



Public Utilities Commission

**Fiscal Year 2016 – 17 and 2017 – 18
2-Year Capital Budget Request**

Capital Planning Committee

March 14, 2016

2-Year Capital Budget Development

- Capital budget was developed as part of update to the 10-year Capital and Financial Plans.
- Process includes a comprehensive review of infrastructure needs taking into account existing project balances, and re-prioritizing existing project balances if necessary.
- 5 public hearings with Commission. Request approved by Commission February 9th, 2016.
- Water - WSIP approximately 90% complete. Continued ramp-up of local conveyance program to meet Commission LOS goal - 15 miles replacement per year.
- Sewer System Improvement Program - Review of existing appropriations and develop 2016 Baseline scope, schedule and budget.
- Hetchy - Re-direct sources in 2-year budget to Distribution and Redevelopment projects to increase customer base and revenue.



Water Enterprise 10-Year Capital Plan

<i>SFPUC: Water Enterprise</i>								
Program/Project (Millions)	FY2017	FY2018	FY2019	FY2020	FY2021	FY2022- FY2026	Capital Plan FY 2016-25	Capital Plan FY 2017-26
<u>SPENDING PLAN</u>								
Regional Costs								
Water Treatment Program	6.1	3.9	3.0	1.9	1.9	9.8	24.6	26.6
Water Transmission Program	18.1	21.6	48.8	58.6	23.1	71.1	188.6	241.4
Water Supply & Storage Program	7.6	6.9	39.7	52.5	24.1	89.9	261.7	220.7
Watersheds & Land Management	14.0	2.0	2.0	2.0	2.0	10.0	17.5	32.0
Communication & Monitoring Program	0.9	1.0	1.0	0.5	0.5	2.5	7.0	6.4
Buildings & Grounds Programs	8.5	6.2	1.8	5.8	0.8	3.4	43.2	26.5
WSIP Augmentation - Regional	44.7	27.0	20.0	0.0	0.0	0.0	58.2	91.7
Regional Subtotal	\$100.0	\$68.6	\$116.3	\$121.3	\$52.5	\$186.7	\$600.9	\$645.4
Local Costs								
Water Conveyance /Distribution System	55.5	57.1	56.1	56.1	56.1	280.5	524.0	561.4
Buildings & Grounds Improvements	0.8	1.0	10.5	5.0	1.0	2.5	16.3	20.8
Pacific Rod & Gun Club Remediation Project	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0
Systems Monitoring & Control	0.1	0.5	2.0	2.0	0.5	2.5	11.7	7.6
Water Storage Facilities/Pump Stations	5.5	2.0	14.0	2.0	1.0	5.0	17.7	29.5
Other Recycled Water Projects - Local	0.0	0.0	0.0	0.0	0.0	0.0	3.9	0.0
WSIP Augmentation - Local	26.3	6.5	6.5	0.3	0.0	0.0	36.1	39.6
Treasure Island Capital Upgrades	0.0	0.0	0.0	0.0	0.0	0.0	3.0	0.0
Local Subtotal	\$88.2	\$67.1	\$89.1	\$65.4	\$58.6	\$290.5	\$612.8	\$658.8
Auxiliary Water System	0.0	0.0	0.0	0.0	0.0	110.0	110.0	110.0
TOTAL	\$188.2	\$135.7	\$205.4	\$186.7	\$111.1	\$587.2	\$1,323.7	\$1,414.3
<u>REVENUES</u>								
Water Revenue	18.3	27.8	51.8	51.8	39.0	324.2	462.4	513.0
Water Revenue Bonds	165.5	106.9	152.6	133.9	71.1	148.0	739.2	778.0
General Obligation Bonds	0.0	0.0	0.0	0.0	0.0	110.0	110.0	110.0
Capacity Fee	4.3	1.0	1.0	1.0	1.0	5.0	12.0	13.3
TOTAL	\$188.2	\$135.7	\$205.4	\$186.7	\$111.1	\$587.2	\$1,323.7	\$1,414.3
Total San Francisco Jobs/Year	1,678	1,211	1,832	1,665	991	5,238	11,066	12,615
Surplus/(Shortfall)	0	0	0	0	0	0	0	0



Water Enterprise 2-Year Budget Request

Program/Project (Millions)	FY 2015-16 Approved	FY 2016-17 Requested	FY 2017-18 Requested
		Two - Year Request	
<u>Uses</u>			
Regional Costs			
Water Treatment Program	\$3.6	\$6.1	\$3.9
Water Transmission Program	11.6	18.1	21.6
Water Supply & Storage Program	1.5	7.6	6.9
Watersheds & Land Management	2.8	14.0	2.0
Communication & Monitoring Program	2.0	1.0	1.0
Buildings & Grounds Programs	27.4	8.5	6.2
WSIP Augmentation - Regional	41.1	44.7	27.0
Regional Subtotal	\$90.0	100.0	68.6
Local Costs			
Water Conveyance /Distribution System	53.7	55.5	57.1
Buildings & Grounds Improvements	1.5	0.8	1.0
Pacific Rod & Gun Club Remediation Project	0.2	0.0	0.0
Systems Monitoring & Control	5.9	0.1	0.5
Other Recycled Water Projects - Local	3.9	0.0	0.0
Local Tanks/Reservoir Improvements	2.8	3.0	0.5
Pump Station Improvements	0.4	2.5	1.5
WSIP Augmentation - Local	0.0	26.3	6.5
Local Subtotal	\$68.4	88.2	67.1
Total	\$158.4	\$188.2	\$135.7
<u>Sources</u>			
Water Revenue	37.5	18.3	27.8
Water Revenue Bonds	117.9	108.8	79.9
Water Revenue Bonds - Re-appropriation	0.0	56.8	27.0
Capacity Fee	3.0	4.3	1.0
Total	\$158.4	\$188.2	\$135.7
Surplus/(Shortfall)	0.0	0.0	0.0



Water Enterprise 2-Year Budget Request

- ◆ Supplemental Appropriation Request-\$356.0M
 - FY 2016 - 2017 \$206.7M
 - FY 2017 - 2018 \$149.3M
- ◆ Regional Water Costs
 - FY 2016 – 2017 \$100.0M
 - FY 2017 – 2018 \$68.6M
- ◆ Local Water Costs
 - FY 2016 – 2017 \$88.2M
 - FY 2017 – 2018 \$67.1M
- ◆ Financing Costs
 - FY 2016 – 2017 \$18.5M
 - FY 2017 – 2018 \$13.6M



Water Enterprise – Regional

Water Treatment

FY 16-17 \$6.1M, FY 17-18 \$3.9M

Major upgrades to Sunol Valley and Harry Tracy Water Treatment Plants to achieve higher level of performance and reliability.

Water Transmission

FY 16-17 \$18.1M, FY 17-18 \$21.6M

Upgrades to the Transmission System including pipeline improvements and replacements, valve replacements, metering upgrades, cathodic protection, pump station upgrades and vault upgrades.

Water Supply & Storage

FY 16-17 \$7.6M, FY 17-18 \$6.9M

Upgrades to structures to meet State Division of Safety of Dams requirements. Includes Potable Reuse project to identify opportunities for direct and indirect potable water reuse and the Daly City Recycled Water Expansion Project providing 3.4 mgd recycled water to customers of the Regional Water System.

Watershed & Land Management

FY 16-17 \$14.0M, FY 17-18 \$2.0M

Program supports projects that improve and/or protect the water quality and/or ecological resources affected by the operation of the SFPUC. Project include the repair, replacement, maintenance, and construction of road, fences, trails, and other ecosystem restoration.



Harry Tracy Water
Treatment Plant



Water Enterprise – Regional

- ◆ **Communication & Monitoring**
FY 16-17 \$1.0M, FY 17-18 \$1.0M
Program includes a microwave project to provided critical redundant communication and funding for security improvements.



Sunol Water
Temple

- ◆ **Buildings & Grounds**
FY 16-17 \$8.5M, FY 17-18 \$6.2M
 - **Sunol Yard**
FY 16-17 \$6.0M, FY 17-18 \$3.7M
Project replaces existing facilities with LEED facilities, adds storage and reconfigures the yard. Interim improvements increase security and decrease maintenance costs.
 - **Millbrae Yard**
FY 16-17 \$2.5M, FY 17-18 \$2.5M
Upgrades and functional restoration at Millbrae Headquarters including administrative offices, shops and laboratory facilities. The work addresses occupational safety, reliability and functional regulatory compliance.



WSIP Augmentation - Regional

Regional WSIP Augmentation

(In Millions)

	<u>FY 2016-17</u>	<u>FY 2017-18</u>
Calaveras Dam	\$ 15.0	\$ 20.0
Alameda Creek Diversion Dam	10.0	7.0
New Irvington Tunnel	5.0	0.0
Seismic Upgrade of BDPL 3&4	2.0	0.0
Bioregional Habitat Restoration Program	6.0	0.0
Alameda Creek	5.0	0.0
Regional Groundwater Storage & Recovery	1.7	0.0
	<u>\$ 44.7</u>	<u>\$ 27.0</u>



Water Enterprise – Local

- ◆ **Conveyance/Distribution System**

FY 16-17 \$55.5M, FY 17-18 \$57.1M

The long term program funds management of all linear assets in the local water distribution system between transmission or storage and customer connection. Funding is approved for 15 miles per year pipe line replaced or upgraded.

- ◆ **Buildings & Grounds Improvements**

FY 16-17 \$0.8M, FY 17-18 \$1.0M

Funding for capital improvements at CDD facilities and structures. Projects include yard improvements to increase efficiency and reliability, a fueling station and CDD Control Center to house all systems in a single seismically reliable building.



Treasure Island
Pipe Relocation



Water Enterprise – Local

- ◆ **System Monitoring & Control—FY 16-17 \$0.1M, FY 17-18 \$0.5M**
Improvements to facilities for controlling and monitoring San Francisco's water distribution system. Enhancements to SCADA system for remote monitoring of pressure, flow, and valve position, fiber optic and security system upgrades to improve safety and reliability.
- ◆ **Local Tanks/Reservoir Improvements—FY 16-17 \$3.0M, FY 17-18 \$0.5M**
Provides long-term funding for renewal and rehabilitation of water storage reservoirs and storage tanks.
- ◆ **Pump Station Improvements—FY 16-17 \$2.5M, FY 17-18 \$1.5M**
Provides long term funding for renewal and rehabilitation of major water pump stations and hydroneumatic tanks that boost pressure within the San Francisco distribution system.

WSIP Augmentation - Local

💧 **WSIP Augmentation– FY 16-17 \$26.3M, FY 17-18 \$6.5M**

Additional WSIP funding for the construction of:

- San Francisco Westside Recycled Water Project
FY 16-17 \$21.3M, FY 17-18 \$6.5M

Funding request due to additional pipeline costs, engineering and environmental review for recommendation of a new alternative site.

- San Francisco Groundwater Supply Project
FY 16-17 \$5.0M

Additional funding for continuation of project duration due to updated schedule forecast and associated changes in estimated costs.

Wastewater Enterprise 10-Year Capital Plan

<i>SFPUC: Wastewater Enterprise</i>								
Program/Project (Millions)	FY2017	FY2018	FY2019	FY2020	FY2021	FY2022 - FY2026	Capital Plan FY 2016 - 25	Capital Plan FY 2017-26
<u>SPENDING PLAN</u>								
Sewer System Improvement Program								
Program Wide Management	6.0	6.0	16.5	16.5	16.5	63.5	197.0	125.0
Land Reuse	28.1	0.0	0.0	0.0	0.0	0.0	82.8	28.1
Treatment Facilities	130.1	573.0	506.8	378.0	192.8	677.0	2,489.8	2,457.6
Sewer/Collection System	0.0	70.3	426.8	348.0	27.5	294.9	1,710.0	1,167.5
Stormwater Management/Flood Control	11.8	21.2	58.7	14.3	205.3	159.4	149.3	470.8
SSIP Subtotal	\$175.9	\$670.6	\$1,008.8	\$756.8	\$442.1	\$1,194.8	\$4,628.8	\$4,249.0
Renewal & Replacement								
Collection System	83.6	86.3	89.8	89.8	93.4	473.1	777.2	915.9
Treatment Plant Improvements	13.7	14.4	15.1	15.9	16.7	96.7	164.3	172.5
Renewal & Replacement Subtotal	\$97.3	\$100.7	\$104.9	\$105.6	\$110.0	\$569.9	\$941.5	\$1,088.5
Treasure Island	0.0	20.5	22.2	21.1	0.0	0.0	103.8	63.8
Wastewater Facilities & Infrastructure								
Collection System Division Consolidation	0.0	0.0	0.0	0.0	0.0	0.0	20.0	0.0
Ocean Beach Protection	2.0	4.0	4.0	6.0	0.0	0.0	19.3	16.0
Southeast Community Center Improvements	5.0	5.0	25.0	20.0	20.0	0.0	0.0	75.0
New - Islais Creek Outfall	5.0	10.0	0.0	0.0	0.0	0.0	0.0	15.0
Wastewater Facilities & Infrastructure Subtotal	\$12.0	\$19.0	\$29.0	\$26.0	\$20.0	\$0.0	\$39.3	\$106.0
TOTAL	\$285.2	\$810.8	\$1,165.0	\$909.6	\$572.1	\$1,764.6	\$5,713.4	\$5,507.3
<u>REVENUES</u>								
Wastewater Revenue	43.0	45.0	48.0	74.0	102.0	507.4	516.1	819.4
Wastewater Revenue Bonds	230.1	763.3	1,114.5	833.1	467.6	1,244.8	5,161.8	4,653.3
Capacity Fee	12.1	2.5	2.5	2.5	2.5	12.5	35.5	34.6
TOTAL	\$285.2	\$810.8	\$1,165.0	\$909.6	\$572.1	\$1,764.6	\$5,713.4	\$5,507.3
Total San Francisco Jobs/Year	2,544	7,232	10,391	8,113	5,103	15,740	47,764	49,125
Surplus/(Shortfall)	0	0	0	0	0	0	0	0



Wastewater Enterprise 2-Year Budget Request

Program/Project (Millions)	FY 2015-16 Approved	FY 2016-17 Requested	FY 2017-18 Requested
	Two - Year Request		
<u>Uses</u>			
Sewer System Improvement Program			
Program Wide Efforts	\$24.0	\$6.0	\$6.0
Land Reuse	29.3	28.1	0.0
Treatment Facilities	270.9	130.1	573.0
Sewer/Collection System	74.5	0.0	70.3
Stormwater Management/Flood Control	23.7	11.8	21.2
SSIP Total	\$422.3	\$176.0	\$670.5
Renewal and Replacement			
Collection System	78.0	83.6	86.3
Treatment Plant Improvements	13.1	13.7	14.4
R & R Total	\$91.1	\$97.3	\$100.7
Treasure Island	0.0	0.0	20.5
Wastewater Facilities & Infrastructure			
Collection System Division Consolidation	20.0	0.0	0.0
Ocean Beach Protection	3.3	2.0	4.0
Southeast Community Center Improvements	0.0	5.0	5.0
Islais Creek Outfall	0.0	5.0	10.0
Facilities & Infrastructure Total	\$23.3	\$12.0	\$19.0
Total	\$536.6	\$285.2	\$810.8
<u>Sources</u>			
Revenue	41.0	43.0	45.0
Revenue Bonds - SSIP	422.3	175.9	670.6
Revenue Bonds - Non SSIP	60.4	54.2	92.7
Capacity Fee	13.0	12.1	2.5
Total	\$536.6	\$285.2	\$810.8
Surplus/(Shortfall)	0.0	0.0	0.0



Wastewater Enterprise 2-Year Budget Request

☺ Supplemental Appropriation Request-\$1,215.2M

FY 2016 – 2017 \$312.9M

FY 2017 – 2018 \$902.3M

☺ Sewer System Improvement Program

FY 2016 – 2017 \$176.0M

FY 2017 – 2018 \$670.5M

☺ Renewal & Replacement

FY 2016 – 2017 \$97.3M

FY 2017 – 2018 \$100.7M

☺ Treasure Island

FY 2017 – 2018 \$20.5M

☺ Wastewater Facilities & Infrastructure

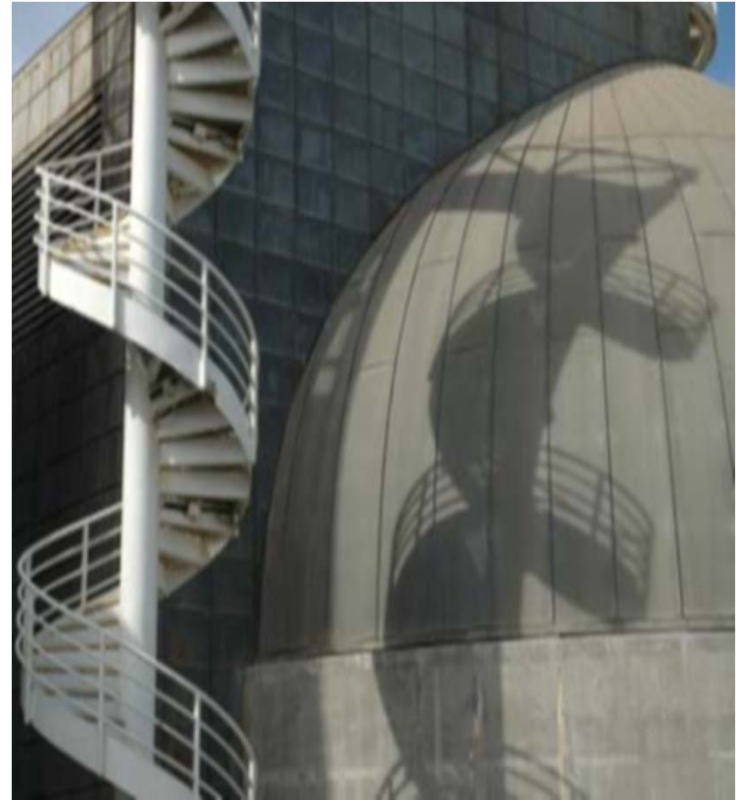
FY 2016 – 2017 \$12.0M

FY 2017 – 2018 \$19.0M

☺ Financing Costs

FY 2016 – 2017 \$27.6M

FY 2017 – 2018 \$91.6M



Wastewater Enterprise

Sewer System Improvement System

Sewer System Improvement Program FY 16-17 \$176.0M, FY 17-18 \$670.5M

- 🔄 **Program-wide Management**
FY 16-17 \$6.0M, FY 17-18 \$6.0M
Projects will increase reliability and future sustainability consistent with the SFPUC's endorsed Goals and Levels of Service (LOS).
- 🔄 **Land Reuse**
FY 16-17 \$28.1M
Program addresses long-term planning and ongoing needs for physical space to support SSIP projects.
- 🔄 **Treatment Facilities**
FY 16-17 \$130.1M, FY 17-18 \$573.0M
Includes the Biosolids Digester Facility Project and major improvements to the Southeast, North Point, and Oceanside Treatment plants.
- 🔄 **Sewer / Collection System**
FY 17-18 \$70.3M
Improvements to the Central Bayside System, Tunnels & Odor Control, Transportation/Storage & Discharge Structures, Force Mains & Pump Stations.

- 🔄 **Stormwater Management/Flood Control**
FY 16-17 \$11.8M, FY 17-18 \$21.2M
Includes Flood Resilience Infrastructure Projects, Green Infrastructure Projects, Advanced Rainfall & Operation Decision Systems and Urban Watershed Assessments.



Southeast Water Treatment Plant

Wastewater Enterprise Renewal & Replacement

Renewal & Replacement

FY 16-17 \$97.3M, FY 17-18 \$100.7M

Collection System

FY 16-17 \$83.6M, FY 17-18 \$86.3M

- **Condition Assessment** - Consists of cleaning and inspecting large diameter sewers, transport/storage boxes and outfall structures.
- **Salt Water Intrusion** – Program to reduce salt water intrusion into the sewer system.
- **Sewer Improvements** – Project to maintain the existing functionality of the sewage collection system and address planned and emergency projects for repair and replacement of structurally inadequate sewers. Proposed Capital Plan funds 15 miles of sewer replacement work per fiscal year.
- **Spot Sewer Repair** - Project provides as-needed repairs of existing sewer pipes. For FY 2016-17 through FY 2017-18 the Capital Plan includes repairs of approximately 700 individual spot sewer locations per year.

Treatment Plant Improvements

FY 16-17 \$13.7M, FY 17-18 \$14.4M

Maintain the capacity and reliable performance of the wastewater treatment facilities owned/operated by the Wastewater Enterprise. Planned WWE R&R Program Treatment Plant Improvement projects are prioritized based on risk to permit, compliance, safety and urgency.



Oceanside Treatment Plant



Treasure Island and Wastewater Facilities & Infrastructure

🔄 **Treasure Island—FY 17-18 \$20.5M**

Project includes New Wastewater Treatment Facility- A proposal for a two million gallon per day (MGD) tertiary wastewater treatment facility that would replace the outdated existing facility.

🔄 **Wastewater Facilities & Infrastructure—FY 16-17 \$12.0M, FY 17-18 \$19.0M**

○ **Ocean Beach Protection—FY 16-17 \$2.0M, FY 17-18 \$4.0M**

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 issues along Ocean Beach.

○ **Southeast Community Center—FY 16-17 \$5.0M, FY 17-18 \$5.0M**

Project focuses on improving functionality and reliability of the facility.

○ **Islais Creek Outfall—FY 16-17 \$5.0M, FY 17-18 \$10.0M**

Improvements to pipelines and modifications to the pump station at Islais Creek, ensure compliance with regulatory requirements and increase reliability.

Hetch Hetchy Enterprise 10-Year Capital Plan

<i>SFPUC: Hetch Hetchy Water and Power</i>								
Program/Project (Millions)	FY2017	FY2018	FY2019	FY2020	FY2021	FY2022 - FY2026	Capital Plan FY 2016 - 25	Capital Plan FY 2017-26
<u>SPENDING PLAN</u>								
Hetchy Power								
Streetlights	3.5	3.5	5.2	5.2	5.2	20.0	56.2	42.6
Transmission/Distribution	0.0	0.0	0.0	0.0	0.0	0.0	1.3	0.0
Renewable/Generation	1.1	1.1	1.1	1.1	1.1	5.5	21.0	11.0
Energy Efficiency	1.0	1.0	1.0	1.0	1.0	5.0	10.0	10.0
Treasure Island & Other Development	6.1	7.1	6.5	5.0	2.1	2.1	34.9	28.8
Candidates	20.0	20.0	0.0	0.0	0.0	0.0	0.0	40.0
Hetchy Power Subtotal	\$31.7	\$32.7	\$13.7	\$12.2	\$9.4	\$32.6	\$123.3	\$132.4
Hetchy Water								
Water Infrastructure	5.1	10.0	9.5	8.5	8.5	62.6	79.4	104.1
Power Infrastructure	11.7	15.8	22.9	2.9	2.9	14.4	196.4	70.6
Joint Projects - Water Infrastructure 45%	11.6	12.8	15.2	267.4	5.5	27.2	360.0	339.8
Joint Projects - Power Infrastructure 55%	14.2	15.6	18.6	326.8	6.8	33.3	440.1	415.3
Hetchy Water Subtotal	\$42.6	\$54.2	\$66.3	\$605.6	\$23.6	\$137.5	\$1,075.9	\$929.9
TOTAL	\$74.4	\$86.9	\$80.0	\$617.8	\$33.1	\$170.1	\$1,199.3	\$1,062.2
<u>Sources</u>								
Revenue	38.6	33.0	20.0	20.0	17.3	80.3	198.0	209.2
Power Bonds	0.0	29.0	33.1	319.8	0.0	0.0	549.9	382.0
Water Bonds-Water Only & 45% Joint Assets	16.7	22.8	24.7	275.9	14.0	89.8	439.4	443.9
Developer Fees	5.9	0.0	0.0	0.0	0.0	0.0	0.0	5.9
Cap and Trade Auction Revenue	2.1	2.1	2.1	2.1	1.8	0.0	11.9	10.2
Project De-Appropriation	11.0	0.0	0.0	0.0	0.0	0.0	0.0	11.0
TOTAL	\$74.4	\$86.9	\$80.0	\$617.8	\$33.1	\$170.1	\$1,199.3	\$1,062.2
Total San Francisco Jobs/Year	663	775	713	5,511	295	1,518	10,026	9,475
Surplus/(Shortfall)	0	0	0	0	0	0	0	0



Hetch Hetchy Enterprise 2-Year Budget Request

Program/Project (Millions)	FY 2015-16 Approved	FY 2016-17 Requested	FY 2017-18 Requested
		Two - Year Request	
<u>Uses</u>			
Hetchy Power			
Streetlights	11.9	3.5	3.5
Transmission/Distribution	1.3	0.0	0.0
Renewable/Generation	6.2	1.1	1.1
Energy Efficiency	1.0	1.0	1.0
Treasure Island & Other Development	3.0	6.1	7.1
Distribution Services for Retail Customers	0.0	20.0	20.0
Hetchy Power Subtotal	23.3	31.7	32.7
Hetchy Water			
Water Infrastructure	2.0	5.1	10.0
Power Infrastructure	32.1	11.7	15.8
Joint Projects - Water Infrastructure 45%	16.0	11.6	12.8
Joint Projects - Power Infrastructure 55%	19.5	14.2	15.6
Hetchy Water Subtotal	69.5	42.6	54.2
Total	92.9	74.4	86.9
<u>Sources</u>			
Revenue	17.4	38.6	33.0
Power Bonds	55.9	0.0	29.0
Water Bonds	18.0	16.7	22.8
Cap and Trade Auction Revenue	1.7	2.1	2.1
Developer Fees	0.0	5.9	0.0
Project De-Appropriation	0.0	11.0	0.0
Total	92.9	74.4	86.9
Surplus/(Shortfall)	0.0	0.0	0.0

Hetch Hetchy Enterprise 2-Year Budget Request

- Supplemental Appropriation Request-\$169.5M

 - FY 2016 - 2017 \$76.4M

 - FY 2017 - 2018 \$93.1M

- Hetchy Power

 - FY 2016-2017 \$31.7M

 - FY 2017-2018 \$32.7M

- Hetchy Water

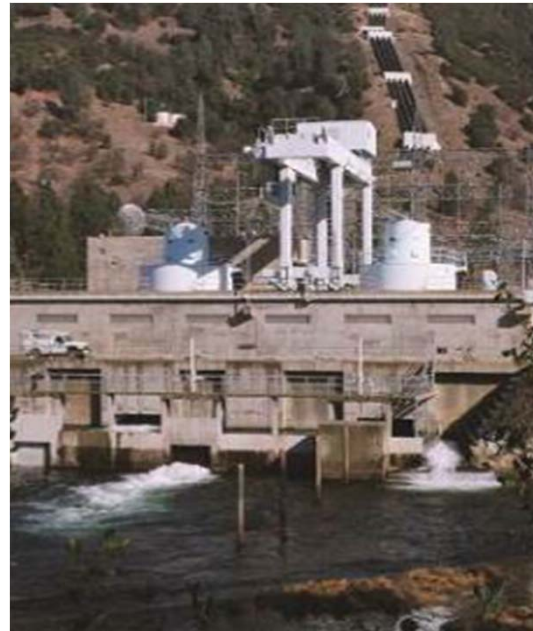
 - FY 2016-2017 \$42.6M

 - FY 2017-2018 \$54.2M

- Financing Costs

 - FY 2016-2017 \$2.0M

 - FY 2017-2018 \$6.2M



Hetch Hetchy Enterprise – Power

⚡ **Streetlights**
FY 16-17 \$3.5M, FY 17-18 \$3.5M
Funds various street lighting improvements, replacement & repairs, engineering and construction costs.

⚡ **Redevelopment**
FY 16-17 \$6.1M, FY 17-18 \$7.1M
Projects to support the future development electrical load at Treasure Island and Alice Griffith/Candlestick Point.



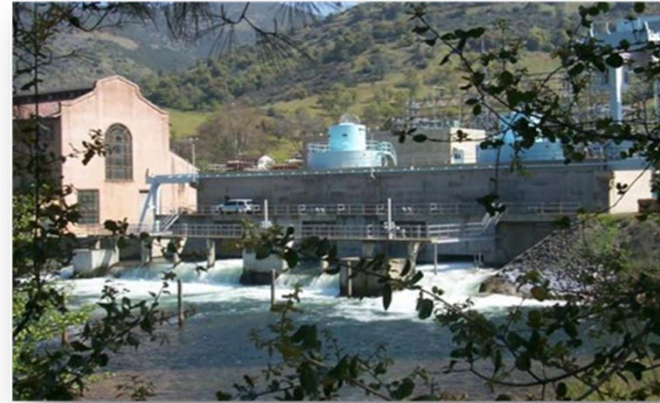
⚡ **Renewable Generation**
FY 16-17 \$1.1M, FY 17-18 \$1.1M
Includes planning, development and implementation for new electricity generation resources to provide clean, local generation, and SF GoSolar.

⚡ **Energy Efficiency**
FY 16-17 \$1.0M, FY 17-18 \$1.0M
Investments to reduce facility operating costs for General Fund customers, improving system functionality and reducing the environmental impact of energy use.

⚡ **Distribution Retail Customers**
FY 16-17 \$20.0M, FY 17-18 \$20.0M
Project provides for the design and construction of transmission and distribution facilities to serve new retail customers.

Hetch Hetchy Enterprise – Water

- 💧 **Water Infrastructure**
FY 16-17 \$5.1M, FY 17-18 \$10.0M
Upgrades for increased capacity and reliability to the Hetchy Water Infrastructure including continued rehabilitation of the San Joaquin Pipeline.
- 💧 **Joint Water/Power Projects (55% Power, \$45% Water)**
FY 16-17 \$25.8M, FY 17-18 \$28.4M
Funding for Mountain Tunnel Access/Adit project, Inspection and Repair project for short-term improvements, and the Mountain Tunnel Bypass project providing for evaluation of alternatives and design of the preferred engineering solution to construct the bypass tunnel.



Moccasin Power House

- 💧 **Power Infrastructure**
FY 16-17 \$11.7M, FY 17-18 \$15.8M
Funding for renewal and replacement to Hetchy transmission and clearance mitigation and improvements to Kirkwood Penstock and Powerhouse Improvements.

Questions?

