

The average annual SWD funding need is estimated to be $273.7 million per year for the period between FY2021 and FY2040. The total potential addition or increase in funding for funding sources that are within SWD or City Discretion (restricted and unrestricted) is $52.3 million (19% of average annual need); therefore, a minimum average of $221.5 million per year is needed to fill the funding gap and meet the full funding need. To meet this funding need and not significantly impact other City activities (e.g., by diverting General Fund and financing capacity), realistically the City will need to pursue one or more long-term funding mechanism(s).

Table B-2. Summary of current (FY2021) magnitude and potential addition or increase in magnitude for existing funding options where the potential is greater than $0 ($2020).

Funding Option	Magnitude (FY2021 Current)	Magnitude (including potential addition or increase)
SWD DISCRETION		
Stormwater Enforcement and Fines	$125,000	$503,000 (cost recovery) to $1,006,000 (dis-incentivization)
SWD Discretion Subtotal	***$125,000***	***$503,000 to $1,006,000***
CITY DISCRETION		
Inspection and Reinspection Fees	$0	$1,400,000 (cost recovery)
Street Sweeping Parking Citations	$5,250,000	$6,300,000 (cost recovery) to $7,700.000 (cost recovery plus additional routes needed for compliance)
TOT	$1,000,000	$1,000,000
Existing Storm Drain Fee	$5,700,000	$5,700,000
Other General Fund	$34,846,439	$34,846,439 (assumed constant)
City Discretion (Unrestricted) Subtotal	***$46,796,439***	***$14,400,000 (no "other General Fund"; cost recovery target) to $49,246,439 (with "other" General Fund, cost recovery target)***
CITY DISCRETION (RESTRICTED)		
TransNet	$1,000,000	$1,000,000 to $2,000,000
Parking Meter District Fund	$600,000	$600,000
City Discretion (Restricted) Subtotal	***$1,600,000***	***$2,600,000***
EXTERNAL DISCRETION/AUTHORITY (NO PUBLIC VOTE - GRANTS)		
Grants (see Appendix A for detailed information) Subtotal	***$0***	***$0 to variable based on award***
EXTERNAL DISCRETION/AUTHORITY (PUBLIC VOTE)		
Other Stormwater Funding Mechanism(s)	$0	Amount TBD if Audit Recommendation #6—design a funding mechanism—is pursued
External Discretion/Authority (Ballot Measure) Subtotal		***$0 to variable/whatever dollar amount targeted for long-term funding mechanism (tax, fee, etc.)***
FINANCING		
Financing Subtotal	***$0***	***$0 to variable based on need, City discretion for General Fund financing, cash flow, and application success based on financing options***
TOTAL	**$48,521,439**	**$52,349,439 (existing sources)** ***Bottom line: Projected average annual need is $273.7 million, so after maximizing existing funding sources, a minimum of $221.5 million is needed to fill the funding gap.***

Table B-3. SWD or City Discretion/Authority

Evaluation Criteria Category	Evaluation Criteria	Stormwater Enforcement and Other Fines (SWD Discretion)	Inspections and Re-Inspection Fees	Street Sweeping Parking Citation (increase in fines)	Street Sweeping Parking Citation (increase in posted routes or enforcement)
Sufficiency	**Magnitude for SWD (FY2021 Current)**	Low. $125,000 (per FY2021 Adopted Budget), representing less than 0.1% of the average annual need.[1]	$0 (stormwater does not currently charge for inspections or re-inspection).	Low. $5.25 million (projected revenue per FY2021 Adopted Budget), representing about 2% of average annual need.	Low. $5.25 million (projected revenue per FY2021 Adopted Budget), representing about 2% of average annual need.
	Magnitude for SWD (Potential Addition or Increase)	Low. Cost recovery based on the FY2021 Adopted Budget is $503,000 ($2020) (enforcement cost center). Additional fines to dis-incentivize violations could be assessed (assumed maximum would be to double cost recovery to $1.0 million); however, magnitude is highly dependent on number and severity of fines issued and paid.	Low. Cost recovery based on the FY2021 Adopted Budget of $1.4 million (industrial and commercial inspections and BMP inspection cost center).	Low. Cost recovery for current parking enforcement and street sweeping could increase to $6.3 million per year based on FY2021 estimated costs for street sweeping and parking enforcement.	Low. Adding 6,000 miles in additional routes would increase costs by approximately $1.4 million per year. To be cost recoverable, revenue would need to increase for recovery estimated at $7.7 million per year (based on FY2021 data).
	Status / Duration	Existing, perpetual source of revenue.	New source that would be a perpetual source of revenue. Revenue could be realized the FY following City Council approval.	Increase to existing source that would be a perpetual source of revenue. Revenue could be realized the FY following City Council approval for increase.	Increase to existing source that would be a perpetual source of revenue. Revenue could be realized the FY following City Council approval.
Stability/ Sustainability	**Payment Type**	Fines collected per violation from violators, as Code Enforcement violations occur.	Fees could be collected per inspection or re-inspection, as they occur. This is dependent on how program may be structured.	Fined collected per citation, as they occur by the City Treasurer Revenue Collections Division. Each month, revenue is distributed to issuing agencies. Annual allocation as part of budget process.	Fines collected per citation as they occur by the City Treasurer Revenue Collections Division. Each month, revenue is distributed to issuing agencies. Annual allocation as part of budget process.
	Variability / Volatility	High. Revenues are dependent upon number and severity of violations, as well as enforcement capacity. Also dependent on payment of fines by violators.	High. Dependent upon inspection/re-inspection quantity and frequency of fee issuance.	High. Dependent upon citation quantity and enforcement coverage. An increase in citation amount may change the behavior of the community & increase volatility in the citations issued.	High. Dependent upon citation quantity and enforcement coverage.
	Increases Permitted?	Yes, in accordance with Municipal Code.	Yes, in accordance with Municipal Code and changes in cost basis.	Yes. Street sweeping is enforced using the "Violation of Signs" fine amount, which is also used by San Diego Police and others. An increase would need to be coordinated with SDPD and the Treasury. Increases must also be in line with other local agencies per the California Vehicle Code.	Yes. Revenue could be increased through increasing posted routes and enforcement; however, there are corresponding increases in costs are likely to exacerbate the overall SWD funding gap.
Limitations	**Funding Restrictions**	High. Revenues are allocated to the SWD penalties fund for SWD use and has historically not been transferred out for other purposes.	Limited. Fee amounts limited to a cost recovery basis. Depending on how the program is set up, the revenue could be restricted or unrestricted for stormwater.	None. The revenue from parking citations is transferred to the General Fund and is not legally restricted in any way. It has historically been designated for stormwater use; however, it could be allocated to any General Fund use.	None. The revenue from parking citations is transferred to the General Fund and is not legally restricted in any way. It has historically been designated for stormwater use; however, it could be allocated to any General Fund use.
Approvals	**Decision Making Authority**	SWD Director (SWD Discretion/Authority).	City Council as part of annual budget process	City Council as part of annual budget process	City Chief Operating Officer has the authority to increase routes SWD can increase enforcement and routes (budget dependent, which is at City Council discretion)
	Approval Process	Per San Diego Municipal Code (Chapter 1), enforcement authority and penalties are at the discretion of the Director. The City Manager may develop a schedule to guide the Director in appropriate cases for administrative and civil penalties.	Per San Diego Municipal Code (Chapter 1, Article 3), re-inspection fees may be assessed following the issuance of a violation and for each violation. The cost basis for the fee amounts will need to be developed by SWD and approved by City Council to be established.	City Council has the authority to modify the parking citation fee value. A cost basis for increasing citations would need to be developed by SWD to support the increase and coordination with SDPD and Treasury would be required across "Violation of Sign" administering agencies.	The San Diego Municipal Code, Chapter 8, Article 6 authorizes the City Manager (now City Chief Operating Officer) to establish Street Sweeping Zones. A study should be completed to identify recommended zones and assess equity, with stakeholder engagement in those respective areas.

[1] The average annual need for SWD services and operations for the next 20 years is estimated at $273.7 million.

Table B-3. SWD or City Discretion/Authority

Evaluation Criteria Category	Evaluation Criteria	TOT Allocations	Infrastructure Fund	Other General Fund	TransNet Fund (Restricted)	Capital Outlay Fund (Restricted)
Sufficiency	**Magnitude for SWD (FY2021 Current)**	Low. $1 million, representing about 0.4% of average annual need.	$0	Moderate. $34.2 million (excluding specific funds from TOT, Parking Meter District, Storm Drain Fee, Stormwater Fines, and Parking Citations), representing about 12% of average annual need. Total General Fund including those revenue sources or specific funds is $46.9 million, representing about 17% of average annual need.	Low. $1 million, representing about 0.4% of average annual need.	$0
	Magnitude for SWD (Potential Addition or Increase)	Low. Allocation to SWD is anticipated to be consistent at $1 million per year. Of revenues collected approximately 52% goes to the General Fund; 38% is for City promotion and remaining 10% can be allocated by City Council although increase is not anticipated for SWD.	None. No revenue budgeted for SWD in FY2021 and fund to expire in FY2022.	Moderate. SWD has been allocated between $34 million and $65 million since FY2016.	Low. Stormwater allocations could increase up to $2 million per year. Approximately $20 million available annually Citywide.	Variable. Dependent upon the sale of City-owned property. Funds typically go towards debt service and remaining funds will be allocated to CIPs.
	Status / Duration	Existing, perpetual source of revenue.	Expiring FY2022.	Existing, perpetual source of revenue.	Existing, with sunset. Extended in 2004 for another 40 years (through 2044); potential for renewal.	Existing, perpetual source that varies with the sale of City-owned property.
Stability/ Sustainability	**Payment Type**	Annual allocation as part of budget process.	Annual allocation as part of budget process.	Annual allocation as part of budget process.	Annual allocation as part of budget process.	One time, with the sale of City-owned property. Annual allocation as part of budget process.
	Variability / Volatility	Moderate. Currently stable, but revenue from TOT dependent upon tourism and economic health. Allocations to SWD depend on TOT Cost nexus and City priorities.	Expiring FY2022.	High. Potential to fluctuate due to shifting City priorities, availability of General Fund monies, & needs of other City departments.	Low. Relatively stable revenue source for the City; allocations to SWD will vary based on City priorities.	High. Variable based on the sale of City-owned property and need to use funds to repay debt service.
	Increases Permitted?	Yes. Through increase in City discretion for fund allocations up to permissible limit.	No.	Yes. Through increases to contributing revenue sources for the General Fund (indirect).	Yes. Through increase in City discretion for fund allocations up to permissible limit. Note: Increasing TransNet itself would require a public vote.	No. Dependent on sale of City-owned property.
Limitations	**Funding Restrictions**	High. Funds limited to projects that help achieve the goals of the TOT, including "Safety and Maintenance of Visitor-Related Facilities" or "Capital Improvements" categories of eligible programs under the TOT policy. As such, the project must be shown to be a "visitor-related facility or project" (Policy 100-03).	High. Restricted to General Fund infrastructure such as construction and operations & maintenance of infrastructure. The benefiting assets are typically managed and maintained by asset-managing General Fund departments.	Low. Primarily funds the City's operating budget and does not fully fund CIPs.	High. TransNet Funds primary purpose is to reduce traffic congestion and support essential transportation improvements that increase safety and improve air quality. Most revenues are designated for specific transportation-related funds. TransNet may fund non-transportation CIP projects within the right-of-way.	High. Article VII, Section 77: "Proceeds may also be used to reimburse the General Fund for prior capital expenditures and for the financing costs, if any, associated with the acquisition and construction of such permanent public improvements. The funds may also be used for the replacement of permanent public improvements but not the repair or maintenance thereof. The qualified electors of the City may, by a two-thirds vote, consent to the transfer and expenditure of such moneys for other purposes."
Approvals	**Decision Making Authority**	City Council.	City Council.	City Council.	City Council and TransNet Independent Taxpayer Oversight Committee (SANDAG).	City Council.
	Approval Process	City Budget Process.	City Budget Process.	City Budget Process.	City Budget Process.	City Budget Process.

Table B-3. SWD or City Discretion/Authority

Evaluation Criteria Category	Evaluation Criteria	Development Impact Fees/ Facility Benefit Assessment	Mission Bay Park Improvement District and Regional Park Improvement Fund	Parking Meter District Fund	Water and Sewer Utility Enterprise Funds	Other Enterprise Funds
Sufficiency	**Magnitude for SWD (FY2021 Current)**	$0	$0	$600,000, representing about 0.2% of average annual need.	$0	$0
	Magnitude for SWD (Potential Addition or Increase)	Variable. Fee schedule varies by Planning Area and whether a development impact fee or a facility benefit assessment. (https://www.sandiego.gov/sites/default/files/feeschedule.pdf) $62 million in total capital funding anticipated over FY2021 to FY2025 – funding for SWD specifically has not been committed.	Low. SWD Fund transfers would be dependent upon project applicability. Fund details for amounts and spending are below. Mission Bay: 65% of remaining lease revenues collected from Mission Bay in excess of $20 million (or the remainder of 65% is not available after allocation to the Regional Park Improvement Fund). Regional Parks: The greater of 25% of lease revenues in excess of $20 million or $2.5 million.	Low. No increase for SWD anticipated (constant at $600,000).	Low. No steady funding for SWD anticipated. Future SWD fund transfers would be dependent upon projects, cost sharing, or transfer agreements.	Low. No funding for SWD anticipated. Magnitudes for other enterprise funds were reported between ($5.3 million to -$5.2 million) in the FY2019 CAFR.
	Status / Duration	Existing, perpetual source that varies with rate of development, re-development.	Existing, perpetual source.	Existing, perpetual source.	Existing, perpetual source.	Existing, perpetual source for respective enterprises.
Stability/ Sustainability	**Payment Type**	One-time assessment on new development or re-development. Annual allocation to SWD as part of budget process.	Annual allocation as part of budget process.	Annual allocation as part of budget process.	Annual allocation as part of budget process that would require that cost sharing or projects for SWD meet clear nexus with funds.	Annual allocation as part of budget process that would require that cost sharing or projects for SWD meet clear nexus with funds.
	Variability / Volatility	High. Variable depending on rate of growth, development, or re-development.	Low. Relatively stable revenue source for the City; allocations to SWD will vary based on City priorities and project nexus with Funds goals.	Low. Relatively stable revenue source for the City; allocations to SWD will vary based on City priorities and project nexus with Funds goals.	Low. Stable revenue source for the City; allocations to SWD will vary based on City priorities and project nexus with Funds goals.	High. Variable revenue source for the City; allocations to SWD will vary based on City priorities and project nexus with Funds goals. Some funds report negative revenue and are not considered viable.
	Increases Permitted?	Yes. Automatic annual increases based on the Construction Cost Index (CCI). Increases in rate schedule may be justified with an updated impact fee study and with approval by City Council.	No. Project by project allocations – no steady enhancement for SWD viable.	Yes. Through increase in City discretion for fund allocations up to permissible limit; however, allocated on a project-by-project basis.	Yes. Project by project allocations – no steady enhancement for SWD anticipated.	No. Project by project allocations; no steady enhancement for SWD anticipated.
Limitations	**Funding Restrictions**	High. Impact fee revenues are solely to fund the implementation of the City's General Plan and ensure impacts of development are mitigated. Funding varies per different Communities and Community Plans.	High. Only applicable for non-commercial public capital improvements for Regional Parks and park uses, including water quality improvements, restoration, erosion control, and deferred maintenance or CIPs.	High. According to City Council Policy 100-18, funds must be used for regulation, management, and control of the parking of vehicles and management and control of traffic (vehicles, bike, and pedestrian), that affect or is affected by the parking of vehicles in a parking meter zone. Use in the five designated parking meter districts.	High. Limited by the cost and benefit provisions for the enterprise funds.	High. Limited by the cost and benefit provisions for the enterprise funds.
Approvals	**Decision Making Authority**	City Council.	City Council and Oversight Committees.	City Council & Community Parking District Advisory Boards.	City Council & Independent Rate Oversight Committee (IROC).	City Council.
	Approval Process	City Budget Process. The CFO is authorized to reallocate DIF Community Funds appropriations between City Council-approved projects to expedite the use of DIF Community Funds in accordance with AB1600 requirements. (2019 Budget Adoption, Ordinance 20952, Section C).	City Budget Process. City Council Approval for specific projects not identified in the City Charter with an adopted funding plan.	City Budget Process.	City Budget Process.	City Budget Process.

Table B-4. External Discretion (Public Vote)

Evaluation Criteria Category	Evaluation Criteria	Increase Existing Storm Drain Fee	Special Tax (Parcel Tax)	General Tax with Special Advisory (Parcel Tax)	Prop 218 Property Related Fee - Traditional Approach	Prop 218 Property Related Fee – SB 231 Approach
Sufficiency	**Magnitude for SWD (FY2021 Current)**	$5.7 million (per FY2021 Adopted Budget), representing about 2% of the average annual need.	$0	$0	$0	$0
	Magnitude for SWD (Potential Addition or Increase)	High. An increase in the existing Storm Drain Fee could be established to meet **all or a portion** of the SWD's operational & capital cost requirements. This fee was last increased in 1996, just prior to the passage of Prop 218 in November 1996.	High. A Special Tax could be established to meet **all or a portion** of the revenue needs of the SWD, subject to voter approval.	High. A General Tax could be established to meet **all or a portion** of the revenue needs of the SWD, subject to voter approval.	High. Property fee could be established to meet **all or a portion** of the revenue needs of the SWD, subject to voter approval.	High. Property fee could be established to meet all or a portion of the revenue needs of the SWD, subject to voter approval.
	Status / Duration	Increase of existing, perpetual revenue source.	New. Taxes set using this approach are perpetual unless a sunset clause is established.	New. Taxes set using this approach are perpetual unless a sunset clause is established.	New. Fees designed using this approach are perpetual fees unless a sunset clause is established. Utilities typically revisit their schedule of fees every 3-5 years.	New. Fees designed using this approach are perpetual fees unless a sunset clause is established. Utilities typically revisit their schedule of fees every 3-5 years.
Stability/ Sustainability	**Payment Type**	Collected by the Public Utilities Department along with water and sewer bills and deposited into the Storm Drain Fund. Funds are transferred to the General Fund to reimburse stormwater costs on a quarterly basis. Estimated revenue determined as part of budget process.	The regularity of the revenue would be dependent on the tax basis or the fee collection method. This would need to be specified in the potential funding measure.	The regularity of the revenue would be dependent on the tax basis or the fee collection method. This would need to be specified in the potential funding measure.	The regularity of the revenue would be dependent on the fee basis or the fee collection method. This would need to be specified in the potential funding measure.	The regularity of the revenue would be dependent on the fee basis or the fee collection method. This would need to be specified in the potential funding measure.
	Variability / Volatility	Low. Revenue from this funding source would remain stable, with limited likelihood of non-cost recovery.	Varies. Revenue fluctuation is dependent on the tax basis or fee structure. Fixed fees yield little to no revenue variability. Non-payment is a potential risk depending on billing/collection method.	Varies. Revenue fluctuation is dependent on the tax basis or fee structure. Fixed fees yield little to no revenue variability. Non-payment is a potential risk depending on billing/collection method.	Low. Revenue from this funding source would be stable.	Low. Revenue from this funding source would be stable. Note that there is inherent volatility in pursuing the SB 231 approach due to potential for lawsuits due to use of SB231 being largely untested.
	Increases Permitted?	Yes, but revenues may not exceed the cost of providing service to rate payers.	Yes. Special Taxes may escalate on an adopted rate schedule or an annual adjustment for inflation if specified Any change in the tax or calculation methodology requires voter approval.	Yes. General Taxes may escalate on an adopted rate schedule or an annual adjustment for inflation if specified Any change in the tax or calculation methodology requires voter approval.	Yes. Additional fee increases beyond the adopted schedule will require a new Prop 218 process including a public hearing, council approval, and vote by general public or affected property owners.	Yes. Additional fee increases beyond the adopted schedule will require a new Prop 218 process including a public hearing, council approval, and vote by general public or affected property owners.
Limitations	**Funding Restrictions**	High. The Storm Drain Fee Fund is not currently legally restricted but has been "functionally" limited to stormwater use based on customer bills specifying the fee for Storm Drains. Council could adopt an ordinance specifying how the revenue should be spent but this can be overruled or changed by future councils (therefore only designated annually).	Low. Proceeds of a special tax count toward a local government's Gann appropriation limit (limit on the proceeds of taxes that may be appropriated for spending in a given FY). Funds can be spent according to ballot measure language and governing documents.	Low. Proceeds of a general tax count toward a local government's Gann appropriation limit. Funds can be spent according to ballot measure language and governing documents.	High. Revenue generated from a property related fee may not exceed the total cost to provide the service, and the fee charged to a parcel or person may not exceed the proportional cost of service attributable to the parcel. A strong nexus is required. Exemptions for specific rate payers are not permitted. Funds can be spent according to ballot measure language and governing documents.	High. Revenue generated from a property related fee may not exceed the total cost to provide the service, and the fee charged to a parcel or person may not exceed the proportional cost of service attributable to the parcel. As strong nexus is required. Exemptions for specific rate payers are not permitted. Funds can be spent according to ballot measure language and governing documents.
Approvals	**Decision Making Authority**	City Council discretion for allocation of existing revenue ($5.7 million). Public Vote or Majority Approval by property owners (Prop 218 approach) or City Council Action (SB 231 approach) to increase the current fee and generate additional revenues.	Public Vote.	Public Vote to increase. City Council Budget Process to allocate funds.	Public Vote: Proposition 218 also requires a two-step public approval process.	City Council Action and protest vote. Note that SB 231 has been largely untested for stormwater and carries risk of litigation or legal challenges.

Table B-4. External Discretion (Public Vote)

Evaluation Criteria Category	Evaluation Criteria	Increase Existing Storm Drain Fee	Special Tax (Parcel Tax)	General Tax with Special Advisory (Parcel Tax)	Prop 218 Property Related Fee - Traditional Approach	Prop 218 Property Related Fee – SB 231 Approach
	Approval Process	The existing fee is defined as a property related fee. As such increasing the existing fee would require a vote by City Council, public comment period, public hearing, & a protest vote before adoption of any increased rates or fees per Proposition 218 requirements. The proposed fee schedule will be rejected if the majority of eligible voters issue written protest votes.	Special taxes require a 2/3 majority electorate vote for approval. A Special Tax is used to ensure that taxes charged are specifically earmarked for their expressed purpose. Note a recent Supreme Court inaction against Proposition C in San Francisco may allow special taxes proposed by citizens to use a simple majority.	General taxes require a 2/3 majority electorate vote for approval. General Tax votes are required to be held during a regularly scheduled general election (at the same time as members of the governing body proposing the tax). Exceptions can be made if an emergency is declared by unanimous vote of the governing body. A General Tax with special advisory may not earmark the revenue. Instead, revenues may go to the General Fund with the advisory serving as a non-binding advisory measure on voter's preferred use of funds.	A two-step public process is required. The City would send written notices to all impacted property owners 45 days before holding a public hearing on the potential rate increase. The Public must submit written public comments before the conclusion of the public hearing which occurs after the 45-day comment period. If a majority of property owners protest/vote against the new fee or rate increase, the local agency may not levee a new or increase an existing property related fee. The second step, if the local agency does not receive a majority objection against the new fee or rate increase, is that the local agency may then conduct a property-owner election within 45 days after the public hearing and obtain a majority approval of all impacted voting property owners or 2/3 approval from the electorate.	The SB231 process follows the same first step of the Proposition 218 process but does not require the second step (or voter-approval requirements). The City would send written notices to all impacted property owners 45 days before holding a public hearing on the potential rate increase. The Public must submit written public comments before the conclusion of the public hearing which occurs after the 45-day comment period. If a majority of property owners protest/vote against the new fee or rate increase, the local agency may not levee a new or increase an existing property related fee.

Table B-4. External Discretion (Public Vote)

Evaluation Criteria Category	Evaluation Criteria	Special Assessment	State Product Impact Fees	Sales Tax Add-On	Increase Transient Occupancy Tax (TOT)
Sufficiency	**Magnitude for SWD (FY2021 Current)**	$0	$0	$0	$0
	Magnitude for SWD (Potential Addition or Increase)	High. Special assessment would be calculated to recover costs associated with specific projects or services providing a "special benefit over and above that received by the general public." This could be proposed to cover **up to all** SWD needs or to whatever magnitude is voted upon.	Varies. Highly variable based on the product being regulated and amount. Example is AB 1180 - Initially proposed to increase the existing $1.75 CA tire fee by $1.50 and deposit additional funds generated by the raise into the Stormwater Permit Compliance Fund (established by the bill) to offer competitive grants for statewide and regional programs that address the effects of zinc in stormwater runoff. The tire fee was later removed from the amended bill.	Low. The City could pursue an add-on to the sales tax. SB 566 authorized cities to establish a combined local sales tax rate of 2.00%. San Diego currently has a combined Sales Tax rate of 8.75%, including the 7.25% statewide base sales tax and 1.50% local sales tax, allowing for up to 0.20% in additional sales taxes, resulting in an additional estimated $75 million per year.	Low. Current tax is 10.5% and could be increased (March 2020 Ballot Measure proposed 1.25 to 3.25% based on proximity to Downtown and did not pass).
	Status / Duration	New. This would continue to be a perpetual revenue source unless a sunset clause was added.	New. Revenue generated from the impact fees would be perpetual revenue. Distribution of revenue would depend on program set up (e.g., Funds, grants, etc.).	Existing, increase would occur at the City level and not specific to stormwater. Would be perpetual source unless a sunset clause is included.	Existing, increase would occur at the City level and not specific to stormwater. Would be perpetual source unless a sunset clause is included.
Stability/ Sustainability	**Payment Type**	Typically assessed annually on property tax. This would need to be specified in the potential funding measure.	Dependent on program. Likely per sale or usage of product.	Continuous source for City.	Revenue would likely be a one-time source of funding for a specific project
	Variability / Volatility	Low. Little to no revenue fluctuation as secured by property liens. Assessment calculated based on formula set forth in the engineer's report. Typically assessed on basis that does not vary by year (e.g., area, impervious area, equivalent dwelling units, etc.)	Moderate. The revenue would fluctuate with product demand and means for allocation to Cities and SWD.	Low. Relatively stable revenue source for the City; allocations to SWD will vary based on City priorities.	Moderate. Revenue would fluctuate based on project funding needs and the justification of a project as a "visitor-related facility or project"
	Increases Permitted?	Yes. Increases would require a new special assessment process, unless an assessment schedule is established in the engineer's report, providing a maximum assessment cap.	Varies. Dependent on fee structure set up (if escalation or inflation is included).	Yes. Can increase up to combined local sales tax rate threshold.	Yes.
Limitations	**Funding Restrictions**	High. Can only be used to fund projects or services that provide a "special benefit over and above that received by the general public." An engineer's report establishes the total cost to be recovered and the period over which costs are to be recovered through the assessment. This may include debt service to be paid over the term of the obligation.	High. A cost nexus would be required for programs that the fee would benefit (e.g., water quality or environmental revitalization).	Low. If the SWD remains a General Fund Department, funds could be allocated to SWD with little restriction for General Funded activities.	High. Funds would be limited to projects that help achieve the goals of the TOT, including safety and maintenance, or capital improvements of visitor-related facilities.
Approvals	**Decision Making Authority**	Vote by property owners within the boundaries of the defined special assessment district.	Public Vote.	Public Vote to increase. City Council for Budget Process to allocate funds.	Public Vote to increase. City Council for Budget Process to allocate funds.

Table B-4. External Discretion (Public Vote)

Evaluation Criteria Category	Evaluation Criteria	Special Assessment	State Product Impact Fees	Sales Tax Add-On	Increase Transient Occupancy Tax (TOT)
	Approval Process	Special Assessments require a vote of affected property owners by mail in ballot. The ballots must be preceded by a mailed notice 45 days before the mail in ballots are due. Approval is achieved by a majority vote of mailed ballots. Votes are weighted by financial obligation of the property owners. Only property owners may vote unless there is a successful suit that challenges who gets to vote. If that occurs, public agencies must obtain approval of the assessment by both property owners and a 2/3 vote of the electorate. All special assessments must include an Engineer's Report that include the following information: • Estimate of costs to be recovered by the special assessment and the period over which those costs are to be recovered • Identification of parcels receiving a special benefit from the capital improvements or services • Calculation and apportionment of special benefit to property owners within the district	Requires statewide coordination. Would need to be proposed in legislation and would require ballot vote approval. Would need to be regulated through the state; fees require a system for establishing an inventory of targeted products as it is being offered to the public, must establish a method for collecting the fee, and a fair approach for all vendors.	All local sales taxes are subject to voter approval under Prop 218. A simple majority vote is required for a general tax and a 2/3 voter approval is required for a special tax, to the extent an additional tax is specifically designated for SWD purposes.	Of the existing 10.5% tax, 1% may be used for any purpose the City Council may direct, 5.5% is deposited in the General Fund for general government purposes as the City Council may provide, and 4% must be used solely for promoting the City.

Table B-4. External Discretion (Public Vote)

Evaluation Criteria Category	Evaluation Criteria	Millage Increase	California State Gasoline Tax
Sufficiency	**Magnitude for SWD (FY2021 Current)**	$0	$0
	Magnitude for SWD (Potential Addition or Increase)	High. Proposition 13 limits the ad valorem property tax rate for California jurisdictions to 1% of assessed value at the time of purchase. However, Proposition 46 (1986) allowed local governments to raise the property tax rate above 1% to finance infrastructure bonds if approved by 2/3 of voters. This could provide **all or a portion** of the residual capital costs of SWD.	Low. Senate Bill 1, the Road Repair and Accountability Act of 2017, was approved in April 2017 and is commonly referred to as the California State Gasoline Tax. The current excise is 36.3 cents per gallon, of which a portion is allocated to the City depending on several factors. Allocations for SWD if the Gas Tax were to increase are likely low.
	Status / Duration	New. This additional levy would only stay in effect long enough to pay off bonds.	Existing, increase would occur at the City or state level and not specific to stormwater. Would be perpetual source of revenue for the City.
Stability/ Sustainability	**Payment Type**	Up front revenues would come from bond issuance, which would be repaid with property tax revenues over time.	Revenues are managed in the Gas Tax Fund.
	Variability / Volatility	Medium. Revenue could fluctuate depending upon changes in property values. Risk of non-cost recovery is minimal due to property lien rights.	Low. Revenue may fluctuate but can be considered a stable source for the City.
	Increases Permitted?	No.	Yes. Annual Adjustment.
Limitations	**Funding Restrictions**	High. Can only be authorized to fund voter approved debt to pay for infrastructure improvements.	High. Limited to the maintenance of streetlights, traffic signals and markings, street maintenance, median landscaping, tree-trimming, and waste removal from street right of way.
Acceptability	**Level of Public Engagement & Buy-in**	Public Vote	State increases
	Approval Process	General election ballot procedure with 2/3 voter approval required.	State legislative process. City Council for discretion of the Gas Tax Fund.

Table B-5. Financing Options

Evaluation Criteria Category	Evaluation Criteria	Water Infrastructure and Financing Innovation Act (WIFIA) *EPA*	Clean Water State Revolving Fund (CWSRF) *EPA administered by State Water Resources Control Board*	Section 108 CDBG Loan Guarantees *Housing and Urban Development Agency*	General Fund Commercial Paper Note Program (Existing Source)	General Fund Lease Revenue Bonds (Existing Source)
Sufficiency	**Magnitude for SWD (FY2021 Current)**	$0	$0	$0	$0	$0
	Magnitude for SWD (Potential Addition or Increase)	Medium. $6 billion in loan funding is available for 2019 applicants. WIFIA loans will cover up to 49% of a project. SWD has submitted a letter of intent (LOI) for a loan of $250 million (total eligible project costs of $516 million) in October 2020.	Medium. There is no max funding amount, but small & disadvantaged communities often receive priority consideration. SWD will update existing loan applications for the South Mission Bay Storm Drain Improvements and Green Infrastructure Project ($16.7 million) and Los Peñasquitos Restoration Phase 1 ($27.4 million) in December 2020.	Medium. According to HUD, the City of San Diego could currently borrow up to $36M through this program. An entitlement public entity (like the City of San Diego) may apply for up to five times the public entity's latest approved CDBG entitlement amount, minus any outstanding Section 108 commitments and/or principal balances on Section 108 loans. The City has used Section 108 financing.	High. The current General Fund Commercial Paper Note Program has a not to exceed amount of $88.5 million at any time.	High. Lease Revenue Bonds (LRBs) are lease obligations secured by an installment sale or by a lease-back arrangement between the City and another public entity (such as a JPA), where the general operating revenues of the City are used to make lease payments, which are in turn used to pay debt service on the bonds or COPs.
	Status / Duration	New, in process. Loan that can have multiple disbursements. Loan term can be up to 35 years from substantial project completion. Repayment can be sculpted to align with other debt obligations or rate/fee increases. Repayment can be deferred up to 5 years after project completion. Issuance costs are low.	New, in process. Periodic reimbursements during construction period. Loan interest rates are more attractive than General Fund Lease Revenue Bonds. The maximum loan term for CWSRF is 30 years. Repayment must begin 1 year after completion of construction.	New. No application submitted. One-time loan disbursement. Flexible loan terms available. The maximum loan term is 20 years.	Existing. Revenue would be available at the time of financing. Next round anticipated in late FY2021.	Existing. Revenue would be available at the time of financing. Bond proceeds (revenue) placed in a bond escrow fund that can be drawn down as project costs are incurred. Term of the loan based on useful life of assets being funded (range of 15 to 30 years). Interest rates dependent on term, City's credit rating, and current market conditions.
Stability/ Sustainability	**Payment Type**	One-time source of revenue to fund specific projects.	One-time source of revenue to fund specific projects.	One-time source of funds for specific projects.	One-time source of revenue to fund specific projects.	One-time source of revenue to fund specific projects.
	Variability / Volatility	NA	NA	NA	NA	NA
	Increases Permitted?	NA	NA	NA	NA	NA
Limitations	**Funding Restrictions**	Moderate. WIFIA loans are intended to fund projects that fall under the Clean Water Act and Safe Drinking Water Acts. Stormwater projects and water reuse projects are eligible. EPA WIFIA funding priorities are announced on an annual basis. The program is primarily intended to fund large projects.	Moderate. Eligible projects include water reclamation and distribution, stormwater treatment, combined sewers, and landfill leachate treatment. Certified public health projects (certified by public agency) are prioritized. Planning, Design and/or Construction of publicly owned, Nonpoint source (NPS) projects or programs, and estuary conservation and management plans	High. The Section 108 Loan Guarantee Program (Section 108) provides communities with a source of financing for economic development, housing rehabilitation, public facilities, and other physical development projects, including improvements to increase their resilience against natural disasters.	Moderate. Can be used to fund construction or acquisition of capital projects. Notes are refinanced with long term debt (typically Lease Revenue Bonds).	Moderate. Can be used to fund construction or acquisition of capital projects. Financing terms typically include requirement of a bond reserve fund and covenant to budget and appropriate.
	Spending Milestones	WIFIA funds must be spent within 7 years of loan closing.	The construction period is defined in the specific SRF loan agreement but generally the project must be substantially complete within three years of loan signing.	None specified.	Note maturity ranges between one and six months and up to 270 days.	There may be a period in which proceeds have to be spent to avoid arbitrage penalties.

Table B-5. Financing Options

Evaluation Criteria Category	Evaluation Criteria	Water Infrastructure and Financing Innovation Act (WIFIA) *EPA*	Clean Water State Revolving Fund (CWSRF) *EPA administered by State Water Resources Control Board*	Section 108 CDBG Loan Guarantees *Housing and Urban Development Agency*	General Fund Commercial Paper Note Program (Existing Source)	General Fund Lease Revenue Bonds (Existing Source)
Limitations	**Application Cycle and Competitive-ness**	LOIs that are selected, interested parties are invited to apply and submit a complete application. WIFIA funding priorities are announced on an annual basis. WIFIA selection criteria are divided into three categories: Project Impact, Project Readiness, and Borrower Creditworthiness. When selecting projects, program administrators take into consideration the diversity of projects. The current strategic objectives coupled with the fact WIFIA has not selected many stormwater projects in the past suggest innovative stormwater projects that include water reuse or recycling may be well positioned for WIFIA.	Applications are being accepted continuously. Annually, submitted by December 31. Priority Ranking by CWSRF by April 1. 95% of complete applications received by the SWRCB should receive an executed financing agreement in 9 months or less. Small Disadvantage Community (DAC) 80% or less of State MHI. 60% or less qualifies as severely disadvantaged. There are four components to a complete application. They include: General Package, Technical Package, Financial Package, Environmental Package (CEQA Compliance, Federal Crosscutters).	Applications are received on an ongoing basis. It is a non-competitive program. Prior to applying, the program requires pre-submission and citizen participation. The applicant must indicate proposed activities, how they match national objectives, which activities are expected to generate program income, and publish the proposed application for public comment. The Final Application Submission includes a schedule for repayment, certifications, and the final application in the Consolidated Plan. A credit subsidy fee is charged to the borrower at the time of loan disbursement.	NA. Available when needed.	NA. Available when needed.
Approvals	**Decision Making Authority**	City Council must approve application and credit agreement.	City Council would pass a resolution, establishing the maximum that can be borrowed through the SRF program and what the pledged revenue security would be. The City would designate an authorized representative to sign the Financing Agreement.	The proposed application must be published community wide.	City Council authorization.	City Council authorization.
	Approval Process	EPA must invite the City to apply after reviewing the Letter of Interest. Once the invitation to apply is sent to the City, the City completes the application. The EPA and City then negotiate agreements before issuing the loan.	SWRCB staff must review the complete application and must approve all 4 application Packages (General, Technical, Financial, Environmental). The Financing Agreement is approved by the SWRCB.	The applicant must consult with the local HUD office. After preparation of the final application, the local office will conduct a "due diligence and compliance review", a check to ensure compliance with the Section 108 application process. Once the review is complete, the local office will forward the application to the Section 108 staff in HUD headquarters along with a recommendation of approval or disapproval. A HUD Headquarters staff underwriter will be assigned to the application and examine it in detail. Upon completion of the review, a Project Review Panel will examine the application, suggest ways to resolve issues, request additional information or recommend the application be approved. Then, it is forwarded to the Secretary of HUD for final approval and release.	Does not require voter approval.	Does not require voter approval. Ultimately City would need to develop offering documents and sell bonds.

Table B-5. Financing Options

Evaluation Criteria Category	Evaluation Criteria	Revenue Bonds	General Obligation Bonds	Enhanced Infrastructure Financing District (EIFD) Bonds
Sufficiency	**Magnitude for SWD (FY2021 Current)**	$0	$0	$0
	Magnitude for SWD (Potential Addition or Increase)	Medium. Revenue bonds are long term financings secured by the revenues (rates, etc.) generated by an enterprise (e.g., water, wastewater utilities). Typically used to fund public infrastructure and capital projects. Unless a distinct stormwater utility is established, could likely only be utilized through the wastewater utility.	Medium. Long-term, tax-exempt financing (loan) for public infrastructure and capital improvements (large projects). Loan amount would be based on project need and requires 2/3 voter approval via a general election. GO bonds provide one of the lowest cost financing options for municipalities. Debt repaid with general fund revenues (property taxes).	High. Enhanced Infrastructure Financing Districts (EIFDs) were authorized under state law in 2014 to aid in funding public capital facilities (including flood control and drainage) by capturing the increment of property tax revenue generated within the district above the base year established at formation. An EIFD may finance the purchase, construction, expansion, or improvement of projects with a useful life of 15 years or longer. Property tax increment generated within the EIFD can be used to cash fund projects and/or pay debt service on bonds issued to fund the projects.
	Status / Duration	New. Not currently being pursued. Revenue bonds typically last 25 to 30 years, but generally cannot exceed the life of the assets being financed. Bond proceeds (revenue) placed in a bond escrow fund that can be drawn down as project costs are incurred. Term of the loan based on useful life of assets being funded (range of 15 to 30 years). Interest rates dependent on City's and utility's credit rating.	New. Not currently being pursued. Revenue would be available at the time of financing. Bond proceeds (revenue) placed in a bond escrow fund that can be drawn down as project costs are incurred. Bond maturity is 25-30 years, but generally cannot exceed the life of the assets being financed.	New. Not currently being pursued. Loan terms would likely be based on useful life of assets funded and City's or district's credit rating.
Stability/ Sustainability	**Payment Type**	One-time source of revenue to fund specific projects.	One-time source of funds for specific projects.	Can be either on a cash funded basis (with available tax increment) or funding through debt issuance.
	Variability / Volatility	NA	NA	Underlying tax increment revenues would be dependent on growth in property tax revenues within the district.
	Increases Permitted?	NA	NA	NA
Limitations	**Funding Restrictions**	Moderate. Can be used to fund CIPs of the enterprise/utility issuing the revenue bond. Financing terms typically include revenue pledge, bond reserve fund and debt service coverage ratio requirements	Moderate. General Fund Bonds can fund most types of capital cost related to public infrastructure, such as CIPs. However, issuance requires approval by 2/3 of voters. Cities have a maximum GO debt limit of 15% of the assessed valuation of all property within their boundaries. Financing terms typically include requirement of a bond reserve fund and covenant to budget and appropriate.	Low. EIFDs are separate government entities, formed through a JPA. No voter approval is required to form district. Enacting legislation for EIFDs emphasizes projects that support sustainable community goals, energy efficiency, and reducing carbon footprint of California economy. Voter approval necessary to issue debt.
	Spending Milestones	There may be a period in which proceeds have to be spent to avoid arbitrage penalties.	There may be a period in which proceeds have to be spent to avoid arbitrage penalties.	NA
	Application Cycle and Competitiveness	NA. Available when needed.	NA. Available when needed.	NA. Available when needed.
Approvals	**Decision Making Authority**	City Council authorization.	City Council authorization, public vote.	Public vote required for debt issuance.
	Approval Process	Does not require voter approval. Ultimately City would need to develop offering documents and sell bonds.	Requires approval of 2/3 of voters via a general election. Ultimately City would need to develop offering documents and sell bonds.	Requires 55% voter approval in district boundaries to authorize bonds.

Appendix C: Ballot Measure Community Benchmarking

Introduction

Many municipalities have enacted stormwater funding measures to bridge the gap between stormwater program costs and current revenue or funding. The City of San Diego (City) Stormwater Department (SWD) can benefit from evaluating stormwater funding measures from other municipalities to inform development and potential pursuit of a stormwater funding measure. This Appendix includes information from 22 California jurisdictions[1,2], each with distinct needs and local demographics, as well as 4 jurisdictions outside of California (26 jurisdictions total, including San Diego). The Office of the City Auditor (OCA) conducted a performance audit of the SWD entitled "The Stormwater Division Can Further Improve the Efficiency of Its Infrastructure Maintenance and Code Enforcement Efforts, but the City Ultimately Needs to Address Significant Stormwater Funding Shortages." (Audit) in 2018. The Audit found that stormwater funding is insufficient to sustain current and future stormwater needs and detailed several recommendations to address them, including to initiate the development of a long-term funding strategy to meet SWD's long-term operational needs.[3] Establishing a benchmark through an assessment of other jurisdictions that have attempted to develop a dedicated funding source for stormwater management can help inform the City's next steps in developing its own funding measure, including tax versus fee, total charge for the typical household, methodology for calculating the charge, and other important considerations like sunsets, escalations, and exemptions.

The municipalities that were included in this Appendix have either made recent attempts to increase or implement a funding measure, are communities located in proximity to the City, or have similar demographics and infrastructure characteristics. Of particular note are those California funding measures adopted following the passage of Proposition 218 in November of 1996, which requires that assessments, property related fees, and general-purpose taxes be subject to voter approval (previously only special taxes were covered under Proposition 13). The requirements imposed by Proposition 218 significantly restricted local jurisdictions' abilities to fund stormwater management projects and activities. Specifically, Proposition 218 prohibited special districts from levying general taxes, and raised the threshold of voter approval for special taxes for specific purposes from a simple majority to two-thirds. In addition, for property-related fees jurisdictions can choose between a vote of the majority of property owners (and renters responsible for paying a fee) or two-thirds of the electorate in the affected area.

Of the 22 California jurisdictions included in this benchmarking (excluding San Diego), 10 of them have passed successful stormwater funding measures (fee or tax) since Proposition 218 was enacted: Berkeley, Culver City, Del Mar, LA County Flood Control District, Long Beach, Oceanside, San Clemente, San Francisco[4], Santa Clara Valley Water District, and Santa Monica. Of the 11 California jurisdictions that initially developed a funding mechanism prior to the existence of Proposition 218—like the City's stormwater fee, which was

[1] The Audit reviewed 15 California jurisdictions, including San Diego. Seven additional California communities were added to this benchmarking.

[2] Poway, Oakland and Contra Costa County have pursued funding measures without success to date.

[3] City of San Diego Office of the City Auditor. 2018. "Performance Audit of the Stormwater Division." https://www.sandiego.gov/sites/default/files/18-023_storm_water_division_0.pdf

[4] San Francisco has a combined sewer and stormwater system, which approves rates as an enterprise.

approved in 1991 and last raised in 1996—5 of them have successfully raised it since Proposition 218 took effect: Palo Alto, Sacramento, San Jose, Santa Clarita, and the Vallejo Flood and Wastewater District. Santa Cruz, Santa Monica, Berkeley, and Washington, DC have more than one dedicated funding measure for stormwater management; however, a combined estimated monthly single-family residential (SFR) bill is presented below to present relative customer impacts.

In addition, this Appendix includes a review of several jurisdictions outside of California—Seattle, Detroit, Philadelphia, and Washington, DC—to give a sampling of ratepayer willingness to pay for a stormwater charge in a non-Proposition 218 setting.

Of the 26 jurisdictions included in this benchmarking, the City of San Diego's monthly stormwater fee of $0.95 for the average single-family residence is the third lowest of all stormwater funding measures except for Chula Vista and Long Beach (which was a general sales tax that also funds stormwater and is not a direct comparison).

Details for each jurisdiction's stormwater funding measure include the following criteria:

- Municipality
- Year of increase or implementation (original and subsequent increases)
- Funding mechanism type (e.g., property-related fee, special tax, special assessment, etc.)
- Approval process (e.g., public vote, legislative action, pre/post Proposition 218)
- Estimated annual revenue
- Eligible expenditures
- Fee calculation methodology (e.g., flat parcel, impervious area, land use based)
- Fee amount for rate payers
- Exemptions/reductions
- Credits
- Escalation
- Duration (e.g., sunset clause, review periods, extension provisions, etc.)
- Governance (e.g., committees or oversight)

Note that many of these criteria can vary significantly by municipality even if the same funding mechanism type is used. The specifics of each funding measure are defined by the funding measure language and the governing document(s) that accompany it.

A summary of the municipalities included in this Appendix that passed successful funding measures, both pre- and post-Proposition 218, is presented in Table A-1. Reference to additional municipalities outside of

California (not subject to Proposition 218) or that are a utility with a combined stormwater and sewer system (San Francisco) are included for reference as well.

Table A- 1. Benchmarked communities with successful stormwater funding mechanisms

Jurisdiction	Funding Mechanism	Pre-Prop 218	Latest Approval	Typical SFR Bill (Monthly)
City of Detroit	*Property-related fee*	*n/a*	*2020*	*$25.04*
*Washington, DC**	-- *Property-related fee* *Property-related fee*	*n/a*	-- *2018* *2020*	*Total: $22.19* *$2.67* *$19.52*
San Francisco**	Sewer utility		2018	$21.31
City of Seattle	*Property-related fee*	*n/a*	*2020*	*$15.29 to $58.76*
City of Philadelphia	*Property-related fee*	*n/a*	*2019*	*$14.03*
City of Palo Alto	Property-related fee	✓***	2017	$13.65
City of Del Mar	Property-related fee		2019	$13.11
City of Sacramento	Property-related fee	✓***	2016	$11.31
City of Santa Monica*	-- Special parcel tax Property-related fee	✓	-- 2006 1995	Total: $10.00 $7.00 (max) $3.00
City of Santa Cruz*	-- Property-related fee Property-related fee	✓	-- 1994 1994	Total: $9.09 $7.32 $1.77
Culver City	Special parcel tax		2016	$8.25
City of Berkeley*	-- Property related fee Property related fee	✓	-- 1991 2018	Total: $8.00 $4.42 $3.58
City of San Jose	Property-related fee	✓***	2011	$7.87
LA County Flood Control District	Special parcel tax		2018	$6.92
City of San Clemente	Property-related fee		2013	$6.23
Santa Clara Valley Water District	Special parcel tax		2012	$4.65
City of Santa Clarita	Property-related fee	✓***	2009	$2.08
Vallejo Flood and Wastewater District	Property-related fee	✓***	2017	$1.97
City of Los Angeles	Property-related fee	✓	1994	$1.92
City of Oceanside	Property-related drainage impact fee		2007	$1.50
City of San Diego	**Property-related fee**	✓	**1996**	**$0.95**
City of Chula Vista	Property-related fee	✓	1991	$0.70

Jurisdiction	Funding Mechanism	Pre-Prop 218	Latest Approval	Typical SFR Bill (Monthly)
City of Long Beach	General sales tax		2016	Median SFR N/A 1% for first 6 years; 0.5% for next 4 years

*Some municipalities have two separate funding mechanisms that may fund separate components of stormwater needs, were passed at different times, or are different types of mechanisms.
**SFPUC is a combined storm sewer system and charges a monthly service fee for customers that are not already charged separately for water and sewer services through SFPUC, primarily unmetered properties like vacant parcels and parking lots.
***Initial funding mechanism instated prior to Proposition 218; more recent rate increases passed with voter or property owner approval.

The information contained in this Appendix supports the evaluation of a dedicated stormwater funding mechanism as part of the Funding Strategy.

Audit Referenced Municipalities with Dedicated Stormwater Funding

The Municipalities in the Audit with successful dedicated stormwater funding (whether pre- or post-Proposition 218) are detailed below. These are listed in order of most recent approval or increase.

1. City of Palo Alto

- *Municipality:* City of Palo Alto
- *Year of Increase/Implementation*: Current fee passed in 2017. Fee initially established in 1989.
- *Funding Mechanism*: Property-related fee (called "Stormwater Management Fee")
- *Approval Process*: Original fee approved pre-Proposition 218. The updated rates were approved by 64% of property owners.[5]
- *Estimated Annual Revenue*: $7.1 Million
- *Eligible Expenditures*: Stormwater management, flood management, operations and maintenance, capital improvements, and water quality protection.
- *Fee Calculation Methodology*: The fee has two components: (1) a base fee that covers ongoing maintenance, rehabilitation, and compliance efforts and (2) a projects and infrastructure component. Fee based on impervious area with tiers for single family residential and direct calculation for other improved parcels. The fee is based on a parcel's impervious area using a per equivalent residential unit (ERU) basis (1 ERU = 2,500 sq.-ft of impervious area) with a three-tiered rate structure for single-family residential customers, and a per ERU for all other improved parcels.
- *Fee Amount*: At the time of approval, the estimated monthly fee for a property owner would be approximately $13.65 and represented an increase of $0.62 or 2.3% above average annual increases.

[5] "Stormwater Management Fee." 2017. City of Palo Alto.
https://www.cityofpaloalto.org/news/displaynews.asp?NewsID=3679

- *Exemptions/Reductions*: Fee exemptions provided for unimproved properties, parcels that have their own stormwater facilities onsite and do not use City facilities, or parcels that make no substantial stormwater contribution to the City of Palo Alto's facilities.[6]
- *Credits:* None specified
- *Escalation*: Both fee components allow for annual City Council-approved adjustments for inflation (the lesser of the local Consumer Price Index (CPI) or 6%).
- *Duration*: The base fee remains in perpetuity and the projects (or capital improvement) portion was developed to recover the cost of the 15-year capital improvement plan and will sunset after the 15-year period.[7]
- *Governance*: Blue Ribbon Committee appointed by City Manager to review funding needs and make recommendations for fee increases.

2. Vallejo Flood and Wastewater District

- *Municipalities*: City of Vallejo and unincorporated County areas
- *Year of Increase/Implementation:* Current fee rate updated in 2017. Fee initially established prior to enactment of Proposition 218.
- *Funding Mechanism*: Property-related fee (called a "storm drainage service charge")
- *Approval Process:* Original fee approval pre-Proposition 218. Current approval process requires majority vote of property owners.
- *Estimated Annual Revenue*: $30 Million
- *Eligible Expenditures*: Operations, maintenance, infrastructure replacement, and capital requirements of the Vallejo Flood and Wastewater District facilities used for collection, transport, quality control, and discharge of stormwater flows.
- *Fee Calculation Methodology*: The fee structure is based on each property's proportional runoff contributed to the stormwater system, with monthly fixed rates for residential customers on a per dwelling unit basis and non-residential customers charged on a per thousand square foot basis at one of four rates.[8] In addition to the monthly rates, the District also charges a storm drain connection fee to single-family dwellings, multi-dwellings, and commercial properties. Single-family properties are charged a per-unit fee, while commercial and multi-dwelling properties are charged per acre of surface area according to estimated runoff load.[9]

[6] City of Palo Alto. n.d. "Proposed Stormwater Management Fee Financial Analysis." https://www.cityofpaloalto.org/civicax/filebank/documents/53834

[7] City of Palo Alto. 2016. "2016 Storm Drain Blue Ribbon Committee Recommendations Report." https://www.cityofpaloalto.org/civicax/filebank/documents/53085

[8] *Ordinance No. 2017-64B*. 2017. https://www.vallejowastewater.org/Site_PDFs/Ordinance_2017-64B.pdf

[9] *Ordinance No. 2017-70B.1(2)*. 2017. https://www.vallejowastewater.org/Site_PDFs/ORD2017_70B.1(2).pdf

- *Fee Amount*: The annual charge varies based on property type: $23.64 for a standard single family residential property (or $1.97 per month), and from $0.79 per 1000 sq. ft. for non-residential "light runoff load" properties to $10.25 per 1000 sq. ft. for non-residential "heavy runoff load" properties. [10] Previously, the District charged a flat rate of $23.64 annually (or $1.97 monthly) to all residential customers, but revised the rate structure based on a study on equitable rate distribution, resulting in tiered residential rates and higher costs for commercial and industrial properties.[11]
- *Exemptions/Reductions*: No exemptions for storm drainage fee. Connection feeds may be deferred for public property or for properties exempt from income tax (ad valorem).
- *Credits*: May be applied to the service charge for properties with onsite stormwater management facilities that substantially mitigate the effect of runoff from the property on the District's stormwater drainage system. Credits are capped at 40 percent of fee charges.[12] Customers charged a flat rate are not eligible for credits.
- *Escalation*: None specified
- *Duration*: No sunset
- *Governance*: When conceiving the rate increase after Proposition 218 was enacted, the District solicited the input of a Citizen Advisory Committee on the stormwater management plan and rate structure.

3. Culver City

- *Municipality*: City of Culver
- *Year of Increase/Implementation:* 2016
- *Funding Mechanism*: Special parcel tax
- *Approval Process:* Proposition 218, required approval of 2/3 of voters. Culver City voters approved the creation of Measure CW, the "Clean Water, Clean Beaches" Special Parcel Tax with 73.8% approval.[13]
- *Estimated Annual Revenue*: $2 Million
- *Eligible Expenditures*: Implementation of Culver City "Enhanced Watershed Management Program Plan," focused on water quality projects that capture/clean urban runoff, preserve open space, and aid in compliance with clean water requirements.

[10] Vallejo Flood and Wastewater District. 2019. "Vallejo Flood and Wastewater District Schedule of Fees and Charges." https://www.vallejowastewater.org/Site_PDFs/2019_Shed_of_Fees.pdf
[11] Spray, Kenneth, and Grant Hoag. 2003. "Stormwater Program Funding in California." *APWA Reporter.* http://www3.apwa.net/Resources/Reporter/Articles/2003/12/Stormwater-program-funding-in-California
[12] *Ordinance No. 2017-64B*. 2017.
[13] "TS Provides Voter Engagement for Culver City." 2016. Blog. *Tripepi Smith*. https://www.tripepismith.com/ts-provides-voter-engagement-for-culver-city/

- *Tax Calculation Methodology:* Flat rate for single family parcel and multi-family dwelling unit and prorated tax for non-residential properties based on gross surface area.
- *Tax Amount*: Parcel tax levied on all improved property at the following rates: the annual tax is $99 (or $8.25 per month) for single family residential customers, $69 (or $5.75 per month) per dwelling unit for multi-family residential accounts, and $1,096 per acre of land (or portion thereof) for non-residential accounts that are taxed to the land owners and not tenants.
- *Exemptions/Reductions*: Tax exempt parcels (i.e. publicly owned parcels and those exempt from ad valorem taxes, like hospitals or churches) are not charged. Senior citizens that qualify as low income are eligible for a 50 percent reduction of the tax that must be requested annually.
- *Credits*: None specified.
- *Escalation*: Increases to the tax must be receive voter approval.
- *Duration*: No sunset. Ballot measure specified that the tax will be levied "so long as it is necessary."
- *Governance*: Expenditure of funds overseen by the Financial Advisory Committee.[14]

4. City of Sacramento

- *Municipality*: City of Sacramento
- *Year of Increase/Implementation*: Current fee schedule approved in 2016 (allowed for under pre-Prop 218 establishment). Original fee established in 1996.
- *Funding Mechanism*: Property-related fee (called "monthly storm drainage service fee")
- *Approval Process:* Original fee established pre-Proposition 218. Decisions and recommendations regarding changes to fee rates run through Sacramento City Council.
- *Estimated Annual Revenue*: $37 Million
- *Eligible Expenditures*: Storm drain pumping operations, wet weather treatment and storage, collection system maintenance, related engineering services, flood plain management, customer service and billing, education programs, water quality monitoring, innovative "green" infrastructure programs, regulatory compliance, and a capital improvement program.
- *Fee Calculation Methodology*: Current charge for residential is a tiered flat rate based on number of rooms. Non-residential storm drainage service fee per square foot depending on land use type. Most non-residential calculated based on the gross surface area of the parcel receiving storm drainage service. Vacant, undeveloped, or non-residential parcels are charged based on estimated impervious surface area, calculated at 11% of gross surface area per parcel.
- *Fee Amount:* Residential customers are charged on a tiered rate schedule based on the number of rooms in the home for both single family and multi-family dwelling units (ranging from a monthly

[14] *Ballot Measure CW – Full Text: Parcel Tax: Culver City Safe/Clean Water Protection Measure*. 2016. http://www.culvercity.org/home/showdocument?id=3664

rate of $7.53 to $15.25 or higher). Non-residential customers, except for specified land uses, are charged on a gross surface area basis (0.001928 per sq.-ft). Cemeteries, City parks, and airports are charged the same rate, but per square foot of impervious area only. Vacant or undeveloped parcels also are charged at the same rate adjusted for 11% of the gross surface area.[15]

- *Exemptions/Reductions*: Reduced rate for vacant and undeveloped parcels.
- *Credits*: City council permitted to give credits.
- *Escalation*: Rate increased set by ordinance or resolution of the city council. The last update to the rate structure occurred in 2016. Additionally, annually in January, the director of the utilities department adjusts the fee schedules to compensate for any increase in construction costs that has occurred since the previous adjustment, calculated using a specified methodology.[16]
- *Duration*: No sunset specified
- *Governance*: The city council may set rates, fees, and charges for sewer service and storm drain service in amounts that apply uniformly throughout the city or may establish separate amounts for sewer or storm drain service areas.[17]

5. City of Long Beach

- *Municipality*: City of Long Beach
- *Year of Increase/Implementation*: 2016
- *Funding Mechanism*: General sales tax
- *Approval Process:* Simple majority (51%) approval of all voters. Long Beach voters approved Measure A in 2016, with 60% supporting the sales tax measure.
- *Estimated Annual Revenue*: $48 million/year for first six years, and $24 million/year for subsequent four years. [18]
- *Eligible Expenditures*: Funding not earmarked for any specific use due to using a general tax as the funding mechanism. Expenditures include municipal services, largely police and fire fighting services, but a portion will also go to fund streets, sidewalks, water conservation and stormwater projects.
- *Tax Calculation Methodology*: General transaction tax of 1%, paid for by everyone, including visitors.
- *Tax Amount*: 1% of all sales transactions for first six years, then 0.5% of transactions for next four years.

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[15] *Ordinance No. 2016-0019*. 2016. https://qcode.us/codes/sacramento/revisions/2016-0019.pdf
[16] *Sacramento City Code*. 2005. §13.08.500. http://www.qcode.us/codes/sacramento/view.php?topic=13-13_08-v-13_08_500&frames=on
[17] *Sacramento City Code*. 2011. §13.08.400: http://www.qcode.us/codes/sacramento/view.php?topic=13-13_08-v-13_08_400&frames=on
[18]

- *Exemptions/Reductions*: Certain transactions excluded from the sales tax including: sale of personal property to aircraft operators, sale of property to be used outside of the city, sale of property that must be furnished by the seller, and lease of personal property.[19]
- *Credits*: None
- *Escalation*: The general transaction tax is set at 1% for the first six years of implementation, declining to 0.5% for the final four years.
- *Duration*: Sunsets after 10 years.
- *Governance*: The code governing the use of the tax can be altered by the City Council, except for increasing the rate or duration of the tax. The City Council may lower the transaction tax to 0% before the sunset date with a majority vote.

6. City of San Clemente

- *Municipality*: City of San Clemente
- *Year of Increase/Implementation:* Current fee amount updated by vote of property owners in 2013. Fee initially established in 2002.
- *Funding Mechanism*: Property-related fee (called a "Clean Ocean Utility Fee")
- *Approval Process:* Majority vote of property owners. Approved in 2002 by 57% of property owners.
- *Estimated Annual Revenue:* $2 Million
- *Eligible Expenditures:* water quality in local channels and coastal waters, protect public health, safety, and local quality of life, as well as meet State and Federal regulatory requirements
- *Fee Calculation Methodology*: Flat monthly rate for single family residential and multi-family residential properties. Fees for non-residential—commercial, industrial, business park—and undeveloped but graded properties are based on estimated impervious area on the parcel. The charge includes a fixed fee plus a per-acre charge over two acres. Properties are differentiated by their location on a public or private street, with private street properties charged a lower rate due to the city not providing street sweeping services there.
- *Fee Amount*: Annual charges on public streets vary by property type as follows: $74.76 for single family residential properties (or $6.23 per month), $59.76 per unit for multi-family residential properties (or $4.98 per month), $747.60 per acre for commercial, industrial, and business parks (or $62.30 per acre per month), and a $37.44 base fee plus $7.44 per acre for undeveloped, ungraded properties (or monthly base fee of $3.12 plus $0.62 per acre). The monthly fee is collected semi-annually on the property tax bill.[20]

[20] *City of San Clemente Municipal Code*. 2014. §13.34.040. https://library.municode.com/ca/San_Clemente/codes/code_of_ordinances?nodeId=TIT13PUSE_CH13.34CLOCFEPR_13.34.040FAL

- *Exemptions/Reductions*: Undeveloped, ungraded parcels are exempted from the fee. Public streets and highways are also exempt.
- *Credits*: None specified.
- *Escalation*: Fee rate extension passed in 2013 specified no fee rate increase.
- *Duration*: Sunset clause expiring on June 30, 2020. The initial rate approved in 2002 contained a sunset clause after five years. In 2007, the fee (no increase) was extended another 6.5 years with 75% approval from property owners. Most recently in 2013, the City of San Clemente passed an extension of the fee with rate increases to fund activities associated with increased regulatory permit compliance, with 53% approval. Each election was completed via mail-in ballot by property owners (50% threshold under Prop 218).
- *Governance*: The Clean Ocean Utility Fee funds the Clean Ocean Program, which is guided by the City of San Clemente Urban Runoff Management Plan. Development of the Plan was guided by a Coastal Advisory Committee comprised of local citizens to consider and provide input on coastal and water quality issues.

7. City of San Jose

- *Municipality*: City of San Jose
- *Year of Increase/Implementation:* Current fee approved in 2011. Fee established in 1991.
- *Funding Mechanism*: Property-related fee (called "storm sewer service charge")
- *Approval Process:* Initial fee established pre-Proposition 218 through a majority vote of property owners. Decisions and recommendations regarding changes to fee rates run through San Jose City Council.
- *Estimated Annual Revenue*: $500,000
- *Eligible Expenditures*: Operation, maintenance, and improvement of the storm sewer system.
- *Fee Calculation Methodology*: Residential properties are charged per dwelling unit using rates depending on the property type. Non-residential parcels, including commercial and light industrial, heavy industrial, parking lots, schools, churches, and colleges, and are calculated individually. The charge is based on a fixed fee plus a per-acre charge designed to capture the cost of the assumed runoff volume. [21,22] All charges are assessed annually on a parcel's property tax bill.
- *Fee Amount*: Residential property annual charges range from $94.44 for a single-family residence (or $7.87 per month) to $179.40 for a small multi-family residence (or $14.95 per month). Non-residential annual parcel charges range from $166.32 plus $45.72 per acre for a school (monthly

[21] City of San Jose. 2011. "Notice of Public Hearing: Proposed Storm Sewer Service Charge Rate Increase." http://www.sanjoseculture.org/ArchiveCenter/ViewFile/Item/1700
[22] City of San Jose, n.d. "Storm Sewer Service Charge." http://www.sanjoseca.gov/index.aspx?NID=1632

charge of $13.86 plus $3.81 per acre) to $665.40 plus $165.72 per acre for a parking facility (monthly charge of $55.45 plus $13.81 per acre).[23]

- *Exemptions/Reductions*: Any county sanitation district, sanitary district, or property connected to the sewer system of any other city that is required to pay sewer service, use, rental or other charges, rentals or fees for sewer services and facilities in San Jose or another city is exempted from the fee.[24]
- *Credits*: None specified
- *Escalation*: Rate increased set by ordinance or resolution of the city council. The last update to the rate structure occurred in 2016. The director of water pollution control annually reviews the sewer service and use charges and rates to ensure their adequacy in fulfilling water quality regulatory requirements and in recovering capital costs and operation and maintenance of the sanitary sewer system.
- *Duration*: No sunset specified

8. City of Santa Clarita

- *Municipality*: City of Santa Clarita
- *Year of Increase/Implementation:* Current fee updated by City Council in 2009. Fee initially established in 1995.
- *Funding Mechanism*: Property-related fee (called "stormwater pollution prevention fee")
- *Approval Process*: Pre-Proposition 218 –passed by City Council in 1995. Approval by majority vote of property owners needed to for changes to fee methodology. In 2009, 76% of property owners approved updated rate and fee calculation methodology. Starting in 2009, decisions and recommendations regarding changes to fee rates run through Santa Clarita City Council.
- *Estimated Annual Revenue:* $5 Million
- *Eligible Expenditures*: Administration and oversight of requirements, water quality regulation compliance, operations and maintenance of storm drain infrastructure, installation and maintenance of water quality BMPs, public education and outreach, and trash capture treatment capital costs.
- *Fee Calculation Methodology*: The fee features a varying rate structure that charges owners based on property type and amount of impervious area. The fee is calculated based on a parcel's impervious area using a per equivalent residential unit (ERU) basis (1 ERU = 2,500 sq.-ft of impervious area) on ERU that are calculated based upon parcel area and percentage of impervious area on-site.

[23] City of San Jose. n.d. "Storm Sewer Service Charge Rates." https://www.sanjoseca.gov/your-government/environment/water-utilities/stormwater/storm-sewer-service-charge

[24] *San Jose Municipal Code.* n.d. §15.12.480. https://library.municode.com/ca/san_jose/codes/code_of_ordinances?nodeId=TIT15PUUT_CH15.12SE_PT3SEUSCH_15.12.480EXPA3PR

- *Fee Amount*: The annual charge varies based on property type: the median single family residential property is $24.95 annually (or $2.08 per month), multi-family residential properties are charged between $200.60 and $328.26 annually (or $16.72 and $27.36 monthly), and non-residential properties are charged between $49.79 and $331.91 annually (or $4.15 and $27.66 monthly).[25] The fee is charged as part of property owner's property tax bill and is collected annually by Los Angeles County.
- *Exemptions/Reductions*: CalTrans as well as any parcels related to the city's stormwater drainage system, including streets, pipes, inlets, outlets, and natural drainage courses, are exempt from the fee.
- *Credits*: None specified.
- *Escalation*: Since 2009, City Council reviews annual rates escalations and can make recommendation to increase rate up to a specified maximum, defined by the annual change in local Consumer Price Index (CPI) for the preceding year.[26] Recommendations may also be made to decrease rate, or discontinue.
- *Duration*: No sunset. The City Council is authorized to discontinue the fee at any time.

9. City of Oceanside

- *Municipality*: City of Oceanside
- *Year of Increases/Implementation*: Clean Water Program Fee initially established in 2007. Drainage Impact Fee (for developers) approved in 2016.
- *Funding Mechanisms*: Property-related fee (called "Clean Water Program Fee") and a property-related development impact fee (called a "Drainage Impact Fee")
- *Approval Processes:* Proposition 218 protest vote. In 2007, there was no majority protest against the Clean Water Program Fee.[27] Drainage Impact Fee approved by the City Council in 2016.
- *Estimated Annual Revenue*: $6 Million
- *Eligible Expenditures*: The Clean Water Program Fee funds MS4 permit compliance and increasing the capacity of the stormwater collection system. Revenues collected using the Drainage Impact Fee are

[25] City of Santa Clarita. 2017. "Stormwater Pollution Prevention Fee: 2017/18 Annual Fee Report." http://santaclaritacityca.iqm2.com/Citizens/FileOpen.aspx?Type=4&ID=3419

[26] City of Santa Clarita. 2017. "City Council Agenda Item: Annual Public Hearing Regarding the Stormwater Pollution Prevention Fee and Introduction and the First Reading of an Ordinance Determining the Annual Stormwater Pollution Prevention Fee for Fiscal Year 2017-18." http://santaclaritacityca.iqm2.com/Citizens/Detail_LegiFile.aspx?ID=1897&highlightTerms=Pollution%20prevention

[27] Property-related fees and charges require a majority of parcel owners to protest against a proposed property-related fee or charge to legally preclude imposition of the charge. If a majority protest for a proposed property-related fee or charge is achieved, the agency cannot legally override the majority protest.
California Codes Government Code. §53753. https://elections.cdn.sos.ca.gov/fraud-complaints/pdfs/government-code-53753.pdf

set aside in a separate fund to be used exclusively for new capital projects that expand the capacity of the stormwater drainage collection system.[28]

- *Fee Calculation Methodologies*: The Clean Water Program Fee is a volumetric charge added to a customer's water utility bill. The Drainage Impact Fee is charged on all new developments constructed on previously undeveloped land on a per unit basis for residential properties and gross surface area for non-residential properties.
- *Fee Amounts*: For the Clean Water Program Fee, both residential and commercial water users are currently charged monthly at $0.15 per unit of water.[29,30] One unit equals one hundred cubic feet [HCF] or 748 gallons. Original fee approved in 2007 was $0.08 per unit of water. The Drainage Impact Fee is $2,054 per single family residence, $0.704 per sq. ft. for industrial properties, and $0.848 per sq. ft. for commercial properties.[31]
- *Exemptions/Reductions*: None specified
- *Credits*: None specified
- *Escalation*: Decisions and recommendations regarding changes to fee rates run through Oceanside City Council.
- *Duration*: No sunset
- *Governance*: In 2007, the City of Oceanside formed a Citizen's Advisory Council to inform residents about the stormwater program and about the need for a fee increase to help meet the needs of compliance with the new San Diego region MS4 permit. Leading up to the 2016 City Council increase of the Clean Water Program Fee, various studies and public meetings were completed.

10. City of Los Angeles

- *Municipality*: City of Los Angeles
- *Year of Increase/Implementation:* Current fee approved in 1994. Fee initially established in 1990.
- *Funding Mechanism*: Property-related fee (called "Stormwater Pollution Abatement Charge")
- *Approval Process:* Pre-Proposition 218. The charge was increased in 1993 by ballot measure.
- *Estimated Annual Revenue*: $29 Million
- *Eligible Expenditures*: Flood control projects, storm drain maintenance, pollution abatement, and MS4 permit compliance

[28] Tory R. Walker Engineering and Revenue & Cost Specialists LLC. 2016. "City of Oceanside Drainage Impact Fee Evaluation." https://www.ci.oceanside.ca.us/civicax/filebank/blobdload.aspx?BlobID=48256
[29] City of Oceanside. 2020. "Single Family Residential Rates Effective January 2020." https://www.ci.oceanside.ca.us/civicax/filebank/blobdload.aspx?blobid=51301
[30] City of Oceanside. 2020. "Commercial Rates Effective January 2020." https://www.ci.oceanside.ca.us/civicax/filebank/blobdload.aspx?blobid=51304
[31] City of Oceanside. 2019. "Drainage, Thoroughfare & Traffic Signal Fee Program." https://www.ci.oceanside.ca.us/civicax/filebank/blobdload.aspx?BlobID=47683

- *Fee Calculation Methodology*: Fee imposed on all residential and commercial properties in the City of Los Angeles. Includes a base charge multiplied by a calculated equivalent dwelling unit (EDU) value, based on residential lot size of 6,650 sq. ft.
- *Fee Amount*: The base charge for the Stormwater Pollution Abatement Charge is $23.00 annually, which is multiplied by the EDU.[32] The typical single-family residence generates $23.00 annually (or $1.92 monthly). The fee is assessed annually on property taxes.
- *Exemptions/Reductions*: The Board of Public Works of the City of Los Angeles is authorized to establish exemptions. No exemptions specific.
- *Credits*: None specified.
- *Escalation*: None.
- *Duration*: No sunset.

11. City of Chula Vista

- *Municipality*: City of Chula Vista
- *Year of Increase/Implementation*: 1991
- *Funding Mechanism*: Property-related fee (called a "storm drain fee")[33]
- *Approval Process:* Pre-Proposition 218
- *Estimated Annual Revenue*: Unknown
- *Eligible Expenditures*: Compliance with city NPDES permit.
- *Tax Calculation Methodology*: Tiered flat rate for single family residential properties and multi-family, commercial, and industrial properties.
- *Tax Amount*: Single family residential properties pay $8.40 annually (or $0.70 monthly). Multi-family, commercial, and industrial properties pay $0.72 per 100-cubic-feet (HCF) annually ($0.06 per HCF monthly), not to exceed $6000 per year ($500 per month).[34]
- *Exemptions/Reductions*: None specified.
- *Credits*: None specified.
- *Escalation*: None.
- *Duration*: No sunset.

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[32] *City of Los Angeles Municipal Code*. §64.51.05. http://library.amlegal.com/nxt/gateway.dll?f=jumplink$jumplink_x=Advanced$jumplink_vpc=first$jumplink_xsl=querylink.xsl$jumplink_sel=title;path;content-type;home-title;item-bookmark$jumplink_d=california(lamc)$jumplink_q=[field%20folio-destination-name:%2764.51.05.%27]$jumplink_md=target-id=JD_64.51.05.

[33] *Chula Vista Municipal Code*. 1991. Chapter 14.16. https://chulavista.municipal.codes/CVMC/14.16

[34] City of Chula Vista. 2013. "Master Fee Schedule." https://www.chulavistaca.gov/home/showdocument?id=2454

- *Governance*: Changes managed by the City Council.

Additional California Municipalities Reviewed with Dedicated Stormwater Funding

In addition to the 15 municipalities reviewed in the OCA Audit, seven additional California municipalities and districts were reviewed to provide additional context for stormwater funding measures. Of particular note is Measure W that was passed in 2018 in Los Angeles County by the Los Angeles County Flood Control District as it was a successful stormwater tax post Proposition 218 for a major California urban area.

1. City of Del Mar

- *Municipality*: City of Del Mar
- *Year of Increase/Implementation*: Current fee approved in 2019. Fee initially established in 2004.[35]
- *Funding Mechanism*: Property-related fee
- *Approval Process:* Majority approval by voters for rate increases.
- *Estimated Annual Revenue*: $400,000
- *Eligible Expenditures*: Implementation of the Clean Water Program, which implements operations and maintenance and capital activities related to stormwater capture, treatment, disposal, and pollution control.
- *Fee Calculation Methodology*: The fee amount is based on meter size and water use at each property. The current Clean Water Rates (established in January of 2019) use a fixed base rate for single family residences, and a tiered rated for multi-family, commercial and industrial properties that is scaled by water meter size (5/8" to 3"). All properties are also charged a commodity charge of $0.72/HCF of water used.[36]
- *Fee Amount*: Single family resident properties are charged $150.24 annually, plus the $0.72/HCF commodity charge (or $12.52 monthly plus $0.06/HCF). Multi-family, commercial, and industrial properties pay from $150.24 to $2,253.36 annually ($12.52 to $187.78 monthly), depending on meter size, plus the commodity charge.[37]
- *Exemptions/Reductions*: None specified.
- *Credits*: None specified.
- *Escalation*: Del Mar City Council regularly raises fees based on local Consumer Protection Index.

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[35] City of Del Mar. 2013. "Resolution on the Clean Water Service Charge Increase for Fiscal Year 2013-2014 and Clean Water Program Update and Ratification of Letter to the Regional Water Quality Control Board." http://www.delmar.ca.us/AgendaCenter/ViewFile/Item/453?fileID=478

[36] City of Del Mar. 2019. "City of Del Mar Summary of Bi-Monthly Utility Rates." http://www.delmar.ca.us/DocumentCenter/View/3570/Bi-Monthly-Utility-Rates-CY-2019-PDF?bidId=

[37] *City of Del Mar Municipal Code*. §11.32.030. https://library.municode.com/ca/del_mar/codes/municipal_code?nodeId=TIT11HESA_CH11.32CLWASTDRPREN_11.32.030SECH

- *Duration*: No sunset.
- *Governance*: Rates are set via ordinance of the Del Mar City Council.

2. Los Angeles County Flood Control District (Measure W)

- *Municipalities*: 85 municipalities within the Flood Control District in Los Angeles County, plus County Unincorporated Area.
- *Year of Increase/Implementation*: 2018
- *Funding Mechanism*: Special parcel tax
- *Approval Process:* 2/3 approval of all voters via ballot initiative
- *Estimated Annual Revenue*: $285 Million
- *Eligible Expenditures*: Implementation of the Safe Clean Water Program, which funds projects to increase local water supply, improve water quality, and provide community enhancements. Non-capital expenses also eligible for funding, including technical assistance, workforce development, public education, school curriculum, and the development of scientific studies related to program goals.
- *Tax Calculation Methodology*: Tax applied to parcels within the Flood Control District based on area of impervious surface. Impervious surface estimated are calculated via GIS land survey.
- *Tax Amount*: 2.5 cents per square foot impervious surface. The median single-family residential property would be charged $83.00 per year[38] (or the equivalent of $6.92 per month).
- *Exemptions/Reductions*: Special exemptions are available for properties owned by qualifying low-income seniors, properties owned by non-profits (including schools), and government-owned parcels. There is a tax reduction program for low-income residents, for which they can apply.
- *Credits*: Property owners may apply for credits to pay a reduced rate if they capture or treat stormwater onsite.
- *Escalation*: None specified
- *Duration*: No sunset
- *Governance*: 10% of annual revenues will be distributed to the District, 40% will be allocated to municipalities within the District, and the remaining 50% will be allocated to nine established "watershed areas" to fund regional projects and other eligible activities. [39] The Program includes a Regional Oversight Committee that monitors implementation and achievement of Program goals, as well as nine Watershed Area Steering Committees to make recommendations on use of funds

[38] "5 Ways Measure W, The Safe Clean Water Parcel Tax, Would Affect Los Angeles". n.d. *Safe Clean Water Program*. https://safecleanwaterla.org/central-la-county/.
[39] County of Los Angeles Department of Public Works. 2018. "Public Hearing Water Resources Core Service Area: Proposed Safe, Clean Water Program Funding Measure." https://safecleanwaterla.org/wp-content/uploads/2019/08/SCW-Board-Letter-Package-CEO-Signed-20180717-Revised-FINAL-SIGNED.pdf

allocated for regional projects. Early in the development of the Safe Clean Water Program, a Stakeholder Advisory Committee was established to provide input on program details.

3. City of Berkeley

- *Municipality*: City of Berkeley
- *Year of Increases/Implementation*: Storm Drainage Fee approved in 2018. Clean Stormwater Fee established in 1991 (never raised).
- *Funding Mechanisms*: Two property-related fees, a "Clean Stormwater Fee" passed in 1991 and a "Storm Drainage Fee" passed in 2018.
- *Approval Processes:* Clean Stormwater Fee was pre-Proposition 218 and was passed via city ordinance. Storm Drainage Fee required approval from a majority of affected property owners.
- *Estimated Annual Revenue*: $4 Million
- *Eligible Expenditures*: Implementation of the City's Clean Stormwater Fee Program, which funds operation and maintenance services and capital improvements to the city's stormwater management system. Specifically, funds projects to clean water before entering creeks and the bay, clean trash out of system and repair drainage system to minimize flooding, or provide capital improvement such as sink holes to protect property, clean water, minimize flooding.
- *Fee Calculation Methodologies*: The Clean Stormwater Fee (1991) is calculated based on an estimated runoff factor for various land use types. The formula is: [(parcel size x runoff factor)/(runoff unit)] x [rate per runoff unit], with the standard runoff unit rate to be established by City Council resolution. The Storm Drainage Fee (2018) includes a tiered rate structure for Single Family Residential properties with fixed annual fees based on ranges of parcel sizes. Non-residential properties are charged per acre of impervious area with unique rates for various land uses.
- *Fee Amounts*: The Clean Stormwater Fee (1991) per single family residence averages $53 annually (or $4.42 per month).[40] The Storm Drainage Fee (2018), which was passed in addition to the original Clean Stormwater Fee, increased the annual charge to the single family residence by about $43 (or $3.58 per month). This increase brought the cost to the typical single family residence to $96 (or $8 per month).
- *Exemptions/Reductions*: The Clean Stormwater Fee exempts "very low-income property owners" from paying the fee.[41] Open space and agricultural land is exempt from the Storm Drainage Fee.
- *Credits*: None specified.

[40] City of Berkeley. 2018. "Proposition 218 Clean Stormwater Fee Initiative, Fee Report, and Ballot Procedures." file:///C:/Users/Kelly/Downloads/2018-02-13%20Item%2035%20Proposition%20218%20Clean%20Stormwater%20Fee.pdf

[41] *City of Berkeley Municipal Ordinance*. §7.76.040.

- *Escalation*: No escalation for the Clean Stormwater Fee. The Storm Drainage Fee is escalated annually at the lesser of 3% or regional CPI.[42]
- *Duration*: Neither the Clean Stormwater Fee nor the Storm Drainage Fee has a sunset.
- *Governance*: The City Council oversees the estimates the Clean Stormwater Fee is based on (runoff unit).

4. City and County of San Francisco

- *Municipality*: City of San Francisco
- *Year of Increases/Implementation*: Updated methodology for calculating Sewer Service Charge for unmetered parcels was approved in 2018. This was not considered a new fee, but rather a method to apply the existing approved sewer service charge to new properties.[43]
- *Funding Mechanisms*: Property-related service charge increase, "Sewer Service Attributable to Stormwater Runoff Charge" (hereafter "Sewer Service Charge"), approved in 2018.
- *Approval Processes:* All San Francisco Public Utilities Commission (SFPUC) charges are developed, reviewed, and approved publicly via Commission resolution.
- *Estimated Annual Revenue*: Unknown
- *Eligible Expenditures*: Maintenance of SFPUC combined storm sewer system.
- *Fee Calculation Methodologies*: San Francisco has a combined storm sewer system and the SFPUC charges a monthly service fee for customers that are not already charged separately for water and sewer services (i.e. unmetered properties like vacant lots and parking lots). The Sewer Service Charge is calculated based on estimated runoff volume. Properties are classified into one of three tiers based on amount of impermeable area—minimal, low, or standard runoff.
- *Fee Amounts*: Properties classified as having standard runoff volumes (the maximum possible) are charged $34.93 per month (effective July 1, 2020). Properties classified as having low runoff volumes are charged $21.31 per month (effective July 1, 2020). Properties classified as having minimal runoff are not charged, as their runoff has been determined to be *de minimis* to the relative cost imposed by that property on the SFPUC sewer system.[44]
- *Exemptions/Reductions*: The Clean Stormwater Fee exempts "very low-income property owners" from paying the fee.[45] Open space and agricultural land is exempt from the Storm Drainage Fee.

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[42] SCI Consulting Group. 2018. "City of Berkeley 2018 Storm Drainage Fee Report." https://www.cityofberkeley.info/uploadedFiles/Public_Works/Level_3_-_Sewers_-_Storm/Stormwater%20Fee%20Report%20Final%201-10-18.pdf

[43] Public Utilities Commission, City and County of San Francisco. 2018. "Resolution No. 18-0125, Rules for Billing Sewer Service Charges Attributable to Stormwater Runoff for Unmetered Properties." https://sfpuc.sharefile.com/share/view/s6b8669af36e4aa78

[44] San Francisco Public Utilities Commission. 2018. "Rates Schedules & Fees for Water Power & Sewer Service." https://sfwater.org/modules/showdocument.aspx?documentid=7743

[45] *City of Berkeley Municipal Ordinance*. §7.76.040.

- *Credits*: None specified.
- *Escalation*: The Sewer Service Charge is escalated annually according to a four-year approved schedule.
- *Duration*: No sunset.
- *Governance*: The SFPUC manages all fees publicly and oversees administration of funds.

5. Santa Clara Valley Water District

- *Municipality*: Santa Clara County
- *Year of Increase/Implementation*: Approved in 2012. Replaced a parcel tax without increasing rates.
- *Funding Mechanism*: Special parcel tax
- *Approval Process:* 2/3 approval of all voters. In 2012, 74% of voters approved the measure, and every member of the Board of Directors voted to adopt the program.
- *Estimated Annual Revenue*: $73 million/year. Over a 15-year period, special parcel tax revenue is estimated to be $715 million.[46]
- *Eligible Expenditures*: Implementation of the Safe, Clean Water and Natural Flood Protection Program, including projects that advance a reliable water supply, reduction of pollutants in waterways, protection of water supply from natural disasters, restoration of wildlife habitat and provide open space, flood protection of homes, businesses, schools, and highways.
- *Tax Calculation Methodology*: The tax is levied on a parcel-by-parcel basis according to the proportional stormwater runoff generated by each parcel. It includes a base rate, plus a per acre charge. It uses the same rate structure as the parcel tax it replaced.
- *Tax Amount*: The tax rates vary by land use types. Single family residences pay a base rate of $55.84, plus $2.79 per acre over ¼ acre (equivalent of $4.65 per month plus $0.23 per acre). Commercial and industrial properties pay a base rate of $111.68, plus $446.72 per acre over ¼ acre (equivalent of $9.31 per month plus $37.22 per acre). Unimproved lots must pay only $0.11 per acre over ¼ acre (equivalent of $0.01 per acre per month).[47]
- *Exemptions/Reductions*: The District may provide an exemption for low-income residential property owners who are 65 years or older.
- *Credits*: None specified.
- *Escalation*: Scheduled to escalate annually with local CPI[48].

[46] Santa Clara Valley Water District. 2018. "5 Year Implementation Plan." ." https://s3.us-west-2.amazonaws.com/assets.valleywater.org/SCW%205-Year%20Plan%20for%20FY19-23%20%5BWeb%20version%5D%20%282%29.pdf
[47] Santa Clara Valley Water District. 2015. "Safe, Clean Water and Natural Flood Protection Program." https://www.valleywater.org/sites/default/files/Safe%20Clean%20Water%2015-year%20Program.pdf
[48] Santa Clara Valley Water District. 2018. "5 Year Implementation Plan

- *Duration*: The special tax period is 15 years and will not be levied beyond June 30, 2028.
- *Governance*: The ballot measure created an Independent Audit Committee,[49] which annually reviews program progress to ensure the outcomes are achieved in a cost-efficient manner. The program requires three independent audits over the 15-year course of implementation.[50]

6. City of Santa Monica

- *Municipality*: City of Santa Monica
- *Year of Increases/Implementation*: Stormwater Use Fee approved in 1995 (never raised). Clean Beaches and Ocean Parcel Tax passed in 2006.
- *Funding Mechanisms*: Property-related fee (called "Stormwater Use Fee") and special parcel tax (called "Clean Beaches and Ocean Parcel Tax")
- *Approval Processes:* Stormwater Use Fee was pre-Proposition 218. The Clean Beaches and Ocean Parcel Tax required 2/3 voter approval and was passed overwhelmingly by voters in 2006.
- *Estimated Annual Revenue*: $4 million ($1 million from the Stormwater Use Fee, $3 million from Clean Beaches and Ocean Parcel Tax).
- *Eligible Expenditures*: The Stormwater Use Fee (1995) pays for periodic upgrades to the storm drain system and the implementation of the Santa Monica Bay Restoration Plan. The Clean Beaches and Ocean Parcel Tax (2006) funds implementation of the City of Santa Monica's Watershed Management Plan, which aims to reduce runoff pollution and water flooding, and increase water conservation and quality.
- *Tax/Fee Calculation Methodologies*: The Stormwater User Fee (1995) is a flat fee based on property size and land use type, and is calculated using a combination of parcel size, average storm drainage or runoff factor, and the proportionate stormwater runoff from the average single family residential parcel. The Clean Beaches and Ocean Parcel Tax (2006) includes a base tax for single family residences and varied tax rates for multi-family residences and non-residential properties calculated based on parcel size and a runoff factor (average storm drainage) associated with the parcel type.
- *Fee/Tax Amounts*: The Stormwater Use Fee is typically $36 annually for the single-family residence (or $3.00 per month). The annual maximum tax rate for a single-family residence under the Clean Beaches and Ocean Parcel Tax is $84 (equivalent to $7.00 per month).
- *Exemptions/Reductions*: For the Stormwater Use Fee, the annual fee for non-City governmental parcels shall be reduced by the percentage of the annual budget attributable to proposed capital

[49] "Safe, Clean Water & Natural Flood Protection: Independent Monitoring Committee." 2020. *Valley Water.* https://www.valleywater.org/project-updates/safe-clean-water-and-natural-flood-protection-program/safe-clean-water-natural-flood-protection-independent-monitoring-committee

[50] "Safe, Clean Water and Natural Flood Protection Program." 2020. *Valley Water.* https://www.valleywater.org/project-updates/safe-clean-water-and-natural-flood-protection-program

expenditures.[51] Exemptions to the Clean Beaches and Oceans Parcel Tax are available for low-income property owners,[52] public agencies, qualifying non-profit institutions, and Council may establish special exemptions based on income, age, or disability.

- *Credits*: No credit specified for either the Stormwater Use Fee or the Clean Beaches and Ocean Parcel Tax.
- *Escalation*: The Stormwater Use Fee has no escalation. The Clean Beaches and Oceans Parcel Tax is adjusted annually with the local Consumer Price Index.
- *Duration*: No sunset for the Stormwater Use Fee or for the Clean Beaches and Oceans Parcel Tax, which will be levied "so long as it is necessary."[53]
- *Governance*: For the Stormwater Use Fee, the Director of the Environmental and Public Works Management Department annually reviews the rates to ensure each user pays their proportionate share of the costs of storm drainage services. The use of funds generated by the Clean Beaches and Ocean Parcel Tax are audited by a Citizen's Oversight Committee.[54]

7. City of Santa Cruz

- *Municipality*: City of Santa Cruz
- *Year of Increases/Implementation*: 1994
- *Funding Mechanisms*: Two property-related fees (called the "Citywide Stormwater Management Fee" and the "Flood Levee Improvement Fee")
- *Approval Processes:* Pre-Proposition 218.
- *Estimated Annual Revenue*: $600,000
- *Eligible Expenditures*: Delivery of stormwater pollution prevention, bridge improvement projects, and flood control projects. The Citywide Stormwater Management Fee was developed to recoup the expenses associated with the delivery of stormwater pollution prevention and bridge improvement projects. The Flood Levee Improvement Fee funds flood control projects, which only a portion of Santa Cruz residents benefit from. As such, only the 1,600 properties that existed within the 100-year flood plain at the time of the fee development.

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[51] *City of Santa Monica Municipal Code*. §7.56.030. http://www.qcode.us/codes/santamonica/view.php?topic=7-7_56-7_56_030&frames=on

[52] City of Santa Monica Office of Sustainability and the Environment. 2020. "Low-Income Property Owner Exemption from the Clean Beaches and Oceans Parcel Tax 2019-20." https://www.smgov.net/uploadedFiles/Departments/OSE/Categories/Urban_Runoff/2017_Owner_%20Application_OSE.pdf

[53] *City of Santa Monica Municipal Code*. §7.64.040. http://www.qcode.us/codes/santamonica/view.php?topic=7-7_64-7_64_040&frames=off

[54] "Citizens Oversight Committee." 2020. *Santa Monica Public Works.* https://www.smgov.net/Departments/PublicWorks/ContentCivEng.aspx?id=9480

- *Fee Calculation Methodologies*: Both fees include flat rate to single-family residential customers and a per acre fee to all other properties with variable rates based on the assumed impervious area for each land use type.
- *Fee Amounts*: For the Citywide Stormwater Management Fee, annual charges vary by property type and size: single family residence properties are charged a flat rate of $21.24 (equivalent of $1.77 per month), commercial properties are charged $261.08 per acre with the average commercial charge at $85 (equivalent of $7.08 per month), and vacant parcels are charged at $5.28 per acre (equivalent of $0.44 per acre per month). For the Flood Levee Improvement Fee, single family parcels are charged a flat rate of $87.86 per year (equivalent of $7.32 per month), commercial properties are charged $1,079.50 per acre (equivalent of $89.96 per month), and the charge for vacant land is $21.84 per acre (equivalent of $1.82 per acre per month).[55]
- *Exemptions/Reductions*: None specified for the Citywide Stormwater Management Fee. The Flood Levee Improvement Fee only applies to those properties located in the 100-year flood plain at the time of fee development.
- *Credits*: None specified for either fee.
- *Escalation*: None specified for either fee.
- *Duration*: No sunset for either fee.
- *Governance*: The Stormwater Management Utility oversees allocation of funds from both fees.

Performance Audit Reference Municipalities without Successful Dedicated Funding

Several jurisdictions referenced in the Audit that have pursued stormwater funding measures have not done so successfully. Select details of those municipalities are noted below. Factors contributing to success or failure of proposed funding measures

1. City of Oakland

- *Municipality*: City of Oakland
- *Year of Attempt*: 2019
- *Funding Mechanism*: Stormwater inspection fee (no property-related fee)

2. Contra Costa County

- *Municipalities*: 19 cities—including Richmond, Walnut Creek, and El Cerrito—and unincorporated area of Contra Costa County
- *Year of Attempt*: 2015

[55] "Management Utility Questions and Answers." n.d. *City of Santa Cruz.* http://www.cityofsantacruz.com/government/city-departments/public-works/stormwater/management-utility#SMF

- *Funding Mechanism*: Ratepayer fees

3. City of Poway

- *Municipality*: City of Poway
- *Year of Attempt*: 2008
- *Funding Mechanism*: Utility Fee

Non-California Municipalities with Dedicated Stormwater Funding

Many jurisdictions outside of California have succeeded in securing a dedicated funding source for stormwater management. Below is a snapshot of several of those: Washington, DC, Philadelphia, Detroit, and Seattle. It is important to note that these jurisdictions are not subject to the same legal funding restrictions that are present in California (i.e., Proposition 218), so direct comparisons from a process perspective may not be applicable to San Diego. They do, however, provide insight into ratepayer tolerance for monthly stormwater charges.

1. Washington, DC

- *Funding Mechanisms:* Two property-related fees (called "Stormwater Fee" and "Clean Rivers Impervious Area Charge (CRIAC)").
- *Fee Amount:* For the Stormwater Fee, the average single-family residence pays $2.67 per month. Properties are classified into six tiers based on amount of impervious surface, and the fee amount varies by tier.[56] The CRIAC is calculated using these same tiers, but the monthly charges are higher. The average single-family residence pays $19.52 per month (effective October 1, 2020).
- *Eligible Expenditures*: The Stormwater Fee and the Impervious Area Charge address separate pollution control requirements. The Stormwater Fee is for activities and projects undertaken by the DDOE to manage pollution in stormwater runoff. The CRIAC is intended to recover the costs of the $2.8 billion federally mandated Clean Rivers Project.[57]

2. City of Detroit

- *Funding Mechanism:* Drainage Charge
- *Fee Amount:* The Drainage Charge is calculated based the amount of impervious surface on each property (determined with GIS). The average residential property in Detroit is estimated as having

[56] District Department of the Environment. "The District's Stormwater Fee." https://doee.dc.gov/sites/default/files/dc/sites/ddoe/publication/attachments/Fee%20Website.pdf
[57] D.C. Water. "Impervious Area FAQs." https://www.dcwater.com/impervious-area-faqs

.04 acres of impervious surface.[58] With a monthly drainage charge of $626.00 per acre (effective July 1, 2020),[59] the average residential property pays $25.04 per month for the Drainage Charge.

- *Eligible Expenditures*: The drainage fee pays for water quality infrastructure, such as treatment facilities which helps prevent untreated sewage discharge before it enters local waterways. The facilities also help reduce street flooding.[60]

3. City of Philadelphia

- *Funding Mechanism:* Property-related fee (called "Stormwater Management Service Charge")
- *Fee Amount:* The Stormwater Management Service Charge for residential properties is calculated based the average amount of impervious surface on residential properties. All residential properties pay the same rate based on this average, $14.03.[61] The commercial fee is based on specific square footage of impervious surface on each property.
- *Eligible Expenditures*: The fee helps the Philadelphia Water Department pay for water quality projects and activities, including maintenance of the City's network of pipes that convey stormwater and stormwater management and stream restoration projects that reduce combined sewer overflows and pollutant loading to the City's streams and waterways.[62]

4. City of Seattle

- *Funding Mechanism:* Drainage fee
- *Fee Amount:* The drainage fee for residential properties smaller than 10,000 square feet is calculated based on property size, with five tiers of property rates. The monthly charge is $15.29 to $58.76, dependent on parcel size. All other properties are charged based on how much impervious surface is on the parcel.[63]
- *Eligible Expenditures*: Activities and projects that contribute to flood control and improvement of water quality.[64]

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[58] Detroit Free Press. 2016. "Detroit water department to charge new fee despite council concerns." https://www.freep.com/story/news/local/michigan/detroit/2016/09/12/detroit-water-drainage-fee/90117372/
[59] Detroit Water and Sewage Department. 2020. "Notice to Customers." https://detroitmi.gov/sites/detroitmi.localhost/files/2020-07/Water%20Rates%202020-2021%20Detroit%20-%20Final%20-%207.14.2020.pdf
[60] Detroit Water and Sewage Department. 2020. "Drainage Charge." https://detroitmi.gov/departments/water-and-sewerage-department/dwsd-customer-care/drainage-charge#resident
[61] City of Philadelphia. 2019. "Rates and Charges." https://www.phila.gov/water/PDF/RatesCharges_September-1-2019.pdf
[62] Philadelphia Water Department. "Residential Stormwater Billing." https://www.phila.gov/water/wu/stormwater/Pages/ResidentialSWBilling.aspx
[63] Seattle Public Utilities. 2020. "Drainage Rates." https://www.seattle.gov/utilities/your-services/accounts-and-payments/rates/drainage
[64] Seattle Public Utilities. 2020. "Understanding Your Drainage Bill." http://www.seattle.gov/utilities/your-services/accounts-and-payments/rates/drainage/understanding-your-drainage-bill

Appendix D: Glossary

Abatement – Activities undertaken to remove or reduce pollution when there are no identified responsible parties.

Agency mandate – A stormwater management action deemed necessary for the City by a local or state governmental agency, such as a settlement agreement or specific site or source investigation. Agency mandates are not solely based on the MS4 Permit or other regulatory compliance obligations.

Allowable discharge – A non-stormwater discharge that is allowed under the MS4 permit. Illicit discharges are defined in detail in MS4 Permit Section E.2.a.

Alternative Compliance Program (ACP) – The City's optional framework to allow for stormwater treatment offsite from a Priority Development Project site, provided the offsite project is located within the same watershed and within City jurisdiction. The offsite project would be required to provide a greater water quality benefit to the watershed as compared to onsite treatment.

Asset – Something that the City owns or manages, that has an identifiable value, and that is or could be used by the City for it to provide a level of service to ratepayers, citizens, and/or regulators. Physical assets include land, structures, equipment, and intellectual property, like conveyance channels, pump stations, best management practices, and other stormwater structures. Other assets include activities like operations and maintenance, site inspections, compliance planning, or street sweeping.

Asset management – A recommended practice for effectively and sustainably managing assets at a desired level of service for the lowest lifecycle cost. Asset management provides needed information on existing assets, such as condition and desired level of service, so that City staff can develop optimal strategies for maintenance and rehabilitation of assets.

Audit – The performance audit of the City of San Diego's Stormwater Division (SWD) completed by the Office of the City Auditor (OCA) in June 2018, entitled "The Stormwater Division Can Further Improve the Efficiency of Its Infrastructure Maintenance and Code Enforcement Efforts, but the City Ultimately Needs to Address Significant Stormwater Funding Shortages.[1]" Note that there have been other audits of the SWD completed by the OCA, including the 2020 performance audit of the Street Sweeping Section; however, the primary audit referred to in the Funding Strategy is the aforementioned June 2018 audit.

Ballot measure – A type of funding measure that is taken to voters for approval during an election.

Baseline funding – The funding anticipated to be allocated to the SWD and is equivalent to current funding for FY2021. This is also known as current funding.

[1] City of San Diego. June 2018. Performance Audit of the Stormwater Division. https://www.sandiego.gov/sites/default/files/18-023_storm_water_division_0.pdf

Basin Plan – The Water Quality Control Plan for the San Diego Basin, which establishes water quality objectives and implementation plans for water bodies in the San Diego Region. The Basin Plan is approved through the San Diego Regional Water Quality Control Board.

Best management practice (BMP) – An activity (non-structural) or device (structural) designed to reduce the amount of pollution or runoff volume that enters the stormwater conveyance system or downstream receiving water bodies. BMPs can be either structural or non-structural in nature. BMPs can be either structural or non-structural in nature.

Best management practice, non-structural (non-structural BMP) – A BMP that uses non-structural tools to reduce or eliminate pollution, such as watershed planning, street sweeping, institutional changes, policy development, or behavioral shifts. An example of a non-structural BMP is the development and implementation of source control practices like good housekeeping, hazardous materials storage, and spill prevention.

Best management practice, structural (structural BMP) – A physical BMP that must be constructed and/or maintained, such as projects that include infrastructure, move earth, or involve planting vegetation. Examples include green infrastructure that infiltrates and treats stormwater and trash capture devices that keep litter and debris from entering the storm drain.

Bioretention example

Bioretention BMP – A vegetated surface water system that filters water through vegetation and soil or engineered media prior to infiltrating into native soils. (See photo.)

Bond – A funding tool representing a written promise to pay a specific sum (face value or principal amount) in the future (maturity date), plus interest. In California, municipal government bonds are only used to finance capital improvements.

Brow ditch – A small ditch constructed to intercept and convey minor surface drainage runoff. (See photo.)

Brow ditch example

Capital cost – The cost associated with the acquisition, design, and/or construction of a stormwater asset. Capitalization is an accounting method where the cost is included in the value of an asset and expensed over the useful life of that asset, rather than being expensed in the period that the cost is originally incurred.

Capital improvement project (also CIP project) – The purchase, construction, repair, or major renovation of infrastructure. Stormwater capital projects are often for system components like pipes, channels, inlets, and other infrastructure used for stormwater management. Stormwater capital improvement projects may include the construction of a detention basin, the development of green infrastructure to improve water quality, or the rehabilitation of an outfall or stormwater pump station.

Capital Improvements Program (also CIP) – The long-range coordinated plan for all individual capital improvement projects and funding sources.

Catch basin – An inlet flush with the ground surface that is designed to intercept surface drainage from gutters, ditches or swales and direct it into the stormwater conveyance system.

Channel – An open graded or lined constructed waterway wider than eight feet across the bottom which is meant to convey stormwater. Channels can be concrete (See photo) or earthen.

Clean Water Act – The federal Clean Water Act of 1972, which established water quality standards and introduced the National Pollutant Discharge Elimination System (NPDES), an effluent permit system for regulating point source (e.g., pipe, ditch, and sewer) discharges and non-point sources into the waters of the United States and of which the MS4 Permit is a part.

Cleanout – A structure that provides access to a storm drain for cleaning.

Code enforcement – The efforts of the City to guide, inspect, and enforce compliance with water quality regulations on private property owners and businesses for Stormwater Municipal Code (SDMC §43.03) violations (e.g., illicit discharges). Enforcement actions range from educational letters, Notice of Violation (NOV), citations and up to civil penalties.

Channel example

Compliance (also regulatory compliance) – The attainment of targets for water quality specified in regulatory documents (e.g., MS4 Permit, Basin Plan, TMDLs, Statewide Trash Amendments, etc.). For

example, the City has specified goals in their regulatory documents for reduction of bacteria in dry weather runoff and stormwater runoff by 2021 and 2031, respectively. Regulatory compliance is distinct from agency mandates.

Copermittee – A permittee of the San Diego Region Municipal Storm Sewer System Permit who is responsible for fulfilling permit conditions relating to discharges for which it is operator. Copermittees include specified jurisdictions from San Diego County, Orange County, and Riverside County, identified in Tables 1a-1c of the permit. The City of San Diego is a Copermittee in San Diego County.

Cost recovery – Revenue collected from a revenue-generating activity is equal to or greater than the cost of the activity that the revenue is collected for.

Culvert example

Culvert – A drainage conduit extending only under a roadway and open at both ends. (See photo.)

Curb Inlet – An inlet within the curb designed to intercept surface drainage from streets and direct it into the stormwater conveyance system.

Deferred capital – Needed capital improvements, refurbishment, or expansion of existing facilities that have been delayed and unfunded. Postponing capital projects is generally due to limited available funding, but often will increase the cost of repairs as the condition of facilities and infrastructure gets worse.

Deferred maintenance – A backlog of needed maintenance for the City's stormwater system infrastructure or other physical assets such as catch basin, inlets, channels, pipes, and outfalls, usually due to lack of funding. Deferred maintenance can compound action needed at a later date, meaning the result of waiting to perform needed maintenance increases costs.

Detention basin – An excavated area designed to temporarily store stormwater runoff and release it in a controlled manner to reduce or eliminate flooding or other adverse effects downstream.

Curb inlet example

Drainage ditch – An open graded or lined ditch that is 8 feet or less in width across the bottom. Drainage ditches include brow ditches. (See photo).

Drainage ditch example

Drainage insert – Manufactured filters, fabrics, or screens that are placed in inlets to remove contaminants from stormwater runoff.

Dry weather diversion – A structure or activity that diverts low flow within the stormwater conveyance system during dry weather into the sanitary sewer system where it can be treated for pollutants. Examples include interceptor pump stations and diversion valves.

Emergency repairs (also emergency projects) – Activities or construction that need to be performed as a result of physical or mechanical failure of stormwater infrastructure that pose an immediate threat to public health or safety. Examples include replacing collapsed pipes, repairing a sinkhole, or removing water after flooding of critical roadways and homes.

Energy dissipator – A structure used to reduce stormwater discharge velocity to minimize erosion and other risk factors.

Enterprise Funds – Funds established to account for specific services, which are funded directly by fees and charges to users such as water and sewer services. These funds are intended to be self-supporting and solely used to support the particular expense as opposed to the general needs of the City.

Expenditure Plan – The document that provides programmatic and technical guidance for how to spend revenues generated by a proposed future funding measure.

Fiscal Year (FY) – A 12-month timeframe designating the beginning and ending period for recording financial transactions. The City of San Diego has a specified July 1 through June 30 as the fiscal year.

Flood risk management – The activities undertaken to protect life and property from water that flows outside of a receiving water or stormwater conveyance system. Flood risk management includes construction or improvement of stormwater conveyance components like channels, levees, and pipes and operations and maintenance activities like operation of stormwater pumps, cleaning of stormwater conveyance, and clearing of trash and debris before rainfall.

Funding Gap – The difference between projected funding and projected funding need (or cost of service).

Funding measure – A funding mechanism that requires formal ratepayer or public approval to be actualized, such as a property tax, property-related fee, or utility charge. Typically, the proposed funding mechanism is accompanied by an Expenditure Plan.

Funding mechanism – The means by which revenue is collected, like a ratepayer fee, property tax, or utility charge. Different funding mechanisms have different legal requirements for approval, how revenues can be spent, and allowable exemptions, reductions, or credits.

Funding methodology – The specific manner in which a funding mechanism is calculated. For example, a property tax for stormwater may be calculated based on size of a parcel, land use type, or square feet of impervious surface, amongst other methodologies.

Funding need – The total cost for SWD to provide current and planned stormwater services, including O&M and CIP activities.

Funding Strategy – The document that provides a thorough response to the Audit's findings that the City's stormwater funding is insufficient to fund current and future needs and proposes a long-term strategy to secure additional funding, per Recommendation #5.

General Fund – The City's main operating fund that pays for basic City services such as police, fire, parks, library, transportation, and stormwater.

Green infrastructure – A nature-based strategy for managing stormwater that utilizes natural processes that slow, detain, infiltrate or filter stormwater or urban runoff. These processes may include relying predominantly on soils and vegetation for filtration; increasing the permeability of impermeable areas; creating and restoring riparian habitat and wetlands; and, where appropriate, planting trees and vegetation, with preference for native species. Green infrastructure may be designed to provide additional benefits such as sequestering carbon, supporting biodiversity, providing shade, creating, and enhancing parks and open space, and improving quality of life for surrounding communities. Examples of green infrastructure include rain gardens, green medians and sidewalks, revitalized streams and waterway habitats, wetlands, spreading ground, and planted areas that slow and filter stormwater and urban runoff.

Green infrastructure example

Habitat mitigation – The restoration, enhancement, protection, or creation of a stream, wetland, or other habitat that serves to compensate for anticipated adverse impacts to habitat due to construction, O&M, or other activities.

Headwall – A small retaining wall placed at the inlet or outlet of a drain or culvert used to protect the area surrounding the inlet or outlet and the asset itself from erosion damage over time.

Illicit discharge – A non-stormwater discharge that is prohibited in the MS4 Permit (Provision E.2), such as over-irrigation runoff, wash water, sanitary wastewater, and improper disposal of auto fluids.

Infiltration basin (also infiltration trench) – A shallow impoundment over permeable soil that captures stormwater, stores it, and allows it to infiltrate, using the natural filtering ability of the soil to remove stormwater pollutants.

Infrastructure – The basic structures and underlying facilities needed for the functioning of a community and its economy, such as roads, curbs, gutters, storm drains, inlets, channels, pump stations, etc.

Inlet – A point at which water may enter the stormwater conveyance system.

Inspection – A way by which the City ensures compliance with the MS4 Permit and Municipal Code. Residential areas, commercial/industrial facilities, and construction sites are inspected on frequencies defined in the MS4 permit and JRMP. Inspection deficiencies are addressed with enforcement actions as defined by the Municipal Code and other applicable regulations.

Integrated Planning (IP) Framework – An EPA program that provides a framework for municipalities to develop a comprehensive plan to address all Clean Water Act requirements; prioritizing those that focus on human and health and water quality. An Integrated Plan must conduct a Financial Capability Assessment to demonstrate that a municipality's Clean Water Act funding needs exceed ratepayer affordability thresholds. Integrated Plans may be used to justify extensions to regulatory compliance schedules.

Jurisdictional Runoff Management Plan (JRMP) – The City's plan that outlines City-wide programs and activities designed to prevent and reduce stormwater pollution within City boundaries, as required by Provision E of the MS4 Permit. Each Copermittee must develop a JRMP that outlines the measures they will take to comply with the MS4 Permit. The City's JRMP was adopted by the City Council on June 16, 2015.

Levee – Man-made barriers along a water course constructed for the primary purpose of providing flood, storm, and hurricane protection. (See photo.)

Levee example

Manhole – A type of structure that provides access for cleaning and maintenance of the stormwater conveyance system.

Multi-benefit project – A stormwater project that provides more than one benefit, such as improving water quality, reducing flood risk, revitalizing streams, wetlands, or other habitats, and/or otherwise enhancing the community by providing recreational opportunities and/or access to open space, rivers, or beaches. For example, a multi-benefit project could be a green infrastructure project that captures and biofilters stormwater and provides community enhancement via greening, or a habitat revitalization project that reduces flood risk, improves water quality, and includes trails for walking and biking.

Municipal Separate Storm Sewer System (MS4) Permit – The permit (NPDES Permit and Waste Discharge Requirements for Discharges from the Municipal Separate Storm Sewer Systems (MS4s) Draining the Watersheds within the San Diego Region, Order No. R9-2013-0001, as Amended by Order Nos. R9-2015-0001 and R9-2015-0100, NPDES NO. CAS0109266) that regulates both stormwater runoff and non-storm water runoff discharges to surface waters in the San Diego Region. The MS4 permit is issued to all Copermittees in the region (San Diego County, and parts of Orange and Riverside Counties) by the San Diego Regional Water Quality Control Board (San Diego Water Board) and dictates the Stormwater Division's actions and priorities related to watershed management in San Diego.

Municipal Waterways Maintenance Plan (MWMP) – A document that provides guidance and parameters for the maintenance and repair of the stormwater conveyance system in areas where potential local, state, and federally regulated impacts may be necessary to provide flood control. This includes activities to remove accumulated sediment, vegetation and trash that impedes water flow and increases flood risks. This plan allows the SWD to have a proactive and responsive maintenance approach through a streamlined permitting process.

Nonpoint source pollution – Pollution in stormwater or dry weather runoff that comes from many diffuse sources, rather than one discrete source like a pipe. Examples of non-point source pollution include excess fertilizer or pesticide runoff from agricultural land, oil, grease, or chemicals from urban dry weather runoff, or sediment from poorly managed construction sites.

Non-stormwater discharge – A discharge into the stormwater conveyance system or receiving water that does not consist of stormwater. Examples include over-irrigation runoff, wash water, sanitary wastewater, and improper disposal of auto fluids.

Onsite reuse – The capture and treatment of stormwater resources on a property and its subsequent use for non-potable purposes including outdoor irrigation, indoor toilets or washing machines, or commercial or industrial operations.

Operations and maintenance (O&M) – The activities that must occur to ensure that stormwater assets and programs continue to function properly and yield benefits through their expected useful life. O&M may include, but not be limited to, operation of pump stations, maintenance of pipes, channels, and inlets, removing trash and debris from storm drains, street sweeping, and basin cleaning.

Outlet (also outfall) – The point at which water is discharged from a pipe or drain. (See photo.)

Outlet example

Pervious (also permeable) – A surface that allows water to infiltrate into the ground rather than sitting or flowing on top of it. Examples of permeable surfaces include engineered permeable pavements as well as vegetated areas, bare soil, tree canopy, wetland areas, gravel, gardens and planters on bare soil, and other natural areas.

Point source pollution – Discharge from any discernible, confined, and discrete conveyance, such as a pipe, ditch, channel, tunnel, container, or other vessel from which pollutants are or may be discharged. This term does not include flows from irrigated agriculture or agricultural stormwater runoff.

Potable water – Water that has been treated to standards for human consumption as drinking water.

Proposition 218 – The California constitutional amendment passed by the voters in 1996 that restricts local governments' ability to raise taxes, special assessments and property related fees. Proposition 218 requires voter approval of any taxes being levied by local agencies and special districts. The threshold for voter approval depends on whether the tax is for general purposes (simple majority voter approval) or a specific purpose (2/3 majority approval). Proposition 218 also created new approval processes and constraints on property-related fees and special assessments. Pursuant to Proposition 218, any property-related fee requires a clear link/nexus between the fee being levied and the service it ultimately funds.

Pump station – A series of structures that capture and pump stormwater to receiving waters. These stations help prevent flooding within low-lying or coastal areas within the City of San Diego. (See photo.)

Pump station example

Rain barrel – A tank or vessel intended to capture rain when it falls and is a form of stormwater harvesting with the intent of reusing the water. Rain barrels prevent stormwater from hitting the ground and potentially carrying pollution to receiving waters. Usually, rain barrels are residential and are placed to capture water from rooftop eaves. (See photo.)

Receiving Water – Waters defined by the State of California as a public good that is protected by the state under the Porter-Cologne Act and possibly protected by the Federal Government under the Clean Water Act. Receiving waters are generally defined in Basin Plans. Examples include lakes, reservoirs, rivers, streams, creeks, bays, estuaries, coastal lagoons, and the Pacific Ocean.

Revitalization (also restoration) – The restoration, enhancement, protection, or creation of a stream, wetland, or other habitat. (See photo.)

Senate Bill 231 or SB 231 – The Senate Bill signed in 2017 that amended the definition of "sewer" in the California Constitution to include both sanitary and storm sewers.

San Diego Water Board – The San Diego Regional Water Quality Control Board, Region 9 of the nine regional boards of the State Water Resources Control Board for California that covers the Counties of San Diego, Riverside and Orange. The San Diego Water Board manages regulatory water issues including protection of water quality under the Clean Water Act, drinking water quality and accessibility, and water resource allocation.

Revitalization example in Los Peñasquitos Lagoon

Rain barrel example

Sinkhole – A cavity in the ground that provides a route for surface water and soil to disappear underground and can pose a public health and safety risk. Sinkholes can be caused by disrepair of the infrastructure in the stormwater conveyance system and can occur in natural landscapes or in the urban environment under streets, sidewalks, and property. (See photo.)

Sinkhole example at Crest Canyon Park

Source control (also pollution prevention) – The practice of preventing pollution from occuring in the first place. Examples include reduction of copper in brake pads and covering trash and waste disposal sites.

Spillway – A structure that provides a means for conveying flows in excess of the maximum design capacity of the stormwater conveyance system, such as dams, basins, or structural BMPs.

Stakeholder – An individual, citizens' group, association, business, non-governmental organization, community group, labor union, academic institution, governmental agency, or other interested party that has a direct or indirect stake in the work of the SWD.

State Water Board – The State Water Resources Control Board for California, a State agency, which coordinates California's nine Regional Water Quality Control Boards and oversees management of regulation related to water pollution and water rights.

Storm drain pipe – A pipe meant to convey water away from a particular location and through the stormwater conveyance system. (See photo.)

Storm Patrol – Personnel from the Stormwater Division that inspect, evaluate, and troubleshoot the stormwater system prior to, during, and immediately after rain events.

Stormwater (also stormwater runoff) – Water that originates from atmospheric moisture (rainfall or snowmelt) and falls or flows onto land, water, or other surfaces. It can soak into the soil (infiltrate), be held on the surface, and evaporate, or run off of surfaces into Stormwater conveyances or directly into nearby streams, rivers, or other waterbodies.

Stormwater conveyance – The transport of stormwater via pipes, channels, curbs, gutters, ditches, drains, and more.

Storm drain pipe repair example at Agee Street.

The stormwater conveyance system includes any built structures (e.g., pump stations, dry weather diversions) between stormwater inlets and outfalls.

Stormwater harvesting (also stormwater capture and use) – The intentional collection of stormwater (e.g., via detention basins, rain barrels or other methods) for eventual reuse and/or to augment water supply. The Stormwater Division has a dedicated Stormwater Harvesting Program meant to advance the management of stormwater as a resource.

Stormwater system replacement value – The total cost of replacing all the assets in the City's stormwater system, estimated at $5.76 billion in 2020.

Street sweeping example

Street sweeping – An activity conducted by the City to remove trash, debris, sediment, and other pollutants from streets using mechanized vehicles, reducing the likelihood that stormwater runoff will pick them up and carry them to waterways. Street sweeping has both water quality and flood management benefits and is an essential component of the City's stormwater management strategy. (See photo.)

Tide gate – An opening through which water flows freely when the receiving water surface elevation is below the opening, but which closes automatically and prevents water from flowing when the receiving water surface elevation rises above the opening. Tide gates are intended to prevent water from entering outfalls into receiving waters and causing flooding of upstream areas during high tide or heavy rainfall events.

Total Maximum Daily Load (TMDL) – The maximum amount of a pollutant allowed to enter an impaired waterbody that would still enable the waterbody to meet water quality standards for the Clean Water Act. The City has TMDLs specified for various pollutants and waterbodies, including nutrients like nitrogen and phosphorus, metals like copper, lead, and zinc, and bacteria.

Trash Amendments – The amendments made in April 2015 by the State Water Board (via Order No. R9-2017-0077) to the Water Quality Control Plan for Ocean Waters of California (Ocean Plan) and the Water Quality Control Plan for Inland Surface Waters, Enclosed Bays, and Estuaries of California (ISWEBE Plan). The amendments to the Ocean Plan and ISWEBE Plan address the impacts of trash to the surface waters of California.

Water Quality Improvement Plan (WQIP) – A document that details the highest priority pollutants or conditions in a specified watershed, goals, and strategies to address those pollutants or conditions, and schedules for implementation. The City has six WQIPs for the watershed management areas (WMAs) within

its jurisdiction, as required by the MS4 permit. WMAs that contain more than one jurisdiction are developed jointly with all applicable co-permittees.

Watershed – An area of land that drains water into a common stream, lake, river, or other receiving water. The City manages watersheds using Watershed Management Areas (WMAs) (See definition below).

Watershed Asset Management Plan (WAMP) – The City's living planning document that outlines the stormwater projects, tasks, actions, program elements, and funding needs within City jurisdiction. In 2013, WAMP 1.0 was developed to integrate planning, implementation, and assessment of flood risk management and water quality protection programs. WAMP 2.0 was updated in 2020 to reflect an expanded list of City assets, improved performance, and new systems.

Watershed Management Area (WMA) – A specified geographic area for which MS4 Permit Copermittees must develop a WQIP. Ten WMA's have been specified in Table B-1 of the San Diego Region MS4 Permit. The City is a Copermittee for six WMAs: the San Dieguito River, Peñasquitos, Mission Bay, San Diego River, San Diego Bay, and Tijuana River WMAs.

Appendix E: Community Flood Assessment Fact Sheets (FY2021)

COMMUNITY FLOOD ASSESSMENT
WHAT IS AT RISK IN FISCAL YEAR 2021?

Stormwater Division

STORMWATER INFRASTRUCTURE

The Stormwater Division works year-round to safeguard San Diego's waters and protect San Diego from flooding by managing a vast, largely hidden stormwater infrastructure system. The infrastructure is interconnected and must be managed with a watershed-wide approach; the degradation or failure of one component can impact the entire stormwater system. Across the City, the Stormwater Division operates and maintains over 1,100 miles of storm drain pipe, 70 miles of channels, 80 miles of drainage ditches, 2,700 miles of streets swept, 46,000 stormwater structures like inlets and outfalls, 7 miles of levees, and 15 pump stations.

Total value of the existing stormwater system quantified as replacement cost **=$5.8B**

PRE-STORM COMMUNITY FLOOD ASSESSMENT

Each year the Stormwater Division performs a comprehensive infrastructure flood assessment prior to the rainy season to identify and evaluate locations of concern for failure or flooding so that an appropriate response strategy can be developed. These vulnerabilities are due to a number of causes, including a growing customer base, aging infrastructure, changing climate patterns that increase stress on the system, and long-standing, consistent underfunding for proactive maintenance and repairs.

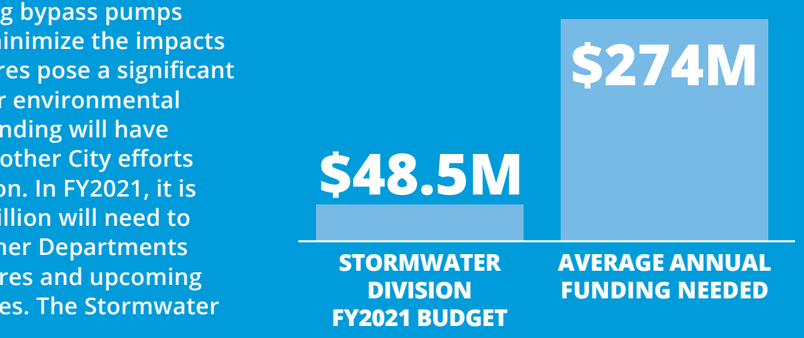
A Citywide summary of the fiscal year (FY) 2021 pre-storm flood assessment is presented to the right, of which

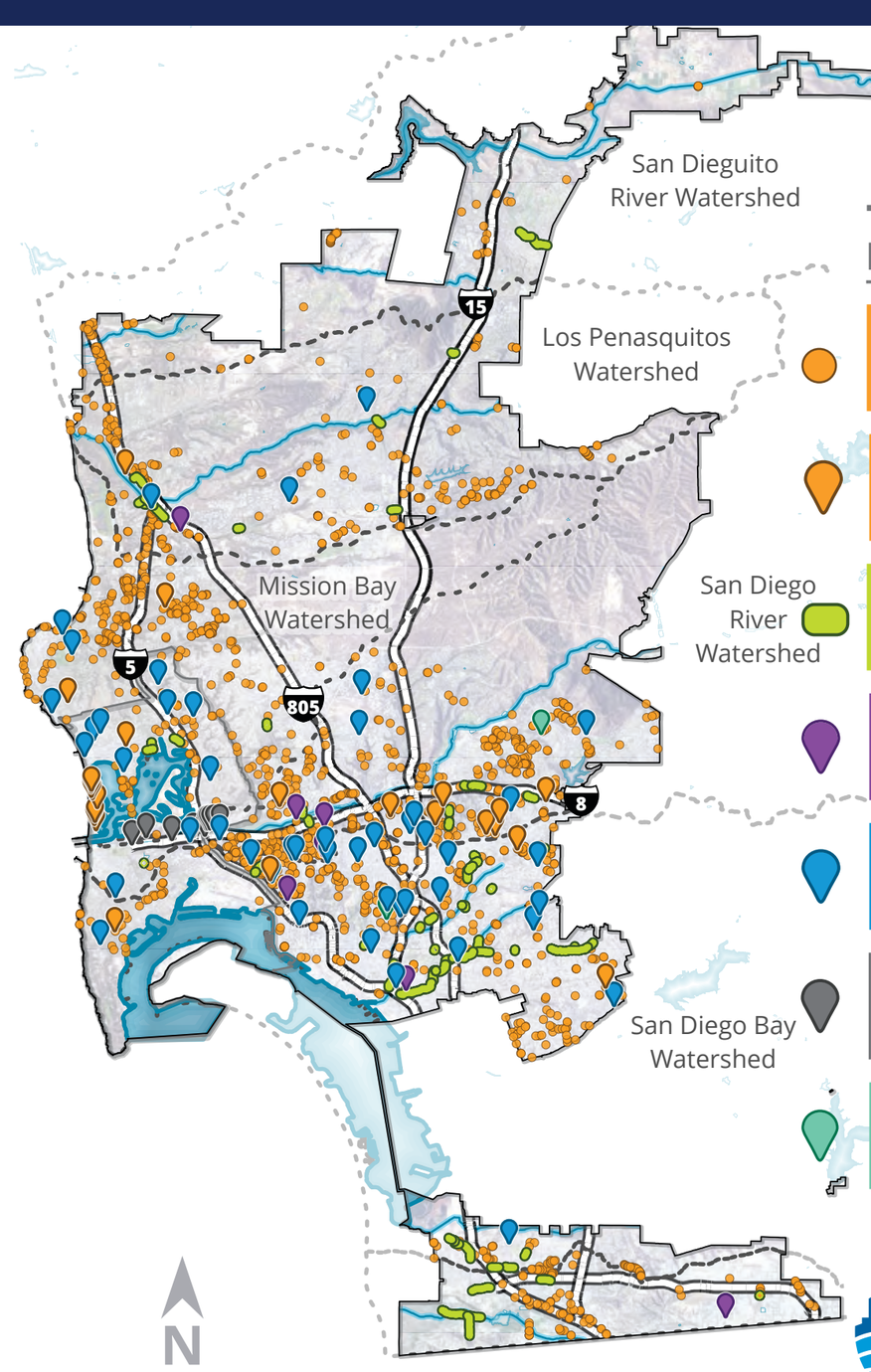
less than* 1%** ***will be addressed in FY2021 due to current funding levels.

Detail on the types of stormwater system vulnerabilities is presented on the back of this sheet and locations within each Council District are presented on specific Council District Community Flood Assessment fact sheets.

STORMWATER DIVISION FUNDING GAP

Due to insufficient funding to address vulnerabilities, the Stormwater Division often has to resort to temporary mitigation measures like operating bypass pumps during rainstorms to minimize the impacts of pipe failures. If failures pose a significant public health, safety, or environmental concern, emergency funding will have to be reallocated from other City efforts at City Council discretion. In FY2021, it is anticipated that $26 million will need to be reallocated from other Departments to address known failures and upcoming stormwater emergencies. The Stormwater Division is developing a long-term strategy to secure additional funding and address the growing number of vulnerable locations.





TOTAL KNOWN LOCATIONS CITYWIDE

- **1,832** Pipe Failure Locations
- **24** Pipe Failure Bypass Locations
- **68** Channel Degradation Locations
- **7** Structure Degradation Locations
- **49** Flooding Locations – Surface Drainage
- **13** Levee Degradation Locations
- **2** Drainage Ditch Degradation Locations

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COMMUNITY FLOOD ASSESSMENT TYPES

Stormwater Division

1832 Pipe Failures Locations

These locations represent stormdrain pipes that have been damaged or have degraded to a condition that requires replacement. Pipe failures can lead to community safety risks like flooding, sinkholes and slope failures.

24 Pipe Failure Bypass Locations

During rain events, Stormwater Division staff operate mobile bypass pumps at certain pipe failure locations as a temporary mitigation measure due to funding being unavailable to permanently repair or upgrade the pipe. These bypasses are necessary to decrease flooding impacts and reduce chance for larger scale failures in the surrounding infrastructure and community. Over the long term, operating these "band aid" solutions both diverts resources from other priorities and is more expensive than fixing the failure in the first place.

49 Flooding Locations - Surface Drainage

These locations experience flooding due to surface drainage issues – some causes include current infrastructure that is undersized, the need for new infrastructure, or roads that have been paved over and do not have sufficient capacity in the curb and gutter system to minimize flood risk.

68 Channel Degradation Locations

These locations represent the priority channels identified over the past three years (FY2018-FY2020) as needing maintenance or repair to reduce the risk of failure and impacts to the surrounding community. The Stormwater Division may need to remove invasive or overgrown vegetation, clear accumulated sediment and trash, repair holes or failures in the channels, or address erosion.

7 Stormwater Structure Degradation Locations

These locations include stormwater structures like outfalls, and debris or detention basins that are designed to reduce the chance for flooding and the transport of trash, debris and pollution through the stormwater system. Over time these locations experience degradation and may become clogged with sediment and overgrown vegetation that needs to be maintained.

13 Levee Degradation Locations

Levees are embankments that protect large waterways from flooding nearby communities. To reduce the chance of unwanted overtopping of levees and flooding, maintenance and repairs are needed including removal of vegetation and trees and restoration of slopes and banks.

2 Drainage Ditch Degradation Locations

Drainage ditches are above ground depressions that carry stormwater. These ditches require that the Stormwater Division keep them clear of vegetation, trash and debris and make sure they don't become damaged over time. These locations have been identified as needing maintenance and repair to protect from flooding.

Visit the Think Blue San Diego website to learn more:
www.thinkblue.org

COUNCIL DISTRICT 1: FISCAL YEAR 2021 COMMUNITY FLOOD ASSESSMENT

Stormwater Division

STORMWATER INFRASTRUCTURE IN COUNCIL DISTRICT 1

Council District 1 encompasses the northern coastal communities within the City and includes many of the City's iconic waterways like the Los Peñasquitos Lagoon, San Dieguito Lagoon and the Pacific Ocean. The Stormwater Division works to safeguard these waters and protect San Diego from flooding by managing a vast, largely hidden stormwater infrastructure system. In Council District 1 alone, the Stormwater Division operates and maintains more than:

156	Miles of Storm Drain Pipe
12	Miles of Channels
3,200	Storm Drain Inlets
3,722	Other Stormwater Structures (e.g., culverts, outfalls, basins, etc.)

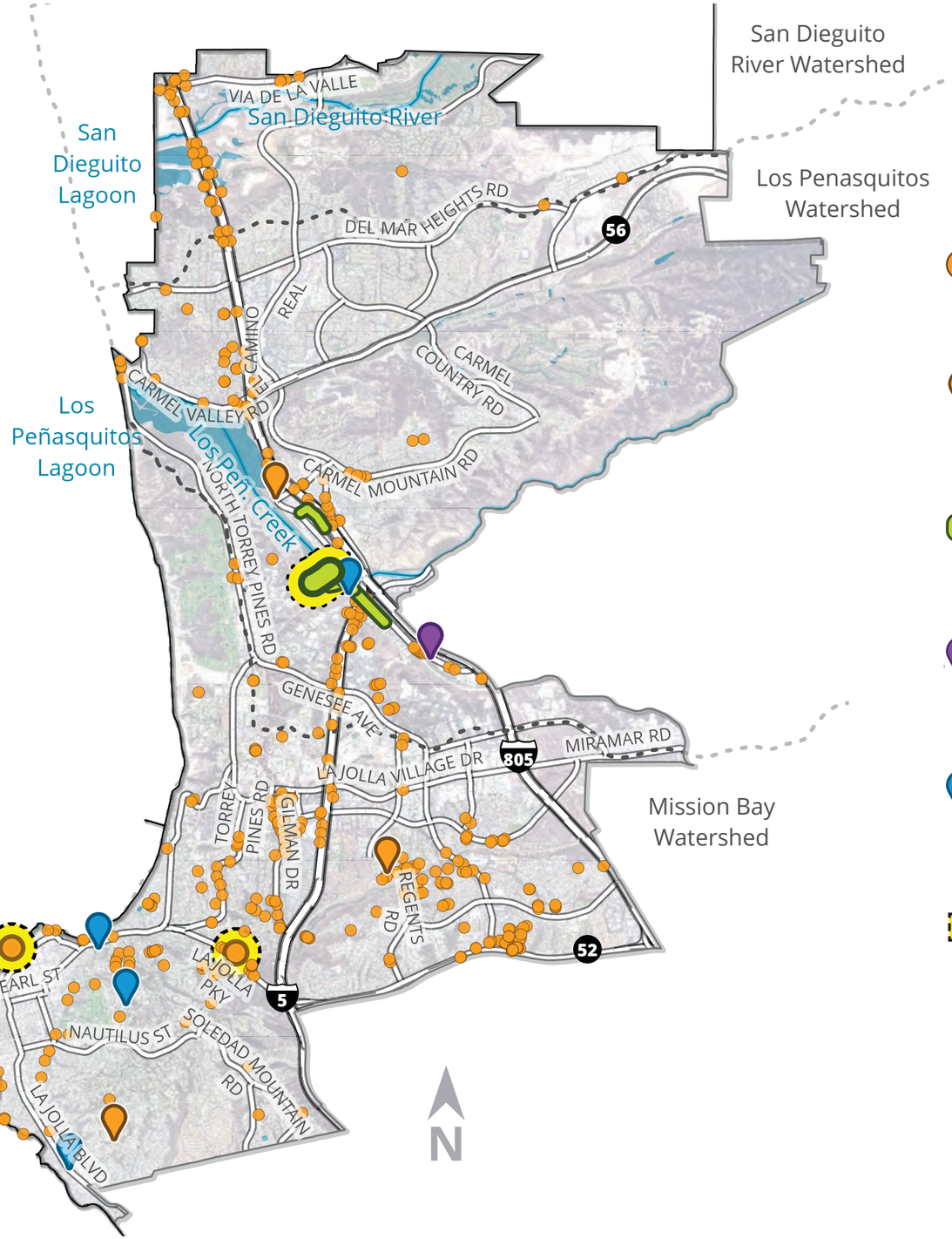
PRE-STORM COMMUNITY FLOOD ASSESSMENT

Each year the Stormwater Division performs a comprehensive infrastructure flood assessment prior to the rainy season to identify and evaluate locations of concern for failure or flooding so that an appropriate response strategy can be developed. These vulnerabilities are due to a number of causes, including a growing customer base, aging infrastructure, changing climate patterns that increase stress on the system, and long-standing, consistent underfunding.

A map presenting the locations and counts of vulnerabilities in Council District 1 to the right. To learn more about different types of stormwater system vulnerabilities, turn to Page 2.

None of these* 426 *known vulnerable locations will be funded in FY2021.

December 2020



KNOWN LOCATIONS

- **413** Pipe Failure Locations
- **3** Pipe Failure Bypass Locations
- **5** Channel Degradation Locations
- **1** Structure Degradation Location
- **4** Flooding Locations – Surface Drainage

Highlighted locations are presented in additional detail on Page 2 of this fact sheet.

Visit the Think Blue San Diego website to learn more:
www.thinkblue.org

COUNCIL DISTRICT 1: FISCAL YEAR 2021 COMMUNITY FLOOD ASSESSMENT SNAPSHOT

Stormwater Division

The FY2021 community flood assessment identified 426 vulnerable locations within Council District 1, including 5 channel degradation locations, 416 pipe failure locations, 4 known flooding locations attributed to surface drainage issues, and 1 degraded stormwater structure.

None of these 426 vulnerable locations are currently funded for FY2021.

The locations presented on this page demonstrate the range and types of vulnerabilities in Council District 1, and are a snapshot in time for FY2021 (a full summary is presented on Page 1).

Pipe failures and achannel degradation location have caused flooding and slope failures along La Jolla Scenic Drive.

Example Pipe Failure and Channel Degradation Location

The stormwater system near La Jolla Scenic Drive has three pipe failures and a channel degradation location that has caused flooding, erosion, and slope failures along the roadway and offramp that pose a public safety risk.

Example Pipe Failure Location

There is a failed pipe with a missing bottom near the Children's Pool Lifeguard Station. The broken pipe continues to cause erosion to the coastal bluffs and beaches below. It is also unsafe for people to walk or stop near the broken pipe due to the potential for further failures or disintegrating pipe falling.

The broken pipe near the Children's Pool Lifeguard station causes erosion and poses a public safety risk.

Vegetation at the end of the channel has caused standing water and flooding near Flinkote Avenue.

Example Channel Degradation Location

The concrete channel near Flinkote Avenue needs to be maintained and to remove vegetation that is clogging the channel and causing undesirable standing water even during dry weather (as shown). During rainfall, the channel often floods into the adjacent properties. The clearing of this channel is anticipated to be conducted in FY2022 if funded during the annual budget process.

Visit the Think Blue San Diego website to learn more:
www.thinkblue.org

COUNCIL DISTRICT 2: FISCAL YEAR 2021 COMMUNITY FLOOD ASSESSMENT

Stormwater Division

STORMWATER INFRASTRUCTURE IN COUNCIL DISTRICT 2

Council District 2 encompasses the southern coastal communities within the City and includes many of the City's iconic waterways like the San Diego Bay, San Diego River, Mission Bay and the Pacific Ocean. The Stormwater Division works to safeguard these waters and protect San Diego from flooding by managing a vast, largely hidden stormwater infrastructure system. In Council District 2 alone, the Stormwater Division operates and maintains more than:

105	Miles of Storm Drain Pipe
8	Miles of Channels
2,200	Storm Drain Inlets
7.5	Miles of Levees
9	Pump Stations

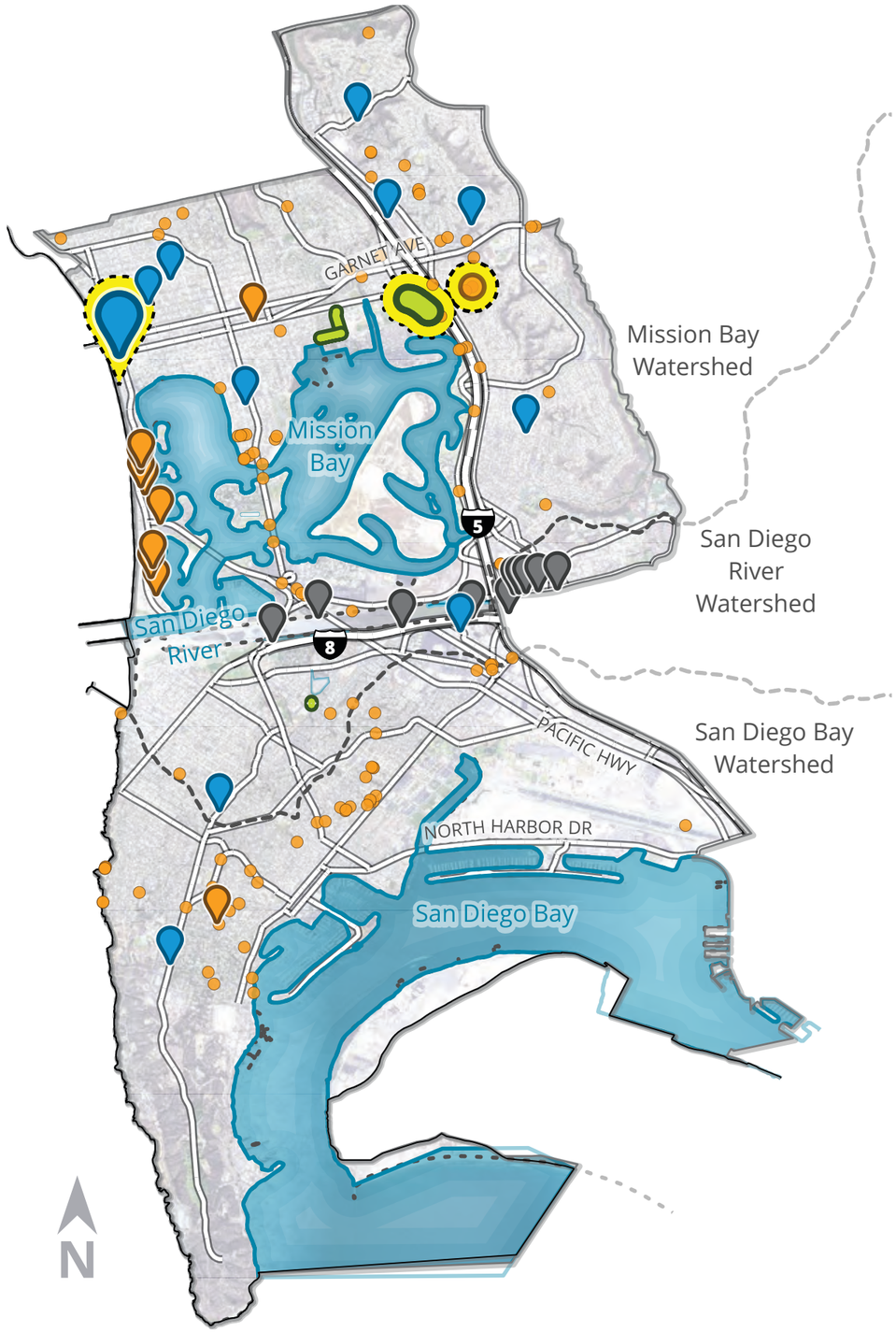
PRE-STORM COMMUNITY FLOOD ASSESSMENT

Each year the Stormwater Division performs a comprehensive infrastructure flood assessment prior to the rainy season to identify and evaluate locations of concern for failure or flooding so that an appropriate response strategy can be developed. These vulnerabilities are due to a number of causes, including a growing customer base, aging infrastructure, changing climate patterns that increase stress on the system, and long-standing, consistent underfunding.

A map presenting the locations and counts of vulnerabilities in Council District 2 to the right. To learn more about different types of stormwater system vulnerabilities, turn to Page 2.

One of the 145 known vulnerable locations will be funded in FY2021.

December 2020



KNOWN LOCATIONS

- **107** Pipe Failure Locations
- **10** Pipe Failure Bypass Locations
- **4** Channel Degradation Locations
- **12** Flooding Locations – Surface Drainage
- **13** Levee Degradation Locations
- **Highlighted locations are presented in additional detail on Page 2 of this fact sheet.**

Visit the Think Blue San Diego website to learn more:
www.thinkblue.org

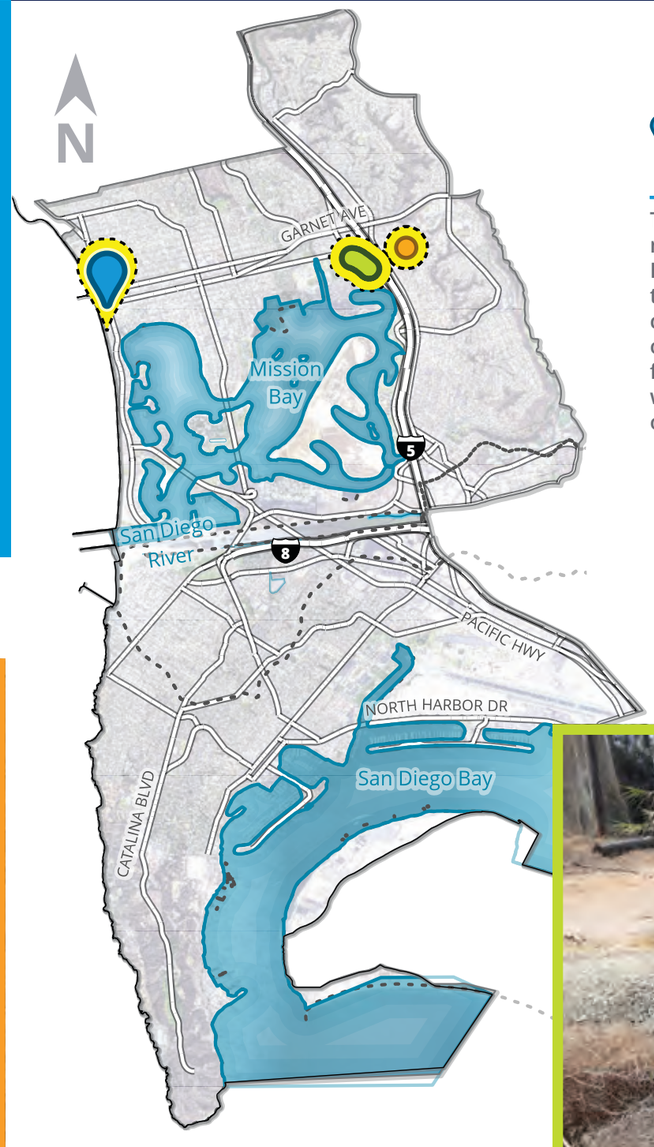
COUNCIL DISTRICT 2: FISCAL YEAR 2021 COMMUNITY FLOOD ASSESSMENT SNAPSHOT

Stormwater Division

The FY2021 community flood assessment identified 145 vulnerable locations within Council District 2, including 4 channel degradation locations, 107 pipe failure locations, 10 pipe failure locations with bypass pumps being operated, 12 known flooding locations attributed to surface drainage issues, and 12 levee degradation locations.

Of these 145 vulnerabilities, only one, an emergency channel replacement along Mission Bay Drive, is anticipated to be addressed in FY2021 due to funding limitations.

The locations presented here are intended to demonstrate the types and extent of the vulnerabilities in Council District 2 as a snapshot in time for FY2021 (a full summary is presented on Page 1).



Example Flooding – Surface Drainage Location

The existing storm drain system near the intersection of Mission Boulevard and Grand Avenue needs to be increased in size to reduce the chance of flooding that currently occurs during rain events. The flooding poses a public safety risk when driving, walking, or biking and often enters nearby properties.

Flooding during rainfall at Mission Boulevard and Grand Avenue causes unsafe conditions for vehicles and pedestrians and often impacts nearby properties.

A completely detached storm drain pipe along Sioux Avenue is causing significant erosion.

Example Pipe Failure Location

A pipe has broken and completely separated in the canyon adjacent to Sioux Avenue. The pipe failure has caused significant erosion along the slope, which if left unaddressed will continue to move towards adjacent homes.

Overgrown and dense vegetation has caused unwanted standing water and flooding (see SWD team member for scale).

Example Channel Degradation Location

This channel is located in Mission Bay Golf Course and is adjacent to Mission Bay Drive. Dense vegetation and sediment deposition are present in the channel and restricts the passage of water and causes flooding. This project will be maintained as an emergency project in FY2021.

Visit the Think Blue San Diego website to learn more:
www.thinkblue.org

COUNCIL DISTRICT 3: FISCAL YEAR 2021 COMMUNITY FLOOD ASSESSMENT

Stormwater Division

STORMWATER INFRASTRUCTURE IN COUNCIL DISTRICT 3

Council District 3 encompasses some of the more urban neighborhoods within the City and runs along many of the City's iconic waterways like the San Diego Bay and the Pacific Ocean. The Stormwater Division works to safeguard these waters and protect San Diego from flooding by managing a vast, largely hidden stormwater infrastructure system. In Council District 3 alone, the Stormwater Division operates and maintains more than:

72	Miles of Storm Drain Pipe
2	Miles of Channels
2,300	Storm Drain Inlets
2	Pump Stations
1,800	Other Stormwater Structures (e.g., culverts, outfalls, basins, etc.)

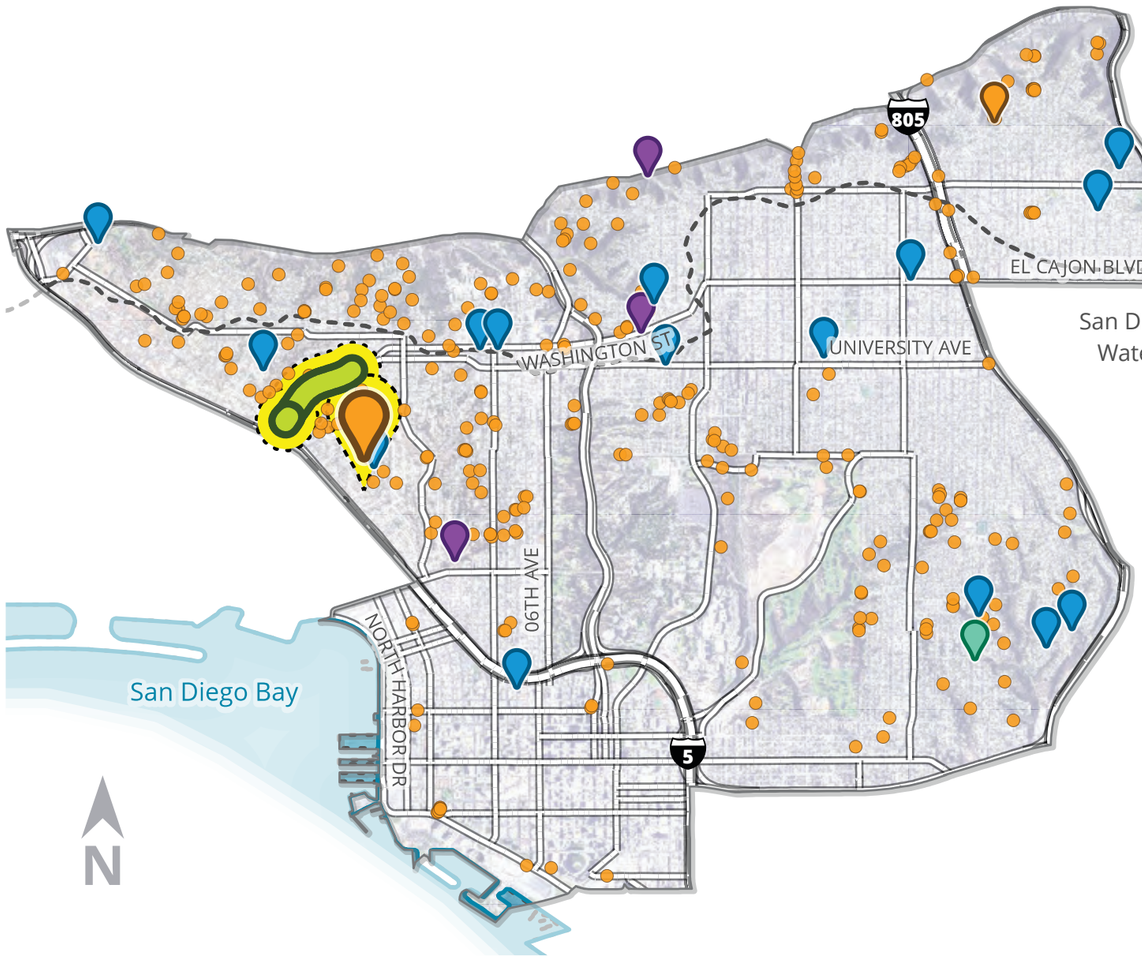
PRE-STORM COMMUNITY FLOOD ASSESSMENT

Each year the Stormwater Division performs a comprehensive infrastructure flood assessment prior to the rainy season to identify and evaluate locations of concern for failure or flooding so that an appropriate response strategy can be developed. These vulnerabilities are due to a number of causes, including a growing customer base, aging infrastructure, changing climate patterns that increase stress on the system, and long-standing, consistent underfunding.

A map presenting the locations and counts of vulnerabilities in Council District 3 to the right. To learn more about different types of stormwater system vulnerabilities, turn to Page 2.

Two of the* 316 *known vulnerable locations will be funded in FY2021.

December 2020



KNOWN LOCATIONS

293 Pipe Failure Locations

3 Pipe Failure Bypass Locations

2 Channel Degradation Locations

3 Structure Degradation Locations

15 Flooding Locations – Surface Drainage

1 Drainage Ditch Degradation Location

Highlighted locations are presented in additional detail on Page 2 of this fact sheet.

Visit the Think Blue San Diego website to learn more:
www.thinkblue.org

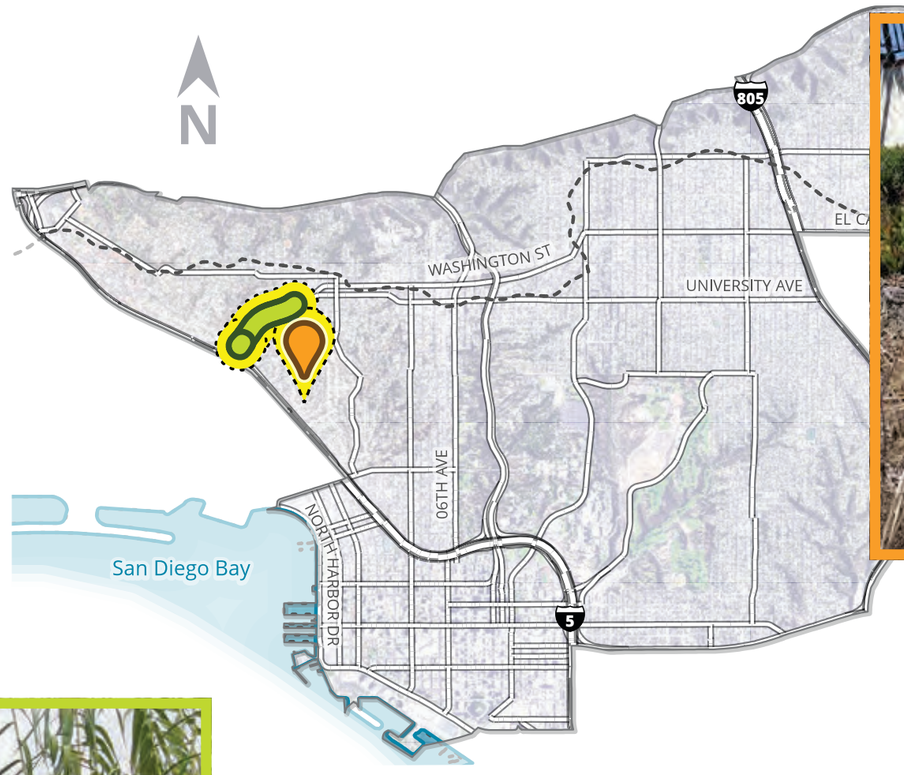
COUNCIL DISTRICT 3: FISCAL YEAR 2021 COMMUNITY FLOOD ASSESSMENT SNAPSHOT

Stormwater Division

The FY2021 community flood assessment identified 316 vulnerable locations within Council District 3, including 2 channel degradation locations, 295 pipe failure locations, 2 pipe failure bypass locations, 15 known flooding locations attributed to surface drainage issues, 1 at-risk drainage ditch, and 3 at-risk stormwater structures.

Of these 316 vulnerabilities, only the two channel degradation segments along Washington Street are anticipated to be addressed in FY2021.

The locations presented here are intended to demonstrate the variability of the vulnerabilities in Council District 3 as a snapshot in time for FY2021 (a full summary is presented on Page 1).



Pipe failure has caused erosion and slope failure directly adjacent to residential properties.

Overgrown and dense vegetation in the channel near West Washington Street restricts capacity and needs to be removed.

Example Pipe Failure Bypass Location

A 25-foot portion of pipe along Kite Street has failed and separated from the downstream system at Jackdaw Street. The resulting flooding has caused erosion, slope failure and a sinkhole downstream. Bypass pumps have been operated at this location since March 2018. The permanent upgrade at this location has been fully designed; however, the project remains unfunded for construction.

Example Channel Degradation Location

Channel maintenance is needed along West Washington Street in Mission Hills where two channel degradation segments will be maintained as one project. There are some structural concerns related to cracked concrete due to tree roots. In addition, dense and overgrown vegetation and sediment deposition are present in the channel and restrict the passage of water and cause flooding. This project will be maintained in FY2021.

Pipe failure has caused a sinkhole and separation of drainage from the downstream system.

Visit the Think Blue San Diego website to learn more:
www.thinkblue.org

COUNCIL DISTRICT 4: FISCAL YEAR 2021 COMMUNITY FLOOD ASSESSMENT

Stormwater Division

STORMWATER INFRASTRUCTURE IN COUNCIL DISTRICT 4

Council District 4 encompasses some of the more urban neighborhoods within the City and contains portions of Chollas Creek, which ultimately drains to the San Diego Bay. The Stormwater Division works to safeguard these waters and protect San Diego from flooding by managing a vast, largely hidden stormwater infrastructure system. In Council District 4 alone, the Stormwater Division operates and maintains more than:

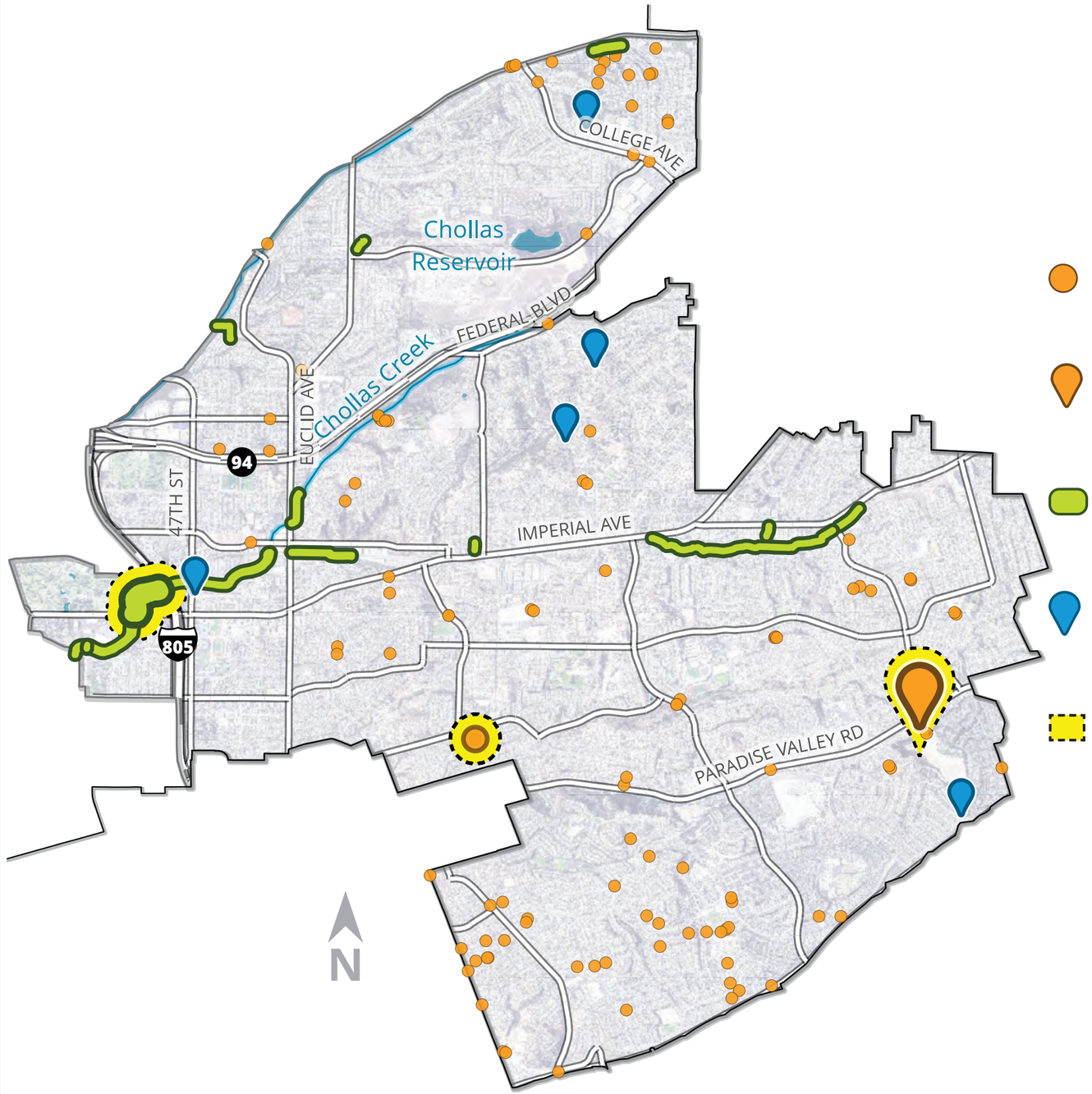
71	Miles of Storm Drain Pipe
14	Miles of Channels
1,680	Storm Drain Inlets
1,800	Other Stormwater Structures (e.g., culverts, outfalls, basins, etc.)

PRE-STORM COMMUNITY FLOOD ASSESSMENT

Each year the Stormwater Division performs a comprehensive infrastructure flood assessment prior to the rainy season to identify and evaluate locations of concern for failure or flooding so that an appropriate response strategy can be developed. These vulnerabilities are due to a number of causes, including a growing customer base, aging infrastructure, changing climate patterns that increase stress on the system, and long-standing, consistent underfunding.

A map presenting the locations and counts of vulnerabilities in Council District 4 to the right. To learn more about different types of stormwater system vulnerabilities, turn to Page 2.

None of the* 145 *known vulnerable locations will be funded in FY2021.



KNOWN LOCATIONS

123 Pipe Failure Locations

1 Pipe Failure Bypass Locations

15 Channel Degradation Locations

6 Flooding Locations – Surface Drainage

Highlighted locations are presented in additional detail on Page 2 of this fact sheet.

Visit the Think Blue San Diego website to learn more:
www.thinkblue.org

December 2020

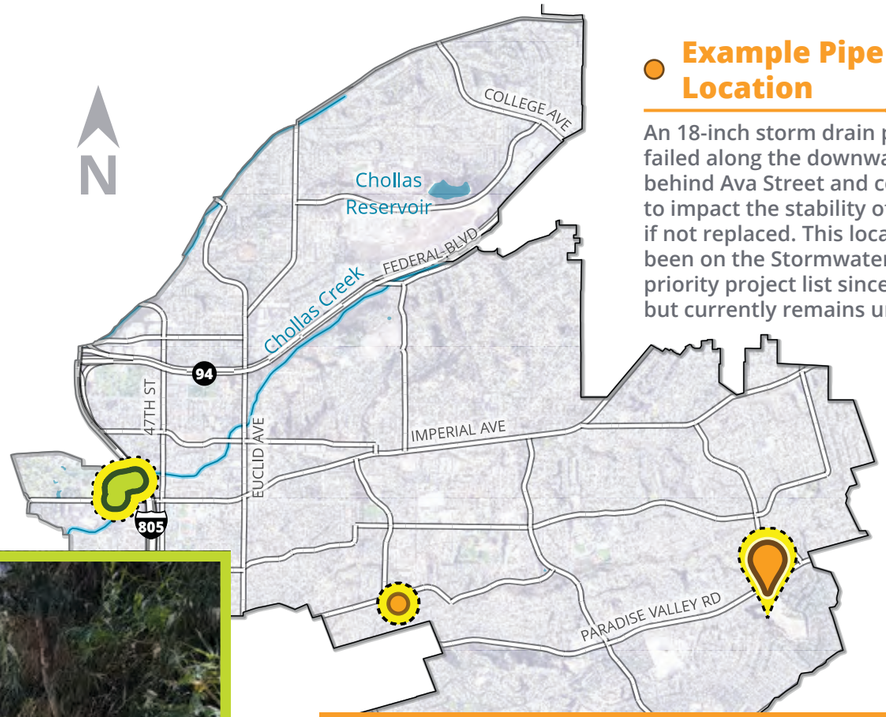
COUNCIL DISTRICT 4: FISCAL YEAR 2021 COMMUNITY FLOOD ASSESSMENT SNAPSHOT

Stormwater Division

The FY2021 community flood assessment identified 145 vulnerable locations within Council District 4, including 15 channel degradation locations, 123 pipe failure locations, 1 pipe failure bypass location, and 6 known flooding locations attributed to surface drainage issues.

None of these 145 vulnerable locations are currently funded for FY2021.

The locations presented here are intended to demonstrate the variability of the vulnerabilities in Council District 4 as a snapshot in time for FY2021 (a full summary is presented on Page 1).



Example Pipe Failure Location

An 18-inch storm drain pipe has failed along the downward slope behind Ava Street and could continue to impact the stability of the slope if not replaced. This location has been on the Stormwater Department priority project list since April 2020 but currently remains unfunded.

The failed storm drain near Ava Street has caused erosion and collapse of slopes that pose a safety risk.

Invasive vegetation in the channel restricts the passage of water and causes accumulation of trash and debris.

Example Channel Degradation Location

Channel maintenance is needed in Chollas Creek between Imperial Avenue and Inland Freeway to remove vegetation and accumulated sediment, trash, and debris. Portions of the channel have cracking concrete due to tree roots, while other sections are earthen and have visible erosion due to high velocity flows. Maintenance and repair of this channel is anticipated in FY2023 if funded during the annual budget process.

Pipe failure at behind Prairie Mound Way has caused erosion and slope failures.

Example Pipe Failure Bypass Location

Failure of a storm drain pipe behind Prairie Mound Way has caused slope failure along private property. The excess stormwater that flows down this slope due to the storm drain failure also has the potential to impact the stability of a downstream closed County of San Diego landfill. Bypass pumps have been operated at this location since September 2017 to reduce flows at this location. Permanent upgrades remain unfunded.

Visit the Think Blue San Diego website to learn more:
www.thinkblue.org

COUNCIL DISTRICT 5: FISCAL YEAR 2021 COMMUNITY FLOOD ASSESSMENT

Stormwater Division

STORMWATER INFRASTRUCTURE IN COUNCIL DISTRICT 5

Council District 5 includes the communities in the northeast portion of the City of San Diego and includes local waterbodies like Lake Hodges, Los Peñasquitos Creek, and Santa Ysabel Creek that ultimately drain to Los Peñasquitos Lagoon, Mission Bay, the San Diego River and the Pacific Ocean. The Stormwater Division works to safeguard these waters and protect San Diego from flooding by managing a vast, largely hidden stormwater infrastructure system. In Council District 5 alone, the Stormwater Division operates and maintains more than:

171	Miles of Storm Drain Pipe
2	Miles of Channels
3,700	Storm Drain Inlets
4,160	Other Stormwater Structures (e.g., culverts, outfalls, basins, etc.)

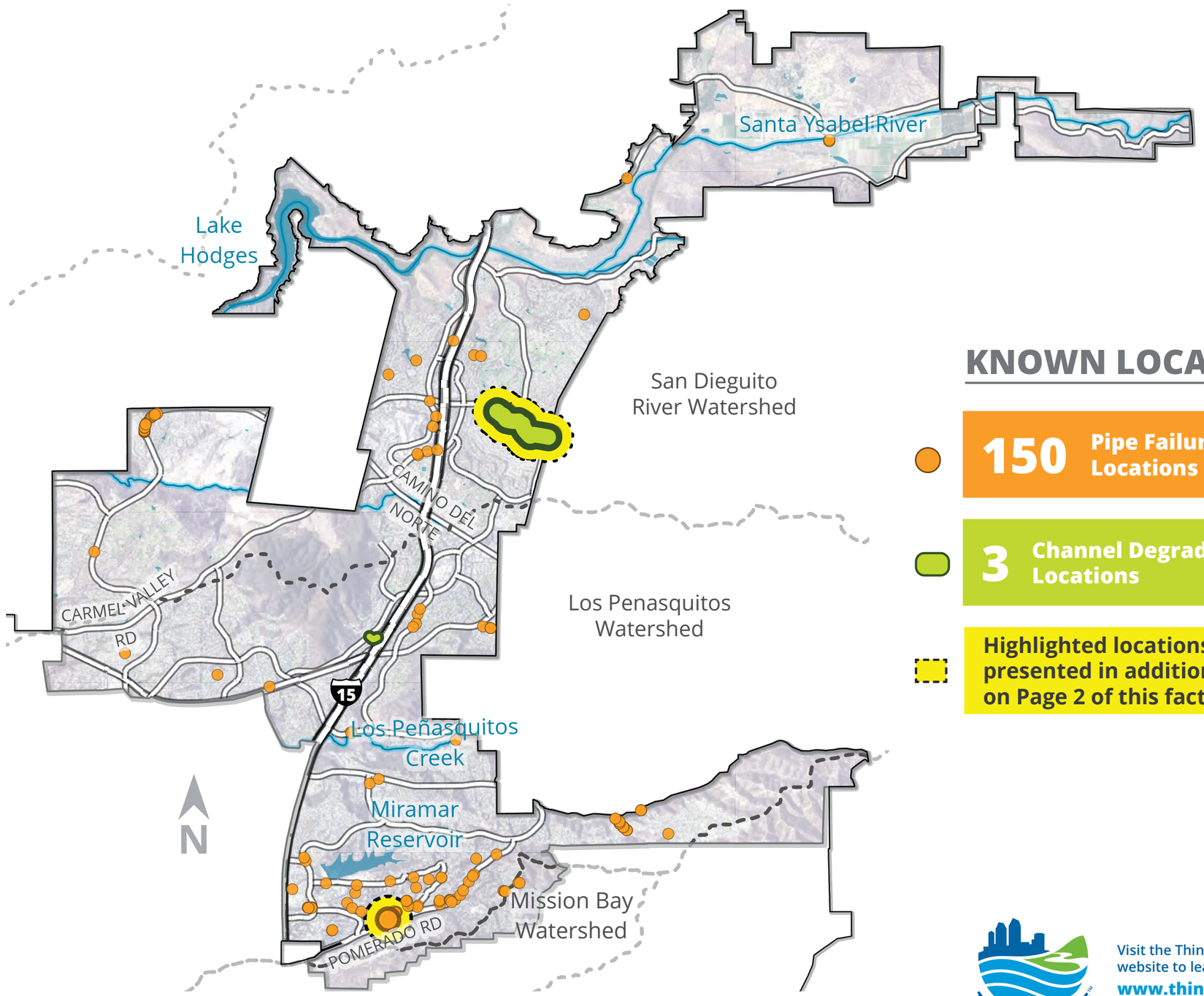
PRE-STORM COMMUNITY FLOOD ASSESSMENT

Each year the Stormwater Division performs a comprehensive infrastructure flood assessment prior to the rainy season to identify and evaluate locations of concern for failure or flooding so that an appropriate response strategy can be developed. These vulnerabilities are due to a number of causes, including a growing customer base, aging infrastructure, changing climate patterns that increase stress on the system, and long-standing, consistent underfunding.

A map presenting the locations and counts of vulnerabilities in Council District 5 to the right. To learn more about different types of stormwater system vulnerabilities, turn to Page 2.

None of the* 153 *known vulnerable locations will be funded in FY2021.

December 2020



KNOWN LOCATIONS

150 Pipe Failure Locations

3 Channel Degradation Locations

Highlighted locations are presented in additional detail on Page 2 of this fact sheet.

Visit the Think Blue San Diego website to learn more:
www.thinkblue.org

COUNCIL DISTRICT 5: FISCAL YEAR 2021 COMMUNITY FLOOD ASSESSMENT SNAPSHOT

Stormwater Division

The FY2021 community flood assessment identified 153 vulnerable locations within Council District 5, including 3 channel degradation locations and 150 pipe failure locations.

None of these 153 vulnerable locations are currently funded for FY2021.

The locations presented here are intended to demonstrate the variability of the vulnerabilities in Council District 5 as a snapshot in time for FY2021 (a full summary is presented on Page 1).

The collapsed storm drain behind Negley Avenue has caused slope failure and poses a public safety risk.

Example Pipe Failure Location

An 18-inch storm drain pipe has failed at two different locations along the downward slope behind Negley Avenue. This impacted slope has caused instability to the surrounding area, including to the public park trail system in the canyon below the failure. This location has been on the Stormwater Department priority project list since May 2020 but currently remains unfunded.

Example Channel Degradation Location

Channel maintenance is needed in Green Valley Creek near Pomerado Road to remove overgrown vegetation and accumulated sediment, trash, and debris. Portions of the channel have failed concrete segments that need to be replaced to prevent further degradation. Maintenance and repair of this channel is not currently funded.

The concrete channel bottom has collapsed and causes unwanted standing water as shown.

Visit the Think Blue San Diego website to learn more:
www.thinkblue.org

COUNCIL DISTRICT 6: FISCAL YEAR 2021 COMMUNITY FLOOD ASSESSMENT

Stormwater Division

STORMWATER INFRASTRUCTURE IN COUNCIL DISTRICT 6

Council District 6 encompasses the Mira Mesa, Miramar, and Clairmont Mesa neighborhoods within the City and ultimately drains to three different downstream waterbodies: Los Peñasquitos Lagoon, San Diego Bay, and the San Diego River. The Stormwater Division works to safeguard these waters and protect San Diego from flooding by managing a vast, largely hidden stormwater infrastructure system. In Council District 6 alone, the Stormwater Division operates and maintains more than:

127	Miles of Storm Drain Pipe
4	Miles of Channels
2,600	Storm Drain Inlets
2,490	Other Stormwater Structures (e.g., culverts, outfalls, basins, etc.)

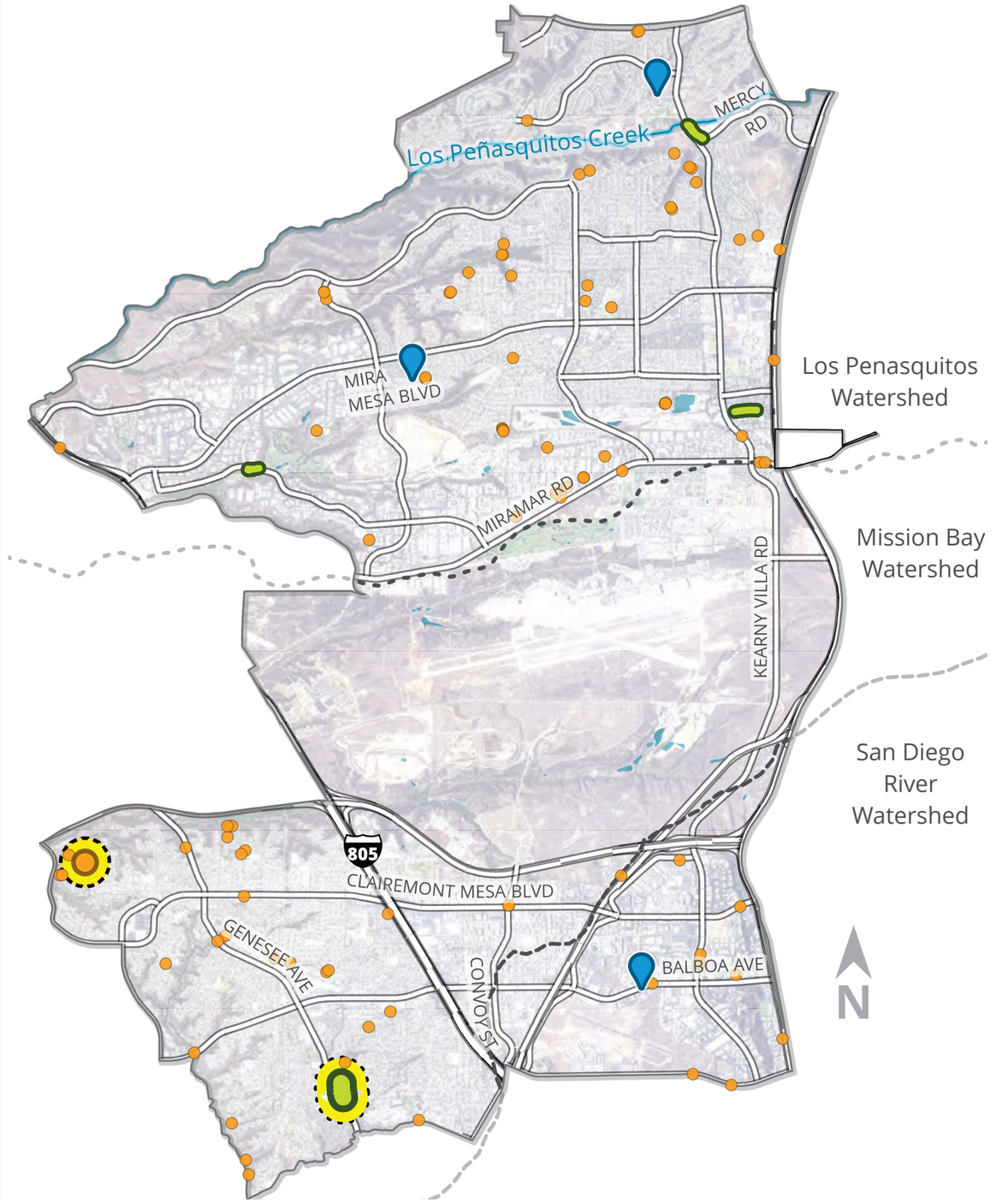
PRE-STORM COMMUNITY FLOOD ASSESSMENT

Each year the Stormwater Division performs a comprehensive infrastructure flood assessment prior to the rainy season to identify and evaluate locations of concern for failure or flooding so that an appropriate response strategy can be developed. These vulnerabilities are due to a number of causes, including a growing customer base, aging infrastructure, changing climate patterns that increase stress on the system, and long-standing, consistent underfunding.

A map presenting the locations and counts of vulnerabilities in Council District 6 to the right. To learn more about different types of stormwater system vulnerabilities, turn to Page 2.

None of the* 106 *known vulnerable locations will be funded in FY2021.

December 2020



KNOWN LOCATIONS

99 Pipe Failure Locations

4 Channel Degradation Locations

3 Flooding Locations – Surface Drainage

Highlighted locations are presented in additional detail on Page 2 of this fact sheet.

Visit the Think Blue San Diego website to learn more:
www.thinkblue.org

COUNCIL DISTRICT 6: FISCAL YEAR 2021 COMMUNITY FLOOD ASSESSMENT SNAPSHOT

Stormwater Division

The FY2021 community flood assessment identified 106 vulnerable locations within Council District 6, including 4 channel degradation locations, 99 pipe failure locations, and 3 known flooding locations attributed to surface drainage issues.

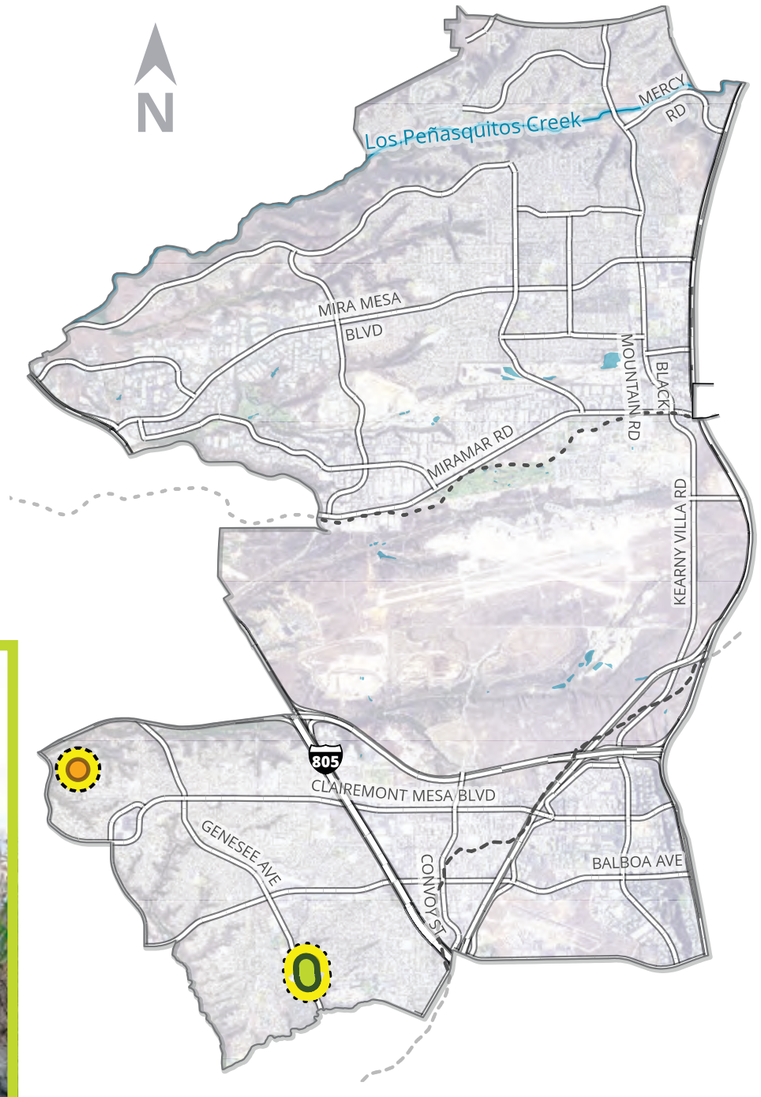
None of these 106 vulnerable locations are currently funded for FY2021.

The locations presented here are intended to demonstrate the variability of the vulnerabilities in Council District 6 as a snapshot in time for FY2021 (a full summary is presented on Page 1).

Example Channel Degradation Location

Channel maintenance is needed in Tecolote Creek along Genesee Avenue to remove vegetation and accumulated sediment, trash, and debris that may cause flooding downstream. In addition, the culvert at the upstream portion has a failed pipe that needs to be replaced. Maintenance and repair of this channel is anticipated in FY2022 if funded during the annual budget process.

Dense vegetation as shown on the right side of the Channel along Genesee Avenue restricts the passage of water and causes accumulation of trash and debris.



The collapsed storm drain near Argonne Court has caused slope failure and poses a growing public safety risk.

Example Pipe Failure Location

An 24-inch storm drain pipe has failed along the downward slope behind Argonne Court and could continue to impact the stability of the slope and the adjacent areas. This location has been on the Stormwater Department priority project list since April 2020 but currently remains unfunded.

Visit the Think Blue San Diego website to learn more:
www.thinkblue.org

COUNCIL DISTRICT 7: FISCAL YEAR 2021 COMMUNITY FLOOD ASSESSMENT

Stormwater Division

STORMWATER INFRASTRUCTURE IN COUNCIL DISTRICT 7

Council District 7 is located central to the City's boundaries to the west where many of the neighborhoods are directly along the San Diego River. The Stormwater Division works to safeguard San Diego's waters and protect from flooding by managing a vast, largely hidden stormwater infrastructure system. In Council District 7 alone, the Stormwater Division operates and maintains more than:

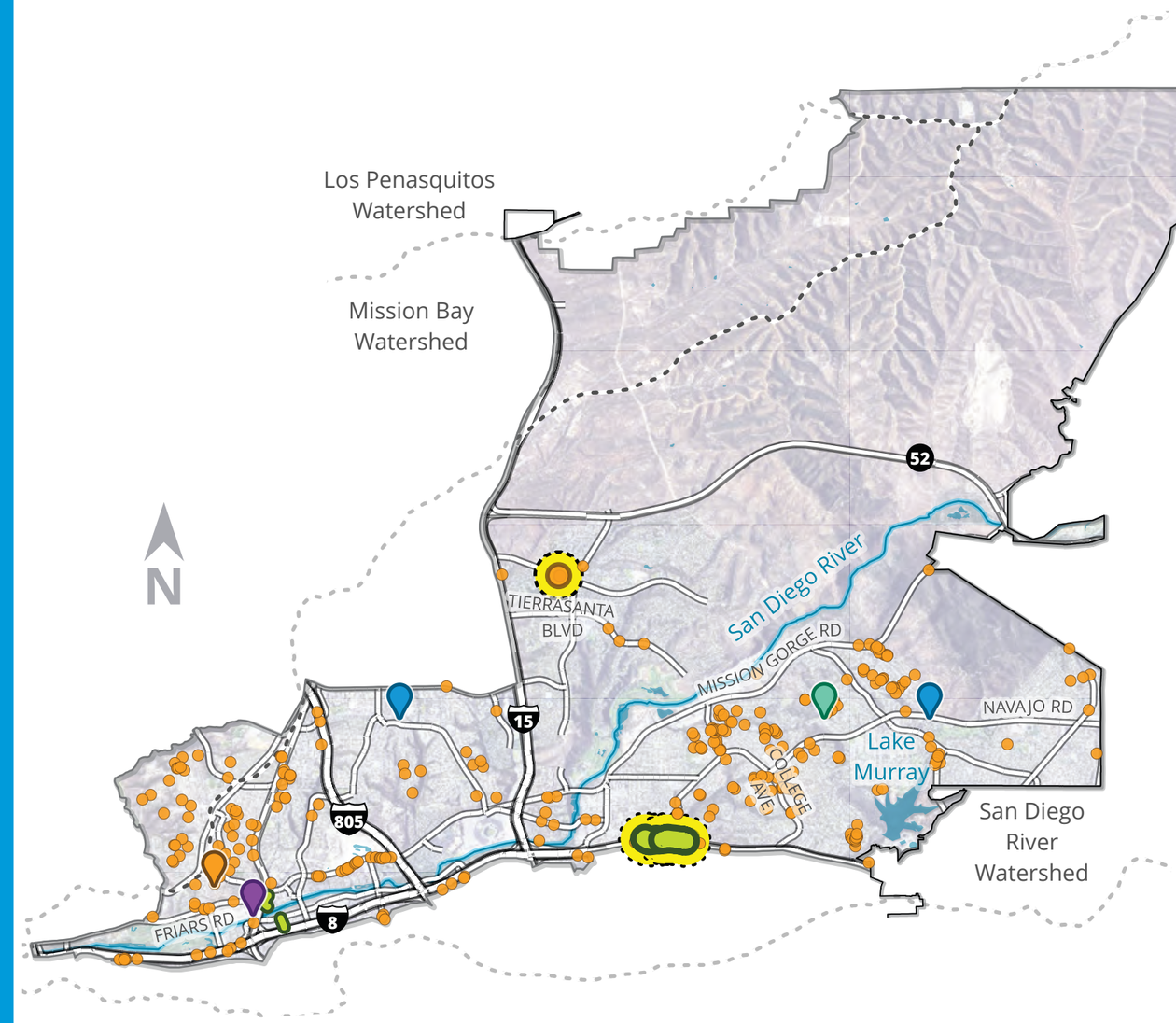
100	Miles of Storm Drain Pipe
12	Miles of Channels
2,200	Storm Drain Inlets
3	Pump Stations
2,170	Other Stormwater Structures (e.g., culverts, outfalls, basins, etc.)

PRE-STORM COMMUNITY FLOOD ASSESSMENT

Each year the Stormwater Division performs a comprehensive infrastructure flood assessment prior to the rainy season to identify and evaluate locations of concern for failure or flooding so that an appropriate response strategy can be developed. These vulnerabilities are due to a number of causes, including a growing customer base, aging infrastructure, changing climate patterns that increase stress on the system, and long-standing, consistent underfunding.

A map presenting the locations and counts of vulnerabilities in Council District 7 to the right. To learn more about different types of stormwater system vulnerabilities, turn to Page 2.

Three of the* 309 *known vulnerable locations will be funded in FY2021.



KNOWN LOCATIONS

99 Pipe Failure Locations

1 Pipe Failure Bypass Locations

4 Channel Degradation Locations

1 Structure Degradation Location

2 Flooding Locations – Surface Drainage

1 Drainage Ditch Degradation Location

Highlighted locations are presented in additional detail on Page 2 of this fact sheet.

Visit the Think Blue San Diego website to learn more:
www.thinkblue.org

December 2020

COUNCIL DISTRICT 7: FISCAL YEAR 2021 COMMUNITY FLOOD ASSESSMENT SNAPSHOT

Stormwater Division

The FY2021 community flood assessment identified 319 vulnerable locations within Council District 7, including 4 channel degradation locations, 309 pipe failure locations, 1 pipe failure bypass location, 2 known flooding locations attributed to surface drainage issues, 1 at-risk drainage ditch, and 1 at-risk stormwater structure.

Of these 319 vulnerabilities, the two channel degradation segments along Mission Gorge and the pipe replacement at Fitch Court are anticipated to be addressed in FY2021 (three locations total).

The locations presented here are intended to demonstrate the variability of the vulnerabilities in Council District 7 as a snapshot in time for FY2021 (a full summary is presented on Page 1).

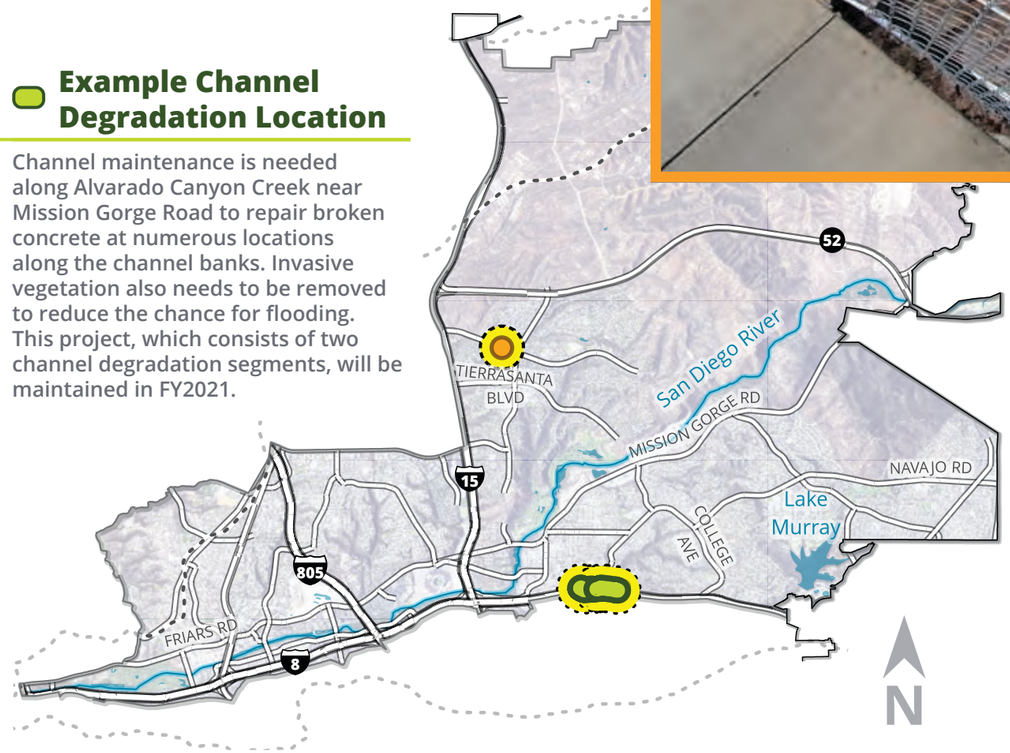
Pipe failures along Clairmont Mesa Boulevard causes flooding during rain events that runs off of the side of the road and causes significant erosion.

A large portion of the slope along Clairmont Mesa Boulevard have been eroded due to flooding.

Broken concrete on the banks of Alvarado Canyon Creek needs to be repaired.

Example Channel Degradation Location

Channel maintenance is needed along Alvarado Canyon Creek near Mission Gorge Road to repair broken concrete at numerous locations along the channel banks. Invasive vegetation also needs to be removed to reduce the chance for flooding. This project, which consists of two channel degradation segments, will be maintained in FY2021.



Example Pipe Failure Location

The storm drain pipe and inlet at this location are too small to safely convey flows. As a result, the location floods during wet weather and has eroded the adjacent slope. Because this failure has not been funded, there are concerns about the structural integrity of the street. Stormwater improvements at this location have been needed since November 2014 and are not currently funded.

Visit the Think Blue San Diego website to learn more:
www.thinkblue.org

COUNCIL DISTRICT 8: FISCAL YEAR 2021 COMMUNITY FLOOD ASSESSMENT

Stormwater Division

STORMWATER INFRASTRUCTURE IN COUNCIL DISTRICT 8

Council District 8 includes two geographically separate parts of the City that (1) run along San Diego Bay or (2) are along the United States and Mexico Border and ultimately drain to the Tijuana River. Across both of these areas in Council District 8, the Stormwater Division operates and maintains more than:

87	Miles of Storm Drain Pipe
10	Miles of Channels
2,000	Storm Drain Inlets
1	Pump Station
2,160	Other Stormwater Structures (e.g., culverts, outfalls, basins, etc.)

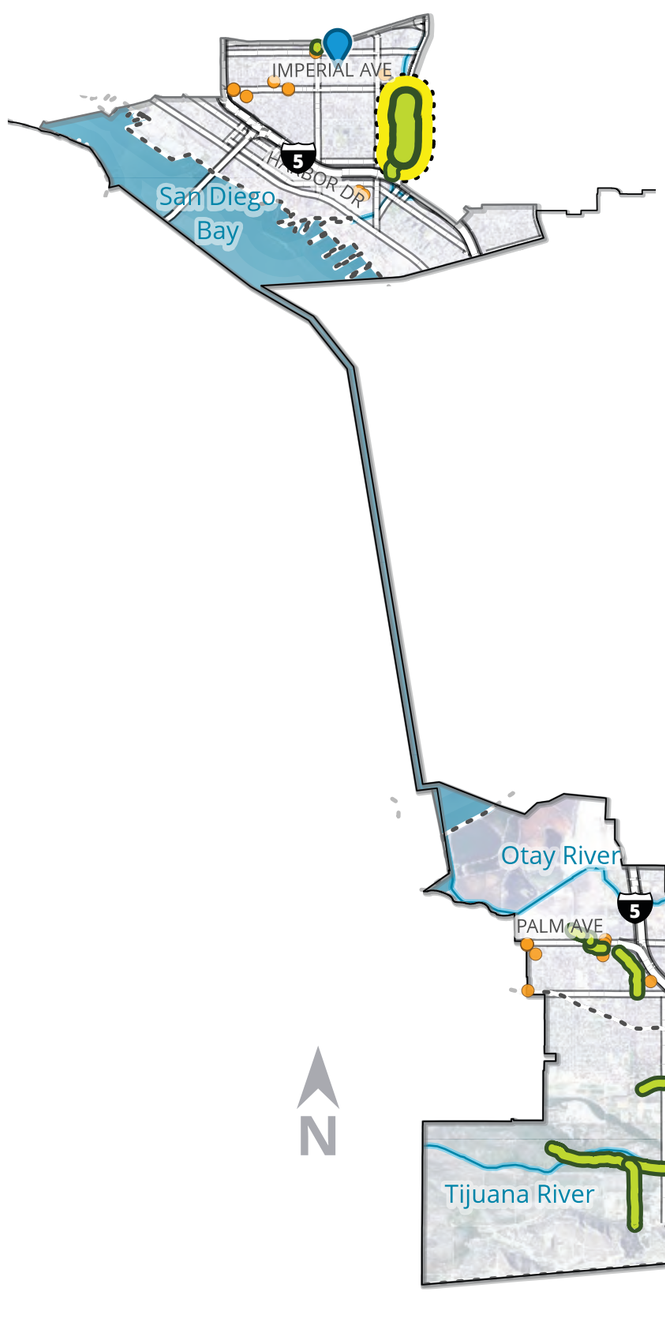
PRE-STORM COMMUNITY FLOOD ASSESSMENT

Each year the Stormwater Division performs a comprehensive infrastructure flood assessment prior to the rainy season to identify and evaluate locations of concern for failure or flooding so that an appropriate response strategy can be developed. These vulnerabilities are due to a number of causes, including a growing customer base, aging infrastructure, changing climate patterns that increase stress on the system, and long-standing, consistent underfunding.

A map presenting the locations and counts of vulnerabilities in Council District 8 to the right. To learn more about different types of stormwater system vulnerabilities, turn to Page 2.

None of the* 194 *known vulnerable locations will be funded in FY2021.

December 2020



KNOWN LOCATIONS

- **176** Pipe Failure Locations
- **15** Channel Degradation Locations
- **1** Structure Degradation Location
- **2** Flooding Locations – Surface Drainage

Highlighted locations are presented in additional detail on Page 2 of this fact sheet.

Visit the Think Blue San Diego website to learn more:
www.thinkblue.org

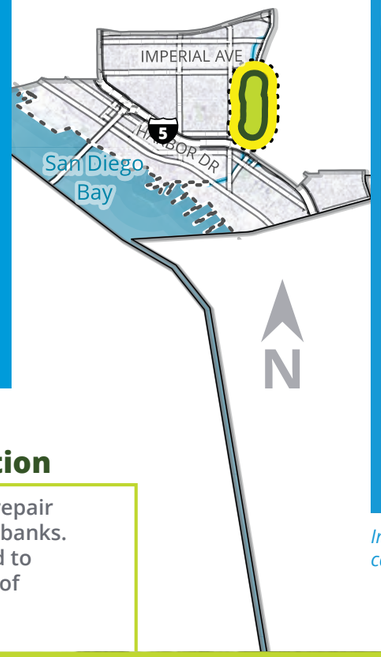
COUNCIL DISTRICT 8: FISCAL YEAR 2021 COMMUNITY FLOOD ASSESSMENT SNAPSHOT

Stormwater Division

The FY2021 community flood assessment identified 194 vulnerable locations within Council District 8, including 15 channel degradation locations, 176 pipe failure locations, 2 known flooding locations attributed to surface drainage issues, and 1 at-risk stormwater structure.

None of these 194 vulnerable locations are currently funded for FY2021.

The locations presented here are intended to demonstrate the variability of the vulnerabilities in Council District 8 as a snapshot in time for FY2021 (a full summary is presented on Page 1).



Insufficient drainage at Palm Avenue and Beyer Boulevard causes significant flooding and is a public safety risk.

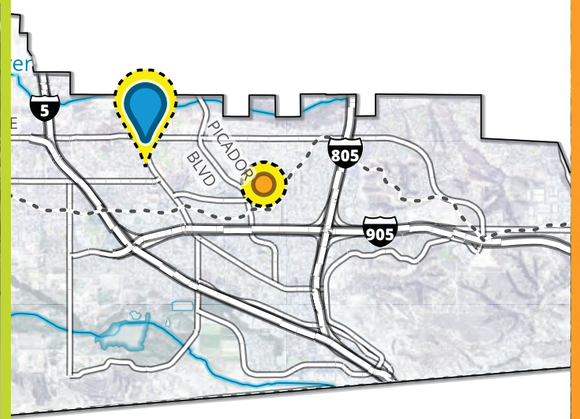
Example Flooding – Surface Drainage Location

The existing storm drain system near Palm Avenue and Beyer Boulevard is undersized and causes flooding at the intersection and surroundings during rain events. Upgrades of the storm drain system are needed to prevent impacts to transit and nearby businesses.

Example Channel Degradation Location

Channel maintenance is needed near National Avenue to repair broken concrete at numerous locations along the channel banks. Invasive vegetation and sediment also need to be removed to improve flow capacity at this location, which has a history of flooding. This project is not currently funded.

Broken concrete on the banks of the channel near National Avenue needs to be repaired.



Pipe failure has caused stormwater to bypass the stormwater system and causes ponding and potential flooding.

Example Pipe Failure Location

The existing storm drain pipe has failed along the slope at Aqua Park Court. As a result, stormwater currently discharges along the slope and down into the adjacent area and has the potential to cause flooding. Stormwater improvements at this location have been needed since December 2019 and are not currently funded.

Visit the Think Blue San Diego website to learn more:
www.thinkblue.org

COUNCIL DISTRICT 9: FISCAL YEAR 2021 COMMUNITY FLOOD ASSESSMENT

Stormwater Division

STORMWATER INFRASTRUCTURE IN COUNCIL DISTRICT 9

Council District 9 encompasses some of the more urban neighborhoods within the City and contains an extensive, largely underground stormwater system that drains to the San Diego River and San Diego Bay. In Council District 3 alone, the Stormwater Division operates and maintains more than:

47	Miles of Storm Drain Pipe
9	Miles of Channels
1,300	Storm Drain Inlets
1,200	Other Stormwater Structures (e.g., culverts, outfalls, basins, etc.)

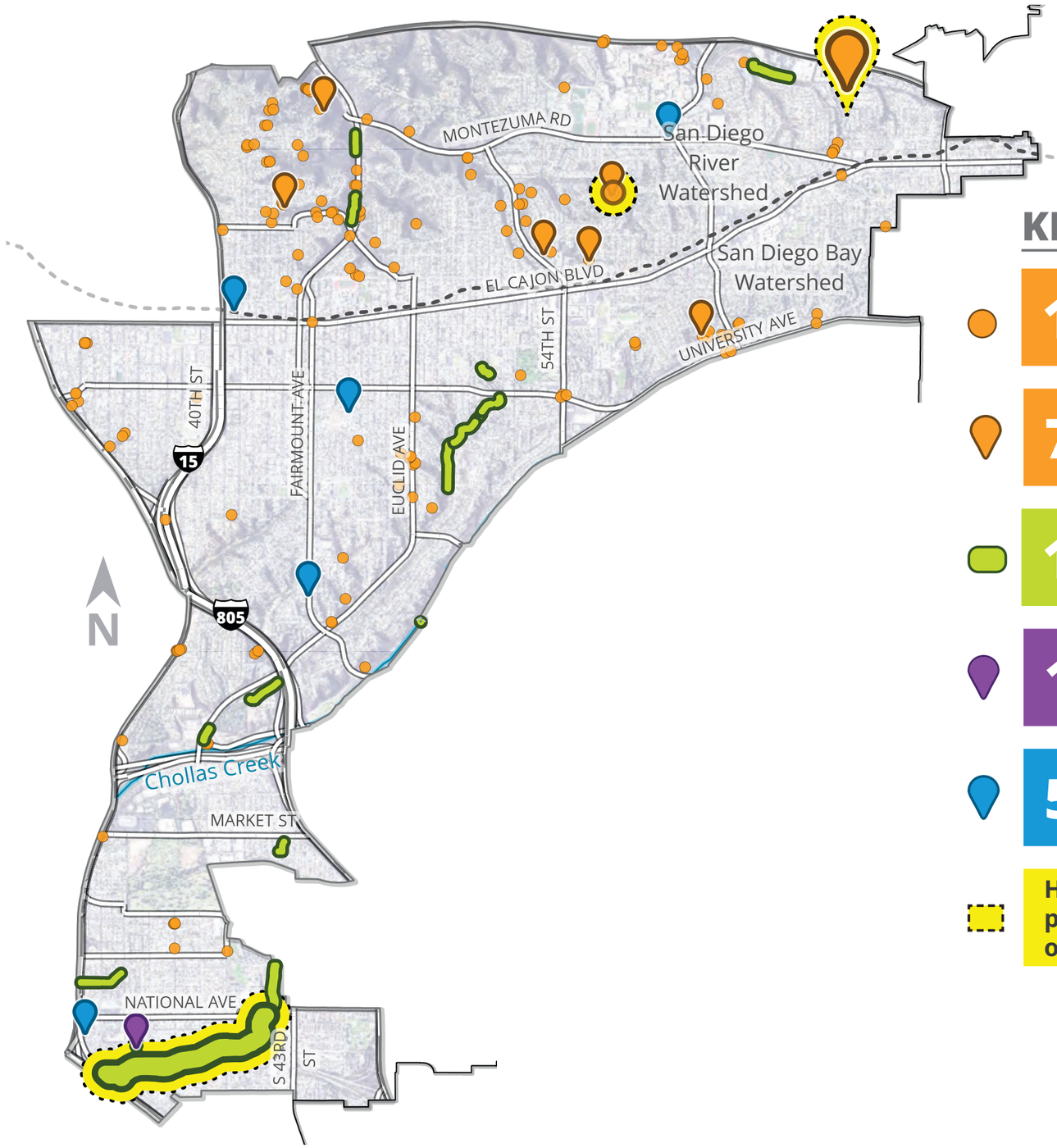
PRE-STORM COMMUNITY FLOOD ASSESSMENT

Each year the Stormwater Division performs a comprehensive infrastructure flood assessment prior to the rainy season to identify and evaluate locations of concern for failure or flooding so that an appropriate response strategy can be developed. These vulnerabilities are due to a number of causes, including a growing customer base, aging infrastructure, changing climate patterns that increase stress on the system, and long-standing, consistent underfunding.

A map presenting the locations and counts of vulnerabilities in Council District 9 to the right. To learn more about different types of stormwater system vulnerabilities, turn to Page 2.

None of the* 191 *known vulnerable locations will be funded in FY2021.

December 2020



KNOWN LOCATIONS

162 Pipe Failure Locations

7 Pipe Failure Bypass Locations

16 Channel Degradation Locations

1 Structure Degradation Location

5 Flooding Locations – Surface Drainage

Highlighted locations are presented in additional detail on Page 2 of this fact sheet.

Visit the Think Blue San Diego website to learn more:
www.thinkblue.org

COUNCIL DISTRICT 9: FISCAL YEAR 2021 COMMUNITY FLOOD ASSESSMENT SNAPSHOT

Stormwater Division

The FY2021 community flood assessment identified 191 vulnerable locations within Council District 9, including 16 channel degradation locations, 162 pipe failure locations, 7 pipe failure bypass locations, 5 known flooding locations attributed to surface drainage issues, and 1 at-risk stormwater structure.

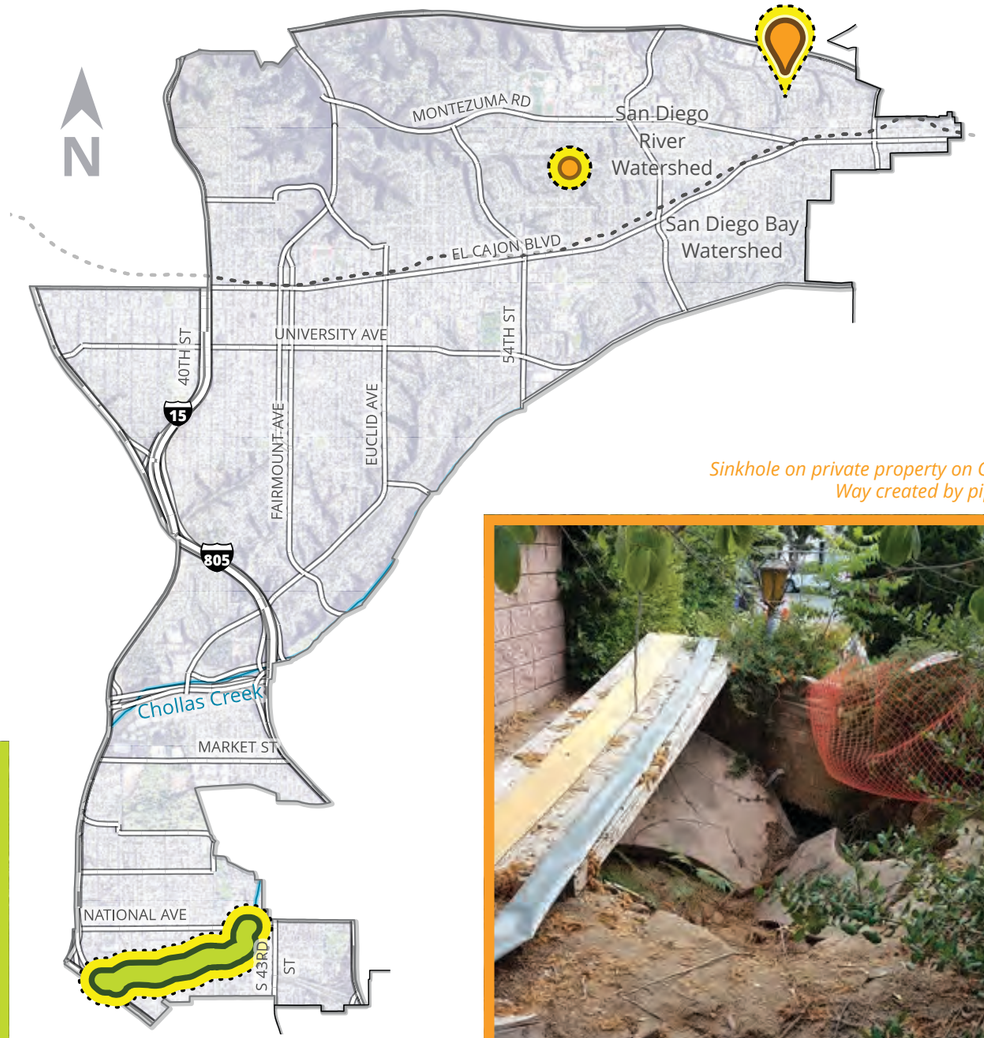
None of these 191 vulnerable locations are currently funded for FY2021.

The locations presented here are intended to demonstrate the variability of the vulnerabilities in Council District 9 as a snapshot in time for FY2021 (a full summary is presented on Page 1).

Example Channel Degradation Location

Channel maintenance is needed in South Chollas Creek near Alpha Street to remove significant sediment accumulation and vegetation, which can lead to flooding. This channel has been a priority maintenance location for the Division since 2018; however funding and environmental permit limitations have resulted in postponement. The clearing of this channel is anticipated to be conducted in FY2022 if funded during the annual budget process.

Significant sediment deposition and overgrown vegetation restrict channel capacity in South Chollas Creek.



Example Pipe Failure Location

The existing storm drain pipe has failed and created a sinkhole, resulting in a dangerous condition that could continue to deteriorate. Stormwater improvements at this location have been needed since March 2017 and are not currently funded.

Sinkhole on private property on Campanile Way created by pipe failure.

Example Pipe Failure Bypass Location

A 24-inch storm drain pipe has failed on the slope near Cleo Street, resulting in impacts to downstream areas that include a hospital. Bypass pumps have been operated during rain events at this location since February 2017. Permanent upgrades at this location are needed and include replacement of the failed pipe; however, the project is not currently funded.

The exposed and failed storm drain pipe at Cleo Street has caused erosion and flooding in the surrounding area.

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Appendix F: Environmental Water Quality Impairment Summary (FY2021)

ENVIRONMENTAL WATER QUALITY IMPAIRMENT STATUS

WHAT IS IMPAIRED AS OF FISCAL YEAR 2021?

Stormwater Division

ENVIRONMENTAL WATER QUALITY DRIVERS

The City of San Diego is subject to a number of regulations including the Clean Water Act, State Trash Policy, and a Municipal Storm Water Permit issued by the Regional Water Quality Control Board (RWQCB) for the six watersheds it has jurisdiction over. The Permit also contains several regulatory requirements related to Total Maximum Daily Loads (TMDLs) for specific pollutants and specific waterbodies that must be attained by mandated deadlines. The City is named as a Responsible Party to several TMDLs, including for bacteria in various beaches and creeks, sediment in the Los Penasquitos Lagoon, metals in Chollas Creek, and nutrients in Famosa Slough. The City has developed Water Quality Improvement Plans (WQIP) to identify and address the highest priority water quality conditions, including TMDLs, for each watershed.

Within the City of San Diego, there are* 130 *known pollutant impairments.*

99% ***of the City drains to an impaired waterbody.***

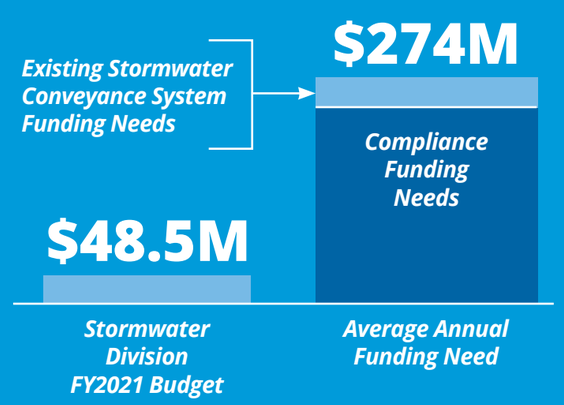
WATER QUALITY PROGRESS

In order to comply with its numerous regulatory obligations, the City routinely maintains and upgrades its stormwater conveyance system and engages in innovative planning and implementation efforts aimed at eliminating dry weather **flows** and reducing pollutants in stormwater runoff. These efforts include enhanced street sweeping and catch basin cleaning programs, water conservation rebates, partnerships with non-profit organizations for trash cleanups, and an extensive education and outreach campaign.

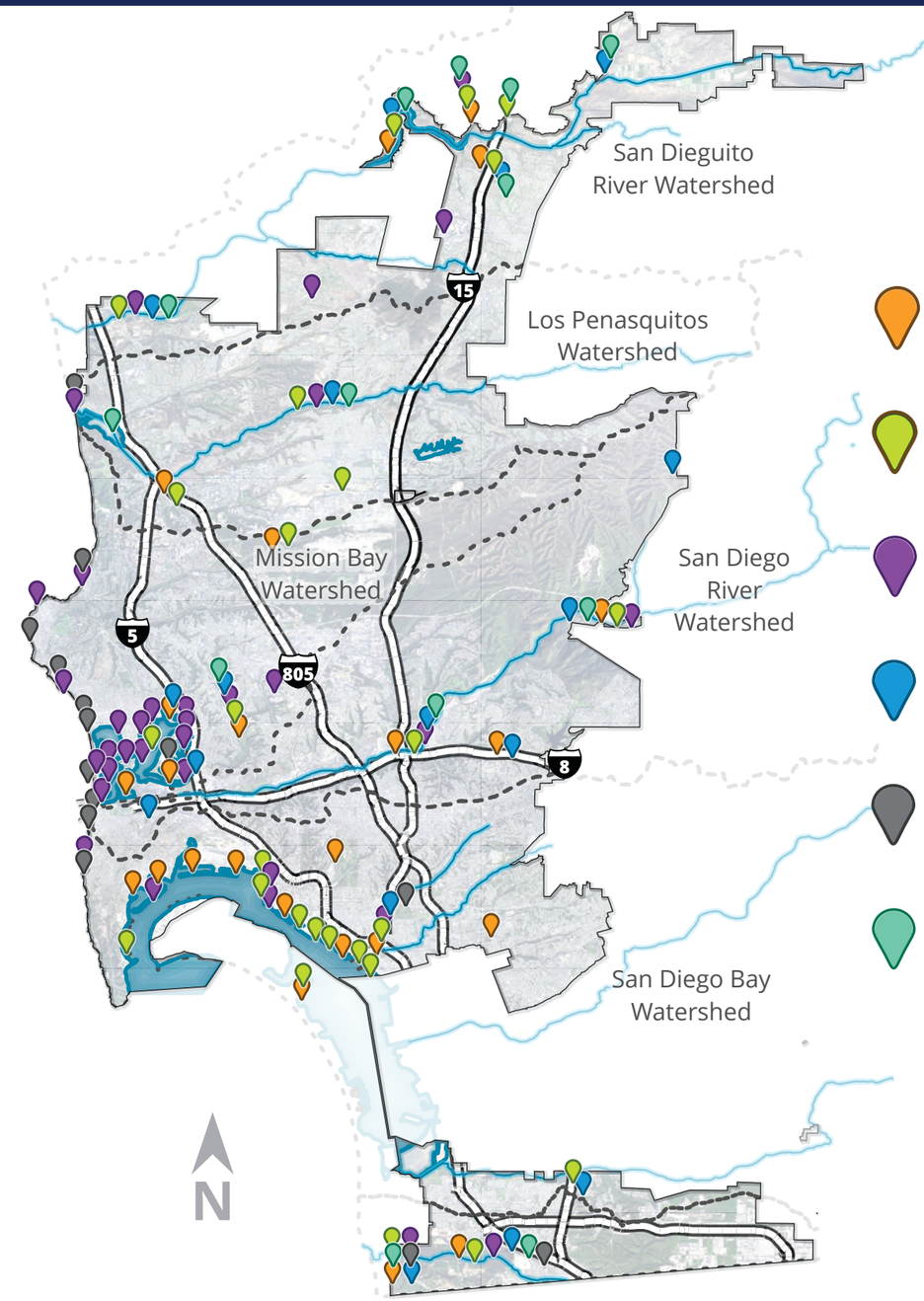
In FY2020, TSW staff swept 91,829 miles of streets, cleaned 6,459 catch basins, converted 151,184 square feet of turf to sustainable landscaping, conducted 31 trash cleanup events with over 2,500 volunteers, and hosted 161 outreach events. The City also continues to adapt its program to maximize stormwater quality benefits and gain efficiencies based on the outcomes of pilot studies, such as optimization of street sweeping, storm drain cleaning, stormwater harvesting, and trash capture devices.

STORMWATER COMPLIANCE FUNDING NEEDS

Compliance with stormwater regulations is the largest driver for increasing stormwater costs and is estimated to be nearly $217 million dollars per year through FY2040 per the updated Watershed Asset Management Plan (WAMP). Compliance costs include capital investments like green infrastructure and ongoing activities like street sweeping, monitoring, inspections, enforcement, outreach, and investment in innovation and scientific studies. Failure to meet compliance deadlines could result in adverse impacts to the environment, public health, fines by regulating agencies, and litigation from third parties.



January 2021



Note: Some waterbody segments have more than one impaired pollutant within the categories shown on the map. One marker is shown in these instances for clarity; however, the total count in the legend includes all waterbody and pollutant combinations.

Note: The City is a responsible party for some waterbodies that are downstream of City boundaries.

OUTSTANDING IMPAIRMENTS THAT NEED TO BE ADDRESSED (BY CATEGORY)*

- **25** Inorganic Pollutants
- **27** Organic Pollutants
- **34** Bacteria
- **17** Nutrients
- **13** Trash
- **14** Sediment or Solids

*Note: Impairments shown are specific pollutant and waterbody combinations per the 2014/2016 303d List in alignment with the Draft 2019-2020 WQIP Annual Reports (to be finalized 1/31/2021).

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