



# Water Capital Programs

Services of the San Francisco Public Utilities Commission

## SFPUC's 15<sup>th</sup> Annual Construction Contractors' Breakfast

May 7, 2021



**Katie L. Miller, P.E.**  
**Director, Water Capital Programs**  
**SFPUC Infrastructure Division**

# SFPUC Water Assets

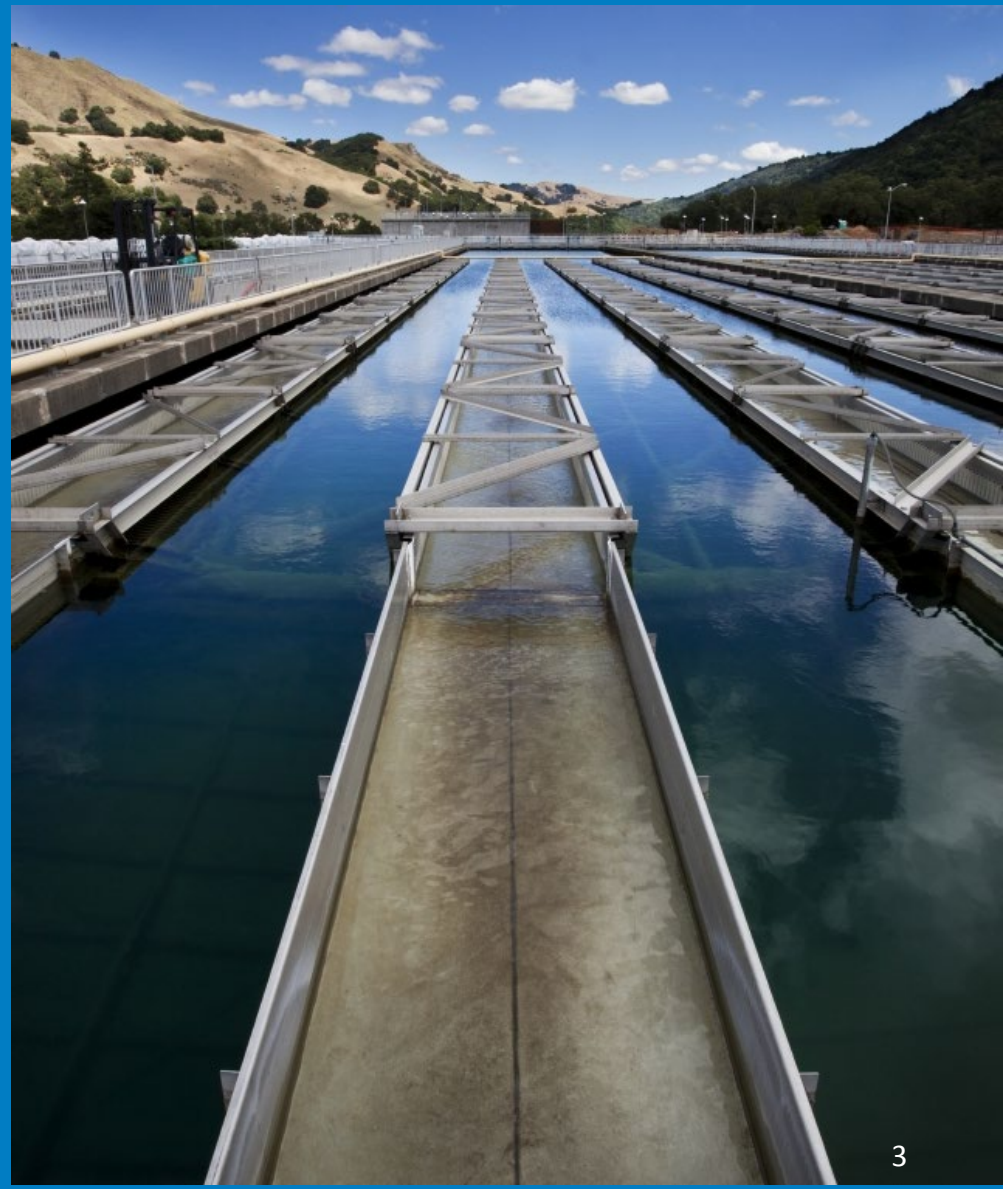


## Hetch Hetchy Water and Power

7 dams,  
6 reservoirs,  
3 hydroelectric  
generation facilities,  
60 miles tunnels,  
160 miles pipelines, and  
extensive power  
facilities.

## Regional Water System

10 dams,  
5 reservoirs,  
20 miles tunnels,  
230 miles pipelines,  
5 pump stations,  
3 water treatment plants,  
13 groundwater wells, and  
27 wholesale customers.



## Local Water System

11 reservoirs,  
10 tanks,  
24 pump stations,  
1,240 miles of pipelines,  
7 groundwater wells,  
130 miles of firefighting  
pipelines,  
8,000 hydrants, and  
188,000 metered retail  
customers.



# SFPUC Water Capital Programs

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## **SFPUC has a 10-Year CIP budgeted every 2 years**

- **Water System Improvement Program (WSIP)**
  - 2005-2023; 99% complete
  - 87 Local and Regional Projects
  - \$4.8B
- **Water Enterprise Capital Improvement Program (WECIP)**
  - 2021-2035
  - 36 **Regional** (Bay Area) and **Local** (SF) Projects + R&R
  - \$2.7B
- **Hetchy Capital Improvement Program (HCIP)**
  - 2018-2030
  - 22 Regional (Upcountry) Projects + R&R
  - \$683M



# WSIP – 99 percent complete thanks to our many partners!

- 9.9M safe working hours to date
- 15,781 workers earned \$532M
- 47% of WSIP hours worked by local workers
- 70% of apprentice hours worked by local workers
- Job Training and Opportunities Program (JTOP)
  - CityBuild Academy
  - JobTrain
  - YouthBuild
  - Cypress Mandela Training Center
  - Tuolumne Training Collaborative
- 66 Industry Awards to date!





# Regional Groundwater Storage & Recovery - Phases 2a and 2b

Construction Estimate: \$8.2M (two contracts)

- Major mechanical and electrical for one well facility;
- Minor mechanical and electrical for ten well facilities;
- Cathodic protection on well pump systems;
- Furnish/install 8-inch ductile iron pipe;
- Restore roadways.

Trades: earthwork, paving, concrete, pipeline, electrical, mechanical, plumbing

Advertisement Dates:

2a: June 2021

2b: May 2022





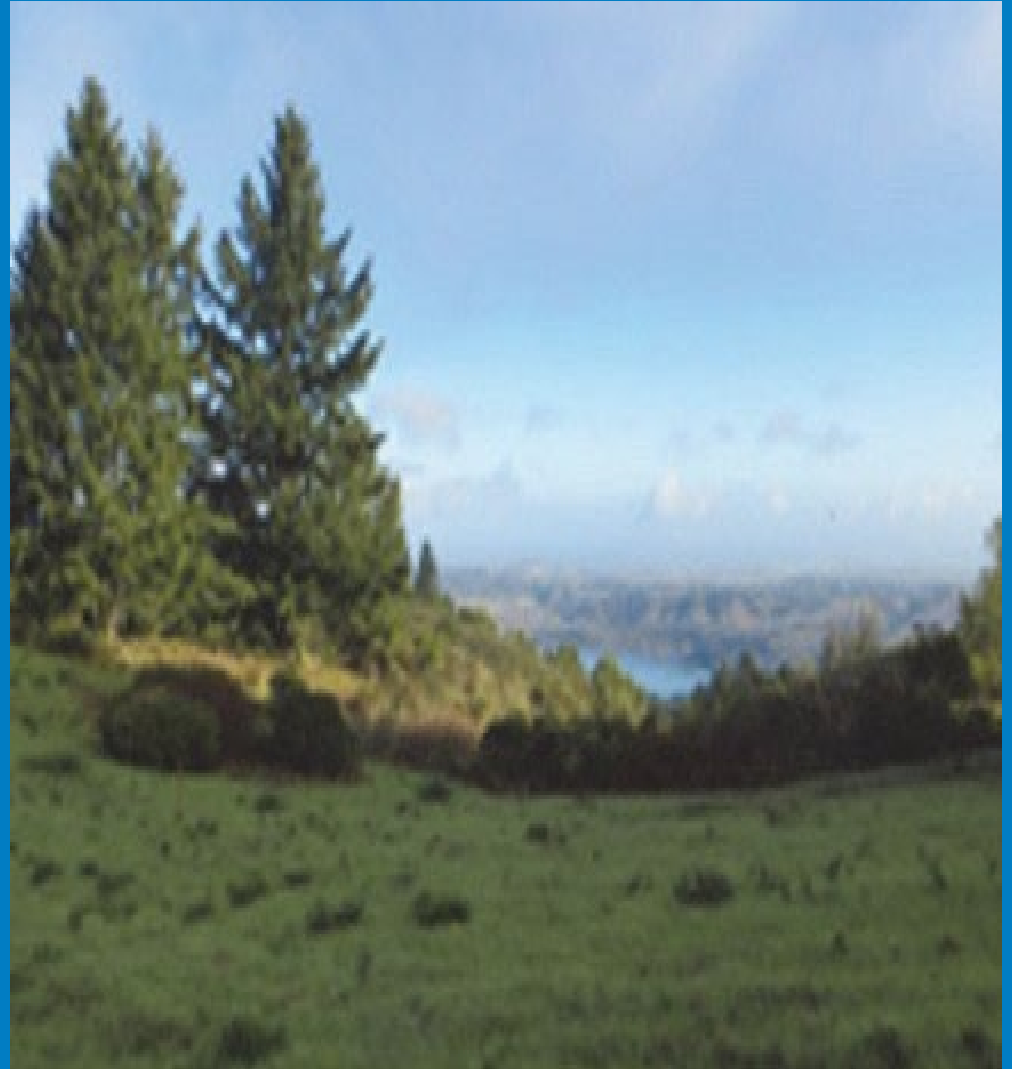
# Southern Skyline Blvd Ridge Trail Extension

Construction Estimate: \$13M

- Construction of 6-mile-long trail extension;
- Install trail, soldier pile retaining walls, fencing, parking lots, pre-fabricated vault toilets and a pre-fabricated bridge.

Trades: traffic control, earthwork, paving, trucking, concrete, fencing, landscaping

Advertisement Date:  
July 2021







# Local (San Francisco) Pipeline Construction Projects

## Water Pipeline Construction Contracts

### SFPUC Lead:

#### 2021/22 Advertisement

Prospect Street (\$9.4M)  
Diamond Street (\$9.6M)  
Gold Mine Drive (\$6.3M)  
Jersey Street (\$8.0M)  
Laidley Street (\$7.8M)  
Hampshire St. (\$17.7M)

#### 2022/23 Advertisement:

Parnassus Avenue (\$8.6M)  
Precita Avenue (\$7.3M)  
San Bruno Avenue (\$7.4M)  
21<sup>st</sup> Street (\$5.6M)  
Grandview Avenue (\$10.3M)  
Joost Street (\$8.6M)

### SFMTA/SFPW Lead Agency

Taraval: (\$15.0M)  
Better Market St: (\$7.0M)



## Requirements for Local Water Construction Projects to install distribution (<48") water pipelines:

Companies or principal staff with five years experience in:

- ❖ Water pipeline construction (<48")
- ❖ Welded steel/ductile iron pipeline (<48")
- ❖ Working in urban settings
- ❖ Field engineers/superintendents with five years experience in pipeline work



# New CDD Headquarters at 2000 Marin, San Francisco

## Construction Management/General Contractor (CM/GC)

Construction Estimate: \$255M

- Administration Building
- Warehouse
- Industrial Shops: Machine, Meter, Carpentry, Electrical, and Landscaping
- Parking Structure

Trades: construction management, earthwork, paving, concrete, heavy equipment, welding, carpentry, plumbing, electrical, HVAC, security system, painting, and landscaping

Advertisement Date:  
June 2021

NEW CDD HEADQUARTERS AT 2000 MARIN STREET | ARCHITECTURAL NARRATIVE



AERIAL VIEW OF SITE LOOKING EAST



# Contracts to be Advertised in 2022

Project	Estimated Contract Value	Advertise Date
Bay Division Pipeline No. 4 Prestressed Concrete Pipe Repair	\$2.8M	Spring 2022
Harry Tracy Water Treatment Plant Filter Underdrain Replacement	\$8.7M	Summer 2022
Millbrae Administrative Building – HVAC Upgrades & Security Upgrades (2 contracts)	\$8.5M	Summer 2022
Large Diameter Pipeline As-Needed Repairs and Bay Division Pipeline Nos. 1-4 Corrosion Repairs	\$8.4M	Fall 2022
Sunol Valley Water Treatment Plant Polymer Feed Facilities	\$8.0M	Fall 2022



# Contracts to be Advertised in 2023

Project	Estimated Contract Value	Advertise Date
Crystal Springs Pipeline No. 2 Reach 5 Lining Replacement	\$12M	Fall 2023
San Antonio Pump Station Motor Control Center Upgrades	\$7M	Summer 2023
Town of Sunol Pipeline	\$2M	Fall 2023



# Hetch Hetchy Upcoming Construction Projects 2021-22

Contract Title	Estimated Contract Value	Advertise Date
SJPL Valve and Safe Entry Improvements – Phase 1A	\$6.1M	September 2021
SJPL Valve and Safe Entry Improvements – Phase 1B	\$8.2M	December 2021
Electric Transmission Lines 7/8 Upgrades	\$25.5M	January 2022
SJPL Valve and Safe Entry Improvements – Phase 3	\$6.7M	May 2022
SJPL Valve and Safe Entry Improvements – Phase 2	\$30.6M	December 2022
O’Shaughnessy Dam Outlet Works, Phase 1	\$13.8M	December 2022



# San Joaquin Pipeline Valve and Safe Entry Improvement Phase 1 A & B

Replace large diameter isolation valves at Tesla Valve House, install removable spool pieces at Oakdale and Tesla Portals.

Trades: plumbers, welders, pipefitters, concrete, heavy equipment, and carpenters.

Phase	Anticipated Advertisement Date	Construction Contract Estimate
Phase 1A	September 2021	\$6.1M
Phase 1B	December 2021	\$8.2M





# O'Shaughnessy Dam Outlet Works, Phase 1

Install, replace or rehabilitate bulkhead system, drum gate system, isolation valves, and various gate valves within the dam.

Trades: plumbers, welders, pipefitters, concrete, heavy equipment, carpenters, communications

Anticipated Advertisement Date

Construction Contract Estimate

December 2022

\$13.8M



# SFPUC Contractors: Making a Difference



San Francisco  
**Water**  
**Power**  
**Sewer**





San Francisco  
Water  
Power  
Sewer

Services of the San Francisco  
Public Utilities Commission

**SEWER  
SYSTEM**  
IMPROVEMENT PROGRAM  
Grey. Green. Clean.



May 7, 2021

# Wastewater Enterprise Capital Improvement Plan & Sewer System Improvement Program

**Stephen Robinson**, Wastewater Enterprise Capital Program Director, Infrastructure  
*15th Annual Construction Contractors' Breakfast*

# Capital Planning:

**Adaptively managed for sustainable delivery**

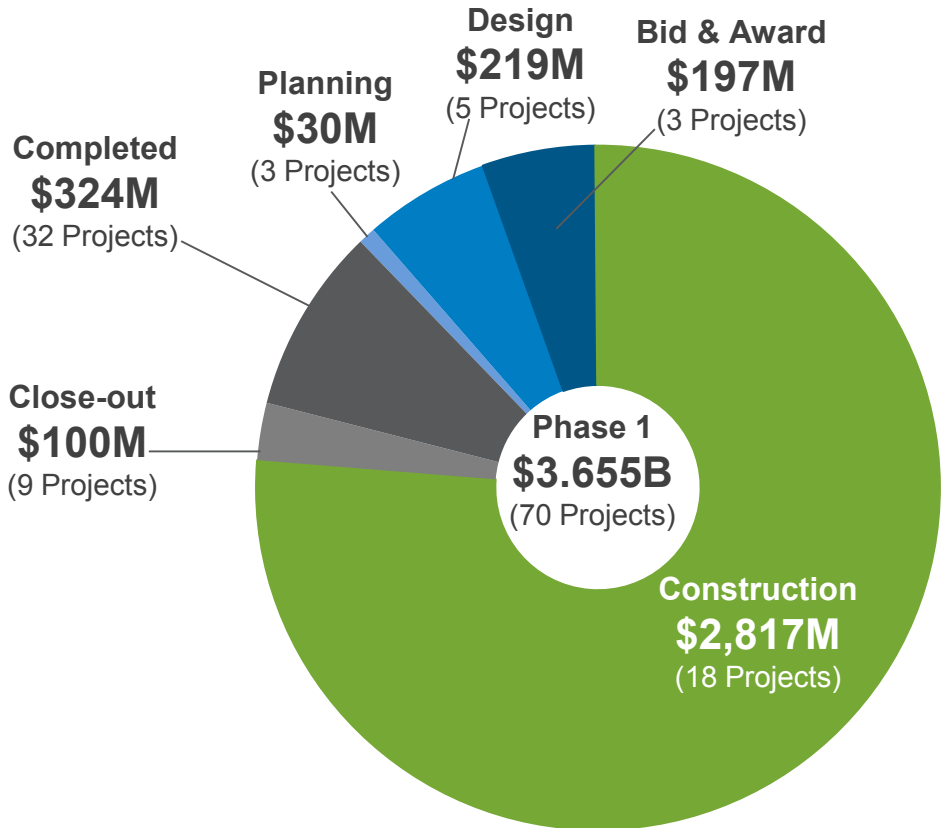


**2 YEAR  
BUDGET**

**10 YEAR CAPITAL PLAN**

**20 YEAR PLANNING HORIZON**

# SSIP Status (as of December 2020)



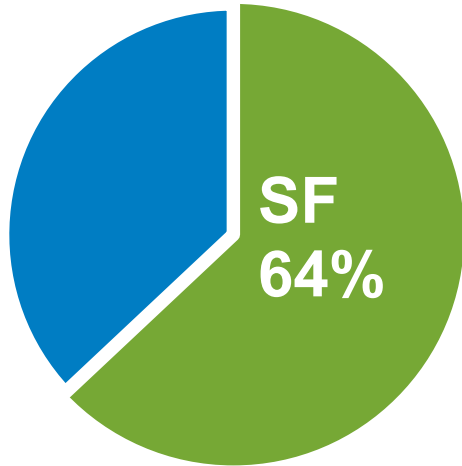
SEP Cryogenic Oxygen Plant Demolition



SEP Cryogenic Oxygen Plant Completion

# SSIP Local Hiring (as of December 2020)

## Apprenticeships (Entry-level) Provided by SSIP



**309** SF apprentices have worked **64%** of hours (as compared to **50%** requirement) and earned **\$4.8M** in wages

## SSIP Local Hire Ordinance Achievement

20-30%  
Local Hire  
Percentage  
Requirements

**35%**

Actual  
SSIP Local  
Hire  
Percentage  
Achieved

**1,156** San Francisco residents have earned **\$25.3M** in wages on SSIP projects working **373K** hours

# Respond. Recover. Reimagine.

- Adhering to construction site-specific COVID-19 Health and Safety protocols
- Good neighbors to impacted communities – residents and merchants
- Complying with Traffic Control requirements
- Proactively planning to minimize disruptions
- Maintaining construction site cleanliness
- Creative staging due to site constraints





# Southeast Area Major Projects

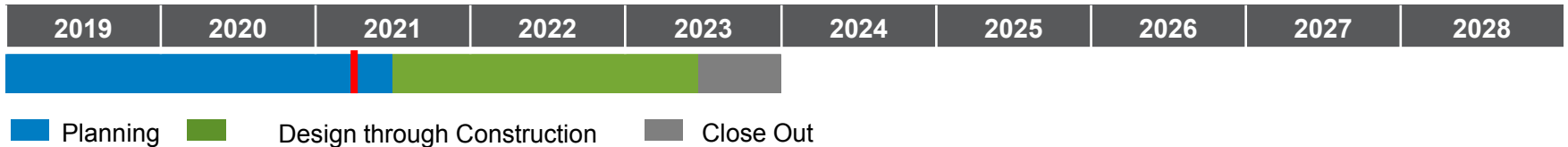
# Kansas and Marin Streets Sewer Improvements

**Total Project Cost in CIP: \$28.3M**

- Installation of 900 LF of 8-foot tunnel using micro-tunnel boring machine (MTBM) construction method
- Construction of two reinforced concrete junction structures to connect with existing sewers
- Design and construct surface restoration improvements
- Request for Qualifications for design-build contract to be issued May 2021



## Project Schedule:



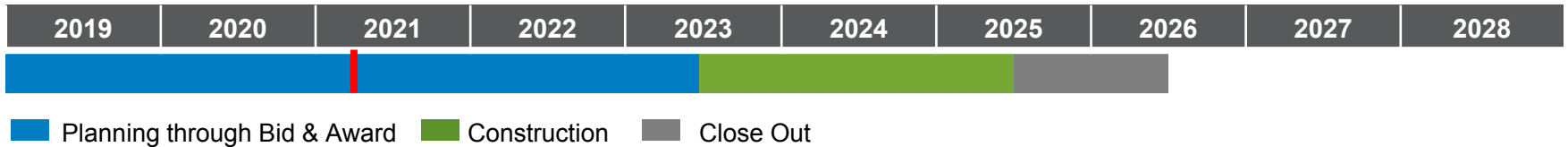
# Yosemite Green Infrastructure

**Total Project Cost in CIP: \$17.1M**

- Daylighting Yosemite Creek from Yosemite Marsh in McLaren Park to Woolsey and Hamilton Streets
- Soccer field renovation with subsurface stormwater detention facility
- Bioretention planters, landscaping, irrigation and hardscape
- RFP for green infrastructure engineering services was issued April 15, 2021



## Project Schedule:





# Ocean Beach Climate Change Adaptation Project

**Total Project Cost in CIP: \$170M**

- Construction of the following:
  - 3000 ft. buried sea wall
  - Bathroom
  - Parking lot
  - Coastal multi-use trail
  - Stairwell for beach access
- Intersection re-design
- Landscaping/planting
- 65% Design currently underway
- Draft Environmental Impact Report expected Fall 2021



## Project Schedule:

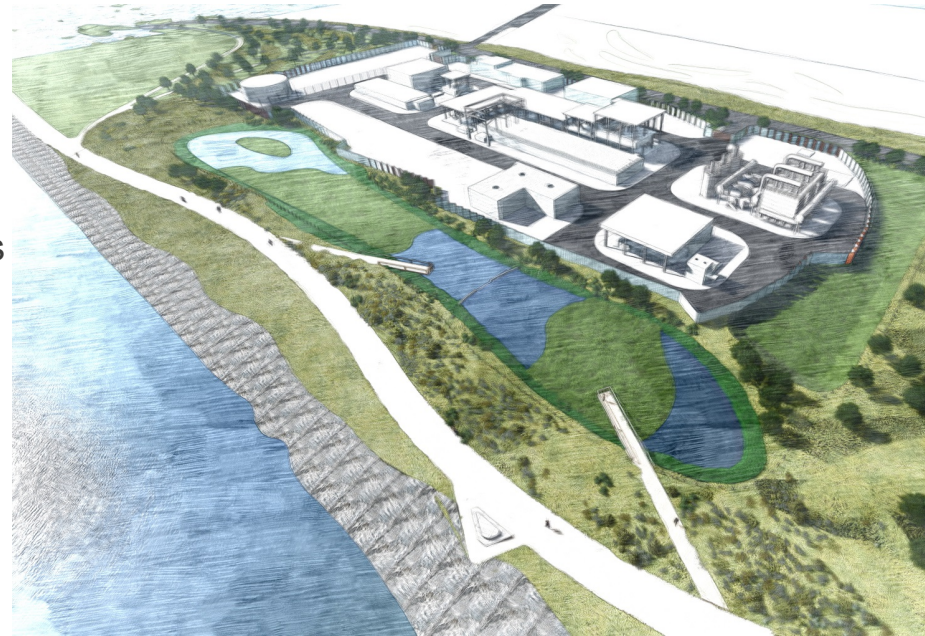


■ Planning through Bid & Award ■ Construction ■ Close Out

# New Treasure Island Wastewater Treatment Plant

**Total Project Cost in CIP : \$202M**

- Limit WWTP processing odors
- Optimize life-cycle costs
- Produce Title 22 compliant water
- Provide flexibility to comply with future regulations
- Design Build Request for Qualifications released in August with qualification packages submitted and list of qualified prime contractors issued
- Request for Proposals currently under development with an anticipated release in Summer 2021



## Project Timeline:



■ Planning ■ Design through Construction ■ Close Out

# Upcoming SSIP Construction Contracts

2019 2020 2021 2022 2023 2024 2025 2026

SSIP CONTRACTS			
CONTRACT NO.	CONTRACT TITLE	EST. VALUE	ANTICIPATED AD DATE
DB-131	RFQ for Kansas and Marin Streets Sewer Improvements	\$16.2M	May-21
WW-648	Oceanside Water Pollution Control Plant Building 042 Primary Clarifier Improvements	\$6M	Jul-21
WW-543	Southeast Water Pollution Control Plant HVAC & Mechanical Upgrades	\$8.5M	Jul-21
TBD	Tenderloin and Nob Hill Large Sewer Rehab	\$6.2M	Nov-21
TBD	Chinatown and North Beach Large Sewer Rehab	\$11.9M	Apr-22
TBD	Panhandle and Inner Sunset Sewer Improvements	\$14.6M	Apr-22
TBD	Channel Force Main Intertie	\$13.4M	Sep-22
TBD	Castro Districts Sewer Improvements	\$12.5M	Dec-22
TBD	Yosemite Green Infrastructure	\$7.4M	Jan-23

Project Phases: ■ Planning - Bid & Award ■ Construction ■ Close-out

[sfpuc.org/construction-contracts](https://sfpuc.org/construction-contracts)

# Upcoming Non-SSIP Construction Contracts

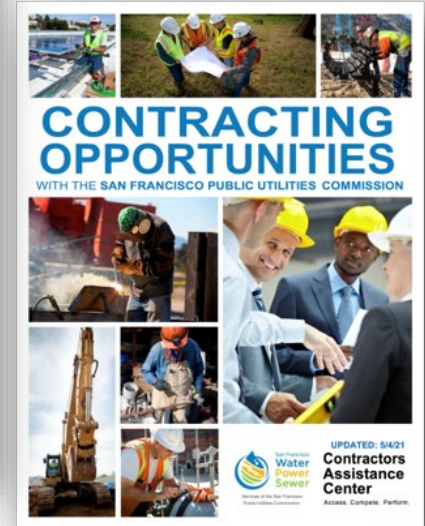
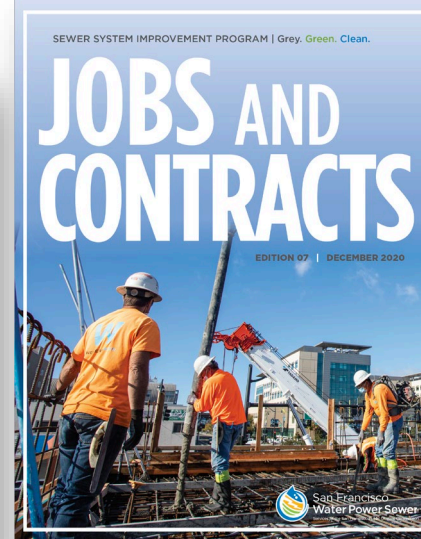
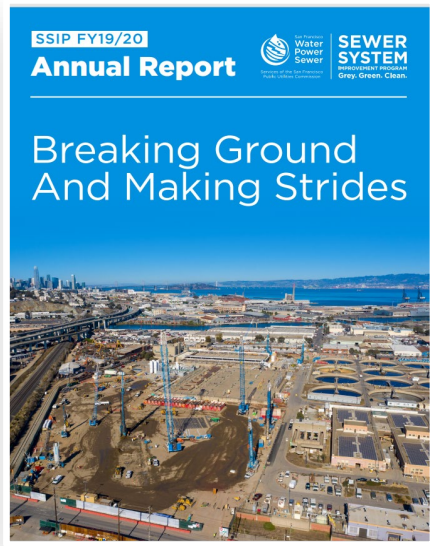
NON-SSIP CONTRACTS					2019	2020	2021	2022	2023	2024	2025	2026
CONTRACT NO.	CONTRACT TITLE	EST. VALUE	ANTICIPATED AD DATE									
WW-713	As-Needed Main Sewer Replacement #9	\$7.8M	May-21									
DB-132	New Treasure Island WW Treatment Plant	\$160M	Jul-21									
WW-701	Southeast Bay Outfall Islais Creek Crossing	TBD	TBD									
WW-707	Various Locations Sewer Replacement No. 11	\$5.8M	Aug-21									
WW-705	Various Locations Sewer Replacement No. 10	\$6.4M	Sep-21									
WW-715	As-Needed Spot Sewer Replacement #43	\$9.5M	Sep-21									
WW-709	Various Locations Sewer Replacement No. 13	\$8.7M	Nov-21									
WW-684	45th Ave, 46th Ave, 47th Ave, Vicente St, Wawona St, and Sloat Blvd Sewer Replacement	\$8.7M	Dec-21									
WW-716	As-Needed Spot Sewer Replacement #44	\$9.5M	Apr-22									
TBD	Ocean Beach Climate Change Adaptation	\$170M	Aug-22									

Project Phases: ■ Planning - Bid & Award ■ Construction ■ Close-out

[sfpuc.org/construction-contracts](https://sfpuc.org/construction-contracts)

# For More Information...

Visit [sfpuc.org/ssip](https://sfpuc.org/ssip) Go to **Resources & Reports** to download





# MOVING FORWARD.



[sfpuc.org/ssip](https://sfpuc.org/ssip)

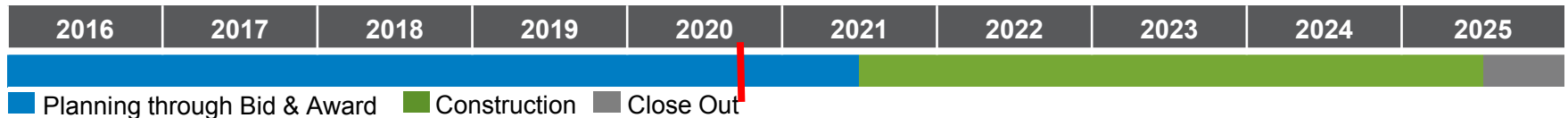
# WW-701 Southeast Bay Outfall Islais Creek Crossing Replacement

**Total Project Cost in CIP: \$67.6M**

- Pipeline replacement and restoration of access manholes within Islais Creek
- Improvements to flow velocity
- Piping isolation improvements to the Booster Pump Station



## Project Timeline:



# WW-712 New Montgomery, Jessie, Mission, & Minna St. Brick Sewer Rehabilitation

Total Project Cost in CIP: \$10.4M

- Rehabilitate 3,330 LF of main sewer using trenchless method at:
  - Mission, between 2<sup>nd</sup> and 3<sup>rd</sup> Street
  - New Montgomery, between Market and Howard Street
  - Jessie, between 2<sup>nd</sup> and 3<sup>rd</sup> Street
  - Minna, between 2<sup>nd</sup> and 3<sup>rd</sup> Street



## Project Timeline:



■ Planning through Bid & Award ■ Construction ■ Close Out



# Folsom Area Stormwater Improvements

**Total Project Cost in CIP: \$290M**

The scope of work for this project may be divided into two construction contracts:

- Upstream Pipe Component - 12,500 LF of cut-and-cover sewer work to upsize existing sewer pipes
- Tunnel Component – Construct stormwater tunnel to convey flows from upstream to Mission Creek Channel



## Upstream Components Project Timeline:



## Tunnel Project Timeline:



■ Planning through Bid & Award ■ Construction ■ Close Out

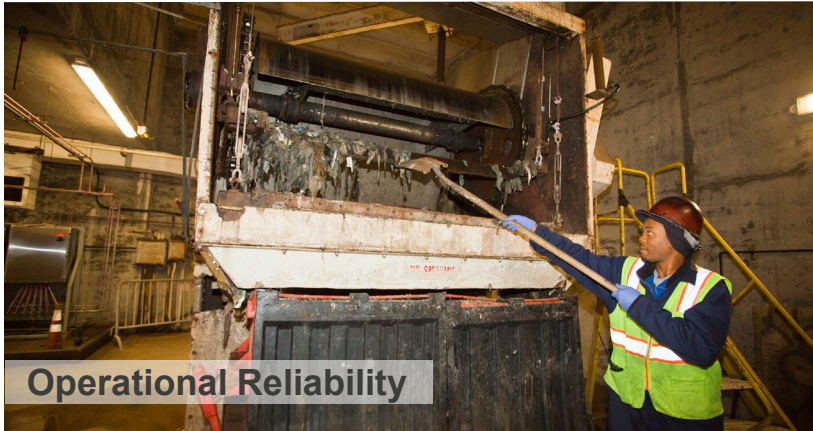
# Some of Our Priority Challenges



Aging Infrastructure



Seismic Safety



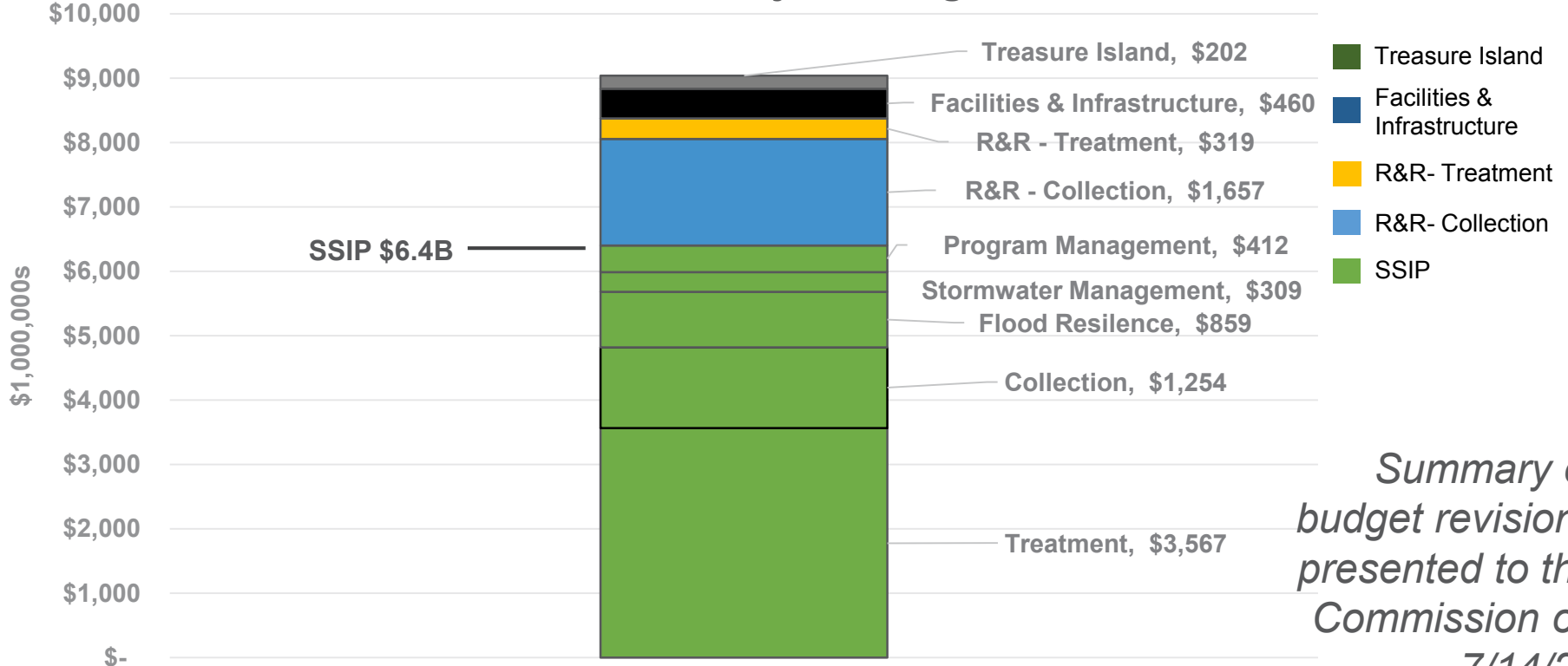
Operational Reliability



Climate Change

# Summary of Revised 10 Year CIP (FY21-30)

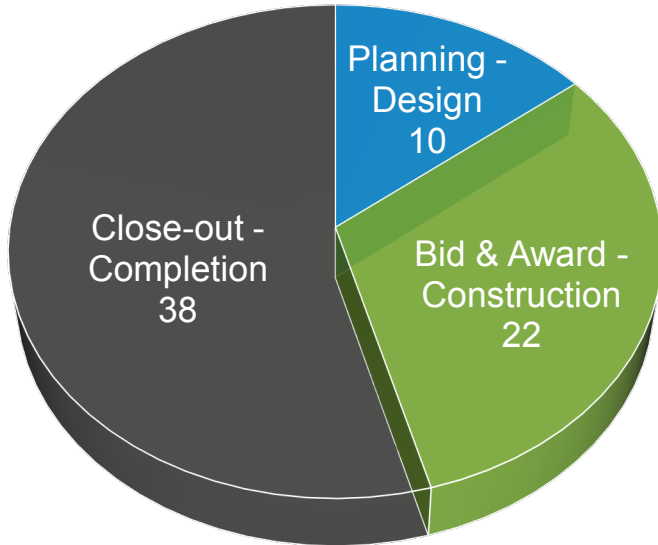
## \$9B Total Project Budget



*Summary of budget revisions presented to the Commission on 7/14/20*

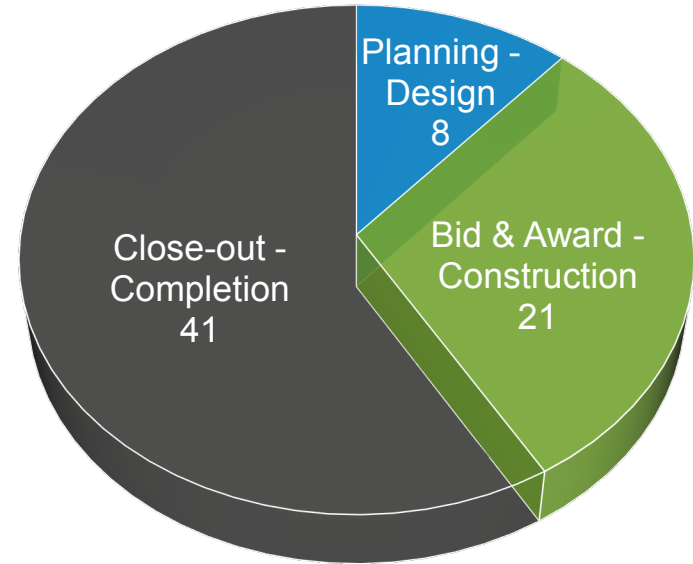
# SSIP Phase 1 Progress

June 2020



**46% Complete**

December 2020



**42.4% Complete**



**MAY 7, 2021**

# **SAN FRANCISCO PUBLIC UTILITIES COMMISSION CONSTRUCTION MANAGEMENT BUREAU**

## **15<sup>TH</sup> ANNUAL CONSTRUCTION CONTRACTOR'S BREAKFAST**



CAT

12

SAFETY

BAR

PEKIN BAZAAR

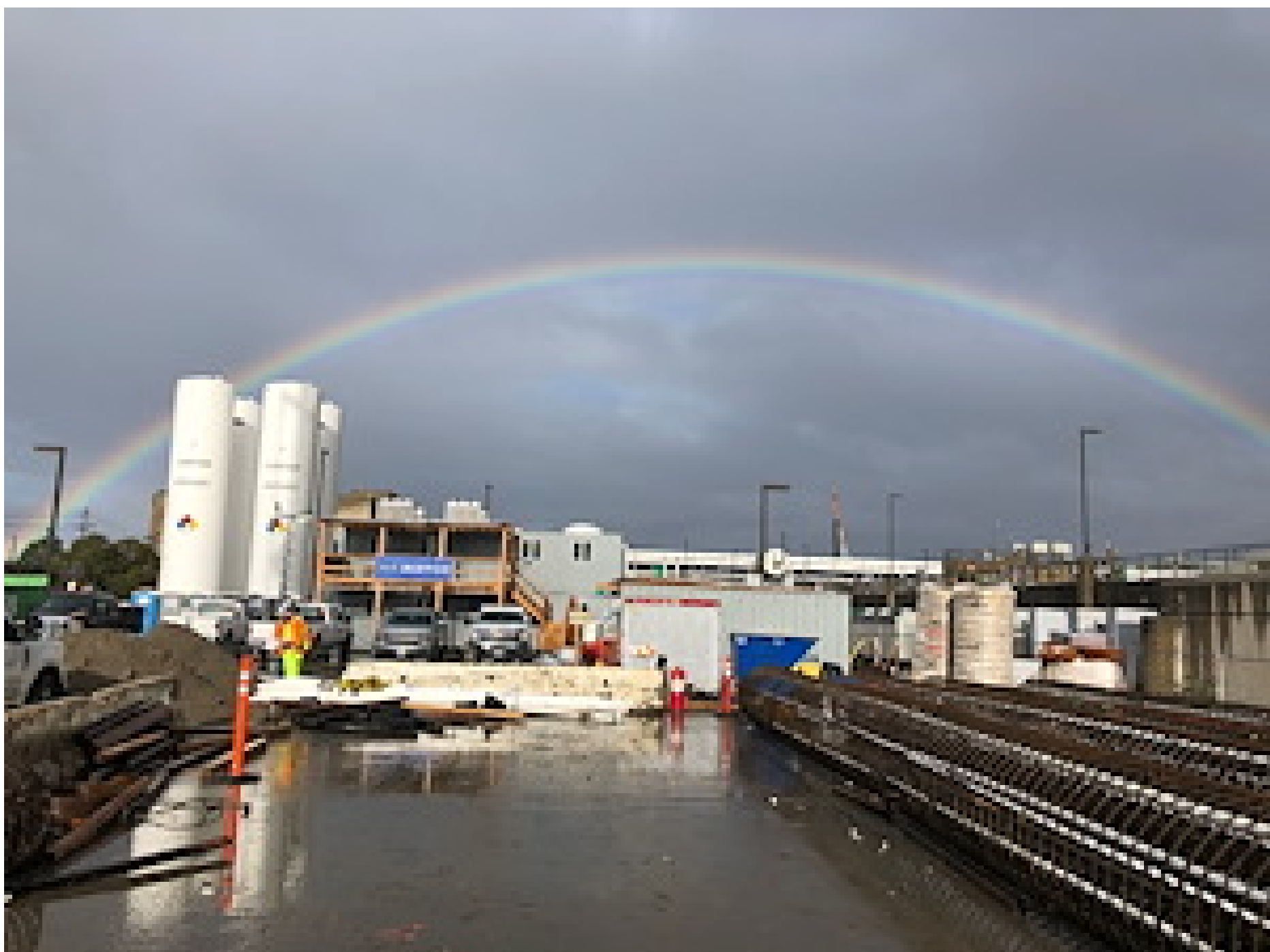
GIFTS

PARKING  
6 A.M.  
INCL. HOLIDAYS  
STREET CLEANING

晶瑩玉  
IN NATURAL CRYSTAL

NO STOPPING

















FMB FRANK M. BOOTH, INC.

# CONTACT INFORMATION



**Alan Johanson**

Construction Management Bureau (CMB)

email: [ajohanson@sfgwater.org](mailto:ajohanson@sfgwater.org) / phone: (415) 218-2023

## QUESTIONS?

Submit RFP questions to SFBid: <https://sfbid.sfgwater.org/>

For SFBid technical assistance, please email  
[SFBid@sfgwater.org](mailto:SFBid@sfgwater.org) or call (415) 934-5703

# POLL QUESTION

## Which is your favorite cartoon?

- **Jetsons**
- **Flintstones**
- **Sponge Bob**





















MUELLER

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**HH-1001 Moccasin Reservoir Perimeter Security Fence**

## RFP TIMELINE

<u>RFP</u>	<u>VALUE</u>	<u>DATE</u>
Treasure Island CM Services	\$5M	Early 2022
2000 Marin CM Services	TBD	Early 2022
As-Needed CM Services	5 Contracts \$4M	Mid 2022
Folsom/Alemany Tunnels CM	TBD	Late 2022



**THANK YOU**



[sfpuc.org](http://sfpuc.org)