San Francisco
Water Power Sewer
Services of the San Francisco Public Utilities Commission

525 Golden Gate Avenue, 13th Floor
San Francisco, CA 94102
T 415.554.3155
F 415.554.3161
TTY 415.554.3488

DATE: December 23, 2022

TO: Commissioner Newsha Ajami, President
Commissioner Sophie Maxwell, Vice President
Commissioner Tim Paulson
Commissioner Tony Rivera
Commissioner Kate Stacy

FROM: Dennis J. Herrera, General Manager

RE: Wastewater Enterprise Capital Improvement Program
1st Quarter/ Fiscal Year 2022-2023

Enclosed please find the Wastewater Enterprise Capital Improvement Program (CIP) Quarterly Report for the 1st Quarter (Q) of Fiscal Year (FY) 2022-2023. The primary intent of the report is to provide the Commission, stakeholders, and the public with a status summary of the Program based on data for the period of July 1, 2022 to September 30, 2022.

This quarterly report incorporates all the changes made to the Wastewater Enterprise Capital Improvement projects according to the 10-Year Wastewater Enterprise Capital Plan for FY2022-23 to FY2031-32, presented to and approved by this Commission on February 8, 2022.

This page is intentionally left blank.

San Francisco
Water Power Sewer
Services of the San Francisco Public Utilities Commission

QUARTERLY REPORT

Wastewater Enterprise Programs

July 2022 – September 2022

Published: December 23, 2022

This page is intentionally left blank.

EXECUTIVE SUMMARY

The primary intent of the report is to provide the Commission, stakeholders, and the public, with a status summary of the Wastewater Enterprise Capital Projects, based on the data for the period of July 1, 2022 to September 30, 2022.

This quarterly report incorporates all the changes made to the Wastewater Enterprise Capital Improvement Plan (CIP) projects according to the 10-Year Wastewater Enterprise Capital Plan for FY2022-23 to FY2031-32, presented to and approved by this Commission on February 8, 2022.

The following table reflects both 2020 and 2022 Approved Budget and Schedule for all WWE CIP projects including the Sewer System Improvement Program (SSIP) Phase 1, Other SSIP Projects, and Facilities and Infrastructure Projects:

Table A – Wastewater Enterprise CIP 2022 vs 2020 Approved Budget and Schedule

Programs	2020 Approved Schedule	2020 Approved Budget ($ Million)	2022 Approved Schedule	2022 Approved Budget ($ Million)	Budget Variance Between 2022 and 2020	Schedule Variance Between 2022 and 2020 (Months)
SSIP Phase 1	08/31/27	$3,655.3	06/30/32	$4,402.7	$747.4	58.8
Other SSIP	12/26/29	$1,197.3	06/30/33	$1,570.9	$373.6	42.7
Facilities and Infrastructure (F&I)	01/29/32	$662.6	01/29/32	$677.8	$15.2	-
Total	**01/29/32**	**$5,515.2**	**06/30/33**	**$ 6,651.3**	**$ 1,136.2**	**17.3**

In summary, according to the last approved CIP in 2022, the Approved Budget for the SSIP Phase 1 was increased by $747M and the approved schedule was extended by 5 years. The number of projects for SSIP phase 1 remains at 70. Also, the Approved Budget for the other SSIP projects was increased by $374M and the approved schedule was extended by 4 years. The number of projects for other SSIP increased by 8.

Program Current Status:

Overall, steady progress continues on this CIP . The SSIP Phase 1 is 51% complete, Other SSIP is 3% complete, and Overall SSIP is 39% complete as of September 2022. As of the end of the reporting period, the SSIP Phase 1 includes 70 projects in various phases as follows: seven (7) projects in planning or design, eleven (11) projects in construction, fourteen (14) projects in closeout, and thirty-eight (38) projects completed. See Figure A below.

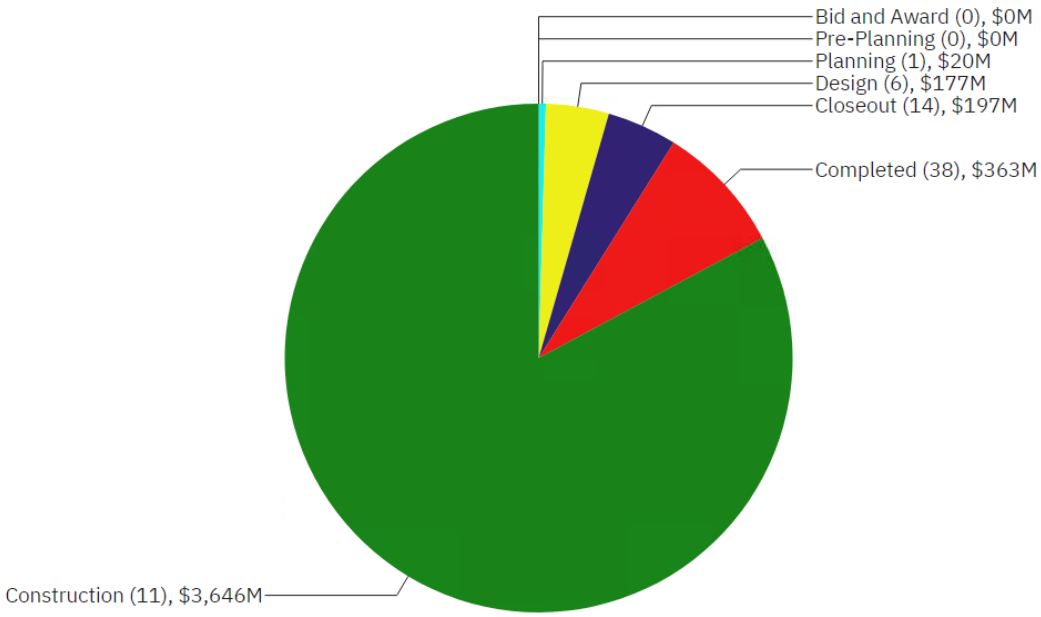


Figure A Total Current Approved Budget for SSIP Phase 1 Projects Active in Each Phase

As of the end of the reporting period, the Other SSIP includes forty-three (43) projects in various phases as follows: nineteen (19) projects in pre-planning, twenty-two (22) projects in planning or design, and two (2) projects in construction. See Figure B below.

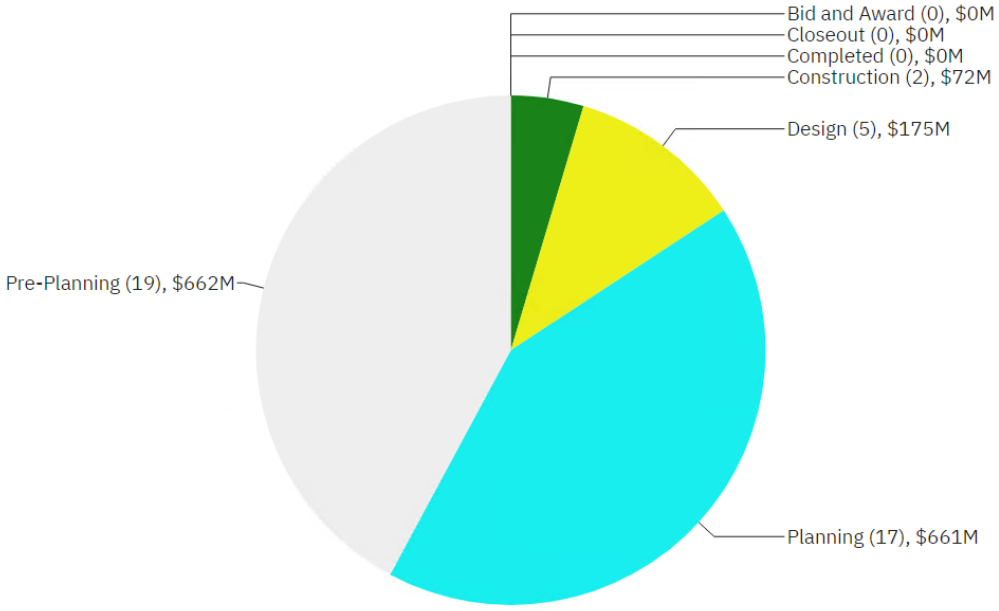


Figure B Total Current Approved Budget for Other SSIP Projects Active in Each Phase

As of the end of the reporting period, the Facilities and Infrastructure program includes seven (7) projects in various phases as follows: one (1) project in pre-planning, three (3) projects in planning or design, two (2) projects in construction, and one (1) project in closeout. See Figure C below.

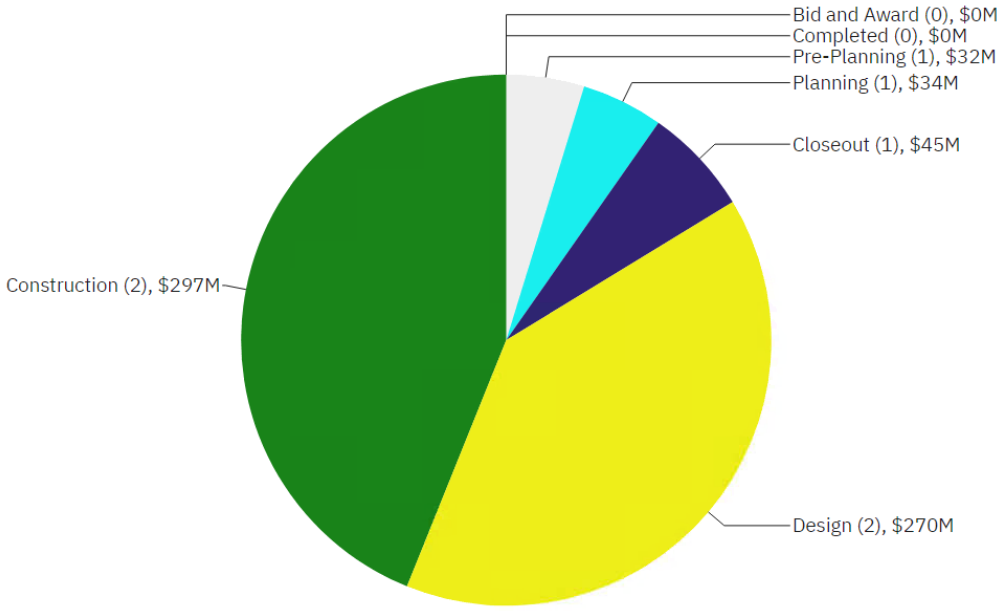


Figure C Total Current Approved Budget for Facilities and Infrastructure Projects Active in Each Phase

The following Tables provide a summary of the cost and schedule status for the Wastewater Enterprise CIP.

Table B – Wastewater Enterprise CIP Cost Summary

Programs	Expenditures To Date ($ Million) (A)	Current Approved Budget ($ Million) (B)	Q1/FY22-23 Forecasted Costs ($ Million) (C)	Cost Variance ($ Million) (D = B - C)	Variance Over Reporting Period* ($ Million) (E)
SSIP Phase 1	$2,043.3	$4,402.7	$4,397.0	$5.6	-
Other SSIP	$33.1	$1,570.9	$1,570.9	-	-
F&I	$193.0	$677.8	$674.8	$3.0	-
Programs Total	**$2,269.3**	**$6,651.3**	**$6,642.7**	**$8.6**	**-**

* Variance is cost variance from the current approved budget that occurred during the quarter. A negative number reflects cost increases since last quarter, and a positive number reflects cost reduction since last quarter.

Table C - Current Approved vs. Current Forecast Schedule Dates

Programs	2016 Approved Project Start	Current Approved Project Start	Actual Start	2016 Approved Completion	Current Approved Completion	Current Forecast Completion	Schedule Variance (Months)
SSIP Phase 1	07/01/11	07/01/11	07/01/11✓	10/30/26	06/30/32	06/30/32	-
Other SSIP	-	03/03/18	03/03/18✓	-	06/30/33	06/30/33	-
F&I	01/01/11	01/01/11	01/01/11✓	12/29/23	01/29/32	01/29/32	-
Overall Programs	**01/01/11**	**01/01/11**	**01/01/11✓**	**10/30/26**	**06/30/33**	**06/30/33**	-

Program Key Updates:

Key updates for the Sewer System Improvement Program include:

- **SEP Biosolids Digester Facilities Project** - Construction of the digester vessels are underway. Concrete placement of the mat foundation was completed in June. Bid procurement for remaining construction is ongoing. To date, construction bid and award of most of the major biosolids facilities has been completed, including the digesters, solids pretreatment facility, and the chemical feed and No. 2 water facilities. The Commission approved amendments to the contracts for the construction and the engineering support services in alignment with the approved project cost and schedule.

- **SEP New Headworks (Grit) Replacement Project** - Installation of pipe rack columns, beams and cross bracing has started. Installation of underground 84" foul air duct continued. Civil/structural work at the influent junction area, fine screen/grit influent splitter, grit tank/grit handling, and primary influent distribution areas also continued. Completed underground 20" foul air duct sections to north wet well in the influent pump station. Continued equipment procurement and fabrication. Coordination with Power Enterprises/electrical upgrade for Headworks temporary and permanent power cutovers from PG&E power to SFPUC power continued. Coordination/planning with Operations for influent junction area forcemains tie-ins continued.

- **SEP Facility-wide Distributed Control System Upgrade** - Renovation of the existing Southeast Plant (SEP) Distributed Control System (DCS) server room is winding down. The procurement process for SEP DCS server room equipment is underway. Design and coordination with other SSIP project teams at SEP are ongoing.

- **SEP Seismic Reliability and Condition Assessment Improvements** - Project team is completing the contract punch list items and closeout documentation. Project team intends to request for contract duration extension as final closeout process is taking longer than anticipated.

- **North Shore Pump Station Wet Weather Improvements Project** - Contractor continues dry weather/wet weather crossover work including relocation of seal water pumps, install of new piping, installation of dowels for new thrust blocks. Contractor completed installation of influent control panel inside the control room and the hydraulic power unit panel outside the control room. Contractor began installation, commissioning, and start-up of Uninterruptable Power Supply (UPS) at SEP 930 basement.

- **Yosemite Green Infrastructure Project** – Notice to Proceed (NTP) was issued on the design phase professional services task order and the project team began design work. The project team conducted outreach to gather signatures for the one-way conversion of Wayland Street.

- **Watershed Stormwater Management Project (Planning Only)** - Similar to last quarter, the project team provided technical support for Flood Resilience Programmatic Strategies, green infrastructure projects and programs, and billing system upgrades. During the current quarter, the project team coordinated with San Francisco Recreation and Park Department on the Buchanan Street Mall green infrastructure project.

- **Folsom Area Stormwater Improvement Project** - The City team is proceeding towards 95% design for the Alameda Street Wet Weather Tunnel Contract, proceeding towards 100% design for the initial Folsom Contract (WW-719A) and proceeding towards the 65% design for the Harrison and Treat Street Sewer Box Contract. The Folsom project requires extensive staging on private property and permanent improvements through private property in order to be implemented.
-

For the WWE Facilities and Infrastructure Program, there are five (5) on-going projects where two (2) projects are in construction, two (2) projects in design, and one (1) project in planning.

- **New Treasure Island Wastewater Treatment Plant Project** - On August 23, 2022, the SFPUC Commission authorized the General Manager to negotiate with the responsible bidder that submitted the sole responsive bid. The SFPUC Contract Administration Bureau facilitated three full-day value engineering workshops between the project team, the proposer, and other major SFPUC stakeholders. Negotiations are progressing and the anticipated Commission return date to award contract is in October 2022.

- **Ocean Beach Climate Change Adaptation Project** - For Long Term Improvements, negotiations on funding continue at a very slow rate and continue to impact overall project progress. The 95% Design is in progress and the response to comments on the Draft Environmental Impact Report (DEIR) and Coastal Development Permit are in development.

- **Southeast Community Center @ 1550 Evans Project** - Substantial completion is expected to be issued by October 1 and the Grand Opening is scheduled for October 22.

For the WWE Renewal and Replacement (R&R) Program, there are thirty-one (31) Collection System projects and seven (7) Treatment Facilities projects in construction.

This page is intentionally left blank.

Quarterly Report

Wastewater Enterprise Programs

TABLE OF CONTENTS

This page is intentionally left blank.

I. Sewer System Improvement Program

This page is intentionally left blank.

1. PROGRAM DESCRIPTION

The responsibilities of the San Francisco Public Utilities Commission (SFPUC)'s Wastewater Enterprise (WWE) are to manage, operate, and maintain San Francisco's wastewater collection and treatment system. San Francisco's sewer system collects, conveys, and treats both dry and wet weather (urban stormwater) flows.

The Sewer System Improvement Program (SSIP) is the SFPUC's wastewater capital improvement program which includes multiple projects to improve the existing system. The SSIP is the culmination of several years of wastewater system planning efforts, public meetings, and SFPUC Commission workshops, to develop proposed improvements to address the following challenges:

1. Aging infrastructure and the poor condition of existing facilities.
2. Seismic deficiencies and lack of structural integrity.
3. Limited operating flexibility and lack of redundancy.
4. Compliance with operational permits at all times.
5. Managing stormwater in San Francisco's eight urban watersheds.
6. Optimizing system performance and efficiency.
7. Protecting public health, the environment, and conservation goals to safeguard our natural and human environments, and
8. Compliance with the Commission's Environmental Justice and Community Benefits Policy.

The purpose of the SSIP is to upgrade the existing wastewater system so it can meet the challenges of today and the future. The implementation of the SSIP projects and their associated expenditures will be phased over twenty (20) years in an effort to maintain ratepayer affordability and minimize impacts to our communities throughout the City.

In February 2011, the SFPUC Commission directed staff to proceed with the procurement of a program management consultant to assist City staff with the implementation of the SSIP. The AECOM-Parsons Joint Venture was selected and the Program Management Consultant (PMC) team began work on September 6, 2011. The first major task for the PMC was to develop a recommended Program, collectively known as Program Validation. This effort was completed by the PMC and City staff recommending the scope, schedule, and budget of the SSIP treatment and collection system projects, as well as revisions to the SSIP Goals and Levels of Service (LOS). On August 28, 2012, after a series of three public SSIP workshops, the SFPUC Commission officially endorsed the proposed projects in the $6.933 billion 20-year SSIP and the associated Goals and Level of Service and also authorized staff to proceed with planning and development of projects within Phase 1 of the SSIP, representing $2.7 billion.

Subsequently in October 2015, the PMC was assigned to work on refining program scope, budget and schedule based on newly available information and various constraints and challenges. The effort included project re-prioritization, scope refinement, budget re-alignment and schedule re-alignment. The refinement was completed in January 2016 and presented to the SFPUC Commission on March 22, 2016. The refined program scope and budget for $6.976 billion along with the Goals and LOS for all three phases of the SSIP was endorsed by the Commission along with the baseline for scope, schedule and budget for Phase 1 projects totaling $2.910 billion. The revised program is referred to as the "2016 SSIP Baseline".

The endorsed Goals are stated below:

- Provide a compliant, reliable, resilient, and flexible system that can respond to catastrophic events;
- Integrate green and grey infrastructure to manage stormwater and minimize flooding;
- Provide benefits to impacted communities;
- Modify the system to adapt to climate change;

- Achieve economic and environmental sustainability; and
- Maintain ratepayer affordability.

Wastewater System Overview:

The San Francisco wastewater collection and treatment system has been developed over the past two centuries. San Francisco's sewer system dates back to the 1800's when the first sewers were constructed which, at the time, discharged directly into the San Francisco Bay and the Pacific Ocean. The City's major treatment facilities were constructed over several years as part of major capital improvement programs. The existing treatment facilities were built as follows: North Point Facility, 1951; Southeast Plant, 1952; and Oceanside Plant, 1993. The Southeast Plant was enlarged and upgraded to secondary treatment in 1982, and again expanded to treat peak wet-weather flows in 1996.

The Collection System is a network of sewers that collect and transport both sanitary flows and stormwater runoff. The system is designed to take advantage of the City's natural topography wherever possible to maximize the benefits of gravity flow for the collection, transport, treatment, and discharge of wastewater and stormwater. Ninety-two percent of San Francisco is served by a combined sanitary and stormwater system that consists of 24,800 manholes, 25,000 catch basins, 27 pump stations, and approximately 1,000 miles of sewers ranging from 8-inch diameter pipes to large transport structures measuring up to 45 feet deep by 25 feet wide. Flows are conveyed from the collection system through the transport/storage boxes, to two centralized all-weather treatment plants, located in the southeast and southwest sections of the City respectively, the Southeast Water Pollution Control Plant (SEP) and the Oceanside Water Pollution Control Plant (OSP). During wet weather additional flows are conveyed to our wet-weather facility, located in the northeast section of the City, the North Point Wet-Weather Facility (NPF). The collection system storage capacity is over 200 million gallons, comprised of predominantly grey infrastructure at this time. Existing collection system components include:

- Large Sewers(sewer greater than 36-inch in diameter or equivalent size), Tunnels and Odor Control
- Pump Stations and Force Mains
- Transport/Storage Boxes, and
- Combined Sewer Discharge (CSD) Structures

The broad components of the wastewater treatment plant facilities include:

- Liquid treatment processes;
- Solids treatment processes; and,
- Deepwater outfalls, located in the San Francisco Bay and Pacific Ocean.

Operating a combined system, WWE treats both sanitary sewage and urban stormwater – commonly referred to as wastewater. The maximum daily treatment capacity of the existing system is 575 million gallons. On an annual basis the system treats approximately 40 billion gallons.

Program Evolution:

Due to the size of the SSIP, a phased approach was initially developed to simplify the implementation of projects. This was done to manage rate impacts, consider construction sequencing impacts and maintain existing operations and permit compliance. Each of the projects in the SSIP contributes to the wastewater system meeting the Commission-endorsed goals and levels of service. Phase 1 projects focused on ensuring regulatory compliance, enhancing process reliability and redundancy, improving plant odor control, and replacing the antiquated biosolids and headworks facilities with state-of-the-art technology. As such, Phase 1 focused on treatment plant improvements.

Since Commission approval of the 2018 SSIP Baseline, considerable thought was put into how the program has evolved since inception in 2010 and how it should move forward. A capital program spanning several decades like the SSIP must continually adapt to ever-evolving priorities and changing market conditions to be sustainable. In previous SSIP baseline efforts, long term forecasting was used to plan the three overlapping phases of investments to deliver the program while achieving financial affordability goals. However, lessons learned have taught us that the confidence and accuracy of these forecasts diminish over a long duration. Thus, on February 8, 2022, the Commission approved the 2022 SSIP Baseline, where a selection of high priority projects identified initially in Phases 2 and 3 were initiated. The SFPUC is transitioning away from the original intent of three distinct SSIP phases and instead implementing capital improvement projects as part of a rolling Ten-Year capital plan. New projects will be initiated based on priority and timeline through the SFPUC's biennial budget process.

SSIP Revised Baseline:
As reflected in Table 1.1, the SSIP Phase 1 Baseline Budget and Schedule were revised in 2018, 2020, and 2022, and these revisions were approved by the San Francisco Public Utilities Commission on April 24, 2018, December 2020, and February 2022, respectively. The 2022 Approved Budget for SSIP Phase 1 is $4,402.7 million, which is about $747.4 million higher than the 2020 Baseline Budget. The 2022 Approved Program Completion is June 2032, which is about 59 months later than the 2020 Baseline Program Completion.

Refer to Appendix 1 for scope description of all projects in Phase 1.

Table 1.1 SSIP Phase I Program Revision

Program Revision	Commission Approval	Budget ($Million)	Schedule*
2016 (Baseline)	March 22, 2016	$2,910.4	10/30/26
2018 (Revised)	April 24, 2018	$2,978.7	05/01/25
2020 (Revised)	December 22, 2020	$3,655.3	08/31/27
2022 (Latest Approved)	February 8, 2022	$4,402.7	06/30/32

* Final Program Completion Date

Table 1.2 Other SSIP Projects

Program Revision	Commission Approval	Budget ($Million)	Schedule*
2018 (Baseline)	December 11, 2018	$430.5	06/30/28
2020 (Revised)	December 22, 2020	$1,197.3	12/26/29
2022 (Latest Approved)	February 8, 2022	$1,570.9	06/30/33

* Final Program Completion Date

2. PROGRAM STATUS

Figure 2.1 shows the total Current Approved Budget for the SSIP Phase 1 projects remaining in each phase of the program as of September 30, 2022. The number of projects currently active in each phase is shown in parentheses.

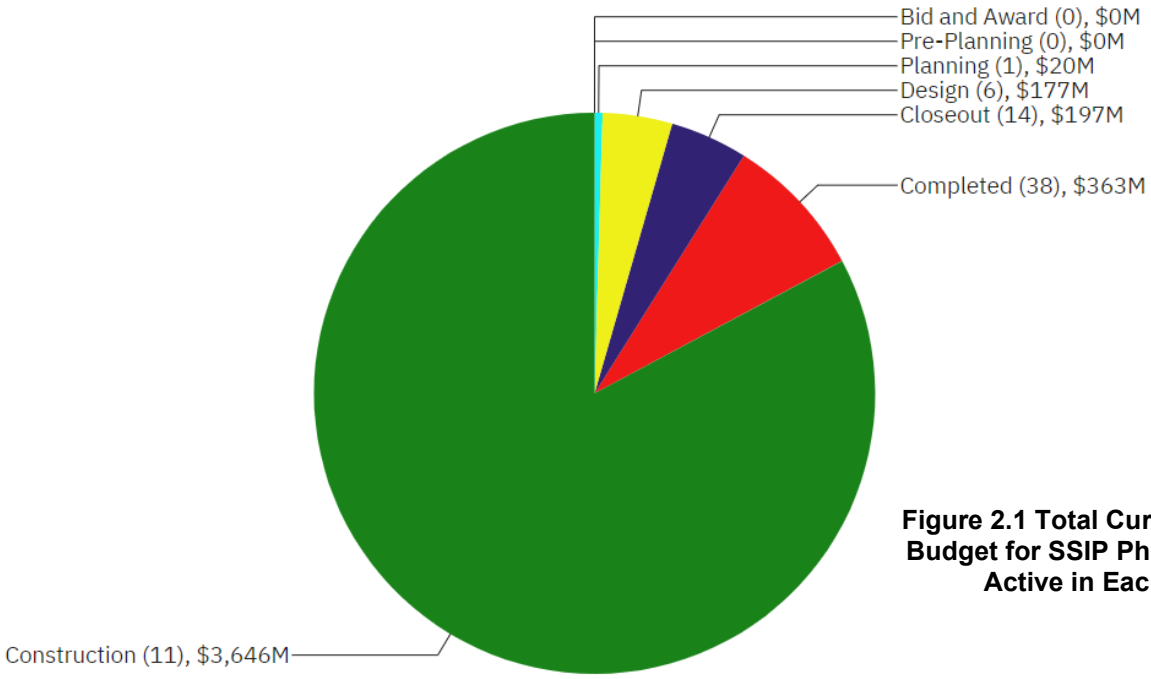


Figure 2.1 Total Current Approved Budget for SSIP Phase 1 Projects Active in Each Phase

Figure 2.2 shows the number of SSIP Phase 1 projects in the following stages of the program as of September 30, 2022: Pre-construction, Construction, and Post-construction.

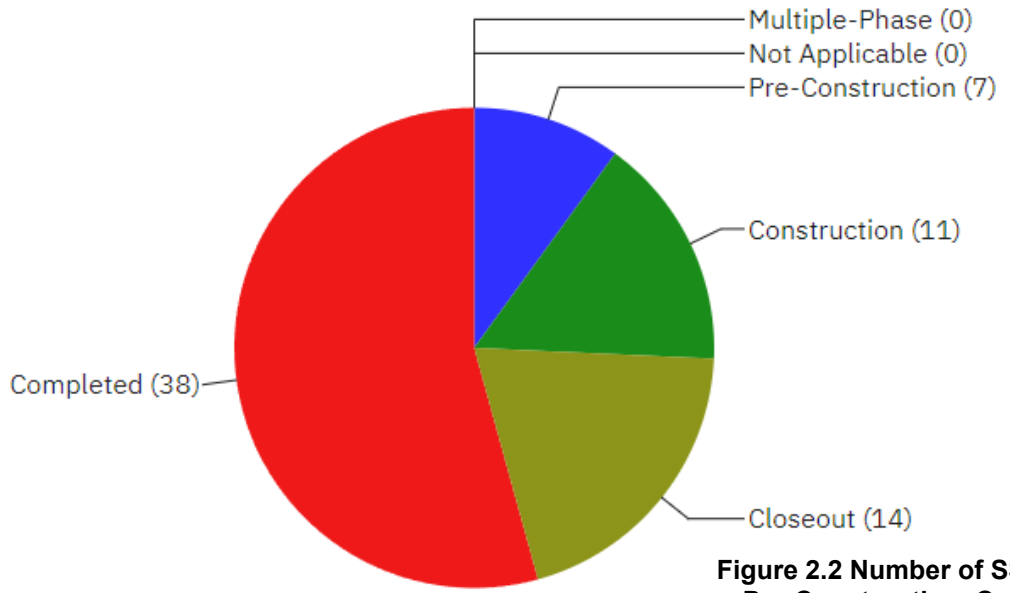


Figure 2.2 Number of SSIP Phase 1 Projects in Pre-Construction, Construction, and Post-

Figure 2.3 summarizes the environmental review and permitting status of the SSIP Phase 1 projects as of September 30, 2022.

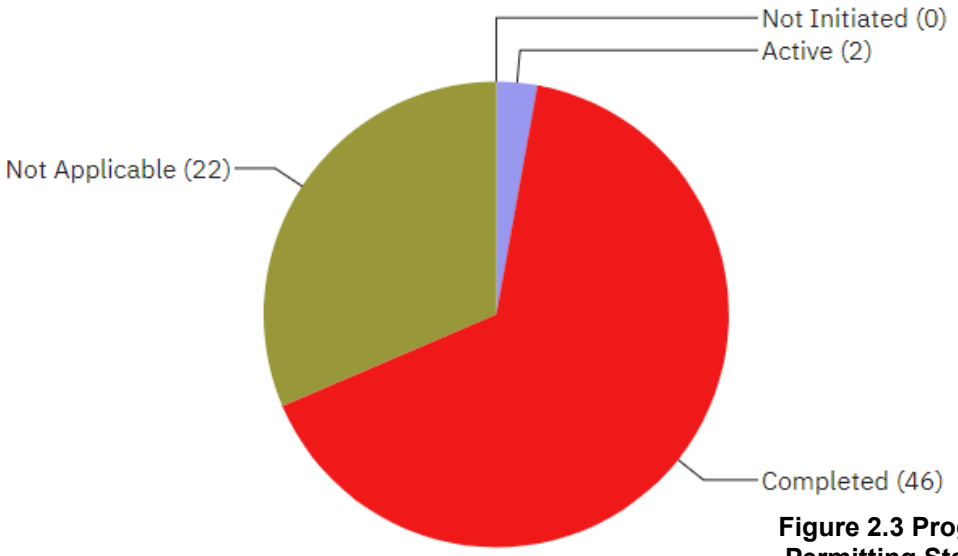


Figure 2.3 Program Environmental and Permitting Status of the SSIP Phase 1 Projects

Figure 2.4 shows the total Current Approved Budget for the Other SSIP projects remaining in each phase of the program as of September 30, 2022. The number of projects currently active in each phase is shown in parentheses.

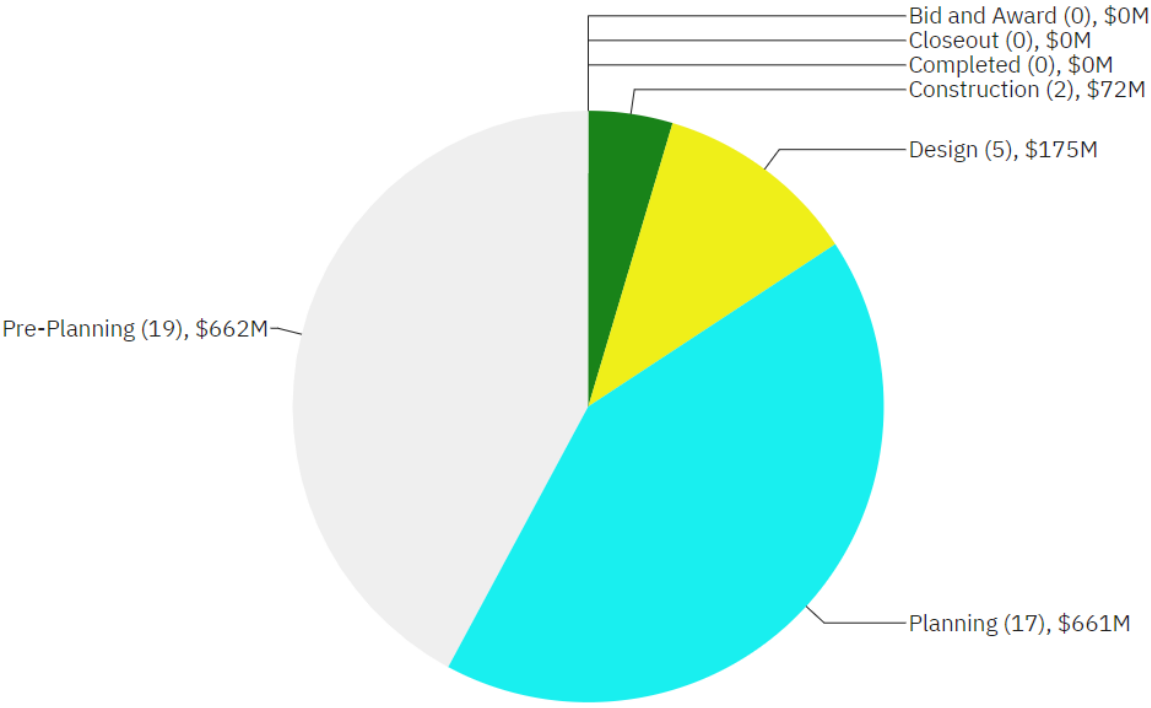


Figure 2.4 Total Current Approved Budget for Other SSIP Projects Active in Each Phase

Figure 2.5 shows the number of Other SSIP projects in the following stages of the program as of September 30, 2022: Pre-construction, Construction, and Post-construction.

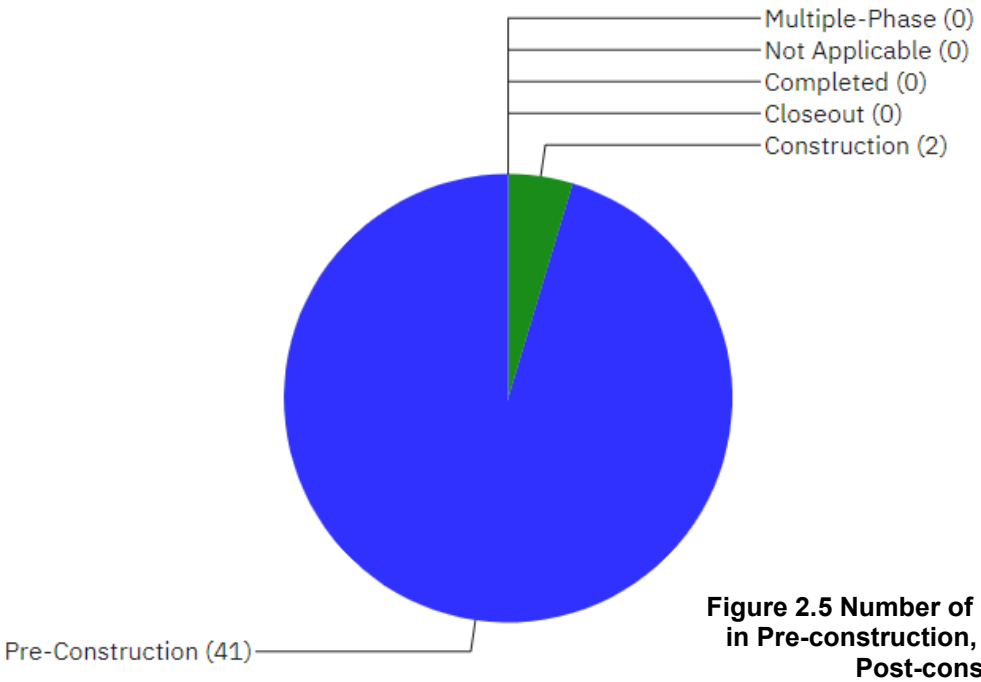


Figure 2.5 Number of Other SSIP Projects in Pre-construction, Construction, and Post-construction

Figure 2.6 summarizes the environmental review and permitting status of the Other SSIP projects as of September 30, 2022.

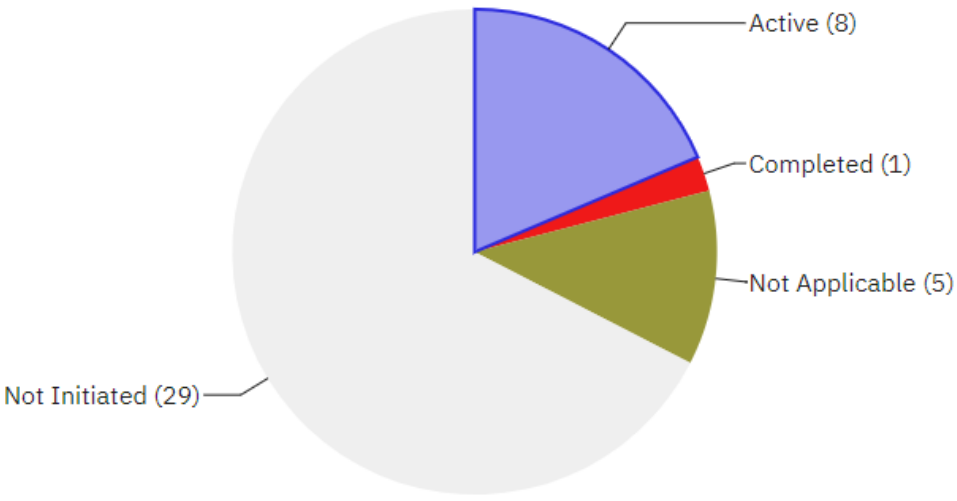


Figure 2.6 Program Environmental and Permitting Status of the Other SSIP Projects

KEY ACCOMPLISHMENTS

Programmatic

- Continued construction on the Southeast Area Major projects which include Biosolids Digester Facility Project (BDFP), Headworks and the Southeast Community Center
- Conducted Supervisor Mar tour of Oceanside Treatment Plant and Recycled Water Facility
- Held Southeast Treatment Plant Construction tours for members of the Revenue Bond Oversight Committee and Southeast Community Facility Commission

In the News

One (1) media mention including story on upgrades underway at Southeast Treatment Plant

Highlights of Conducted Outreach

Monthly citywide and District 10 focused email newsletters to 4,500+ recipients providing Project Updates and Community Resources

Southeast Construction Updates Email - bi-weekly email newsletters to 700+ recipients providing construction updates on projects underway in the area

July – In-person noticing and site visits to coordinate construction impacts with local organizations, schools and businesses as part of the Wawona and Vicente Stormwater and Water Main Replacement Project

July – Noticing for start of construction on Various Location Sewer Upgrades

August —Southeast Treatment Plant Construction Tour for local community stakeholders

August – Promote completion of the Cargo Way Sewer Box Odor Reduction Project

September - In-person noticing and site visits to coordinate construction impacts as part of the Various Locations Sewer Replacement Project

September —Virtual Community Coffee Meeting and project update for stakeholders of the Southeast Treatment Plant construction

September – Door-to-door outreach to Wawona/15th area in advance of heavy construction

September – In-person tabling for the Upper Yosemite Creek Daylighting project to provide an update and engage with residents on a potential one-way conversion

Upcoming Outreach Events

October – In-person noticing and site visits to coordinate construction impacts with local organizations, schools and businesses as part of the Wawona and Vicente Stormwater and Water Main Replacement Project

October – Noticing for start of construction on Large Diameter Sewer Upgrades

October —Southeast Treatment Plant Construction Tour for local community stakeholders

October – Conducted door to door outreach and shared progress on Southeast Construction as part of the Southeast Community Center grand opening celebration

October – Participate in unveiling of commemorative, interpretive sign for historical cemetery in Golden Gate National Recreational Area; completed as part of Baker Beach Green Streets project

November - In-person noticing and site visits to coordinate construction impacts as part of the Various Locations Sewer Replacement Project

November —Virtual Community Coffee Meeting and project update for stakeholders of the Southeast Treatment Plant construction

November – In-person tabling event to provide update to Merced Manor residents on Vicente Street as part of the Wawona and Vicente Stormwater and Water Main Replacement Project and possible future upgrades at Merced Manor Reservoir

November – Conduct tour of Oceanside Treatment Plant with members of the Revenue Bond Oversight Committee

December – Participate in joint event with SF Port on Waterfront Resilience Project

December– Promote completion and host celebration of the Mariposa Pump Station Project

3. PROGRAM COST SUMMARY

Table 3 provides an overall program-level cost summary of Sewer System Improvement (SSIP) projects grouped by Facilities. It shows the Expenditures to Date, Current Approved Budget, Q1/FY22-23 Forecasted Costs, Cost Variance between the Current Approved and Forecasted Cost, and Variance Over Reporting Period. The Current Approved Budget for SSIP is $5,973.5 million and the Current Forecasted Cost is $5.62 million under budget. This is mainly due to the Land Reuse Projects having a forecast less than the approved budget.

Table 3. Program-Level Cost Summary of SSIP

Subprograms	Expenditure To Date ($ Million) (A)	Current Approved Budget ($ Million) (B)	Current Forecasted Cost ($ Million) (C)	Cost Variance ($ Million) (D = B - C)	Variance Over Reporting Period* ($ Million) (E)
Treatment Facilities	**$1,469.79**	**$4,256.85**	**$4,256.86**	**($0.00)**	**$0.00**
Biosolids Digester Facilities Project	**$711.08**	**$2,372.62**	**$2,372.62**	**$0.00**	**$0.00**
SSIP Phase 1	$711.08	$2,372.62	$2,372.62	$0.00	$0.00
New Headworks (Grit) Replacement	**$392.66**	**$679.03**	**$679.03**	**($0.00)**	**$0.00**
SSIP Phase 1	$392.66	$679.03	$679.03	($0.00)	$0.00
Southeast Plant (SEP) Improvements	**$235.69**	**$609.62**	**$609.62**	**($0.00)**	**$0.00**
SSIP Phase 1	$233.13	$335.69	$335.69	($0.00)	$0.00
Other SSIP	$2.56	$273.93	$273.93	$0.00	$0.00
Oceanside Plant (OSP) Improvements	**$87.14**	**$431.31**	**$431.31**	**($0.00)**	**$0.00**
SSIP Phase 1	$85.41	$158.95	$158.95	($0.00)	$0.00
Other SSIP	$1.73	$272.36	$272.36	($0.00)	$0.00
North Point Facility (NPF) Improvements	**$43.21**	**$164.29**	**$164.29**	**$0.00**	**$0.00**
SSIP Phase 1	$42.56	$73.18	$73.18	$0.00	$0.00
Other SSIP	$0.65	$91.10	$91.10	$0.00	$0.00

I. SSIP Quarterly Report FY2022-2023 (07/01/22 – 09/30/22)

Subprograms	Expenditure To Date ($ Million)	Current Approved Budget ($ Million)	Current Forecasted Cost ($ Million)	Cost Variance ($ Million)	Variance Over Reporting Period* ($ Million)
Collection System	**$244.49**	**$555.22**	**$553.93**	**$1.29**	**$0.00**
Interceptors / Tunnels and Odor Control	**$50.62**	**$196.38**	**$196.35**	**$0.03**	**$0.00**
SSIP Phase 1	$33.07	$60.57	$60.53	$0.03	$0.00
Other SSIP	$17.55	$135.81	$135.81	$0.00	$0.00
Interdepartmental Projects	**$55.70**	**$94.83**	**$94.65**	**$0.18**	**$0.00**
SSIP Phase 1	$55.70	$94.83	$94.65	$0.18	$0.00
Pump Stations and Forcemain Improvements	**$82.12**	**$142.54**	**$142.54**	**$0.00**	**$0.00**
SSIP Phase 1	$79.70	$82.05	$82.05	$0.00	$0.00
Other SSIP	$2.41	$60.50	$60.50	$0.00	$0.00
Combined Sewer Discharge (CSD) and Transport/Storage Structures	**$19.47**	**$82.95**	**$83.05**	**($0.11)**	**$0.00**
SSIP Phase 1	$18.64	$23.19	$23.30	($0.11)	$0.00
Other SSIP	$0.82	$59.75	$59.75	($0.00)	$0.00
Central Bayside System Improvement (CBSIP)	**$36.58**	**$38.52**	**$37.34**	**$1.18**	**$0.00**
SSIP Phase 1	$36.58	$38.52	$37.34	$1.18	$0.00
Stormwater Management	**$98.00**	**$243.06**	**$243.06**	**($0.00)**	**$0.00**
Early Implementation Projects	**$43.90**	**$65.25**	**$65.25**	**$0.00**	**$0.00**
SSIP Phase 1	$43.90	$65.25	$65.25	$0.00	$0.00
Watershed Stormwater Management	**$30.37**	**$128.56**	**$128.56**	**($0.00)**	**$0.00**
SSIP Phase 1	$27.43	$57.90	$57.90	($0.00)	$0.00
Other SSIP	$2.94	$70.66	$70.66	($0.00)	$0.00
Advanced Rainfall and Operation Decision System	**$6.32**	**$9.16**	**$9.16**	**$0.00**	**$0.00**
SSIP Phase 1	$6.32	$9.16	$9.16	$0.00	$0.00
Urban Watershed Assessment	**$17.41**	**$17.41**	**$17.41**	**$0.00**	**$0.00**
SSIP Phase 1	$17.41	$17.41	$17.41	$0.00	$0.00
Watershed Stormwater Management and Customer Service Billing System	**$0.00**	**$22.69**	**$22.69**	**$0.00**	**$0.00**
Other SSIP	$0.00	$22.69	$22.69	$0.00	$0.00

I. SSIP Quarterly Report

Subprograms	Expenditure To Date ($ Million)	Current Approved Budget ($ Million)	Current Forecasted Cost ($ Million)	Cost Variance ($ Million)	Variance Over Reporting Period* ($ Million)
Flood Resilience Projects	**$29.92**	**$633.93**	**$633.93**	**$0.00**	**$0.00**
Flood Resilience Projects	**$29.92**	**$633.93**	**$633.93**	**$0.00**	**$0.00**
SSIP Phase 1	$25.52	$49.87	$49.87	$0.00	$0.00
Other SSIP	$4.39	$584.06	$584.06	$0.00	$0.00
Land Reuse	**$85.12**	**$89.45**	**$85.12**	**$4.33**	**$0.00**
Land Reuse	**$85.12**	**$89.45**	**$85.12**	**$4.33**	**$0.00**
SSIP Phase 1	$85.12	$89.45	$85.12	$4.33	$0.00
Program Management	**$149.03**	**$195.00**	**$195.00**	**$0.00**	**$0.00**
Phase 1 Program Management	**$149.03**	**$195.00**	**$195.00**	**$0.00**	**$0.00**
SSIP Phase 1	$149.03	$195.00	$195.00	$0.00	$0.00
Overall Program Total	**$2,076.34**	**$5,973.51**	**$5,967.90**	**$5.62**	**$0.00**
SSIP Phase 1 Subtotal	$2,043.27	$4,402.65	$4,397.04	$5.62	$0.00
Other SSIP Subtotal	$33.07	$1,570.86	$1,570.86	($0.00)	$0.00

* Variance is cost variance from the current approved budget that occurred during the quarter. Negative number is reflecting cost increases since last quarter, and positive number is reflecting cost reduction since last quarter.

4. PROGRAM SCHEDULE SUMMARY

Figure 4 and Table 4 compare the Current Approved, and Current Forecasted Schedules for the SSIP.

Overall completion schedule for the revised SSIP Phase 1 and Other SSIP were approved by the SFPUC Commission in February 2022. The approved schedule completion for the overall SSIP Phase 1 and Other SSIP are in June 2032 and June 2033, respectively. The current projects forecasted completion of the SSIP Phase 1 and Other SSIP are in June 2032 and June 2033, respectively.

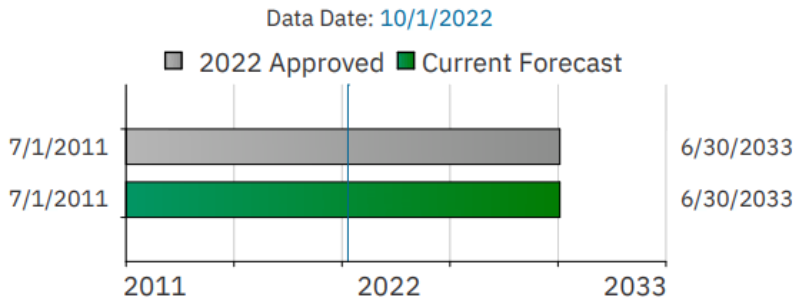


Figure 4 SSIP Schedule Summary

Table 4. Current Approved vs. Current Forecast Schedule Dates

Program	Current Approved Project Start	Actual Start	Current Approved Completion	Current Forecast Completion	Schedule Variance (Months)
SSIP Phase 1	07/01/2011	07/01/2011	06/30/2032	06/30/2032	-
Other SSIP	03/03/2018	03/03/2018	06/30/2033	06/30/2033	-
Overall SSIP	**07/01/2011**	**07/01/2011**	**06/30/2033**	**06/30/2033**	

5. BUDGET AND SCHEDULE TREND SUMMARY

Starting with the Q1 FY21-22 Quarterly Report, a revised report format includes a new Table 5, titled Budget and Schedule Trend Summary. This Table 5 contains all approved SSIP projects that are active and in any of the planning, design, bid and award, or construction phases of the project. The table excludes all Program Management projects, as well as any projects that are either Not-Initiated, On-Hold, in Closeout or Completed.

During this Quarter (Q1 FY22-23), the following major milestone were achieved, and the project cost and schedule forecasts were updated based on the updated milestone cost estimates accordingly for the following SSIP projects:

1. Primary Treatment (SEP - 040/041) H&S Improvements completed 35% design.
2. Large Sewer Condition Assessment and Improvements Subproject H completed 35% design.
3. Large Sewer Condition Assessment and Improvements Subproject E awarded construction contract.
4. Completed Conceptual Engineering Report (CER): Seacliff No. 2 PS & FM Upgrade; Geary Underpass PS Safe Access Enhancements; and Sunnydale PS Safety Improvements.

Table 5. Budget and Schedule Trend Summary

All Costs are shown in million.

Project Name	Previous Program Group Title	Most Recent CIP		Project Initiation		CER		35% Design		95% Design		Awarded Construction[1]		Current Status	
		Approved Budget	Approved Completion	Forecast Cost	Forecast Completion	Forecast Cost	Forecast Completion	Forecast Cost	Forecast Completion	Forecast Cost	Forecast Completion	Forecast Cost	Forecast Completion	Forecast Cost	Forecast Completion
		a	b	c	d	e	f	g	h	i	j	k	l	m	n
Rolling WWE Capital Projects															
Treatment Facilities															
Biosolids Digester Facilities Project															
10015796 SEP Biosolids Digester Facilities Project (BDFP)[2]	SSIP Phase 1	FY23-32		12/31/14		01/29/16		11/30/16		12/06/18 (Scope I) & 01/14/19 (Scope II)		08/26/19 (Scope I) & 07/01/20 (Scope II)		Q1 - FY22-23	
Scope I - EOP 1A, 1C, 1B, 2B Scope II - Remainder of SOW		$2,372.6	05/11/29	$1,750.0	08/31/23	$1,276.4	05/01/25	$1,276.4	05/01/25	$1,315.3	05/01/26	$1,680.7	07/06/28	$2,372.6	05/11/29
New Headworks (Grit) Replacement															
10015807 SEP New Headworks (Grit) Replacement [2]	SSIP Phase 1	FY23-32		03/01/13		01/29/16		06/23/16 (Scope I), 10/17/16 (Scope II) & 06/23/16 (Scope III)		05/23/17 (Scope I), 09/26/17 (Scope II) & 05/31/18 (Scope III)		11/15/17 (Scope I), 12/17/18 (Scope II) & 07/23/19 (Scope III)		Q1 - FY22-23	
Scope I - Site Preparation Scope II - Bruce Flynn Pump Station Scope III - New Headworks		$679.0	09/30/24	$183.0	03/31/20	$359.0	12/29/23	$359.0	12/29/23	$718.0	09/30/24	$718.8	09/30/24	$679.0	09/30/24
Southeast Plant (SEP) Improvements															
10015809 SEP Facility-wide Distributed Control System Upgrade[3]	SSIP Phase 1	FY23-32		09/03/13		11/01/17		Ongoing		Not Started		12/13/16[4]		Q1 - FY22-23	
		$63.0	12/30/27	$63.0	02/26/21	$63.0	08/31/23	$63.0	08/31/27	N/A	N/A	$63.0	08/31/23	$63.0	12/30/27
10002284 SEP Power Feed and Primary Switchgear Upgrades	SSIP Phase 1	FY23-32		06/23/14		04/15/16		07/29/16		09/29/17		09/08/20		Q1 - FY22-23	
		$95.9	08/24/24	$69.8	07/31/20	$69.8	07/31/20	$69.8	11/19/20	$84.3	06/30/22	$95.9	06/18/24	$95.9	08/21/24
10037353 SEP 550 Booster PS Condition Inspection & Interim	Other SSIP	FY23-32		01/12/21		12/30/22		04/20/23		11/21/23		08/30/24		Q1 - FY22-23	
		$20.3	02/24/27	$9.9	06/30/26	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	$20.3	02/24/27
10038373 SEP, Booster PS, & BFS Security Enhancements	Other SSIP	FY23-32		01/18/22		03/31/23		06/16/23		10/27/23		11/06/24		Q1 - FY22-23	
		$35.8	12/10/26	$35.8	12/10/26	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	$35.8	12/10/26
10037330 Primary Treatment (SEP 040/041) H&S Improvements	Other SSIP	FY23-32		01/04/21		04/15/22		08/31/22		06/30/23		12/14/23		Q1 - FY22-23	
		$27.4	09/30/26	$27.4	09/30/26	$27.4	09/30/26	TBD	TBD	TBD	TBD	TBD	TBD	$27.4	09/30/26

Footnotes:

1. This represents Forecast project cost and project completion date at the time of award of construction contract, award of CM/GC scope, award of DB scope.
2. The project delivery method for this project is Construction Manager/General Contractor (CM/GC).
3. The project delivery method for this project is Progressive Design-Built (DB).
4. This represents the award of the overall progressive design build contract DB-126 which includes Preconstruction & Construction phases / The project Initiation Forecast Cost was based on funding availability.

All Costs are shown in million.

Project Name	Previous Program Group Title	Most Recent CIP		Project Initiation		CER		35% Design		95% Design		Awarded Construction[1]		Current Status	
		Approved Budget	Approved Completion	Forecast Cost	Forecast Completion	Forecast Cost	Forecast Completion	Forecast Cost	Forecast Completion	Forecast Cost	Forecast Completion	Forecast Cost	Forecast Completion	Forecast Cost	Forecast Completion
		a	b	c	d	e	f	g	h	i	j	k	l	m	n
10037331 Maintenance Building (SEP 940) Interim Improvement	Other SSIP	FY23-32		01/12/21		02/28/23		08/16/23		07/30/24		04/24/25		Q1 - FY22-23	
		$40.7	09/13/28	$40.6	07/02/26	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	$40.7	09/13/28
Oceanside Plant (OSP) Improvements															
10029736 Westside Pump Station Reliability Improvements (OP02)	SSIP Phase 1	FY23-32		06/13/13		02/04/16		08/02/16		08/18/17		02/09/21		Q1 - FY22-23	
		$89.3	12/31/24	$68.3	09/02/21	$70.5	12/02/21	$70.5	12/02/21	$70.5	12/02/21	$87.8	12/31/24	$89.3	12/31/24
10029737 OSP Digester Gas Utilization Upgrade (OP03)	SSIP Phase 1	FY23-32		10/01/13		11/20/14		02/04/16		02/01/17		08/28/18		Q1 - FY22-23	
		$55.6	03/29/24	$48.2	06/15/20	$48.2	06/15/20	$39.7	06/15/20	$39.7	06/15/20	$45.9	07/29/21	$55.6	03/29/24
10037733 Solids Thickening (OSP 011) Process Upgrade (OSP - 2)	Other SSIP	FY23-32		01/25/22		04/28/23		10/02/23		05/31/24		04/01/25		Q1 - FY22-23	
		$20.2	01/12/28	$20.2	03/26/27	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	$20.2	01/12/28
10037734 OSP Plant-wide Ventilation (HVAC) Upgrades (OSP - 3)	Other SSIP	FY23-32		01/26/22		11/29/22		03/16/23		10/26/23		07/15/24		Q1 - FY22-23	
		$7.4	05/04/27	$7.4	03/29/27	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	$7.4	05/04/27
10036398 OSP Condition Improvement Projects - Part 2 (OSP - 4)	Other SSIP	FY23-32		01/04/21		01/03/25		05/16/25		02/26/26		11/18/26		Q1 - FY22-23	
		$105.1	07/06/29	$105.1	07/06/29	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	$105.1	07/06/29
10037735 Admin Bldg (OSP 930) Health & Safety Improvements (OSP - 7)	Other SSIP	FY23-32		02/01/22		11/22/22		02/27/23		09/18/23		04/09/24		Q1 - FY22-23	
		$5.7	10/01/26	$5.7	10/01/26	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	$5.7	10/01/26
10037777 OSP & WSPS Security Enhancements	Other SSIP	FY23-32		08/02/21		12/30/22		04/10/23		10/23/23		08/21/24		Q1 - FY22-23	
		$13.8	06/23/26	$7.2	06/30/25	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	$13.8	06/23/26
North Point Facility (NPF) Improvements															
10026822 North Shore Pump Station Wet Weather Improvements	SSIP Phase 1	FY23-32		08/15/13		05/29/15		06/30/17		12/07/18		01/26/21		Q1 - FY22-23	
		$55.0	12/29/23	$8.8	09/29/25	$66.6	12/31/19	$61.4	12/31/20	$55.0	01/27/22	$55.0	12/29/23	$55.0	12/29/23
10037325 Admin Bldg (NPF 930) Evaluation & Interim H&S Improvements (NPF - 2)	Other SSIP	FY23-32		03/01/22		03/28/23		05/24/23		11/27/23		06/13/24		Q1 - FY22-23	
		$7.9	07/23/26	$7.9	02/03/26	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	$7.9	07/23/26
10037904 NPF & NSS Security Enhancements	Other SSIP	FY23-32		01/18/22		03/31/23		07/31/23		01/03/24		11/06/24		Q1 - FY22-23	
		$17.8	12/10/26	$17.8	12/10/26	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	$17.8	12/10/26
10038353 NPF DCS Upgrades (Construction)	Other SSIP	FY23-32		11/01/21		N/A		N/A		N/A		N/A		Q1 - FY22-23	
		$11.0	12/30/27	$11.0	09/02/27	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	$11.0	12/30/27

Footnotes:

1. This represents Forecast project cost and project completion date at the time of award of construction contract, award of CM/GC scope, award of DB scope.

All Costs are shown in million.

Project Name	Previous Program Group Title	Most Recent CIP		Project Initiation		CER		35% Design		95% Design		Awarded Construction[1]		Current Status	
		Approved Budget	Approved Completion	Forecast Cost	Forecast Completion	Forecast Cost	Forecast Completion	Forecast Cost	Forecast Completion	Forecast Cost	Forecast Completion	Forecast Cost	Forecast Completion	Forecast Cost	Forecast Completion
		a	b	c	d	e	f	g	h	i	j	k	l	m	n
Collection System															
Interceptors/Tunnels and Odor Control															
10034718 Large Diameter Sewer Projects and Channel FM Intertie	Other SSIP	FY23-32		08/01/19		(A) 03/22/21 (B) N/A (C) 10/30/20 (D) 09/30/20 (E) 04/30/21 (F) 06/30/21 (G) N/A (H) 01/31/22 (I) 09/16/22 (J) 10/03/22		(A) 09/10/21 (B) 01/24/20 (C) 06/01/21 (D) 02/17/21 (E) 10/04/21 (F) 12/01/21 (G) N/A (H) 09/09/22 (I) 03/24/23 (J) 02/16/23		(A) 04/19/22 (B) 09/30/20 (C) 02/24/22 (D) 02/25/22 (E) 02/14/22 (F) 07/07/22 (G) N/A (H) 01/17/23 (I) 09/22/23 (J) 08/17/23		(A) 12/27/22 (B) 05/11/21 (C) 01/10/23 (D) N/A (E) 08/23/22 (F) 02/14/23 (G) N/A (H) 08/22/23 (I) 04/09/24 (J) 04/15/24		Q1 - FY22-23	
(A) Channel FM Intertie (B) New Montgomery, Mission, Jessie, & Minna Streets (C) Panhandle & Inner Sunset (D) Tenderloin & Nob Hill (E) Chinatown & North Beach (F) Castro (G) South Van Ness Ave (H) East SOMA (I) Hayes Valley (J) West SOMA		$114.6	12/07/26	$47.0	12/07/26	N/A	TBD	TBD	TBD	TBD	TBD	TBD	TBD	$114.6	12/07/26
10002652 Kansas and Marin Streets Sewer Improvements [2]	SSIP Phase 1	FY23-32		06/10/13		09/14/18 - DBB TBD - DB		06/30/21 - DBB TBD - DB		TBD		TBD		Q1 - FY22-23	
		$30.0	08/30/24	$12.5	03/30/16	$12.5	02/15/18	$30.0	08/30/24	TBD	TBD	TBD	TBD	$30.0	08/30/24
Interdepartmental Projects															
10033106 Geary BRT Sewer Improvements Phase 2	SSIP Phase 1	FY23-32		03/15/18		N/A		N/A		N/A		N/A		Q1 - FY22-23	
		$2.0	06/30/23	$2.0	03/30/20	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	$2.0	06/30/23
10002664 Van Ness BRT Sewer Improvements	SSIP Phase 1	FY23-32		10/01/13		05/20/14		N/A		05/01/15		08/15/16		Q1 - FY22-23	
		$25.0	06/30/23	$12.3	01/16/18	$14.0	03/30/17	N/A	N/A	$14.0	04/19/17	$15.0	06/04/20	$25.0	06/30/23
10002667 Better Market Street Sewer Improvements - Phase 1	SSIP Phase 1	FY23-32		01/06/14		12/13/16		01/18/19 (Pilot Block)		01/10/20 (Pilot Block)		TBD - Contract 2		Q1 - FY22-23	
		$15.0	10/31/28	$0.5	01/04/19	$32.4	01/23/24	$9.8	03/31/22	$15.0	09/30/24	TBD	TBD	$15.0	10/31/28
10002776 Taraval Sewer Improvements	SSIP Phase 1	FY23-32		03/14/16		02/03/17		05/01/17		10/31/17		03/05/19 - Segment A 10/05/21 - Segment B		Q1 - FY22-23	
		$34.5	07/31/25	$20.4	10/19/20	$20.4	10/19/20	N/A	10/19/20	$20.4	10/19/20	$34.5	07/31/25	$34.5	07/31/25

Footnotes:

1. This represents Forecast project cost and project completion date at the time of award of construction contract, award of CM/GC scope, award of DB scope.
2. The project delivery method for this project is Progressive Design-Built (DB).
3. The project Initiation Forecast Cost was based on funding availability.

All Costs are shown in million.

Project Name	Previous Program Group Title	Most Recent CIP		Project Initiation		CER		35% Design		95% Design		Awarded Construction[1]		Current Status	
		Approved Budget	Approved Completion	Forecast Cost	Forecast Completion	Forecast Cost	Forecast Completion	Forecast Cost	Forecast Completion	Forecast Cost	Forecast Completion	Forecast Cost	Forecast Completion	Forecast Cost	Forecast Completion
		a	b	c	d	e	f	g	h	i	j	k	l	m	n
Pump Stations and Force Main Improvements															
10026828 Mariposa Dry-Weather Pump Station & Force Main Improvements[2]	SSIP Phase 1	FY23-32		07/01/14		11/30/16		03/24/17		10/30/17		09/11/18		Q1 - FY22-23	
		$31.9	12/30/22	$0.3	12/31/14	$28.2	01/21/21	$28.2	01/21/21	$28.2	01/21/21	$31.9	06/21/21	$31.9	06/30/23
10037251 Seacliff No. 1 PS & FM Upgrade	Other SSIP	FY23-32		12/07/20		10/31/22		02/07/23		07/17/23		05/08/24		Q1 - FY22-23	
		$14.7	12/31/26	$13.1	12/26/29	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	$14.7	12/31/26
10037246 Seacliff No. 2 PS & FM Upgrade	Other SSIP	FY23-32		12/14/20		09/30/22		01/24/23		09/22/23		06/11/24		Q1 - FY22-23	
		$19.3	01/31/28	$16.8	12/21/29	$19.3	01/31/28	TBD	TBD	TBD	TBD	TBD	TBD	$19.3	01/31/28
10037303 Sunnydale PS Safety Improvements	Other SSIP	FY23-32		12/14/20		09/26/22		01/23/23		07/11/23		03/18/24		Q1 - FY22-23	
		$15.5	05/29/26	$5.0	05/29/26	$15.5	05/29/26	TBD	TBD	TBD	TBD	TBD	TBD	$15.5	05/29/26
10038469 Pump Station Security Upgrades (Cesar Chavez, GFS, CHS, MMS)	Other SSIP	FY23-32		06/01/22		02/28/23		07/25/23		03/18/24		01/14/25		Q1 - FY22-23	
		$9.1	05/03/27	$9.1	05/03/27	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	$9.1	05/03/27
10038446 Geary Underpass PS Safe Access Enhancements	Other SSIP	FY23-32		01/10/22		07/21/22		05/01/23		09/22/23		06/10/24		Q1 - FY22-23	
		$1.9	05/29/26	$1.9	05/29/26	$1.9	05/29/26	TBD	TBD	TBD	TBD	TBD	TBD	$1.9	05/29/26
CSDs and Transport/Storage Structures															
10037245 Brannan (019) CSD Discharge and Baffle Rehabilitation	Other SSIP	FY23-32		12/07/20		01/31/23		06/12/23		12/01/23		06/04/24		Q1 - FY22-23	
		$7.9	05/01/26	$6.9	08/18/25	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	$7.9	05/01/26
10037244 Baker (009) Baffle Improvements and Repair of Backflow Valve	Other SSIP	FY23-32		12/07/20		01/21/22		04/22/22		07/29/22		03/14/23		Q1 - FY22-23	
		$2.9	08/30/24	$2.3	03/26/24	$2.9	08/30/24	$2.9	08/30/24	$2.9	08/30/24	TBD	TBD	$2.9	08/30/24
10038468 System-wide CSD & T/S Monitoring Equipment Assessment	Other SSIP	FY23-32		01/18/22		N/A		03/29/24		09/24/24		05/16/25		Q1 - FY22-23	
		$9.3	02/01/27	$9.3	02/01/27	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	$9.3	02/01/27
10038547 CSD Structure Rehab & Upgrades - P1 (A) Laguna & Howard Streets CSDs (B) Mission Bay CSD (C) TBD #1 (D) N/A	Other SSIP	FY23-32		01/03/22		(A) 12/02/22 (B) 06/30/23 (C) 06/28/24 (D) N/A		(A) 03/06/23 (B) 10/02/23 (C) 09/30/24 (D) N/A		(A) 09/06/23 (B) 04/03/24 (C) 04/02/25 (D) N/A		(A) 04/30/24 (B) 11/12/24 (C) 11/10/25 (D) N/A		Q1 - FY22-23	
		$39.7	01/31/29	$39.7	01/31/29	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	$39.7	01/31/29

Footnotes:

1. This represents Forecast project cost and project completion date at the time of award of construction contract, award of CM/GC scope, award of DB scope.
2. The project delivery method for this project is Progressive Design-Built (DB).

All Costs are shown in million.

Project Name	Previous Program Group Title	Most Recent CIP		Project Initiation		CER		35% Design		95% Design		Awarded Construction[1]		Current Status	
		Approved Budget	Approved Completion	Forecast Cost	Forecast Completion	Forecast Cost	Forecast Completion	Forecast Cost	Forecast Completion	Forecast Cost	Forecast Completion	Forecast Cost	Forecast Completion	Forecast Cost	Forecast Completion
		a	b	c	d	e	f	g	h	i	j	k	l	m	n
Early Implementation Projects															
10026810 Yosemite Green Infrastructure	SSIP Phase 1	FY23-32		12/03/12		01/11/21		07/28/23		10/31/23		TBD		Q1 - FY22-23	
		$20.8	10/29/27	$13.5	08/30/19	$17.1	06/30/26	TBD	TBD	TBD	TBD	TBD	TBD	$20.8	10/29/27
Watershed Stormwater Management															
10026816 Wawona Area Stormwater Improvement Project	SSIP Phase 1	FY23-32		07/01/16		09/15/17		09/30/19		04/20/20		10/30/20		Q1 - FY22-23	
		$38.9	12/02/24	$22.7	04/07/20	$22.7	04/07/20	$39.0	12/30/22	$44.5	01/16/24	$38.9	07/08/24	$38.9	12/02/24
10029726 Watershed Stormwater Management (Planning Only)	SSIP Phase 1	FY23-32		07/11/16		N/A		N/A		N/A		N/A		Q1 - FY22-23	
		$19.0	06/30/32	$9.0	07/12/19	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	$19.0	06/30/32
10034553 Green Infrastructure Grant Program (GIGP)	Other SSIP	FY23-32		07/01/18		N/A		N/A		N/A		(1) 06/11/19; (2) 10/09/19; (3) 01/28/20; (4) 05/12/20; (5) 04/28/20; (6) 01/13/20; (7) 10/22/20; (8) 10/22/20; (9) 11/10/20		Q1 - FY22-23	
		$61.3	06/30/33	$25.0	06/30/28	N/A	N/A	N/A	N/A	N/A	N/A	S25.0	06/30/29	$61.3	06/30/33
Advanced Rainfall and Operation Decision System															
10029730 Operational Decision System Phase 2	SSIP Phase 1	FY23-32		06/01/15		N/A		N/A		N/A		02/22/18		Q1 - FY22-23	
		$6.7	09/30/25	$7.8	06/26/20	N/A	N/A	N/A	N/A	N/A	N/A	$8.7	06/26/20	$6.7	09/30/25
Flood Resilience Projects															
10034360 Lower Alemany Area Stormwater Improvement Project	Other SSIP	FY23-32		01/02/19		12/30/22		TBD		TBD		01/08/25		Q1 - FY22-23	
		$299.6	09/06/28	$286.5	03/13/28	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	$299.6	09/06/28
10026818 Folsom Area Stormwater Improvement Project	SSIP Phase 1	FY23-32		07/01/16		03/16/18		(A) 03/31/20 (B) 03/31/20		(A) 09/06/22 (B) 12/05/22 (C) 01/13/23 (D) 04/19/23		N/A		Q1 - FY22-23	
(A) Initial Upstream (B) Tunnel (C) Box Sewer (D) Large Pipe Upstream		$38.4	12/27/23	$36.3	11/01/19	$38.4	06/01/20	$38.4	08/31/21	TBD	TBD	N/A	N/A	$38.4	12/27/23

Footnotes:

1. This represents Forecast project cost and project completion date at the time of award of construction contract, award of CM/GC scope, award of DB scope.

6. PROJECT PERFORMANCE SUMMARY*

All costs are shown in $1,000s

Project Name	Active Phase (a) (**)	CIP Approved Budget (b) (+)	Current Approved Budget (c) (++)	Current Forecast Cost (d)	Expenditures to Date (e)	Cost Variance (f=c-d) (+++)	% Cost Changes (g=f/c) (+++)	CIP Completion Date (h) (+)	Approved Completion Date (i) (++)	Forecast Completion Date (j)	Schedule Variance (Days) (k=i-j) (+++)
Treatment Facilities											
Biosolids Digester Facilities Project											
10015796 SEP Biosolids Digester Facilities Project	CN	$2,372,615	$2,372,615	$2,372,615	$711,082	$0	0%	05/11/2029	05/11/2029	05/11/2029	0
New Headworks (Grit) Replacement											
10015807 SEP New Headworks (Grit) Replacement	CN	$679,025	$679,025	$679,025	$392,664	$0	0%	09/30/2024	09/30/2024	09/30/2024	0
Southeast Plant (SEP) Improvements											
10015809 SEP Facility-wide Distributed Control System Upgrade	DS	$62,988	$62,988	$62,988	$18,474	$0	0%	12/30/2027	12/30/2027	12/30/2027	0
10002284 SEP Power Feed and Primary Switchgear Upgrades	CN	$95,875	$95,875	$95,875	$48,924	$0	0%	08/21/2024	08/21/2024	08/21/2024	0
10037353 SEP 550 Booster PS Condition Inspection & Interim	PL	$20,298	$20,298	$20,298	$355	$0	0%	02/24/2027	02/24/2027	02/24/2027	0
10038373 SEP, Booster PS, & BFS Security Enhancements	PL	$35,759	$35,759	$35,759	$142	$0	0%	12/10/2026	12/10/2026	12/10/2026	0
10037330 Primary Treatment (SEP 040/041) H&S Improvements	DS	$27,382	$27,382	$27,382	$1,643	$0	0%	09/30/2026	09/30/2026	09/30/2026	0
10037331 Maintenance Building (SEP 940) Interim Improvement	PL	$40,652	$40,652	$40,652	$421	$0	0%	09/13/2028	09/13/2028	09/13/2028	0
Oceanside Plant (OSP) Improvements											
10029736 Westside Pump Station Reliability Improvements	CN	$89,300	$89,300	$89,300	$33,361	$0	0%	12/31/2024	12/31/2024	12/31/2024	0

* Does not include projects in closeout, completed, not initiated,on hold, deleted projects, and projects combined with other projects.

**** Phase Status Legend**

PL Planning DS Design

BA Bid & Award CN Construction MP Multiple-Phase

Footnotes:

(+) **CIP Approved Budget and Project Completion Date:** The budget and schedule approved as part of 10-year CIP for FY23-32.

(++) **Current Approved Budget and Schedule:** The budget and schedule approved as part of 10-year CIP for FY23-32, plus any additional budget and schedule changes approved by the Commission as part of construction contract award.

(+++) Negative number reflects cost overrun (or schedule delay) and positive number reflects cost underrun (or ahead of schedule). Projects with a forecasted cost overrun greater than 10%, or forecasted delay of greater than 6 months or 10%, will be highlighted in grey.

Project Name	Active Phase (a) (**)	CIP Approved Budget (b) (+)	Current Approved Budget (c) (++)	Current Forecast Cost (d)	Expenditures to Date (e)	Cost Variance (f=c-d) (+++)	% Cost Changes (g=f/c) (+++)	CIP Completion Date (h) (+)	Approved Completion Date (i) (++)	Forecast Completion Date (j)	Schedule Variance (Days) (k=i-j) (+++)
10029737 OSP Digester Gas Utilization Upgrade	CN	$55,577	$55,577	$55,577	$37,972	$0	0%	09/14/2022	09/14/2022	03/29/2024	(562)
10037733 Solids Thickening (OSP 011) Process Upgrade	PL	$20,222	$20,222	$20,222	$201	$0	0%	09/03/2026	09/03/2026	01/12/2028	(496)
10037734 OSP Plant-wide Ventilation (HVAC) Upgrades	PL	$7,354	$7,354	$7,354	$58	$0	0%	09/03/2026	09/03/2026	05/05/2027	(244)
10036398 OSP Condition Improvement Projects - Part 2	PL	$105,100	$105,100	$105,100	$1,159	$0	0%	07/06/2029	07/06/2029	07/06/2029	0
10037735 Admin Bldg (OSP 930) Health & Safety Improvements	PL	$5,709	$5,709	$5,709	$214	$0	0%	10/01/2026	10/01/2026	10/01/2026	0
10037777 OSP & WSPS Security Enhancements	PL	$13,776	$13,776	$13,776	$96	$0	0%	06/23/2026	06/23/2026	06/23/2026	0
North Point Facility (NPF) Improvements											
10026822 North Shore Pump Station Wet Weather Improvements	CN	$55,000	$55,000	$55,000	$24,374	$0	0%	12/29/2023	12/29/2023	12/29/2023	0
10037325 Admin Bldg (NPF 930) Evaluation & Interim H&S Improvements	PL	$7,934	$7,934	$7,934	$80	$0	0%	02/03/2026	02/03/2026	07/23/2026	(170)
10037904 NPF & NSS Security Enhancements	PL	$17,849	$17,849	$17,849	$62	$0	0%	12/10/2026	12/10/2026	12/10/2026	0
10038353 NPF DCS Upgrades (Construction)	CN	$11,073	$11,073	$11,073	$512	$0	0%	12/30/2027	12/30/2027	12/30/2027	0
Collection System											
Interceptors / Tunnels and Odor Control											
10034718 Large Diameter Sewer	DS	$114,592	$114,592	$114,592	$17,550	$0	0%	12/07/2026	12/07/2026	12/07/2026	0

* Does not include projects in closeout, completed, not initiated,on hold, deleted projects, and projects combined with other projects.

**** Phase Status Legend**

PL	Planning	DS	Design		
BA	Bid & Award	CN	Construction	MP	Multiple-Phase

Footnotes:

(+) **CIP Approved Budget and Project Completion Date:** The budget and schedule approved as part of 10-year CIP for FY23-32.

(++) **Current Approved Budget and Schedule:** The budget and schedule approved as part of 10-year CIP for FY23-32, plus any additional budget and schedule changes approved by the Commission as part of construction contract award.

(+++) Negative number reflects cost overrun (or schedule delay) and positive number reflects cost underrun (or ahead of schedule). Projects with a forecasted cost overrun greater than 10%, or forecasted delay of greater than 6 months or 10%, will be highlighted in grey.

Project Name	Active Phase (a) (**)	CIP Approved Budget (b) (+)	Current Approved Budget (c) (++)	Current Forecast Cost (d)	Expenditures to Date (e)	Cost Variance (f=c-d) (+++)	% Cost Changes (g=f/c) (+++)	CIP Completion Date (h) (+)	Approved Completion Date (i) (++)	Forecast Completion Date (j)	Schedule Variance (Days) (k=i-j) (+++)
Projects and Channel FM Intertie											
10002652 Kansas and Marin Streets Sewer Improvements	DS	$30,000	$30,000	$30,000	$4,292	$0	0%	08/30/2024	08/30/2024	08/30/2024	0
Interdepartmental Projects											
10033106 Geary BRT Sewer Improvements Phase 2	DS	$2,000	$2,000	$2,000	$525	$0	0%	06/30/2023	06/30/2023	06/30/2023	0
10002664 Van Ness BRT Sewer Improvements	CN	$25,000	$25,000	$25,000	$20,885	$0	0%	06/30/2023	06/30/2023	06/30/2023	0
10002667 Better Market Street Sewer Improvements - Phase 1	DS	$15,000	$15,000	$15,000	$1,876	$0	0%	10/31/2028	10/31/2028	10/31/2028	0
10002776 Taraval Sewer Improvements	CN	$34,500	$34,500	$34,500	$14,768	$0	0%	07/31/2025	07/31/2025	07/31/2025	0
Pump Stations and Forcemain Improvements											
10026828 Mariposa Dry-Weather Pump Station & Force Main Improvements	CN	$31,932	$31,932	$31,932	$30,132	$0	0%	12/30/2022	12/30/2022	06/30/2023	(182)
10037251 Seacliff No. 1 PS & FM Upgrade	DS	$14,682	$14,682	$14,682	$952	$0	0%	12/31/2026	12/31/2026	12/31/2026	0
10037246 Seacliff No. 2 PS & FM Upgrade	PL	$19,315	$19,315	$19,315	$828	$0	0%	01/31/2028	01/31/2028	01/31/2028	0
10037303 Sunnydale PS Safety Improvements	DS	$15,542	$15,542	$15,542	$570	$0	0%	05/29/2026	05/29/2026	05/29/2026	0
10038469 Pump Station Security Upgrades (Cesar Chavez, GFS,CHS, MMS)	PL	$9,105	$9,105	$9,105	$30	$0	0%	05/03/2027	05/03/2027	05/03/2027	0
10038446 Geary Underpass PS	PL	$1,854	$1,854	$1,854	$33	$0	0%	05/29/2026	05/29/2026	05/29/2026	0

* Does not include projects in closeout, completed, not initiated,on hold, deleted projects, and projects combined with other projects.

**** Phase Status Legend**

PL Planning DS Design

BA Bid & Award CN Construction MP Multiple-Phase

Footnotes:

(+) **CIP Approved Budget and Project Completion Date:** The budget and schedule approved as part of 10-year CIP for FY23-32.

(++) **Current Approved Budget and Schedule:** The budget and schedule approved as part of 10-year CIP for FY23-32, plus any additional budget and schedule changes approved by the Commission as part of construction contract award.

(+++) Negative number reflects cost overrun (or schedule delay) and positive number reflects cost underrun (or ahead of schedule). Projects with a forecasted cost overrun greater than 10%, or forecasted delay of greater than 6 months or 10%, will be highlighted in grey.

Project Name	Active Phase (a) (**)	CIP Approved Budget (b) (+)	Current Approved Budget (c) (++)	Current Forecast Cost (d)	Expenditures to Date (e)	Cost Variance (f=c-d) (+++)	% Cost Changes (g=f/c) (+++)	CIP Completion Date (h) (+)	Approved Completion Date (i) (++)	Forecast Completion Date (j)	Schedule Variance (Days) (k=i-j) (+++)
Safe Access Enhancements											
Combined Sewer Discharge (CSD) and Transport/Storage Structures											
10037245 Brannan (019) CSD Discharge and Baffle Rehabilitation	PL	$7,949	$7,949	$7,949	$246	$0	0%	05/01/2026	05/01/2026	05/01/2026	0
10037244 Baker (009) Baffle Improvements and Repair of Backflow Valve	DS	$2,861	$2,861	$2,861	$405	$0	0%	08/30/2024	08/30/2024	08/30/2024	0
10038468 System-wide CSD & T/S Monitoring Equipment Assessment	PL	$9,289	$9,289	$9,289	$39	$0	0%	02/01/2027	02/01/2027	02/01/2027	0
10038547 CSD Structure Rehab & Upgrades - Part 1	PL	$39,653	$39,653	$39,653	$133	$0	0%	01/31/2029	01/31/2029	01/31/2029	0
Stormwater Management											
Early Implementation Projects											
10026810 Yosemite Green Infrastructure	DS	$20,793	$20,793	$20,793	$3,938	$0	0%	10/29/2027	10/29/2027	10/29/2027	0
Watershed Stormwater Management											
10026816 Wawona Area Stormwater Improvement Project	CN	$38,900	$38,900	$38,900	$21,038	$0	0%	12/02/2024	12/02/2024	12/02/2024	0
10029726 Watershed Stormwater Management (Planning Only)	PL	$19,000	$19,000	$19,000	$6,392	$0	0%	06/30/2032	06/30/2032	06/30/2032	0
10034553 Green Infrastructure Grant Program (GIGP)	CN	$61,318	$61,318	$61,318	$2,940	$0	0%	06/30/2033	06/30/2033	06/30/2033	0
Advanced Rainfall and Operation Decision System											
10029730 Operational Decision	CN	$6,721	$6,721	$6,721	$3,884	$0	0%	09/30/2025	09/30/2025	09/30/2025	0

* Does not include projects in closeout, completed, not initiated,on hold, deleted projects, and projects combined with other projects.

**** Phase Status Legend**

PL	Planning	DS	Design		
BA	Bid & Award	CN	Construction	MP	Multiple-Phase

Footnotes:

(+) **CIP Approved Budget and Project Completion Date:** The budget and schedule approved as part of 10-year CIP for FY23-32.

(++) **Current Approved Budget and Schedule:** The budget and schedule approved as part of 10-year CIP for FY23-32, plus any additional budget and schedule changes approved by the Commission as part of construction contract award.

(+++) Negative number reflects cost overrun (or schedule delay) and positive number reflects cost underrun (or ahead of schedule). Projects with a forecasted cost overrun greater than 10%, or forecasted delay of greater than 6 months or 10%, will be highlighted in grey.

Project Name	Active Phase (a) (**)	CIP Approved Budget (b) (+)	Current Approved Budget (c) (++)	Current Forecast Cost (d)	Expenditures to Date (e)	Cost Variance (f=c-d) (+++)	% Cost Changes (g=f/c) (+++)	CIP Completion Date (h) (+)	Approved Completion Date (i) (++)	Forecast Completion Date (j)	Schedule Variance (Days) (k=i-j) (+++)
System Phase 2											
Flood Resilience Projects											
Flood Resilience Projects											
10034360 Lower Alemany Area Stormwater Improvement Project	PL	$299,555	$299,555	$299,555	$4,395	$0	0%	09/06/2028	09/06/2028	09/06/2028	0
10026818 Folsom Area Stormwater Improvement Project	DS	$38,411	$38,411	$38,411	$14,122	$0	0%	12/27/2023	12/27/2023	12/27/2023	0

* Does not include projects in closeout, completed, not initiated,on hold, deleted projects, and projects combined with other projects.

**** Phase Status Legend**

PL Planning DS Design

BA Bid & Award CN Construction MP Multiple-Phase

Footnotes:

(+) **CIP Approved Budget and Project Completion Date:** The budget and schedule approved as part of 10-year CIP for FY23-32.

(++) **Current Approved Budget and Schedule:** The budget and schedule approved as part of 10-year CIP for FY23-32, plus any additional budget and schedule changes approved by the Commission as part of construction contract award.

(+++) Negative number reflects cost overrun (or schedule delay) and positive number reflects cost underrun (or ahead of schedule). Projects with a forecasted cost overrun greater than 10%, or forecasted delay of greater than 6 months or 10%, will be highlighted in grey.

7. PROJECT STATUS REPORT

10015796 - SEP Biosolids Digester Facilities Project

Project Description: Planning, engineering, and construction of the new solids processing facilities will include solids pretreatment; the thermal hydrolysis process (THP); anaerobic digestion; biosolids dewatering; biosolids product storage and loadout; biogas utilization; odor control; automated control systems; chemical facilities, and associated appurtenances and piping. The proposed site for the BDFP facilities is adjacent to the existing SEP at 1800 Jerrold Avenue (former Central Shops) and 1801 Jerrold Avenue (former Asphalt Plant), and on portions of the existing SEP property. Construction staging areas for the BDFP include 1150 Phelps Street (SFPUC's former Greenhouses), 50 Quint Street and may be extended to Pier 94/96 SF Port properties at a later date. The construction will be completed through a Construction Manager/General Contractor delivery approach under two distinct scopes. Scope I focus on the demolition and utility relocation of existing infrastructure at the project sites. Scope II addresses the construction of the new biosolids facilities (the remainder of the work).

Program: Biosolids Digester Facilities Project	**Project Status:** Construction	**Environmental Status:** Completed (EIR)

Project Cost:

Approved	$ 2372.62 M
Forecast	$ 2372.62 M
Actual	$ 711.08 M

Project Schedule:

Approved Jul-11	May-29
Forecast Jul-11	May-29

Project Percent Complete: 34.0%

Key Milestones		Environmental Approval	Bid Advertisement	Construction NTP	Construction Final Completion
Current Forecast	A	10/12/2018 A	N/A	08/26/2019 A	06/25/2021 A
	B		N/A	07/01/2020 A	05/12/2028

Progress and Status:

The project delivery method for this project is Construction Manager/General Contractor (CM/GC). WW-647R CM/GC Construction contract consists of: (A) Scope I, and (B) Scope II.

Scope I (Demolition and Utility Relocation) – Complete. Scope II (New Biosolids Facilities - Remainder of the construction work) – Construction of the five (5) digester vessels are underway. Construction crews completed the concrete mat foundation for the digesters in June and are proceeding with the erection of the digesters skirt walls. Construction on the adjacent solids pretreatment building is also continuing. Bid procurement for remaining construction is ongoing. To date, construction bid and award of most of the major biosolids facilities has been completed, including the digesters, solids pretreatment facility and the chemical feed and No. 2 water facilities. The Commission approved amendments to the contracts for the construction and the engineering support services in alignment with the approved project cost and schedule.

Erection of the Digester Skirt Walls

Issues and Challenges:

None at this time.

10015807 - SEP New Headworks (Grit) Replacement

Project Description: The new 250 MGD headworks consists of major components / facilities as follows: New Influent Junction Structure and Influent Monitoring; New Primary Influent Distribution Structure; New Bar Screens, Washer-Compacters and Screenings Handling Facility; New Grit Basins, Grit Washers and Grit Handling Facility; A new Odor Control Facility, consisting of a two-stage system with bioscrubbers followed by carbon adsorption; Two new primary substation; Electrical, Instrumentation and Control Rooms/Building; Demolition of both existing Headworks Facilities (SEP-011 and SEP-012); Rehabilitation of the existing Southeast Lift Station; Upgrades to the Bruce Flynn Pump Station.

Program: New Headworks (Grit) Replacement	**Project Status:** Construction	**Environmental Status:** Completed (MND)

Project Cost:

Approved	$ 679.03 M
Forecast	$ 679.03 M
Actual	$ 392.66 M

Project Schedule:

Approved Mar-13	Sep-24
Forecast Mar-13	Sep-24

Project Percent Complete: 63.6%

Key Milestones		Environmental Approval	Bid Advertisement	Construction NTP	Construction Final Completion
Current Forecast	A	05/31/2017 A	N/A	11/15/2017 A	05/01/2020 A
	B		N/A	12/17/2018 A	11/14/2020 A
	C		N/A	07/22/2019 A	02/29/2024
	D		11/02/2023	04/23/2024	09/30/2024

Progress and Status:

The project delivery method for this project is Construction Manager/General Contractor (CM/GC). (A, B, C) WW-628 CM/GC Construction which consist of: (A) Scope I; (B) Scope II.A; and (C) Scope III (D) Demolition Contract – not yet awarded.

Scope I (Site Preparation) and Scope II.A (BFS Improvements) – Complete. Scope III (Main Headworks) – Started installation of pipe rack columns, beams and cross bracing. Continued installation of underground 84" foul air duct. Contractor continued civil/structural work at the influent junction area, fine screen/grit influent splitter, grit tank/grit handling, primary influent distribution areas. Completed underground 20" foul air duct sections to north wet well in the influent pump station. Contractor continued equipment procurement and fabrication.

The project team continued coordination with Power Enterprises/electrical upgrade projects for Headworks temporary and permanent power cutovers from PG&E power to SFPUC power. The project team continued coordination/ planning with WWE Operations for influent junction area forcemains tie-ins.

Drill Pier work for Pipe Rack in vicinity of Union Pacific Railroad Right-of-Way

Issues and Challenges:

None at this time.

10015809 - SEP Facility-wide Distributed Control System Upgrade

Project Description: This project addresses the upgrade/replacement of the existing Wastewater Enterprise (WWE) distributed control system (DCS). The project scope includes planning, design/programming, manufacturing, installation, testing, and commissioning of a new DCS at Southeast Water Pollution Control Plant (SEP). The scope also includes DCS planning & design for Oceanside Water Pollution Control Plant (OSP), Northpoint Wet Weather Treatment Facility (NPF), and all the various pump station facilities within San Francisco.

Program: Southeast Plant (SEP) Improvements	**Project Status:** Design	**Environmental Status:** Not Applicable

Project Cost:

Approved	$ 62.99 M
Forecast	$ 62.99 M
Actual	$ 18.47 M

Project Schedule:

Approved Feb-14	Dec-27
Forecast Feb-14	Dec-27

Project Percent Complete: 34.6%

Key Milestones	Environmental Approval	Bid Advertisement	Construction NTP	Construction Final Completion
Current Forecast	N/A	N/A	12/31/2018 A	06/30/2027

Progress and Status:
Environmental Approval - Environmental Management Group (EMG) has determined upgrades to the DCS Controls involves primarily computer hardware and software which do not fall within the definition of a "project" under CEQA because there would be no physical change in the environment. Bid Advertisement - The project delivery method for this project is Progressive Design-Build with pre-design/design components. Construction NTP represents start of fabrication/manufacturing.

Renovation of the existing SEP DCS server room is winding down. The procurement process for SEP DCS server room equipment is underway with a job order contractor scheduled to do the necessary server cabinet installations. Design and coordination with other SSIP project teams at SEP and Northshore are ongoing.

Issues and Challenges:
None at this time.

Ongoing construction in one of Southeast Plant's conduit trenches

10002284 - SEP Power Feed and Primary Switchgear Upgrades

Project Description: The objective of the project is to increase reliability, redundancy and capacity of the electrical system at Southeast Plant (SEP) to meet Sewer System Improvement Program (SSIP) level-of-service (LOS) goals by upgrading the existing power feed by PG&E and obtaining a new feed by Power Enterprise. The project will construct an elevated building to house the new Primary Power Switch Station and sub-structures to provide adequate power for existing electrical loads and new SSIP facilities, upgrade/replace aging existing substations, install power monitoring and protection system for additional reliability and efficiency, as well as provide redundant services to the nearby pump stations.

Program: Southeast Plant (SEP) Improvements	**Project Status:** Construction	**Environmental Status:** Completed (CatEx)

Project Cost:

Approved	$ 95.88 M
Forecast	$ 95.88 M
Actual	$ 48.92 M

Project Schedule:

Approved Jun-14	Aug-24
Forecast Jun-14	Aug-24

Project Percent Complete: 47.3%

Key Milestones	Environmental Approval	Bid Advertisement	Construction NTP	Construction Final Completion
Current Forecast	02/22/2018 A	02/20/2020 A	10/05/2020 A	02/23/2024

Progress and Status:

The primary switchgear equipment was fully installed in the Primary Switchgear Bldg. SEP 032 and passed phase-1 (NETA) acceptance testing stage. The contractor continued to install various electrical, mechanical and instrumentation & control systems in and around SEP 032. The medium voltage cables connecting the outdoor gears to the indoor gears and termination kits were also installed.

Issues and Challenges:

None at this time.

Primary Switchgear Bldg. at Night

10037353 - SEP 550 Booster PS Condition Inspection & Interim

Project Description: This project includes condition assessment of the influent channel and wet wells (confined space entry), as well as a budget allowance to perform concrete rehab on two wet wells and minor repairs to the influent channel. A firmer estimate to complete the repairs will depend on the results of the inspection. To inspect the influent channel, work must occur during dry weather and the plant must either be shut down or treated effluent diverted to Quint Street Outfall (QSO). Shutdowns may last up to 8 hours, and coordination/approval is needed with the Regional Water Quality Board to allow diversion through QSO. Mechanical equipment rehab is also included as part of the interim improvements. These include replacing (2) sump pumps (SE550SP1 and SE550SP2), water heater (SE550H, air relief valve, booster pumps, and all Variable Frequency Drives (VFD) (4).

Program: Southeast Plant (SEP) Improvements	**Project Status:** Planning	**Environmental Status:** Not Initiated (CatEx)

Project Cost:

Approved	$ 20.30 M
Forecast	$ 20.30 M
Actual	$ 0.36 M

Project Schedule:

Approved Jan-21	Feb-27
Forecast Jan-21	Feb-27

Project Percent Complete: 2.4%

Key Milestones	Environmental Approval	Bid Advertisement	Construction NTP	Construction Final Completion
Current Forecast	02/27/2024	02/28/2024	09/03/2024	08/20/2026

Progress and Status:

Interior CCTV camera inspection of the discharge manifold was completed. Specialty consultants completed pre testing of strap-on flow meters and retrieved acceptable flow data on the 42” and 60” lines. Project team held meeting with WWE to outline and discuss the detailed pump performance testing plan. Project team continues to progress Needs Assessment Report, Alternative Analysis Report, and Conceptual Engineering Report combined deliverable. Coordination between WWE and project team is on-going regarding pump station shutdowns and project sequencing during construction.

Issues and Challenges:

None at this time.

Interior CCTV camera inspection of the discharge manifold

10038373 - SEP, Booster PS, & BFS Security Enhancements

Project Description: The project involves, upgrading card readers and door contacts at all perimeter doors and ensuring proper operation; Replacing and furnishing gates and gate operators including structural support, electrical power and controls; Adding protective cages around outdoor chemical and electrical equipment, including an allowance for replacing/repairing the existing perimeter fence and fence support as needed; Furnishing, installing, and configuring servers for video recording, management and analytics; Configuring security fiber optic connectivity and adding video camera units and local recording; Pruning the landscaping, adding new security signage, and upgrading to dusk-activated LED lighting; Establishing a visitor management system and installing turnstile; Monitoring improvements (e.g. developing mobile tablet security video monitoring capability, establishing a security monitoring center, a tablet-based security incident response reporting template and setting up an automatic video archiving process across all Wastewater Enterprise sites); Providing interior intrusion detection of critical assets; Adding interior presence sensing connected to an intrusion detection panel and alarming to security; Upgrading UPS backup power to serve security components; Adding new security signage with "No Trespassing", applicable penal code and emergency contact information; and, adding a main distribution frame (MDF) to BFS SEP Fire Alarm, PA system, business network and radio communications.

Program: Southeast Plant (SEP) Improvements	**Project Status:** Planning	**Environmental Status:** Active

Project Cost:

Approved	$ 35.76 M
Forecast	$ 35.76 M
Actual	$ 0.14 M

Project Schedule:

Approved Jan-22	Dec-26
Forecast Jan-22	Dec-26

Project Percent Complete: 1.9%

Key Milestones		Environmental Approval	Bid Advertisement	Construction NTP	Construction Final Completion
Current Forecast	A	10/11/2023	05/07/2024	11/07/2024	05/08/2026
	B	10/11/2023	05/07/2024	11/07/2024	05/08/2026

Progress and Status:

Project includes multiple construction contracts. (A) Security Enhancements; (B) Fire System Network Project team is coordinating with San Francisco Public Works (SFPW) regarding the fiber optic communication scope of work. Due to limited resources and specialty of phone/paging system scope of work, SFPW obtained as-needed consultant support. The Needs Assessment Report for Southeast Plant location was finalized and the development of the Alternatives Analysis Report/Conceptual Engineering Report was initiated.

Issues and Challenges:

None at this time.

10037330 - Primary Treatment (SEP 040/041) H&S Improvements

Project Description: This project will address inadequate ventilation issues, and health and safety concerns, at Southeast Plant buildings 040/041. Extensive cracks and exposed rusted rebar have been observed along the building's walls and joints. Overhead building structural supports are corroded and could potentially fail, and interior columns appear to be insufficient for lateral load transfer. To address these issues, this project will remove the superstructure housing the sedimentation tanks to create an open-air process facility with covered tank openings and an associated odor control system. Replacement and relocation of the utility lines and reconnection to existing equipment is also needed. Furthermore, the existing control room and MCC room (SEP 043) that resides between SEP 040/041 will be effected, and relocation or retrofit would be needed. SEP 040, 041, and 043 are all located within the Southeast Treatment Plant Streamline Moderne Industrial Historic District. SEP 040/41 are considered structures that contribute to the historic district, although they are not individually eligible historic resources. As the objective of the project is to demolish the superstructures of SEP 040/041, impacts to these historic resources are unavoidable.

Program: Southeast Plant (SEP) Improvements	**Project Status:** Design	**Environmental Status:** Active (CatEx)

Project Cost:

Approved	$ 27.38 M
Forecast	$ 27.38 M
Actual	$ 1.64 M

Project Schedule:

Approved Jan-21	Sep-26
Forecast Jan-21	Sep-26

Project Percent Complete: 6.9%

Key Milestones	Environmental Approval	Bid Advertisement	Construction NTP	Construction Final Completion
Current Forecast	07/28/2023	07/31/2023	01/30/2024	03/31/2026

Progress and Status:

The project team issued the 35% design package and design criteria report, and held review workshop with stakeholders. Coordination meetings with Wastewater Enterprise and Power Enterprise regarding roof access for maintenance of roof mounted solar system. Project team also coordinated with the SEP New Headworks project regarding their new air bubbler measuring system and applicability at SEP 040/041. CEQA review and Planning Department coordination has been initiated.

Issues and Challenges:

None at this time.

Existing SEP-041 wet-weather primary sedimentation building.

10037331 - Maintenance Building (SEP 940) Interim Improvement

Project Description: Building 940 is a critical interim project for the Southeast Plant. This is an interim project while the long-term vision and improvements under the SEP Campus Plan is being developed. The following improvements form the basis of this project, space will be modified to include interim Electrical and Instrumentation and Controls (I&C) shop areas; HVAC Improvements including evaluation (and installation as-needed) of wet grinder filtration system, condensing unit, and welding exhaust system); and, H&S Improvements (emergency lights, signs, trip hazards, safe roof access).

Program: Southeast Plant (SEP) Improvements	**Project Status:** Planning	**Environmental Status:** Not Initiated (CatEx)

Project Cost:

Approved	$ 40.65 M
Forecast	$ 40.65 M
Actual	$ 0.42 M

Project Schedule:

Approved Jan-21	Sep-28
Forecast Jan-21	Sep-28

Project Percent Complete: 1.3%

Key Milestones	Environmental Approval	Bid Advertisement	Construction NTP	Construction Final Completion
Current Forecast	07/19/2023	12/10/2024	06/12/2025	03/15/2028

Progress and Status:

Project team held coordination meetings with Wastewater Enterprise and Engineering Management Bureau regarding seismic performance class. Seismic evaluation study was initiated to ensure scope addition will not trigger seismic upgrade of the maintenance building. Project team also held coordination meeting with SFPUC Security and Wastewater Enterprise regarding security design guidelines and security related scope of work.

Issues and Challenges:

None at this time.

Inside of Bldg SEP 940

10029736 - Westside Pump Station Reliability Improvements

Project Description: The project consists of screenings improvements including, replacement of existing bar screens, and addition of screening washing and compaction systems. The project also includes replacement of existing wet-weather pumps to provide pump redundancy. The construction would take place within the existing structure and includes four new submersible pumps and 200 linear feet (LF) of discharge force main. Other improvements under this project include increasing the power feeder capacity at WSS to account for additional wet weather pumping capacity and provide a reliable redundant power source from PG&E, and replacement of the existing odor control units at the WSS with dilution ventilation fans and ducting.

Program: Oceanside Plant (OSP) Improvements	**Project Status:** Construction	**Environmental Status:** Completed (CatEx)

Project Cost:

Approved	$ 89.3 M
Forecast	$ 89.3 M
Actual	$ 33.36 M

Project Schedule:

Approved Jun-13	Dec-24
Forecast Jun-13	Dec-24

Project Percent Complete: 83.6%

Key Milestones		Environmental Approval	Bid Advertisement	Construction NTP	Construction Final Completion
Current Forecast	A	06/13/2013 A	05/06/2014 A	10/15/2014 A	03/27/2017 A
	B	04/20/2017 A	09/08/2020 A	04/19/2021 A	06/27/2024

Progress and Status:

Project includes multiple construction contracts: (A) WW-572R WSS Discharge Pipe Manifold Upgrade contract closeout has been completed. Environmental Approval for this contract was achieved in Project CWWRNRTF47 as presented in the table above. (B) WW-645R Westside Pump Station Reliability Improvements contract construction phase activities are on-going. During this reporting period, the Contractor has placed the roof pan, and the rebar to place new cast-in-place concrete for the new Electrical Building roof as of September 2022. The Environmental Approval for this contract was achieved as presented in the table above.

Contractor installing rebar reinforcement at new Electrical Building Roof as of September 2022.

Issues and Challenges:

The SFPUC continues to closely track PG&E power service application review progress and continues to evaluate mitigations to potential construction progress delays associated with PG&E power service. In May, PG&E provided an initial System Impact Study and Engineering for project power service. The System Impact Study is under review by the project team.

10029737 - OSP Digester Gas Utilization Upgrade

Project Description: In this project, the gas storage vessel and digester gas conditioning equipment will be replaced. The existing cogeneration Internal-Combustion units (IC engines) and controls will also be replaced. Other improvements include providing an ancillary exhaust gas conditioning and heat exchanger systems to comply with regulatory air board requirements. Improved reliability and redundancy of hot water and electrical energy production systems, as well as, ventilation upgrades will maximize process efficiency within the energy recovery building. The electrical gear at Sub-Station No. 5 will be replaced to provide parallel electrical gear and power system reliability.

Program: Oceanside Plant (OSP) Improvements	**Project Status:** Construction	**Environmental Status:** Completed (TBD)

Project Cost:

Approved	$ 55.58 M
Forecast	$ 55.58 M
Actual	$ 37.97 M

Project Schedule:

Approved Oct-13	Sep-22
Forecast Oct-13	Mar-24

Project Percent Complete: 70.2%

Key Milestones	Environmental Approval	Bid Advertisement	Construction NTP	Construction Final Completion
Current Forecast	06/14/2017 A	04/25/2018 A	11/26/2018 A	06/01/2023

Progress and Status:

WW-639 Oceanside Water Pollution Control Plant Digester Gas Utilization Upgrade contract construction phase activities continued. During this reporting period, Building 820 permanent boilers control panel integration into site Distributed Control System (DCS) continued. The Building 800 concrete utility trench and equipment pad doweling, forming and pouring concrete activities continue. The Gas Holder Tank Building 741 digester gas piping and siloxane removal system installation activities continue.

Issues and Challenges:

The project team continues to coordinate with PG&E in order to comply with electrical inter-connection agreement requirements to obtain necessary permits. Additionally, there are large equipment deliveries associated with the Building 800 new switchgear that is experiencing global supply chain delays impacts due to COVID-19.

The Gas Holder Tank Building 741 digester gas piping and siloxane removal system.

10037733 - Solids Thickening (OSP 011) Process Upgrade

Project Description: Depending on the status of the R&R project (CWWRNRTFA8) to replace the GBT with RDT, an alternatives evaluation should be performed to confirm the selected thickening technology. As a basis, this project assumes replacement of the two remaining GBTs and installation of two new RDTs that can thicken a combination of primary sludge, waste activated sludge, and secondary scum. The scope of the project also includes the replacement of corroded pipe, room fixtures, demolition of the existing units and ventilation improvements, such as: Demolishing the two existing GBTs; Installing two new RDTs and associated controls; Replacing the three existing washwater booster pumps, piping, and appurtenances; Installing hot water lines, redundant primary scum skimmer, ventilation system, two fixed hydrogen sulfide sensors in the Gravity Belt Thickener Room, new ultrasonic pulsar level sensor in the TPAS tank and improving the mixing system in the tank; Redesign the drains on existing and new drum screens; Replace the three thickened sludge pumps, corroded pipes, window frames, doors, floor gates, and tiles; Upgrade electrical components and DCS control of the new system; Address residual thickening area odor issues that were not addressed by the OSP Ventilation (HVAC) Upgrades Project.

Program: Oceanside Plant (OSP) Improvements	**Project Status:** Planning	**Environmental Status:** Not Initiated (CatEx)

Project Cost:

Approved	$ 20.22 M
Forecast	$ 20.22 M
Actual	$ 0.2 M

Project Schedule:

Approved Jan-22	Sep-26
Forecast Jan-22	Jan-28

Project Percent Complete: 0.3%

Key Milestones	Environmental Approval	Bid Advertisement	Construction NTP	Construction Final Completion
Current Forecast	06/28/2024	10/01/2024	05/05/2025	07/01/2027

Progress and Status:

Engineering continues to prepare planning phase documents for Oceanside Water Control Pollution Plant Solids Thickening (OSP 011) Process Upgrade focusing on replacement of Gravity Belt Thickeners (GBT) (No. 2 & No. 3) with new Rotary Drum Thickener assemblies, replacement of associated controls and booster pumps, replacement of flushing system connections, area drainage improvements, and exhaust air system improvements. The project team is developing a draft Conceptual Engineering Report (CER) and associated deliverables for Spring 2023.

Issues and Challenges:

The project has been delayed due to lack of available resources. The project team continues to monitor potential schedule delays due to resource availability and associated impacts to planning phase and design phase delivery milestones.

Selective equipment demolition to GBT No. 1; this work is expected to be completed prior to the project contract work commencing on the replacement of GBT No. 2 and GBT No. 3.

10037734 - OSP Plant-wide Ventilation (HVAC) Upgrades

Project Description: A wide range of HVAC-related improvements were identified as part of the OSP Condition Assessment Repairs Project. It was determined that a plant-wide air handling performance evaluation be conducted to determine if the ventilation systems are meeting requirements and to better identify needed HVAC improvements. OSP 011: Replace inadequate duct supports in OSP 011 hallway areas; Duct supports within exhaust fan room at OS70EF1-1 thru -3 and OS70EF1-5 and -6 needs to be refastened/replaced; Coordination of HVAC evaluation, design and construction under the OSP Solids Thickening Process Upgrades project. OSP 530: Assess ventilation issues if keeping the temporary chemical station from the Recycle Water Project. OSP 620: Replace all HVAC equipment. Based on results of the plant-wide air handling performance evaluation, make provisions for increasing air ventilation rates in order to declassify area from Class 1 Division 1 to Class 1 Division 2; Replace FRP ducts in digester basement serving fans 70EF19-1, 2. Replace HVAC equipment at OSP 042, OSP 230, and OSP 930.

Program: Oceanside Plant (OSP) Improvements	**Project Status:** Planning	**Environmental Status:** Not Initiated (CatEx)

Project Cost:

Approved	$ 7.35 M
Forecast	$ 7.35 M
Actual	$ 0.06 M

Project Schedule:

Approved Jan-22	Sep-26
Forecast Jan-22	May-27

Project Percent Complete: 0.6%

Key Milestones	Environmental Approval	Bid Advertisement	Construction NTP	Construction Final Completion
Current Forecast	02/01/2024	04/02/2024	08/26/2024	10/26/2026

Progress and Status:
Engineering continues to prepare planning phase documents for OSP Plant-wide Ventilation (Heating, Ventilation and Air Conditioning) Upgrades focusing on air handling and condition units, ductwork and other associated Heating, Ventilation and Air Conditioning system improvements. The project team is developing draft Conceptual Engineering Report and associated deliverables for Winter 2022.

Issues and Challenges:
As previously reported, the project has been delayed due to lack of available resources. The project team continues to monitor potential schedule delays due to resource availability and associated impacts to planning phase and design phase delivery milestones.

OSP Building 011 as-found condition of ventilation exhaust systems

10036398 - OSP Condition Improvement Projects - Part 2

Project Description: The OSP Condition Assessment Repairs project will include major improvements to the plant, aimed to address the reliability of existing assets that have deteriorated over the years. This project includes planning, design and environmental review of improvements to address the age, deterioration and reliability of existing assets at OSP that are not specifically included in the other SSIP projects. This project includes rehabilitation of building structures, rehabilitation or replacement of mechanical and electrical equipment, and seismic retrofit of process tanks and buildings. Improvements focus on maintaining operational reliability and extending the service life of buildings that are required to remain in operation for 30 years or more.

Program: Oceanside Plant (OSP) Improvements	**Project Status:** Planning	**Environmental Status:** Active (Various)

Project Cost:

Approved	$ 105.10 M
Forecast	$ 105.10 M
Actual	$ 1.16 M

Project Schedule:

Approved Mar-18	Jul-29
Forecast Mar-18	Jul-29

Project Percent Complete: 0.9%

Key Milestones		Environmental Approval	Bid Advertisement	Construction NTP	Construction Final Completion
Current Forecast	A	12/01/2023	01/31/2025	06/27/2025	06/29/2027
	B	10/31/2024	10/01/2025	03/10/2026	03/09/2028
	C	04/15/2025	10/29/2025	04/07/2026	04/06/2028
	D	03/06/2026	08/05/2026	01/04/2027	01/03/2029
	E	10/19/2020 A	09/22/2021 A	11/30/2022	11/28/2023
	F	03/03/2018 A	07/01/2022 A	02/28/2023	02/27/2025
	G	12/14/2021 A	N/A	05/12/2022 A	01/03/2023

Progress and Status:

The project includes multiple construction contracts: (A) OSP 620 Digestion H&S, Mech Improvements, OSP800 Mech Improvements: The draft Conceptual Engineering Report (CER) and associated deliverables was issued in September 2022. (B) OSP 011 Polymer & Ferric Chloride Replacement: Subscope not initiated. (C) OSP 042 Primary Clarifiers Structural and Mechanical Improvements: Subscope not initiated. (D) OSP 200 Aeration Tanks Structural and Mechanical Improvements: Subscope not initiated. (E) WW-648 OSP Building 042 Primary Clarifier Improvements: Construction activities continue, the Contractor has installed compressed air piping in Building 042. (F) WW-669 OSP Building 011 Grit Classifer & Preliminary Influent Slide Gate System Improvements: The contract was awarded September 13, 2022. (G) JOC 53R3-15 OSP UPS Assembly Replacements: Installation of the four (4) Uninterruptable Power Supply systems has been completed. Contractor is working on submitting final construction documents.

Contract A; OSP 620 Elevator is subject to modernization under the project.

Issues and Challenges:

None at this time.

10037735 - Admin Bldg (OSP 930) Health & Safety Improvements

Project Description: This project involves an evaluation of NPF 930 to provide safe working conditions for employees. The interim rehabilitation components will be identified during the planning, but as a basis, the following items are assumed: Interim structural repairs; Replacing roll-up doors, UPS for the emergency lighting system, and elevator; Rehabilitate HVAC system; Electrical improvements on Southside buildings; Assess and replace crane, if needed; Evaluate area and use of dewatering sump pumps; Replace pumps, piping, valves, and EI&C; Inspect and replace guardrails/handrails; Install fire sprinklers, alarms, and exit lighting; Replace and install new lighting.

Program: Oceanside Plant (OSP) Improvements	**Project Status:** Planning	**Environmental Status:** Not Initiated (CatEx)

Project Cost:

Project Schedule:

Project Percent Complete: 1.6%

Key Milestones	Environmental Approval	Bid Advertisement	Construction NTP	Construction Final Completion
Current Forecast	08/18/2023	12/26/2023	05/21/2024	03/31/2026

Progress and Status:
Engineering continues to prepare planning phase documents for Administration Building (OSP 930) Health & Safety Improvements focusing on laboratory exhaust hood replacement, elevator modernization, area sump pump replacement and building plumbing/roof drainage system improvements. The project team is developing draft Conceptual Engineering Report and associated deliverables for Fall 2022.

Issues and Challenges:
As previously reported, the project has been delayed due to lack of available resources.

10037777 - OSP & WSPS Security Enhancements

Project Description: The project involves upgrading card readers and door contacts at all perimeter doors and ensuring proper operation; Replacing and furnishing gate and gate operator including structural support, electrical power, and controls; Adding protective cages around outdoor chemical and electrical equipment, including an allowance for replacing/repairing the existing perimeter fence and fence support as needed; Furnishing, installing and configuring servers for video recording, management, and analytics; Configuring security fiber optic connectivity and adding video camera units and local recording; Establishing prune landscaping, adding new security signage, and upgrading lighting to dusk-activated LED lighting; Adding interior presence sensing connected to an intrusion detection panel and alarming security.

Program: Oceanside Plant (OSP) Improvements	**Project Status:** Planning	**Environmental Status:** Not Initiated (CatEx)

Project Cost:

Approved	$ 13.78 M
Forecast	$ 13.78 M
Actual	$ 0.1 M

Project Schedule:

Approved Aug-21	Jun-26
Forecast Aug-21	Jun-26

Project Percent Complete: 3.4%

Key Milestones	Environmental Approval	Bid Advertisement	Construction NTP	Construction Final Completion
Current Forecast	01/17/2024	02/23/2024	08/22/2024	11/19/2025

Progress and Status:

Project team continues work on the planning phase as-found field verification and Needs Assessment Report deliverables. During the reporting period, the project team completed initial site field assessments.

Issues and Challenges:

None at this time.

Aerial photo of Oceanside Water Pollution Control Plant and Westside Pump Station Facilities to receive security system enhancements.

10026822 - North Shore Pump Station Wet Weather Improvements

Project Description: The purpose-of this project is to provide redundant effluent pumping capacity at North Shore Pump Station (NSS) during wet weather. This project will replace existing four (4) dry weather pumps with larger capacity units so that 3 of the 4 pumps are capable of pumping 75 MGD during wet weather. The project also includes upgrades to the motor control centers (MCCs) and distributed control system (DCS). The implementation of this project will ensure reliable and efficient operation in keeping with the LOS and maintain regulatory compliance.

Program: North Point Facility (NPF) Improvements	**Project Status:** Construction	**Environmental Status:** Completed (CatEx)

Project Cost:

Approved	$ 55.00 M
Forecast	$ 55.00 M
Actual	$ 24.37 M

Project Schedule:

Approved Aug-13	Dec-23
Forecast Aug-13	Dec-23

Project Percent Complete: 72.8%

Key Milestones	Environmental Approval	Bid Advertisement	Construction NTP	Construction Final Completion
Current Forecast	10/13/2017 A	06/14/2019 A	04/19/2021 A	05/08/2023

Progress and Status:

Contractor continues dry weather/wet weather crossover work including relocation of seal water pumps, install of new 48" piping, installation of dowels for new thrust blocks. Contractor completed installation of influent control panel inside the control room and the hydraulic power unit panel outside the control room. Contractor began installation, commissioning, and start-up of Uninterruptable Power Supply (UPS) at SEP 930 basement.

Issues and Challenges:

None at this time.

Completed bar screens in operation

10037325 - Admin Bldg (NPF 930) Evaluation & Interim H&S Improvements

Project Description: This project involves an evaluation of NPF 930 to provide safe working conditions for employees. The interim rehabilitation components will be identified during the planning, but as a basis, the following items are assumed: Interim structural repairs; Replacing roll-up doors, UPS for the emergency lighting system, and elevator; Rehabilitate HVAC system; Electrical improvements on Southside buildings; Assess and replace crane, if needed; Evaluate area and use of dewatering sump pumps; Replace pumps, piping, valves, and EI&C; Inspect and replace guardrails/handrails; Install fire sprinklers, alarms, and exit lighting; Replace and install new lighting.

Program: North Point Facility (NPF) Improvements	**Project Status:** Planning	**Environmental Status:** Not Initiated (CatEx)

Project Cost:

Approved	$ 7.93 M
Forecast	$ 7.93 M
Actual	$ 0.08 M

Project Schedule:

Approved Mar-22	Feb-26
Forecast Mar-22	Jul-26

Project Percent Complete: 0.8%

Key Milestones	Environmental Approval	Bid Advertisement	Construction NTP	Construction Final Completion
Current Forecast	12/22/2023	03/04/2024	07/25/2024	01/29/2026

Progress and Status:
Project team held site walk with WWE regarding emergency path of egress within administration building. Project team continues Needs Assessment Report development.

Issues and Challenges:
As previously reported, architectural and electrical design resources have been limited resulting in a need to procure consultant support services. Antiquated electrical and mechanical equipment removal may result with a large cost impact.

WWE staff and design team surveying existing obsolete electrical equipment at NPF 930 Administration Building.

10037904 - NPF & NSS Security Enhancements

Project Description: The components of the project include upgrading continental card reader access control; Replacing and furnishing gate and gate operator including structural support, electrical power, and controls; Adding protective cages around outdoor equipment, and repairing/replacing perimeter fence; Furnishing, installing, and configuring servers; Configuring security fiber optic connectivity and adding video camera units; Adding signage, lighting, and pruning landscaping; Provide interior presence sensing connected to intrusion detection panel.

Program: North Point Facility (NPF) Improvements	**Project Status:** Planning	**Environmental Status:** Active

Project Cost:

Approved	$ 17.85 M
Forecast	$ 17.85 M
Actual	$ 0.06 M

Project Schedule:

Approved Jan-22	Dec-26
Forecast Jan-22	Dec-26

Project Percent Complete: 0.4%

Key Milestones	Environmental Approval	Bid Advertisement	Construction NTP	Construction Final Completion
Current Forecast	10/11/2023	05/07/2024	11/07/2024	05/08/2026

Progress and Status:

The security consultant completed necessary site assessments and generated questions for stakeholders. The project team held multiple coordination sessions to make sure needs and concerns were addressed. A draft Needs Assessment Report has been prepared for internal review. The security consultant is finalizing the report and preparing for the Needs Assessment Report review workshop.

Issues and Challenges:

None at this time.

10038353 - NPF DCS Upgrades (Construction)

Project Description: This project will replace the aging control system infrastructure at Northpoint as the existing control system equipment becomes obsolete. This is a continuation of the distributed control system (DCS) work that was started under SSIP Phase 1 project CWWSIPSE07 SEP Facility-Wide DCS Upgrade. The DCS scope under this project is specifically centered at Northpoint facilities. The DCS supplier will provide the following services: Network configuration and architecture design; Equipment location and layout design; DCS panel layouts and wiring diagrams; Loop drawing development; Control narrative development support; Human Machine Interface (HMI) screen standards development; DCS application software development. The DCS supplier will provide the following equipment: Process control module panels; Remote I/O (RIO) panels; Server equipment and racks; Main fiber distribution rack panels; Marshalling panels or "B" panels; Fiber optic patch panels and terminal panel; Network switches and routers.

Program: North Point Facility (NPF) Improvements	**Project Status:** Construction	**Environmental Status:** Not Applicable

Project Cost:

Approved	$ 11.07 M
Forecast	$ 11.07 M
Actual	$ 0.51 M

Project Schedule:

Approved Nov-21	Dec-27
Forecast Nov-21	Dec-27

Project Percent Complete: 6.4%

Key Milestones	Environmental Approval	Bid Advertisement	Construction NTP	Construction Final Completion
Current Forecast	N/A	N/A	11/01/2021 A	06/30/2027

Progress and Status:

For Environmental Approval, Environmental Management Group (EMG) has determined upgrades to the DCS Controls involves primarily computer hardware and software which do not fall within the definition of a "project" under CEQA because there would be no physical change in the environment. For Bid Advertisement, the project delivery method for this project is Progressive Design-Build with pre-design/design components. Construction Notice to Proceed (NTP) represents start of fabrication/manufacturing.

Distributed control system (DCS) hardware and software for SSIP contract WW-685R has been delivered in San Francisco.

The DB-126 project team conducted operational readiness tests of the DCS manufactured equipment with WW-685R representatives. DB-126 DCS coordination with the WW-685R team at Northshore Pump Station (NSS) is ongoing.

Issues and Challenges:

None at this time.

North Shore Site Visit: Dry Weather Pump Variable Frequency Drive (VFD)

10034718 - Large Diameter Sewer Projects and Channel FM Intertie

Project Description: The purpose is to rehabilitate and/or replace large-diameter sewers based on previously completed condition assessment efforts. This project will rehabilitate or replace approximately 35,000-feet of large-diameter sewers that are over 100 years old. This project will also construct a bypass, or the Channel Force Main Tee, that will connect the existing Channel Force Main to a nearby sewer transport/storage structure; when complete, the Channel Force Main Tee would allow approximately one-third of the existing Channel Force Main to be taken out of service for rehabilitation or repair during the dry-weather seasons.

Program: Interceptors / Tunnels and Odor Control	**Project Status:** Design	**Environmental Status:** Active (Various)

Project Cost:

Approved	$ 114.59 M
Forecast	$ 114.59 M
Actual	$ 17.55 M

Project Schedule:

Approved Aug-19	Dec-26
Forecast Aug-19	Dec-26

Project Percent Complete: 25.4%

Key Milestones		Environmental Approval	Bid Advertisement	Construction NTP	Construction Final Completion
Current Forecast	A	05/09/2022 A	06/28/2022 A	03/01/2023	06/08/2026
	B	08/06/2020 A	01/19/2021 A	08/30/2021 A	03/23/2023
	C	08/11/2021 A	09/23/2022 A	03/01/2023	05/08/2024
	D	03/23/2021 A	06/17/2022 A	N/A	N/A
	E	03/08/2022 A	06/17/2022 A	11/01/2022	12/26/2023
	F	06/29/2022 A	11/15/2022	04/25/2023	05/22/2024
	G	06/22/2021 A	N/A	03/14/2022 A	08/09/2024
	H	03/01/2023	05/19/2023	10/19/2023	11/22/2024
	I	02/09/2023	01/03/2024	N/A	N/A
	J	07/28/2023	01/19/2024	N/A	N/A

Progress and Status:

For a complete list of contracts and subprojects, see Project Descriptions in the Appendices. Subproject (A): Contract Notice to Proceed(NTP) is postponed to reflect the rebidding of the contract with reduced CMD goals, because the previous low bids did not meet original Contract Monitoring Division(CMD) goals. Subproject (B): Construction work continues to progress and sewer work is over 90% completed. Subproject (C): Contract was advertised. Subproject (D): Subproject is complete as the remaining scope of work added to Subprojects B and E for contracting convenience. Subproject (E): Contract was awarded and NTP is anticipated in the upcoming quarter. Subproject (F): Progressing towards 100% design. Subproject (G): Construction work continued this quarter. SF Public Works is the contracting authority. Subproject (H): Completed 35% design and is progressing towards 65% design. Subproject (I): Completed planning phase, and initiated the design phase. Construction phase will be funded through the Collection Systems R&R Program. Subproject (J): Planning phase is progressing. Construction phase will be funded through the Collection Systems R&R Program.

WW-712: Cured-In-Place Liner Installation on New Montgomery St

Issues and Challenges:

None at this time.

10002652 - Kansas and Marin Streets Sewer Improvements

Project Description: The purpose of the Kansas and Marin Streets Sewer Improvements Project is to increase the wet weather flow conveyance for a minor drainage basin within the Islais Creek Watershed Basin to meet the Level of Service (LOS) storm. The project consists of a 900 linear foot, 8' inside diameter tunnel connecting two existing sewer boxes through the Public Works Corporation Yard at Cesar Chavez Avenue. The project also includes relocation assistance associated with temporary displacements of existing lease-holders who occupy SFPUC's property above the C-Box Transport Storage Structure (Lot 031), as this space will be needed for construction staging. Two new reinforced concrete junction structures will also be constructed to connect with the existing sewers, along with surface restoration work associated with construction and installation of the above assets.

Program: Interceptors / Tunnels and Odor Control	**Project Status:** Design	**Environmental Status:** Completed (CatEx)

Project Cost:

Approved	$ 30.00 M
Forecast	$ 30.00 M
Actual	$ 4.29 M

Project Schedule:

Approved Jun-13	Aug-24
Forecast Jun-13	Aug-24

Project Percent Complete: 15.5%

Key Milestones	Environmental Approval	Bid Advertisement	Construction NTP	Construction Final Completion
Current Forecast	07/23/2019 A	N/A	08/29/2023	05/06/2024

Progress and Status:

During this quarter, the project team nearly completed a new Alternative Analysis Report (AAR), prepared by Public Works. The new AAR is based on the current SSIP LOS design criteria, which had not yet been adopted when the previous AAR was finalized back in 2014.

Issues and Challenges:

None at this time.

Kansas and Marin Micro-Tunnel Boring Machine Receiving Area

10033106 - Geary BRT Sewer Improvements Phase 2

Project Description: Phase 2 of SFMTA's Geary Bus Rapit Transit (BRT) Project includes the addition of center-running BRT lanes on Geary Boulevard between Palm Avenue and 27th Avenue, followed by dedicated BRT lanes along each sides of the street between 27th and 34th Avenue. The center-running BRT lanes on Geary Boulevard would be located directly above the existing sewer lines and severely impact SFPUC's ability to perform future maintenance, repair and/or replacement. The purpose of the Phase 2 sewer work is to coordinate with Geary BRT Project to relocate (or replace as needed) main sewers outside of the transit lanes, platforms and bulbouts. SFPUC had determined sewer conditions along this segment (Stanyan Street to 34th Avenue) and approximately 2.2 miles of aging sewers have been identified as possibly needing replacement. Any sewer work required, whether it is sewer relocation, sewer rehabilitation or sewer replacement, will be undertaken as part of SFMTA's project. Only initial costs for planning and design has been allocated for this project within the SSIP Phase 1 Re-Baselined Program budget.

Program: Interdepartmental Projects	**Project Status:** Design	**Environmental Status:** Active (CatEx)

Project Cost:

Approved	$ 2.00 M
Forecast	$ 2.00 M
Actual	$ 0.53 M

Project Schedule:

Approved Mar-18	Jun-23
Forecast Mar-18	Jun-23

Project Percent Complete: 23.2%

Key Milestones	Environmental Approval	Bid Advertisement	Construction NTP	Construction Final Completion
Current Forecast	01/05/2023	N/A	N/A	N/A

Progress and Status:
All construction related activities will be completed under a new SSIP project next year.

During this quarter, the project team worked on the 65% Design for the combined SFMTA, SFPUC Sewer, and SFPUC Water scope. The project team will initiate the Environmental Phase and outreach efforts in January 2023.

Issues and Challenges:
None at this time.

A portion of Geary Boulevard between 19th and 20th Avenue which is a critical part of the project corridor

10002664 - Van Ness BRT Sewer Improvements

Project Description: The Van Ness Bus Rapid Transit (BRT) Project is led by SFMTA in conjunction with the Van Ness BRT Sewer Improvements Project, which is part of the SFPUC's SSIP Phase 1 Program. SFPUC will replace and relocate existing sewer utilities within Van Ness Avenue, between Lombard Street and Mission Street, from the center of the street to outside of the BRT right-of-way. This will allow for future sewer service maintenance and repair/replacement without impacting SFMTA's BRT operations. The scope of the project includes constructing approximately 20,000 linear feet (LF) of 12-inch to 54-inch diameter Vitrified Clay Pipe (VCP), Reinforced Concrete Pipe (RCP) or High Density Polyethylene) HDPE (in steel casing) sewer mains and associated manholes, catch basins and culverts; and retrofitting and connecting existing sewer laterals and catch basins to the aforementioned new sewer mains. Closed-circuit television (CCTV) technology will be used to inspect the newly constructed sewer mains, sewer laterals and culverts. Abandoned sewers (approximately 1,800 LF) will be plugged-and-filled. Sewer construction was completed in early 2021.

Program: Interdepartmental Projects	**Project Status:** Construction	**Environmental Status:** Completed

Project Cost:

Approved	$ 25.00 M
Forecast	$ 25.00 M
Actual	$ 20.88 M

Project Schedule:

Approved Oct-13	Jun-23
Forecast Oct-13	Jun-23

Project Percent Complete: 83.5%

Key Milestones	Environmental Approval	Bid Advertisement	Construction NTP	Construction Final Completion
Current Forecast	N/A	N/A	01/16/2018 A	12/30/2022

Progress and Status:
SFMTA is the project lead and contracting authority. The San Francisco County Transportation Authority (SFCTA) and the Federal Transit Administration (FTA) completed an Environmental Impact Report(EIR) for the Van Ness BRT project (Notice of Delay filed on September 13, 2013). SFCTA prepared an EIR for CEQA approval, which includes the SFPUC funded sewer improvement. The Construction Manager/General Contractor contract was awarded by SFMTA and Notice to Proceed(NTP) was given to Walsh Construction on October 27, 2016 with NTP for the sewer work obtained on January 16, 2018. SFMTA has yet to issue Substantial Completion(SC). If the SC date continues to slip, the Final Completion date would likely be delayed. Claim negotiations related to schedule and differing site conditions, continue between SFMTA and the contractor. The delay in the SC date and time needed to resolve outstanding claims may continue to impact the project budget and schedule.

Sewer Completion along Van Ness

Issues and Challenges:
None at this time.

10002667 - Better Market Street Sewer Improvements - Phase 1

Project Description: San Francisco Public Works Department's vision for a Better Market Street (BMS) is a comprehensive program to reconstruct the City's premier boulevard and the region's most important transit corridor from Octavia Boulevard to The Embarcadero. The program is a series of interdependent projects (BMS Core Capacity Improvements, BMS Streetscape Enhancements, and BMS State of Good Repair) that will advance several key City policies: Transit First, Complete Streets, the SF Pedestrian Strategy/Walk First and the SF Bicycle Plan. The BMS State of Good Repair Project (a.k.a. BMS Sewer Improvements) will be completed under SSIP to replace aging sewer infrastructure beneath Market Street, especially the brick sewers that are over 100 years old. The requesting funding is for project cost of the Phase 1A contract from 5th Street to 8th Street, and for design budget of the entire corridor.

Program: Interdepartmental Projects	**Project Status:** Design	**Environmental Status:** Completed (EIR)

Project Cost:

Approved	$ 15.00 M
Forecast	$ 15.00 M
Actual	$ 1.88 M

Project Schedule:

Approved Jan-14	Oct-28
Forecast Jan-14	Oct-28

Project Percent Complete: 16.5%

Key Milestones	Environmental Approval	Bid Advertisement	Construction NTP	Construction Final Completion
Current Forecast	10/18/2019 A	01/15/2025	08/04/2025	02/26/2027

Progress and Status:

SFPW is the project lead and contracting authority. As reported last quarter, SFPUC's proposed water and sewer scopes of work were deleted from the BMS Phase 1 Contract per the request of SFMTA and SFPW. To mitigate the risk of failure of sewer assets, the project team is coordinating with WWE/Sewer Operations to inspect the existing conditions of culverts that were originally part of the BMS Phase 1 Contract. Depending on the condition of the culverts, repair or replacement of the culverts may be initiated through this project. SFPUC's sewer and water work on Market Street, between 5th to 7th Streets, are anticipated to be included in a future BMS contract (BMS Contract 2). SFPW and SFMTA will re-initiate the planning effort for BMS Contract 2 at end of 2022 and SFPUC staff will be engaging in this planning effort. The extent of the scope is still in discussion between SFPW and SFMTA management and the lead-agency has not been determined.

Better Market Street – Rendering of proposed project

Issues and Challenges:

None at this time.

10002776 - Taraval Sewer Improvements

Project Description: SFMTA has proposed a pedestrian safety and transit improvements project along Muni's "L Taraval" route. The project includes construction/extension of boarding islands, addition of dedicated transit-only lanes, and replacement of aging tracks, overhead wires, and trolley poles. The Taraval Sewer Improvements Project will relocate existing sewer facilities from the center of the street to outside of the tracks to allow for ease of maintenance and repair/replacement without impacting future SFMTA's Muni operations. The scope of the sewer work includes replacing approximately 19,000 LF of 12-inch to 36-inch diameter ISP, Vitrified Clay Pipe (VCP), Reinforced Concrete Pipe (RCP), or concrete sewers along Taraval Street between 15th Avenue and 46th Avenue, and Ulloa Street between Forest Side Avenue and 15th Avenue for a twin sewer system. Most of the sewers to be replaced are close to 100 years old. Project is split into two construction contracts. Segment A is from Zoo to Sunset Blvd. and construction was initiated in 7/19. Segment B is from Sunset Blvd. to West Portal and that construction contract is expected to NTP in early 2020.

Program: Interdepartmental Projects	**Project Status:** Construction	**Environmental Status:** Completed (Various)

Project Cost:

Approved	$ 34.5 M
Forecast	$ 34.5 M
Actual	$ 14.77 M

Project Schedule:

Approved Mar-16	Jul-25
Forecast Mar-16	Jul-25

Project Percent Complete: 47.2%

Key Milestones		Environmental Approval	Bid Advertisement	Construction NTP	Construction Final Completion
Current Forecast	A	04/17/2017 A	10/02/2018 A	07/01/2019 A	07/02/2021 A
	B	04/17/2017 A	01/21/2021 A	12/01/2021 A	08/16/2024
	C	N/A	N/A	10/19/2020 A	06/13/2023

Progress and Status:

SFMTA is the project lead and contracting authority. The San Francisco County Transportation Authority (SFCTA) prepared the CEQA approval, except for the sewer and water scopes, which were separately completed by SFPUC. The Segment A Contract (SF Zoo to Sunset Blvd/SFMTA Contract No 1306): Project closeout continues. The Segment B Contract (Sunset Blvd to West Portal/SFMTA Contract No 1308): Contract originally advertised on June 20, 2019 with bid opening held on September 12, 2019 and was re-bid on January 21, 2021. Sewer mainline construction is progressing well. Work will wrap up along Taraval temporarily prior to the Holiday Moratorium and continue with sewer work on Ulloa Street during that time.

Issues and Challenges:

None at this time.

Segment B: Contractor carefully excavating soil to prepare for sewer pipe installation

10026828 - Mariposa Dry-Weather Pump Station & Force Main Improvements

Project Description: The project involves construction of new dry-weather pump station and force main to achieve the peak design flow of 5.0 million-gallon per day (MGD). The scope consists of demolishing the existing pump station building, underground structure, wet well, electrical system, and associated assets to make room for a new pump station. The existing dry-weather force main is being replaced with a larger diameter force main downstream of the new dry-weather pump station. A Memorandum of Understanding (MOU) was established with the Port of San Francisco (SF Port) since both the pump station and force main are located within SF Port's jurisdiction.

Program: Pump Stations and Forcemain Improvements	**Project Status:** Construction	**Environmental Status:** Completed (CatEx)

Project Cost:

Approved	$ 31.93 M
Forecast	$ 31.93 M
Actual	$ 30.13 M

Project Schedule:

Approved Jul-14	Dec-22
Forecast Jul-14	Jun-23

Project Percent Complete: 98.9%

Key Milestones	Environmental Approval	Bid Advertisement	Construction NTP	Construction Final Completion
Current Forecast	04/25/2017 A	04/04/2018 A	01/28/2019 A	12/30/2022

Progress and Status:
During this quarter, Substantial Completion was established in August and the pump station was turned over to operations. Contractor continues to work on final punch list items to address various outstanding items and work towards final completion. The construction of force main work under the Bay Corridor Transmission and Distribution - Phase 1 Contract (DB-128R2) has been completed, and staff continues to negotiate construction claims with the design-builder, and work towards final completion.

Issues and Challenges:
Project final completion is delayed due to delay in delivery of some final punch list parts.

Signage Installation at Mariposa Pump Station

10037251 - Seacliff No. 1 PS & FM Upgrade

Project Description: Due to its age, condition, and opportunity for water quality benefits through upsizing the station's capacity, it is recommended that Seacliff No.1 Pump Station and force main be replaced. This would include: Replacement of pump station and 8-inch force main (930 LF); Installation of flow monitoring devices for post-storm evaluation and floatable controls at the overflow structure to CSD 005; Connection from new pump station to CSD 005; Possibly installing a redundant pump for 'n+1' redundancy during wet weather and consider provisions for wet well isolation for maintenance and inspection, if feasible. As the current site is partially on Federal/GGNRA property, locating a suitable site may require additional coordination activities with the Real Estate Division.

Program: Pump Stations and Forcemain Improvements	**Project Status:** Design	**Environmental Status:** Active (CatEx)

Project Cost:

Approved	$ 14.68 M
Forecast	$ 14.68 M
Actual	$ 0.95 M

Project Schedule:

Approved Dec-20	Dec-26
Forecast Dec-20	Dec-26

Project Percent Complete: 8.8%

Key Milestones	Environmental Approval	Bid Advertisement	Construction NTP	Construction Final Completion
Current Forecast	08/07/2023	01/24/2024	06/19/2024	12/22/2025

Progress and Status:

The project team completed the Conceptual Engineering Report (CER) and held the Technical Steering Committee (TSC) meeting. The team is finalizing the planning phase and anticipate design effort to start in the next quarter.

Issues and Challenges:

None at this time.

Seacliff Pump Station No.1

10037246 - Seacliff No. 2 PS & FM Upgrade

Project Description: This project includes Planning (including condition assessment, needs identification, alternative analysis and conceptual engineering), Design, Right-of-Way, Environmental, Bid and Award, and Construction for the following scope of work and assumptions: Existing PS can be rehabilitated and upgraded to meet current building codes; Perform seismic retrofit of the existing pump station building and associated mechanical and electrical equipment, piping, and fittings; Address fire, emergency and health and safety requirements; Assume damaged concrete and exposed rebars can be repaired; Assume deterioration of the existing wet-wells can be repaired; Replace the three submersible pumps in kind (47 horsepower pumps); Replace other mechanical and process equipment, including: existing crane, bubbler system, piping, valves, inlet gate and operator, water system components, and washdown pump; Provide protective coating to all exposed metal piping, fittings, and valves; Replace all electrical equipment; Upgrade fiber optic connection; Address PS security needs, including providing: perimeter camera, access key box at gate, egress compliant gate hardware and level lockset or panic hardware exit devise and solid panel surrounding lock; Replace existing eight-inch force main with 16-inch force main in the same alignment.

Program: Pump Stations and Forcemain Improvements	**Project Status:** Planning	**Environmental Status:** Not Initiated (CatEx)

Project Cost:

Approved	$ 19.32 M
Forecast	$ 19.32 M
Actual	$ 0.83 M

Project Schedule:

Approved Dec-20	Jan-28
Forecast Dec-20	Jan-28

Project Percent Complete: 5.3%

Key Milestones	Environmental Approval	Bid Advertisement	Construction NTP	Construction Final Completion
Current Forecast	04/25/2023	03/25/2024	07/26/2024	10/26/2026

Progress and Status:

During this quarter, the planning phase was completed, and design team initiated the design phase.

Issues and Challenges:

None at this time.

Seacliff No. 2 Pump Station and the CSD 007 discharge location at Baker Beach

10037303 - Sunnydale PS Safety Improvements

Project Description: This project's scope aims to address the following health, safety, and security issues at Sunnydale PS -Address safety risks from groundwater intrusion, including repairing structural deficiencies, including cracks and leaks; Upgrade and repair corroded equipment and appurtenances inside manifold room (including piping, PRVs, lighting, instruments, equipment); Address water leakage in manifold room and Motor Control Center (MCC); Address water intrusion from conduits package connected to PG &E transformer; Repair leaking door; Perform electrical repairs; Replace corroded HVAC equipment damaged by water intrusion. Address Security Concerns, including installing new security signage and upgrading lighting to dusk-activated LED lighting; Upgrade card readers and door contacts at all perimeter doors; Add interior presence sensing, connected to an intrusion detection panel and alarming to security; Furnish, install and configure video recording servers, management server and analytic servers including uninterruptable power supplies (UPS); Install video camera units and local recording. Address Other Safety Concerns, including evaluating and adding a gas detection system, as necessary; Add site lighting at egress penthouse and entrance to the station.

Program: Pump Stations and Forcemain Improvements	**Project Status:** Design	**Environmental Status:** Active (CatEx)

Project Cost:

Approved	$ 15.54 M
Forecast	$ 15.54 M
Actual	$ 0.57 M

Project Schedule:

Approved Dec-20	May-26
Forecast Dec-20	May-26

Project Percent Complete: 5.8%

Key Milestones	Environmental Approval	Bid Advertisement	Construction NTP	Construction Final Completion
Current Forecast	08/31/2023	10/24/2023	05/14/2024	11/14/2025

Progress and Status:

Project team completed the planning phase and is initiating the design phase.

Issues and Challenges:

None at this time; however, some milestones have slipped due to addition of scope from corrosion assessment recommendation. Overall project schedule is maintained by shortening the closeout phase to the standard six months.

Sunnydale Pump Station

10038469 - Pump Station Security Upgrades (Cesar Chavez, GFS,CHS, MMS)

Project Description: This project involves security upgrades at four pump stations: Cesar Chavez Pump Station (CCS), Griffith Street Pump Station (GFS), Channel Pump Station (CHS), Merlin Morris Pump Station (MMS). Each site will have its own specific upgrades which may include upgrading card readers and door contacts, replacing/repairing existing perimeter fence and fence support, upgrading lighting, adding security signage.

Program: Pump Stations and Forcemain Improvements	**Project Status:** Planning	**Environmental Status:** Not Initiated (EIR)

Project Cost:

Approved	$ 9.10 M
Forecast	$ 9.10 M
Actual	$ 0.03 M

Project Schedule:

Approved Jun-22	May-27
Forecast Jun-22	May-27

Project Percent Complete: 0.3%

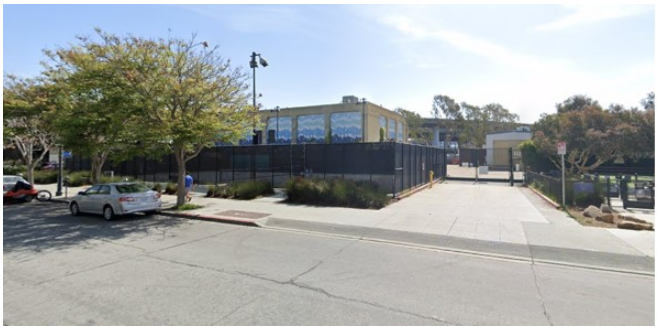
Key Milestones	Environmental Approval	Bid Advertisement	Construction NTP	Construction Final Completion
Current Forecast	02/29/2024	09/19/2024	01/15/2025	10/26/2026

Progress and Status:

During this quarter, a task order to onboard a specialty Consultant for the planning effort was initiated and executed.

Issues and Challenges:

None at this time.



Channel Pump Station

10038446 - Geary Underpass PS Safe Access Enhancements

Project Description: This project's purpose is to improve access in and around the Geary Underpass Pump Station, in accordance with the Health, Safety, and Security LOS goal. This includes investigating options to improve maintenance access and assumes the following scopes of work: improve lighting and accessibility for routine maintenance, such as removing and replacing existing pumps; add and/or modify handrail and ladders, and upgrade the guardrail at the well opening.

Program: Pump Stations and Forcemain Improvements	**Project Status:** Planning	**Environmental Status:** Not Initiated (CatEx)

Project Cost:

Approved	$ 1.85 M
Forecast	$ 1.85 M
Actual	$ 0.03 M

Project Schedule:

Approved Jan-22	May-26
Forecast Jan-22	May-26

Project Percent Complete: 1.7%

Key Milestones	Environmental Approval	Bid Advertisement	Construction NTP	Construction Final Completion
Current Forecast	12/22/2022	06/11/2024	09/06/2024	08/06/2025

Progress and Status:
During this quarter, the project team prepared the project plan with the recommended scope and is formulating a design team to execute the recommended scope.

Issues and Challenges:
None at this time.

Wet Well of Pump Station

10037245 - Brannan (019) CSD Discharge and Baffle Rehabilitation

Project Description: The components of the project at Brannan Combined Sewer Discharge (CSD) involve the following, as recommended in the 2019 AAR: Replace the butterfly valve and hydraulic actuator, two sensors, corroded metal stilling wells, the flap gate with an inline check valve, and access ladder; Install baffle for floatables control; Conduct concrete patching and repair works and repair exposed rebar.

Program: Combined Sewer Discharge (CSD) and Transport/Storage Structures	**Project Status:** Planning	**Environmental Status:** Not Initiated (CatEx)

Project Cost:

Approved	$ 7.95 M
Forecast	$ 7.95 M
Actual	$ 0.25 M

Project Schedule:

Approved Dec-20	May-26
Forecast Dec-20	May-26

Project Percent Complete: 4.3%

Key Milestones	Environmental Approval	Bid Advertisement	Construction NTP	Construction Final Completion
Current Forecast	11/29/2023	02/05/2024	08/05/2024	08/06/2025

Progress and Status:
The team re-started working on the Conceptual Engineering Report(CER) that was put on hold earlier in 2022 based on AGM's request to perform additional hydraulic studies on the function of Combined Sewer Discharge (CSD). Draft CER is expected to be done in the upcoming quarter.

Issues and Challenges:
None at this time; however, the planning phase has been delayed due to stop/start of the work and has affected the Bid Advertisement milestone.

Brannan CSD butterfly valve stuck in place.

10037244 - Baker (009) Baffle Improvements and Repair of Backflow Valve

Project Description: The components of the project at Baker CSD involve installing a baffle on the east overflow weir; Patching and coating minor exposed aggregate in the former DAF chamber; Repairing the western array of valves to stop leaking; Repairing the eastern array of valves to prevent leaking; Repairing or replacing deteriorated metal plumbing pipes; Repairing minor defects including missing aggregate and infiltration in connecting sewer.

Program: Combined Sewer Discharge (CSD) and Transport/Storage Structures	**Project Status:** Design	**Environmental Status:** Completed (NonCEQA)

Project Cost:

Approved	$ 2.86 M
Forecast	$ 2.86 M
Actual	$ 0.40 M

Project Schedule:

Approved Dec-20	Aug-24
Forecast Dec-20	Aug-24

Project Percent Complete: 15.8%

Key Milestones	Environmental Approval	Bid Advertisement	Construction NTP	Construction Final Completion
Current Forecast	07/15/2022 A	10/14/2022	05/18/2023	11/17/2023

Progress and Status:
The 95% design was completed in this quarter. Team will review and finalize the design phase in the upcoming quarter.

Issues and Challenges:
None at this time.

Leaky backflow preventor valve at Baker CSD.

10038468 - System-wide CSD & T/S Monitoring Equipment Assessment

Project Description: The project involves a system-wide assessment of all of the WWE's collection system monitoring equipment for dry and wet-weather operations, reporting and other related functions. The project scope will perform a desktop-based gap analysis to document the location, condition, reliability, etc for the current monitoring equipment and compare that against WWE's long-term vision. The assessment will provide recommendations for replacement, relocation or consolidation of sensors, calibration needs, technology upgrades related to power and communications, new installations, additional access, or other recommendations. The assessment will also include a long-term maintenance plan for all sensors. As an allowance and a starting point, the project cost assumes replacement and conversion to wireless communication for existing sensors at the following CSD locations: CSD 001 – Lake Merced (3 sensors); CSD 002 – Vicente (3 sensors); CSD 003 – Lincoln (3 sensors); CSD 005 – Seacliff 1 (3 sensors); CSD 007 – Seacliff 2 (2 sensors); CSD 009 – Baker (1 sensor, relocated from Pierce CSD); CSD 025 – 6th Street (1 sensor); CSD 029 – Mariposa (3 sensors); CSD 031A – Islais Creek (1 sensor); CSD 041 – Yosemite (1 sensor); CSD 043 – Sunnydale (1 sensor). An additional allowance of $2,000,000 is also included for reliability improvements at other collection system locations based on the assessment results.

Program: Combined Sewer Discharge (CSD) and Transport/Storage Structures	**Project Status:** Planning	**Environmental Status:** N/A

Project Cost:

Approved	$ 9.29 M
Forecast	$ 9.29 M
Actual	$ 0.04 M

Project Schedule:

Approved Jan-22	Feb-27
Forecast Jan-22	Feb-27

Project Percent Complete: 0.7%

Key Milestones	Environmental Approval	Bid Advertisement	Construction NTP	Construction Final Completion
Current Forecast	TBD	02/04/2025	07/01/2025	08/31/2026

Progress and Status:

The project team conducted the project kick-off meeting with stakeholders in this reporting quarter. The team's next steps are to gather current status information and various documents on existing flow monitoring devices and instruments installed throughout the city and perform workshops with Wastewater Enterprise (WWE) personnel to start the gap analysis/needs assessment process.

Issues and Challenges:

None at this time.

Existing field instrumentation equipment installed in a sewer manhole

10038547 - CSD Structure Rehab & Upgrades - Part 1

Project Description: Laguna (CSD 011): Concrete spall and crack repair, rehabilitate existing discharge pipe with carbon fiber wrap or similar material and repair baffles; Howard (CSD 018): Improve floatables control; repair butterfly valve; replace conduit; patch and coat concrete and exposed rebar; repair missing bricks and mortar; seal cracks; Fourth St. North (CSD 023): Patch and coat concrete defects and exposed rebar; investigate potential pipe sag, repair missing bricks and mortar, seal cracks and fractures; 3rd St (CSD 022): Repair areas of spalled concrete, repair missing bricks and mortar and fiber glass lining, repair exposed aggregate, seal major cracks and fractures; 6th S (CSD 027): Repair areas of missing concrete; address general spot repair locations in chamber, repair areas of spalled concrete, Seal major cracks replace baffle wall boards, relocate new bolts inward, and potentially replace brackets; 4th St S (CSD 028): Address general spot repair locations in chamber, repair areas of spalled concrete; Mariposa (CSD 029): Patch and coat concrete and exposed rebar; seal cracks, repair cracks and fractures; repair or replace manhole cover and ladder rungs, replace monitoring line brackets, Evans (CSD 037): Seal infiltration cracks and holes, patch and repair concrete defects, patch and repair exposed rebar and missing aggregate, repair or replace baffle brackets, Lake Merced (CSD 001): Seal infiltration cracks and holes, patch and coat concrete defects and exposed rebars.

Program: Combined Sewer Discharge (CSD) and Transport/Storage Structures	**Project Status:** Planning	**Environmental Status:** Not Applicable (Various)

Project Cost:

Approved	$ 39.65 M
Forecast	$ 39.65 M
Actual	$ 0.13 M

Project Schedule:

Approved Jan-22	Jan-29
Forecast Jan-22	Jan-29

Project Percent Complete: 0.7%

Key Milestones		Environmental Approval	Bid Advertisement	Construction NTP	Construction Final Completion
Current Forecast	A	10/31/2022	01/18/2024	06/04/2024	07/02/2025
	B	10/31/2022	07/31/2024	01/02/2025	12/31/2025
	C	04/04/2025	07/31/2025	01/02/2026	12/31/2026

Progress and Status:
This project includes the following contracts: A) Laguna & Howard Streets CSDs; (B) Mission Bay CSD; and (C) TBD #1. Contract A: Draft CER for Laguna and Howard Combined Sewer Discharges was completed in this quarter and will be finalized in the upcoming quarter. Team initiated a contract with specialized testing consultant for Laguna for enhanced condition assessment during design. This work will start in the upcoming quarter. Contract B: Planning effort start in this quarter. Team completed the inspections. The scope of work and needs will be finalized in upcoming quarter.

Issues and Challenges:
None at this time.

Howard CSD inspection after cleaning.

10026810 - Yosemite Green Infrastructure

Project Description: The upper reach of the Yosemite Creek Daylighting project would daylight the creek along a portion of the historic creek path, from Yosemite Marsh in McLaren Park to Woolsey and Hamilton Streets. This project diverts flows from the sewer using swales, vegetated channels, rain gardens, piped sections and a constructed wetland/detention basin/bio-swale system. This project is also referred to as the "Upper Yosemite Creek Daylighting".

Program: Early Implementation Projects	**Project Status:** Design	**Environmental Status:** Completed (CatEx)

Project Cost:

Approved	$ 20.79 M
Forecast	$ 20.79 M
Actual	$ 3.94 M

Project Schedule:

Approved Dec-12	Oct-27
Forecast Dec-12	Oct-27

Project Percent Complete: 21.5%

Key Milestones	Environmental Approval	Bid Advertisement	Construction NTP	Construction Final Completion
Current Forecast	08/15/2017 A	02/01/2024	08/29/2024	07/31/2026

Progress and Status:
During this quarter, Notice to Proceed(NTP) was issued on the design phase professional services task order and the project team began design work. In addition, the project team conducted outreach to gather signatures for the one-way conversion of Wayland Street.

Issues and Challenges:
None at this time.

Yosemite Station along Wayland Street provides outdoor educational opportunities for creek restoration and ecology.

10026816 - Wawona Area Stormwater Improvement Project

Project Description: The neighborhood surrounding the intersection of 15th Avenue and Wawona Street is topographically lower in elevation compared to its adjacent neighborhoods, and has been subjected to flooding during large storms. When the capacity of the sewers are exceeded during large storms, significant volumes of overland flow upstream of the intersection cannot enter the catch basins and sewer system, causing flooding and property damage. The purpose of this project is to divert part of the flow at the intersection of Wawona and Vicente into a new auxiliary sewer on Vicente, extended to from Wawona to 34th Ave. The flow then would enter the existing system where there is capacity for additional flow.

Program: Watershed Stormwater Management	**Project Status:** Construction	**Environmental Status:** Completed (CatEx)

Project Cost:

Approved	$ 38.90 M
Forecast	$ 38.90 M
Actual	$ 21.04 M

Project Schedule:

Approved Jul-16	Dec-24
Forecast Jul-16	Dec-24

Project Percent Complete: 70.5%

Key Milestones	Environmental Approval	Bid Advertisement	Construction NTP	Construction Final Completion
Current Forecast	06/01/2020 A	10/30/2020 A	07/26/2021 A	03/12/2024

Progress and Status:

The sewer pipe installation for the project was completed in this quarter. The stormwater inlets on Wawona and 14th and 15th avenues started in this quarter and will be completed in the upcoming quarter. The water main replacement has been ongoing. Installation of 36" steel pipe for potable water for firefighting will start in the upcoming quarter.

Issues and Challenges:

None at this time.

Preparing to install storm drains at 15th and Wawona

10029726 - Watershed Stormwater Management (Planning Only)

Project Description: This project will address long term Green Infrastructure (GI) development process and how it will be integrated and prioritized in the Collection System Plan and UWA report. A portion of the funds will be used to implement billing system upgrades that will enable the roll out the stormwater fee. Funding is also allocated for the Planning GI projects on San Francisco Unified School District (SFUSD) sites.

Program: Watershed Stormwater Management	**Project Status:** Planning	**Environmental Status:** Not Applicable

Project Cost:

$ 19.00 M
$ 19.00 M
$ 6.39 M

Project Schedule:

Jun-32
Jun-32

Project Percent Complete: 34.4%

Key Milestones	Environmental Approval	Bid Advertisement	Construction NTP	Construction Final Completion
Current Forecast	N/A	N/A	N/A	N/A

Progress and Status:

As previously reported, the project team provided technical support for Flood Resilience Programmatic Strategies, green infrastructure projects and programs, and billing system upgrades. During the current quarter, the project team coordinated with San Francisco Recreation and Park Department on the Buchanan Street Mall green infrastructure project.

Issues and Challenges:

None at this time.

10034553 - Green Infrastructure Grant Program (GIGP)

Project Description: The Green Infrastructure (GI) Grant Program funds green infrastructure projects on public and private properties throughout San Francisco. The grants will cover costs of design and construction of approved stormwater management features, such as rain gardens, permeable pavement, cisterns, and vegetated roofs. Grantees will be eligible to receive $765,000 per acre of impervious surface managed, up to $2 million per project.

Program: Watershed Stormwater Management	**Project Status:** Construction	**Environmental Status:** Not Applicable

Project Cost:

Approved	$ 61.32 M
Forecast	$ 61.32 M
Actual	$ 2.94 M

Project Schedule:

Approved Jul-18	Jun-33
Forecast Jul-18	Jun-33

Project Percent Complete: 7.4%

Key Milestones	Environmental Approval	Bid Advertisement	Construction NTP	Construction Final Completion
Current Forecast	N/A	N/A	N/A	N/A

Progress and Status:

During the third quarter of 2022, no new Green Infrastructure Grant applications were received and no new projects were awarded. One awarded project, Lycee Francais SF Ortega Campus continued construction during the third quarter. Three awarded projects, Crocker Amazon Park, St. Thomas More School, and St. Anne of the Sunset continued project design during the third quarter. The Fall 2022 Application Cycle opened on August 1st. The GI Grant team conducted the following outreach activities to potential grantees: advertised a competitive solicitation in accordance with City Administrative Code Chapter 21G, updated the program website and program materials, sent four e-blasts to over 250 prospective applicants, hosted two grant program webinars with a total of 95 attendees, completed five site visits, and prepared three new Green Infrastructure Opportunities Assessments for potential program applicants.

Construction of permeable concrete at Lycee Francais de San Francisco School

Issues and Challenges:

None at this time.

10029730 - Operational Decision System Phase 2

Project Description: This project would integrate available data in the collection system (levels, flows, pump status, etc.) with rainfall prediction data (from National Oceanic and Atmospheric Administration, or in the future improved through project CWWSIPFCRP01). The real-time data will be coupled with Waste Water Enterprise's (WWE) collection system hydraulic model to project the likely impact of approaching storms and generate specific operational recommendations for managing flows. Phase 2 builds upon Phase 1 (CWWSIPFCRP02) for a citywide installation.

Program: Advanced Rainfall and Operation Decision System	**Project Status:** Construction	**Environmental Status:** Not Applicable

Project Cost:

Approved	$ 6.72 M
Forecast	$ 6.72 M
Actual	$ 3.88 M

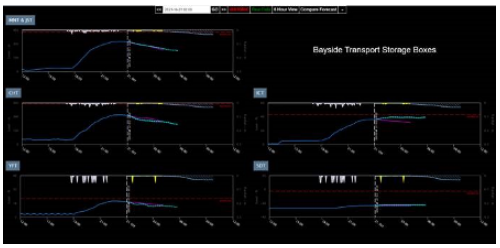
Project Schedule:

Approved Feb-17	Sep-25
Forecast Feb-17	Sep-25

Project Percent Complete: 64.0%

Key Milestones	Environmental Approval	Bid Advertisement	Construction NTP	Construction Final Completion
Current Forecast	N/A	12/18/2017 A	02/22/2018 A	06/30/2025

Progress and Status:
This is a software development project. (Notice to Proceed)NTP represents the date of award for software development agreement. The Operational Decision System project team conducted a check-in meeting with project stakeholders during this reporting quarter. Coordination with SFPUC Information Technology Services(ITS) continues. Quality assurance and control activities of the database and the raw data coming from the thirty (30) newly procured and installed flow monitoring devices continued during this quarter as well.



One of the Operational Decision System screens

Issues and Challenges:
None at this time.

10034360 - Lower Alemany Area Stormwater Improvement Project

Project Description: The primary objective of the Lower Alemany Area Stormwater Improvement Project is to address the Sewer System Improvement Program (SSIP) levels of service (LOS) goals of managing stormwater and protecting and streets and properties from a statistically derived storm lasting 3 hours, with a total of 1.3 inches of rainfall and defined peak rainfall intensity (5-year 3-hour storm, LOS storm). This project will include planning, design, and construction of an improved conveyance system in the Lower Alemany area that manages the stormwater and minimizes flooding in the LOS storms. Detail project scope will be developed based on the preferred alternative identified during the planning phase.

Program: Flood Resilience Projects	**Project Status:** Planning	**Environmental Status:** Active (CatEx)

Project Cost:

Approved	$ 299.56 M
Forecast	$ 299.56 M
Actual	$ 4.39 M

Project Schedule:

Approved Jan-19	Sep-28
Forecast Jan-19	Sep-28

Project Percent Complete: 2.6%

Key Milestones	Environmental Approval	Bid Advertisement	Construction NTP	Construction Final Completion
Current Forecast	01/09/2024	08/22/2024	01/09/2025	03/15/2028

Progress and Status:
In this quarter, the project team completed the geotechnical studies and environmental site assessment supporting the development of Conceptual Engineering Report(CER). The draft CER and presentation to Technical Steering Committee is anticipated in the upcoming quarter.

Issues and Challenges:
None at this time.

Flooding at the I-280/Hwy 101 interchange at Lower Alemany area, during the rainfall of February 13, 2019

10026818 - Folsom Area Stormwater Improvement Project

Project Description: The Folsom Area Stormwater Improvement Project (FASIP) will provide stormwater conveyance improvements to the neighborhood surrounding 17th and Folsom Street. The project is being developed based on the alternative chosen in the NAR/AAR report and further defined in the CER. Major components of the project consist of a tunnel to convey stormwater flows from the neighborhood surrounding 17th and Folsom to the Channel Consolidated Transport/Storage Box, and upsizing of existing combined sewer pipes and structures upstream of the tunnel. Phase I covers through design which is anticipated to be complete in December of 2023. Construction will be covered by Folsom Area Stormwater Improvement Project Phase 2.

Program: Flood Resilience Projects	**Project Status:** Design	**Environmental Status:** Active (CatEx)

Project Cost:

Approved	$ 38.41 M
Forecast	$ 38.41 M
Actual	$ 14.12 M

Project Schedule:

Approved Jul-16	Dec-23
Forecast Jul-16	Dec-23

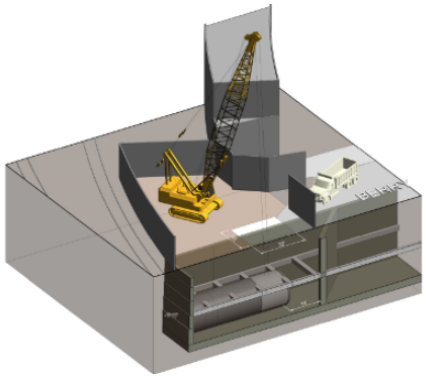
Project Percent Complete: 44.7%

Key Milestones	Environmental Approval	Bid Advertisement	Construction NTP	Construction Final Completion
Current Forecast	03/13/2023	N/A	N/A	N/A

Progress and Status:
Project includes Planning, Environmental, Right of Way and Design Phases only.

In this quarter, the City team prepared the 95% design for the Alameda Street Wet Weather Tunnel Contract, completed the 100% design for the initial Folsom Contract and prepared the 65% design for the Harrison and Treat Street Sewer Box Contract. The Folsom project requires extensive staging on private property and permanent improvements through private property in order to be implemented.

Issues and Challenges:
None at this time.



The proposed Tunnel Boring Machine (TBM) retrieval shaft at Berry Street

8. On-Going Construction**

Construction Contract	Schedule			Budget		Variance (Approved - Forecast)		Actual % Complete
	NTP Date	Approved Construction Final Completion	Current Forecasted Construction Final Completion*	Approved Contract Cost	Current Forecasted Cost*	Schedule (Cal. Days)	Cost	
Biosolids Digester Facilities Project								
10015796 Bisosolids Digester Facilities Project - Scope II - Foundation and Pile Installation (Issued POs for 2 Packages)	07/01/20	08/31/26	04/14/23	$225,526,269	$225,526,269	1,235	-	97.9%
10015796 Bisosolids Digester Facilities Project - Scope II - Remainder of Scope II (Issued POs for 29 Packages)	07/01/20	08/31/26	05/12/28	$287,786,515	$287,786,515	(620)	-	15.0%
New Headworks (Grit) Replacement								
10015807 Southeast Water Pollution Control Plant New Headworks Facility - SCOPE III (issued POs for 57 Packages)	07/22/19	02/29/24	02/29/24	$330,681,846	$330,681,846	-	-	50.8%
Southeast Plant (SEP) Improvements								
10002284 SEP Power Feed and Primary Switchgear Upgrades	10/05/20	02/23/24	02/23/24	$31,274,548	$31,274,548	-	-	48.0%

Note: * The Forecasted Cost includes all approved, pending, and potential change orders, and Final Completion Date includes all approved, pending, and potential change orders, and trends.

** This table is reflecting Active construction contract with original contract amount greater than $1M.

Construction Contract	Schedule			Budget		Variance (Approved - Forecast)		Actual % Complete
	NTP Date	Approved Construction Final Completion	Current Forecasted Construction Final Completion*	Approved Contract Cost	Current Forecasted Cost*	Schedule (Cal. Days)	Cost	
Oceanside Plant (OSP) and Westside Pump Station (WSS) Improvements								
10029736 Westside Pump Station Reliability Improvements	04/19/21	02/02/24	02/02/24	$48,433,074	$48,433,074	-	-	12.9%
10029737 Oceanside Water Pollution Control Plant Digester Gas Utilization Upgrades	11/26/18	03/17/22	06/01/23	$42,293,900	$42,293,900	(441)	-	86.0%
North Point Facility (NPF) Improvements								
10026822 NPF Clarifier Improvements	04/19/21	05/08/23	05/08/23	$28,611,000	$28,611,000	-	-	46.0%
Interceptors / Tunnels and Odor Control								
10034718 New Montgomery, Jessie, Minna, and Mission Streets Brick Sewer Rehabilitation	08/30/21	03/23/23	03/23/23	$7,515,127	$7,515,127	-	-	76.0%

Note: * The Forecasted Cost includes all approved, pending, and potential change orders, and Final Completion Date includes all approved, pending, and potential change orders, and trends.

** This table is reflecting Active construction contract with original contract amount greater than $1M.

I. SSIP Quarterly Report — Q1-FY2022-2023 (07/01/22 - 09/30/22)

Construction Contract	Schedule			Budget		Variance (Approved - Forecast)		Actual % Complete
	NTP Date	Approved Construction Final Completion	Current Forecasted Construction Final Completion*	Approved Contract Cost	Current Forecasted Cost*	Schedule (Cal. Days)	Cost	
Interdepartmental Projects * **								
10002664 Van Ness Corridor Transit Improvement Project (sewer only)	01/16/18	12/30/22	12/30/22	$17,649,795	$17,649,795	-	-	99.7%
Pump Stations and Forcemain Improvements								
10026828 Mariposa Dry Weather Pump Station Improvements	01/28/19	12/30/22	12/30/22	$18,349,551	$18,349,551	-	-	96.0%
Stormwater Management								
10026816 Wawona Area Stormwater Improvement Project	07/26/21	03/12/24	03/12/24	$20,918,073	$20,918,073	-	-	22.0%
10029730 Operational Decision System Phase 2	02/28/18	06/30/25	06/30/25	$2,261,937	$2,261,937	-	-	56.0%

Program Total for On-Going Construction	Approved Contract Cost	Current Forecasted Cost	Variance	
			Cost	Percent
	$ 1,010,107,844	$ 1,009,537,844	+$570,000	+0.1%

Note: * The Forecasted Cost includes all approved, pending, and potential change orders, and Final Completion Date includes all approved, pending, and potential change orders, and trends.

** This table is reflecting Active construction contract with original contract amount greater than $1M.

*** Contracts performed under SFMTA/SFPW.

9. PROJECTS IN CLOSEOUT

Project Title	Current Approved Construction Phase Completion	Actual Construction Phase Completion	Current Approved Construction Phase Budget	Construction Phase Expenditures To Date
Sewer System Improvement Program Phase 1				
10002102 - Central Bayside System Improvement Project - Phase 1	N/A	N/A	$0	$0
10002303 - Beach and Sansome Street CSD Rehabilitation	04/29/2022	06/30/2022	$4,337,533	$3,880,127
10002344 - CSD Backflow Prevention and Monitoring	04/12/2022	04/12/2022	$4,944,414	$4,285,112
10002378 - 5th, North 6th and Division Street CSD Rehabilitation	01/23/2021	01/23/2021	$3,621,092	$3,617,231
10002419 - Force Main Rehab at Embarcadero and Jackson Streets	04/22/2022	04/22/2022	$7,986,276	$8,064,938
10002485 - Griffith Pump Station Improvements	01/27/2021	01/27/2021	$11,711,840	$11,465,247
10002670 - Geary BRT Sewer Improvements Phase 1	06/30/2022	06/30/2022	$7,989,681	$7,803,455
10002687 - Mission Bay Loop Sewer Improvement	12/01/2020	12/01/2020	$261,347	$261,347
10002760 - Cargo Way Sewer Box Odor Reduction	04/26/2022	04/26/2022	$4,977,880	$4,701,825
10015810 - SEP Seismic Reliability and Condition Assessment Improvements	09/09/2022	06/22/2022	$27,884,637	$23,031,182
10026805 - Sunset Green Infrastructure	09/23/2021	09/23/2021	$4,489,547	$4,316,443
10026809 - Richmond Green Infrastructure	12/30/2021	10/28/2022	$8,650,888	$8,330,937
10026820 - Hydraulic and Drainage Sewer Improvements	09/08/2018	09/08/2018	$3,557,202	$3,557,202
10033745 - Mission Street, 16th to Cesar Chavez Streets, Brick Sewer Rehabilitation	01/29/2022	01/29/2022	$6,548,104	$5,550,897
TOTAL			**$96,960,441**	**$88,865,943**

10. COMPLETED PROJECTS

Project Title	2016 Baseline Project Completion	2022 Approved Project Completion	Current Approved Project Completion	Actual Project Completion	2016 Baseline Project Budget	2022 Approved Project Budget	Current Approved Project Budget	Project Expenditures To Date
Southeast Plant (SEP) Improvements								
10026824 - SEP Oxygen Generation Plant	06/10/2016	06/10/2016	06/10/2016	06/10/2016	$11,781,151	$11,135,740	$11,135,740	$11,135,740
10015808 - SEP Existing Digester Roof Repairs	07/29/2016	03/03/2016	03/03/2016	03/03/2016	$16,625,297	$15,438,647	$15,438,647	$15,438,647
10026825 - SEP Primary and Secondary Clarifier Upgrades	08/31/2018	01/21/2019	01/21/2019	01/21/2019	$36,016,280	$32,583,576	$32,583,576	$32,583,576
10002192 - SEP 521/522 and Disinfection Upgrades	01/18/2019	06/30/2021	06/30/2021	06/30/2021	$41,613,516	$45,016,932	$45,016,932	$44,802,184
10026826 - SEP Existing Digester Gas Handling Improvements	03/05/2019	02/28/2020	02/28/2020	02/28/2020	$22,143,317	$15,878,503	$15,878,503	$15,878,503
10015811 - SEP Oxygen Generation Plant 01	12/31/2018	11/21/2019	11/21/2019	11/21/2019	$9,030,106	$8,697,217	$8,697,217	$8,697,217
10015553 - Biofuel Alternative Energy	03/31/2016	03/31/2016	03/31/2016	03/31/2016	$1,855,143	$1,857,887	$1,862,449	$1,862,449
Oceanside Plant (OSP) Improvements								
10029739 - OSP Condition Assessment Repairs	06/28/2021	01/29/2021	01/29/2021	01/29/2021	$15,843,037	$11,630,774	$11,630,774	$11,630,774
10029740 - OSP Odor Control Optimization	04/15/2022	02/05/2020	02/05/2020	02/05/2020	$5,129,029	$1,207,197	$1,207,197	$1,207,197
North Point Facility (NPF) Improvements								
10026821 - Northpoint Outfall Refurbishment	08/27/2018	10/31/2018	10/31/2018	10/31/2018	$17,775,621	$18,183,639	$18,183,639	$18,183,639
Interceptors / Tunnels and Odor Control								
10002554 - Richmond Transport Modeling	06/30/2014	06/30/2014	06/30/2014	06/30/2014	$86,883	$86,883	$86,883	$86,883
10002641 - Collection System Condition Assessment	04/09/2020	03/31/2021	03/31/2021	03/31/2021	$10,912,000	$4,909,939	$4,909,939	$4,909,939
10002689 - Drumm and Jackson Streets Sewer System Improvement	12/14/2018	12/31/2020	12/31/2020	12/31/2020	$11,126,000	$6,470,881	$6,470,881	$6,470,881
10002767 - Rutland Sewer Improvements	04/26/2018	09/21/2018	09/21/2018	09/21/2018	$1,500,000	$1,500,000	$1,465,319	$1,465,319
Interdepartmental Projects								
10002672 - Central Subway Sewer Improvements	02/28/2017	06/28/2019	06/28/2019	06/28/2019	$3,956,000	$3,108,430	$3,108,430	$3,108,430
10002695 - Masonic Avenue Sewer Improvements	05/07/2018	06/28/2019	06/28/2019	06/28/2019	$3,921,000	$2,995,772	$2,995,772	$2,995,772
Pump Stations and Forcemain Improvements								
10002417 - Hudson Ave Pump Station and Outfall Improvements	02/28/2018	10/31/2017	10/31/2017	10/31/2017	$594,000	$281,639	$281,639	$281,639
10026829 - Cesar Chavez Pump Station	05/26/2016	05/26/2016	05/26/2016	05/26/2016	$185,000	$178,360	$178,360	$178,360
10002465 - Marin Street Sewer Replacement	08/03/2018	01/23/2020	01/23/2020	01/23/2020	$3,926,000	$5,968,190	$5,968,190	$5,968,190
10002138 - North Shore to Channel F M Drainage Improvement	06/06/2017	06/06/2017	06/06/2017	06/06/2017	$29,800,000	$17,300,000	$17,300,000	$17,300,000
Combined Sewer Discharge (CSD) and Transport/Storage Structures								
10002299 - Richmond Transport/Storage Tunnel Rehabilitation	05/13/2019	12/31/2020	12/31/2020	12/31/2020	$4,873,000	$589,972	$589,972	$589,972
Early Implementation Projects								
- Islais Creek Green Infrastructure	10/30/2026	04/24/2018	04/24/2018	04/24/2018	$4,929,908	$2,425,008	$2,425,008	$1,008,090

Project Title	2016 Baseline Project Completion	2022 Approved Project Completion	Current Approved Project Completion	Actual Project Completion	2016 Baseline Project Budget	2022 Approved Project Budget	Current Approved Project Budget	Project Expenditures To Date
- Cesar Chavez Green Infrastructure	06/28/2013	06/28/2013	06/28/2013	06/28/2013	$1,374,143	$1,374,143	$1,374,143	$1,374,143
10026806 - North Shore Green Infrastructure	03/31/2020	12/31/2018	12/31/2018	12/31/2018	$2,493,272	$1,721,677	$1,721,677	$1,721,677
10026807 - Lake Merced Green Infrastructure	07/31/2020	04/24/2018	04/24/2018	04/24/2018	$7,316,074	$6,287,009	$6,287,009	$6,287,009
10026808 - Sunnydale Green Infrastructure	11/30/2020	09/30/2019	09/30/2019	09/30/2019	$4,950,001	$5,412,268	$5,412,268	$5,073,699
10026812 - Channel Green Infrastructure	09/17/2020	08/31/2018	08/31/2018	08/31/2018	$4,569,648	$2,263,671	$2,263,671	$2,198,796
Urban Watershed Assessment								
10015816 - Urban Watershed Assessment and Planning Initiation	06/28/2013	06/28/2013	06/28/2013	06/28/2013	$3,102,671	$3,102,671	$3,102,671	$3,102,671
10015817 - Urban Watershed Assessment and Planning	04/04/2017	06/30/2017	06/30/2017	06/30/2017	$14,260,844	$14,260,841	$14,260,841	$14,260,841
Advanced Rainfall and Operation Decision System								
10029728 - Advanced Rainfall Prediction - Part 1	06/29/2018	06/29/2018	06/29/2018	06/29/2018	$3,254,000	$1,491,236	$1,491,236	$1,488,628
10029729 - Operational Decision System Phase 1	09/30/2016	09/30/2016	09/30/2016	09/30/2016	$1,000,921	$944,709	$944,709	$944,709
Flood Resilience Projects								
10026811 - 17th and Folsom Wet Weather Storage	03/31/2016	05/06/2016	05/06/2016	05/06/2016	$1,012,352	$898,623	$898,623	$898,623
10026814 - Flood Resilience Analysis (Planning Phase Only)	05/31/2017	02/28/2017	02/28/2017	02/28/2017	$2,505,999	$2,176,246	$2,176,246	$2,176,246
10026815 - Flood Resilience - Early Projects (Planning Phase Only)	12/30/2016	12/30/2016	12/30/2016	12/30/2016	$5,708,749	$3,206,463	$3,206,463	$3,206,463
10026817 - Cayuga Ave Stormwater Detention Project	01/07/2020	03/29/2019	03/29/2019	03/29/2019	$8,253,000	$428,078	$428,078	$426,555
10026819 - 17th and Folsom Permanent Barriers	04/02/2018	03/29/2019	03/29/2019	03/29/2019	$2,656,000	$176,151	$175,540	$175,540
Land Reuse								
10029733 - Land Reuse of 1800 Jerrold Avenue	02/01/2019	12/31/2019	12/31/2019	12/31/2019	$90,000,000	$84,354,151	$84,354,151	$84,354,151
10029734 - Land Reuse of 1801 Jerrold Avenue	12/04/2017	12/24/2021	12/24/2021	12/24/2021	$8,244,010	$5,100,000	$767,372	$767,372
TOTAL					**$414,323,972**	**$340,643,123**	**$336,279,765**	**$334,240,524**

II. Facilities and Infrastructure Program

This page is intentionally left blank.

1. PROGRAM DESCRIPTION

The Wastewater Facilities and Infrastructure Program will encompass those capital improvements that fall outside of the Sewer System Improvement and Renewal and Replacement Programs. These capital projects are intended to provide for necessary upgrades to aging facilities which are not addressed by the SSIP or R&R to maintain their intended functions. Projects will include improvement to Treasure Island wastewater facilities and improvements to wastewater support facilities (office consolidation, Southeast Community Facility).
The Wastewater Facilities and Infrastructure Program will address the following challenges:

- Uphold the SFPUC Wastewater Enterprise Levels of Service (LOS);
- Protect the structural integrity of critical City infrastructure;
- Streamline core operational functions and processes;
- Employ energy efficiency components, stormwater management enhancements, seismic upgrades, spatial improvements, safety and security improvements, and other essential improvements to modernize existing facilities to current standards;
- Provide benefits to surrounding communities.

2. PROGRAM STATUS

This Quarterly Report presents the progress made on the Facilities and Infrastructure program between July 1, 2022 and September 30, 2022.
The approved budget and schedule were developed by the project teams using the latest available information and was approved by Wastewater Enterprise Management.
Figure 2.1 shows the total Current Approved Budget for the Facilities and Infrastructure program projects remaining in each phase of the program as of September 30, 2022. The number of projects currently active in each phase is shown in parentheses.

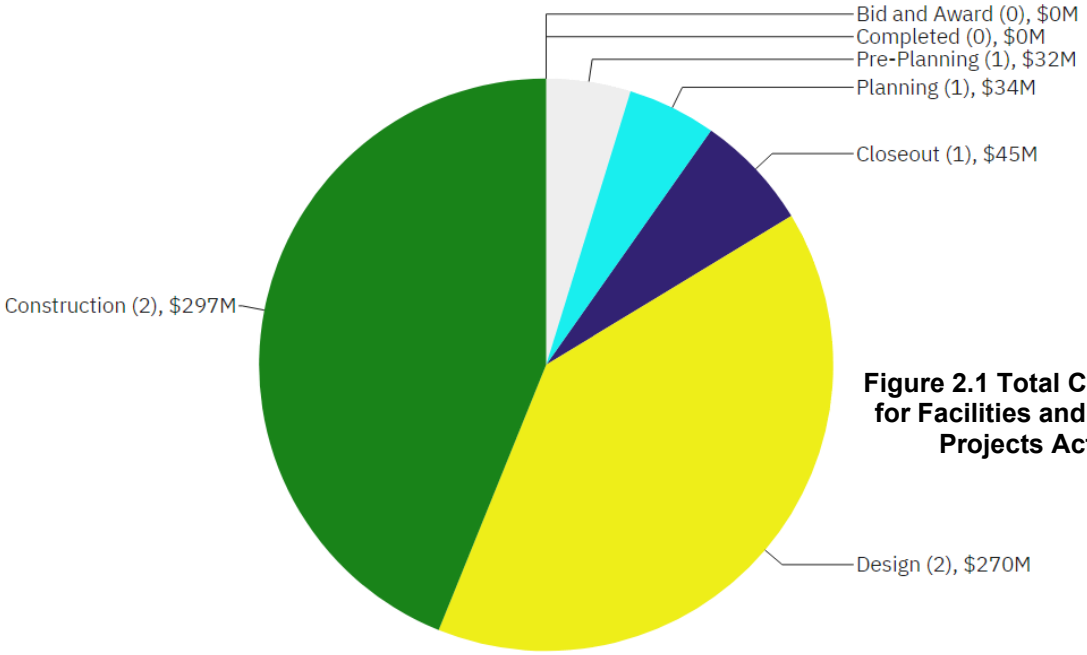


Figure 2.1 Total Current Approved Budget for Facilities and Infrastructure Program Projects Active in Each Phase

Figure 2.2 shows the number of Facilities and Infrastructure Program projects in the following stages of the program as of September 30, 2022: Pre-construction, Construction, and Post-construction.

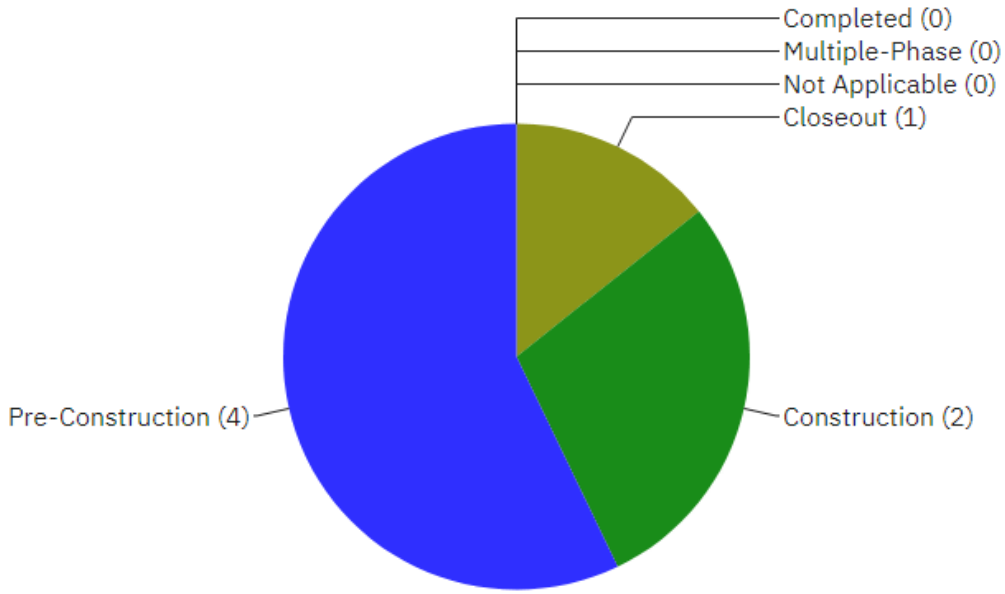


Figure 2.2 Number of Facilities and Infrastructure Program Projects in Pre-Construction, Construction, and Post-Construction

Figure 2.3 summarizes the environmental review and permitting status of the Facilities and Infrastructure Program projects as of September 30, 2022.

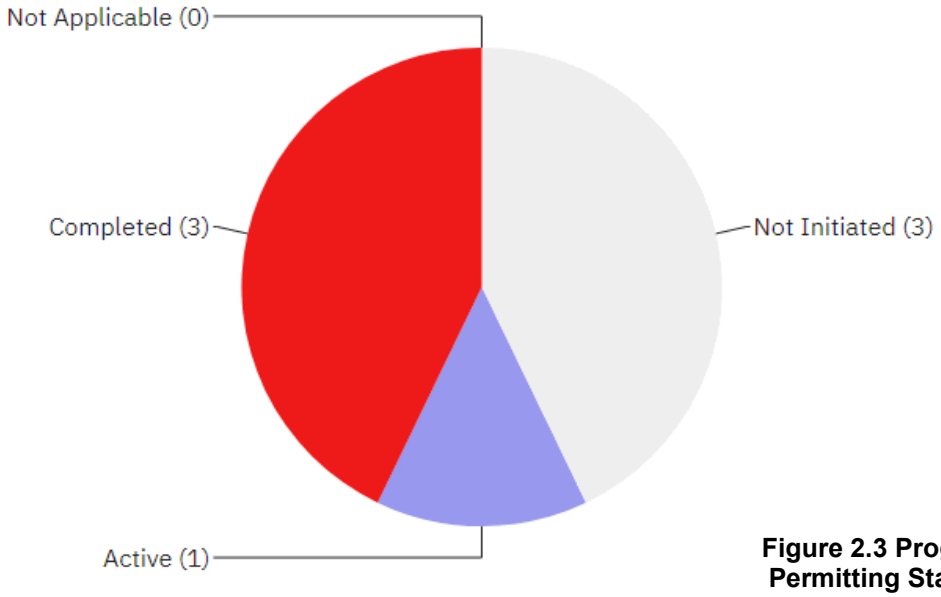


Figure 2.3 Program Environmental and Permitting Status of the Facilities and Infrastructure Program Projects

3. PROGRAM COST SUMMARY

Table 3 provides an overall program-level cost summary of the Facilities and Infrastructure Program. It shows the Expenditures to Date, Current Approved Budget, Q1/FY22-23 Forecasted Costs, Cost Variance between the Current Approved and Forecasted Cost, and Variance Over Reporting Period. The Current Approved Budget is $677.8 million and the currently Forecast Cost (based on the proposed project list) at completion is $674.8 million ($3.0 million under the Current Approved Budget).

Table 3. Program Level Cost Summary

Program	Expenditures to Date ($ Million) (A)	Current Approved Budget ($ Million) (B)	Forecasted Cost ($ Million) (C)	Cost Variance ($ Million) (D = B - C)	Variance Over Reporting Period* ($ Million) (E)
Facilities and Infrastructure Program	$192.97	$677.78	$674.82	$2.97	$0.00

* Variance is cost variance from the current approved budget that occurred during the quarter. Negative number is reflecting cost increases since last quarter, and positive number is reflecting cost reduction since last quarter.

4. PROGRAM SCHEDULE SUMMARY

Figure 4 and Table 4 compare the Current Approved and Current Forecasted Schedules for the Facilities and Infrastructure Program. The Program schedule is under development, the overall time frame is 20-30 years.

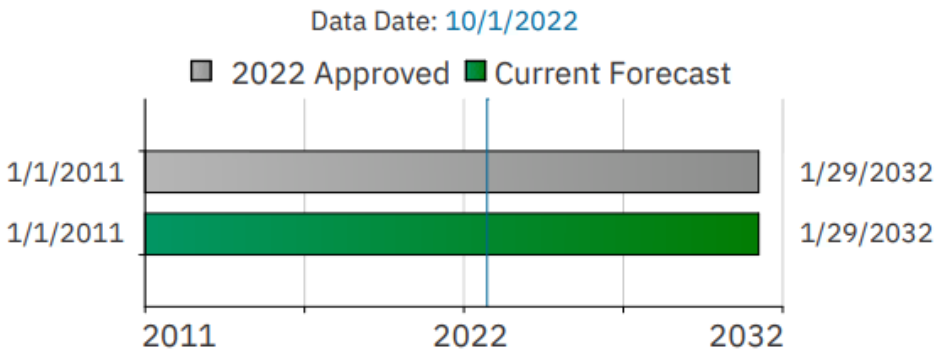


Figure 4. Program Schedule Summary

Table 4. Current Approved vs. Current Forecasted Schedule Dates

Program	Current Approved Project Start	Actual Start	Current Approved Completion	Current Forecasted Completion	Schedule Variance (Months)
Facilities and Infrastructure Program	01/01/11	01/01/11✓	01/29/32	01/29/32	-

5. BUDGET AND SCHEDULE TREND SUMMARY

Table 5 contains all approved Facilities and Infrastructure projects that are active and in any of the planning, design, bid and award, or construction phases of the project. The table excludes all Program Management accounts, as well as any projects that are either Not-Initiated, On-Hold, in Closeout or Completed.

Table 5. Budget and Schedule Trend Summary

All Costs are shown in million.

Project Name	Most Recent CIP Approved Budget		Project Initiation		CER		35% Design		95% Design		Awarded Construction[1]		Current Status	
	Approved Budget	Approved Completion	Forecast Cost	Forecast Completion	Forecast Cost	Forecast Completion	Forecast Cost	Forecast Completion	Forecast Cost	Forecast Completion	Forecast Cost	Forecast Completion	Forecast Cost	Forecast Completion
	a	b	c	d	e	f	g	h	i	j	k	l	m	n
WWE - Facilities and Infrastructure (F&I)														
10033820 Southeast Outfall Condition Assessment & Rehabilitation	FY23-32		07/01/19		06/30/23		08/30/24		06/27/25		01/22/26		Q1 - FY22-23	
	$33.8	04/05/30	$33.8	01/31/28	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	$33.8	09/30/30
10015546 New Treasure Island Wastewater Treatment Plant	FY23-32		06/18/18		04/02/19		TBD[3]		TBD[3]		12/09/22[4]		Q1 - FY22-23	
	$202.2	05/22/26	$67.4	11/01/22	$67.4	01/29/24	TBD	TBD	N/A	N/A	TBD	TBD	$202.2	05/22/26
10015554 Ocean Beach Climate Change Adaptation Project	FY23-32		07/23/12		09/30/19		09/30/20		12/07/22		12/15/23		Q1 - FY22-23	
	$183.4	06/16/28	$126.7	01/30/26	$169.9	07/01/27	$169.9	07/01/27	TBD	TBD	TBD	TBD	$183.4	06/16/28
10015556 Southeast Community Center at 1550 Evans [2]	FY23-32		07/01/19		01/31/18		01/31/18		07/31/19		01/13/20		Q1 - FY22-23	
	$114.0	12/29/23	$108.5	12/19/23	$108.5	12/19/23	$108.5	12/29/23	$108.5	12/29/23	$108.5	12/29/23	$115.0	12/29/23
10015557 Southeast Bay Outfall Islais Creek Crossing Replacement	FY23-32		09/26/16		N/A		N/A		N/A		N/A		Q1 - FY22-23	
	$67.6	06/03/26	$15.0	02/07/22	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N	$67.6	06/03/26

Footnotes:

1. This represents Forecast project cost and project completion date at the time of award of construction contract, award of CM/GC scope, award of DB scope.
2. The project delivery method for this project is Construction Manager/General Contractor (CM/GC).
3. The project delivery method for this project is Design-Build (DB). All Design and Construction milestones will be determind when the Design Build contractor has been given notice to proceed.
4. This represents the award of the overall design-build contract DB-132 which includes Preconstruction & Construction phases / The project Initiation Forecast Cost was based on funding availability.

6. PROJECT PERFORMANCE SUMMARY*

All costs are shown in $1,000s

Project Name	Active Phase (a) (**)	CIP Approved Budget (b) (+)	Current Approved Budget (c) (++)	Current Forecast Cost (d)	Expenditures to Date (e)	Cost Variance (f=c-d) (+++)	% Cost Changes (g=f/c) (+++)	CIP Completion Date (h) (+)	Approved Completion Date (i) (++)	Forecast Completion Date (j)	Schedule Variance (Days) (k=i-j) (+++)
Facilities and Infrastructure Program											
Facilities and Infrastructure Program											
10033820 Southeast Outfall Condition Assessment Rehabilitation	PL	$33,775	$33,775	$33,775	$1,411	$0	0%	04/05/2030	04/05/2030	09/30/2030	(178)
10015546 New Treasure Island Wastewater Treatment Plant	DS	$202,208	$202,208	$202,208	$8,509	$0	0%	05/22/2026	05/22/2026	05/22/2026	0
10015554 Ocean Beach Climate Change Adaptation Project	CN	$183,489	$183,489	$183,489	$24,373	$0	0%	01/12/2028	01/12/2028	06/16/2028	(156)
10015556 Southeast Community Center @ 1550 Evans	CN	$114,000	$114,000	$115,000	$108,555	($1,000)	(1%)	12/29/2023	12/29/2023	12/29/2023	0
10015557 Southeast Bay Outfall Islais Creek Crossing Replacement	DS	$67,600	$67,600	$67,600	$10,369	$0	0%	06/03/2026	06/03/2026	06/03/2026	0

* Does not include projects in closeout, completed, not initiated,on hold, deleted projects, and projects combined with other projects.

**** Phase Status Legend**

PL Planning DS Design

BA Bid & Award CN Construction MP Multiple-Phase

Footnotes:

(+) **CIP Approved Budget and Project Completion Date:** The budget and schedule approved as part of 10-year CIP for FY23-32.

(++) **Current Approved Budget and Schedule:** The budget and schedule approved as part of 10-year CIP for FY23-32, plus any additional budget and schedule changes approved by the Commission as part of construction contract award.

(+++) Negative number reflects cost overrun (or schedule delay) and positive number reflects cost underrun (or ahead of schedule). Projects with a forecasted cost overrun greater than 10%, or forecasted delay of greater than 6 months or 10%, will be highlighted in grey.

7. PROJECT STATUS REPORT

10033820 - Southeast Outfall Condition Assessment Rehabilitation

Project Description: The Southeast Outfall (SEO) discharges effluent from the Southeast Plant (SEP) into the San Francisco Bay about 650 feet offshore, east of Pier 80. The goal of the project is to determine the pipeline condition of the onshore force main and offshore outfall components of the SEO system. The project will thoroughly and completely evaluate the condition and remaining life expectancy of the SEO system and implement the rehabilitation solutions to extend the useful life.

Program: Facilities and Infrastructure Program	**Project Status:** Planning	**Environmental Status:** Not Initiated (TBD)

Project Cost:

Approved	$ 33.78 M
Forecast	$ 33.78 M
Actual	$ 1.41 M

Project Schedule:

Approved Jul-19	Apr-30
Forecast Jul-19	Sep-30

Project Percent Complete: 6.7%

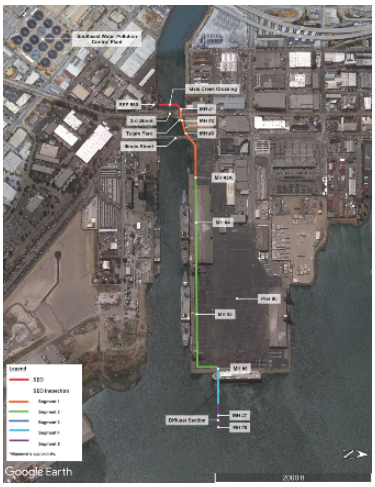
Key Milestones	Environmental Approval	Bid Advertisement	Construction NTP	Construction Final Completion
Current Forecast	TBD	10/29/2025	04/06/2026	04/05/2030

Progress and Status:

The project team and consultant conducted Workshop No. 6 – Level of Service to provide a comprehensive summary of condition assessment findings on the outfall system including updated information about the diffuser condition based on recent dive external/visual inspection and air management analysis on effluent spouting issue from standpipe at Pier 80. The workshop also discussed the short-term and long-term approach to rehabilitate the outfall as well as made recommendations for diffuser repair, repair of the leaky pipe joint and elimination of effluent spouting issue at east end of Pier 80. The project team continues to work on finalizing the needs definition report and scoping out the alternative analysis phase.

Issues and Challenges:

As previously reported, due to delay in contract amendment, the outfall inspection was delayed which pushed the forecast project completion further to September 2030.



Southeast Outfall Segments

10015546 - New Treasure Island Wastewater Treatment Plant

Project Description: The objective of the project is to build a new wastewater treatment plant that will provide reliable service for the Treasure Island residents and meet the recycled water demands of the future redevelopment on the island. The existing facility was built by the United States Navy over 50 years ago and is past its useful life and no longer reliable. The existing facility is also not capable of providing recycled water and meeting the needs of the residents on the redeveloped island.

Program: Facilities and Infrastructure Program	**Project Status:** Design	**Environmental Status:** Completed (EIR)

Project Cost:

Approved	$ 202.21 M
Forecast	$ 202.21 M
Actual	$ 8.51 M

Project Schedule:

Approved Jan-11	May-26
Forecast Jan-11	May-26

Project Percent Complete: 6.4%

Key Milestones	Environmental Approval	Bid Advertisement	Construction NTP	Construction Final Completion
Current Forecast	04/18/2019 A	12/27/2021 A	04/18/2023	11/21/2025

Progress and Status:
The project delivery method for this project is Design-Build (DB).
On August 23, 2022, the SFPUC Commission authorized the General Manager to negotiate with the responsible bidder that submitted the sole responsive bid. Following the authorization, the SFPUC Contract Administration Bureau facilitated three full-day value engineering workshops between the project team, the proposer, and other major SFPUC stakeholders. Negotiations are progressing and the anticipated Commission return date to award contract is in October 2022. Project team continues to coordinate with City Attorney, SFPUC Real Estate Services regarding Final property transfer from TIDA to SFPUC.

Issues and Challenges:
Due to the sole responsive bid received, project forecast completion date and overall project budget may be impacted.

Surcharge Removal

10015554 - Ocean Beach Climate Change Adaptation Project

Project Description: The Project was initially envisioned through the 2012 Ocean Beach Master Plan. The Ocean Beach Master Plan lays out a comprehensive vision for addressing a wide range of complex challenges along Ocean Beach, including past emergency declarations by the City to protect both SFPUC and non-SFPUC assets, and presents a series of recommendations for a more resilient and sustainable future. The project, which is being led by the SFPUC, will facilitate the removal of the stabilization measures and development of a comprehensive shoreline management and infrastructure protection plan in partnership with relevant stakeholders and regulatory agencies to provide a long-term solution to climate induced erosion issues along Ocean Beach.

Program: Facilities and Infrastructure Program	**Project Status:** Construction	**Environmental Status:** Active (Various)

Project Cost:

Approved	$ 183.49 M
Forecast	$ 183.49 M
Actual	$ 24.37 M

Project Schedule:

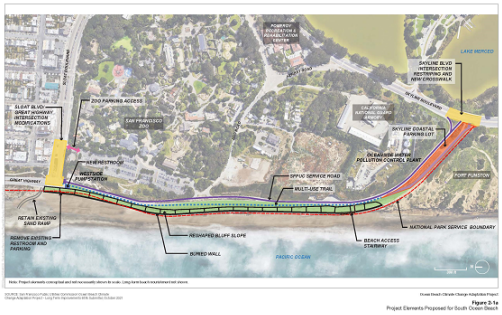
Approved Jul-12	Jan-28
Forecast Jul-12	Jun-28

Project Percent Complete: 13.4%

Key Milestones		Environmental Approval	Bid Advertisement	Construction NTP	Construction Final Completion
Current Forecast	A	09/10/2014 A	09/14/2015 A	01/07/2016 A	02/29/2024
	B	02/09/2021 A	N/A	06/02/2021 A	09/30/2021 A
	C	08/03/2023	04/27/2023	12/18/2023	12/16/2027

Progress and Status:

A) Short Term Improvements: This phase represents multi-year, as-needed protection of the bluff that overlays the Lake Merced Tunnel. Annual monitoring was completed and suggests coarse sand be placed this winter to aid in holding previously placed sand in place. Design details are under preparation for regulatory approval so that work can be initiated via contract WW-714. B) Army Corps of Engineers (ACOE): This phase of the project will be designed and constructed by the ACOE. The work was completed and placed nearly 300,000 cubic yards of material on Ocean Beach. Contract close-out is still in process. Sand continues to migrate to the Great Highway south of Sloat Boulevard. Sand removal efforts continue. C) Long Term Improvement: This phase represents the first City and County of San Francisco Climate Change Adaptation Project requiring a high level of coordination with other City and County of San Francisco Agencies; negotiations on funding continues at a very slow rate and continues to impact overall project progress. 95% design is in progress; Response to Comments on the Draft Environmental Impact Report and Coastal Development Permit are in development.



Proposed Project Components

Issues and Challenges:

As previously reported, San Francisco Public Utilities Commission (SFPUC) continues discussions with the San Francisco Zoo regarding project impacts to their parking lot; negotiations reached a draft agreement but still need to formalize. SFPUC management continues to engage with other City Departments to resolve funding for non-SFPUC assets incorporated in the design. Additionally, funding, and staffing issues at the National Park Service continue to affect progress.

10015556 - Southeast Community Center @ 1550 Evans

Project Description: The Southeast Community Center project will serve to address the SFPUC's commitment to the mitigation measure for the expansion of the Southeast Plant (SEP) by constructing a new community center at 1550 Evans. The project will include a childcare center, café, multipurpose space for meetings, events, and workshops, and co-working office and classroom space for community-based organizations providing workforce development services. It will also include parking and over two acres of landscaped open space, with play areas, an amphitheater, picnic areas and gardens. The new center will provide a wide range of social services supporting workforce development and education for Southeast residents of all ages.

Program: Facilities and Infrastructure Program	**Project Status:** Construction	**Environmental Status:** Completed (Cat Ex)

Project Cost:

Approved	$ 114.00 M
Forecast	$ 115.00 M
Actual	$ 108.55 M

Project Schedule:

Approved Jul-12	Dec-23
Forecast Jul-12	Dec-23

Project Percent Complete: 99.2%

Key Milestones	Environmental Approval	Bid Advertisement	Construction NTP	Construction Final Completion
Current Forecast	10/30/2018 A	N/A	01/13/2020 A	12/31/2022

Progress and Status:
Substantial completion is expected to be issued by October 1 and the Grand Opening is scheduled for October 22.

Issues and Challenges:
To address the need for additional funding the project budget was increased by $1M to $115M for construction. The increase was approved by the Change Control Board. The challenge ahead will be to transition to the project to the Southeast Community Center team and close out construction.

1550 Evans

10015557 - Southeast Bay Outfall Islais Creek Crossing Replacement

Project Description: The project involves replacing the portion of the Southeast Outfall ("SEO") that crosses Islais Creek immediately parallel to, and west of, the Third Street Bridge in San Francisco, CA. Treated effluent from the SEP flows by gravity to the Booster Pump Station ("BPS") and then pumped to the San Francisco Bay ("the Bay") via the SEO. The existing SEO Islais Creek crossing ("crossing") is comprised of two ductile iron pipes (36-inch and 42-inch). The crossing is buried in the bottom of the creek bed on piles. The crossing is buried about 20 feet under the lowest point of the creek sediments, and that the water depth is about 30 feet. The crossing was constructed in 1967 and have reached the end of its useful life. The new Islais Creek crossing will consist of two new 54-inch outside diameter high density polyethylene ("HDPE") buried pipes to replace the existing crossing section. New structures on each side of the creek is proposed to tie the new pipes to the existing SEO system. The project will include actuated valves and pipes to divert flow between the new and existing systems, associated electrical and mechanical improvements as needed within the BPS.

Program: Facilities and Infrastructure Program	**Project Status:** Design	**Environmental Status:** Completed (MND)

Project Cost:

Approved	$ 67.60 M
Forecast	$ 67.60 M
Actual	$ 10.37 M

Project Schedule:

Approved Sep-16	Jun-26
Forecast Sep-16	Jun-26

Project Percent Complete: 16.5%

Key Milestones	Environmental Approval	Bid Advertisement	Construction NTP	Construction Final Completion
Current Forecast	12/29/2023	TBD	TBD	TBD

Progress and Status:

As stated previously, after presenting the alternatives to management, the design has been put on hold. Project is being re-evaluated as part of upcoming Capital planning efforts. The design team has been working with the design consultant to transfer project documents and prepare for contract closeout.

Issues and Challenges:

As mentioned previously, due to the challenging alternatives evaluation process, the project scope is currently being reconsidered, thus the schedule and budget is impacted and yet to be determined.

Current pipeline crossing at Islais Creek

8. On-Going Construction**

Construction Contract	Schedule			Budget		Variance (Approved - Forecast)		Actual % Complete
	NTP Date	Approved Construction Final Completion	Current Foretasted Construction Final Completion	Approved Contract Cost	Current Forecasted Cost*	Schedule (Cal. Days)	Cost	
Facilities and Infrastructure								
10015556 Southeast Community Center @ 1550 Evans	01/13/20	12/31/22	12/31/22	$ 81,140,294	$ 84,152,806	-	($3,012,512)	94.0%

Program Total for On-Going Construction	Approved Contract Cost	Current Forecasted Cost	Variance	
			Cost	Percent
	$ 81,140,294	**$ 84,152,806**	**($3,012,512)**	**(3.7%)**

Note: * The Forecasted Cost includes all approved, pending, and potential change orders, and Final Completion Date includes all approved, pending, and potential change orders, and trends.

** This table is reflecting Active construction contract with original contract amount greater than

9. PROJECTS IN CLOSEOUT

Project Title	Current Approved Construction Phase Completion	Actual Construction Phase Completion	Current Approved Construction Phase Budget	Construction Phase Expenditures To Date
Facilities and Infrastructure Program				
10015555 - Collection Division Consolidation (Griffith Yard Improvements)	05/22/2019	05/22/2019	$16,629,029	$16,629,029
TOTAL			**$16,629,029**	**$16,629,029**

10. COMPLETED PROJECTS

No projects are currently completed.

III. Renewal and Replacement Program

This page is intentionally left blank

1. PROGRAM DESCRIPTION

The Wastewater Enterprise (WWE) Renewal and Replacement Program (R&R) is a continuing annual program that seeks to address deficiencies in two wastewater infrastructure categories: R&R Collection System and R&R Treatment Facilities. The goal of the R&R Program is to meet the endorsed levels of service goals, regulatory permit compliance, system reliability and functionality, and sustainable operations of the City's sewer system. The R&R Program also complies with the State requirement that a provision be made for the periodic repair and replacement of sewer system facilities.

San Francisco's sewer collection system was installed in phases beginning in the early 1870's. Many of the sewers are near the end of their useful life and are in need of urgent attention in order to continue to function at proper capacity and to meet regulatory standards. An asset management approach was developed to prioritize which assets within the sewer system should get attention first. For the R&R Collection System, the asset management base approach factors in the physical condition of the sewer, age, location, risk, public safety, Department of Public Work's street paving schedule, and various other factors. Approximately 12.4 miles of sewer replacement work was awarded in FY 13-14. In FY 14-15 the sewer replacement mileage target subsequently increases to 15 miles to meet Commission endorsed Level of Service goals.

The R&R Treatment Facilities projects are prioritized based upon regulatory compliance, condition assessments, Operation staff recommendations, and Level of Service goals. These projects seek to extend the useful life of treatment facility assets throughout San Francisco by helping to maintain their treatment capacity and performance and enable WWE to maintain regulatory compliance with Regional Water Quality Control Board (RWQCB) National Pollutant Discharge Elimination System (NPDES) permits and Bay Area Air Quality Management District (BAAQMD) requirements.

2. PROGRAM STATUS

This Quarterly Report presents the progress made on the Renewal and Replacement Program (R&R) projects between July 1, 2022 and September 30, 2022.

The approved project budget and schedule were developed and approved by the appropriate Wastewater Enterprise Manager on September 30, 2022. This is based on the project team's best assessment of the projects at this time. However, it should be noted that the project team is currently focused on validating these estimates.

Figures 2.1 and 2.2 show the total number of active projects remaining in each phase of the R&R Collection systems and R&R Treatment Facilities programs as of September 30, 2022.

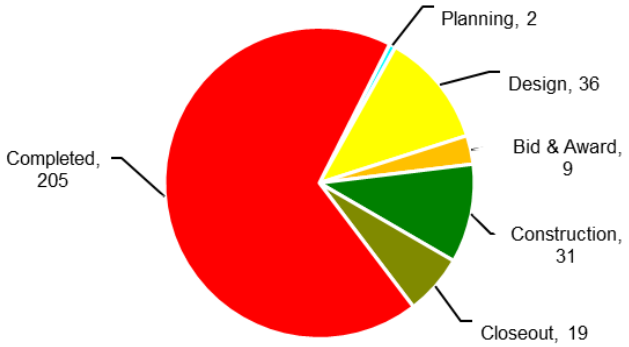


Figure 2.1 Total Number of Active R&R Collection Systems Projects in R&R Program

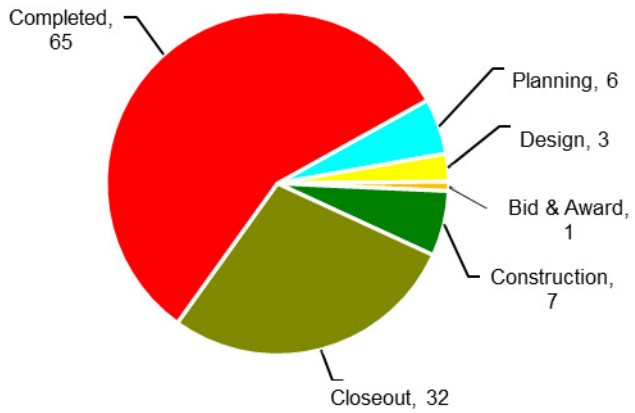
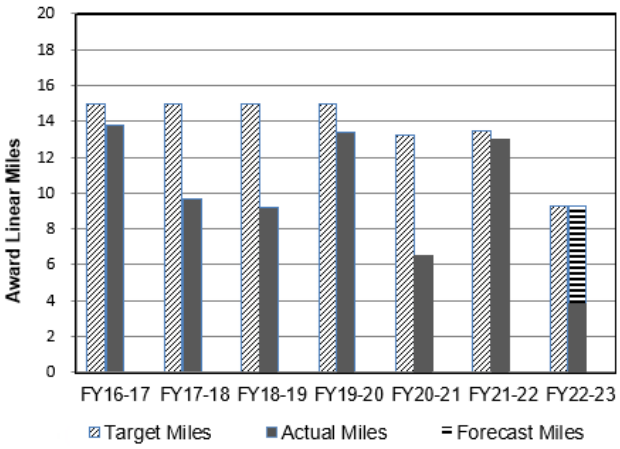


Figure 2.2 Total Number of Active R&R Treatment Facilities Projects in R&R Program

The Wastewater R&R Collection System Sewer Replacement Program has an annual budget of $54.5 million in FY23 to award a target of 9.3 miles of sewer replacement work in San Francisco.

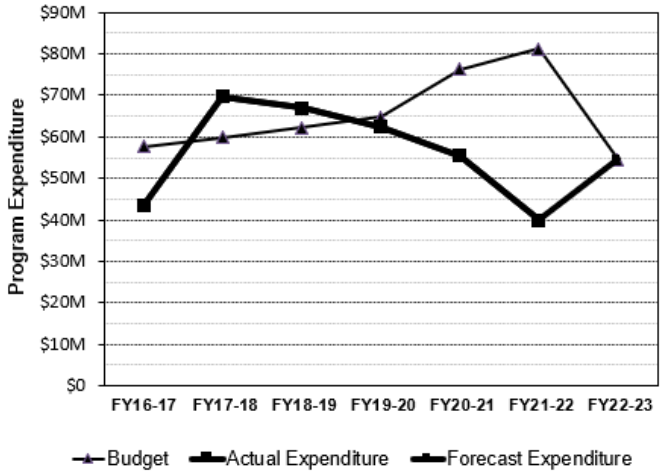
Figure 2.3 shows the target and actual award miles of sewer improvement projects that have been awarded to date and are forecasted to be awarded. The Wastewater R&R Collection System Sewer Replacement Program has awarded approximately 3.9 miles of sewer replacement work in FY23.



	FY16-17	FY17-18	FY18-19	FY19-20	FY20-21	FY21-22	FY22-23
Target Miles	15.0	15.0	15.0	15.0	13.2	13.5	9.3
Actual Miles	13.8	9.7	9.2	13.4	6.5	13.0	3.9
Forecast Miles							9.3

Figure 2.3 Wastewater R&R Collection System - Sewer Improvements - Award Linear Miles by Fiscal Year

Figure 2.4 shows the annual total program expenditure by fiscal year for the R&R Collection System Sewer Replacement program.



	FY16-17	FY17-18	FY18-19	FY19-20	FY20-21	FY21-22	FY22-23
Budget	$57.6M	$59.9M	$62.3M	$64.8M	$76.3M	$81.2M	$54.5M
Actual Expenditure	$43.4M	$69.7M	$67.0M	$62.4M	$55.5M	$40.0M	$34.4M
Forecast Expenditure							$54.5M

Figure 2.4 Wastewater R&R Collection System - Sewer Improvements - Program Expenditure by Fiscal Year

3. PROGRAM COST SUMMARY

Table 3 provides an overall program-level cost summary of the R&R Program. It shows the Expenditures to Date; Current Approved Budget and Current Forecasted Cost; and the Cost Variance between the Approved Budget and Forecasted Cost.

The total Approved Budget for the R&R Program is $1,202.0 million and the Current Forecasted Cost at completion is $1,191.8 million ($10.2 million under the Current Approved Budget).

Table 3. Program Cost Summary

Subprograms	Expenditures to Date ($ Million) (A)	Current Approved Budget ($ Million) (B)	Current Forecasted Cost ($ Million) (C)	Cost Variance ($ Million) (D = B - C)
R&R Collection Systems	$715.71	$986.69	$976.49	$10.20
R&R Treatment Facilities	$143.55	$215.34	$215.34	-
Program Total	**$859.26**	**$1,202.03**	**$1,191.83**	**$10.20**

4. PROGRAM SCHEDULE SUMMARY

Figure 4 and Table 4 compare the Current Approved and Current Forecasted Schedules for the R&R program. The Approved Schedule completion for the overall R&R program is March 2024. The overall R&R Program is currently forecasted to be completed in March 2024.

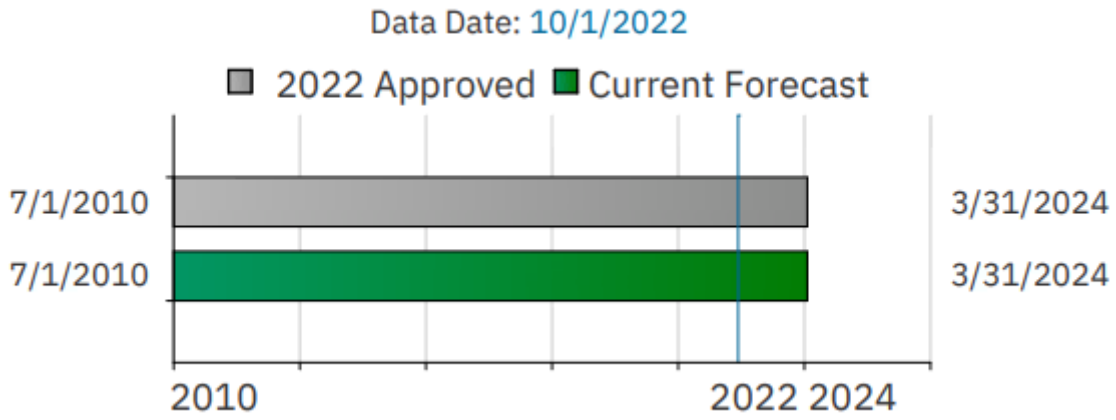


Figure 4. Program Schedule Summary

Table 4 Current Approved vs. Current Forecasted Schedule Dates

Sub-Program	Current Approved Project Start	Actual Start	Current Approved Completion	Current Forecasted Completion	Schedule Variance (Months)
R&R Collection Systems	07/01/10	07/01/10✓	03/31/24	03/31/24	-
R&R Treatment Facilities	07/01/10	07/01/10✓	02/14/24	02/14/24	-
Overall Program	**07/01/10**	**07/01/10✓**	**03/31/24**	**03/31/24**	**-**

5. PROJECT PERFORMANCE SUMMARY*

All costs are shown in $1,000s

Project Name	Active Phase (a) (**)	CIP Approved Budget (b) (+)	Current Approved Budget (c) (++)	Current Forecast Cost (d)	Expenditures to Date (e)	Cost Variance (f=c-d) (+++)	% Cost Changes (g=f/c) (+++)	CIP Completion Date (h) (+)	Approved Completion Date (i) (++)	Forecast Completion Date (j)	Schedule Variance (Days) (k=i-j) (+++)
15722 R&R Collection Systems	MP	$986,690	$986,690	$976,490	$715,711	$10,200	1%	03/31/2024	03/31/2024	03/31/2024	0
15724 R&R Treatment Facilities	MP	$215,341	$215,341	$215,341	$143,554	$0	0%	02/14/2024	02/14/2024	02/14/2024	0

* Does not include projects in closeout, completed, not initiated,on hold, deleted projects, and projects combined with other projects.

**** Phase Status Legend**

PL Planning DS Design

BA Bid & Award CN Construction MP Multiple-Phase

Footnotes:

(+) **CIP Approved Budget and Project Completion Date:** The budget and schedule approved as part of 10-year CIP for FY23-32.

(++) **Current Approved Budget and Schedule:** The budget and schedule approved as part of 10-year CIP for FY23-32, plus any additional budget and schedule changes approved by the Commission as part of construction contract award.

(+++) Negative number reflects cost overrun (or schedule delay) and positive number reflects cost underrun (or ahead of schedule). Projects with a forecasted cost overrun greater than 10%, or forecasted delay of greater than 6 months or 10%, will be highlighted in grey.

6. PROJECT STATUS REPORT

15722 - R&R Collection Systems

Project Description: The purpose of the Wastewater Enterprise (WWE) Renewal and Replacement Program (R&R) Collection System Sewer Improvements project is to maintain the existing functionality of the sewage collection system and address planned and emergency projects for repair and replacement of structurally inadequate sewers. This project consists of the following sub-projects: small diameter (less than and equal to 36-inch) sewer improvements, small diameter (less than and equal to 36-inch) sewer condition assessment, spot sewer replacement, large diameter (greater than 36-inch) sewer condition assessment, large diameter (greater than 36-inch) sewer improvements and sewer transport storage box condition assessment. By utilizing an asset management approach, which factors in: physical condition, age, location, risk, public safety, paving schedule and other factors, aging and failed portions of the collection system are identified and replaced.

Program: Renewal and Replacement Program	**Project Status:** Multi-Phases	**Environmental Status:** Completed

Project Cost:

Approved	$ 986.69 M
Forecast	$ 976.49 M
Actual	$ 715.71 M

Project Schedule:

Approved Jul-10	Mar-24
Forecast Jul-10	Mar-24

Project Percent Complete: 80.0%

Key Milestones	Environmental Approval	Bid Advertisement	Construction NTP	Construction Final Completion
Current Forecast	See Note	Various	Various	Various

Progress and Status:

The summary below shows the total number of projects in each phase of the program as of September, 2022. The three-hundred two (302) WWE Collection Systems projects are distributed as follows:

Planning: 2 Design: 36 Bid & Award: 9 Construction: 31 Closeout:19 Completed: 205

During this Quarter, 4 new projects were initiated, 3 projects were advertised, 3 projects were awarded/ awaiting Notice to Proceed (NTP), 4 projects received Notice to Proceed(NTP), 2 projects completed construction and 5 projects closed out.

Issues and Challenges:

None at this time.

15724 - R&R Treatment Facilities

Project Description: The purpose of the Wastewater Enterprise (WWE) Renewal and Replacement (R&R) Treatment Program is to extend the useful life of the WWE treatment facility assets. The R&R Treatment Facilities projects are prioritized based upon regulatory compliance, condition assessments, Operation staff recommendations and Level Of Service goals.

Program: Renewal and Replacement Program	**Project Status:** Multi-Phases	**Environmental Status:** On-Going

Project Cost:

Approved	$ 215.34 M
Forecast	$ 215.34 M
Actual	$ 143.55 M

Project Schedule:

Approved Jul-10	Feb-24
Forecast Jul-10	Feb-24

Project Percent Complete: 83.0%

Key Milestones	Environmental Approval	Bid Advertisement	Construction NTP	Construction Final Completion
Current Forecast	See Note	Various	Various	Various

Progress and Status:
The summary below shows the total number of the remaining projects in each phase of the program as of September 30, 2022. The one-hundred and fourteen (114) active WWE Treatment Facility Repair projects are distributed as follows:

Planning: 6 Design: 3 Bid/Award: 1 Construction: 7
Closeout: 32 Completed: 65

Equipment Purchase FY22 to Date: eighteen (18) equipment purchases completed totaling $228,830.55

Issues and Challenges:
None at this time.

7. On-Going Construction**

Construction Contract	Schedule			Budget		Variance (Approved - Forecast)		Actual % Complete
	NTP Date	Approved Construction Final Completion	Current Forecasted Construction Final Completion*	Approved Contract Cost	Current Forecasted Cost*	Schedule (Cal. Days)	Cost	
R&R Collection System								
10034813-As-Needed Main Sewer Replacement No. 8 (WW-697)	11/30/20	01/03/23	01/03/23	$ 7,373,000	$ 7,373,000	-	-	87.7%
10034815-As-Needed Spot Sewer Replacement No. 42 (WW-699)	11/22/21	12/12/22	12/12/22	$ 10,176,956	$ 10,176,956	-	-	81.3%
10034829-As-Needed Sewer Cleaning and Inspection (FY21) (WW-700)	11/23/20	08/10/22	08/10/23	$ 1,915,287	$ 1,915,287	365	-	68.4%
10035307-Various Locations Sewer Replacement No. 9 (WW-704)	04/18/22	12/23/22	12/23/22	$ 3,637,362	$ 3,637,362	-	-	66.8%
10035398-Various Locations Sewer Replacement No. 12 (WW-708)	04/18/22	08/15/23	08/15/23	$ 3,682,947	$ 3,682,947	-	-	34.6%
10035861-As-Needed Sewer Cleaning and Inspection (FY22) (WW-710R)	02/01/22	08/24/23	08/24/23	$ 1,052,952	$ 1,052,952	-	-	42.6%
10036509-As-Needed Main Sewer Replacement No. 9 (WW-713)	12/13/21	11/23/22	11/23/22	$ 7,127,740	$ 7,127,740	-	-	84.7%
10037103-As-Needed Spot Sewer Replacement No. 43 (WW-715)	03/01/22	04/04/23	04/04/23	$ 9,455,123	$ 9,455,123	-	-	53.8%

Note: * The Forecasted Cost includes all approved, pending, and potential change orders, and Final Completion Date includes all approved, pending, and potential change orders, and trends.

** This table is reflecting Active construction contract with original contract amount greater than $1M.

III. WWE R&R Quarterly Report — Q1-FY2022-2023 (07/01/22 - 09/30/22)

Construction Contract	Schedule			Budget		Variance (Approved - Forecast)		Actual % Complete
	NTP Date	Approved Construction Final Completion	Current Forecasted Construction Final Completion*	Approved Contract Cost	Current Forecasted Cost*	Schedule (Cal. Days)	Cost	
R&R Collection System								
10035397- Various Locations Sewer Replacement No.11 (WW-707R)	09/12/12	09/26/23	09/26/23	$ 3,422,168	$ 3,422,168	-	-	5.3%

Program Total for On-Going Construction	Approved Contract Cost	Current Forecasted Cost	Variance	
			Cost	Percent
	$ 47,843,535	$ 47,843,535	$0	0 %

Note: * The Forecasted Cost includes all approved, pending, and potential change orders, and Final Completion Date includes all approved, pending, and potential change orders, and trends.

** This table is reflecting Active construction contract with original contract amount greater than $1M.

8. PROGRAMS IN CLOSEOUT

No program is currently under closeout.

9. COMPLETED PROGRAMS

No Program is currently completed.

APPENDICES

1. PROJECT DESCRIPTIONS
2. APPROVED PROJECT-LEVEL SCHEDULE
3. LIST OF ACRONYMS

This page is intentionally left blank

APPENDIX A. PROJECT DESCRIPTION

SSIP

Sewer System Improvement Program Phase 1

10015796 SEP Biosolids Digester Facilities Project

Planning, engineering, and construction of the new solids processing facilities will include solids pretreatment; the thermal hydrolysis process (THP); anaerobic digestion; biosolids dewatering; biosolids product storage and loadout; biogas utilization; odor control; automated control systems; chemical facilities, and associated appurtenances and piping.

Key BDFP facilities and processes consist of:

Primary sludge (PS) and waste sludge (WAS) pumping to the solids treatment processes, which includes improvement to the existing WAS pumping facilities.

A consolidated Solids Pretreatment building that incorporates the following processes/equipment:

- o WAS thickening using gravity belt thickeners (GBTs) (3 units).
- o Blending of thickened activated sludge (TAS) and PS to produce combined primary and active sludge (CPAS).
- o Screening of CPAS using inline strainpress-type screens (5 units).
- o Pre-THP Cake Storage (3 hoppers).
- o Pre-THP dewatering of screened CPAS using centrifuges (5 units).

Thermal hydrolysis of dewatered, screened CPAS using Cambi THP process (3 THP units) and cooling of the thermally hydrolyzed sludge (THS).

Mesophilic anaerobic digestion and digested sludge (DS) storage using digesters (5 silo-shaped digesters).

A Biosolids Dewatering building that will include the following processes/equipment:

- o Dewatering of digested biosolids using belt filter presses (BFPs) (4 units),
- o Storage (4 silos) and load-out of dewatered biosolids product using screw conveyors, and truck hauling.

· Beneficial use of the biogas produced during the digestion process. Biomethane Pipeline Injection is being considered as an alternative biogas end use. The biogas will be treated to natural gas quality, injected into an existing PG&E gas line, and then sold as a renewable natural gas or vehicle fuel in a potential Public-Private Partnership (P3) contract. This alternate biogas end use would provide the SFPUC its highest value and reduce local air emissions in the SEP neighborhood due to the elimination of electricity-producing combustion engines.

Odor control facilities consisting of biofilters, carbon units and ammonia scrubbers

Process systems to support the BDFP facilities including No. 2 water (W2 – chlorinated and filtered plant secondary effluent) system upgrade, plant air, polymer systems, and cooling water system. Ancillary facilities will also include a ferric chloride facility for struvite control, as well as pumped plant recycle (PPR) pumping to convey the liquids return streams from thickening, pre-THP dewatering, and biosolids dewatering.

The proposed site for the BDFP facilities is adjacent to the existing SEP at 1800 Jerrold Avenue (former Central Shops) and 1801 Jerrold Avenue (former Asphalt Plant), and on portions of the existing SEP property. Possible construction staging areas for the BDFP include 1150 Phelps Street (SFPUC's former Greenhouses), 50 Quint Street and/or Pier 94/96 SF Port properties.

The construction will be completed through a Construction Manager/General Contractor delivery approach under two distinct scopes. Scope I focus on the demolition and utility relocation of existing infrastructure at the project sites. Scope II addresses the construction of the new biosolids facilities (the remainder of the work).

10015807 SEP New Headworks (Grit) Replacement

The new 250 MGD headworks consists of major components / facilities as follows:
New Influent Junction Structure and Influent Monitoring:
o Construction of a new Influent Junction Structure that will include a temporary overflow weir for excess wet weather flow.
o Construction of a temporary connection between the Influent Junction Structure and Influent Control Structure.
o Construction of a new connection from Influent Junction Structure to the new bypass,
o Demolition of the existing Influent Control Structure.
o Installation of a new influent monitoring and sampling system including: influent flowmeters, pH and conductivity insertion probes, automatic samplers, and manual sample ports.
A new Primary Influent Distribution Structure:
o Construction of a new bypass around the wet weather Headworks facility from the Influent Control Structure to the primary influent conduits that lead to the wet weather primary sedimentation basins (SEP 040/041).
Upgrades to the Bruce Flynn Pump Station:
o Modifications to sewer connections and mechanical/electrical modifications.
o Addition of new bar screens and upgrades to the electrical system.
o Upon completion of these modifications, demolish the Southeast Lift Station (SELS).
A new Bar Screens, Washer-Compacters and Screenings Handling Facility consisting of four multi-rake bar fine screens (three duty plus one standby), four screenings washer compactors, two shuttle hoppers, and a grit influent splitter structure.
A new Grit Basins, Grit Washers and Grit Handling Facility using either the HeadCell (modular multi-tray grit tanks) or Pista360 (grit vortex) technology. This includes 12 HeadCell grit tanks with 24 grit pumps or six Pista360 tanks with 18 grit pumps. Both technologies involve 6 grit washers and two grit storage hoppers.
A new Odor Control Facility, consisting of a two-stage system with bioscrubbers followed by carbon adsorption.
New 50 mgd influent pump station, including influent piping and effluent force main, electrical building and odor control.
Two new primary substations, each with a 15-kV vacuum circuit breaker, substation type, liquid-filled transformer, and a low-voltage power circuit breaker on the secondary side of the transformer.
Electrical, Instrumentation and Control Rooms/Building.
Demolition of both existing Headworks Facilities (SEP-011 and SEP-012).

10026824 SEP Oxygen Generation Plant

As a result of the Clean Water Act of 1972, the secondary treatment process, which is achieved through the use of high purity oxygen (HPO), was implemented at Southeast Plant. During wet weather the regulatory permit requires that the Southeast Plant treat up to 150 million gallons per day, to the secondary level. The two existing, 66 tons per day (TPD), cryogenic oxygen generation plants that were placed in operation in 1981 are becoming extremely difficult to maintain, and have failed two times in the past year. Replacing the antiquated oxygen plants with two technologically advanced 45 TPD oxygen generation plants, will allow WWE Operations to have optimum control on the utilization of oxygen (based on the influent variations), thus significantly reducing the energy consumption.

10015808 SEP Existing Digester Roof Repairs

As part of the SSIP, a new biosolids handling facility will be built to replace the existing system. However, the existing digesters and associated facilities must continue to handle all biosolids generated by primary and secondary treatment operations at SEP until all planning, design, construction, and commissioning activities for new facilities are completed. Under this project, work will be completed to maintain existing

digestion facilities in operation with sufficient capacity and reliability to produce Class B biosolids until new facilities are available for service. The project consists of repairs to the existing floating roof and associated appurtenances (Digester 8), and replacement of the existing floating roofs and associated appurtenances (Digesters 4, 6, 7 and Cake Bins 3 & 4). This project is currently at the closeout stage.

10026825 SEP Primary and Secondary Clarifier Upgrades

This project will upgrade the mechanical, structural and electrical components at the primary and secondary sedimentation tanks (clarifiers) at SEP to address operational reliability and compliance with regulatory requirements for liquid treatment. The major upgrades taking place at the primary sedimentation tanks include replacing key mechanical and electrical equipment and addressing structural repairs such as concrete repairs and coating seven tanks and influent channel. Covers for the primary sedimentation tanks and ventilation system will also be installed. Similarly, major upgrades for the secondary clarifiers include replacing key equipment and retrofitting existing secondary clarifiers (8 of 16 included in this project). Structural repairs will also be addressed including concrete crack repairs and coating.

10002192 SEP 521/522 and Disinfection Upgrades

This project includes upgrades to the Post-Chlorination Building as well as construction of a new building to house electrical and hydraulic controls, and replacement of valves and actuators in the Chlorine Contact Channel and stop logs at the Effluent Control Structure. The new building for electrical and hydraulic controls will be constructed to meet the Sewer System Improvement Program (SSIP) seismic reliability goals. In addition, this project will upgrade and relocate the non-potable (W3) pump system by replacing four existing W3 pumps and motors with six new higher flow capacity pumps.

10002220 SEP Primary Sludge Handling Improvements

The project's scope of work includes a new building to house primary sludge screens, grit removal equipment, grit washing and clarification equipment, and ancillary equipment including pumps; a new Gravity Belt Thickener (GBT), rehabilitation of the existing two GBT units; and replacement of existing odor control equipment and upgrades to existing exhaust fans. However, after design was completed, it was determined that this project is less critical than other long-term treatment improvements. Therefore, this project will complete the closeout of design and rehabilitation of critical components is to be deferred to the WWE R&R program for consideration.

10015809 SEP Facility-wide Distributed Control System Upgrade

This project addresses distributed control system (DCS) upgrades within the Southeast Pollution Control Plant (SEP), Oceanside Pollution Control Plant (OSP), North Point Wet Weather Facility (NPF), Channel Pump Station (CHS), Westside Pump Station (WSS), and Bruce Flynn Pump Station (BFS). In order to ensure system-wide consistency, this project's scope of work also includes DCS planning & design for OSP, NPF, and WSS facilities. Hardware and software upgrades integration of field instrumentation, control devices, communications hardware, processing hardware, interface hardware, and associated software packages into a unified system are required to provide real-time, system-wide monitoring and control. Coordination of monitoring parameters in various systems will also be required to maintain compatibility and consistency of the input data used for process control.

10015810 SEP Seismic Reliability and Condition Assessment Improvements

As part of the condition assessment effort, numerous seismic, conditional and operational issues associated with the existing facilities will require remedial attention before other program projects are completed. This project represents immediate improvements to the existing facilities at South East Plant

(SEP) identified as part of the condition assessment effort that are not specifically included as part of another near-term Sewer System Improvement Program (SSIP) Phase 1 project. This project includes items for rehabilitation such as concrete spalling repair and seismic retrofit of priority process buildings. Seismic retrofit and structural repairs to the Sedimentation Building and channel structures (SEP 530 Contact Channel, SEP 540 Effluent Control Structure, 6' reinforced concrete pipe from SEP 540 to Booster Pump Station, Conduits C/D/E, SEP 525 Box Channel, and 9' reinforced concrete pipe to Junction Structure #5) will be completed.

10026826 SEP Existing Digester Gas Handling Improvements

The project consists of: • Process upgrades addressing deficiencies related to Digester Gas Compressors, Heat Exchangers and Controllers, Combined Primary Activated Sludge (CPAS) Tank, Boiler and Boiler Stacks, Waste Flare and Cogeneration Cooling Water System, and B100 Biofuel Tank (EPA permit compliance). • Building systems and odor control unit (OCU) upgrades such as replacing Roof Drains, OCUs and upgrading ventilation and OCUs, Roof Replacement and Air Compressor (BAAQMD Permit Application). • Electrical Upgrades related to External Lighting Upgrades and installing Fire Alarm Building 800 (safety). • Control Upgrades such as installing CO Gas Monitors and Replacing Digester Gas Flow Meters (safety). • 300 feet of waste gas piping and appurtenances.

10002284 SEP Power Feed and Primary Switchgear Upgrades

The project is intended to address the deficiency of the existing medium voltage power distribution system at Southeast Plant (SEP). The objective of the project is to increase reliability, redundancy and capacity of the electrical system to meet Sewer System Improvement Program ("SSIP") level-of-service ("LOS") requirements by upgrading the existing primary power feed by PG&E and obtaining a new redundant feed by Power Enterprise. The project will construct an elevated building to house the new Primary Power Switch Station and sub-structures sized to provide adequate power to new facilities in construction under SSIP, upgrade/replace aging existing unit substations, install power monitoring and control system for additional reliability and efficiency, as well as redundant services to the nearby pump stations.

10015811 SEP Oxygen Generation Plant 01

The existing liquid oxygen (LOX) facility at Southeast Plant (SEP) does not meet current safety codes and is in need of replacement. The LOX system is a mandatory redundant system to the on-site oxygen generation to ensure full compliance with the NPDES permit. This project includes the demolition of the LOX facility (three horizontal LOX storage tanks, four vaporization systems, and ancillary equipment); demolition of SEP 270 Oxygen Generation Building; installation of structural piles; construction of concrete slabs and utility trench; and installation of a new packaged LOX system consisting of four vertical LOX storage tanks, vaporizers and an unloading station.

10015553 Biofuel Alternative Energy

A recent trend in the wastewater industry involves the addition of fats, oil, and grease (FOG) or other high-strength waste (HSW) directly into digesters to increase digester gas production and maximize the amount of renewable energy production from cogeneration. Due to the existing capacity constraints and condition of the biosolids facilities at the SEP, the addition of large quantities of FOG or other HSW is not currently feasible. While inedible kitchen grease (IKG) is currently accepted at the SEP Yellow Grease Facility, only the marginal grease is directly injected to the digesters, which consists of residual solids and moisture that is removed from the raw IKG and represents less than one percent of the daily volatile suspended solids loading to the digesters. Therefore, while not an option for the existing biosolids facilities, FOG and HSW addition could be a component of the new biosolids digesters project. The Biofuel Alternative Energy Project aims to determine if it is feasible and cost-effective for the SFPUC to generate bioenergy (e.g.

biofuel or cogenerated power) as a byproduct of processing the FOG and/or food waste collected throughout the City. This project was originally initiated in 2011 before SSIP Phase 1 validation efforts began in 2012, but has been placed on hold until considered necessary.

10037330 Primary Treatment (SEP 040/041) H&S Improvements

This project will address inadequate ventilation issues, and health and safety concerns, at Southeast Plant buildings 040/041. Extensive cracks and exposed rusted rebar have been observed along the building's walls and joints. Overhead building structural supports are corroded and could potentially fail, and interior columns appear to be insufficient for lateral load transfer. To address these issues, this project will remove the superstructure housing the sedimentation tanks to create an open-air process facility with covered tank openings and an associated odor control system. Replacement and relocation of the utility lines and reconnection to existing equipment is also needed. Furthermore, the existing control room and MCC room (SEP 043) that resides between SEP 040/041 will be effected, and relocation or retrofit would be needed. SEP 040, 041, and 043 are all located within the Southeast Treatment Plant Streamline Moderne Industrial Historic District. SEP 040/41 are considered structures that contribute to the historic district, although they are not individually eligible historic resources. As the objective of the project is to demolish the superstructures of SEP 040/041, impacts to these historic resources are unavoidable.

10037331 Maintenance Building (SEP 940) Interim Improvement

Building 940 is a critical interim project for the Southeast Plant. This is an interim project while the long-term vision and improvements under the SEP Campus Plan is being developed. The following improvements form the basis of this project, space will be modified to include interim Electrical and Instrumentation and Controls (I&C) shop areas; HVAC Improvements including evaluation (and installation as-needed) of wet grinder filtration system, condensing unit, and welding exhaust system); and, H&S Improvements (emergency lights, signs, trip hazards, safe roof access).

10037353 SEP 550 Booster PS Condition Inspection & Interim

This project includes condition assessment of the influent channel and wet wells (confined space entry), as well as a budget allowance to perform concrete rehab on two wet wells and minor repairs to the influent channel. A firmer estimate to complete the repairs will depend on the results of the inspection. To inspect the influent channel, work must occur during dry weather and the plant must either be shut down or treated effluent diverted to Quint Street Outfall (QSO). Shutdowns may last up to 8 hours, and coordination/ approval is needed with the Regional Water Quality Board to allow diversion through QSO. Mechanical equipment rehab is also included as part of the interim improvements. These include replacing (2) sump pumps (SE550SP1 and SE550SP2), water heater (SE550H, air relief valve, booster pumps, and all Variable Frequency Drives (VFD) (4).

10038373 SEP, Booster PS, & BFS Security Enhancements

The project involves, upgrading card readers and door contacts at all perimeter doors and ensuring proper operation; Replacing and furnishing gates and gate operators including structural support, electrical power and controls; Adding protective cages around outdoor chemical and electrical equipment, including an allowance for replacing/repairing the existing perimeter fence and fence support as needed; Furnishing, installing, and configuring servers for video recording, management and analytics; Configuring security fiber optic connectivity and adding video camera units and local recording; Pruning the landscaping, adding new security signage, and upgrading to dusk- activated LED lighting; Establishing a visitor management system and installing turnstile; Monitoring improvements (e.g. developing mobile tablet security video monitoring capability, establishing a security monitoring center, a tablet-based security incident response

reporting template and setting up an automatic video archiving process across all Wastewater Enterprise sites); Providing interior intrusion detection of critical assets; Adding interior presence sensing connected to an intrusion detection panel and alarming to security; Upgrading UPS backup power to serve security components; Adding new security signage with "No Trespassing", applicable penal code and emergency contact information; and, adding a main distribution frame (MDF) to BFS SEP Fire Alarm, PA system, business network and radio communications.

Balboa High School Regional Runoff Reduction Project

AP Giannini Middle School is located above the Westside Groundwater Basin and has well draining soils. The project site is 8 acres of mostly impervious roofs and pavement including over 2.5 acres of play yard. There is an opportunity to remove impervious paving to promote infiltration while greening the school yard. Green infrastructure BMPs such as permeable paving, bioretention planters, and infiltration trenches will be installed to reduce the volume and rate of water entering SFPUC's sewer system.

Fixed Gas Monitoring Systems: Fixed gas monitoring is to be added within the following OSP process areas. The systems should follow the standards and specifications included in Project WW-559R - SEP Fixed Gas Monitor Upgrades, and will include DCS connections, horns, beacon lights and other notifications. OSP 011: 1. Install two (2) fixed hydrogen sulfide sensors in the Influent Channel Room (OSP 011-107). 2. Install two (2) fixed ammonia sensors in the Screw Press Room (OSP 011-207). OSP 042: 1. Install four (4) fixed hydrogen sulfide monitors in the Primary Clarifier Building. OSP 230: 1. Install Two (2) fixed hydrogen sulfide sensors in the Secondary Clarifier Building. OSP 620: 1. Relocate fixed gas monitoring system notification locations which are currently considered to be located to close to potential gas sources. 2. Modernize Elevator OSP 930: 1. Modernize 930 Freight Elevator and upsize capacity from 6000-lbs to 8000-lbs Public Address System / Emergency Evacuation Notification System: 1. Replace the existing Public Address System at OSP which is old and in disrepair. 2. Replace the existing Emergency Evacuation Notification System at OSP which is old and in disrepair. 3. Install repeaters at Westside PS and replace existing repeaters (loss of communication outside of plant for radios). Fire Alarm System: 1. Replace the existing Fire Alarm System at OSP and WSS which are old and in disrepair.
Improvements to the WSPS and OSP radio communication systems are planned to be completed in the R&R program and should be tracked accordingly.

For the redundant force main, the proposed alignment from AAR is Alternative 1, which is approximately 2,765 total linear feet and requires a short overall pipeline length. This alignment mainly runs west from the connection point then south and parallel: either west of the existing force main within the paved outer northbound lane in the Great Highway or east of the existing force main within the east shoulder of the Great Highway, then turns east to connect to the headworks at OSP 011. This project will advance the existing AAR through CER, and in the process, also consider risk mitigation strategies with continuing operation of the existing Westside Force Main. Details of the CER will form the basis for Project OSP-1B: Westside Force Main Reliability Project – Design and Construction.

Specific work includes Primary Odor Control System Improvements: Covering influent and effluent channels in OSP 042. The primary clarifiers would remain open and uncovered; Refurbishment of the existing Odor Control Units (OCUs) serving OSP 042; Installation of heating coils to pre-heat the foul air extracted from below the covered channels, OSP 042 building space, and the aeration basin channels prior to treatment through the OCUs; Other miscellaneous improvements include new variable frequency drives (VFDs) at the supply fans, new odor control fans with VFDs, duct repairs at odor control fans, replacement of fan differential pressure switches and automated ventilation modulation. Secondary Odor Control System Improvements: Sealing the inlet weir channel openings and effluent channel openings with aluminum checker plate hatch covers. The secondary clarifiers would remain open and uncovered; The air

from the channel head spaces would be extracted and treated by two existing OCUs. The room air will contain very low odor/moisture concentrations and be transferred to OSP 530 as makeup air and then exhausted outdoors without treatment. A heating coil will be installed to pre-heat the foul air prior to the OCUs; Other miscellaneous improvements include new VFDs at supply fans, a new odor control fan, new space exhaust fans with VGDs, rebalancing existing odor control fans, blank-off plates at existing ductwork, replacement of motor control center (MCC) exhaust fan along with associated ductwork and disconnect switch, replacement of fan differential pressure switches and automated ventilation modulation. Replacement of High Head Loss Fittings: Replacement of two rectangular elbows in a Z-type configuration which supplies HVAC air to the second floor Gravity Belt Thickening Area in OSP 011 with two smooth radius elbows with a splitter vane.

The Buchanan Street Mall Neighborhood GI Project is located in the Western Addition Neighborhood and includes two major components: The Buchanan Street Mall Core Project - these components are centered on the Buchanan Street Mall, led mainly by RPD. This core project manages runoff from the mall and some adjacent streets that flow to the mall; The Neighborhood Projects - additional neighborhood-scale components that include adjacent streets and Rosa Parks Elementary School, led by SFPUC. In addition to the stormwater performance metrics, the project produces additional benefits: Manage up to 7 acres of DMA; Integrate multi-purpose GI in the Buchanan Street Mall; Maximize stormwater performance through the management of adjacent parcels and street runoff; Explore a new design approach for street GI that combines impervious removal and bioretention; Deliver neighborhood-scale place-making co-benefits in one of San Francisco's identified disadvantaged communities.

The appropriate technology and alternative would be explored in the project's planning phase, but as a basis for this project, replacement of the PSA units with vacuum pressure swing adsorption (VPSA) units is assumed. PSA reduces the desorption pressure compared to VPSA, which allows for a higher percentage of available oxygen to be recovered and less air to be processed. This project includes the replacement/upgrade of the existing gaseous oxygen (GOX) system at OSP as detailed below: 1. Demolish/remove the three (3) existing 10 ton per day PSAs 2. Install two (2) new 10 ton per day VPSAs 3. Replace the GOX line connecting the VPSAs to the OSP 200 Aeration Basins

The purpose of this streetscape and sewer improvement project, which focused on the segment between Guerrero Street and Hampshire Street, was to improve the safety, aesthetics, and infrastructure and transit efficiency of the corridor. This project also turned Cesar Chavez into a sustainable “green street” by increasing the number of street trees, implementing Low Impact Development (LID) practices, and installing stormwater planters to add green landscaping pockets and provide for stormwater management. The project widened the existing median to allow for many more street trees and landscaping; provided left turn pockets for turning vehicles; widened the sidewalk at the corners; and upgraded the street lighting along the corridor to LED to provide brighter, whiter light and reduce energy consumption. Permeable paving and bioretention were also integrated into the street design. This strategy fuses infrastructure with urban design, allowing the streetscape to become part of the solution to drainage problems. This project has been completed.

The regional stormwater project is centered around Balboa High School in the Balboa Park Neighborhood.This Project involves regional stormwater collection from, San Miguel Child Development Center, Civic Center Secondary School, James Denman Middle School, the Balboa High School campus and some surrounding streets. Runoff from 17.3 acres is routed by 1,200 ft of separate storm pipe to divert flows from upstream parcels to various green infrastructure improvements.

This project includes planning, design, and construction of the proposed sewer work in coordination with the Geary BRT Phase 2 project. The 38 Geary bus service delivery currently relies on a motorcoach with bus stations closer to the curbs. The proposed side-running dedicated lanes on Geary Blvd. may impact

SFPUC's future replacement or repair of the existing sewers. The age, materials and past condition assessment of sewers were considered to determine the proposed sewer replacement scope. It is assumed that SFPUC would prefer replacing all aging brick sewers and other inadequate sewers that need repair or replacement. The preliminary project estimates are based on the assumption that 78% of the existing sewers need replacement, where 40% of the existing sewers are over 90 years old. Condition assessment will determine the replacement needs of the remaining 22% of the sewers, and cost will be adjusted accordingly. Sewer replacement work is recommended along Geary corridor and the cross streets intersecting Geary. Some of the sewers along the cross streets were replaced in or after 1997. About 11% of the sewers have been identified for replacement. The proposed replacement is assumed using an open trench construction technique using equivalent pipe sizes. A condition assessment is recommended for all sewers along the Geary corridor within the project limit for a trenchless rehabilitation assessment.

This project is a continuation of the efforts previously completed through the OSP Fine Screen and Grit Removal Enhancements Project through CER and includes an analysis to confirm/validate the design alternative selected. This analysis should also consider any recent sedimentation assessment and cleaning program.

This project will incorporate green stormwater management into an urban design to meet the neighborhood’s needs and the stormwater performance goals for the Islais Creek watershed (i.e. manage the first 0.75 inch of rainfall for a 5-year, 3-hour storm event within the drainage management area). The project will also provide secondary benefits by creating new plazas that can serve as neighborhood gathering spaces, greening of the neighborhood by adding more vegetated areas within the right-of-way (ROW), and adding curb bulb-outs to enhance pedestrian and bicyclist safety. Additional work includes construction of bioretention and pervious concrete plazas, construction of permeable pavement parking strips, and developing parking spaces and traffic lane configurations based on recommendations from SFMTA & SF Planning.

This project will replace the aging control system infrastructure at OSP and other satellite wastewater facilities like WSS as the existing DCS equipment are obsolete. The upgrades include converting all existing DCS, Wonderware HMI, and programmable logic controllers (PLCs) to Emerson-based systems as specified by the Facility-Wide DCS Control Upgrades Project, and upgrades to OSP's aging control panels, annunciator panels, sensors, disconnect switches, bare grounding wiring and control devices. The DCS supplier will provide design and installation services. In addition to the needed DCS upgrades to the specified Emerson-based systems, a wide range of DCS-related improvements were identified as part of the OSP Condition Assessment Repairs Project. These are listed below, but should be further evaluated during planning and design by the DCS Contractor. OSP 011 Building Replace local control panels LP-02-2, LP-03-3, LP-12-1. Replace control panels CS-02/03-1, CS-47-1 and CS-47-3. Replace panel FP12-1. Refurbish CP-1, CP-9, CP-10, CP-12, CP-14, CP-15 and CP-19. Replace 25 standard disconnect switches in the Bar Screen Room. Replace 20 Class 1/Division 1 disconnect switches in the Bar Screen Room. OSP 042 Primary Clarifiers Replace 21 disconnect switches and all bare copper grounding wire. OSP 200 Aeration Tanks Replace/Refurbish control panels CP-2 and CP-3 with new annunciator panels and LED lights. Replace existing FP-10-1 next to CP-3. This aeration panel has a PLC and internal relay boards that are identical to the FP12-1. OSP 230 Secondary Clarifiers Replace local control panel (CP-13) and refurbish the annunciator panel. OSP 620 Digestion Operations Replace control panels CP-22, LP-47-20 and Day Tank Bubbler Panel for code compliance. Please note that these control panels may not require replacement if ventilation improvements are made which result in an electrical reclassification of the OSP 620 area. Recycled Water Facility Interface with the PLC

10037776 SEP Facilities Interim H&S Imp (SEP 850 & 930) - Cancelled

The SEP Buildings 850, 930, and 940 project involves health and safety improvements. Engineering Building (SEP 850), installing power-assisted door opening devices; Address leakage, and structural rehabilitation works on water damaged walls and ceilings; Install fall protection where required, and replace or upgrade the HVAC system. A seismic evaluation will be undertaken later as part of the "Seismic Evaluation and Retrofit" Project, which will assess and recommend seismic improvements to SEP 850; Admin Building (SEP 930), install emergency exit lighting and other required safety equipment; Install power-assisted door opening devices if required; Install fall protection where required; Replace or upgrade HVAC system and ventilation including lab fume hoods, where required; Remove or relocate fire-corridor obstructions; and, address water ponding issues A seismic evaluation will be undertaken at a later stage as part of the "Seismic Evaluation and Retrofit" Project, which will assess and recommend seismic improvements to SEP 930; Maintenance Building (SEP 940), install emergency lighting and exit signs at access door to roll-up door and remove tripping hazards at threshold (uneven door landing on pull side).

10029736 Westside Pump Station Reliability Improvements

The project consists of screening improvements including replacement of existing bar screens, and addition of screening washing and compaction systems. The project also includes replacing existing wet-weather pumps to provide pump redundancy. The construction would take place within the existing structure and includes four new submersible pumps and 200 linear feet (LF) of discharge force main. Other improvements include increasing the power feeder capacity at WSS to account for additional wet weather pumping capacity and provide a reliable redundant power source, and replacing existing odor control units at the WSS with dilution ventilation fans and ducting.

10029738 Westside Pump Station Redundant Force Main Improvements

Flow from the Westside Pump Station (WSS) is transported through an existing force main with no reliable redundancy. The purpose of this project is to ensure operational flexibility and reliability of critical force main infrastructure functions. This is accomplished by providing a redundant force main pipeline and supporting valving sized to maximum treatment plant capacity. This project includes planning, design, environmental review and construction of a redundant new force main from the WSS to the OSP. Major components of this project include installation of 6,400 linear feet of new force main on Sloat Blvd and Highway 35, as well as street pavement demolition and restoration, traffic control, and relocation of impacted utilities. However during the planning phase of this project, it was determined that this project may be deferred with accepted risks to SSIP Phase 2.

10029735 OSP Fine Screen and Grit Removal Enhancements

The purpose of this project is to maximize solids/grit removal efficiencies at the plant headworks thereby reducing grit throughout the wastewater treatment facility processes; minimize potential grit impacts to biosolids processes and reduce O&M costs associated with grit wear on treatment process equipment. The project includes planning, design and environmental review of the following major components: controls improvements of the three existing ¼-inch fine screens; evaluation/upgrade of the three existing Pista-type grit removal units with higher efficiency new fine grit removal units such as the hydraulically-induced vortex-type (Headcell®) or other high-efficiency technologies that remove fine grit, and structural modifications to the influent channels/headworks structure to suite new grit removal units. The construction phase of this project is proposed in SSIP Phase 2. However, the SSIP re-prioritization in 2016 has resulted in the deferral of remaining efforts in planning, design and environmental review to Phase 2.

10029737 OSP Digester Gas Utilization Upgrade

In this project, the gas storage vessel and digester gas conditioning equipment will be replaced. The existing cogeneration Internal-Combustion units (IC engines) and controls will also be replaced. Other

improvements include providing an ancillary exhaust gas conditioning and heat exchanger systems to comply with regulatory air board requirements. Improved reliability and redundancy of hot water and electrical energy production systems, as well as, ventilation upgrades will maximize process efficiency within the energy recovery building. The electrical gear at Sub-Station No. 5 will be replaced to provide parallel electrical gear and power system reliability.

10029739 OSP Condition Assessment Repairs

The OSP Condition Assessment Repairs project will include planning, design, and environmental review of major improvements to the plant including: rehabilitation of building structures, rehabilitation or replacement of mechanical and electrical equipment, and seismic retrofit of process tanks and buildings. Improvements focus on maintaining operational reliability and extending the service life of buildings that are required to remain in operation for 30 years or more. A preliminary evaluation identified improvements to be addressed in various phases of the project, including those at the following buildings: • 011 – Pretreatment/Solids • 042 – Primary Clarifiers • 200 – Aeration Basins • 230 – Secondary Clarifiers • 510 – Chemical Storage • 530 – Chlorine Contact Channels • 620 – Digester Operations • 630, 640, 650, 660 – Digesters 1, 2, 3 and 4 • 741 – Digester Gas Holder • 800 – Co-Generation • 821 – Gas Burner • 920 – Pipe Gallery • 930 – Administration and Laboratory • 961/962 – Parking and West Entrance Tunnel/East Entrance Tunnel

10029740 OSP Odor Control Optimization

This project includes planning, design, environmental review and construction/upgrades to inefficiencies identified in Building 042 (Primary Clarifiers). Currently, the air from the entire building is exchanged and scrubbed for odor. In order to significantly reduce the volume of air treated for odor, the primary clarifiers should be covered and only air from the primary clarifier basins scrubbed. The main components of this project included: • New covers for the five primary clarifiers (each cover would be approximately 190 feet long by 38 feet wide). • Duct work to connect the head space in each clarifier basin to the odor control system. Current plans involve the completion of an odor control study as part of the Alternative Analysis Report (AAR) planning phase. Opportunities may exist for reducing energy consumption while maintaining effective performance and meeting offsite odor limits. These include optimizing system operation, consideration of different reduced backpressure media, implementation of new lower energy usage technologies, and ventilation strategies including reduced turnover, covers for reducing volume, and air transfer. Based on the results of the alternative analysis, the project will forego covering the primary clarifiers and implement other optimization measures in its place.

10037777 OSP & WSPS Security Enhancements

The project involves upgrading card readers and door contacts at all perimeter doors and ensuring proper operation; Replacing and furnishing gate and gate operator including structural support, electrical power, and controls; Adding protective cages around outdoor chemical and electrical equipment, including an allowance for replacing/repairing the existing perimeter fence and fence support as needed; Furnishing, installing and configuring servers for video recording, management, and analytics; Configuring security fiber optic connectivity and adding video camera units and local recording; Establishing prune landscaping, adding new security signage, and upgrading lighting to dusk-activated LED lighting; Adding interior presence sensing connected to an intrusion detection panel and alarming security.

10037733 Solids Thickening (OSP 011) Process Upgrade

Depending on the status of the R&R project (CWWRNRTFA8) to replace the GBT with RDT, an alternatives evaluation should be performed to confirm the selected thickening technology. As a basis, this project assumes replacement of the two remaining GBTs and installation of two new RDTs that can thicken a

combination of primary sludge, waste activated sludge, and secondary scum. The scope of the project also includes the replacement of corroded pipe, room fixtures, demolition of the existing units and ventilation improvements, such as: Demolishing the two existing GBTs; Installing two new RDTs and associated controls; Replacing the three existing washwater booster pumps, piping, and appurtenances; Installing hot water lines, redundant primary scum skimmer, ventilation system, two fixed hydrogen sulfide sensors in the Gravity Belt Thickener Room, new ultrasonic pulsar level sensor in the TPAS tank and improving the mixing system in the tank; Redesign the drains on existing and new drum screens; Replace the three thickened sludge pumps, corroded pipes, window frames, doors, floor gates, and tiles; Upgrade electrical components and DCS control of the new system; Address residual thickening area odor issues that were not addressed by the OSP Ventilation (HVAC) Upgrades Project.

10037734 OSP Plant-wide Ventilation (HVAC) Upgrades

A wide range of HVAC-related improvements were identified as part of the OSP Condition Assessment Repairs Project. It was determined that a plant-wide air handling performance evaluation be conducted to determine if the ventilation systems are meeting requirements and to better identify needed HVAC improvements. OSP 011: Replace inadequate duct supports in OSP 011 hallway areas; Duct supports within exhaust fan room at OS70EF1-1 thru -3 and OS70EF1-5 and -6 needs to be refastened/replaced; Coordination of HVAC evaluation, design and construction under the OSP Solids Thickening Process Upgrades project. OSP 530: Assess ventilation issues if keeping the temporary chemical station from the Recycle Water Project. OSP 620: Replace all HVAC equipment. Based on results of the plant-wide air handling performance evaluation, make provisions for increasing air ventilation rates in order to declassify area from Class 1 Division 1 to Class 1 Division 2; Replace FRP ducts in digester basement serving fans 70EF19-1, 2. Replace HVAC equipment at OSP 042, OSP 230, and OSP 930.

10037735 Admin Bldg (OSP 930) Health & Safety Improvements

This project involves an evaluation of NPF 930 to provide safe working conditions for employees. The interim rehabilitation components will be identified during the planning, but as a basis, the following items are assumed: Interim structural repairs; Replacing roll-up doors, UPS for the emergency lighting system, and elevator; Rehabilitate HVAC system; Electrical improvements on Southside buildings; Assess and replace crane, if needed; Evaluate area and use of dewatering sump pumps; Replace pumps, piping, valves, and EI&C; Inspect and replace guardrails/handrails; Install fire sprinklers, alarms, and exit lighting; Replace and install new lighting.

10036398 OSP Condition Improvement Projects - Part 2

The OSP Condition Assessment Repairs project will include major improvements to the plant, aimed to address the reliability of existing assets that have deteriorated over the years. This project includes planning, design and environmental review of improvements to address the age, deterioration and reliability of existing assets at OSP that are not specifically included in the other SSIP projects. This project includes rehabilitation of building structures, rehabilitation or replacement of mechanical and electrical equipment, and seismic retrofit of process tanks and buildings. Improvements focus on maintaining operational reliability and extending the service life of buildings that are required to remain in operation for 30 years or more.

10037904 NPF & NSS Security Enhancements

The components of the project include upgrading continental card reader access control; Replacing and furnishing gate and gate operator including structural support, electrical power, and controls; Adding protective cages around outdoor equipment, and repairing/replacing perimeter fence; Furnishing, installing, and configuring servers; Configuring security fiber optic connectivity and adding video camera

units; Adding signage, lighting, and pruning landscaping; Provide interior presence sensing connected to intrusion detection panel.

10026821 Northpoint Outfall Refurbishment

Rehabilitation of the outfall system includes removal of sediment/debris inside subterranean reinforced concrete sewers and repair of concrete spalls, cracks and damaged linings with epoxy. Rust formations will also be removed, followed by re-lining of existing cast-iron pipes (CIPs) with epoxy lining that provides the protection against the extreme corrosive marine environment and strength to withstand operating and hydrodynamic loads. In addition, sediments deposited inside and around the diffuser pipes will be removed and disposed of, along with associated steel supporting brackets. The project will also include installation of a new cathodic protection system for the Outfall System CIPs, ductile iron pipes (DIPs), and Outfall support structures under Piers 33 and 35; repair of damaged coating of Outfall pipes and supports; and installation of air vents and air relief valves on the outfall to release entrapped air.

10026822 North Shore Pump Station Wet Weather Improvements

North Point Facility, North Shore Pump Station and associated outfalls improvements include: North Shore Wet Weather Pump Station Improvement and Disinfection: Includes installation of pumps and pumping system to provide redundancy for the 150 MGD wet weather station, as well as fully redundant influent channels with two redundant coarse bar screens. A 66"" forcemain connection will also be installed. NPF Outfall System Rehabilitation: Includes rehabilitation and sediment removal of four outfalls and their structural support systems to address issues with the liner, inadequate air relief, and issues with manhole covers. NPF Clarifier Improvements: Includes refurbishment of the existing clarifiers or sedimentation basins, including seismic retrofit and rehabilitation of sedimentation basins, improvements to hydraulic gates and actuators, and improvements to the primary clarification process to allow more efficient operation. DCS/Telemetry System Upgrade: Includes upgrades to the communications, sensors, and control devices at NPF, as well as in the T/S structures, pump stations, and outfalls to provide real-time system-wide monitoring and control. Maintenance Facilities Relocation: Involves relocating all the maintenance functions from existing buildings 800, 870, 871, and 925 to a new maintenance facility. Other North Point Facility Reliability and Redundancy Upgrades: Includes the W2/W3 & Transport Odor Control Project to bring W2 or W3 from SEP to NPF, and the Clarifier Tipping Buckets Project to install tipping buckets at the head of each clarifier for easier flushing. Security upgrades will also be completed. Redundant Wet Weather Fine Screens: Provides redundancy for wet weather fine screens by installing an additional 75 MGD fine screen. Jackson and Marina T/S Odor Control: Includes pulling air from the Jackson and Marina T/S structures and treating it at the new odor control facility. Dry Weather Grit Removal: Involves construction of a new 34 MGD gr".

10039251 Sedimentation (NPF 040/041) Tanks Condition Improvements

The project will perform condition improvements and upgrades to the sedimentation tanks, which includes the following: NPF 040 & NPF 041 Sedimentation Buildings No. 1 & 2: concrete structural rehabilitation; Replace doors in poor condition; Evaluate HVAC, ventilation and install a new heating system for locker rooms; Replace hot water system; Building structural repairs; Address NFPA 820 area classification issues; Rehabilitate locker rooms; Repair/replace deteriorated piping, and other corroded metallic components; Upgrade stairs and hand/guardrails; Provide no-flow cutoff for sludge pumps; Replace building sump pumps and air compressors in NPF 041; Upgrade NPF 041 server room; Remove abandoned-in-place equipment. NPF 043 Grease & Scum Removal Building Improvements: concrete structural rehabilitation; Building structural repairs; Replace roll-up doors. NPF 060 Sludge Control Building (including NPF 061, NPF 062, NPF 063, NPF 064) Improvements: concrete structural rehabilitation; Building structural repairs; HVAC/ventilation upgrade; Replace doors, a dewatering pump, sump pumps, elevator, and MCC; Remove

abandoned-in-place equipment; Modernize control room and "lab" room.

10037325 Admin Bldg (NPF 930) Evaluation & Interim H&S Improvements

This project involves an evaluation of NPF 930 to provide safe working conditions for employees. The interim rehabilitation components will be identified during the planning, but as a basis, the following items are assumed: Interim structural repairs; Replacing roll-up doors, UPS for the emergency lighting system, and elevator; Rehabilitate HVAC system; Electrical improvements on Southside buildings; Assess and replace crane, if needed; Evaluate area and use of dewatering sump pumps; Replace pumps, piping, valves, and EI&C; Inspect and replace guardrails/handrails; Install fire sprinklers, alarms, and exit lighting; Replace and install new lighting.

10038353 NPF DCS Upgrades (Construction)

This project will replace the aging control system infrastructure at Northpoint as the existing control system equipment becomes obsolete. This is a continuation of the distributed control system (DCS) work that was started under SSIP Phase 1 project CWWSIPSE07 SEP Facility-Wide DCS Upgrade. The DCS scope under this project is specifically centered at Northpoint facilities. The DCS supplier will provide the following services: Network configuration and architecture design; Equipment location and layout design; DCS panel layouts and wiring diagrams; Loop drawing development; Control narrative development support; Human Machine Interface (HMI) screen standards development; DCS application software development. The DCS supplier will provide the following equipment: Process control module panels; Remote I/O (RIO) panels; Server equipment and racks; Main fiber distribution rack panels; Marshalling panels or "B" panels; Fiber optic patch panels and terminal panel; Network switches and routers.

10002102 Central Bayside System Improvement Project - Phase 1

The Central Bayside System Improvements Project (CBSIP) will provide collection system enhancement to the Channel & Islais Creek urban watersheds, including needed redundancy for the existing 66-inch Channel Force Main, infrastructure improvements to sewers/pump stations, and stormwater management through elements of both green and grey infrastructure. Major components of the project consist of a tunnel to transport, via gravity, dry and wet-weather flows from the Channel and North Shore watersheds to the Southeast Water Pollution Control Plant (SEP), a large all-weather pump station to lift the flows into the SEP, improvements to Channel Pump Station, and green/gray infrastructure improvements within the watersheds.

10002554 Richmond Transport Modeling

Historically, geysering and blown manholes have been observed in the Richmond Transport/Storage Tunnel and upstream sewer system during large storms. These phenomena may be due to surge activity in the system, release of trapped air pockets, or excessive venting relative to the available vents. Various hydraulic models were performed using InfoWorks and some physical improvements to the system have been made over the last 15 years. The hydraulic modeling performed could not account for air pockets or potential bores in the system; therefore, WWE and SFPW/Hydraulics agreed that consultant support was needed to provide numeric modeling that can stimulate the known situation and provide recommendations for capital improvements to address the system issues. This project included the review of two separate models: the InfoWorks Integrated Catchment Model (ICM) of the San Francisco collection system, and a Transient Analysis Program (TAP) model of the Richmond Transport/Storage Tunnel and associated sewers and amenities. Recommendations for improving the system and addressing the identified issues were developed in a technical memorandum (TM). Since the completion of the TM, a new project was initiated to evaluate and determine which recommendations from the TM would be implemented through construction. This project ended at the Planning Phase.

10002641 Collection System Condition Assessment

This project consists of: • Performed condition assessments and confirmed the needs for rehabilitation or replacement of approximately 10-miles of sewers. • The following condition assessment steps are taken: o Identified goals for condition assessment, o Determined the type and level of condition assessment needed, o Performed asset inspection, o Performed data analysis, and o Provided recommendations for projects to be rehabilitated through SSIP Project 10033745, 10034718, and potentially future capital projects or R&R projects. • Completed the planning phase, including the CER, for the first group of large-diameter sewers located on Mission Street, between 16th and Cesar Chavez Streets, with the remaining project work for Mission Brick Sewer Rehab will be implemented through FSP Project No. 10033745.

10002652 Kansas and Marin Streets Sewer Improvements

The purpose of the Kansas and Marin Streets Sewer Improvements Project is to increase the wet weather flow conveyance for a minor drainage basin within the Islais Creek Watershed Basin to meet the Level of Service (LOS) storm. The project consists of a 900 linear foot, 8' inside diameter tunnel connecting two existing sewer boxes through the Public Works Corporation Yard at Cesar Chavez Avenue. The project also includes relocation assistance associated with temporary displacements of existing lease-holders who occupy SFPUC's property above the C-Box Transport Storage Structure (Lot 031), as this space will be needed for construction staging. Two new reinforced concrete junction structures will also be constructed to connect with the existing sewers, along with surface restoration work associated with construction and installation of the above assets.

10002689 Drumm and Jackson Streets Sewer System Improvement

The purpose of the Drumm and Jackson Streets Sewer Improvements is to address the SSIP Level of Service (LOS) goals of Operational Reliability (State of Good Repair). The project includes planning, environmental review, design, bid and award, construction and closeout phases for the following scope of work: • Completed trenchless rehabilitation of the following sewers using spray-mortaring and epoxy coating: o Approximately 800 feet of the Drumm Street Box Sewer (7’6” x 6’0”). o Approximately 200 feet of the Jackson Street Box Sewer (8’6” x 7’0”). • Completed associated work with the rehabilitation, including: o Performed sewer cleaning prior to the trenchless rehabilitation. o Bypassed sewer flow by damming and piping through the existing box sewer. o Performed surface restoration. o Coordinated work with WWE to ensure worker safety and prevent any wet weather impacts. • Completed CEQA approval and public outreach of the project. • Entered into a Memorandum of Understanding with SF Port for the work near the intersection of The Embarcadero and (the paper street) Jackson Street.

10002760 Cargo Way Sewer Box Odor Reduction

This project will construct a new force main (flushing line) that conveys secondary effluent from the existing Booster Pump Station to the existing 7-foot diameter sewer located on Cargo Way, near Mendell Street. The new force main will introduce approximately 1.5 million-gallon-per day (MGD) of flow back into the sewer system to minimize solids from settling to the bottom of the sewer; thereby, reducing odors from forming and escaping from the sewers into the atmosphere. In addition, mechanical, electrical, and instrumental controls will be installed inside the Booster Pump Station that would allow operation staff to turn on and off (or throttle) flows into this flushline.

10002767 Rutland Sewer Improvements

Under this project, the hydraulic capacity of the sewers in the project area will be increased to meet the SSIP Level of Service storm. The project will consist of multiple improvements along Rutland Street (from Visitacion Avenue to Sunnydale Avenue) including replacing the existing sewer with a larger reinforced concrete pipe, constructing a wet weather diversion structure, and conveying water passing over a weir

inside this underground structure during a large storm event through new piping and discharging into a deep wet weather tunnel (Sunnydale Sewer Tunnel). To minimize construction impacts to the community, this sewer work will be constructed with the Visitacion Valley Green Nodes Project.

10033745 Mission Street, 16th to Cesar Chavez Streets, Brick Sewer Rehabilitation

The project purpose is to rehabilitate and/or replace large-diameter sewers after the scope of work is defined through the condition assessment efforts from the Collection System Condition Assessment Project (Project CWWSIPCSSR02). Based on the condition assessment efforts, approximately 1-mile of large diameter sewers over 100-years old and located on Mission Street, between 16th and Cesar Chavez Streets, were confirmed to be in need of rehabilitation. This project will include the design, environmental review, right-of-way, bid and award, construction, project management, and construction management support to complete the rehabilitation work. In addition, funding for the planning efforts for two additional projects was funded through this project. At the end of the planning effort, the two projects will be completed through a separate wastewater capital project, the Large Diameter Sewer Rehabilitation and Condition Assessment. When this project is completed, approximately 4,350 feet of large-diameter sewers would be rehabilitated, with an extended useful life of at least 50-years.

10034718 Large Diameter Sewer Projects and Channel FM Intertie

The project purpose is to rehabilitate and/or replace large-diameter sewers based on condition assessment efforts completed by staff. This project will fund approximately 35,000-feet of rehabilitation or replacements of large-diameter sewers that are over 100-years-old in various parts of San Francisco. In addition, a 66-inch diameter pressurized pipe (or the Channel Force Main) was identified to be in need of rehabilitation or replacement; however, since the force main is almost always in service to meet regulations, a major sewer bypass is needed in order to perform a thorough inspection. This project will construct a bypass, or the Channel Force Main Tee, that will connect the existing force main to a nearby sewer transport/storage structure. When complete, approximately one-third of the existing force main can be taken out of service for rehabilitation and/or repair during the dry-weather seasons. In addition, this bypass will provide long-term operational flexibility to Wastewater Enterprise since flows from the Channel Force Main can be diverted away from the headworks area of Southeast Treatment Plant during dry weather seasons. When complete, this project will fund multiple construction contracts to rehabilitate and/or repair approximately 35,000-feet of large-diameter sewers, and a bypass will be installed that would allow future condition assessment and/or rehabilitation of one-third of the Channel Force Main.

10002664 Van Ness BRT Sewer Improvements

The Van Ness Bus Rapid Transit (BRT) Project is led by SFMTA in conjunction with the Van Ness BRT Sewer Improvements Project, which is part of the SFPUC's SSIP Phase 1 Program. SFPUC will replace and relocate existing sewer utilities within Van Ness Avenue, between Lombard Street and Mission Street, from the center of the street to outside of the BRT right-of-way. This will allow for future sewer service maintenance and repair/replacement without impacting SFMTA's BRT operations. The scope of the project includes constructing approximately 20,000 linear feet (LF) of 12-inch to 54-inch diameter Vitrified Clay Pipe (VCP), Reinforced Concrete Pipe (RCP) or High Density Polyethylene) HDPE (in steel casing) sewer mains and associated manholes, catch basins and culverts; and retrofitting and connecting existing sewer laterals and catch basins to the aforementioned new sewer mains. Closed-circuit television (CCTV) technology will be used to inspect the newly constructed sewer mains, sewer laterals and culverts. Abandoned sewers (approximately 1,800 LF) will be plugged-and-filled. Sewer construction was completed in early 2021.

10002667 Better Market Street Sewer Improvements - Phase 1

San Francisco Public Works Department's vision for a Better Market Street (BMS) is a comprehensive program to reconstruct the City's premier boulevard and the region's most important transit corridor from Octavia Boulevard to The Embarcadero. The program is a series of interdependent projects (BMS Core Capacity Improvements, BMS Streetscape Enhancements, and BMS State of Good Repair) that will advance several key City policies: Transit First, Complete Streets, the SF Pedestrian Strategy/Walk First and the SF Bicycle Plan. The BMS State of Good Repair Project (a.k.a. BMS Sewer Improvements) will be completed under SSIP to replace aging sewer infrastructure beneath Market Street, especially the brick sewers that are over 100 years old. The requesting funding is for project cost of the Phase 1A contract from 5th Street to 8th Street, and for design budget of the entire corridor.

10002670 Geary BRT Sewer Improvements Phase 1

SFMTA's Geary BRT Project will improve the 38-Geary bus services, accessibilities, and pedestrian safety. The project includes collaboration from SFPUC, SFPW, and San Francisco County Transportation Authority (SFCTA). Phase 1 of the SFMTA Geary BRT Project is comprised mostly of transit and pedestrian bulbs. The addition of concrete and/or curb alignment change may trigger the needs to relocate existing catch basins, side sewers vents, and manholes. SFPW and SFPUC have determined the condition of water and sewer utilities along the Geary Corridor. Approximately 2.5 miles of aging sewers (6-inch to 18-inch diameter circular sewers and 3-foot by 5-foot egg-shaped brick sewers) along the Geary corridor and nearby cross streets will be rehabilitated or replaced. The purpose of the Geary Blvd Sewer and Water Improvements Project is to coordinate with the Geary BRT Project in relocating/replacing main sewers and water mains outside of the transit lanes along the Geary Corridor from Van Ness Avenue to Stanyan Street.

10002672 Central Subway Sewer Improvements

This project is related to the SFMTA Central Subway Phase 2 of the Third Street Long Range Transportation Plan Project that will extend rail service from Fourth and King Streets to a northern terminal at Stockton and Jackson Streets. The purpose of this project is to include sewer improvements to avoid conflicts with the proposed light rail scope and to minimize future repair and replacement impacts. The sewer improvement project includes reconstructing existing 78-inch sewer (Fourth Street between Brannan Street and King Street), and relocating/ replacing existing 30-inch force main (Fourth Street between Bryant Street and King Street) and 48-inch gravity sewer (Fourth Street between Bryant Street and Brannan Street).

10002687 Mission Bay Loop Sewer Improvement

SFMTA's Mission Bay Loop Project will install light rail track on Illinois Street between 18th and 19th Streets. The improvements will support the future operations of the Third Street Light Rail in anticipation of the activation of the new Central Subway segment. The existing gravity sewers and force mains on Illinois Street will need to be relocated and/or replaced to avoid future conflicts with light rail operations. The sewer work has been completed and turned over to WWE operations, and SFMTA's contract has issued substantial completion to its contractor.

10002695 Masonic Avenue Sewer Improvements

The proposed sewer work is as follows: • Furnish and install approximately 4,747 LF of 12-inch, 15-inch, 18-inch, 21-inh, and 24-inch vitrified clay pipe (VCP) • Line existing 12-inch diameter VCP sewer with cured-in-place liner • Construct 6 and/or 8-inch side sewer connections • Cast-in-place or precast manholes and catch basins • Clean/mortar existing manholes

10002776 Taraval Sewer Improvements

SFMTA has proposed a pedestrian safety and transit improvements project along Muni's "L Taraval" route.

The project includes construction/extension of boarding islands, addition of dedicated transit-only lanes, and replacement of aging tracks, overhead wires, and trolley poles. The Taraval Sewer Improvements Project will relocate existing sewer facilities from the center of the street to outside of the tracks to allow for ease of maintenance and repair/replacement without impacting future SFMTA's Muni operations. The scope of the sewer work includes replacing approximately 19,000 LF of 12-inch to 36-inch diameter ISP, Vitrified Clay Pipe (VCP), Reinforced Concrete Pipe (RCP), or concrete sewers along Taraval Street between 15th Avenue and 46th Avenue, and Ulloa Street between Forest Side Avenue and 15th Avenue for a twin sewer system. Most of the sewers to be replaced are close to 100 years old. Project is split into two construction contracts. Segment A is from Zoo to Sunset Blvd. and construction was initiated in 7/19. Segment B is from Sunset Blvd. to West Portal and that construction contract is expected to NTP in early 2020.

10033106 Geary BRT Sewer Improvements Phase 2

Phase 2 of SFMTA's Geary Bus Rapit Transit (BRT) Project includes the addition of center-running BRT lanes on Geary Boulevard between Palm Avenue and 27th Avenue, followed by dedicated BRT lanes along each sides of the street between 27th and 34th Avenue. The center-running BRT lanes on Geary Boulevard would be located directly above the existing sewer lines and severely impact SFPUC's ability to perform future maintenance, repair and/or replacement. The purpose of the Phase 2 sewer work is to coordinate with Geary BRT Project to relocate (or replace as needed) main sewers outside of the transit lanes, platforms and bulbouts. SFPUC had determined sewer conditions along this segment (Stanyan Street to 34th Avenue) and approximately 2.2 miles of aging sewers have been identified as possibly needing replacement. Any sewer work required, whether it is sewer relocation, sewer rehabilitation or sewer replacement, will be undertaken as part of SFMTA's project. Only initial costs for planning and design has been allocated for this project within the SSIP Phase 1 Re-Baselined Program budget.

10002417 Hudson Ave Pump Station and Outfall Improvements

The original project scope of work included replacing an existing pump with a new pump station to convey combined sewer flows from an easement sewer (located inside private properties) to the SFPUC sewer system. During the needs assessment and alternative analysis phases, the project team confirmed that only two properties located on Innes Avenue are served by the existing pump. Therefore, the selected solution was a “no project” alternative, where it was recommended that Wastewater Enterprise (WWE) de-activate the existing pump and easement sewer, because this would be the most cost-effective option. Wastewater Enterprise would need to work with the Department of Building Inspection and the affected property owners to re-route the sewer flows to the existing sewers located in the Innes Avenue. Therefore, this project completed the Alternative Analysis Report (AAR) and any remaining work is deferred to WWE for implementation.

10002419 Force Main Rehab at Embarcadero and Jackson Streets

The purpose of this project is to rehabilitate or replace the portion of the existing North Shore Force Main (NSFM) that is most susceptible to failure. At the completion of this project, the entire portion of the NSFM located outside the Jackson Street Transport/Storage Box (JST) will have complete redundancy. NSFM provides critical conveyance of the combined sewage and stormwater flows from the northeastern quadrant of San Francisco to the Southeast Treatment Plant. Before 2015, this force main did not have any redundancy and can only be taken out of service for no more than 22-hours in order to meet the National Pollutant Discharge Elimination System (NPDES) permit requirements.
In 2014, approximately 2,500-feet of the NSFM was rehabilitated, but approximately 240- feet could not be rehabilitated due to limited shutdown time. By 2016, a redundant force main was installed (the North Shore to Channel Force Main), and the combined sewage flows are now diverted to the NSCFM, allowing

this project to proceed.
This project consists of rehabilitating the remaining 240-feet of NSFM, which is most susceptible to failure, by installing a 28-inch outside diameter HDPE pipe into the existing 36-inch diameter steel force main. In addition, the project will include construction of a new valve-vault and associated mechanical and electrical equipment, refurbishment of mechanical and electrical equipment inside an existing valve vault, and installation of a new electrical pedestal and control units aboveground. Together, these mechanical and electrical equipment will allow Waste Water Enterprise Operations operational redundancy to either to direct combined sewage flows to the NSFM or to the NSCFM.
A Memorandum of Understanding (MOU) and a Permit to Enter are established with SF Port and its tenant for the temporary staging area needed for the construction contract and an existing MOU is already in place for the permanent facilities that will be installed. California Environmental Quality Act (CEQA) approval (MND) has been approved by City Planning. Extensive public outreach to the community will also be conducted, including stakeholders along SF Port's waterfront area.

10026828 Mariposa Dry-Weather Pump Station & Force Main Improvements

The project involves construction of new dry-weather pump station and force main to achieve the peak design flow of 5.0 million-gallon per day (MGD). The scope consists of demolishing the existing pump station building, underground structure, wet well, electrical system, and associated assets to make room for a new pump station. The existing dry-weather force main is being replaced with a larger diameter force main downstream of the new dry-weather pump station. A Memorandum of Understanding (MOU) was established with the Port of San Francisco (SF Port) since both the pump station and force main are located within SF Port's jurisdiction.

10026829 Cesar Chavez Pump Station

Under this project, stormwater and groundwater that collects under the Cesar Chavez freeway underpass within a bounded area will be conveyed to SEP. As this is not an all-weather pump station, WWE determined that this project is a lower priority than other all-weather pump stations. The remaining needs of the project may be added to the WWE R&R program list for consideration. After the NAR and the Draft AAR were completed, it was determined that this project is less critical than other dry-weather or all-weather pump station improvements. Therefore, this project will complete the Draft AAR and any remaining work is to be deferred to the WWE R&R program for consideration. This SSIP project will end at the Draft AAR phase.

10002465 Marin Street Sewer Replacement

The purpose of the project is to upsize the existing 24-inch diameter sewers (located between the intersection of 3rd Street and Marin Street and the Marin Street Outfall Structure, or Project Location) to handle additional dry-weather flows projected from the tributary area. The wet-weather conveyance associated with this sewer system would also be evaluated but no wet-weather conveyance issues were included in this project. Hydraulic studies of the watershed area was performed to determine the hydraulic adequacy of the pipelines in the area based on expected flows from approved developments, as well as to confirm the necessary pipe size. Based on the results from the hydraulic studies, the existing 24-inch diameter sewers at the Project Location were replaced with 30-inch diameter sewers. CEQA approval was obtained, along with other necessary permits such as BCDC and Caltrans permits. A MOU was executed with the SFMTA to execute this work as a portion of the Project Location is located within SFMTA jurisdiction.

10002485 Griffith Pump Station Improvements

The aging mechanical and electrical systems at Griffith Pump Station is refurbished and its expected

service life is extended. The facility is modernized, which would reduce energy use and future maintenance requirements. The scope of the project includes replacing the dry weather pumps and rebuilding the wet weather pump, installing new sump pumps to maintain the existing capacity of 11.5 MGD and 120 MGD, new bar screens, two new bridge cranes in the manifold room and main pump area, and a new tamper-proof roof access ladder. The bar rack room crane is replaced with a new monorail system. Structural modifications was performed in support of mechanical systems installations. The project involved construction of two canopy systems to protect outdoor equipment, including chemical tanks, metering pumps, ultraviolet light, and associated deteriorating elements.

10037251 Seacliff No. 1 PS & FM Upgrade

Due to its age, condition, and opportunity for water quality benefits through upsizing the station's capacity, it is recommended that Seacliff No.1 Pump Station and force main be replaced. This would include: Replacement of pump station and 8-inch force main (930 LF); Installation of flow monitoring devices for post-storm evaluation and floatable controls at the overflow structure to CSD 005; Connection from new pump station to CSD 005; Possibly installing a redundant pump for 'n+1' redundancy during wet weather and consider provisions for wet well isolation for maintenance and inspection, if feasible. As the current site is partially on Federal/GGNRA property, locating a suitable site may require additional coordination activities with the Real Estate Division.

10037246 Seacliff No. 2 PS & FM Upgrade

This project includes Planning (including condition assessment, needs identification, alternative analysis and conceptual engineering), Design, Right-of-Way, Environmental, Bid and Award, and Construction for the following scope of work and assumptions: Existing PS can be rehabilitated and upgraded to meet current building codes; Perform seismic retrofit of the existing pump station building and associated mechanical and electrical equipment, piping, and fittings; Address fire, emergency and health and safety requirements; Assume damaged concrete and exposed rebars can be repaired; Assume deterioration of the existing wet-wells can be repaired; Replace the three submersible pumps in kind (47 horsepower pumps); Replace other mechanical and process equipment, including: existing crane, bubbler system, piping, valves, inlet gate and operator, water system components, and washdown pump; Provide protective coating to all exposed metal piping, fittings, and valves; Replace all electrical equipment; Upgrade fiber optic connection; Address PS security needs, including providing: perimeter camera, access key box at gate, egress compliant gate hardware and level lockset or panic hardware exit devise and solid panel surrounding lock; Replace existing eight-inch force main with 16-inch force main in the same alignment.

10037303 Sunnydale PS Safety Improvements

This project's scope aims to address the following health, safety, and security issues at Sunnydale PS - Address safety risks from groundwater intrusion, including repairing structural deficiencies, including cracks and leaks; Upgrade and repair corroded equipment and appurtenances inside manifold room (including piping, PRVs, lighting, instruments, equipment); Address water leakage in manifold room and Motor Control Center (MCC); Address water intrusion from conduits package connected to PG &E transformer; Repair leaking door; Perform electrical repairs; Replace corroded HVAC equipment damaged by water intrusion. Address Security Concerns, including installing new security signage and upgrading lighting to dusk-activated LED lighting; Upgrade card readers and door contacts at all perimeter doors; Add interior presence sensing, connected to an intrusion detection panel and alarming to security; Furnish, install and configure video recording servers, management server and analytic servers including uninterruptable power supplies (UPS); Install video camera units and local recording. Address Other Safety Concerns, including evaluating and adding a gas detection system, as necessary; Add site lighting at egress

penthouse and entrance to the station.

10038469 Pump Station Security Upgrades (Cesar Chavez, GFS,CHS, MMS)

This project involves security upgrades at four pump stations: Cesar Chavez Pump Station (CCS), Griffith Street Pump Station (GFS), Channel Pump Station (CHS), Merlin Morris Pump Station (MMS). Each site will have its own specific upgrades which may include upgrading card readers and door contacts, replacing/repairing existing perimeter fence and fence support, upgrading lighting, adding security signage.

10038446 Geary Underpass PS Safe Access Enhancements

This project's purpose is to improve access in and around the Geary Underpass Pump Station, in accordance with the Health, Safety, and Security LOS goal. This includes investigating options to improve maintenance access and assumes the following scopes of work: improve lighting and accessibility for routine maintenance, such as removing and replacing existing pumps; add and/or modify handrail and ladders, and upgrade the guardrail at the well opening.

10002138 North Shore to Channel F M Drainage Improvement

North Shore Force Main (NSFM) provides critical conveyance of combined sewage and stormwater flows from the northeastern quadrant of San Francisco to SEP. Before this project, this force main did not have any redundancy and could only be taken out of service for no more than 22-hours to meet the NPDES permit requirements. Approximately 2,750 LF of the 8,000 LF of this force main were located in The Embarcadero Roadway and either constructed of steel pipe or ductile iron pipe (both are susceptible to corrosion). After emergency repairs in 2008, a project was initiated under the Wastewater Capital Improvement Program to construct a redundant force main (North Shore to Channel Force Main [NSCFM]), so the 2,750 LF of the existing NSFM may be taken out of service for a complete repairs. As the construction work progressed, many unforeseen site conditions, including discovery of seven underground storage tanks, caused significant delays to the project and additional funding was needed to complete the construction contract. Since the project contributes to the SSIP Level of Service of ensuring critical functions are built with redundant infrastructure, the project team obtained approval from SFPUC to reallocate funds from SSIP to provide additional construction and construction management funds. The NSCFM is now in service and combined sewage flows are diverted to the NSCFM; thereby, allowing the remaining 240 LF of the DIP section of the NSFM to be rehabilitated. The construction contract became a joint-project between SFPUC Wastewater Enterprise and SFPW Paving Program and was led by SFPUC.

10002299 Richmond Transport/Storage Tunnel Rehabilitation

The scope of this project includes the evaluation of rehabilitation methods for the Richmond/Transport Storage Tunnel to confirm the previous findings and recommendations included in the physical modeling performed by PMC and presented in October 2013 to resolve historical surge issues identified. The model identified the causes of geysering through vent holes and dislodging manhole covers in various areas and included modification recommendations including odor solutions that will be verified during the Planning Phase of this project.

10002300 Baker/Laguna/Pierce CSD & Outfall

Project has been deferred to Phase 2.

10002303 Beach and Sansome Street CSD Rehabilitation

A program-wide assessment was performed of the combined sewer discharge (CSD) structures through the Collections System Reliability (CSR) programmatic effort. Inspections and analysis provided specific information about lack of or deficient baffles to control floatables per the National Pollutant Discharge

Elimination System (NPDES) permit. Scope of work for these CSDs are based on historical performance and Waste Water Enterprise (WWE) Operations video inspection records and include several items at both Beach Street and Sansome Street CSDs. Under this project, cleaning and specific condition assessment of the CSDs will be completed, including preliminary seismic evaluation in order to further scope rehabilitation at the Beach Street CSD. Inspection of baffles and weirs will be performed, and necessary repairs or replacements will be made accordingly. Corroded metal ceiling will also be repaired. Similar improvements will be carried out for the Sansome Street CSD. Concrete cracks and spalling, exposed rebar, and I-beam will be repaired along with replacement of butterfly valve seals.

10002344 CSD Backflow Prevention and Monitoring

Collection system assets that contribute to saltwater intrusion fall into two categories: conveyance and CSD structures. A component of this project involves developing and implementing a CSD and conveyance monitoring plan to gather data on the salinity in the whole collection network to be able to locate potential infiltration sources in the collection system and then verify performance once improvements (implemented through SFPUC's R&R Program) have been completed. The scope also includes planning, design and installation backflow preventers at selected CSD outfalls. Backflow preventers will be installed in a phased and monitored approach, with the following priority CSD outfalls considered based on locations with the potential for highest inflow in the system for the same tide: 17 Jackson Street, 10 Pierce Street, 29 Mariposa Street, 13 Beach Street, 15 Sansome Street, 24 Fifth Street, 25 Sixth Street, 26 Division Street, 18 Howard Street, 31A Islais Creek North, 32 Marin Street, 33 Selby Street, and 41 Yosemite. The project scope will be fluid and subject to change based on monitoring results.

10002378 5th, North 6th and Division Street CSD Rehabilitation

A program-wide assessment was performed of the CSD structures through the Collections System Reliability (CSR) programmatic effort. Based on video inspections by WWE Operations personnel, three CSD structures, CSD 24, 25, and 26 (5th, North 6th, and Division Street) were identified as priority structures due to their age (built in 1947, 1934, and 1963, respectively), the importance of the CSD structure based on amount of discharge and sensitivity of the receiving water body, structural conditions, compliance with permit requirements, and other operational deficiencies. These CSDs were combined into one project due to proximity and hydraulic interconnectedness. Hydraulic modeling of the three CSDs will be performed as their functions are related. Scope of work for these CSDs are based on historical performance and WWE Operations video inspection records and include cleaning and specific condition assessment of the asset, including preliminary seismic evaluation, provide necessary ventilation and repair necessary concrete crack, spalling and exposed rebar. Additionally, the project will also aim to provide safe access, replace the flap gate at 5th St. CSD and North 6th St. CSD, refurbish flap gate at Division CSD, and repair the baffle at Division CSD.

10037245 Brannan (019) CSD Discharge and Baffle Rehabilitation

The components of the project at Brannan Combined Sewer Discharge (CSD) involve the following, as recommended in the 2019 AAR: Replace the butterfly valve and hydraulic actuator, two sensors, corroded metal stilling wells, the flap gate with an inline check valve, and access ladder; Install baffle for floatables control; Conduct concrete patching and repair works and repair exposed rebar.

10037244 Baker (009) Baffle Improvements and Repair of Backflow Valve

The components of the project at Baker CSD involve installing a baffle on the east overflow weir; Patching and coating minor exposed aggregate in the former DAF chamber; Repairing the western array of valves to stop leaking; Repairing the eastern array of valves to prevent leaking; Repairing or replacing deteriorated metal plumbing pipes; Repairing minor defects including missing aggregate and infiltration in connecting

sewer.

10038547 CSD Structure Rehab & Upgrades - Part 1

A detailed condition inspection should be undertaken prior to design to confirm the scope of structural rehabilitation work. The components of the projects are detailed as follows: Laguna CSD Consolidation: This project involves planning, design and construction of Laguna CSD consolidation. It is assumed Laguna CSD will be filled with lightweight cellular concrete, with a bulkhead installed at the Marina T/S box and at the sea wall. The following general project elements are assumed: clean and prepare the pipe for decommissioning; remove debris and loose materials, and seal infiltration cracks and holes; demolish existing items as required to facilitate construction activities; relocate and/or cap any existing utilities into the CSD; install a permanent bulkhead at the seawall and a permanent bulkhead at Marina T/S box; apply anticorrosive coating to all exposed ferrous metals; perform dewatering within the CSD as required; install lightweight cellular concrete; remove access manholes and backfill; Howard CSD Rehab: improve floatable control on flows discharging through the butterfly valve; repair leaking butterfly valve; replace conduit for valve control; patch and coat concrete defects and exposed rebar; investigate potential void and repair; repair missing bricks and mortar; seal major cracks and fractures; Fourth St North CSD Rehab: Patch and coat concrete defects and exposed rebar; investigate potential pipe sag; repair missing bricks and mortar; seal major cracks and fractures; Mariposa CSD Rehab: Patch and coat concrete defects and exposed rebar; seal infiltration cracks and holes; repair major cracks and fractures; repair or replace manhole cover and ladder rungs; replace monitoring line brackets; Evans (037) CSD Rehab: Seal infiltration cracks and holes; patch and repair concrete defects; patch and repair exposed rebar and missing aggregate; repair or replace baffle brackets if necessary; Lake Merced (001) CSD Rehab: Seal infiltration cracks and holes; patch and coat concrete defects and exposed rebar; Lincoln (003) CSD Rehab: Seal infiltration cracks and holes, patch and coat concrete defects and exposed rebar; seal major cracks and fractures, remove abandoned-in-place flow monitoring equipment and cables.

10038468 System-wide CSD & T/S Monitoring Equipment Assessment

The project involves a system-wide assessment of all of the WWE's collection system monitoring equipment for dry and wet-weather operations, reporting and other related functions. The project scope will perform a desktop-based gap analysis to document the location, condition, reliability, etc for the current monitoring equipment and compare that against WWE's long-term vision. The assessment will provide recommendations for replacement, relocation or consolidation of sensors, calibration needs, technology upgrades related to power and communications, new installations, additional access, or other recommendations. The assessment will also include a long-term maintenance plan for all sensors. As an allowance and a starting point, the project cost assumes replacement and conversion to wireless communication for existing sensors at the following CSD locations: CSD 001 – Lake Merced (3 sensors); CSD 002 – Vicente (3 sensors); CSD 003 – Lincoln (3 sensors); CSD 005 – Seacliff 1 (3 sensors); CSD 007 – Seacliff 2 (2 sensors); CSD 009 – Baker (1 sensor, relocated from Pierce CSD); CSD 025 – 6th Street (1 sensor); CSD 029 – Mariposa (3 sensors); CSD 031A – Islais Creek (1 sensor); CSD 041 – Yosemite (1 sensor); CSD 043 – Sunnydale (1 sensor). An additional allowance of $2,000,000 is also included for reliability improvements at other collection system locations based on the assessment results.

10026813 Islais Creek Green Infrastructure (SPLIT)

No information available.

10026805 Sunset Green Infrastructure

The Sunset Boulevard Greenway project will construct a series of tiered bioretention rain gardens in the western stretch of landscaped parcels along 10 to 16 blocks stretching from Golden Gate Park to Lake

Merced. The rain gardens will manage stormwater runoff on the west side of Sunset Boulevard from the street, paths, and a portion of the landscaped parcel area. The project will also incorporate a "Learning Lab" to supplement elementary school curriculum. This project is also referred to as "Sunset Boulevard Greenway."

10026806 North Shore Green Infrastructure

This project will route stormwater to flow-through bioretention planters with surfaces set lower than the surrounding grade. During large storm events, ponded water at the surface of the planters will reach a maximum depth of 6 inches before it crests an overflow weir, either to a lower planter tier or to a concrete valley gutter running the length of the alley. To protect the adjacent building foundations, an impermeable waterproof liner will be placed along the bottom and sides of the planters. New street surfacing and furnishings provide improved community space for local residents and visitors. This project is also referred to as "Chinatown Green Alley".

10026807 Lake Merced Green Infrastructure

The project starts at the Ashton Avenue intersection and extends along eight blocks to the Lee Avenue intersection. Corner bulb-outs containing bioretention planters will be installed on the downstream end of six of the blocks. On the remaining two blocks, roadside bioretention planters adjacent to the curb will manage stormwater in lieu of corner bulb-out planters, which are infeasible due to driveway conflicts. The bioretention planters are sized to manage stormwater runoff from the sidewalk and use the minimal area needed in order to minimize the associated parking loss from the new bulb-outs. Permeable pavement installed within the existing parking lanes on both sides of Holloway Avenue will manage runoff from the roadway. This project is also referred to as the "Holloway Green Street".

10026808 Sunnydale Green Infrastructure

This project includes two green nodes in Sunnydale watershed; a mini plaza on Sunnydale Ave. and a rain garden at the eastern end of McLaren Park. These green nodes are being designed to maximize the removal of street stormwater runoff from the combined sewer system. At the Sunnydale Avenue Mini-Plaza, bulb-outs containing bioretention planters will be installed to remove stormwater while also providing traffic calming and pedestrian safety. At the Leland Avenue Rain Garden, terraced bioretention facility will be created to capture, store, and infiltrate runoff from the impervious roadway and an adjacent vegetated sloped area. Approximately one block of local sewer work on Rutland Street will be included into the construction contract to minimize construction impact; however, the project cost of that sewer improvement is accounted for separately. This project is also referred to as the "Visitacion Valley Green Nodes".

10026809 Richmond Green Infrastructure

Specific work that will be completed at El Camino Del Mar includes providing new pedestrian crosswalks, terraced rain gardens, subsurface infiltration galleries, soil stabilization techniques in selected locations, sewer main upsizing between Lands End Trailhead and manhole east of 32nd Avenue, and upgrading existing crosswalks to comply with the Americans with Disabilities Act. Specific work that will be completed at Beach Terrace includes permeable pavement, rain garden bulb outs at the eastern & western ends of the permeable pavement, a flow-through rain garden, traditional (infiltrative) rain garden bulb-outs, improved catch basins, and a traditional rain garden. This project is also referred to as the "Baker Beach Green Street".

10026810 Yosemite Green Infrastructure

The upper reach of the Yosemite Creek Daylighting project would daylight the creek along a portion of the

historic creek path, from Yosemite Marsh in McLaren Park to Woolsey and Hamilton Streets. This project diverts flows from the sewer using swales, vegetated channels, rain gardens, piped sections and a constructed wetland/detention basin/bio-swale system. This project is also referred to as the "Upper Yosemite Creek Daylighting".

10026812 Channel Green Infrastructure

The Wiggle neighborhood is a collection point for stormwater flow, both from surface runoff and from the collection system. It is also the focus of a project by the SFMTA to repair roadways and aid the flow of motor vehicles, bicycles, and pedestrians. Many of these traffic calming features provide opportunities for the inclusion of green infrastructure. The purpose of the Wiggle Neighborhood Green Corridor project is to implement low impact stormwater management along the Wiggle bike route between Oak and Baker Streets, along Scott and Page Streets, ending at Waller and Steiner Streets. The project is designed to manage runoff from 4 acres, removing 1.1 million gallons of stormwater in a typical year. Key features of this project will include installation of bulb-outs on selected street corners, bioretention planters, and permeable pavement.

10026816 Wawona Area Stormwater Improvement Project

The neighborhood surrounding the intersection of 15th Avenue and Wawona Street is topographically lower in elevation compared to its adjacent neighborhoods, and has been subjected to flooding during large storms. When the capacity of the sewers are exceeded during large storms, significant volumes of overland flow upstream of the intersection cannot enter the catch basins and sewer system, causing flooding and property damage. The purpose of this project is to divert part of the flow at the intersection of Wawona and Vicente into a new auxiliary sewer on Vicente, extended to from Wawona to 34th Ave. The flow then would enter the existing system where there is capacity for additional flow.

10029726 Watershed Stormwater Management (Planning Only)

This project will address long term Green Infrastructure (GI) development process and how it will be integrated and prioritized in the Collection System Plan and UWA report. A portion of the funds will be used to implement billing system upgrades that will enable the roll out the stormwater fee. Funding is also allocated for the Planning GI projects on San Francisco Unified School District (SFUSD) sites.

10034553 Green Infrastructure Grant Program (GIGP)

The Green Infrastructure (GI) Grant Program funds green infrastructure projects on public and private properties throughout San Francisco. By providing grants to owners of large, impervious parcels the SFPUC will encourage further green infrastructure projects that manage stormwater and improve the City's collection system performance during wet weather. The grants will cover costs of design and construction of approved stormwater management features, such as rain gardens, permeable pavement, cisterns, and vegetated roofs. Grantees will be eligible to receive $765,000 per acre of impervious surface managed, up to $2 million per project.

10015816 Urban Watershed Assessment and Planning Initiation

Many of the SSIP’s proposed projects are focused on improvements to surface drainage and collection system management in San Francisco. The SSIP Urban Watershed Assessment Task will evaluate and recommend alternatives that balance the use of grey (for example, pipelines) versus green infrastructure (for example, low impact design) for improvements to watershed surface drainage and collection system management. The SSIP will utilize an integrated watershed management approach to investigate the health of the City’s watershed and identify potential opportunities for stormwater capture, conveyance, detention and possible reuse to address issues of flooding as wells as combined sewage conveyance and

storage. Project implementation will require the hydrologic and hydraulic analysis of each of the eight drainage basins and will include: identification of various solutions to each basin's unique set of flooding challenges; evaluation of the social, economic and environmental values of alternatives that meet the level of service with a triple bottom line tool and the optimization and prioritization of projects for each basin. The work will address life cycle costs and detailed operation and maintenance requirements.

10015817 Urban Watershed Assessment and Planning

The UWA is the comprehensive watershed-based planning process developed to diagnose challenges and design solutions for the surface drainage and collection/conveyance portion of the City's sewer system. The UWA emphasizes holistic urban watershed-scale planning and the development of multiple-function solutions to sewer system challenges. These solutions are evaluated using a comprehensive Triple Bottom Line (TBL) tool that employs societal and environmental benefits and costs with the goal of delivering more holistic investment decisions. Project implementation will require the hydrologic and hydraulic analysis of each of the eight drainage basins and will include identification of various solutions to each basin's unique set of flooding and other challenges; evaluation of the social, economic and environmental values of alternatives using the TBL tool; optimization and prioritization of projects for each basin; and life cycle costs with detailed operation and maintenance requirements.

10015818 Fulton St Sewer

Many of the SSIP's proposed projects are focused on improvements to surface drainage and collection system management in San Francisco. The SSIP Urban Watershed Assessment Task will evaluate and recommend alternatives that balance the use of grey (pipelines) versus green infrastructure (low impact design) for solutions to watershed surface drainage and collection system management improvements. The SSIP will utilize an integrated watershed management approach to investigate the health of the City's watershed and identify potential opportunities for stormwater capture, conveyance, detention and possible reuse to address issues of flooding as wells as combined sewage conveyance and storage. Project implementation will require the hydrologic and hydraulic analysis of each of the eight drainage basins and will include: identification of various solutions to each basin's unique set of flooding challenges; evaluation of the social, economic and environmental values of alternatives that meet the level of service with a triple bottom line tool and the optimization and prioritization of projects for each basin. The work will address life cycle costs and detailed maintenance requirements.

10015819 Lake Merced Drainage

Many of the SSIP's proposed projects are focused on improvements to surface drainage and collection system management in San Francisco. The SSIP Urban Watershed Assessment Task will evaluate and recommend alternatives that balance the use of grey (pipelines) versus green infrastructure (low impact design) for solutions to watershed surface drainage and collection system management improvements. The SSIP will utilize an integrated watershed management approach to investigate the health of the City's watershed and identify potential opportunities for stormwater capture, conveyance, detention and possible reuse to address issues of flooding as wells as combined sewage conveyance and storage. Project implementation will require the hydrologic and hydraulic analysis of each of the eight drainage basins and will include: identification of various solutions to each basin's unique set of flooding challenges; evaluation of the social, economic and environmental values of alternatives that meet the level of service with a triple bottom line tool and the optimization and prioritization of projects for each basin. The work will address life cycle costs and detailed maintenance requirements.

10015820 Major Trunk Sewers

Many of the SSIP's proposed projects are focused on improvements to surface drainage and collection

system management in San Francisco. The SSIP Urban Watershed Assessment Task will evaluate and recommend alternatives that balance the use of grey (pipelines) versus green infrastructure (low impact design) for solutions to watershed surface drainage and collection system management improvements. The SSIP will utilize an integrated watershed management approach to investigate the health of the City's watershed and identify potential opportunities for stormwater capture, conveyance, detention and possible reuse to address issues of flooding as wells as combined sewage conveyance and storage. Project implementation will require the hydrologic and hydraulic analysis of each of the eight drainage basins and will include: identification of various solutions to each basin's unique set of flooding challenges; evaluation of the social, economic and environmental values of alternatives that meet the level of service with a triple bottom line tool and the optimization and prioritization of projects for each basin. The work will address life cycle costs and detailed maintenance requirements.

10029728 Advanced Rainfall Prediction - Part 1

The purpose of this project was to provide rainfall forecast information to SFPUC WWE staff automatically in real-time. This project included planning, design, and environmental review for three new radar equipment stations to collect additional data that would feed into the rainfall prediction modeling for short-term and long-term precipitation forecasts. In September 2017, this project was cancelled and recommended to be placed on hold as the potential benefit of the project to Wastewater Operations did not merit the significant project costs.

10029729 Operational Decision System Phase 1

SFPUC desires a more consistent and transparent basis for making decisions that make best use of available data in an automated way. This project would integrate available data in the collection system (levels, flows, pump status, etc.) with rainfall prediction data (from National Oceanic and Atmospheric Administration, or in the future improved through the Advanced Rainfall Prediction project). The real-time data will be coupled with WWE's collection system hydraulic model to project the likely impact of approaching storms and generate specific operational recommendations for managing flows.

10029730 Operational Decision System Phase 2

This project would integrate available data in the collection system (levels, flows, pump status, etc.) with rainfall prediction data (from National Oceanic and Atmospheric Administration, or in the future improved through project CWWSIPFCRP01). The real-time data will be coupled with Waste Water Enterprise's (WWE) collection system hydraulic model to project the likely impact of approaching storms and generate specific operational recommendations for managing flows. Phase 2 builds upon Phase 1 (CWWSIPFCRP02) for a citywide installation.

10026811 17th and Folsom Wet Weather Storage

The neighborhood surrounding 17th Street, 18th Street and Folsom Street has been experiencing over a foot of water on the streets, sidewalks and into their houses during rain events, resulting in property damages to the residents. The 17th and Folsom Wet Weather Storage project was originally intended to provide interim flood mitigation to the neighborhood while SSIP is working on identifying long-term solutions through capital improvement projects. The proposed interim flood mitigation alternatives consisted of a storage basin, pump station, and collection facilities to be built underneath the proposed future 17th & Folsom Park. However, the project was cancelled and defunded except for residual funds for ongoing response activities as directed by management, including certain outreach activities related to flooding.

10026814 Flood Resilience Analysis (Planning Phase Only)

The Flood Resilience Analysis Project will focus on developing a framework for identifying multiple storm scenarios; quantifying risks and cost implications associated with mitigating flooding across the aforementioned storm scenarios; and defining the extent and scope of the City's responsibility, based on consequences of extreme storms. To minimize flood risks citywide and meet SFPUC objectives, this project will also develop programs and policies beyond what the collection system can manage, and make recommendations on prioritization of structural, non-structural, and operational measures.

10026815 Flood Resilience - Early Projects (Planning Phase Only)

The City of San Francisco has experienced multiple significant storms in the last decade, which have led to flooding in various parts of the City. While Flood Resilience Analysis is being conducted by SFPUC, early infrastructure projects are being planned at three critical areas (Cayuga, Wawona, and Folsom neighborhoods) subjected to high flood risk. This project focuses on planning and developing stormwater detention and conveyance concepts specific to each of the aforementioned critical neighborhoods.

10026817 Cayuga Ave Stormwater Detention Project

The neighborhood surrounding the northeastern end of Cayuga Avenue has been susceptible to recurring flooding associated with moderate to heavy storms. Due to its low land topography, the area can experience up to a few feet of water on the streets and sidewalks during rain events. This project will improve the stormwater detention by re-grading the I-280 embankment at the foot of Cayuga to create a low lying detention field. This project will provide surface detention of flows during flooding and includes an overflow relief connection into the College Hill Tunnel as well and a retaining wall to support the roadway.

10026818 Folsom Area Stormwater Improvement Project

The Folsom Area Stormwater Improvement Project (FASIP) will provide stormwater conveyance improvements to the neighborhood surrounding 17th and Folsom Street. The project is being developed based on the alternative chosen in the NAR/AAR report and further defined in the CER. Major components of the project consist of a tunnel to convey stormwater flows from the neighborhood surrounding 17th and Folsom to the Channel Consolidated Transport/Storage Box, and upsizing of existing combined sewer pipes and structures upstream of the tunnel. Phase I covers through design which is anticipated to be complete in December of 2023. Construction will be covered by Folsom Area Stormwater Improvement Project Phase 2.

10026819 17th and Folsom Permanent Barriers

SFPUC has purchased off-the-shelf plastic temporary flood barriers for 2015 and 2016 wet seasons. At locations where temporary plastic flood barriers were installed and proven effective in mitigating floods, SFPUC plans to install more durable custom aluminum or steel barriers before a permanent solution (Folsom Area Stormwater Improvement Project) can be implemented. The aluminum or steel barriers would be installed during wet seasons and removed during dry seasons. The sidewalk would be graded and outfitted with recessed and covered receptacles for mounting flood barrier poles. Interlocking aluminum logs would be installed between the poles. The flood barrier system would be custom built based on site-specific pole intervals, barrier height, and other characteristics.

10026820 Hydraulic and Drainage Sewer Improvements

This project includes awarding "As-Needed Construction Contracts" to implement small and non- specialty sewer improvement projects at critical flood prone neighborhoods. Examples of non- specialty, small infrastructure construction include improvement of drainage features, upsizing/expansion of sewer pipes, and surface grading modifications. Three preliminary projects (areas) were identified: Joost/Foerster

Sewer Expansion, Urbano/Victoria Drainage Project, and Wawona Interim Drainage Project. Additional projects will be added as the needs arise.

10038471 Folsom Area Stormwater Imp. Project Phase 2

The Folsom Area Stormwater Improvement Project (FASIP) will provide stormwater conveyance improvements to the neighborhood surrounding 17th and Folsom Street. The project is being developed based on the alternative chosen in the NAR/AAR report and further refined in the CER and during the initial design process. Major components of the project consist of a tunnel to convey stormwater flows from the neighborhood surrounding 17th and Folsom to the Channel Consolidated Transport/Storage Box, and upsizing of existing combined sewer pipes and boxes upstream of the new tunnel. This is Phase 2 of the project, Phase 1 (DB14) covers through the Design Phase, which is anticipated to be complete in December of 2023. This Phase 2 of the overall project covers Bid and Award through the Construction.

10034360 Lower Alemany Area Stormwater Improvement Project

The primary objective of the Lower Alemany Area Stormwater Improvement Project is to address the Sewer System Improvement Program (SSIP) levels of service (LOS) goals of managing stormwater and protecting and streets and properties from a statistically derived storm lasting 3 hours, with a total of 1.3 inches of rainfall and defined peak rainfall intensity (5-year 3-hour storm, LOS storm). This project will include planning, design, and construction of an improved conveyance system in the Lower Alemany area that manages the stormwater and minimizes flooding in the LOS storms. Detail project scope will be developed based on the preferred alternative identified during the planning phase.

10029733 Land Reuse of 1800 Jerrold Avenue

This project includes jurisdictional transfer of 1800 Jerrold Avenue property ("Central Shops") from the Office of Contract Administration (OCA) to SFPUC. This 6.04-acre site is located adjacent to the SEP at the northwest corner of Quint Street/Jerrold Avenue intersection, and is currently used by OCA as central shops for city vehicle maintenance and repair.

A new location to move the existing Central Shops to was identified, and planning is underway to complete design and construction. Upon approval of the Jurisdictional Transfer, the relocation will involve the purchase of two properties, lease of a third property, and construction agreements to complete improvements. This requires extensive cooridnation and cooperation between multiple City departments. S ubsequent to the relocation of the Central Shops by the OCA, the 1800 Jerrold Avenue property would be acquired by SFPUC. Upon completion of geotechnical and environmental hazardous materials investigation, a demolition and remediation plan will be developed. The site is currently being considered for construction of the new SEP biosolids facilities.

10029734 Land Reuse of 1801 Jerrold Avenue

Reuse of the site requires a negotiated transfer of the site and subsequent demolition of the abandoned asphalt plant facilities and site remediation. Following the completion of geotechnical and environmental hazardous materials investigations, a demolition and remediation plan will be developed. Demolition will include the removal of all of the structures currently occupying the space including the existing asphalt plant equipment, storage silos and outbuildings. The remediation plan will be dependent on findings from the site investigation.

Presently, the relocation of SFPW's Street Repair from the Asphalt Plant site to a property adjacent to the SFPW Yard is pending the relocation of SFPUC Sewer Operations (Sewer Ops) from 160 Napoleon (on a portion of Lot 31). Planning is currently underway to relocate Sewer Ops to a new location at Griffith Yard, and then to move the Asphalt Plant occupants to 160 Napoleon.

APPENDIX A. PROJECT DESCRIPTION

FI

Facilities and Infrastructure Program

10015555 Collection Division Consolidation (Griffith Yard Improvements)

The WWE Facilities Plan Project will address the need for a comprehensive master plan for WWE facilities to meet the present and future needs of the Wastewater Enterprise. The effort will include an assessment of current facilities, a plan for current and future staffing needs, and site planning to determine the best utilization of WWE property to accommodate the WWE over the next 50 years. The Plan will focus on the consolidation of operations, maximizing the operational efficiency and functionality of the WWE, and best approach to maximize the value of WWE's assets. The outcome will result in a plan for prioritization of capital improvement projects over the next two decades essential to supporting the WWE's delivery of services for the next generation.

10015556 Southeast Community Center @ 1550 Evans

The Southeast Community Center project will serve to address the SFPUC’s commitment to the mitigation measure for the expansion of the Southeast Plant (SEP) by constructing a new community center at 1550 Evans. The project will include a childcare center, café, multipurpose space for meetings, events, and workshops, and co-working office and classroom space for community-based organizations providing workforce development services. It will also include parking and over two acres of landscaped open space, with play areas, an amphitheater, picnic areas and gardens. The new center will provide a wide range of social services supporting workforce development and education for Southeast residents of all ages.

10033820 Southeast Outfall Condition Assessment Rehabilitation

The Southeast Outfall (SEO) discharges effluent from the Southeast Plant (SEP) into the San Francisco Bay about 650 feet offshore, east of Pier 80. The goal of the condition assessment is to determine the pipeline condition of the Onshore Force Main and Offshore Outfall components of the SEO system. The project will thoroughly and completely evaluate the condition and remaining life expectancy of the SEO system and implement the rehabilitation solutions to extend the useful life.

10015557 Southeast Bay Outfall Islais Creek Crossing Replacement

The project involves replacing the portion of the Southeast Outfall ("SEO") that crosses Islais Creek immediately parallel to, and west of, the Third Street Bridge in San Francisco, CA. Treated effluent from the SEP flows by gravity to the Booster Pump Station ("BPS") and then pumped to the San Francisco Bay ("the Bay") via the SEO. The existing SEO Islais Creek crossing ("crossing") is comprised of two ductile iron pipes (36-inch and 42-inch). The crossing is buried in the bottom of the creek bed on piles. The crossing is buried about 20 feet under the lowest point of the creek sediments, and that the water depth is about 30 feet. The crossing was constructed in 1967 and have reached the end of its useful life. The new Islais Creek crossing will consist of two new 54-inch outside diameter high density polyethylene ("HDPE") buried pipes to replace the existing crossing section. New structures on each side of the creek is proposed to tie the new pipes to the existing SEO system. The project will include actuated valves and pipes to divert flow between the new and existing systems, associated electrical and mechanical improvements as needed within the BPS.

10015546 New Treasure Island Wastewater Treatment Plant

The objective of the project is to build a new wastewater treatment plant that will provide reliable service

for the Treasure Island residents and meet the recycled water demands of the future redevelopment on the island. The existing facility was built by the United States Navy over 50 years ago and is past its useful life and no longer reliable. The existing facility is also not capable of providing recycled water and meeting the needs of the residents on the redeveloped island.

10015554 Ocean Beach Climate Change Adaptation Project

Chronic erosion problems along Ocean Beach south of Sloat Boulevard have been threatening City and County of San Francisco (CCSF) assets since the late 1990's. The city, via Public Works, declared erosion emergencies 3 times in 15 years in order to place stabilization measures (i.e., large rock revetments and sand bags) on the beach. Those measures ultimately impeded safe public access and affected habitat. These actions precipitated intense political pressure, including litigation, on CCSF to remove the revetments and improve access to the beach. In addition, the Coastal Commission denied CCSF requested permits and required CCSF to develop a long-term management strategy. The project will develop a comprehensive shoreline management and protection plan against bluff erosion and climate change induced sea level rise consistent with the recommendations in the 2012 Ocean Beach Master Plan. The project is necessary to protect the integrity of wastewater assets built to protect public health and the environment, including the Lake Merced Tunnel, the Westside Pump Station and the Oceanside Treatment Plant. The project is one of the first CCSF Climate Change Adaptation projects which is being led by the SFPUC. The Lake Merced Transport Tunnel has a storage capacity of up to 10 million gallons for combined sewage and stormwater flows and is located closest to the section of Ocean Beach most severely impacted from, and most vulnerable to, continued bluff erosion. The tunnel could become structurally compromised if sudden bluff retreat is experienced during a design storm event, resulting in significant environmental and public health impacts. This project will facilitate the development of a comprehensive shoreline management and protection plan in partnership with relevant stakeholders and regulatory agencies to provide a long-term solution to the erosion issue along Ocean Beach, and to mitigate potential impacts to the Lake Merced Tunnel and other critical wastewater assets at this location.

Southwest Ocean Outfall (SWOO)

This project addresses Oceanside Plant's (OSP) effluent discharge through the 96-inch diameter Southwest Ocean Outfall (SWOO), which extends approximately 4.5 miles offshore from Ocean Beach. The SWOO was put into service in 1986 to accommodate effluent discharges from OSP and the Westside Pump Station (wet weather only). The SWOO was designed to accommodate discharge flows in excess of 400 MGD, but actual flows are far less, even during wet weather events. This project includes the condition assessment of the outfall, as well as an allowance to perform repairs. The condition assessment and repair work should consist of removing sediments from within the pipeline to allow access for a Remotely Operated Vehicle (ROV) internal inspection of the diffuser section to document the pipeline condition and sediment levels. Sediment samples from within the diffuser section of the pipe would also be collected and analyzed; External inspection of the diffuser section of the pipe, including the measurement of the velocity and effluent flow rates at each open diffuser port and the recording of water depths at three elevations at each riser diffuser location; Based upon previous inspection information, new diffuser blanking plates and manhole covers should be installed where necessary to replace missing or corroded plates and covers.

APPENDIX A. PROJECT DESCRIPTION

RNR

Renewal & Replacement Program

15724 R&R Treatment Facilities

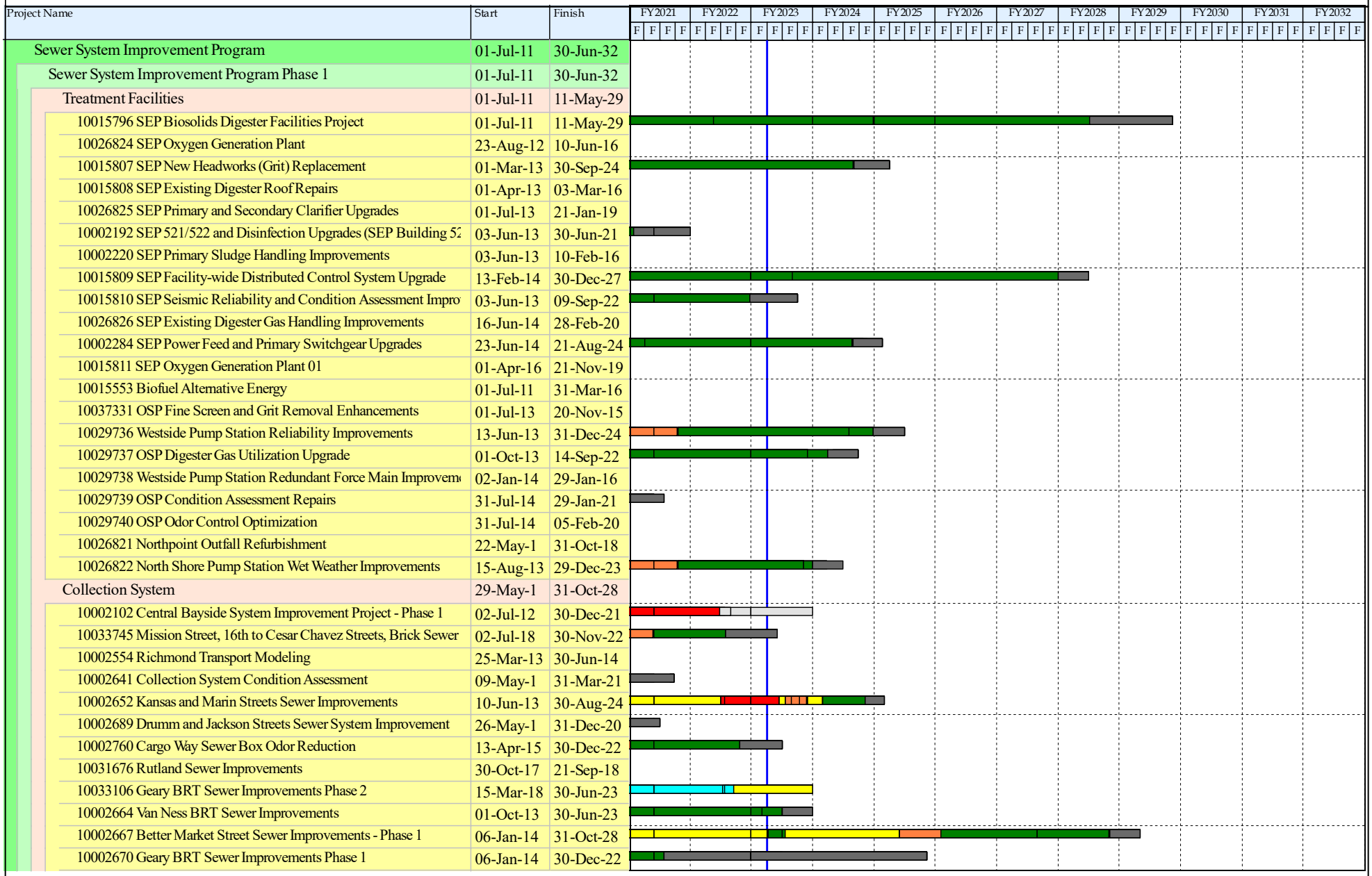
The purpose of the Wastewater Enterprise (WWE) Renewal and Replacement (R&R) Program Treatment Plant Improvement projects is to maintain the capacity and reliable performance of the wastewater treatment facilities owned/operated by the Wastewater Enterprise. This is a continuing annual program to extend the useful life of the WWE treatment assets. Treatment Facility Wastewater Enterprise Assets include: Transport Boxes, Discharge Structures, Pump Stations, Force Mains, Tunnels and Treatment Plants. The R&R Treatment Facilities projects are prioritized based upon regulatory compliance, condition assessments, Operation staff recommendations and Level Of Service goals. Planned WWE R&R Program Treatment Plant Improvement projects will address aging infrastructure at the wastewater enterprise treatment facility assets. Planned WWE R&R Program Treatment Plant Improvement projects are prioritized based on risk to permit compliance, safety and urgency. The current list of projects includes: WWE Treatment Facility Repairs: Richmond hypochlorite pipe repair; Southeast Community Facility Hot Water Pipe Repairs; Southeast Building Roof repairs; Oceanside Bar Screen Repairs; Southeast Plant Fixed Gas Monitor Upgrades; Sunnydale Pump Station Adjustable Frequency Drive Upgrades; WWE Recycled Water Station Upgrades; Oceanside Plant Air Compressor Replacements; Griffith Pump Station Adjustable Frequency Drive Upgrades; Southeast Plant Building 062 Motor Starter Upgrades; and Oceanside Dry Polymer System Upgrades. Project priorities are revisited on a monthly basis.

15722 R&R Collection Systems

The purpose of the Wastewater Enterprise (WWE) Renewal and Replacement Program (R&R) Collection System Sewer Improvements project is to maintain the existing functionality of the sewage collection system and address planned and emergency projects for repair and replacement of structurally inadequate sewers. This project consists of the following sub-projects: small diameter (less than and equal to 36-inch) sewer improvements, small diameter (less than and equal to 36-inch) sewer condition assessment, spot sewer replacement, large diameter (greater than 36-inch) sewer condition assessment, large diameter (greater than 36-inch) sewer improvements and sewer transport storage box condition assessment. By utilizing an asset management approach, which factors in: physical condition, age, location, risk, public safety, paving schedule and other factors, aging and failed portions of the collection system are identified and replaced.

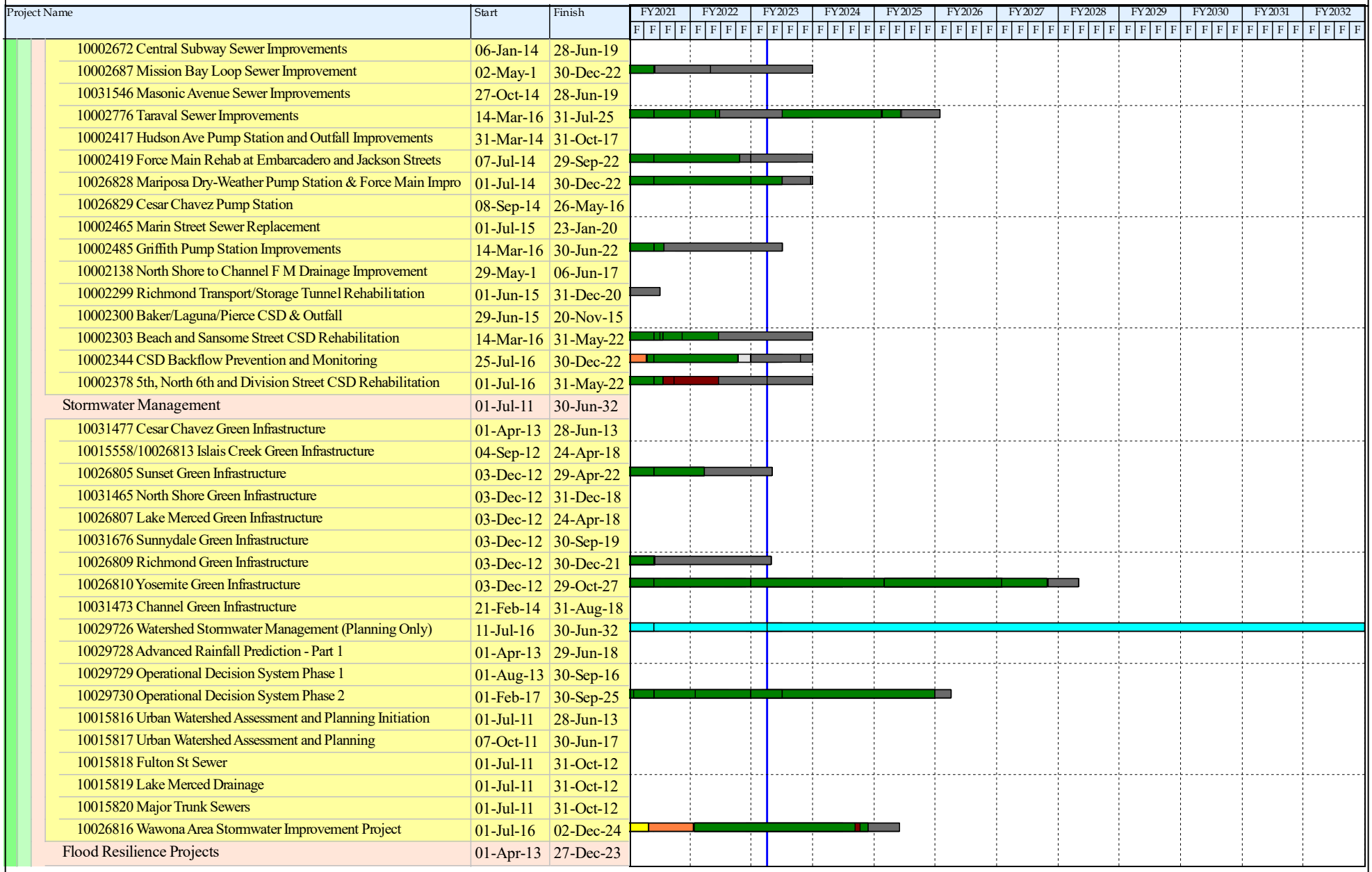
Appendix 2.1 Sewer System Improvement Program (SSIP) Phase 1 - Approved Project-Level Schedules

Project Name	Start	Finish
Sewer System Improvement Program	01-Jul-11	30-Jun-32
Sewer System Improvement Program Phase 1	01-Jul-11	30-Jun-32
Treatment Facilities	01-Jul-11	11-May-29
10015796 SEP Biosolids Digester Facilities Project	01-Jul-11	11-May-29
10026824 SEP Oxygen Generation Plant	23-Aug-12	10-Jun-16
10015807 SEP New Headworks (Grit) Replacement	01-Mar-13	30-Sep-24
10015808 SEP Existing Digester Roof Repairs	01-Apr-13	03-Mar-16
10026825 SEP Primary and Secondary Clarifier Upgrades	01-Jul-13	21-Jan-19
10002192 SEP 521/522 and Disinfection Upgrades (SEP Building 52	03-Jun-13	30-Jun-21
10002220 SEP Primary Sludge Handling Improvements	03-Jun-13	10-Feb-16
10015809 SEP Facility-wide Distributed Control System Upgrade	13-Feb-14	30-Dec-27
10015810 SEP Seismic Reliability and Condition Assessment Impro	03-Jun-13	09-Sep-22
10026826 SEP Existing Digester Gas Handling Improvements	16-Jun-14	28-Feb-20
10002284 SEP Power Feed and Primary Switchgear Upgrades	23-Jun-14	21-Aug-24
10015811 SEP Oxygen Generation Plant 01	01-Apr-16	21-Nov-19
10015553 Biofuel Alternative Energy	01-Jul-11	31-Mar-16
10037331 OSP Fine Screen and Grit Removal Enhancements	01-Jul-13	20-Nov-15
10029736 Westside Pump Station Reliability Improvements	13-Jun-13	31-Dec-24
10029737 OSP Digester Gas Utilization Upgrade	01-Oct-13	14-Sep-22
10029738 Westside Pump Station Redundant Force Main Improvem	02-Jan-14	29-Jan-16
10029739 OSP Condition Assessment Repairs	31-Jul-14	29-Jan-21
10029740 OSP Odor Control Optimization	31-Jul-14	05-Feb-20
10026821 Northpoint Outfall Refurbishment	22-May-1	31-Oct-18
10026822 North Shore Pump Station Wet Weather Improvements	15-Aug-13	29-Dec-23
Collection System	29-May-1	31-Oct-28
10002102 Central Bayside System Improvement Project - Phase 1	02-Jul-12	30-Dec-21
10033745 Mission Street, 16th to Cesar Chavez Streets, Brick Sewer	02-Jul-18	30-Nov-22
10002554 Richmond Transport Modeling	25-Mar-13	30-Jun-14
10002641 Collection System Condition Assessment	09-May-1	31-Mar-21
10002652 Kansas and Marin Streets Sewer Improvements	10-Jun-13	30-Aug-24
10002689 Drumm and Jackson Streets Sewer System Improvement	26-May-1	31-Dec-20
10002760 Cargo Way Sewer Box Odor Reduction	13-Apr-15	30-Dec-22
10031676 Rutland Sewer Improvements	30-Oct-17	21-Sep-18
10033106 Geary BRT Sewer Improvements Phase 2	15-Mar-18	30-Jun-23
10002664 Van Ness BRT Sewer Improvements	01-Oct-13	30-Jun-23
10002667 Better Market Street Sewer Improvements - Phase 1	06-Jan-14	31-Oct-28
10002670 Geary BRT Sewer Improvements Phase 1	06-Jan-14	30-Dec-22



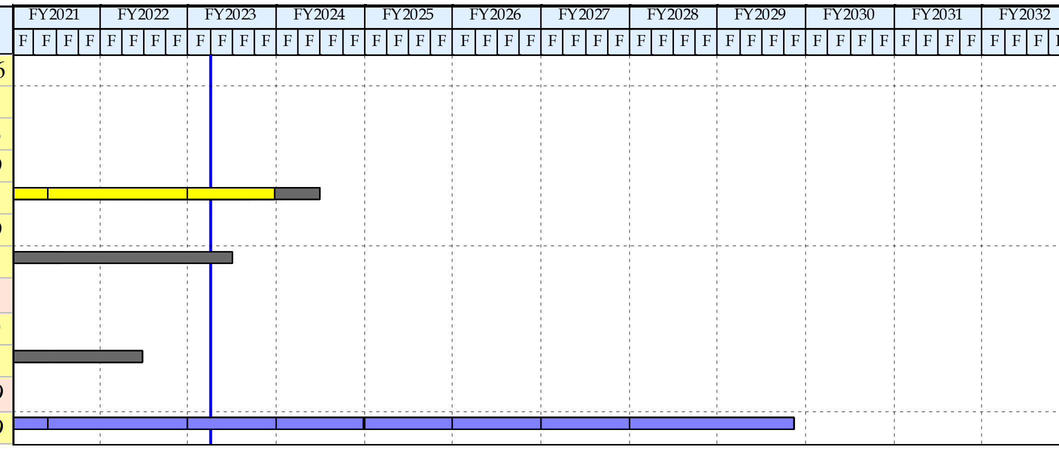
Appendix 2.1 Sewer System Improvement Program (SSIP) Phase 1 - Approved Project-Level Schedules

Project Name	Start	Finish
10002672 Central Subway Sewer Improvements	06-Jan-14	28-Jun-19
10002687 Mission Bay Loop Sewer Improvement	02-May-1	30-Dec-22
10031546 Masonic Avenue Sewer Improvements	27-Oct-14	28-Jun-19
10002776 Taraval Sewer Improvements	14-Mar-16	31-Jul-25
10002417 Hudson Ave Pump Station and Outfall Improvements	31-Mar-14	31-Oct-17
10002419 Force Main Rehab at Embarcadero and Jackson Streets	07-Jul-14	29-Sep-22
10026828 Mariposa Dry-Weather Pump Station & Force Main Impro	01-Jul-14	30-Dec-22
10026829 Cesar Chavez Pump Station	08-Sep-14	26-May-16
10002465 Marin Street Sewer Replacement	01-Jul-15	23-Jan-20
10002485 Griffith Pump Station Improvements	14-Mar-16	30-Jun-22
10002138 North Shore to Channel F M Drainage Improvement	29-May-1	06-Jun-17
10002299 Richmond Transport/Storage Tunnel Rehabilitation	01-Jun-15	31-Dec-20
10002300 Baker/Laguna/Pierce CSD & Outfall	29-Jun-15	20-Nov-15
10002303 Beach and Sansome Street CSD Rehabilitation	14-Mar-16	31-May-22
10002344 CSD Backflow Prevention and Monitoring	25-Jul-16	30-Dec-22
10002378 5th, North 6th and Division Street CSD Rehabilitation	01-Jul-16	31-May-22
Stormwater Management	01-Jul-11	30-Jun-32
10031477 Cesar Chavez Green Infrastructure	01-Apr-13	28-Jun-13
10015558/10026813 Islais Creek Green Infrastructure	04-Sep-12	24-Apr-18
10026805 Sunset Green Infrastructure	03-Dec-12	29-Apr-22
10031465 North Shore Green Infrastructure	03-Dec-12	31-Dec-18
10026807 Lake Merced Green Infrastructure	03-Dec-12	24-Apr-18
10031676 Sunnydale Green Infrastructure	03-Dec-12	30-Sep-19
10026809 Richmond Green Infrastructure	03-Dec-12	30-Dec-21
10026810 Yosemite Green Infrastructure	03-Dec-12	29-Oct-27
10031473 Channel Green Infrastructure	21-Feb-14	31-Aug-18
10029726 Watershed Stormwater Management (Planning Only)	11-Jul-16	30-Jun-32
10029728 Advanced Rainfall Prediction - Part 1	01-Apr-13	29-Jun-18
10029729 Operational Decision System Phase 1	01-Aug-13	30-Sep-16
10029730 Operational Decision System Phase 2	01-Feb-17	30-Sep-25
10015816 Urban Watershed Assessment and Planning Initiation	01-Jul-11	28-Jun-13
10015817 Urban Watershed Assessment and Planning	07-Oct-11	30-Jun-17
10015818 Fulton St Sewer	01-Jul-11	31-Oct-12
10015819 Lake Merced Drainage	01-Jul-11	31-Oct-12
10015820 Major Trunk Sewers	01-Jul-11	31-Oct-12
10026816 Wawona Area Stormwater Improvement Project	01-Jul-16	02-Dec-24
Flood Resilience Projects	01-Apr-13	27-Dec-23



Appendix 2.1 Sewer System Improvement Program (SSIP) Phase 1 - Approved Project-Level Schedules

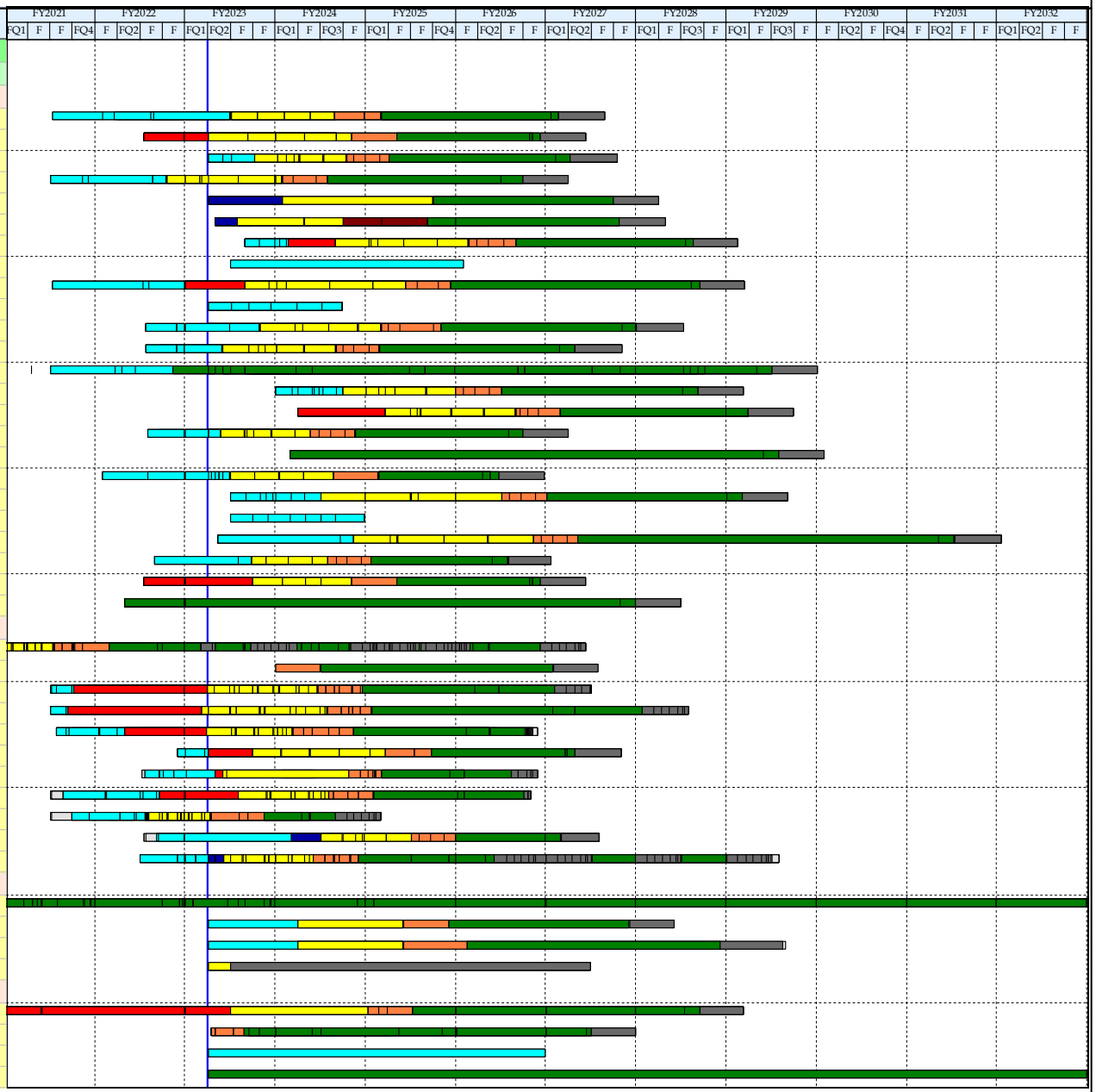
Project Name	Start	Finish
10026811 17th and Folsom Wet Weather Storage	01-Apr-13	06-May-16
10026814 Flood Resilience Analysis (Planning Phase Only)	30-Jun-15	28-Feb-17
10026815 Flood Resilience - Early Projects (Planning Phase Only)	26-Oct-15	30-Dec-16
10026817 Cayuga Ave Stormwater Detention Project	01-Jul-16	29-Mar-19
10026818 Folsom Area Stormwater Improvement Project	01-Jul-16	27-Dec-23
10026819 17th and Folsom Permanent Barriers	20-May-1	29-Mar-19
10026820 Hydraulic and Drainage Sewer Improvements	01-Jul-16	30-Dec-21
Land Reuse	17-Sep-13	24-Dec-21
10031815 Land Reuse of 1800 Jerrold Avenue	17-Sep-13	31-Dec-19
10029734 Land Reuse of 1801 Jerrold Avenue	30-Sep-13	24-Dec-21
Program Management	01-Sep-11	11-May-29
10015803/10029732 SSIP Progam Management	01-Sep-11	11-May-29



Project Management | Environmental | Right-of-Way | Construction Mgmt | Closeout
Planning | Design | Bid & Award | Construction | Program Mgmt

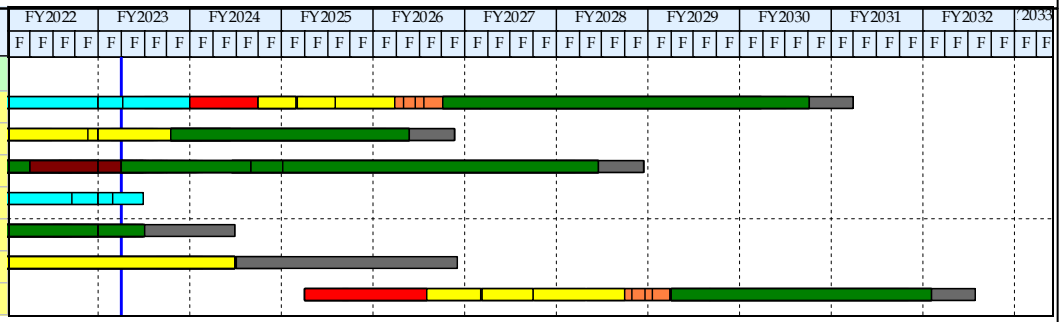
Appendix 2.1 Sewer System Improvement Program (SSIP) Other - Approved Project Level Schedules (CONT'D)

Project Name	Start	Finish
Sewer System Improvement Program	03-Mar-18	30-Jun-33
Other SSIP	03-Mar-18	30-Jun-33
Treatment Facilities	03-Mar-18	10-Mar-31
10037353 SEP 550 Booster PS Condition Inspection & Interim	12-Jan-21	24-Feb-27
SEP-2 SEP, Booster PS, & BFS Security Enhancements	18-Jan-22	10-Dec-26
10037776 SEP Facilities Interim H&S Imp (SEP 850 & 930)	01-Jul-22	14-Jan-27
10037330 Primary Treatment (SEP 040/041) H&S Improvements	04-Jan-21	30-Sep-26
SEP-6N Secondary Clarifiers (SEP230) Rehabilitation	03-Oct-22	30-Sep-27
SEP-7N New Trades & Maintenance Buildings	03-Oct-22	30-Sep-26
SEP-8 SEP Condition Improvement Projects - Part 1	01-Mar-23	15-Aug-28
SEP-10A Aeration Tank (SEP 200) Rehab - CONDITION ASSESS	03-Jan-23	31-Jul-25
10037331 Maintenance Building (SEP 940) Interim Improvement	12-Jan-21	13-Sep-28
OSP-1A Westside FM Reliability Project - PLANNING	03-Oct-22	29-Mar-24
10037733 Solids Thickening (OSP 011) Process Upgrade	25-Jan-22	03-Sep-26
10037734 OSP Plant-wide Ventilation (HVAC) Upgrades	26-Jan-22	03-Sep-26
10036398 OSP Condition Improvement Projects - Part 2	03-Mar-18	06-Jul-29
OSP-5 OSP Odor Control Upgrades	05-Jul-23	07-Sep-28
OSP-6 OSP Communication & Safety Monitoring Upgrades	02-Oct-23	30-Mar-29
10037735 Admin Bldg (OSP 930) Health & Safety Improvements	01-Feb-22	01-Oct-26
OSP-8 OSP DCS Upgrade (Construction)	01-Sep-23	31-Jul-29
10037777 OSP & WSPS Security Enhancements	02-Aug-21	23-Jun-26
OSP-11 Gaseous Oxygen System (OSP 011) Upgrades	03-Jan-23	07-Mar-29
OSP-12A Grit Removal (OSP 011) Upgrades - PLANNING	03-Jan-23	28-Jun-24
NPF-1 Sedimentation (NPF 040/041) Tanks Condition Improvemen	05-Jul-22	10-Mar-31
10037325 Admin Bldg (NPF 930) Evaluation & Interim H&S Impr	01-Mar-22	03-Feb-26
10037904 NPF & NSS Security Enhancements	18-Jan-22	10-Dec-26
NPF-6 NPF DCS Upgrades (Construction)	01-Nov-21	30-Dec-27
Collection System	01-Aug-19	31-Jan-29
10034718 Large Diameter Sewer Projects and Channel FM Intertie	01-Aug-19	07-Dec-26
LDS-6 Geary BRT Sewer Improvements - Phase 2 (CON)	03-Jul-23	27-Jan-27
10037251 Seacliff No. 1 PS & FM Upgrade	07-Dec-20	31-Dec-26
10037246 Seacliff No. 2 PS & FM Upgrade	14-Dec-20	31-Jan-28
10037303 Sunnydale PS Safety Improvements	14-Dec-20	29-May-26
PS-4 Pump Station Security Upgrades (Cesar Chavez, Griffith, Char	01-Jun-22	03-May-27
PS-5 Geary Underpass PS Safe Access Enhancements	10-Jan-22	29-May-26
10037245 Brannan (019) CSD Gate & Baffle Rehab	07-Dec-20	01-May-26
10037244 Baker (009) Baffle Improvements	07-Dec-20	30-Aug-24
CSD-3 System-wide CSD & T/S Monitoring Equipment Assessmen	18-Jan-22	01-Feb-27
CSD-4 CSD Structure Rehab & Upgrades - Part 1	03-Jan-22	31-Jan-29
Stormwater Management	01-Jul-18	30-Jun-33
10034553 Green Infrastructure Grant Program	01-Jul-18	30-Jun-33
GI-1 Balboa High School Regional Runoff Reduction Project	03-Oct-22	03-Dec-27
GI-3 Regional School/Park: Giannini Middle School	03-Oct-22	26-Feb-29
GI-17 Buchanan Street Mall	03-Oct-22	28-Dec-26
Flood Resilience Projects	02-Jan-19	30-Jun-32
10034360 Lower Alemany Area Stormwater Improvement Project	02-Jan-19	06-Sep-28
FR-1Folsom Area Stormwater Imp. Project Phase 2	04-Jul-22	30-Jun-27
FR01 Flood Resiliency Planning	03-Oct-22	30-Jun-26
FR02 Floodwater Management Grant Assistance Program (Grant)	03-Oct-22	30-Jun-32



Appendix 2.2 WWE F&I Project Approved-Level Schedules

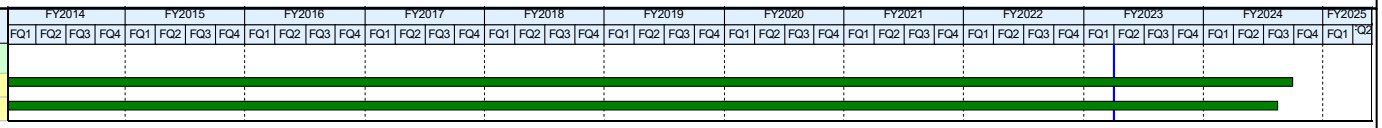
Project Name	Start	Finish
Wastewater Facilities and Infrastructure Programs	01-Jan-11	29-Jan-32
10033820 Southeast Outfall Condition Assessment Rehabilitation	01-Jul-19	05-Apr-30
CWP11001 New Treasure Island Wastewater Treatment Plant	01-Jan-11	22-May-26
CWWFAC01 Ocean Beach Climate Change Adaptation Project	23-Jul-12	12-Jan-28
CWWFAC02 Collection Division Consolidation (Griffith Yard Improvem	01-Mar-13	30-Dec-22
CWWFAC03 Southeast Community Center @ 1550 Evans	26-Jul-12	29-Dec-23
CWWFAC04 Southeast Bay Outfall Islais Creek Crossing Replacement	26-Sep-16	03-Jun-26
SWOO Southwest Ocean Outfall (SWOO)	01-Oct-24	29-Jan-32



Project Management
Environmental
Right-of-Way
Construction Mgmt
Closeout
Planning
Design
Bid & Award
Construction

APPENDIX 2.3. WWE R&R Project-Level Approved Schedule

Project Name	Start	Finish
WWE Renewal & Replacement Program	01-Jul-10	31-Mar-24
15722 R&R Collection Systems	01-Jul-10	31-Mar-24
15724 R&R Treatment Facilities	01-Jul-10	14-Feb-24



Project Management
Environmental
Bid & Award
Construction
Planning
Design
Construction Mgmt
Close-Out

APPENDIX 3. LIST OF ACRONYMS

AAR	Alternative Analysis Report
ACOE	Army Corps of Engineers (also shown as USACE)
ADA	Americans with Disabilities Act
ADEIR	Administrative Draft Environmental Impact Report
AGM	Assistant General Manager
BAAQMD	Bay Area Air Quality Management District
BCDC	Bay Conservation and Development Commission
BDFP	Biosolids Digester Facilities Project
BEM	Bureau of Environmental Management
BFS	Bruce Flynn Pump Station
BMS	Better Market Street
BRT	Bus Rapid Transit
CAB	Contract Administration Bureau
Caltrans	California Department of Transportation
CATEX	Categorical Exemption
CBSIP	Central Bayside System Improvement Project
CCSF	City and County of San Francisco
CCTV	Closed-Circuit Television
CEQA	California Environmental Quality Act
CER	Conceptual Engineering Report
CHS	Channel (Street) Pump Station
CIP	Capital Improvement Program; Cast-Iron Pipe
CM/GC	Construction Manager/General Contractor
COVID-19	Coronavirus Disease of 2019
CPAS	Combined Primary Activated Sludge
CSAMP	Collection System Asset Management Program
CSD	Combined Sewer Discharge
CTLS	Channel Tunnel Lift Station
DCS	Distributed Control System
DEIR	Draft Environmental Impact Report
DIP	Ductile Iron Pipe
DW	Dry Weather
EIR	Environmental Impact Report
EIS	Environmental Impact Statement
EMMS	Energy Monitoring and Management System
EPA	Environmental Protection Agency
F&I	Facilities and Infrastructure
FAT	Factory Acceptance Testing
FC	Final Completion
FEMA	Federal Emergency Management Agency
FOG	Fats, Oils, and Grease
FTA	Federal Transit Administration
FY	Fiscal Year
GBT	Gravity Belt Thickener
GFS	Griffith Pump Station
GGNRA	Golden Gate National Recreation Area
GI	Green Infrastructure
GIGP	Green Infrastructure Grant Program
GOX	Gaseous Oxygen
GPS	Griffith Pump Station
HDPE	High Density Polyethylene
HMI	Human Machine Interface
HPO	High Purity Oxygen
HSW	High-Strength Waste
HVAC	Heating, Ventilation and Air Conditioning
I&C	Instrumentation and Controls
I&I	Infiltration and Inflow
IC	Internal Combustion
ICM	Integrated Catchment Model
ICT	Islais Creek Transport/Storage
IKG	Inedible Kitchen Grease
ISP	Iron Stone Pipe
JOC	Job Order Contract
JST	Jackson Street Transport/Storage Box
KV	Kilovolt
LBE	Local Business Enterprise
LED	Light-Emitting Diode
LF	Linear Feet
LID	Low Impact Development
LOS	Levels of Service
LOX	Liquid Oxygen
LTI	Long-term Improvements
MCC	Motor Control Center
MDF	Main Distribution Frame
MG	Million Gallons
MGD	Million Gallons per Day
MND	Mitigated Negative Declaration

MOA	Memorandum of Agreement
MOU	Memorandum of Understanding
MPM	Minor Project Modification
MPS	Mariposa Pump Station
MTA	Municipal Transportation Agency (also shown as SFMTA)
MTBM	Micro-Tunnel Boring Machine
MV PDS	Medium Voltage Power Distribution System
MW	Megawatt
N/A	Not Applicable
NAR	Needs Assessment Report
NEG DEC	Negative Declaration (also shown as ND)
NOD	Notice of Determination
NPDES	National Pollutant Discharge Elimination System
NPF	Northpoint (Wet-Weather) Facility
NSCFM	North Shore to Channel Force Main
NSFM	North Shore Force Main
NSS	North Shore Pump Station (also shown as NSPS)
NTP	Notice to Proceed
O&M	Operations and Maintenance
OBMP	Ocean Beach Master Plan
OCA	Office of Contract Administration
OCU	Odor Control Unit
ODS	Operational Decision System
OEM	Operations, Engineering, and Maintenance
OPS	Operations
OSP	Oceanside Water Pollution Control Plant
OSWPCP	Oceanside Water Pollution Control Plant
PLC	Programmable Logic Controller
PM	Program Management; Project Manager
PMC	Program Management Consultant
PO	Purchase Order
PS	Pump Station
PUC	Public Utilities Commission
QA	Quality Assurance
QC	Quality Control
QSO	Quint Street Outfall
R&R	Renewal and Replacement (also shown as RnR)
RCP	Reinforced Concrete Pipe
RFP	Request for Proposal
RFQ	Request for Qualification
ROW	Right-of-Way
RWQCB	Regional Water Quality Control Board
SELS	Southeast Lift Station
SEP	Southeast Plant; Southeast Water Pollution Control Plant
SEWPCP	Southeast Water Pollution Control Plant
SF	San Francisco
SFCTA	San Francisco County Transportation Authority
SFMTA	San Francisco Municipal Transportation Agency (also shown as MTA)
SFPORT	Port of San Francisco
SFPUC	San Francisco Public Utilities Commission
SFPW	San Francisco Public Works (formerly SFDPW)
SFRPD	San Francisco Recreation & Parks Department (also shown as RPD)
SFUSD	San Francisco Unified School District
SSIP	Sewer System Improvement Program
SSMP	Sewer System Master Plan
STATEX	Statutory Exemption
STI	Short-term Improvements
SWOO	Southwest Ocean Outfall
T/S	Transport and Storage
TAP	Transient Analysis Program
TBD	To be determined
TBL	Triple Bottom Line
TICD	Treasure Island Community Development
TIDA	Treasure Island Development Authority
TM	Technical Memorandum
TPD	Tons Per Day
TSC	Technical Steering Committee
UPS	Uninterruptable Power Supply
USEPA	United States Environmental Protection Agency
UWA	Urban Watershed Assessment
VCP	Vitrified Clay Pipe
VFD	Variable Frequency Drives
VPSA	Vacuum Pressure Swing Adsorption
VWS	Vactor Waste Station

WSPS	West Side Pump Station (also shown as WSS)
WSS	Westside Pump Station (also shown as WSPS)
WWE	Wastewater Enterprise
WWE CIP	Wastewater Enterprise Capital Improvement Program
WWTP	Wastewater Treatment Plant