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

San Francisco Public Utilities Commission,
An Enterprise Department of the City and County of San Francisco, California

Comprehensive Annual Financial Report

Fiscal Years Ended
June 30, 2018
and 2017

Sustaining the resources entrusted to our care.

San Francisco
Water Power Sewer
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The San Francisco Public Utilities Commission

An Enterprise Department of the City and County of San Francisco, California

Comprehensive Annual Financial Report
For the Fiscal Years Ended
June 30, 2018 and 2017

Prepared by SFPUC Financial Services

Eric Sandler
Assistant General Manager, Business Services
& Chief Financial Officer

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The San Francisco Public Utilities Commission

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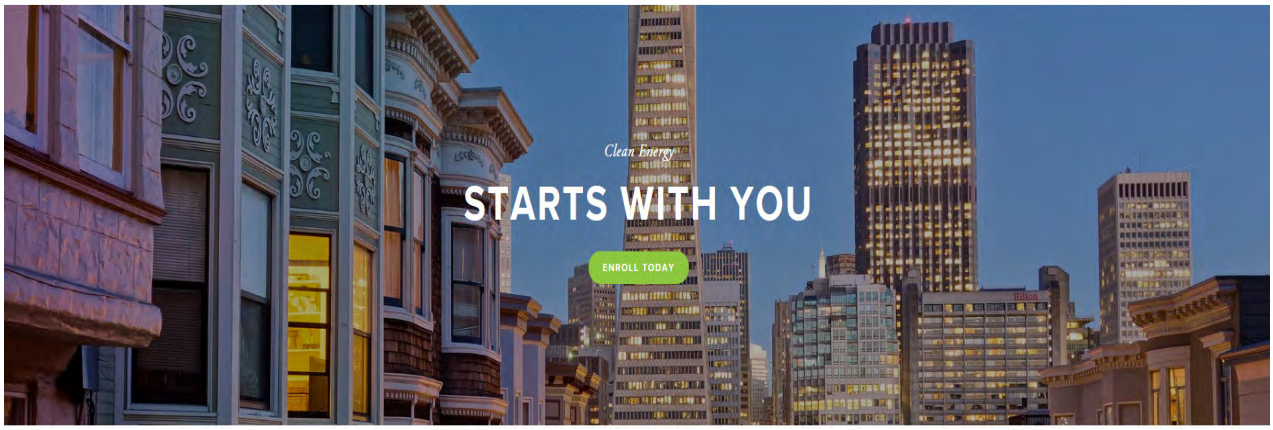

CleanPowerSF provides SF residents and businesses with cleaner, greener energy at affordable rates.

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Introductory Section (Unaudited)

Certificate of Achievement

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The San Francisco Public Utilities Commission
A Department of the City and County of San Francisco, California

Government Finance Officers Association

Certificate of Achievement for Excellence in Financial Reporting

Presented to

City and County of San Francisco

Public Utilities Commission

California

For its Comprehensive Annual
Financial Report
for the Fiscal Year Ended

June 30, 2017

Christopher P. Morrill

Executive Director/CEO

SAN FRANCISCO PUBLIC UTILITIES COMMISSION
GENERAL MANAGER'S TRANSMITTAL LETTER

February 22, 2019

Dear Customers and Stakeholders,

London N. Breed
Mayor

Ann Moller Caen
Vice President

Francesca Vietor
Commissioner

Anson Moran
Commissioner

Ike Kwon
Commissioner

Harlan L. Kelly, Jr.
General Manager

At the San Francisco Public Utilities Commission (SFPUC), our mission is to provide our customers with high-quality, reliable water, power, and wastewater services 24/7. As stewards of our natural and financial resources, we invest ratepayer dollars in ongoing critical maintenance and capital improvements to our water and sewer systems. Decades of proactive planning, continuous maintenance, and infrastructure upgrades mean we can deliver dependable water services to 2.7 million people in the Bay Area, as well as wastewater and power services to San Francisco around the clock.

Through the Water System Improvement Program (WSIP), we have seismically strengthened crucial pipelines and facilities, constructed three major tunnels, and are nearing completion of a replacement earth and rock-fill dam at Calaveras Reservoir, restoring the original reservoir volume. We also initiated implementation of the San Francisco Groundwater Supply Project to diversify and strengthen our local water supply. Even in the event of a major earthquake or during a drought, these upgrades will ensure vital water service to the communities we serve.

A dependable water system also requires an equally reliable wastewater system. The Sewer System Improvement Program (SSIP) will ensure a reliable, sustainable, and seismically-safe sewer system now and for future generations. With 60% of the 1,000 miles of sewer pipelines that run under our feet over 50 years old, and our largest treatment facility over 65 years old, routine repairs are no longer enough. Phase 1 of SSIP includes treatment plant projects, pump stations, and force main improvements, as well as flood resilience and stormwater management projects to help us continue protecting public health and the environment.

The San Francisco Public Utilities Commission also continued to operate and maintain the Hetch Hetchy Power System (HHPS), which has generated 100% greenhouse gas-free hydroelectric energy to power City services and residential customers in the San Francisco Bay Area for more than a century. Through the implementation and expansion of CleanPowerSF, San Francisco's Community Choice Aggregation (CCA) program, we continue to educate residents and businesses on cleaner, more renewable energy sources to help San Francisco meet its aggressive climate action goals.

In fiscal year 2018, we maintained a stable financial condition, controlling our operating costs and maintaining positive revenues. Fiscal stewardship of our ratepayer dollars is one of our highest priorities.

On behalf of the San Francisco Public Utilities Commission, I am pleased to present the SFPUC Comprehensive Annual Financial Report (CAFR) for the fiscal year ended June 30, 2018.

The Reporting Entity - Profile of the San Francisco Public Utilities Commission

The San Francisco Public Utilities Commission (SFPUC), a department of the City and County of San Francisco (the City), is responsible for the operation, maintenance, and development of three utility enterprises: Water, Wastewater, and Hetch Hetchy Water and Power and CleanPowerSF. We provide wholesale and retail drinking water to the San Francisco Bay Area, wastewater collection and treatment within San Francisco and three neighboring municipalities, and power to residential and commercial customers and municipal facilities.

Our Business Services, External Affairs, and Infrastructure bureaus provide support and oversight services and are paid for through utility rates and charges.

The **Water Enterprise** operates the Hetch Hetchy Regional Water System (System), a wholesale and retail drinking water utility that serves 2.7 million customers in Alameda, Santa Clara, San Mateo, and San Francisco counties. The upcountry portion of the System begins with Hetch Hetchy Reservoir in Yosemite National Park. Impounded by O'Shaughnessy Dam, Hetch Hetchy Reservoir water passes through hydroelectric powerhouses before it enters the San Joaquin Pipelines, the Tesla Ultraviolet Treatment Facility, and the Coast Range Tunnel on its journey to the Bay Area.

The Bay Area portion of the System includes water collection, transmission, and treatment facilities from the Alameda East Portal to the wholesale service area and terminal reservoirs in San Francisco. Facilities include watersheds, dams, and reservoirs such as our Calaveras, San Antonio, Crystal Springs, Pilarcitos, and San Andreas. The water treatment facilities are Tesla Ultraviolet Treatment Facility, disinfecting the Hetch Hetchy supply; Sunol Valley Water Treatment Plant, treating the water from the Calaveras and San Antonio supply as well as the stored Hetch Hetchy supply; and Harry Tracy Water Treatment Plant, treating the water from the Crystal Springs and San Andreas supply. The water transmission system in the Bay Area includes the Bay Division pipelines, and the system on the Peninsula includes the San Andreas, Sunset, and Crystal Springs pipelines. The Bay Area transmission system also includes Irvington Tunnel 1 and Tunnel 2, the Bay Tunnel, and the Crystal Springs Bypass Tunnel.

The Water Enterprise also manages water distribution in the City. This system encompasses 1,250 miles of distribution pipelines, as well as 12 in-City reservoirs and eight water tanks with a total storage capacity of approximately 413 million gallons. Since June 2011, the Water Enterprise has operated the City's Auxiliary Water Supply System (AWSS), an independent, high-pressure water supply system for fire suppression.

On average, 85% of the drinking water supplied by our system originates as snowmelt within the 459-square-mile Hetch Hetchy Watershed on the upper Tuolumne River within Yosemite National Park. This high-quality water is transported 167 miles across California solely by gravity. The remaining 15% of the water supply currently comes from precipitation collected in the reservoirs of the Alameda Creek Watershed in Alameda County, and the Peninsula Watershed in San Mateo County.

The San Francisco Groundwater Supply Project diversifies our local water supply. Groundwater from the Westside Basin Aquifer blends with the Hetchy Regional System water stored in the Sunset and Sutro reservoirs before distribution. Diversifying our sources will strengthen San Francisco's local water supply, allowing it to continue to meet needs in the event of long-term drought or emergency.

Water Enterprise revenue is based on retail and wholesale water rate payments from customers. Retail rates are set by the SFPUC, and wholesale rates are set by the Commission pursuant to our Water Supply Agreement with our wholesale customers.

The Wastewater Enterprise is responsible for the operation and maintenance of San Francisco's combined sewer system that collects, treats, and discharges wastewater flows generated within San Francisco, parts of Daly City, the Bayshore Sanitary District, Brisbane, Treasure Island, and Yerba Buena Island. This work is crucial for the protection of public health, and for the environmental safety of the San Francisco Bay and Pacific Ocean. Our system is unique in coastal California and offers significant environmental benefits because it captures and treats both street runoff (stormwater), and sanitary sewage (wastewater) from homes and businesses.

San Francisco wastewater and stormwater flows are treated at three facilities: the Southeast Treatment Plant, the Oceanside Treatment Plant, and the North Point Wet Weather Facility, the last of which is operated only in wet weather. The sewer system currently handles an average of 65 million gallons per day (MGD) in dry weather, and can treat up to 575 MGD in wet weather. The Wastewater Enterprise operates 27 pump stations, 36 discharge points, and massive underground transport/storage structures around the City that have storage capacity up to 200 million gallons. We operate, clean, inspect, and maintain more than 1,000 miles of sewer pipes. We regularly monitor areas of the San Francisco shoreline for water quality where water recreation is common, and provide water quality reports to the public using our 24-hour hotline, website, e-newsletters, and the mobile app "SF Beaches."

The Wastewater Enterprise serves both residential and commercial accounts as well as some municipal customers. Our sewer facilities and resource recovery programs have received recognition from agencies at the state and national level, including the U.S. Environmental Protection Agency, National Association of Clean Water Agencies, and the California Water Environment Association.

The comprehensive RainReadySF Program, which is a combination of planned infrastructure improvements, coordinated City services and innovative programs, provides residents and businesses with the resources they need to reduce the risk of flooding during a major rainstorm throughout the City's wet season. As part of the RainReadySF Program, Adopt A Drain SF helps reduce localized flooding by engaging residents and businesses to take an active role in caring for and improving their neighborhood by registering for the program online. To date, more than 1,500 community members have adopted over 2,400 drains throughout the City.

This year, we launched a new series of interactive watershed maps online to highlight the past, present, and future of our watersheds. Communities can interact with these online maps, which convey how historic waterways, shorelines, and infrastructure have transformed the landscape since the 1860s.

The Hetch Hetchy Water and Power and CleanPowerSF Enterprise (Hetch Hetchy) comprises three key components: (1) Hetch Hetchy Water (Hetchy Water), which operates and maintains the upcountry water and power facilities; (2) Hetch Hetchy Power (Hetchy Power), responsible for all power utility wholesale and retail transactions and in-City power operations; and (3) CleanPowerSF, a CCA that provides San Francisco residents and businesses with new clean energy alternatives.

Hetchy Water is responsible for operating the Hetch Hetchy Reservoir, the main source of water for the Hetch Hetchy Regional Water System and plays a key role in water delivery in California. Several of the Hetch Hetchy Water facilities are joint assets and are used for both water transmission and power generation and transmission. Operating and capital costs of these facilities are allocated 45% to Hetchy Water and 55% to Hetchy Power. Refer to Water Enterprise for more information on the Hetch Hetchy Regional Water System.

Hetchy Power is the publicly owned utility for the City providing full-service and clean energy services to our customers. Our Hetchy Power System generates and delivers hydroelectric, solar and biogas energy to retail and wholesale electricity customers. Hetchy Power's customers include the San Francisco International Airport, libraries, police stations, City Hall, Muni, Treasure Island, Hunter's Point Shipyard, Transbay Terminal, shoreside power hookups, CleanPowerSF and other utility districts. Hetchy Power

also owns and maintains 60% of the streetlights in the City. Finally, Hetchy Power provides electrical maintenance services, energy efficiency programs, and distributes generation services to our residents, businesses, and customers.

The Hetchy Power System is composed of transmission lines that traverse the State of California, electric transmission and distribution facilities, and a generation portfolio that includes: three large hydroelectric powerhouses; one small, in-line hydroelectric powerhouse; 22 solar arrays and two biogas facilities. Our main hydroelectric powerhouses, including Holm, Kirkwood and Moccasin, are in the Sierra Nevada mountain range. Hetchy Power revenue is based on retail and wholesale power-rate payments and charges collected from customers. Retail rates are set by the Commission.

This year marked the 100th anniversary of the Hetchy Power System and on May 6, 2018, the City recognized our ongoing efforts to provide clean energy to San Francisco residents and businesses known as the Hetch Hetchy Power System Centennial Day.

CleanPowerSF, San Francisco's CCA program, provides electricity customers in San Francisco with new choices for power supply and increased access to renewable energy sources. The program now serves more than 100,000 San Francisco customers and allows us to partner with Pacific Gas and Electric Company (PG&E) to deliver clean energy to our residents and businesses. Under this program, CleanPowerSF supplies customers with electricity from renewable sources while PG&E delivers the energy on its transmission lines. CleanPowerSF's Green product features 43% California Renewable Portfolio Standard (RPS) certified renewable energy, and its SuperGreen product offers 100% California RPS-certified renewable energy.

To supply its customers, CleanPowerSF signed several multi-year deals to purchase energy from new wind and solar projects that will be constructed in 2019 and 2020. These projects will create more than 600 new jobs and ensure a clean, safe, and reliable renewable power supply to CleanPowerSF customers over the next several decades. We plan to enroll remaining San Francisco customers by 2019. Between Hetchy Power and CleanPowerSF, the SFPUC now supplies electricity to meet approximately 50% of the demand in San Francisco.

Long-Term Strategic Goals, Major Accomplishments and Initiatives

Our mission is to provide our customers with high-quality, efficient, and reliable water, power, and wastewater services in a manner that supports both environmental and community interests, and that sustains the resources entrusted to our care. Our budget is aligned with these long-term strategic goals and objectives as detailed in the SFPUC's 2020 Strategic Plan:

- **Reliable Service and Assets**: We provide reliable service and value to our customers by optimizing the operation, maintenance, replacement, and improvement of all assets in the most cost-effective manner.
- **Organizational Excellence**: We are a high-performing organization focused on efficiency, effectiveness, and accountability across the organization.
- **Effective Workforce**: We attract, retain, and develop an effective workforce, reflective and supportive of our communities, that consistently delivers high-quality services to stakeholders.
- **Financial Sustainability**: We assure financial integrity and sustainability, meeting today's operating and capital investment needs while managing risk and long-term affordability for the future.
- **Stakeholder and Community Interest**: We foster trust and engagement with our customers, employees, and the communities we serve through open and timely communication and education.
- **Environmental Stewardship**: We sustainably manage the resources entrusted to our care to ensure environmental and community health.

Some of our achievements for this fiscal year are summarized below.

Water System Improvement Program (WSIP)
Through our WSIP, one of the largest infrastructure programs in the nation, we and our wholesale customers have invested $4.8 billion into strengthening the San Francisco and Regional Water Systems. The 87 projects of the WSIP enhance our ability to provide high-quality, reliable drinking water to our customers, even after a major earthquake and during an extended drought period. This year the WSIP advanced to more than 96% complete. Accomplishments include:

- Calaveras Dam Replacement Project: Major earthwork for the new earth and rock-fill dam is complete; the total project is over 90% complete and is on schedule for final construction completion in Spring 2019, and the dam will begin to impound water in fall/winter 2019.
- Fish Passage Facilities in Alameda Creek Watershed: The fish ladder and intake structure are completed and the overall project is nearly 90% complete.
- Bioregional Habitat Restoration Program: 22 acres of watershed land have been converted to historic, native habitat along the Crystal Springs Reservoir.
- Alameda Creek Recapture Project: Release of the Draft Environmental Impact Report with a recirculated draft expected in Spring 2019.
- Regional Groundwater Storage and Recovery Project: Construction of the Phase 1 contract is over 99% complete and testing is underway at twelve new groundwater well sites in San Mateo County. One additional production well station is in design, and three additional test wells are being drilled and tested under Phase 2 for possible future conversion to production wells.

Pipe Repair and Replacement in San Francisco
With over 2,000 miles of water and sewer mains, the work of preventative maintenance is a continuing challenge. Funding was approved in the biennial budget for fiscal year 2017 and 2018, with a goal to increase the pipeline replacement rate to 15 miles per year for water and sewer mains. For fiscal year 2018, the Wastewater Enterprise inspected 135 miles and replaced 11 miles of sewer pipes and the Water Enterprise replaced 8.8 miles of water pipes, the latter replacement well short of the goal. This was in part due to challenges associated with SFPUC's commitment to partner with other City agencies on major streetscape improvement projects that encountered unexpected delays. However, we are well positioned to increase the rate of replacement as we hire more staff, and as the major streetscape projects move forward.

Auxiliary Water Supply System (AWSS)
In continuing upgrades to the AWSS (also referred to as the Emergency Firefighting Water System), Emergency Firefighting Pump Station No. 1 seismic and operation upgrades were completed.

Local Water Program
Our Local Water Program focuses on diversifying San Francisco's water supply while ensuring we optimize efficient use of our water resources. With tools including conservation, groundwater, recycled water and our non-potable program, the Local Water Program ensures that San Francisco will be resilient in the face of risks to our water supplies such as drought, climate change, earthquakes, new regulations, and growing demand. Accomplishments include:

- San Francisco Groundwater Supply Project: Construction is complete on four well stations, testing is under way, and groundwater pumping began in April 2017. Construction on the remaining two well stations is in progress.
- Westside Recycled Water Project: Recycled water pipeline construction is complete. Treatment facility construction broke ground January 2018, and construction is under way.
- Non-potable Water Program: The Program received 15 water budget applications to install onsite non-potable water systems in fiscal year 2018.

- Utilizing our rebates and incentives, our customers replaced 2,081 toilets and urinals, and 734 clothes washers, with water-efficient models. We distributed over 8,900 water-efficient devices, such as showerheads and aerators.
- We conducted over 4,700 water-wise evaluations, including detailed outdoor audits of acres of irrigated landscape, to help San Franciscans be even more water efficient.

Sewer System Improvement Program (SSIP)

The SSIP is a 20-year, multi-billion-dollar investment to upgrade and modernize our aging sewer system to ensure we can continue to protect public health and the environment. The SSIP is improving our operational efficiency and reliability, enhancing our seismic resilience, and preparing us for climate change-related challenges. Investments today in our outdated infrastructure will save us money in the long-run, and ensure our sewer system continues to operate reliably and efficiently without interruption. Phase 1 of SSIP is investing $2.9 billion across 70 projects to improve and upgrade our collection system, treatment facilities and stormwater management efforts. Accomplishments include:

- Southeast Plant Biosolids Digester Facilities Project: The project was selected to receive a $699 million low-interest loan from Environmental Protection Agency (EPA)'s Water Infrastructure Finance and Innovation Act. The Environmental Review (Environmental Impact Report) was completed. Contracts for Construction Manager/General Contractor (CM/GC) and Construction Management Staff Augmentation Services were awarded.
- Southeast Plant New Headworks Facility Project: The project authorized Notice to Proceed to CM/GC Sundt/Walsh Joint Venture and Construction Manager HDR, Inc. Design continues on three major scopes of work, including Main Headworks, Bruce Flynn Pump Station, and the Southeast Lift Pump Station.
- North Point Outfall System Rehabilitation Project: Upgrades were completed that removed sediment buildup and relined/installed corrosion protection systems on pipes and structural supports inside and outside the North Point Outfall structure beneath Piers 33 and 35.
- Green Infrastructure Projects: Construction was completed on Holloway Green Street and Sunset Boulevard; Greenway Phase 1, Mission & Valencia Streets Green Gateway, and Wiggle Neighborhood Green Corridor Phase 2. Construction is under way for the Chinatown Living Alley and Visitacion Valley Green Nodes.
- Collection System Capital Improvement Strategy Using an Urban Watershed Approach: Final report is slated for completion in late 2018.
- Interagency Project Coordination: Masonic Avenue Streetscape Improvements were completed while other sewer upgrades remain under way as part of the San Francisco Municipal Transportation Agency and Department of Public Works led projects, including Van Ness Improvement Project, Geary Rapid Project, Geary Boulevard Improvement Project, Mission Bay Loop Project, L Taraval Improvement Project, Better Market Street Project, and Central Subway Project.

Hetchy Capital Improvement Projects

Upgrades to the aging facilities of Hetchy Water and Hetchy Power (HHWP) are under way. Upcountry water and power facilities being assessed for rehabilitation projects include three impounding reservoirs, three regulating reservoirs, three large powerhouses, one small powerhouse, one switchyard, three substations, over 150 miles of pipelines and tunnels, almost 100 miles of paved road, over 150 miles of transmission lines, watershed land, and rights-of-way property. Accomplishments include:

- Fiscal year 2019 Mountain Tunnel Interim Repairs Project: The construction contract for Phase 2 of the interim repairs that were initiated in 2017 has been awarded and preparations are underway for repairs to take place during a shutdown of the tunnel from January to February 2019.

- Mountain Tunnel Improvement Project: Planning and 35% design documents for the rehabilitation of the existing tunnel are completed. Environmental documentation (California Environmental Quality Act/National Environmental Policy Act) is under way.
- Kirkwood Penstock Short-term Risk Reduction Measures and Warnerville Substation Upgrade: Construction is ongoing.
- San Joaquin Valley Communication System Upgrade, Moccasin Facilities Upgrade, and Cherry Dam Outlet Works Rehabilitation: Construction is complete.
- Holm Powerhouse Rehabilitation and Kirkwood Powerhouses Oil Containment Upgrade: Construction contract has been awarded and work is in progress.
- Rim Fire Related Construction: Rim Fire cost reimbursement efforts with insurance, Federal Emergency Management Agency, and California Governor's Office of Emergency Services continued during the year.

In addition to the planned projects listed above, significant resources were expended this fiscal year to respond to an emergency at Hetch Hetchy. On March 22, 2018, Hetch Hetchy in Moccasin experienced excessive rainfall and subsequent flash flooding, with the flood water containing a large volume of debris consisting of sediment, downed trees and logs. This flash flooding had a serious detrimental effect on SFPUC assets associated with Moccasin Reservoir and adjacent areas. SFPUC declared an emergency on March 23, 2018, and clean-up efforts and emergency repairs were immediately started to restore water delivery to the City. The reservoir is currently out of service until the emergency repairs and interim improvements are funded through the HHWP 10-Year Capital Improvement Program which will complete by early 2019. A separate project to implement longer-term improvements will be considered after full evaluation of the facility to prepare for uncertainty due to climate change.

Energy Efficiency and Renewable Power Resources

Hetchy Power offers an array of energy efficiency, renewable energy, and green building programs for our customers. We serve our municipal, residential and commercial customers some of the cleanest energy in the country. In addition, CleanPowerSF has expanded and now serves more than 100,000 San Francisco customers, and plans to enroll all remaining eligible customers by July 2019. After an extensive outreach and education program, we are pleased to have a 96% customer participation rate.

This year, the first phase of the Light Emitting Diode (LED) Streetlight Conversion Project, which converts 18,500 common streetlights using the high-pressure sodium to LED fixtures, was completed. The new LED fixtures will improve lighting conditions throughout the City and enhance safety for pedestrians, bicyclists, and drivers. The LEDs will be powered by our 100% greenhouse gas-free clean energy portfolio, which includes Hetch Hetchy hydroelectric and solar energy. With the new LED luminaires, San Francisco will have some of the greenest city lights in California.

Hetchy Power also launched two additional energy-efficiency programs for nonresidential-enterprise-rate customers called Modeling for Savings and Upgrade for Savings. These two programs, along with our Blueprint for Savings program launched last July, help our non-residential electric customers build and/or modernize their buildings with energy efficient features. With technical support and cash incentives, these programs help customers to create more sustainable buildings that earn higher rents, provide healthier work places, and have smaller environmental footprints. Other accomplishments include:

- Solar Arrays: Five project locations (500 kilowatt) are currently in the design and permitting process, with installations scheduled for fiscal year 2019; total of 27 solar arrays and 8.6 megawatts of solar facilities in the City once completed.
- GoSolarSF: 4,839 new solar installations (18,074 kWAC of new solar energy).
- Energy Efficiency: Completion of six energy efficiency projects that will save 1,114 MWh per year of electricity and 51,446 therms per year of natural gas; completion of more than 200 energy

efficiency projects in public buildings since 2002, saving the City over $6 million each year in energy costs while helping to reduce greenhouse gas emissions.

- MyAccount: MyAccount is a web portal that enables our power utility customers to view their usage, pay their bills, learn about our energy efficiency programs, and view energy saving tips applicable to their customer type.
- Energy Efficiency Welcome Kits: Energy saving LED lightbulbs, energy savings tips, and information about Hetch Hetchy electric service continue to be provided to all new Hunter's Point Shipyard electric customers.

Workforce Planning and Staff Development

Utilities nationwide are facing an aging workforce heading toward retirement. The SFPUC continues to bolster our programs to support hiring in our communities for internships and contracting opportunities. We are improving recruiting and hiring processes, creating clear career pathways, and advancing our culture of high performance to consistently deliver high-quality services.

We are also involved with workforce development planning efforts at the regional level by leveraging collaborative and strategic partnerships with water and wastewater agencies, education institutions, and non-profit organizations.

- Integrated Talent Management: Several efforts are under way to integrate talent management processes and projects across our Agency as an emerging workforce planning strategy. Through initiatives such as team restructuring, pilot programming, including employee engagement survey and action planning, the development of our competency model framework, and a focus on more multi-disciplinary collaboration, we are more efficient and effective when addressing talent needs, employee retention, development, and succession planning etc.
- Local Hire: For the seventh consecutive year, we have exceeded the requirements of San Francisco's Local Hiring Ordinance. For the 185 SFPUC public works projects subject to the Ordinance through the current reporting period, 43% of all hours and 68% of all apprentice hours have been worked by San Francisco residents.
- Project Labor Agreement (PLA): Approximately 8.3 million craft hours were performed by more than 13,720 workers on the WSIP PLA. 50% of those hours have been worked by local and regional service territory residents and 72% of all apprentice opportunities were worked by local and regional service territory resident apprentices. The parties to the PLA have extended it to also cover SSIP, and approximately 430,000 construction craft hours have been worked by more than 1,400 workers on PLA. Through the reporting period for the program, 32% of all hours and 64% of all entry-level apprentice hours have been worked by San Francisco residents.
- Youth and Adult Workforce Development
  - Project Pull: This paid summer internship program pairs highly motivated, local high school students and incoming college freshman with City staff who introduce them to job skills and technical careers. For the most recent fiscal year, the program included approximately 117 high school interns and 49 college team leads. Since its inception in 1996, Project Pull has provided more than 1,650 students with summer employment.
  - SSIP CityWorks: For the seventh year in a row, the SSIP CityWorks program has provided paid summer internships to students from San Francisco's Southeast neighborhoods. This year, 15 interns spent six weeks working on SSIP projects with the SFPUC and private engineering firms.
  - Project Learning Grants: Our partnerships with 24 local community organizations continue to serve more than 650 youth and young adults each year. Through these programs, young people learn about the Agency and our career and internship opportunities. These individuals use specifically created SFPUC curriculum to share our most important public awareness messages with their own communities while developing valuable work skills and experience.

- BAYWORK: We continue to be a leading partner in BAYWORK, a consortium of 34 Bay Area water and wastewater utilities working together to prepare a reliable workforce. The organization recently partnered with the Jewish Vocational Service to develop a Utilities Training Program to build pathways to high-need occupations in the skilled trades in water and wastewater.
- Water Agency Leaders Alliance (WALA): The SFPUC is partnering with 11 other utilities as part of the WALA, a group of public water and wastewater utility executives who are working to promote equity in the water utility sector. This group created a study which details the need to build and maintain critical infrastructure nationwide, and outlines the benefits of a Federal Workforce Grant Program to use local funds for development and partnerships.
- Contractors Assistance Center: We provide local community contractors and small businesses with the tools and resources needed to compete for City-funded contracts. The Center offers a wide range of services including: classroom-style workshops, one-on-one consulting for contractors and local businesses, business development training, access to plans and specs for Public Works projects, networking events, and free computer usage and meeting space.
- Annual Women in Construction Expo: The Expo is an annual educational and networking event organized by the SFPUC and its Small Firm Advisory Committee, in conjunction with the National Association of Women in Construction, and the Women's Business National Council. This event will further our goals to empower women in the construction industry by providing valuable information on how to enter pre-apprenticeship programs, gain skills to pursue opportunities, create and grow successful companies in the construction industry, and navigate through the contract bidding process. The theme of the November 2018 Expo addressed ways for architecture, engineering and construction to work together as one in the construction industries.

Community Engagement

The SFPUC is proud to be the first utility in the nation to adopt Environmental Justice and Community Benefits policies, and we are committed to working with communities impacted by our operations and capital projects. These policies ensure that we are engaging and providing our communities with job opportunities, training, and access to educational resources while supporting a healthy and sustainable environment.

We aim to educate our communities on the positive impacts of infrastructure investments. Our approach is to foster continuous engagement through community presentations, participation in local events, and tours of our local and regional infrastructure. As we face the challenge of aging infrastructure, it is now more important than ever to educate and work with our communities to tackle this issue together.

We strive to be good neighbors in our community by maintaining transparent communications and building strong partnerships through:

- Innovative educational campaigns;
- Media and crisis communications;
- Informative print and digital publications in multiple languages;
- Timely responses to public inquiries and public records requests;
- Engaging and timely social media content; and
- Public hearings, community events and educational presentations.

Accomplishments include:

Arts

- Bayview Artist Registry: As required by San Francisco's '2% for the Arts' ordinance, the SFPUC is partnering with the San Francisco Arts Commission (SFAC) to support public art as it builds or rebuilds capital infrastructure. We have engaged in extensive outreach to create a Bayview Artist

Registry. This registry is a pool of 300 artists with a meaningful connection to the Bayview, and as art opportunities arise through SSIP, both agencies will draw upon the artists in this pool.

- Bayview Arts Master Plan: To ensure that the artworks commissioned for the Bayview speak to the stories, values and contributions of the individuals who live in this neighborhood, as well as the environmental mission of the SFPUC, the SFPUC is partnering with the SFAC to draft a master plan which will guide our investment in public art in the Bayview. During the fiscal year 2018, 300 individuals have been interviewed in over two dozen meetings. The Bayview Arts Master Plan will be the first arts master plan in San Francisco history to include a youth voice.

Education

- California Academy Partnership
    - Story of Poo: We have partnered with the California Academy of Sciences to produce an animated video titled, "The Story of Poo," which tells the story of San Francisco's sewer system. Created for elementary age children, the video is narrated by a young girl who shares what she has learned after a recent visit to the Southeast Wastewater Treatment Plant.
    - Bayview Teachers Institute: The SFPUC is partnering with the California Academy of Sciences to provide an in-depth professional learning opportunity to increase the science literacy (through the lens of our ecoliteracy publication, "Big Ideas") of K-5 teachers and students in San Francisco's Bayview neighborhood. The Bayview Teacher Institute took place in June 2018 and will provide professional development opportunities during and following the subsequent school year.
    - College Hill Learning Garden: The SFPUC's College Hill Learning Garden was awarded "Best Public Program" at the 46th Annual Beautification Awards. Presented by San Francisco Beautiful, the Best Public Program award recognizes a government program or project that has contributed to the beauty and livability of San Francisco.
    - John O'Connell High School Annual Camp Mather Trip: The SFPUC continues to partner with John O'Connell High School in San Francisco's Mission District to integrate SFPUC operations and careers into their existing career awareness curriculum. In May 2018 we supported the freshman and sophomore classes as part of an overnight stay at Camp Mather.

Environmental Justice and Land Use

- Grant Programs: These programs not only benefit the air quality of the neighborhood by increasing greenery but also capture stormwater, reducing the strain on our combined sewer system and recharging our aquifers. Combined, these programs have removed over 10,000 square feet of impervious concrete in front of more than 88 homes throughout the City.
    - Front Yard Ambassadors Program: We are in partnership with Friends of the Urban Forest, collaborates with community members to break up concrete paving in front yards and establish native and drought-tolerant plants throughout the Sunset District.
    - Sidewalk Gardens Program: Working together with Climate Action Now! and Friends of the Urban Forest, we manage the Sidewalk Gardens Program. The program engages community members to replace concrete sidewalks with vibrant gardens in the Bayview, Hunter's Point neighborhood and throughout our urban watersheds.
- Hummingbird Farm: Last fall the SFPUC opened Hummingbird Farm in the Excelsior neighborhood in partnership with the District 11 Supervisor, The San Francisco Foundation, and People Organizing to Demand Environmental and Economic Rights (PODER). Since its opening last fall, Hummingbird Farm is a thriving community space that provides cultural and educational opportunities, and fresh organic produce for the Excelsior community. PODER serves as the site operator and has hosted nearly 100 youth participants and over 150 community members in workshops, volunteer work, and educational classes. These events range from sunrise ceremonies, permaculture workshops, neighborhood potlucks, and weeding/pruning classes.

Neighborhood Revitalization

- 1550 Evans: With the community focused design complete for the new community center at 1550 Evans, we are moving towards construction of a new state-of-the-art community facility, slated to open in 2021. We remain committed to working with the Bayview community to ensure local workers have opportunities during the construction of the new center. The result will be a new facility envisioned by the community, built by the community, and for the community.
- Community Grant Program: Through this program, the SFPUC awarded $700,000 in grant funding to three local non-profit organizations to provide Bayview residents with green sector job training in areas such as horticulture, urban agriculture, and food services. Once training is complete, these organizations will assist residents with job placement services.
- Southeast Community Facility (SECF) Legacy Brunch: More than 150 Bayview community members, leaders and representatives from community organizations participated in the First Annual SECF Legacy Brunch. The event honored the dedicated men and women who have served, and continue to serve, on our Southeast Community Facility Commission, a mayoral-appointed leadership body providing the SFPUC and the San Francisco Board of Supervisors with guidance about strategic, financial, and capital improvement plans, programming, and operations at the Southeast Community Facility.

Social Impact Partnerships

- Engineering and Scientists in Schools Week: The SFPUC collaborated with the Tuolumne County Superintendent of Schools, on a variety of education programs in the county. During National Engineering Week, engineers, scientists, and other professionals volunteered their time in K-12 classrooms in Tuolumne to introduce students to Science, Technology, Engineering and Math (STEM) careers through hands-on and interactive activities. Along with our engineering firm partners CH2M Hill and McMillen Jacobs, we visited 44 classrooms throughout the county.
- Environmental Programs for Sunol and Hayward Schools: We partnered with Alameda County Resource Conservation District and our engineering firm partners AECOM and Avila to provide 135 elementary school students from Glassbrook Elementary School and Sunol Glen School with STEM activities through the KIDS for the BAY's Watershed Action Program, which is aligned with the Next Generation Science Standards, KIDS for the BAY staff led hands-on watershed activities for the fourth and fifth grade students.

Long-Term Financial Planning

The SFPUC's long-term financial planning is performed on a rolling ten-year forward basis. Consistent with the San Francisco Charter, updates to the Ten-Year Capital Plan, Ten-Year Financial Plan and Long-Term Strategic Plan are annually reviewed by the Commission, and public input is sought and welcomed. Additionally, the first five years of the Ten-Year Financial Plan are presented to the Board of Supervisors as part of the citywide financial plan. Our plans provide estimated rate impacts of projected spending and assure compliance with debt service coverage and fund balance reserve policy requirements. The plans also have been incorporated into our award-winning Budget and Financial Reports, helping ensure transparency for policy makers, the public and other users of our reports.

Business Continuity and Emergency Planning

The SFPUC has made significant investments in physical security for the water, wastewater and power enterprises, including establishing the SFPUC Emergency Planning and Security Program, which promotes maximum coordination and integration of all emergency planning responsibilities, focusing on security, emergency planning, preparedness, and continuity of operations. The program offers support for security assessment, incident coordination response, continuity of operations, and recovery; it is designed to provide the SFPUC with the capability to respond and recover quickly and appropriately to any potential emergency, and is responsible for the overall administration and coordination for the security system operations and development of the security strategy, policies, and procedures.

San Francisco's Budget Process

The budget cycle for the biennial July 1 fiscal year budget begins in October and ends in July. The two-year fixed budget is prepared, reviewed, enacted by the Board of Supervisors, signed by the Mayor, and implemented by departments and adjusted as necessary during this period. The Board of Supervisors does not adopt a new budget for the second fiscal year of the cycle unless there are significant increases or decreases in revenues or expenditures which then reopen the budget to follow the usual budget process. The SFPUC's two-year budget is comprised of two, single-year spending plans, which supports the ongoing mission of the SFPUC to provide its customers with high-quality, efficient and reliable water, wastewater, and power services in a manner that is inclusive of environmental and community interests, and that sustains the resources entrusted to our care. The budget is a detailed operating plan that identifies estimated costs and results in relation to estimated revenues and represents a process through which policy decisions are deliberated, implemented, and controlled. The budget aligns funding to accomplish our long-term strategic goals and objectives, ensures funding for our operating programs, and purposefully supports the Strategic Plan targeted outcomes to ensure the appropriate application of resources to reach our goals.

Budgeting Basis

The City adopts budgets for all government funds on a budget basis relying on a current financial resources measurement focus and a modified accrual basis of accounting. The modified accrual method is a basis of accounting used with a current financial resources measurement focus. It modifies the accrual basis of accounting in two significant ways: first, revenues are only recognized when they are measurable and available; second, expenditures are recognized in the period in which the SFPUC normally liquidates the related liability rather than when the liability is first incurred, if earlier. The City Charter prohibits expending funds for which there is no legal appropriation.

Accounting Basis

The accounts of the SFPUC Enterprises are organized by proprietary fund type, specifically an enterprise fund. The activities of the Enterprises are accounted for with a separate set of self-balancing accounts that comprise the Enterprises' assets, deferred outflows of resources, liabilities, deferred inflows of resources, net position, revenues, and expenses. Enterprise funds account for activities that (1) are financed with debt secured solely by a pledge of the net revenues from fees and charges of the activity; or (2) are required by laws or regulations that the activity's costs of providing services, including capital costs (such as depreciation or debt service), be recovered with fees and charges, rather than with taxes or similar revenues; or (3) that the pricing policies of the activity establish fees and charges designed to recover its costs, including capital costs.

The financial activities of each enterprise and the year-end audited financial statements are accounted for on a flow of economic resources measurement focus, using the accrual basis of accounting. Under this method, all assets, deferred outflows of resources, liabilities, and deferred inflows of resources associated with its operations are included on the Statement of Net Position; revenues are recorded when earned, and expenses recorded when liabilities are incurred. The SFPUC Enterprises apply all applicable Governmental Accounting Standards Board (GASB) pronouncements.

Financial Transparency, Reporting and Auditing Process

This report was prepared by SFPUC Financial Services in conformance with the principles and standards for financial reporting set forth by the GASB and U.S. Generally Accepted Accounting Principles (GAAP). Recommended guidelines by the Government Finance Officers Association of the United States and Canada were also followed.

The SFPUC's management is responsible for both the accuracy of the data presented and the completeness and fairness of its presentation, including all disclosures. The existing comprehensive structure on internal controls in the City and SFPUC ensures that the financial statements are free of

any material misstatements. This report is accurate in all material respects, and it is presented in a manner designed to set forth fairly the financial position and the results of operations of the SFPUC. The included disclosures enable the reader to gain a thorough understanding of the SFPUC's financial activities.

The SFPUC's financial statements have been audited by KPMG LLP, an independent registered public accounting firm. The goal of the independent audit was to provide reasonable assurance that the financial statements of the SFPUC for the fiscal years ended June 30, 2018 and 2017 are fairly presented in conformity with GAAP, and are free of material misstatement. The independent audit involved examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements, assessing the accounting principles used and significant estimates made by management, and evaluating the overall financial statements presentation. The independent auditors rendered an unmodified "clean" opinion on the SFPUC's financial statements for the fiscal year ended June 30, 2018, consecutively for ten years. The independent auditors' report is presented as the first component of the financial section of this report. Management's Discussion and Analysis (MDA) is presented after the independent auditors' report, and provides a narrative introduction, overview, and analysis to accompany the basic financial statements. This letter of transmittal is designed to complement MDA and should be read in conjunction with it.

Financial Authority and Policies

The City is a Charter City under the California Constitution, and as a result, the Charter is the guiding document for financial authority and policies for City departments. The SFPUC is the department responsible for the maintenance, operation and development of three utility enterprises: the Water Enterprise, the Wastewater Enterprise, and Hetch Hetchy Water and Power and CleanPowerSF Enterprise. Each of the SFPUC's enterprise funds is operated and managed as a separate financial entity and separate enterprise entity.

The SFPUC's financial policies, adopted and updated such as fund balance reserve and debt service coverage requirements are available on our website http://www.sfwater.org/index.aspx?page=999. The purpose and source for each of the designated reserves within its major funds of operating, capital projects, debt service, and trust are included in these guidelines which enable restricting funds for future infrastructure needs, replacement of aging facilities, bond reserves, and various operating reserves to mitigate unexpected occurrences. These reserves are critical to the SFPUC's financial strength and high bond ratings. Further, the City has a long-standing practice of recognizing and reserving for known and anticipated liabilities. The City also has established an irrevocable trust for other post-employment benefits (also known as retiree medical) and continues to make the annual requirement contribution to ensure this future obligation is funded.

Accounting Systems, Policies, and Internal Controls

On July 3, 2017, the City implemented a new financial and procurement system for all City departments and its business partners. Managed under the City Financial System Project (F$P), the PeopleSoft Financials and Supply Chain Management system and Oracle Business Intelligence replaced the primary individual financial, procurement and fixed assets accounting systems utilized by the City. The system provides a singular enterprise platform for financial, supply chain management, reporting and analytics processes. F$P represents the largest generational change for the City, as it replaces its legacy system that has been in place for over 30 years and at the end of its lifecycle.

In developing and maintaining the accounting systems, consideration is given by the administration as to the adequacy of internal controls. Internal controls are designed to provide reasonable, but not absolute, assurance. The SFPUC's management is responsible for establishing and maintaining a system of internal controls designed to safeguard the enterprises' assets from loss, theft, or misuse and

to ensure that adequate accounting data are compiled to allow for the preparation of financial statements in accordance with GAAP. For the fiscal year ended June 30, 2018, the independent auditors noted no matters involving internal controls over financial reporting that would be considered a material weakness.

The SFPUC's Finance Department is responsible for providing the financial services for the utility enterprises, including support for financial accounting and reporting, accounts payable, billing and collection of water, wastewater, and power charges, and other revenues. The SFPUC's financial statements and records are maintained on an enterprise basis using the accrual method of accounting to ensure the timely matching of revenues against the costs of providing services. Revenues and expenses are recorded in the period in which the revenues are earned and the expenses are incurred.

Achievement Awards

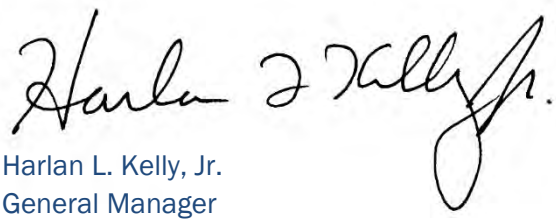
The Government Finance Officers Association of the United States and Canada (GFOA) awarded a Certificate of Achievement for Excellence in Financial Reporting to the SFPUC for its Comprehensive Annual Financial Report (CAFR) for the fiscal year ended June 30, 2017. This was the ninth consecutive year that the government has achieved this prestigious award. In order to be awarded a Certificate of Achievement, a government must publish an easily readable and efficiently organized CAFR. This report must satisfy both GAAP and applicable legal requirements. A Certificate of Achievement is valid for a period of one year only. We believe our current CAFR continues to meet the Certificate of Achievement program's requirements and we are submitting it to GFOA to determine its eligibility for another certificate.

Conclusion

We foster environmental, economic, and social sustainability for San Francisco and our service areas through continued investments in the upgrade and rehabilitation of existing systems and facilities. We rely upon the support of our community, our staff, and our elected officials to maintain our essential 24/7 operations.

We would like to express appreciation to the Mayor, the Board of Supervisors, and our Commission for their continued support of our achievements in responsible financial management, financial transparency, and reporting excellence.

Respectfully submitted,



Harlan L. Kelly, Jr.
General Manager
San Francisco Public Utilities Commission

Mission, Vision, and Values

The mission of the San Francisco Public Utilities Commission (SFPUC or the Commission) is to provide our customers with high-quality, efficient and reliable water, power and wastewater services in a manner that is inclusive of environmental and community interests, and sustains the resources entrusted to the SFPUC's care.

The SFPUC is a sustainable utility leader, recognized for superior results in service, value, environmental stewardship and innovation.

The SFPUC's values include the following:

- **Communication:** Listen and communicate honestly and openly.
- **Diversity:** Valuing a workforce that reflects all manner of views, experiences, backgrounds and talents, and recognize it is vital to the SFPUC success.
- **Equal Opportunity**: Provide opportunities to all staff to contribute and reach their potential. To achieve this, the SFPUC must be a learning organization.
- **Excellence:** Strive for personal and professional excellence, and recognize exemplary performance by seeking continuous improvement.
- **Inclusiveness:** Provide access and transparency to stakeholders and community members.
- **Respect:** Understand and appreciate the inherent value of the SFPUC's staff, customers and community.
- **Safety:** Take the health and safety of the SFPUC's employees, customers and communities seriously.
- **Service:** Focus on customer satisfaction, health and safety.
- **Stewardship:** Responsibly manage the resources entrusted to the SFPUC's care.
- **Teamwork:** Support a cooperative work environment; the SFPUC team is strengthened by the diversity and contributions of its members.
- **Trust:** Act with honesty, integrity and fairness.

Fiscal Year 2018
San Francisco Mayor and Public Utilities Commission Members

EDWIN M. LEE
MAYOR-DECEMBER 2017

MARK FARRELL
INTERIM MAYOR

IKE KWON
PRESIDENT

VINCE COURTNEY
VICE PRESIDENT

ANN MOLLER CAEN
COMMISSONER

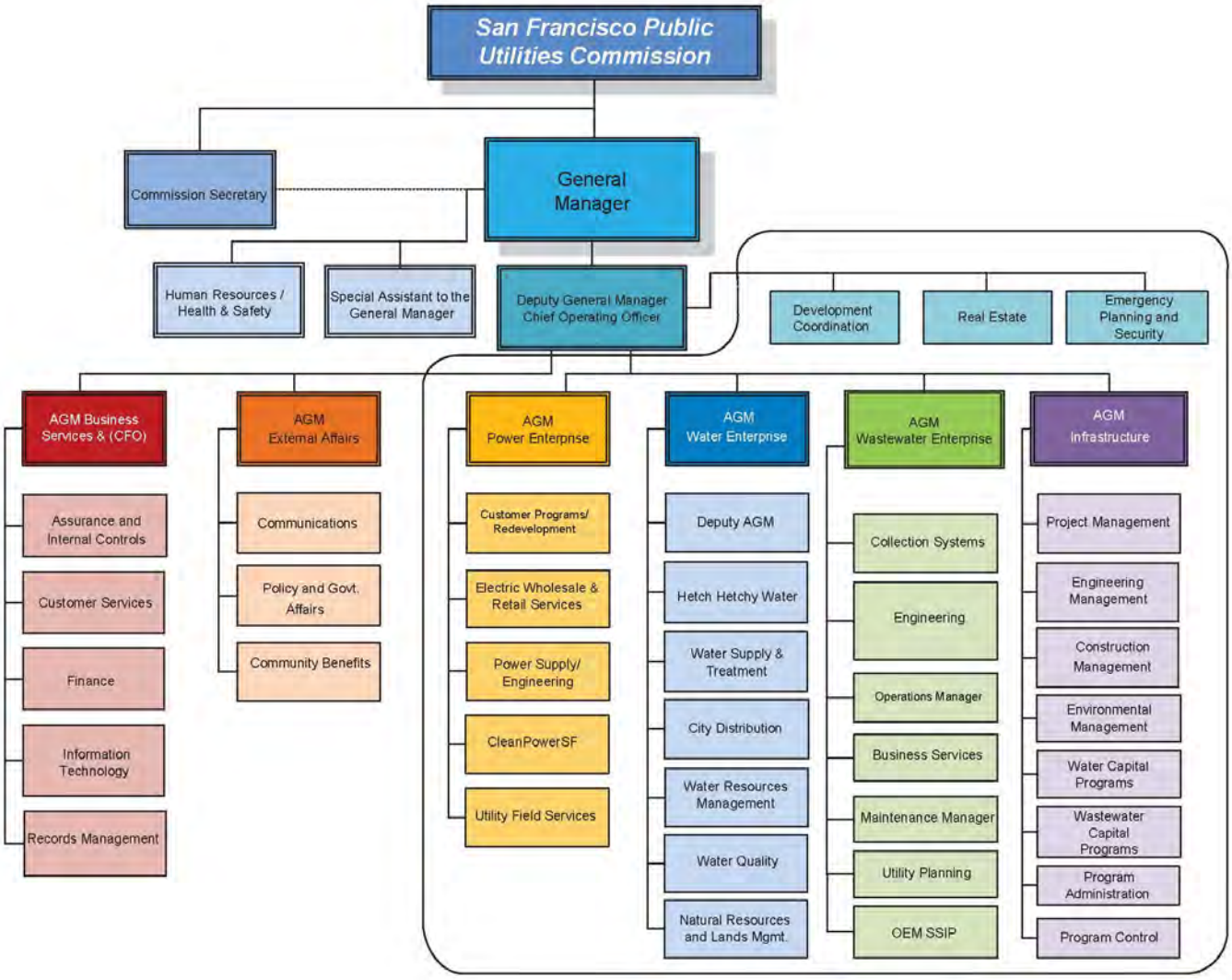
ANSON MORAN
COMMISSIONER

FRANCESCA VIETOR
COMMISSIONER

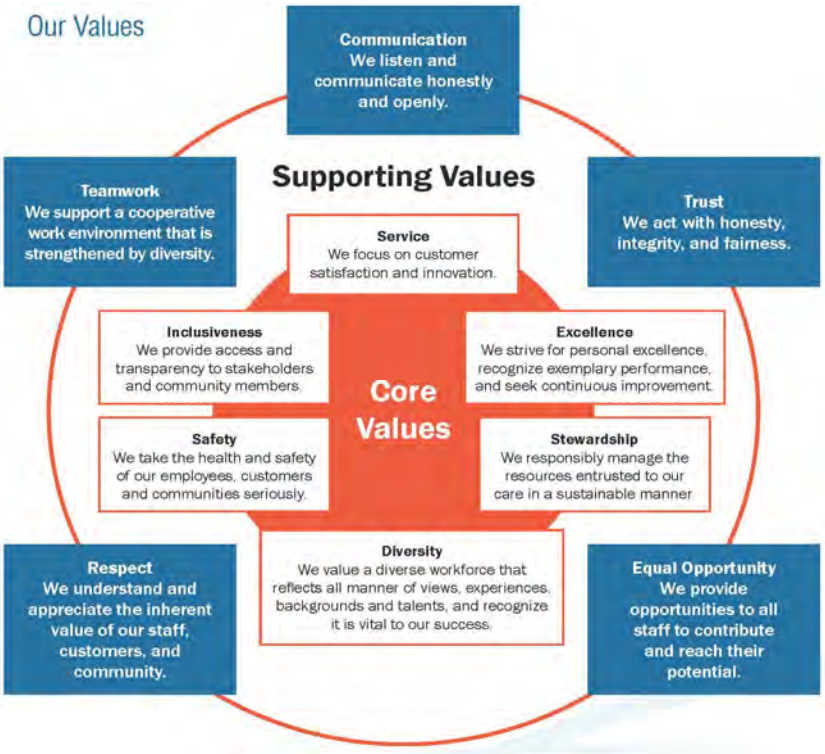
Structure

The SFPUC is comprised of three utility Enterprises, the Water Enterprise, Wastewater Enterprise, and the Power Enterprise, which is operated within Hetch Hetchy Water and Power and CleanPowerSF. Three Bureaus, comprised of Business Services, External Affairs, and Infrastructure provide critical support services and oversight to the Enterprises. Business Services Bureau includes Assurance and Internal Controls, Customer Services, Finance, Information Technology, and Records Management. External Affairs Bureau includes Communications, Community Benefits, Policy and Government Affairs. Infrastructure Bureau includes Project Management, Engineering Management, Construction Management, Environmental Management, Water Capital Programs, Wastewater Capital Programs, Program Administration and Program Control. The Office of the Deputy General Manager/Chief Operating Officer includes Development Coordination, Real Estate and Emergency Planning and Security. The Office of the General Manager includes Human Resources/Health and Safety, and Special Assistant to the General Manager.

Organizational Chart



Note: AGM is Assistant General Manager, the person who leads an Enterprise or Bureau.



The 2020 SFPUC Strategic Plan is a high-level and future-oriented plan. The purpose is to better align the work of the Water, Power and Wastewater Enterprises, set a strategic direction and identify key priorities.

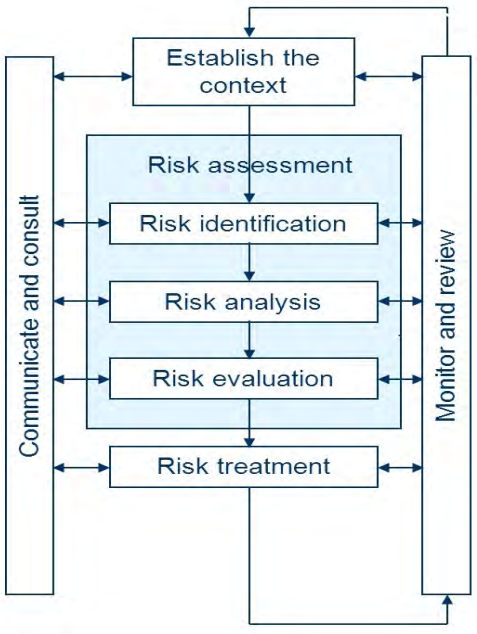
The 2020 SFPUC Strategic Plan outlines the mission, vision and values and sets forth 6 priority goals and supporting objectives. The goals are as follows:

- Reliable service and assets;
- Organizational excellence;
- Effective workforce;
- Financial sustainability;
- Stakeholder and community interest; and
- Environmental stewardship.

This plan is a living document that will be reviewed and revised as SFPUC move into implementation in coordination with the employees, stakeholders, and the Executive Team. More details of the 2020 SFPUC Strategic plan are available at https://sfwater.org/index.aspx?page=1078.

Enterprise Risk Management Framework

The SFPUC helps ensure successful implementation of our Mission, Vision, and Values by integrating the principles of Enterprise Risk Management (ERM) into organizational culture and strategic decision making. In planning for our future, the ERM framework promotes a culture where risks are identified, assessed, prioritized, and managed to minimize threats hindering us from achieving our goals; and to maximize opportunities benefiting the SFPUC. Accountability and transparency are promoted through assignment of identified risks to owners, and routine reporting of mitigation status to senior management. The ERM framework is a continuous process that strengthens organizational structure and culture through communication and awareness, by adding value to the strategic decision-making process. The Risk Management division, of the Assurance and Internal Controls Bureau, provides strategic support to the SFPUC's journey from a traditional risk management approach towards enterprise risk management – emphasizing effective management of the total cost of risk and management of risk for better outcomes.



In fiscal years 2015 and 2016 respectively, the Power Enterprise adopted the ISO 31000 standard for Risk Management for the Hetchy Power and CleanPowerSF program as the framework implementing and maturing ERM. The framework supports a systematic and proactive approach to identify and analyze risks that threaten business objectives before they occur. Proper identification of risks to business objectives ensures mitigation measures can be implemented to reduce the probability of certain risks occurring or

reducing negative impact. The ERM process allows for a transparent flow of information throughout the enterprise and program, providing visibility of risks and issues to stakeholders across the business so that they can be discussed and managed openly.

Senior management in the Power Enterprise is deeply involved in the monitoring process and meets on a periodic basis to discuss immediate, emerging, and high priority risks; while a larger meeting of internal stakeholders is convened semi-annually to discuss broader risks across the enterprise. During these stakeholder discussions, new risks can be proposed and vetted for inclusion in the risk registry or existing risks retired if they no longer pose a threat to business objectives. Risks are profiled and a risk register is retained in a risk management software application; which further assigns accountability and provides ongoing monitoring. Overall, the monitoring process established by the Power Enterprise and CleanPowerSF provides the ability for senior management to remain agile when to responding to priority risks without being siloed in the decision-making process.

The 2020 SFPUC Strategic Plan, by way of the strategic goal of Financial Sustainability, endeavors to formalize enterprise risk management across the organization. ERM will continue to be applied in various areas of the organization. Previous successes include the Business Services Bureau, Emergency Planning and Security, and specific project-related programs.

The SFPUC also engages other methodologies as part of a comprehensive process for risk management. This includes the SFPUC Purchased Insurance Program, a portfolio of insurance policies acquired to mitigate various liability risks in mission critical assets, operational and financial. ERM benefitted this strategic process as a guide for senior management to assess and identify areas where risks were transferred through the purchase of insurance. Realized benefits include property insurance reimbursements of nearly $6.5 million to date for fiscal year 2018, related to the August 2013 “Rim Fire”, a large-scale wildfire that damaged and destroyed SFPUC mission critical assets in the Stanislaus National Forest. Additional reimbursements are anticipated and ongoing. Other risk management activities include contractual risk review and advisement for the Infrastructure Project Management Bureau and Contract Management Bureau for construction, professional and general service contracts. SFPUC Risk Management also collaborates with the Office of the Administrator’s City Risk Management for citywide risk management initiatives.

Risk Categories

Overall, the SFPUC's ERM initiatives are designed to reduce the chances of a negative outcome from occurring, lessen its impact, or transfer financial liabilities away from the organization. These initiatives can also increase opportunities and maximize the benefit from taking advantage of positive outcomes. A combination of these strategies will help lower the total cost of risk for the SFPUC and achieve both short and long-term benefits to our ratepayers.

Fiscal Year 2019 Operating Budgets

The SFPUC annual budgets, including debt service and cash-funded capital, as well as operation programs total $1.3 billion and $1.1 billion for fiscal years 2019 and 2018, respectively. The operating programs include regular operating costs, maintenance of utility facilities and lands, as well as support services, like management, business services, planning, regulatory compliance, communication, and planned debt service for each of the Enterprise. The operating budget is financed by both wholesale and retail rates, service charges and non-operating revenues, including rents and interest earnings. Of the SFPUC fiscal year 2019 $1.3 billion operating budget, the Water Enterprise accounts for $570.1 million to fund the operations and maintenance of the SFPUC water system; Wastewater Enterprise's operating budget of $343.2 million funds the operations and maintenance of the SFPUC's sewer system. Hetch Hetchy Water and Power's operating budget of $226.3 million funds the operations and maintenance of the upcountry water and power systems, including Power Enterprise activities within the City. CleanPowerSF's operating budget of $157.0 million funds non-personnel services such as power purchases. Detailed budget information is available on our website http://www.sfwater.org/index.aspx?page=348.

Fiscal Year 2019 Capital Budgets

Our capital programs are intended to reconstruct, replace, expand, repair, or improve facilities that are under the SFPUC's jurisdiction. The capital budgets are coordinated with the Ten-Year Capital Plan and the Ten-Year Financial Plan. The issuance of revenue bonds, other forms of indebtedness, and the execution of governmental loans are provided under the San Francisco City Charter to finance our capital programs. The repayment of this indebtedness is provided through rates and service charge revenues of the particular Enterprise that incurs the debt and benefits from the underlying capital improvements. The budget appropriations for capital programs are coordinated with the SFPUC's Ten-Year Capital Financial Plans. The SFPUC develops stand-alone supplemental appropriations for our capital program which are coordinated with our operating budget review and approval cycle.

Total approved fiscal year 2019 capital budgets were $1.1 billion, including $292.2 million for the Water Enterprise, $706.6 million for the Wastewater Enterprise, and $140.5 million for Hetch Hetchy Water and Power Enterprise. The major capital investment for the Water Enterprise included the near completion WSIP which will enhance the SFPUC's ability to provide reliable, affordable, high-quality water to our 2.7 million customers through environmentally sustainable means, and the Local Water Conveyance and Distribution program, which to install, replace, and renew pipelines and service connections for the 1,250 mile drink water distribution system in San Francisco. The Wastewater Enterprise's major capital investment includes SSIP treatment Facilities for the plan, design and construction of the new digester and solids handling facility at Southeast Plant, continuing Renewal and Replacement (R&R) Project for the Collection System Sewer R&R, spot sewer repair and Treatment Plant Facilities Improvements and the Southeast Community Center Improvement to evaluate and implement the functional and operational reliability of the existing facility. The Hetch Hetchy Water and Power's major capital investment includes the design and construction for Transmission/Distribution Improvement project, such as new substation at San Francisco International Airport, and Moccasin facilities improvements including the Mountain Tunnel Improvement project.

Ten-Year Financial Plan

The SFPUC prepares an annual updated Ten-Year Financial Plan as required by the City and County of San Francisco Charter Section 8B.123. The Ten-Year Financial Plan includes a rolling ten-year financial summary for each Enterprise, describing projected sources and uses, resulting fund balances and key financial ratios. Projected costs and revenues are estimates and subject to variations inherent in all such projections. Consequently, the estimates are viewed as indications of expected trends given expenditure, revenue, and financing assumptions. These assumptions are based on current Board of Supervisors and Commission policies, goals and objectives representing management's best estimates at the time. This is not a budget, nor are funds appropriated based on the plan. The plan assumes debt financing of capital needs over the next few years for the Capital Improvement Program including Water's WSIP, Wastewater's SSIP, and Hetch Hetchy Water and Power's Capital Program, and assumes a financing strategy that utilizes short-term financing via the existing Interim Funding Program (which includes the Commercial Paper Program) to match financing needs with project spending. The Interim Funding Program facilitates short-term financing, typically at lower interest rates than longer term debt, which minimizes costs for ratepayers. The authorized Interim Funding Program as of June 30, 2018 for the Water, Wastewater and Hetch Hetchy Water and Power's are $500 million, $750 million and $90 million, respectively.

Ten-Year Capital Plan

The SFPUC prepares an annual updated Ten-Year Capital Plan as required by the City and County of San Francisco Charter Section 3.20. The plan helps inform and guide managers, policy makers, elected officials and the public by providing the proposed long-term capital program, projects and investment. The Ten-Year Capital Plan guides the biennial capital budget development. As the budget process progresses through the Spring and final adoption in the Summer, the updated Capital Improvement Programs (CIPs) are revised forming the biennial capital budget. Consequently, even though the annual CIPs are based on the Ten-Year Capital Plan, they do not always match by project or dollar amount.

Water Enterprise Fiscal Years 2019 through 2028 Ten-Year Capital Plan is approximately $1.7 billion over the next ten years. These investments are divided between regional and local (in-city predominately) needs. The capital project costs for the Wastewater Enterprise is approximately $5.6 billion over the next ten years which mainly includes the R&R program and SSIP. The capital project costs for Hetchy Water and Hetchy Power's is approximately $1.3 billion over the next ten years, including the Hetchy Water R&R program, Hetchy Power Capital Program and Renewable/Generation Power and Energy Efficiency projects.

Financial Section

Independent Auditors' Report

Management's Discussion and Analysis (Unaudited)

Basic Financial Statements

Statements of Net Position – Proprietary Funds

Statements of Revenues, Expenses, and Changes in Net Position – Proprietary Funds

Statements of Cash Flows – Proprietary Funds

Notes to Basic Financial Statements

Supplementary Information (Proprietary Funds)

Schedule of Changes in Net Position – Dollar and Percentage Change vs. Prior Year

Schedule of Changes in Revenues, Expenses, and Net Position – Dollar and Percentage Change vs. Prior Year

Independent Auditors' Report on Internal Control

The San Francisco Public Utilities Commission
A Department of the City and County of San Francisco, California

Photo by: Robin Scheswohl

O’Shaughnessy Dam stands 312 feet above the streambed and extends 910 feet in a gentle arch from canyon wall to canyon wall.

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

KPMG LLP
Suite 1400
55 Second Street
San Francisco, CA 94105

Independent Auditors' Report

The Honorable Mayor and Board of Supervisors
City and County of San Francisco:

Report on the Financial Statements

We have audited the accompanying financial statements of the business-type activities of each major fund of the San Francisco Public Utilities Commission (the SFPUC), a department of the City and County of San Francisco, California (the City), as of and for the years ended June 30, 2018 and 2017, and the related notes to the financial statements, which collectively comprise the SFPUC's basic financial statements as listed in the table of contents.

Management's Responsibility for the Financial Statements

Management is responsible for the preparation and fair presentation of these financial statements in accordance with U.S. generally accepted accounting principles; this includes the design, implementation, and maintenance of internal control relevant to the preparation and fair presentation of financial statements that are free from material misstatement, whether due to fraud or error.

Auditors' Responsibility

Our responsibility is to express opinions on these financial statements based on our audits. We conducted our audits in accordance with auditing standards generally accepted in the United States of America and the standards applicable to financial audits contained in *Governmental Auditing Standards*, issued by the Comptroller General of the United States. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial statements. The procedures selected depend on the auditors' judgment, including the assessment of the risks of material misstatement of the financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the entity's preparation and fair presentation of the financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the entity's internal control. Accordingly, we express no such opinion. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluating the overall presentation of the financial statements.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinions.

Opinions

In our opinions, the financial statements referred to above present fairly, in all material respects, the respective financial position of the business-type activities of each major fund of the San Francisco Public Utilities Commission, a department of the City and County of San Francisco, California as of June 30, 2018 and 2017, and the respective changes in financial position and, where applicable, cash flows thereof for the years then ended in accordance with U.S. generally accepted accounting principles.

KPMG LLP is a Delaware limited liability partnership and the U.S. member firm of the KPMG network of independent member firms affiliated with KPMG International Cooperative ("KPMG International"), a Swiss entity.

Emphasis of Matter

As discussed in note 1, the financial statements of the SFPUC are intended to present the financial position, the changes in financial position and, where applicable, cash flows of only that portion of the City that is attributable to the transactions of the SFPUC. They do not purport to, and do not, present fairly the financial position of the City as of June 30, 2018 and 2017, the changes in its financial position, or, where applicable, its cash flows for the year then ended in accordance with U.S. generally accepted accounting principles. Our opinions are not modified with respect to this matter.

As discussed in note 2(t) to the financial statements, in 2018, the SFPUC adopted Government Accounting Standards Board (GASB) Statement No. 75, *Accounting and Financial Reporting for Postemployment Benefits Other than Pensions.* The July 1, 2017 beginning net position has been restated for the retrospective application of this new accounting guidance.

Our opinions are not modified with respect to these matters.

Other Matters

Required Supplementary Information

U.S. generally accepted accounting principles require that the management's discussion and analysis on pages 24 through 70 be presented to supplement the basic financial statements. Such information, although not a part of the basic financial statements, is required by the Governmental Accounting Standards Board who considers it to be an essential part of financial reporting for placing the basic financial statements in an appropriate operational, economic, or historical context. We have applied certain limited procedures to the required supplementary information in accordance with auditing standards generally accepted in the United States of America, which consisted of inquiries of management about the methods of preparing the information and comparing the information for consistency with management's responses to our inquiries, the basic financial statements, and other knowledge we obtained during our audit of the basic financial statements. We do not express an opinion or provide any assurance on the information because the limited procedures do not provide us with sufficient evidence to express an opinion or provide any assurance.

Supplementary and Other Information

Our audit was conducted for the purpose of forming opinions on the financial statements that collectively comprise the SFPUC's basic financial statements. The accompanying supplementary information, such as the Schedules of Changes in Net Position – Dollar and Percentage Change vs. Prior year and of Changes in Revenues, Expenses, and Net Position – Dollar and Percentage Change vs. Prior year are presented for purposes of additional analysis and are not a required part of the basic financial statements.

The Schedules of Changes in Net Position – Dollar and Percentage Change vs. Prior year and of Changes in Revenues, Expenses, and Net Position – Dollar and Percentage Change vs. Prior year are the responsibility of management and was derived from and relates directly to the underlying accounting and other records used to prepare the basic financial statements. Such information has been subjected to the auditing procedures applied in the audit of the basic financial statements and certain additional procedures, including comparing and reconciling such information directly to the underlying accounting and other records used to prepare the basic financial statements or to the basic financial statements themselves, and other additional procedures in accordance with auditing standards generally accepted in the United States of America. In our opinion, the Schedules of Changes in Net Position – Dollar and Percentage Change vs. Prior year and of Changes in Revenues, Expenses, and Net Position – Dollar and Percentage Change vs. Prior year are fairly stated, in all material respects, in relation to the basic financial statements as a whole.

The Schedules of Changes in Net Position – Dollar and Percentage Change vs. Prior year and of Changes in Revenues, Expenses, and Net Position – Dollar and Percentage Change vs. Prior year have not been subjected to the auditing procedures applied in the audit of the basic financial statements, and accordingly, we do not express an opinion or provide any assurance on it.

Other Reporting Required by *Government Auditing Standards*

In accordance with *Government Auditing Standards*, we have also issued our report dated February 22, 2019 on our consideration of the SFPUC's internal control over financial reporting and on our tests of its compliance with certain provisions of laws, regulations, contracts, and grant agreements and other matters. The purpose of that report is solely to describe the scope of our testing of internal control over financial reporting and compliance and the results of that testing, and not to provide an opinion on the effectiveness of the SFPUC's internal control over financial reporting or on compliance. That report is an integral part of an audit performed in accordance with *Government Auditing Standards* in considering the SFPUC's internal control over financial reporting and compliance.

KPMG LLP

San Francisco, California
February 22, 2019

This section presents management's analysis of the San Francisco Public Utilities Commission's (SFPUC or the Commission) financial condition and activities as of and for the fiscal years ended June 30, 2018 and 2017. Management's Discussion and Analysis (MDA) is intended to serve as an introduction to SFPUC's financial statements. This information should be read in conjunction with the audited financial statements that follow this section. All dollar amounts, unless otherwise noted, are expressed in thousands of dollars.

In May 2016, SFPUC launched CleanPowerSF, a Community Choice Aggregation (CCA) program into operation, pooling the electricity demands of their residents and businesses for the purpose of buying electricity on behalf of those customers. CleanPowerSF provides San Francisco with new clean energy alternatives, with its objectives to reduce greenhouse gas emissions, and to provide the City and County of San Francisco's (the City) energy consumers with renewable electricity supplies at competitive rates. The SFPUC intends CleanPowerSF to be financially independent, with ability to set rates and charges with adequate revenues, and to issue debt to support its operations and future projects. CleanPowerSF is discretely presented as a fund of Hetch Hetchy Water and Power and CleanPowerSF Enterprise starting fiscal year ended 2017.

The information in this MDA is presented under the following headings:

- Organization and Business
- Overview of the Financial Statements
- Financial Analysis
- Capital Assets
- Debt Administration
- Rates and Charges
- Request for Information

Organization and Business

The SFPUC is a department of the City that is responsible for the maintenance, operation, and development of three utility enterprises: Water, Wastewater, and Hetch Hetchy Water and Power and CleanPowerSF (Hetch Hetchy), which is composed of three funds: Hetchy Water, Hetchy Power and CleanPowerSF.

Water Enterprise

As the third largest municipal water agency in California, the Water Enterprise collects, transmits, treats, and distributes high quality drinking water to a total population of approximately 2.7 million people, including retail customers in the City and wholesale customers located in San Mateo, Santa Clara, and Alameda Counties. The Water Enterprise sold approximately 190 million gallons of water per day in the year ended June 30, 2018. Approximately two-thirds of the water delivered by the Water Enterprise is to wholesale customers. Retail customers use the remaining one-third and are primarily San Francisco consumers, including residential, commercial, industrial, and governmental users. Wholesale customers include cities, water districts, one private utility, and one non-profit university. Service to these customers is provided pursuant to the 25-year Water Supply Agreement (WSA), commenced on July 1, 2009, which established the basis for determining the costs of wholesale service.

Wastewater Enterprise

The primary responsibility of the Wastewater Enterprise is to protect the public health and the surrounding bay and ocean receiving waters by collecting, transmitting, treating, and discharging storm and sanitary flows generated in the service area. This includes 993 miles of combined storm and sanitary collection

system pipes, sewer mains, transport/storage boxes, other storage structures, and tunnels. San Francisco is the only coastal city in California with a combined sewer system that collects both wastewater and stormwater in the same network of pipes and provides treatment to remove harmful pollutants before discharging into the San Francisco Bay and Pacific Ocean. In addition, the Wastewater Enterprise serves on a contractual basis certain municipal customers located outside of the City limits, including the North San Mateo County Sanitation District No. 3, Bayshore Sanitary District, and the City of Brisbane. The Wastewater Enterprise recovers costs of service through user fees based on the volume and strength of sanitary flow. As of June 30, 2018, the Wastewater Enterprise serves 147,711 residential accounts, which discharge about 16.5 million units of sanitary flow per year (measured in hundreds of cubic feet, or ccf) and 16,257 non-residential accounts, which discharge about 7.8 million ccf per year.

Hetchy Water

For efficiency and to streamline the coordination of upcountry water and power operations, Hetchy Water operates upcountry and joint-asset facilities, managing resources in an environmentally responsible manner to a high standard of safety and reliability while meeting regulatory requirements. It is responsible for operating the Hetch Hetchy Reservoir, the main source of water for the Hetch Hetchy system. Hetchy Water operates, maintains, and improves water and power facilities, smaller dams and reservoirs, water transmission systems, power generation facilities, and power transmission assets, including transmission lines to the Newark substation. Hetchy Water delivers high quality water from upcountry downhill to the Bay Area while optimizing the resulting generation of clean hydropower as water is transported through the system. It maintains land and properties consistent with public health and neighborhood concerns.

Hetchy Power

The core business of Hetchy Power, as a municipal department, is to provide adequate and reliable supplies of electric power to meet the electricity needs of City's customers, and to offer, when available, power for the municipal loads and agricultural pumping demands of the Modesto Irrigation District (MID) consistent with prescribed contractual obligations and federal law.

Hetchy Power's portfolio consists of hydroelectric generation, onsite solar at SFPUC and other City facilities, generation using bio-methane produced at SFPUC wastewater treatment facilities, and third-party purchases. Consistent with its commitment to the development of cleaner and greener power, and to address environmental concerns and community objectives, Hetchy Power continues to evaluate and expand its existing resource base to include additional renewables, distributed generation, demand management, and energy efficiency programs. As part of its mission and core functions, Hetchy Power provides reliable energy services at reasonable cost to customers, with attention to environmental effects and community concerns.

CleanPowerSF

The core business of CleanPowerSF is to provide greener electricity generation to residential and commercial consumers in San Francisco. Through CleanPowerSF, SFPUC seeks to achieve several complementary goals, including affordable and competitive electricity generation rates, a diverse electricity resource portfolio that is comprised of renewable and other clean sources of supply, and high-quality customer service.

Overview of the Financial Statements

The Department's financial statements include:

Statements of Net Position present information on the Department's assets, deferred outflows, liabilities, and deferred inflows as of year-end, with the difference reported as net position. Over time, increases or decreases in net position may serve as a useful indicator of whether the financial position of the Department is improving or worsening.

While the *Statements of Net Position* provide information about the nature and amount of resources and obligations at year-end, the *Statements of Revenues, Expenses, and Changes in Net Position* present the results of the Department's operations over the course of the fiscal year and information as to how the net position changed during the year. These statements can be used as an indicator of the extent to which the Enterprise has successfully recovered its costs through user fees and other charges. All changes in net position are reported during the period in which the underlying event giving rise to the change occurs, regardless of the timing of the related cash flows. Thus, revenues and expenses are reported in these statements from some items that will result in cash flows in future fiscal periods, such as delayed collection of operating revenues and the expenses of employee earned but unused vacation leave.

The *Statements of Cash Flows* present changes in cash and cash equivalents resulting from operational, capital, non-capital, and investing activities. These statements summarize the annual flow of cash receipts and cash payments, without consideration of the timing of the event giving rise to the obligation or receipt, and exclude non-cash accounting measures of depreciation or amortization of assets.

The *Notes to Financial Statements* provide information that is essential to a full understanding of the financial statements that is not presented on the face of the financial statements.

Fund Financial Statements

The Department has five enterprise funds: Water, Wastewater, Hetchy Water, Hetchy Power, and CleanPowerSF.

Financial Analysis

Financial Highlights for Fiscal Year 2018

Department-wide Business Type Activities

- Total assets exceeded total liabilities by $2,058,762.
- Net position increased by $80,215 or 3.6% during the fiscal year.
- Capital assets, net of accumulated depreciation and amortization, increased by $518,976 or 6.7% to $8,268,861.
- Operating revenues increased by $105,047 or 11.3% to $1,032,698.
- Operating expenses decreased by $81,822 or 9.5% to $778,355.

Water

- Total assets exceeded total liabilities by $283,416.
- Net position decreased by $11,743 or 2.3% during the fiscal year.

- Capital assets, net of accumulated depreciation and amortization, increased by $209,769 or 4.2% to $5,263,233.
- Current and other assets increased by $76,484 or 12.8% mainly due to debt issuance of the 2017 Series ABC and 2017 Series DEFG revenue bonds, offset by debt principal and interest repayments and Water System Improvement Program (WSIP) related capital projects spending.
- Operating revenues increased by $65,308 or 14.2% to $525,639.
- Operating expenses decreased by $51,680 or 12.3% to $370,147.

Wastewater

- Total assets of the Wastewater Enterprise exceeded total liabilities by $1,182,830.
- Net position increased by $62,942 or 5.5% during the year.
- Capital assets, net of accumulated depreciation and amortization, increased by $274,506 or 12.2% to $2,526,206.
- Operating revenues increased by $37,755 or 13.6% to $315,096.
- Operating expenses decreased by $33,627 or 13.8% to $210,593.

Hetchy Water

- Total assets of Hetchy Water exceeded total liabilities by $185,276.
- Net position increased by $23,434 or 13.9% during the fiscal year.
- Capital assets, net of accumulated depreciation and amortization, increased by $12,068 or 9.4% to $139,799.
- Operating revenues, excluding interest and investment income, and other non-operating revenues, decreased by $1,590 or 4.5% to $33,560.
- Operating expenses, excluding other non-operating expenses, decreased by $10,307 or 20.6% to $39,792.

Hetchy Power

- Total assets of Hetchy Power exceeded total liabilities by $398,663.
- Net position increased by $4,940 or 1.2% during the fiscal year.
- Capital assets, net of accumulated depreciation and amortization, increased by $22,633 or 7.1% to $339,623.
- Operating revenues, excluding interest and investment income, and other non-operating revenues, decreased by $2,127 or 1.8% to $118,835.
- Operating expenses, excluding interest expenses, other non-operating expenses, and amortization of premium, discount, and issuance costs, increased by $2,460 or 2.1% to $119,395.

CleanPowerSF

- Total assets of CleanPowerSF exceeded total liabilities by $8,577.
- Net position increased by $642 or 7.8% during the fiscal year.
- CleanPowerSF had no capital assets, net of accumulated depreciation and amortization, as of June 30, 2018.

- Operating revenues, excluding interest and investment income and other non-operating revenues, increased by $5,701 or 16.8% to $39,568.
- Operating expenses, excluding interest expense, increased by $11,332 or 41.8% to $38,428, of which $3,501 was electricity purchased from Hetchy Power.

Financial Highlights for Fiscal Year 2017

Department-wide Business Type Activities

- Total assets exceeded total liabilities by $1,935,800.
- Net position decreased by $65,432 or 2.9% during the fiscal year.
- Capital assets, net of accumulated depreciation and amortization, increased by $387,473 or 5.3% to $7,749,885.
- Operating revenues, excluding interest and investment income, and other non-operating revenues, increased by $81,624 or 9.6% to $927,651.
- Operating expenses, which excluded interest expense, amortization of premium, discount, refunding loss, and issuance costs, and other non-operating expenses, increased by $175,343 or 25.6% to $860,177.

Water

- Total assets exceeded total liabilities by $280,240.
- Net position decreased by $121,401 or 19.5% during the fiscal year.
- Capital assets, net of accumulated depreciation and amortization, increased by $154,963 or 3.2% to $5,053,464.
- Current and other assets decreased by $107,351 or 15.2% mainly due to capital project spending for Water System Improvement Program (WSIP) projects, debt principal and interest repayments.
- Operating revenues, excluding interest and investment income, and other non-operating revenues, increased by $40,815 or 9.7% to $460,331.
- Operating expenses, excluding interest expense, amortization of premium, discount, refunding loss, and issuance costs, and non-operating expenses, increased by $107,041 or 34.0% to $421,827.

Wastewater

- Total assets of the Wastewater Enterprise exceeded total liabilities by $1,102,459.
- Net position decreased by $9,677 or 0.8% during the year.
- Capital assets, net of accumulated depreciation and amortization, increased by $192,038 or 9.3% to $2,251,700.
- Operating revenues, excluding interest and investment income, and other non-operating revenues, increased by $15,566 or 5.9% to $277,341.
- Operating expenses, excluding interest expense, amortization of premium, refunding loss, and issuance cost, and non-operating expenses, increased by $22,667 or 10.2% to $244,220.

Hetchy Water

- Total assets of Hetchy Water exceeded total liabilities by $157,035.
- Net position increased by $45,645 or 37.2% during the fiscal year.

- Capital assets, net of accumulated depreciation and amortization, increased by $13,864 or 12.2% to $127,731.
- Operating revenues, excluding interest and investment income, and other non-operating revenues, decreased by $3,592 or 9.3% to $35,150.
- Operating expenses, excluding other non-operating expenses, increased by $13,563 or 37.1% to $50,099.

Hetchy Power

- Total assets of Hetchy Power exceeded total liabilities by $387,848.
- Net position increased by $11,783 or 3.0% during the fiscal year.
- Capital assets, net of accumulated depreciation and amortization, increased by $26,608 or 9.2% to $316,990.
- Operating revenues, excluding interest and investment income, and other non-operating revenues, decreased by $5,032 or 4.0% to $120,962.
- Operating expenses, excluding interest expenses, other non-operating expenses, and amortization of premium, discount, and issuance costs, increased by $4,976 or 4.4% to $116,935.

CleanPowerSF

- Total assets exceeded total liabilities by $8,218.
- CleanPowerSF had no capital assets, net of accumulated depreciation and amortization, as of June 30, 2017.
- Operating revenues, excluding interest and investment income and other non-operating revenues, were $33,867.
- Operating expenses, excluding interest expense, were $27,096, of which $1,893 was electricity purchased from Hetchy Power.

Financial Position

In fiscal year 2018, SFPUC adopted the provisions of GASB Statement No. 75, *Accounting and Financial Reporting for Postemployment Benefits Other than Pensions.* As restatement of all prior periods is not practical, the cumulative effect of applying this statement is reported as a restatement of beginning net position as of July 1, 2017 (see New Accounting Standards Adopted in Fiscal Year 2018 in Significant Accounting Policies, Note 2(u)).

Department-wide Business Type Activities

The following table summarizes the department-wide changes in net position. Detailed discussion follows for each proprietary fund.

Table 1
Business Type Activities
Comparative Condensed Net Position
June 30, 2018, 2017, and 2016

	2018*	2017*	2016*	2018 - 2017 Change	2017 - 2016 Change
Total assets:					
Current and other assets	$ 1,294,469	1,220,184	1,417,914	74,285	(197,730)
Capital assets, net of accumulated depreciation and amortization	8,268,861	7,749,885	7,362,412	518,976	387,473
Total assets	9,563,330	8,970,069	8,780,326	593,261	189,743
Deferred outflows of resources:					
Unamortized loss on refunding of debt	150,755	127,510	37,129	23,245	90,381
Pensions	109,009	181,681	55,608	(72,672)	126,073
Other post-employment benefits	14,360	—	—	14,360	—
Total deferred outflows of resources	274,124	309,191	92,737	(35,067)	216,454
Liabilities:					
Current liabilities:					
Bonds	100,155	71,327	64,177	28,828	7,150
Certificates of participation	3,580	3,405	3,240	175	165
Commercial paper	323,451	276,469	297,000	46,982	(20,531)
State revolving fund loans	296	—	—	296	—
Other liabilities	279,817	205,098	240,439	74,719	(35,341)
Subtotal current liabilities	707,299	556,299	604,856	151,000	(48,557)
Long-term liabilities:					
Bonds	5,889,998	5,592,743	5,331,130	297,255	261,613
Certificates of participation	146,428	150,268	153,967	(3,840)	(3,699)
State revolving fund loans	22,311	—	—	22,311	—
Other liabilities	738,532	734,959	430,332	3,573	304,627
Subtotal long-term liabilities	6,797,269	6,477,970	5,915,429	319,299	562,541
Total liabilities:					
Bonds	5,990,153	5,664,070	5,395,307	326,083	268,763
Certificates of participation	150,008	153,673	157,207	(3,665)	(3,534)
Commercial paper	323,451	276,469	297,000	46,982	(20,531)
State revolving fund loans	22,607	—	—	22,607	—
Other liabilities	1,018,349	940,057	670,771	78,292	269,286
Total liabilities	7,504,568	7,034,269	6,520,285	470,299	513,984
Deferred inflows of resources:					
Related to pensions	26,459	19,201	61,556	7,258	(42,355)
Other post-employment benefits	422	—	—	422	—
Total deferred inflows of resources	26,881	19,201	61,556	7,680	(42,355)
Net position:					
Net investment in capital assets	2,122,896	1,979,445	2,011,814	143,451	(32,369)
Restricted for debt service	25,079	12,451	13,409	12,628	(958)
Restricted for capital projects	44,690	39,557	60,357	5,133	(20,800)
Unrestricted	113,340	194,337	205,642	(80,997)	(11,305)
Total net position	$ 2,306,005	2,225,790	2,291,222	80,215	(65,432)

* Eliminated interfund payables and receivables of $5,601, $7,250 and $8,000 working capital loan between Hetchy Power and CleanPowerSF and $1,061, $1,166 and $1,269 between Wastewater and Hetchy Power for the 525 Golden Gate Avenue Headquarters construction costs in fiscal years 2018, 2017 and 2016, respectively.

The following table summarizes Water's changes in net position.

Table 1A
Proprietary Fund – Water
Comparative Condensed Net Position
June 30, 2018, 2017, and 2016

	2018	2017	2016	2018 - 2017 Change	2017 - 2016 Change
Total assets:					
Current and other assets	$ 676,284	599,800	707,151	76,484	(107,351)
Capital assets, net of accumulated depreciation and amortization	5,263,233	5,053,464	4,898,501	209,769	154,963
Total assets	5,939,517	5,653,264	5,605,652	286,253	47,612
Deferred outflows of resources:					
Unamortized loss on refunding of debt	150,255	126,805	36,184	23,450	90,621
Pensions	62,062	105,357	32,695	(43,295)	72,662
Other post-employment benefits	9,122	—	—	9,122	—
Total deferred outflows of resources	221,439	232,162	68,879	(10,723)	163,283
Liabilities:					
Current liabilities:					
Revenue bonds and Capital Appreciation Bonds	76,665	48,875	41,615	27,790	7,260
Certificates of participation	2,556	2,431	2,313	125	118
Commercial paper	40,312	145,000	236,000	(104,688)	(91,000)
Other liabilities	137,576	118,602	145,138	18,974	(26,536)
Subtotal current liabilities	257,109	314,908	425,066	(57,799)	(110,158)
Long-term liabilities:					
Revenue and capital appreciation bonds	4,839,101	4,512,370	4,221,699	326,731	290,671
Certificates of participation	104,550	107,291	109,933	(2,741)	(2,642)
Other liabilities	455,341	438,455	258,588	16,886	179,867
Subtotal long-term liabilities	5,398,992	5,058,116	4,590,220	340,876	467,896
Total liabilities:					
Revenue and capital appreciation bonds	4,915,766	4,561,245	4,263,314	354,521	297,931
Certificates of participation	107,106	109,722	112,246	(2,616)	(2,524)
Commercial paper	40,312	145,000	236,000	(104,688)	(91,000)
Other liabilities	592,917	557,057	403,726	35,860	153,331
Total liabilities	5,656,101	5,373,024	5,015,286	283,077	357,738
Deferred inflows of resources:					
Related to pensions	15,063	11,135	36,577	3,928	(25,442)
Other post-employment benefits	268	—	—	268	—
Total deferred inflows of resources	15,331	11,135	36,577	4,196	(25,442)
Net position:					
Net investment in capital assets	504,476	495,868	543,327	8,608	(47,459)
Restricted for debt service	22,933	10,989	12,122	11,944	(1,133)
Restricted for capital projects	32,978	37,904	40,743	(4,926)	(2,839)
Unrestricted	(70,863)	(43,494)	26,476	(27,369)	(69,970)
Total net position	$ 489,524	501,267	622,668	(11,743)	(121,401)

Water Net Position, Fiscal Year 2018

For the year ended June 30, 2018, the Water Enterprise's assets and deferred outflows of resources exceeded liabilities and deferred inflows of resources by $489,524. Total net position decreased from prior year by $11,743 or 2.3% (see Table 1A). The decrease in net position was the result of an increase of $287,273 in liabilities and deferred inflows of resources, offset by an increase of $275,530 in assets and deferred outflows of resources.

Current and other assets primarily is comprised of restricted and unrestricted balances of cash, receivables for water deliveries and services, interfund receivables due from other governmental agencies, and

inventory. This also includes receivables, which represent cumulative amounts due from the wholesale customers to match revenues with the Water Enterprise's costs of providing service (the Balancing Account), in accordance with the provisions set forth in the WSA effective July 1, 2009. Balances are applied to future year rates. As of June 30, 2018, the Water Enterprise owed the wholesale customers $55,866, which was mainly due to increased water demand by the wholesale customers that generated additional billed revenue. This amount was recorded as a liability in accordance with the 2009 agreement. See Note 10(a), Water Supply Agreement, for additional details.

During the fiscal year 2018, current and other assets increased by $76,484 or 12.8%. The increases included $77,707 or 14.7% in restricted and unrestricted cash and investments mainly due to debt issuance of the 2017 Series ABC bonds offset by debt principal and interest repayments and WSIP related capital projects spending, $1,205 in interest receivable due to higher cash balance from revenue bond funds and higher annualized interest rates, $248 in advances and other receivables mainly due to increases in custom work and property rental receivables, and $175 in state grants receivable relating to high efficiency toilet installation projects. These increases were offset by decreases of $1,875 in inventory due to obsolete inventory write-offs at the City Distribution Division and more issuances than purchases during the fiscal year, $638 in charges for services receivable mainly due to a decrease in unbilled revenue accrual for wholesale customers, and $338 due from the Office of Community Investment and Infrastructure for the Candlestick/Hunter's Point custom work projects.

Capital assets, net of accumulated depreciation and amortization, increased by $209,769 or 4.2% from construction and capital improvement activities. The largest portion of the Water Enterprise's net position of $504,476 or 103.1%, represents net investment in capital assets (see Capital Assets section of the MDA for more information), which increased by $8,608 or 1.7% from prior year's $495,868 to $504,476 as explained by a $209,769 increase in capital assets in buildings, structures, and improvements and construction in progress, offset by a $201,161 increase in liabilities related to capital assets mainly due to the issuance of the 2017 Series ABC bonds. Deferred outflows of resources decreased by $10,723 due to a $43,295 decrease in pensions based on actuarial report, offset by a $23,450 increase in unamortized loss on refunding of debt from the issuance of 2017 Series DEFG bonds and $9,122 from other post-employment benefits obligations per the implementation of GASB Statement No. 75, *Accounting and Financial Reporting for Postemployment Benefits Other Than Pensions.*

Total liabilities increased by $283,077 or 5.3% which is explained by increases of $351,905 in principal of revenue bonds and certificates of participation mainly due to the issuance of 2017 Series ABC bonds, $45,006 in other post-employment benefits obligations as a result of implementation of GASB Statement NO. 75, $22,588 in restricted and unrestricted payables due to prior year activities to close out the legacy system payables, $12,395 in the Wholesale Balancing Account (see Note 10(a) for details), $2,664 in general liability based on actuarial report, $2,154 in interest payable due to higher outstanding debt principal, $1,868 in workers' compensation based on actuarial estimates, $354 in unearned revenues mainly from additional deposits for custom work, and $89 due to the Department of Public Works for road structure support projects. These increases were offset by decreases of $104,688 in commercial paper due to refunding from the 2017 Series ABC and 2017 Series DEFG bonds, $50,953 in net pension liability based on actuarial report, $157 in pollution remediation liability mainly for the Lake Merced and 17th and Folsom sites (see Note 15(d) for details), and $148 in accrued payroll, vacation and sick leave.

Deferred inflows of resources increased by $4,196 due to increases of $3,928 relating to pension obligations and $268 relating to other post-employment benefits obligations per the implementation of GASB Statement No. 75.

Water Net Position, Fiscal Year 2017

For the year ended June 30, 2017, the Water Enterprise's assets and deferred outflows of resources exceeded liabilities and deferred inflows of resources by $501,267. Total net position decreased from prior year by $121,401 or 19.5% (see Table 1A). The decrease in net position was the result of a $332,296 increase in total liabilities and deferred inflows of resources, offset by an increase of $210,895 in total assets and deferred outflows of resources. Net investment in capital assets decreased from the prior year's $543,327 to $495,868 by $47,459 or 8.7% as explained by a $154,963 increase in capital assets in buildings, structures, and improvements and construction in progress, offset by a $202,422 increase in liabilities mainly due to the issuance of new bonds.

Current and other assets primarily is comprised of restricted and unrestricted balances of cash, receivables for water deliveries and services, interfund receivables due from other governmental agencies, and inventory. This also includes receivables, which represent cumulative amounts due from the wholesale customers to match revenues with the Water Enterprise's costs of providing service (the Balancing Account), in accordance with the provisions set forth in the WSA effective July 1, 2009. Balances are applied to future year rates. As of June 30, 2017, the Water Enterprise owed the wholesale customers $43,471, which was mainly due to increased water demand by the wholesale customers that generated additional billed revenue. This amount was recorded as a liability in accordance with the 2009 agreement. See Note 10(a), Water Supply Agreement, for additional details.

During fiscal year 2017, current and other assets decreased by $107,351 or 15.2%. The decreases included $113,109 or 17.7% in restricted and unrestricted cash and investments mainly due to debt principal and interest repayments and WSIP capital projects spending WSIP projects, $3,026 in advances and other receivables mainly due to the write-off of the Sunol Valley Golf lease receivable, $1,496 in state grants receivable due to reimbursements received for the Regional Groundwater Storage & Recovery and High Efficiency Toilet Installation programs, $412 in restricted receivables for capacity fee collection policy changes that require full payment of permit fees at the time of issuance coupled with write-offs, and decreased federal interest subsidy as a result of sequestration, and $201 in prepaid bond insurance cost amortization. These decreases were offset by increases of $10,403 in charges for services receivable resulting from an adopted rate increase of 10% for retail customers and 9.3% for wholesale customers, $214 in interest receivable due to higher interest rates, $186 due from the Office of Community Investment and Infrastructure for the Candlestick/Hunter's Point custom work projects, and $90 in inventory from more purchases than issuances during the fiscal year.

Capital assets, net of accumulated depreciation and amortization, increased by $154,963 or 3.2%, reflecting an increase in construction and capital improvement activities. The largest portion of the Water Enterprise's net position of $495,868 or 98.9% represents net investment in capital assets (see Capital Assets section of the MDA for more information). Deferred outflows of resources increased by $163,283 due to a $90,621 increase in unamortized loss on debt refunding mainly from the issuance of 2016 Series A and 2016 Series B bonds, and $72,662 increase for pensions based on actuarial report.

Total liabilities increased by $357,738 or 7.1% which is explained by increases of $295,407 in principal of revenue bonds and certificates of participation mainly due to the issuance of 2016 Series A, 2016 Series B, and 2016 Series C bonds, $151,932 in net pension liability due to investment losses, the Appeals Court's elimination of the full funding requirement for certain members and the impact of revised demographic assumptions and change in discount rate, $21,932 in the Wholesale Balancing Account (see Note 10(a) for details), $9,784 in other post-employment benefits obligations as a result of higher actuarially determined annual required contributions, $1,313 in accrued payroll, vacation and sick leave, $325 in unearned revenues mainly from deposits for water service, $275 in workers' compensation, and $267 in interest payable due to higher outstanding principal. These increases were offset by decreases of $91,000 in

commercial paper due to refunding, $25,058 in restricted and unrestricted payables mainly due to fewer outstanding payables at year end, $6,162 in general liability based on actuarial report, $779 due to the Department of Public Works for payment of custom work projects, and $498 in pollution remediation liability mainly for the Lake Merced and 17th and Folsom sites (see Note 15(d) for details).

Deferred inflows of resources decreased by $25,442 due to pension obligations based on actuarial report.

The following table summarizes Wastewater's changes in net position.

Table 1B
Proprietary Fund – Wastewater
Comparative Condensed Net Position
June 30, 2018, 2017, and 2016

	2018	2017	2016	2018 - 2017 Change	2017 - 2016 Change
Total assets:					
Current and other assets	$ 268,983	285,444	442,019	(16,461)	(156,575)
Capital assets, net of accumulated depreciation and amortization	2,526,206	2,251,700	2,059,662	274,506	192,038
Total assets	2,795,189	2,537,144	2,501,681	258,045	35,463
Deferred outflows of resources:					
Unamortized loss on refunding of debt	500	705	945	(205)	(240)
Pensions	29,984	48,192	14,589	(18,208)	33,603
Other post-employment benefits	3,264	—	—	3,264	—
Total deferred outflows of resources	33,748	48,897	15,534	(15,149)	33,363
Liabilities:					
Current liabilities:					
Revenue bonds	21,010	20,015	20,870	995	(855)
Certificates of participation	676	643	612	33	31
Commercial paper	262,859	111,411	61,000	151,448	50,411
State revolving fund loans	296	—	—	296	—
Other liabilities	98,185	58,559	66,748	39,626	(8,189)
Subtotal current liabilities	383,026	190,628	149,230	192,398	41,398
Long-term liabilities:					
Revenue bonds	998,136	1,024,910	1,051,013	(26,774)	(26,103)
Certificates of participation	27,645	28,370	29,068	(725)	(698)
State revolving fund loans	22,311	—	—	22,311	—
Other liabilities	181,241	190,777	115,663	(9,536)	75,114
Subtotal long-term liabilities	1,229,333	1,244,057	1,195,744	(14,724)	48,313
Total liabilities:					
Revenue bonds	1,019,146	1,044,925	1,071,883	(25,779)	(26,958)
Certificates of participation	28,321	29,013	29,680	(692)	(667)
Commercial paper	262,859	111,411	61,000	151,448	50,411
State revolving fund loans	22,607	—	—	22,607	—
Other liabilities	279,426	249,336	182,411	30,090	66,925
Total liabilities	1,612,359	1,434,685	1,344,974	177,674	89,711
Deferred inflows of resources:					
Related to pensions	7,277	5,093	16,301	2,184	(11,208)
Other post-employment benefits	96	—	—	96	—
Total deferred inflows of resources	7,373	5,093	16,301	2,280	(11,208)
Net position:					
Net investment in capital assets	1,207,703	1,095,165	1,098,723	112,538	(3,558)
Restricted for debt service	1,312	977	981	335	(4)
Restricted for capital projects	—	1,653	18,205	(1,653)	(16,552)
Unrestricted	190	48,468	38,031	(48,278)	10,437
Total net position	$ 1,209,205	1,146,263	1,155,940	62,942	(9,677)

Wastewater Net Position, Fiscal Year 2018

For the year ended June 30, 2018, the Wastewater Enterprise's assets and deferred outflows of resources exceeded liabilities and deferred inflows of resources by $1,209,205. The Wastewater Enterprise's total net position increased by $62,942 or 5.5% as a result of increases of $112,538 in net investment in capital assets and $335 in restricted for debt service, offset by decreases of $48,278 in unrestricted net position and $1,653 in restricted for capital projects (see Table 1B).

Total assets increased by $258,045 or 10.2%. Current and other assets represent 9.6% of total assets, a decrease of $16,461 or 5.8%. The decrease was mainly due to a decrease of $33,749 in restricted and unrestricted cash and investment attributed to increased spending for the Sewer System Improvement Program (SSIP). Other decreases included $44 due from the Department of Public Works for the Mission Bay South and Hunter's View projects, $23 in lease prepayment to the Recreation and Parks Department for the Civic Center Garage, $17 in prepayments for property rents, and $15 in accrued payroll credits. These decreases were offset by increases of $14,997 in receivables from the State, of which $15,889 for expenses incurred for the Lake Merced and North Point Facility Outfall projects, offset by $892 grant collection for the Sunnydale and Valencia Street Low Impact Development stormwater flood management projects, $1,976 in charges for services due to an 11% planned rate increase, $378 in restricted and unrestricted interest and other receivables mainly due to higher annualized interest rates, and $36 in inventory as there were more purchases than issuances during the fiscal year.

Capital assets, net of accumulated depreciation and amortization, increased by $274,506 or 12.2% reflecting an increase in construction and capital improvement activities. The largest portion of the Wastewater Enterprise's net position of $1,207,703 or 99.9%, represents net investment in capital assets (see Capital Assets section of the MDA for more information). Deferred outflows of resources decreased by $15,149 due to decreases of $18,208 in pensions based on actuarial report and $205 in unamortized loss on refunding of the 2013 Series A bonds, offset by an increase of $3,264 in other post-employment benefits per implementation of GASB Statement No. 75, *Accounting and Financial Reporting for Postemployment Benefits Other than Pensions*.

Total liabilities increased by $177,674 or 12.4%. As of June 30, 2018, total outstanding balance of $1,332,933 for revenue bonds payable, commercial paper, certificates of participation, and State revolving fund loans represented 83.1% of total liabilities, an increase of $147,584 or 12.5%. The increase was mainly due to $151,448 issuance of commercial paper and $22,607 in State revolving fund loans to fund capital project spending, offset by $20,658 in debt repayments, and $5,813 in amortization of premium during the year. Other liabilities of $279,426, such as payables to vendors, contractors, and other government agencies for goods and services under contractual agreements, increased by $30,090 or 12.1%, which is comprised largely of $37,806 payable to vendors and contractors attributable to SSIP related projects and prior year activities to close out the legacy system payables, $7,847 in other post-employment benefits due to implementation of GASB Statement No. 75, *Accounting and Financial Reporting for Postemployment Benefits Other than Pensions*, $1,992 in pollution remediation liability due to increased estimated cleanup liabilities of $2,500 for the toxic sediments at Yosemite Creek and $103 for the hazardous materials at Southeast Plant, offset by $611 violation penalty payments, of which $380 for the discharge of chlorinated treated wastewater at Southeast Plant and $231 for the discharge of partially treated wastewater at the Oceanside Plant. The increase in other liabilities also included $470 in employee related benefits including workers' compensation, vacation, and accrued payroll, $236 in customers' prepayments from charges for services, $47 in prepaid rents, $33 in bond and loan interest payable due to issuance of commercial paper during the year, and $14 in grant received in advance from the Green Infrastructure Leadership Exchange for the San Francisco GSI Modeling project. These increases were offset by decreases of $17,934 in net pension liability based on actuarial report, $149 deposit from PG&E due to expenses incurred for the Cross Bore Project, $105 repayment made to Hetch Hetchy Power for the

525 Golden Gate Living Machine System, $84 in payments to DPW for the street and sewer repairs & maintenance as well as engineering support, and $83 in general liability based on actuarial estimates. Deferred inflows of resources increased by $2,280, of which $2,184 in relation to pensions based on actuarial report and $96 in other post-employment benefits per implementation of GASB Statement No. 75, *Accounting and Financial Reporting for Postemployment Benefits Other than Pensions.*

Wastewater Net Position, Fiscal Year 2017

For the year ended June 30, 2017, the Wastewater Enterprise's total net position decreased by $9,677 or 0.8% as a result of decreases of $16,552 in restricted for capital projects, $3,558 in net investment in capital assets and $4 in restricted for debt service, offset by an increase of $10,437 in unrestricted net position (see Table 1B).

Total assets increased by $35,463 or 1.4%. Current and other assets represent 11.3% of total assets, a decrease of $156,575 or 35.4%. The decrease was mainly due to a decrease of $158,880 in restricted and unrestricted cash and investment attributed to increased spending for the Sewer System Improvement Program (SSIP). Other decreases included $1,788 in restricted receivables for capacity fees collection policy changes that require full payment of permit fees at the time of issuance coupled with write-offs, $133 in inventory as more issuances than purchases during the fiscal year, $51 in custom work receivables, $21 in lease prepayment to the Recreation and Parks Department for the Civic Center Garage, and $3 in property rental receivables. These decreases were offset by increases of $2,808 in charges for services receivables due to a 7% planned rate increase, $1,219 in state grant receivables as pending reimbursements for the stormwater flood management projects, $109 due from the Department of Public Works for the Mission Bay South and Hunter's View projects, $83 in interest receivable due to higher annualized interests rates, $37 in prepayments for property rents, $23 due from Office of Community Investment and Infrastructure (OCII) for the Candlestick Point and Hunter's Point Phase II project, and $22 in biofuel receivables.

Capital assets, net of accumulated depreciation and amortization, increased by $192,038 or 9.3% reflecting an increase in construction and capital improvement activities. The largest portion of the Wastewater Enterprise's net position of $1,095,165, or 95.5%, represents net investment in capital assets (see Capital Assets section of the MDA for more information). Deferred outflows of resources increased by $33,363 due to an increase of $33,603 in pensions based on actuarial report offset by $240 decrease in unamortized loss on refunding of the 2013 Series A bonds.

Total liabilities increased by $89,711 or 6.7%. As of June 30, 2017, total outstanding balance of $1,185,349 for revenue bonds payable, commercial paper, and certificates of participation represented 82.6% of total liabilities, an increase of $22,786 or 2.0%. The increase was due $50,411 issuance of commercial paper, offset by $21,482 in debt repayments, and $6,143 in amortization of premium during the year. Other liabilities of $249,336, such as payables to vendors, contractors, and other government agencies for goods and services under contractual agreements, increased by $66,925 or 36.7%. The increases included $70,730 in net pension liability due to investment losses, the Appeals Court's elimination of the full funding requirement for certain members, and the impact of the revised demographic assumptions and change in discount rate, $5,617 in other post-employment benefit obligations as a result of higher actuarially determined annual required contribution, $1,829 in interest payable due to issuance of revenue bonds 2016 Series A and B and commercial paper, $1,398 increase in custom work liability mainly due to $1,500 deposit from PG&E for the Cross Bore Project, $391 in customers' prepayments from charges for services, $90 in pollution remediation liability for the Southeast Wastewater Treatment Plant, $84 payable to the Department of Public Works for the street repairs and maintenance of the Southeast Wastewater Treatment Plant and Community Center. These increases were offset by decreases of $10,414 in accounts payable from restricted and unrestricted assets due to less outstanding payables at year end,

$2,484 in general liability based on actuarial estimates, $150 in liens released for construction and professional contracts, $104 of repayment made to Hetch Hetchy Power for the 525 Golden Gate Living Machine System, $60 in employee related benefits including workers' compensation, vacation, and accrued payroll, and $2 in payable to San Francisco County Transportation Authority for the 19th Avenue project.

Deferred inflows of resources decreased by $11,208 in relation to pensions based on actuarial report.

The following table summarizes Hetchy Water's changes in net position.

Table 1C – A
Proprietary Fund – Hetchy Water
Comparative Condensed Net Position
June 30, 2018, 2017, and 2016

	2018	2017	2016	2018 - 2017 Change	2017 - 2016 Change
Total assets:					
Current and other assets	$ 97,578	80,350	37,195	17,228	43,155
Capital assets, net of accumulated depreciation and amortization	139,799	127,731	113,867	12,068	13,864
Total assets	237,377	208,081	151,062	29,296	57,019
Deferred outflows of resources:					
Pensions	7,488	12,659	3,746	(5,171)	8,913
Other post-employment benefits	870	–	–	870	–
Total deferred outflows of resources	8,358	12,659	3,746	(4,301)	8,913
Liabilities:					
Current liabilities	8,978	6,293	4,638	2,685	1,655
Long-term liabilities	43,123	44,753	23,554	(1,630)	21,199
Total liabilities	52,101	51,046	28,192	1,055	22,854
Deferred inflows of resources:					
Related to pensions	1,818	1,338	3,905	480	(2,567)
Other post-employment benefits	26	–	–	26	–
Total deferred inflows of resources	1,844	1,338	3,905	506	(2,567)
Net position:					
Net investment in capital assets	139,799	127,731	113,867	12,068	13,864
Restricted for capital projects	11,712	–	1,409	11,712	(1,409)
Unrestricted	40,279	40,625	7,435	(346)	33,190
Total net position	$ 191,790	168,356	122,711	23,434	45,645

Hetch Hetchy 2018 Moccasin Storm

On March 22, 2018, the Moccasin Dam and Reservoir and surrounding areas in the town of Moccasin, Tuolumne County, experienced significant rainfall and subsequent flooding. The SFPUC activated its Emergency Action Plan and notified responsible oversight agencies. On April 19, 2018, the California State Governor issued a State of Emergency Proclamation as the storm event caused widespread damage to several counties in the State. Tuolumne County is identified as an affected county. Hetch Hetchy Enterprise sustained considerable damage to its Moccasin-area water supply, drainage, and power generation assets. Shortly after the Governor's Emergency Proclamation, SFPUC de-activated its Emergency Action Plan and shifted to cost recovery activities.

As of June 30, 2018, the emergency, clean up, repair and construction costs related to the 2018 Moccasin Storm totaled $4,094. Of this, $3,687 was capital project related and capitalized to construction work in progress (See Table 3D). $407 was emergency and cleanup costs and has been expensed. Hetchy Water and Hetchy Power impairment loss were $177 and $118, respectively, for a total of $295, which was reported under operating expenses in the Statements of Revenues, Expenses, and Change in Net Position.

Hetchy Water Net Position, Fiscal Year 2018

Hetchy Water's net position of $191,790 increased by $23,434 or 13.9% resulting from an increase of $24,995 in total assets and deferred outflows of resources, and $1,561 in total liabilities and deferred inflows of resources (see Table 1C-A). Increase in current and other assets of $17,228 was attributed to $16,921 increase in cash and investment with City Treasury primarily due to $30,000 transfer from the Water Enterprise to fund upcountry water projects, $210 increase in interest receivables as a result of higher interest rates, $58 in prepaid charges, advances, and other receivables, of which $60 from vendor prepayments, and $6 from Rim Fire insurance recoveries receivables, offset by decreases of $5 from advance paid to the Recreation and Parks Department for the Civic Center Garage and $3 in payroll credits. Grant receivables increased by $53 from Association of Bay Area Governments for Lower Cherry Aqueduct Emergency Rehabilitation project. These increases were offset by a decrease of $14 from Charges for services receivables primarily from Groveland Community Services due to higher collection.

Capital assets, net of accumulated depreciation and amortization, increased by $12,068 or 9.4% to $139,799 primarily due to increases in facilities, improvements, machinery, and equipment for Cherry Dam Outlet Works Rehabilitation, 2018 Moccasin Storm, Moccasin Facilities New Construction, and San Joaquin Pipeline Rehabilitation projects. Deferred outflows of resources for pensions decreased by $4,301, of which $5,171 was for pensions based on actuarial report, offset by an increase of $870 in other post-employment benefits per implementation of GASB Statement No. 75, *Accounting and Financial Reporting for Postemployment Benefits Other than Pensions*.

Hetchy Water's total liabilities increased by $1,055 or 2.1% to $52,101, due to increases of $4,592 in other post-employment benefits due to implementation of GASB Statement No. 75, *Accounting and Financial Reporting for Postemployment Benefits Other than Pensions*, $2,753 in outstanding payables to vendors and contractors for goods and services as compared to prior year due to early close-out of legacy finance system payables to prepare for system conversion, $77 in employee related benefits including workers' compensation, vacation and sick leave, and $5 in prepaid rent, offset by decreases of $6,019 in net pension liability, and $353 in general liability based on actuarial estimates. Deferred inflows of resources increased by $506, of which $480 was related to pensions based on actuarial report and $26 in other post-employment benefits due to implementation of GASB Statement No. 75, *Accounting and Financial Reporting for Postemployment Benefits Other than Pensions.*

Hetchy Water Net Position, Fiscal Year 2017

Hetchy Water's net position of $168,356 increased by $45,645 or 37.2% resulting from increases of $57,019 in total assets, $8,913 in deferred outflows of resources and a decrease in deferred inflows of resources of $2,567, offset by $22,854 increases in total liabilities (see Table 1C-A). Increase in current and other assets of $43,155 was attributed to $43,126 increase in restricted and unrestricted cash and investment with City Treasury due primarily to $60,000 transfer from the Water Enterprise to fund upcountry projects, and $336 in vendor prepayments. These increases were offset by decreases of $256 in charges for service receivables primarily from decreased consumption for Lawrence Livermore National Laboratory, $33 in inventory from more issuances than purchases, $14 in interest receivables from pooled investment resulting from lower average cash balance and $4 from advance paid to the Recreation and Parks Department for the Civic Center Garage.

Capital assets, net of accumulated depreciation and amortization, increased by $13,864 or 12.2% to $127,731 primarily due to increases in facilities, improvements, machinery, and equipment for Mountain Tunnel Improvement, Moccasin Facilities New Construction, and San Joaquin Pipeline Rehabilitation. Deferred outflows of resources increased by $8,913 due to pensions based on actuarial report.

Hetchy Water's total liabilities increased by $22,854 or 81.1% to $51,046, as explained by increases of $19,142 in net pension liability due to investment losses, the Appeals Court's elimination of the full funding requirement for certain members, and the impact of the revised demographic assumptions and change in discount rate, $3,767 increase in restricted liabilities related to Water bond-funded upcountry projects, $1,335 in other post-employment benefit obligations as a result of higher actuarially determined annual required contribution, $539 in grant advance received from Federal Emergency Management Agency (FEMA) and the State Office of Emergency Services for the Rim Fire projects, and $233 in general liability based on actuarial estimates. The increases were offset by decreases of $2,124 in outstanding payables to vendors and contractors for services, and $35 in employee related benefits including workers' compensation, vacation and sick leave, and accrued payroll, and $3 decrease in prepaid rent. Deferred inflows of resources decreased by $2,567 due to pensions based on actuarial report.

The following table summarizes Hetchy Power's changes in net position.

Table 1C – B
Proprietary Fund – Hetchy Power
Comparative Condensed Net Position
June 30, 2018, 2017, and 2016

	2018*	2017*	2016**	2018 - 2017 Change	2017 - 2016 Change
Total assets:					
Current and other assets	$ 238,023	243,406	233,367	(5,383)	10,039
Capital assets, net of accumulated depreciation and amortization	339,623	316,990	290,382	22,633	26,608
Total assets	577,646	560,396	523,749	17,250	36,647
Deferred outflows of resources:					
Pensions	9,152	15,473	4,578	(6,321)	10,895
Other post-employment benefits	1,064	—	—	1,064	—
Total deferred outflows of resources	10,216	15,473	4,578	(5,257)	10,895
Liabil ties:					
Current liabilities:					
Bonds	2,480	2,437	1,692	43	745
Certificates of participation	348	331	315	17	16
Commercial paper	20,280	20,058	—	222	20,058
Other liabilities	30,935	17,717	24,567	13,218	(6,850)
Subtotal current liabilities	54,043	40,543	26,574	13,500	13,969
Long-term liabilities:					
Bonds	52,761	55,463	58,418	(2,702)	(2,955)
Certificates of participation	14,233	14,607	14,966	(374)	(359)
Other liabilities	57,946	61,935	33,693	(3,989)	28,242
Subtotal long-term liabilities	124,940	132,005	107,077	(7,065)	24,928
Total liabilities:					
Bonds	55,241	57,900	60,110	(2,659)	(2,210)
Certificates of participation	14,581	14,938	15,281	(357)	(343)
Commercial paper	20,280	20,058	—	222	20,058
Other liabilities	88,881	79,652	58,260	9,229	21,392
Total liabilities	178,983	172,548	133,651	6,435	38,897
Deferred inflows of resources:					
Related to pensions	2,222	1,635	4,773	587	(3,138)
Other post-employment benef ts	31	—	—	31	—
Total deferred inflows of resources	2,253	1,635	4,773	618	(3,138)
Net pos tion:					
Net investment in capital assets	270,918	260,681	255,897	10,237	4,784
Restricted for debt service	834	485	306	349	179
Unrestricted	134,874	140,520	133,700	(5,646)	6,820
Total net position	$ 406,626	401,686	389,903	4,940	11,783

* Included $5,601 and $7,250 working capital loan to CleanPowerSF in fiscal years 2018 and 2017, respectively.
** CleanPowerSF was presented as part of Hetchy Power in fiscal year 2016.

Hetchy Power Net Position, Fiscal Year 2018

Hetchy Power's net position of $406,626 increased by $4,940 or 1.2% resulting from an increase of $11,993 in total assets and deferred outflows of resources, offset by an increase of $7,053 in total liabilities and deferred inflows of resources (see Table 1C-B). A working capital loan of $5,601 due to Hetchy Power from CleanPowerSF was eliminated upon consolidation. Current and other assets decreased by $5,383 or 2.2%, of which $3,123 decrease in cash and investment with City Treasury and outside City Treasury mainly due to increased capital project spending, $2,113 in due from other City departments included repayments of $1,649 from CleanPowerSF for working capital loan, $677 from Mayor's Energy Conservation Account, $387 from CleanPowerSF electricity purchased in prior year, $105 from the Wastewater Enterprise for the Living Machine System, and $29 decrease in custom work receivables for Hunter's Point Shipyard and Candlestick Point projects, offset by an increase of $734 in receivable from Recreation and Parks Department for energy efficiency projects.

Charges for service receivables decreased by $1,128 primarily due to decreased power sales to MID, and $37 in grant receivables due to collections from the Federal Emergency Management Agency for the Hazard Mitigation Grant Project. Prepaid charges, advances, and other receivables increased by $662 including $347 in vendor prepayments, $287 in receivables for Distributed Antenna System (DAS), and $75 in Rim Fire insurance recoveries receivables, offset by decreases of $21 in custom work receivables for the Sunnydale Housing projects, $15 in payroll credits, and $11 in advance paid to the Recreation and Parks Department for the Civic Center Garage. Interest receivables increased by $356 due to higher interest rates.

Capital assets, net of accumulated depreciation and amortization, increased by $22,633 or 7.1% to $339,623 primarily due to additions of facilities, improvements, machinery, and equipment for Cherry Dam Outlet Works Rehabilitation, Warnerville Substation Rehabilitation, Moccasin Facilities New Construction, and Mountain Tunnel Improvement projects. Deferred outflows of resources decreased by $5,257, of which $6,321 was for pensions based on actuarial report, offset by an increase of $1,064 in other post-employment benefits per implementation of GASB Statement No. 75, *Accounting and Financial Reporting for Postemployment Benefits Other than Pensions.*

Hetchy Power's total liabilities of $178,983 increased by $6,435 or 3.7%. As of June 30, 2018, outstanding debts decreased by $2,794 attributable to $2,764 in principal repayments, and $252 in amortization of premium and discount, offset by an increase of $222 in commercial paper issuance. Other liabilities of $88,881, such as payables to vendors, contractors, and other government agencies for goods and services under contractual agreements, increased by $9,229 or 11.6% mainly attributed to $10,046 in outstanding accounts payable to vendors and contractors for goods and services as compared to prior year due to early close-out of legacy finance system payables to prepare for system conversion, $3,459 in unearned revenues, $2,545 in other post-employment benefits due to implementation of GASB Statement No. 75, *Accounting and Financial Reporting for Postemployment Benefits Other than Pensions*, $381 in general liability based on actuarial estimates, and $164 in employee related benefits including workers' compensation, vacation and sick leave; offset by decreases of $7,358 in net pension liability based on actuarial report and $8 in bond and loan interest payable.

Increase of $3,459 in unearned revenues included $1,867 in credits to MID due to year-end true-up reconciliation, $814 in deposits from DAS and the Hunter's Point Shipyard projects, $708 in utility and electric energy surcharge tax payables, $535 in deposits for Sunnydale Parcel Q custom work project, $94 in DAS customer prepayments, and $7 in prepaid rent, offset by a decrease of $566 in prior year credit due to other City department for work order billings. Deferred inflows of resources increased by $618, of which $587 was related to pensions based on actuarial report and $31 in other post-employment benefits per

implementation of GASB Statement No. 75, *Accounting and Financial Reporting for Postemployment Benefits Other than Pensions.*

Hetchy Power Net Position, Fiscal Year 2017

Hetchy Power's net position of $401,686 increased by $11,783 or 3.0% resulting from an increase of $36,647 in total assets, $10,895 in deferred outflows of resources and a decrease in deferred inflows of resources of $3,138, offset by an increase of $38,897 in total liabilities (see Table 1C-B). CleanPowerSF is presented as part of Hetchy Power in fiscal year 2016. Current and other assets increased by $10,039 or 4.3%, due primarily to increases of $10,722 in restricted and unrestricted cash and investment with City Treasury and outside City Treasury due to $20,058 commercial paper issuance, offset by $8,174 CleanPowerSF cash and investments with City Treasury from prior year. A working capital loan of $7,250 due to Hetchy Power from CleanPowerSF was eliminated upon consolidation. Interest receivables increased by $198 due to higher averaged cash balance during fiscal year 2017, including $8 from CleanPowerSF in prior year. Other increases included $193 in other receivables for DAS and $77 in vendor prepayments.

Other decreases included $5,503 in charges for services receivables primarily due to $2,963 receivables from CleanPowerSF electricity sales in prior year, and $2,540 decreased electricity sales due to no sales of excess power to TID; $1,566 in prior year collections from the FEMA and the State Office of Emergency Services for the Rim Fire projects, $259 receivables for various custom work projects, $42 in inventory due to more issuances than purchases, $13 from advance paid to the Recreation and Parks Department for the Civic Center Garage, and $5 in travel advance. Receivables due from other City departments decreased by $1,013 as explained by $748 repayments to Mayor's Energy Conservation Account, $549 payment from Water Enterprise for DAS, $103 repayment from the Wastewater Enterprise for the Living Machine System, offset by $387 increase in receivables for electricity sales from Hetchy Power to CleanPowerSF.

Capital assets, net of accumulated depreciation and amortization, increased by $26,608 or 9.2% to $316,990 primarily due to additions of facilities, improvements, machinery, and equipment for Mountain Tunnel Improvement, Moccasin Facilities New Construction, and Transbay Transit Center. Deferred outflows of resources increased by $10,895 due to pensions based on actuarial report.

Hetchy Power's total liabilities of $172,548 increased by $38,897 or 29.1%. As of June 30, 2017, outstanding debts increased by $17,505 attributable to $20,058 commercial paper issuance in February 2017, offset by $2,011 in principal repayments, $288 redemption of 2012 NCREBs, and $254 in amortization of premium and discount. Other liabilities of $79,652, such as payables to vendors, contractors, and other government agencies for goods and services under contractual agreements, increased by $21,392 or 36.7%. Net pension liability increased by $23,396 due to investment losses, the Appeals Court's elimination of the full funding requirement for certain members, and the impact of the revised demographic assumptions and change in discount rate, $2,250 increase in unearned revenues, including $650 in grant advance received from FEMA and the State Office of Emergency Services for the Rim Fire projects, $566 in credits due to other City departments for work order billings, $391 in credits to MID and TID due to billing true up, $377 in deposits for various custom work projects, $232 in deposits from DAS and Hunter's Point Shipyard Project, $40 in utility taxes payable, offset by a $6 decrease in prepaid rent. Other increases included $1,631 in other post-employment benefit obligations as a result of higher actuarially determined annual required contribution, $390 in restricted liabilities for bond fund-projects, and $344 in general liability based on actuarial estimates.

The increases in other liability were offset by decreases of $6,580 in accounts payable to vendors and contractors for services, of which $1,722 was related to CleanPowerSF accounts payable in prior year, and $38 in employee related benefits including workers' compensation, vacation and sick leave, and accrued

payroll, and slight decrease of $1 in bond and loan interest payable. Deferred inflows of resources decreased by $3,138 due to pensions based on actuarial report.

The following table summarizes CleanPowerSF's changes in net position.

Table 1C – C
Proprietary Fund – CleanPowerSF
Comparative Condensed Net Position
June 30, 2018 and 2017

	2018	2017	2018 - 2017 Change
Total assets:			
Current and other assets	$ 20,263	19,600	663
Total assets	20,263	19,600	663
Deferred outflows of resources:			
Pensions	323	—	323
Other post-employment benefits	40	—	40
Total deferred outflows of resources	363	—	363
Liabil ties:			
Current liabilities	4,252	6,032	(1,780)
Long-term liabilities	7,434	5,350	2,084
Total liabil ties	11,686 *	11,382 *	304
Deferred inflows of resources:			
Related to pensions	79	—	79
Other post-employment benefits	1	—	1
Total deferred inflows of resources	80	—	80
Net position:			
Unrestricted	8,860	8,218	642
Total net position	$ 8,860	8,218	642

* Included $5,601 and $7,250 working capital loan from Hetchy Power in fiscal years 2018 and 2017, respectively.

CleanPowerSF Net Position, Fiscal Year 2018

CleanPowerSF's net position of $8,860 increased by $642 or 7.8% during the fiscal year (see Table 1C-C). Total assets were $20,263, a $663 or 3.4% increase from prior year. Increases were attributed to $2,431 in prepaid expenses for electricity purchases and $42 in interest receivables due to higher interest rates, offset by decreases of $1,653 in cash and investment with City Treasury mainly due to higher electricity purchases and $157 in charges for services receivables from higher collections. Deferred outflows of resources increased $363, of which $323 was for pensions based on actuarial report and $40 in other post-employment benefits per implementation of GASB Statement No. 75, *Accounting and Financial Reporting for Postemployment Benefits Other than Pensions.*

Total liabilities of $11,686 increased by $304 or 2.7% due to $2,036 due to other City departments, of which $1,649 in working capital loan to Hetchy Power, $387 in payment to Hetchy Power for purchased electricity from prior year, and $90 in utility tax and electric energy surcharge tax remittance. These decreases were offset by increases of $1,087 in net pension liability based on actuarial report, $641 in other post-employment benefits due to implementation of GASB Statement No. 75, *Accounting and Financial Reporting for Postemployment Benefits Other than Pensions*, $600 in outstanding payables to vendors and contractors for goods and services under contractual agreement as compared to prior year due to early close-out of legacy finance system payables to prepare for system conversion, $58 in unearned revenue from net energy metering credits to retail and commercial customers, and $44 in employee related benefits including accrued payroll, vacation and sick leave. Deferred inflows of resources increased by $80, of which $79 was related to pensions based on actuarial report and $1 in other post-employment benefits

per implementation of GASB Statement No. 75, *Accounting and Financial Reporting for Postemployment Benefits Other than Pensions.*

CleanPowerSF Net Position, Fiscal Year 2017

CleanPowerSF's net position of $8,218 included $19,600 in total assets offset by $11,382 in total liabilities (see Table 1C-C). Total assets of $19,600 comprised of $14,048 in cash and investment with City Treasury from electricity sales, $5,528 in charges for services receivables from billings, $17 in interest receivables and $7 in vendor prepayment.

Total liabilities of $11,382 comprised of $7,250 working capital loan from Hetchy Power, $3,480 in accounts payable, $387 in payable to Hetchy Power for purchased electricity, $90 in utility tax and electric energy surcharge tax payable from increased electricity sales, $87 in other post-employment benefit obligations as a result of actuarially determined annual required contribution, $73 in employee related benefits including vacation, sick leave and accrued payroll and $15 in unearned revenues for credits to retail and commercial customers.

Results of Operations

Department-wide Business Type Activities

The following table summarizes the department-wide revenues, expenses, and changes in net position. Detailed discussion follows for each proprietary fund.

Table 2
Business Type Activities
Comparative Condensed Activities
Years ended June 30, 2018, 2017, and 2016

	2018	2017	2016	2018 - 2017 Change	2017 - 2016 Change
Revenues:					
Charges for services	$ 989,842	895,472	807,259	94,370	88,213
Rents and concessions	13,813	9,734	13,096	4,079	(3,362)
Other operating revenues	29,043	22,445	25,672	6,598	(3,227)
Interest and investment income	11,694	8,511	6,060	3,183	2,451
Other non-operating revenues	55,705	58,422	51,972	(2,717)	6,450
Total revenues	1,100,097	994,584	904,059	105,513	90,525
Expenses:					
Operating expenses	778,355	860,177	684,834	(81,822)	175,343
Interest expenses	192,183	179,819	178,864	12,364	955
Amortization of premium, discount, refunding loss, and issuance costs	(19,188)	(15,090)	(11,950)	(4,098)	(3,140)
Non-operating expenses	4,129	4,466	4,439	(337)	27
Total expenses	955,479	1,029,372	856,187	(73,893)	173,185
Change in net position before transfers	144,618	(34,788)	47,872	179,406	(82,660)
Transfers from the City and County of San Francisco	30,469	60,268	36,213	(29,799)	24,055
Transfers to the City and County of San Francisco	(58,840)	(90,912)	(18,314)	32,072	(72,598)
Net transfers	(28,371)	(30,644)	17,899	2,273	(48,543)
Change in net position	116,247	(65,432)	65,771	181,679	(131,203)
Net position at beginning of year:					
Beginning of year, as previously reported	2,225,790	2,291 222	2,225,451	(65,432)	65,771
Cumulative effect of accounting change	(36,032)*	–	–	(36,032)	–
Beginning of year as restated	2,189,758	2,291,222	2,225,451	(101,464)	65,771
Net position at end of year	$ 2,306,005	2,225,790	2,291,222	80,215	(65,432)

* Cumulative effect of accounting change per GASB Statement No. 75, *Accounting and Financial Reporting for Postemployment Benefits Other than Pensions.*

The following table summarizes Water's revenues, expenses, and changes in net position.

Table 2A
Proprietary Fund – Water
Comparative Condensed Activities
Years ended June 30, 2018, 2017, and 2016

	2018	2017	2016	2018 - 2017 Change	2017 - 2016 Change
Revenues:					
Charges for services	$ 495,138	438,207	393,582	56,931	44,625
Rents and concessions	12,906	8,813	12,081	4,093	(3,268)
Other operating revenues	17,595	13,311	13,853	4,284	(542)
Interest and investment income	6,448	4,331	3,595	2,117	736
Other non-operating revenues	39,064	37,405	31,253	1,659	6,152
Total revenues	571,151	502,067	454,364	69,084	47,703
Expenses:					
Operating expenses	370,147	421,827	314,786	(51,680)	107,041
Interest expenses	164,001	148,075	153,258	15,926	(5,183)
Amortization of premium, discount, refunding loss, and issuance costs	(13,540)	(9,029)	(8,849)	(4,511)	(180)
Non-operating expenses	1,920	2,607	2,210	(687)	397
Total expenses	522,528	563,480	461,405	(40,952)	102,075
Change in net position before transfers	48,623	(61,413)	(7,041)	110,036	(54,372)
Transfers from the City and County of San Francisco	382	128	34,368	254	(34,240)
Transfers to the City and County of San Francisco	(31,368)	(60,116)	(1,124)	28,748	(58,992)
Net transfers	(30,986)	(59,988)	33,244	29,002	(93,232)
Change in net position	17,637	(121,401)	26,203	139,038	(147,604)
Net position at beginning of year:					
Beginning of year, as previously reported	501,267	622,668	596,465	(121,401)	26,203
Cumulative effect of accounting change	(29,380) *	—	—	(29,380)	—
Beginning of year as restated	471,887	622,668	596,465	(150,781)	26,203
Net position at end of year	$ 489,524	501,267	622,668	(11,743)	(121,401)

* Cumulative effect of accounting change per GASB Statement No. 75, *Accounting and Financial Reporting for Postemployment Benefits Other than Pensions.*

Water Results of Operations, Fiscal Year 2018

The Water Enterprise's total revenues of $571,151 for the year represented an increase of $69,084 or 13.8% from prior year (see Table 2A). Increases included $56,931 from charges for services, $4,284 for other operating revenues, $4,093 for rents and concessions, $2,117 from interest and investment income, and $1,659 for other non-operating revenues.

Charges for services were $495,138, an increase of $56,931 or 13.0% is primarily due to an adopted rate increase of 7.0% for retail customers beginning July 1, 2017, and increased consumption of 11% by wholesale customers and 3% by retail customers. Rents and concessions were $12,906, an increase of $4,093 or 46.4% mainly due to write-off of Sunol Valley Golf lease receivable in prior year. Other operating revenues were $17,595, an increase of $4,284 or 32.2% due to a 7% planned rate increase and increased consumption from other City departments on water sales. Interest and investment income was $6,448, an increase of $2,117 or 48.9% due to higher average cash balances and higher annualized interest rates with the City Treasury. Other non-operating revenues were $39,064, an increase of $1,659 or 4.4% mainly due to a $8,250 pollution remediation settlement received for the Pacific Rod and Gun Club site, offset by a $6,591 decrease in sale of property primarily due to a one-time gain from property sold in prior year.

The Water Enterprise's total expenses were $522,528, a decrease of $40,952 or 7.3% from prior year. Operating expenses were $370,147, a decrease of $51,680 or 12.3% due to a $53,739 decrease in personnel services mainly from pensions, $2,392 in general and administrative and other expenses mainly

due to increased capitalization of capital projects, $2,313 in services by other departments mainly for lower water assessment fees paid to Hetch Hetchy Water, and $75 in depreciation. These decreases were offset by increases of $3,467 for contractual services mainly due to increased construction contracts, and $3,372 in materials and supplies mainly resulting from obsolete inventory write-offs, water treatment supplies and other materials and supplies. Interest expenses increased by $15,926, and amortization of bond premium, discount, refunding loss and issuance costs increased by $4,511 mainly due to the issuance of the 2017 Series ABC and 2017 Series DEFG bonds. Non-operating expenses decreased by $687 due to lower rebates for high efficiency toilets installed.

Transfers in of $382 included $282 from the City for Earthquake Safety and Emergency Response projects, and $100 from the General Fund for the San Francisco War Memorial Veterans Building project. Transfers out of $31,368 included $30,000 to Hetch Hetchy Water to fund various upcountry capital projects, $1,244 to San Francisco Recreation and Parks Department for Alta Plaza Park and Moscone Recreation Center projects, $92 to San Francisco Municipal Transportation Agency for the Forest Hill Station project, and $32 to the Office of the City Administrator for the Surety Bond Program.

Water Results of Operations, Fiscal Year 2017

The Water Enterprise's total revenues of $502,067 for the year represented an increase of $47,703 or 10.5% from prior year (see Table 2A). Increases included $44,625 from charges for services, $6,152 from other non-operating revenues, and $736 from interest and investment income. These increases were offset by decreases of $3,268 from rents and concessions, and $542 from other operating revenues.

Charges for services were $438,207, an increase of $44,625 or 11.3% from prior year primarily due to an adopted rate increase of 10% for retail customers and 9.3% for wholesale customers beginning July 1, 2016, and a 5.5% increase in consumption. Rents and concessions were $8,813, a decrease of $3,268 or 27.1% mainly due to the write-off of Sunol Valley Golf lease receivable. Other operating revenues were $13,311, a decrease of $542 or 3.9% due to the write-off of capacity fee receivable and a decrease in permits issued. Interest and investment income was $4,331, an increase of $736 or 20.5% due to higher interest rates and prior year's declines in fair value. Other non-operating revenues were $37,405, an increase of $6,152 or 19.7% mainly due to a one-time gain from sale of a surplus property located at 401 and 403 Old Bernal Avenue in Pleasanton, California in fiscal year 2017, and $700 settlement received relating to the Wawona Street water main break incident in 2013.

The Water Enterprise's total expenses were $563,480, an increase of $102,075 or 22.1% from prior year. Operating expenses were $421,827, an increase of $107,041 or 34.0%. The increase was explained by a $79,007 increase in personnel services mainly due to pensions, $20,688 in general and administrative and other expenses mainly due to $68,296 in reduced capitalization for capital projects, offset by $45,266 reduction in capital and other projects expenses, and $2,342 for general and administrative expensive mainly from reductions in judgement and claims liability based on actuarial report, and $12,160 in depreciation due to higher capitalized assets being in use. These increases were offset by decreases of $2,787 in construction and environmental consulting contractual services, $1,695 in services provided by other departments mainly for water assessment fees paid to Hetch Hetchy Water, and $332 in materials and supplies for various projects. Interest expenses decreased by $5,183 mainly due to refunding of various bonds. Amortization of bond premium increased by $180 explained by the issuance of 2016 Series A and 2016 Series B bonds. Non-operating expenses increased by $397 mainly due to water conservation rebates.

Net transfers out of $59,988 included a one-time $60,000 transfer to Hetch Hetchy Water to fund various upcountry projects, $72 to San Francisco Recreation and Parks Department mainly for water saving

improvements at Alamo Square Park, and $32 to the Office of the City Administrator for the Surety Bond Program, offset by $116 from the City mainly for the San Francisco War Memorial Veterans Building project.

The following table summarizes Wastewater's revenues, expenses, and changes in net position.

Table 2B
Proprietary Fund – Wastewater
Comparative Condensed Activities
Years ended June 30, 2018, 2017, and 2016

	2018	2017	2016	2018 - 2017 Change	2017 - 2016 Change
Revenues:					
Charges for services	$ 303,037	267,601	249,203	35,436	18,398
Rents and concessions	611	606	753	5	(147)
Other operating revenues	11,448	9,134	11,819	2,314	(2,685)
Interest and investment income	2,317	2,327	1,185	(10)	1,142
Other non-operating revenues	5,330	8,633	8,263	(3,303)	370
Total revenues	322,743	288,301	271,223	34,442	17,078
Expenses:					
Operating expenses	210,593	244,220	221,553	(33,627)	22,667
Interest expenses	24,978	28,474	22,251	(3,496)	6,223
Amortization of premium, refunding loss, and issuance costs	(5,400)	(5,806)	(2,979)	406	(2,827)
Non-operating expenses	414	383	485	31	(102)
Total expenses	230,585	267,271	241,310	(36,686)	25,961
Change in net position before transfers	92,158	21,030	29,913	71,128	(8,883)
Transfers from the City and County of San Francisco	—	40	460	(40)	(420)
Transfers to the City and County of San Francisco	(26,960)	(30,747)	(16,485)	3,787	(14,262)
Net transfers	(26,960)	(30,707)	(16,025)	3,747	(14,682)
Change in net position	65,198	(9,677)	13,888	74,875	(23,565)
Net position at beginning of year:					
Beginning of year, as previously reported	1,146,263*	1,155 940	1,142,052	(9,677)	13,888
Cumulative effect of accounting change	(2,256)	—	—	(2,256)	—
Beginning of year as restated	1,144,007	1,155,940	1,142,052	(11,933)	13,888
Net position at end of year	$ 1,209,205	1,146,263	1,155,940	62,942	(9,677)

* Cumulative effect of accounting change per GASB Statement No. 75, *Accounting and Financial Reporting for Postemployment Benefits Other than Pensions.*

Wastewater Results of Operations, Fiscal Year 2018

The Wastewater Enterprise's total revenues were $322,743, an increase of $34,442 or 11.9% from prior year (see Table 2B). Charges for services increased by $35,436 or 13.2% due to an average 11% adopted rate increase and a sanitary flow increase of 509,865 ccf or 2% from residential and non-residential customers. Other operating revenues increased by $2,314 or 25.3% mainly due to $1,441 increase in capacity fees resulting from an increase in average permit price coupled with the collection of previously written-off capacity fee receivables and $873 in charges for services to other City departments such as the Recreation and Parks and Zuckerberg San Francisco General Hospital and Trauma Center due to an 11% average rate increase coupled with a 3.9% increased sanitary flow. Rents increased slightly by $5 or 0.8%. Other non-operating revenues decreased by $3,303 or 38.3% mainly attributed to $3,274 State grant received in prior year for the stormwater flood management projects, $116 decrease in penalty charges, $109 in custom work services for the Hunter's View and Mission Bay South projects from the Department of Public Works, and $40 from sale of assets. These decreases were offset by $141 in settlements received from insurance claim, $82 in biofuel revenue, and $13 in federal interest subsidy. Interest and investment income decreased by $10 due to an increase in unrealized losses of $853 attributed to decline in market value, offset by $843 increase in interest earned on cash due to higher annualized interest rates.

Total expenses decreased by $36,686 or 13.7% due to decreases of $33,627 in operating expenses, and $3,496 in interest expenses mainly attributed to increased capitalized bond interest, offset by $406 amortization of premium, refunding loss, and issuance cost and $31 in other non-operating expenses due to lower expense incurred for the flood water management program. The decrease of $33,627 in operating expenses was mainly attributable to $23,311 decrease in personnel services mainly from pensions, $12,954 decrease in general and administrative and other operating expenses mainly due to increased capitalization of capital project spending, and $458 in services provided by other departments mainly for light, heat, and power. These decreases were offset by increases of $2,236 in contractual services mainly due to higher professional and specialized services particularly on engineering services, management, and system consulting services and maintenance services on building structures particularly on sludge removal, pest control, and security services, $710 in materials and supplies, and $150 in depreciation expense due to increased capitalized assets.

Total transfers of $26,960 included $26,738 to the City Real Estate Division for the Central Shop Relocation Project, Land Reuse 1800 Jerrold related to Southeast Plant improvement project, $150 to the Neighborhood Development Fund for the Watershed Stewardship Grants, $40 to Art Commission for art enrichment, and $32 to the Office of the City Administrator for the Surety Bond Program.

Wastewater Results of Operations, Fiscal Year 2017

The Wastewater Enterprise's total revenues were $288,301, an increase of $17,078 or 6.3% from prior year (see Table 2B). Charges for services increased by $18,398 or 7.4% due to an average 7% adopted rate increase and a sanitary flow increase of 38,788 ccf or 0.2% from residential and non-residential customers. Interest and investment income increased by $1,142 or 96.4% due to higher annualized interest rates and prior year's declines in fair value. Other non-operating revenues increased by $370 or 4.5% mainly due to $3,274 in state assistance for the stormwater flood management projects such as the Cesar Chavez Storm Flood Management and Sunnydale Storm Water Flood Management, $347 from projects overhead charges, penalty and late payment charges, $166 from custom work projects such as the Mission Bay South and Hunter's View projects, and $68 in biofuel revenue and sale of assets. The increases in non-operating revenues were offset by a decrease of $3,485 attributed to prior year's settlement from the PG&E. Other operating revenues decreased by $2,685 or 22.7% mainly due to $2,898 decrease in capacity fees resulting from a 20% decline in permit sales and write-offs of capacity fee receivables, offset by an increase of $213 from other City Departments such as the San Francisco General Hospital and the Laguna Honda Hospital due to increased sanitary flow. Rents decreased by $147 or 19.6% due to termination of three leases.

Total expenses increased by $25,961 or 10.8% due to increases of $22,667 in operating expenses, $6,223 in interest expense mainly attributed to higher outstanding principal and commercial paper issued, offset by an increase of $2,827 in amortization of premium, refunding loss and issuance cost, and $102 decrease in other non-operating expenses due to lower expenses for the Garden Project and Friends of the Urban Project. The increase of $22,667 in operating expenses was mainly attributable to $55,266 increased capital projects spending, largely in SSIP and repair and replacement projects, $36,200 in personnel services due to pension costs, $4,642 in depreciation expense due to increased capitalized assets, and $675 in services provided by other departments mainly for light, heat and power. These increases were offset by decreases of $66,499 in other operating expenses mainly due to increased capitalization of fixed assets, $4,917 in general and administrative expenses mainly due to lower judgments and claims liability based on actuarial estimate, $1,456 in materials and supplies for various projects, and $1,244 in contractual services mainly due to lower buildings and structures maintenance services.

Net transfers of $30,707 included $30,100 transfers to City Real Estate Division for the Phase 1 construction work for the Central Shops Relocation Project, Land Reuse 1800 Jerrold, $615 to Art Commission for art enrichment and $32 to the Office of the City Administrator for the Surety Bond Program, offset by $40 transfer from General Fund for community projects.

The following table summarizes Hetchy Water's revenues, expenses, and changes in net position.

Table 2C – A
Proprietary Fund – Hetchy Water
Comparative Condensed Activities
Years ended June 30, 2018, 2017, and 2016

	2018	2017	2016	2018 - 2017 Change	2017 - 2016 Change
Revenues:					
Charges for services	$ 33,427	35,008	38,624	(1,581)	(3,616)
Rents and concessions	133	142	118	(9)	24
Interest and investment income (loss)	218	46	(38)	172	84
Other non-operating revenues	1,237	616	200	621	416
Total revenues	35,015	35,812	38,904	(797)	(3,092)
Expenses:					
Operating expenses	39,792	50,099	36,536	(10,307)	13,563
Other non-operating expenses	68	68	68	–	–
Total expenses	39,860	50,167	36,604	(10,307)	13,563
Change in net position before transfers	(4,845)	(14,355)	2,300	9,510	(16,655)
Transfers from the City and County of San Francisco	30,000	60,000	–	(30,000)	60,000
Change in net position	25,155	45,645	2,300	(20,490)	43,345
Net position at beginning of year:					
Beginning of year, as previously reported	168,356	122,711	120,411	45,645	2,300
Cumulative effect of accounting change	(1,721) *	–	–	(1,721)	–
Beginning of year as restated	166,635	122,711	120,411	43,924	2,300
Net position at end of year	$ 191,790	168,356	122,711	23,434	45,645

* Cumulative effect of accounting change per GASB Statement No. 75, *Accounting and Financial Reporting for Postemployment Benefits Other than Pensions.*

Hetchy Water Results of Operations, Fiscal Year 2018

Hetchy Water's total revenues were $35,015, a decrease of $797 or 2.2% from prior year's revenues (see Table 2C-A). Charges for services were $33,427, a decrease of $1,581 or 4.5% mainly due to a decrease of $2,000 water assessment fees from the Water Enterprise to fund upcountry water-related costs, offset by an increase of $418 from Lawrence Livermore National Laboratory due to higher consumption. Rents decreased by $9 due to lower Moccasin cottage rentals. Other non-operating revenues increased by $621 mainly due to $1,050 grant revenue from Association of Bay Area Governments for Lower Cherry Aqueduct Emergency Rehabilitation Project, and $17 from miscellaneous revenue, offset by decreases of $431 from prior year Rim Fire insurance recoveries, and $15 in net gain on sale of assets. Interest and investment income increased by $172 due to $769 in interest earned resulting from higher interest rates and higher cash balances, offset by an increase in unrealized loss of $597 attributed to decline in market value in cash and investments with City Treasury.

Total operating expenses were $39,792, a decrease of $10,307 or 20.6% due to $7,482 in personnel services for lower pensions and personnel costs, $3,161 in other operating expenses mainly due to increased capitalized project expenses, $390 decrease in legal services provided by City Attorney, $282 in general and administrative expenses mainly due to judgments and claims based on actuarial estimates, and $60 in building, construction and equipment maintenance supplies. These decreases were offset by

increases of $561 in depreciation and amortization related to building, structure and equipment, and $507 in contractual services mainly for engineering services. Other non-operating expenses of $68 related to the Summer Youth Program for Garden Project remained the same from prior year. Transfer in of $30,000 was received from the Water Enterprise to fund upcountry projects.

As a result of the above activities, net position for the year ended June 30, 2018 increased by $23,434 or 13.9% compared to prior year.

Hetchy Water Results of Operations, Fiscal Year 2017

Hetchy Water's total revenues were $35,812, a decrease of $3,092 or 7.9% from prior year's revenues (see Table 2C-A). Charges for services decreased by $3,616 mainly due to decreased water assessment fees of $2,000 from the Water Enterprise to fund upcountry water-related costs, and $1,625 decreased consumption from Lawrence Livermore National Laboratory. The decreases were offset by increases of other non-operating revenues of $416, including $417 from Rim Fire insurance recoveries, $21 in net gain on sale of assets, $10 in miscellaneous revenues, offset by a decrease of $32 from Hunter's Point custom work project. Other increases included $84 in interest and investment income and $24 in rent from Moccasin cottage rentals.

Total expenses were $50,167, an increase of $13,563 or 37.1%. Personnel service increased by $9,815 mainly resulting from increased pension expense, $2,977 in other operating expenses due to higher projects spending mainly for San Joaquin Pipeline Rehabilitation Project and Moccasin Facilities New Construction Project, $631 in depreciation and amortization related to increased capitalizable facilities and improvement, and $147 in general and administrative expenses mainly due to $639 increased judgments and claims based on actuarial estimates, offset by decreases of $510 in taxes, licenses, and permits related to national park service. Contractual services increased by $115 in engineering services. These increases were offset by decreases of $92 in legal services provided by the City Attorney, and $30 in safety and office supplies. Net transfer in of $60,000 was received from the Water Enterprise to fund upcountry projects.

As a result of the above activities, net position for the year ended June 30, 2017 increased by $45,645 or 37.2% compared to prior year.

The following table summarizes Hetchy Power's revenues, expenses, and changes in net position.

Table 2C – B
Proprietary Fund – Hetchy Power
Comparative Condensed Activities
Years ended June 30, 2018, 2017, and 2016

	2018	2017	2016 *	2018 - 2017 Change	2017 - 2016 Change
Revenues:					
Charges for services	$ 118,672	120,789	125,850	(2,117)	(5,061)
Rents and concessions	163	173	144	(10)	29
Interest and investment income	2,537	1,718	1,318	819	400
Other non-operating revenues	10,073	11,764	12,256	(1,691)	(492)
Total revenues	131,445	134,444	139,568	(2,999)	(5,124)
Expenses:					
Operating expenses	119,395	116,935	111,959	2,460	4,976
Interest expenses	3,103	3,200	3,355	(97)	(155)
Amortization of premium, discount, and issuance costs	(248)	(255)	(122)	7	(133)
Other non-operating expenses	1,727	1,408	1,676	319	(268)
Total expenses	123,977	121,288	116,868	2,689	4,420
Change in net position before transfers	7,468	13,156	22,700	(5,688)	(9,544)
Transfers from the City and County of San Francisco	87	100	1,385	(13)	(1,285)
Transfers to the City and County of San Francisco	(512)	(49)	(705)	(463)	656
Net transfers	(425)	51	680	(476)	(629)
Change in net position	7,043	13,207	23,380	(6,164)	(10,173)
Net position at beginning of year:					
Beginning of year, as previously reported	401,686	389,903	366,523	11,783	23,380
Cumulative effect of accounting change	(2,103) **	—	—	(2,103)	—
Less: CleanPowerSF beginning net position	—	(1,424)	—	1,424	(1,424)
Beginning of year as restated	399,583	388,479	366,523	11,104	21,956
Net position at end of year	$ 406,626	401,686	389,903	4,940	11,783

* $367 electricity sales and $36 electricity purchases between CleanPowerSF and Hetchy Power excluded in fiscal year 2016.
** Cumulative effect of accounting changes per GASB Statement No. 75, *Accounting and Financial Reporting for Postemployment Benefits Other than Pensions.*

Hetchy Power Results of Operations, Fiscal Year 2018

Hetchy Power's total revenues were $131,445, a decrease of $2,999 or 2.2% from prior year's revenues (see Table 2C-B). Charges for services were $118,672, a decrease of $2,117 or 1.8% was primarily due to $7,658 in power sales to MID, offset by increases of $2,359 electricity sales to other City departments, $1,677 sales to other retail customers mainly from San Francisco Port operations, and $1,491 in sale of electricity to CleanPowerSF. Rents decreased by $10 due to lower Moccasin cottage rentals.

Other non-operating revenues decreased by $1,691 or 14.4% included $2,984 lower collection from Power System Impact Mitigation Project, $751 from prior year Rim Fire insurance recovery, $45 in federal interest subsidy due to sequestration, $37 in grant advance received from FEMA for the Rim Fire projects in prior year, and $9 in miscellaneous revenue; offset by increases of $1,000 in fees collected from DAS, $838 from energy efficiency projects, $134 in Cap and Trade revenues, $85 in annual license fee received from San Francisco Port Transbay Cable Project, $28 in collection from Sunnydale Parcel Q Housing project, $27 in overhead charges, and $23 in net gain on sale of assets. Interest and investment income increased by $819 due to $1,651 interest earned resulting from higher interest rates, offset by an increase in unrealized loss of $832 attributed to decline in market value in cash and investments with City Treasury.

Total operating expenses, excluding interest expenses, other non-operating expenses, and amortization of premium, discount, and issuance costs, increased by $2,460 or 2.1% to $119,395 due to $7,674 in energy supply purchases and $5,791 in transmission and distribution power cost due to powerhouse shut down and to fulfill the balancing reserve requirement, $824 in depreciation and amortization related to building, structure and equipment, $610 in contractual services primarily due to increased software licensing fees, $136 in general and administrative expenses mainly due to judgments and claims based on actuarial estimates, and promotion expenses; and $31 in safety material and supplies. These increases were offset by decreases $10,011 in personnel services mainly due to lower pensions, $1,727 in other operating expenses mainly due to increased capitalized project expenses, and $868 decrease in legal services provided by City Attorney.

Other non-operating expenses increased by $319 or 22.7% to $1,727 due to higher payments for GoSolarSF Incentive Program. Interest expense decreased by $97 was due to higher capitalized interest for capital projects. Amortization of premium and discount slightly decreased by $7. Net transfer of $425 included transfers out of $480 to Department of Emergency Management for Heating, Ventilation, and Air Conditioning (HVAC) controls upgrade, and $32 to the Office of the City's Administrator for the Surety Bond Program; offset by transfer in of $87 refund from the Police Department for the HVAC Controls Upgrade Phase I project.

As a result of the above activities, net position for the year ended June 30, 2018 increased by $4,940 or 1.2% compared to prior year.

Hetchy Power Results of Operations, Fiscal Year 2017

Hetchy Power's total revenues were $134,444, a decrease of $5,124 or 3.7% from prior year's revenues (see Table 2C-B). Decrease of $5,061 in charges for services mainly explained by $3,749 electricity sales from CleanPowerSF in prior year, net of $403 sales from prior year between Hetchy Power and CleanPowerSF. Other decreases in charges for services included $7,480 decreased sales to non-City customers mainly due to no excess power sales to TID, offset by increased electricity sales of $3,913 to other City departments due to 6% adopted average rate increase, $1,526 to CleanPowerSF, and $326 to Hunter's Point and Treasure Island.

Other non-operating revenues decreased by $492 due to $2,148 in collection from Power System Impact Mitigation Projects, $317 of one-time settlement from PG&E received in prior year, $135 in generator rental revenue, $15 from Hunter's Point and Candlestick Point custom work project and $8 reduction in federal interest subsidy due to sequestration. These decreases were offset by increases of $956 from Rim Fire insurance recoveries, $915 in Cap and Trade revenues, $195 in fees collected from DAS, $37 in grant advance received from the FEMA for the Rim Fire projects, $25 in net gain from sales of assets, and $3 in miscellaneous revenues. Interest and investment income increased by $400 due to higher cash balance resulting from $20,058 commercial paper issuance, and rents increased by $29 due to Moccasin cottage rentals.

Total operating expenses, excluding interest expenses, other non-operating expenses, and amortization of premium, discount, and issuance costs, increased by $4,976 or 4.4% to $116,935 due to increases of $11,329 mainly resulting from increased pension expense, $697 in increased capital projects spending for the Mountain Tunnel Improvement Project and Moccasin Facilities New Construction Project, and $586 in depreciation and amortization related to increased capitalizable facilities and improvement. These increases were offset by decreases of $3,063 in purchased electricity due to higher generation from powerhouses, $2,759 in transmission and distribution power costs due to credit received from California Independent System Operator credits resulting for excess power generated, $681 in legal services provided by the City Attorney, $577 in contractual services primarily due to discontinuance of certain software

licensing fees, $339 in building and construction supplies, $217 in decreased general and administrative expenses due primarily to $160 in taxes, licenses, and permits related to national park service, and $105 in litigation expenses.

Interest expense decreased by $155 was due to higher capitalized interest for capital projects. Amortization of premium, discount, and issuance costs increased by $133 mainly due to issuance cost for 2015 Series AB revenue bond and 2015 NCREBs in prior year. Other non-operating expenses decreased by $268 or 16% to $1,408 due to fewer payments for Solar Incentive Program. Net transfer of $51 included $100 from the Mayor's Office to fund the Tenderloin Streetlight Replacement Project, offset by $32 transfer to the Office of the City's Administrator for the Surety Bond Program and $17 to Sheriff's Department for Lighting Energy Efficiency Retrofit Project.

As a result of the above activities, net position for the year ended June 30, 2017 increased by $11,783 or 3% compared to prior year.

The following table summarizes CleanPowerSF's revenues, expenses, and changes in net position.

Table 2C – C
Proprietary Fund – CleanPowerSF
Comparative Condensed Activities
Years ended June 30, 2018 and 2017

	2018	2017	2018 - 2017 Change
Revenues:			
Charges for services	$ 39,568	33,867	5,701
Interest and investment income	174	89	85
Other non-operating revenues	1	4	(3)
Total revenues	39,743	33,960	5,783
Expenses:			
Operating expenses	38,428	27,096	11,332
Interest expenses	101	70	31
Total expenses	38,529	27,166	11,363
Change in net position	1,214	6,794	(5,580)
Net position at beginning of year			
Beginning of year, as previously reported	8,218	1,424	6,794
Cumulative effect of accounting change	(572) *	—	(572)
Beginning of year as restated	7,646	1,424	6,222
Net position at end of year	$ 8,860	8,218	642

* Cumulative effect of accounting change per GASB Statement No. 75, *Accounting and Financial Reporting for Postemployment Benefits Other than Pensions*.

CleanPowerSF Results of Operations, Fiscal Year 2018

CleanPowerSF's total revenues were $39,743, an increase of $5,783 or 17.0% over prior year's revenues (see Table 2C-C). Increase of $5,701 or 16.8% in charges for services included $5,666 increased electricity sales to retail and commercial customers due to consumption increase of 103,146 MWh or 23% and $47 in capacity sale, offset by a decrease of $12 from prior year electricity sales to Hetchy Power. Interest and investment income was $174, an increase of $85 or 95.5% due to higher interest rates. Other non-operating revenues decreased by $3 resulting from lower opt out termination fees collected from customers.

Total operating expenses, excluding interest expenses were $38,428, an increase of $11,332 or 41.8% from prior year. The increase was due to $7,860 in purchased electricity and transmission, distribution and other power costs from higher sales, including $1,608 or 84.9% increase in purchased electricity from

Hetchy Power, $1,025 in professional and contractual services for customer billing and program development, $937 in personnel services mainly due to pensions, and $811 in services provided by other departments mainly from legal services provided by City Attorney and communication services. General and administrative increased by $526 mainly due to increases of $190 in judgments and claims expense, $180 in tax, license and permits for Pacific Gas & Electric Company (PG&E), and $144 in membership fees. Other operating expenses increased by $174 for administrative, data scheduling and procurement support. These increases were offset by $1 decrease in material and supplies. Other non-operating expense increased by $31 due to higher interest rate on loan repayment to Hetchy Power.

As a result of the above activities, net position for the year ended June 30, 2018 increased by $642 or 7.8% compared to prior year.

CleanPowerSF Results of Operations, Fiscal Year 2017

CleanPowerSF's total revenues were $33,960 (see Table 2C-C). Charges of services were $33,867 included $33,855 in electricity sales to retail and commercial customers and $12 in electricity sales to Hetchy Power.

Total operating expenses, excluding interest expenses were $27,096. Purchased electricity and transmission, distribution and other power costs were $22,437, including $1,893 in purchase of electricity from Hetchy Power, $1,570 in general and administrative and other mainly from $1,068 for administrative, data, scheduling and procurement support and $502 in taxes, licenses and permits. Other operating expenses included $1,213 in personnel services, $1,141 in contractual services from Calpine (Noble)'s customer billing and administrative support and $734 in services provided by other departments mainly from legal services provided by City Attorney, communication services and Hetchy Power support, and $1 in materials and supplies.

Other non-operating revenues and expenses were $23 included $89 in interest earnings and $4 in termination fees collected from customers offset by $70 in interest expenses incurred on loan repayment to Hetchy Power.

As a result of the above activities, net position for the year ended June 30, 2017 was $8,218.

Capital Assets

Department-wide Business Type Activities

The following table summarizes the department-wide changes in capital assets. Detailed discussion follows for each proprietary fund.

Table 3
Business Type Activities
Capital Assets, Net of Accumulated Depreciation and Amortization
As of June 30, 2018, 2017, and 2016

	2018	2017	2016	2018 - 2017 Change	2017 - 2016 Change
Facilities, improvements, machinery, and equipment	$ 5,964,789	5,806,383	5,822,338	158,406	(15,955)
Intangible assets	36,956	34,904	36,674	2,052	(1,770)
Land and rights-of-way	70,947	67,301	67,213	3,646	88
Construction work in progress	2,196,169	1,841,297	1,436,187	354,872	405,110
Total	$ 8,268,861	7,749,885	7,362,412	518,976	387,473

The following table summarizes Water's changes in capital assets.

Table 3A
Proprietary Fund – Water
Capital Assets, Net of Accumulated Depreciation and Amortization
As of June 30, 2018, 2017, and 2016

	2018	2017	2016	2018 - 2017 Change	2017 - 2016 Change
Facilities, improvements, machinery, and equipment	$ 3,825,832	3,826,176	3,878,067	(344)	(51,891)
Intangible assets	7,321	4,671	5,843	2,650	(1,172)
Land and rights-of-way	30,029	26,777	26,811	3,252	(34)
Construction work in progress	1,400,051	1,195,840	987,780	204,211	208,060
Total	$ 5,263,233	5,053,464	4,898,501	209,769	154,963

Water Capital Assets, Fiscal Year 2018

The Water Enterprise has net capital assets of $5,263,233 invested in a broad range of utility capital assets as of June 30, 2018 (see Table 3A). The investment in capital assets includes land, facilities, improvements, water treatment plants, aqueducts, water transmission, distribution mains, water storage facilities, pump stations, water reclamation facilities, machinery, and equipment. The Water Enterprise's net revenue and long term debt are used to finance capital investments. Capital assets, net of accumulated depreciation and amortization, increased by $209,769 from the prior year. Construction work in progress increased by $204,211 primarily due to additions from the Calaveras Dam Replacement, Recycled Water, Sunol Long Term Improvements, and Regional Groundwater Storage & Recovery projects. Land increased by $3,252 mainly from the purchase of property at Rollins Road in Burlingame, California. Intangible assets increased by $2,650 due to additions of $3,988 mainly for software updates for the Automated Meter Reading System, offset by decreases of $1,338 amortization mainly relating to the SFPUC On-Line Invoicing System, and the SFBid online contracting system. Facilities, improvements, machinery, and equipment decreased by $344 mainly attributable to depreciation.

Major additions to construction work in progress during the year ended June 30, 2018 include the following:

Calaveras Dam Replacement	$ 143,323
Recycled Water Project	29,326
Sunol Long Term Improvements	25,355
Regional Groundwater Storage & Recovery	16,172
Rollins Road Purchase	9,241
Habitat Reserve Program	8,617
San Francisco Groundwater Supply	8,471
Irving Street Infrastructure Improvements Phase 2	7,781
Various New Water Utility Services	6,267
Other project additions individually below $5,000	73,882
Total	$ 328,435

Major depreciable facilities, improvements, intangible assets, machinery and equipment placed in service, including transfers of completed projects from construction work in progress, during the year ended June 30, 2018 include the following:

Lake Merced Well Station	$ 17,232
Auxiliary Water Supply System - Pumping Station No. 1	15,524
Water Main Replacement - Haight/Buchanan/Ashbury Streets	8,139
Water Main Replacement - Potrero Avenue/21st to 25th Streets	7,382
Water Main Replacement - 6th/Market/Howard/Taylor Streets	7,276
Water Main Replacement - Masonic Avenue/O'Farrell/Fell Streets	6,428
Various New Water Utility Services	6,266
Auxiliary Water Supply System - Cisterns F (4 Cisterns)	5,946
Other items individually below $5,000	46,864
Total	$ 121,057

See Note 4 for additional information about capital assets.

Water System Improvement Program

The WSIP delivers capital improvements that enhance the Water Enterprise's ability to provide reliable, affordable, high-quality drinking water to its 27 wholesale customers and regional retail customers in Alameda, Santa Clara, and San Mateo Counties, as well as 800,000 retail customers in San Francisco, in an environmentally sustainable manner. The program is structured to cost effectively meet water quality requirements and long-term water supply objectives, as well as improve seismic and delivery reliability.

Overall, the $4.8 billion WSIP to upgrade the City of San Francisco's regional and local drinking water systems is 96% completed with $4.4 billion of project appropriations expended through fiscal year ended June 30, 2018. The program consists of 35 local projects located within San Francisco and 52 regional projects spread over seven different counties from the Sierra Foothills to San Francisco. As of June 30, 2018, 34 local projects are completed and the target completion date is December 2018. For regional projects, 40 are completed and the expected completion date is December 2021. Additional details regarding the WSIP are available at https://www.sfwater.org/index.aspx?page=115.

Water Capital Assets, Fiscal Year 2017

The Water Enterprise has net capital assets of $5,053,464 invested in a broad range of utility capital assets as of June 30, 2017 (see Table 3A). The investment in capital assets includes land, facilities, improvements, water treatment plants, aqueducts, water transmission, distribution mains, water storage facilities, pump stations, water reclamation facilities, machinery, and equipment. The Water Enterprise's net revenue and long term debt are used to finance capital investments. Capital assets, net of accumulated depreciation and amortization, increased by $154,963 from prior year. Construction work in progress increased by $208,060 primarily due to additions from Calaveras Dam Replacement, Regional Groundwater Storage & Recovery, Recycled Water, and Environmental Impact projects. Facilities, improvements, machinery, and equipment decreased by $51,891 mainly attributable to depreciation. Intangible assets decreased by $1,172 explained by $1,427 amortization mainly relating to SFPUC On-Line Invoicing System, offset by additions of $255, of which, $205 was for the SharePoint system and $50 for the SFBid.org online contracting system. Land decreased by $34 due to a one-time sale in Pleasanton, California.

Major additions to construction work in progress during the year ended June 30, 2017 include the following:

Calaveras Dam Replacement	$ 110,946
Regional Groundwater Storage and Recovery	24,214
San Francisco Groundwater Supply	11,855
Recycled Water Project	11,190
Environmental Impact Project - Habitat Reserve Program	9,886
Irvington Tunnel Alternatives	8,175
Water Transmission Program - Peninsula Pipeline Seismic Upgrade Phase 3	7,929
Auxiliary Water Supply System - New Cisterns	6,428
Buildings & Grounds (Regional) - Sunol Long Term Improvements	5,849
Local Water Conveyance/Distribution - New Services	5,589
Other project additions individually below $5,000	70,257
Total	$ 272,318

Major depreciable facilities, improvements, intangible assets, machinery and equipment placed in service, including transfers of completed projects from construction work in progress, during the year ended June 30, 2017 include the following:

Water Transmission Program - Peninsula Pipeline Seismic Upgrade Phase 3	$ 9,863
New Irvington Tunnel (West of Calaveras Road)	8,634
Auxiliary Water Supply System - Cisterns E (5 Cisterns)	7,743
Local Water Conveyance/Distribution - New Services	5,589
Other project additions individually below $5,000	33,934
Total	$ 65,763

See Note 4 for additional information about capital assets.

Water System Improvement Program

The WSIP delivers capital improvements that enhance the Water Enterprise's ability to provide reliable, affordable, high-quality drinking water to its 27 wholesale customers and regional retail customers in Alameda, Santa Clara, and San Mateo Counties, as well as 800,000 retail customers in San Francisco, in an environmentally sustainable manner. The program is structured to cost effectively meet water quality requirements and long-term water supply objectives, as well as improve seismic and delivery reliability.

Overall, $4.3 billion of project appropriations have been expended and WSIP is 94% complete through fiscal year ended June 30, 2017. The program consists of 35 local projects located within San Francisco and 52 regional projects spread over seven different counties from the Sierra Foothills to San Francisco. As of June 30, 2017, 34 local projects are completed and the target completion date is September 2017. For regional projects, 39 are completed and the expected completion date is December 2019. Additional details regarding the WSIP are available at www.sfwater.org.

The following table summarizes Wastewater's changes in capital assets.

Table 3B
Proprietary Fund – Wastewater
Capital Assets, Net of Accumulated Depreciation and Amortization
As of June 30, 2018, 2017, and 2016

	2018	2017	2016	2018 - 2017 Change	2017 - 2016 Change
Facilities, improvements, machinery, and equipment	$ 1,799,548	1,664,327	1,657,373	135,221	6,954
Intangible assets	3,320	3,457	3,594	(137)	(137)
Land and rights-of-way	35,737	35,737	35,737	—	—
Construction work in progress	687,601	548,179	362,958	139,422	185,221
Total	$ 2,526,206	2,251,700	2,059,662	274,506	192,038

Wastewater Capital Assets, Fiscal Year 2018

The Wastewater Enterprise has capital assets of $2,526,206, net of accumulated depreciation and amortization, invested in a broad range of utility capital assets as of June 30, 2018 (see Table 3B). This amount represents an increase of $274,506 or 12.2% from prior fiscal year. The investment in capital assets includes land, buildings, improvements, wastewater treatment plants, sewer pipes and mains, underground transport and storage boxes, pump stations, machinery, and equipment. Construction work in progress increased by $139,422 or 25.4%, and facilities, improvements, machinery, and equipment increased by $135,221, or 8.1%, offset by a decrease of $137, or 4.0%, in intangible assets due to amortization.

Major additions to construction work in progress during the year ended June 30, 2018 include the following:

Southeast Plant Biosolids and Digester Facilities Project	$ 42,997
Land Reuse 1800 Jerrold Avenue	28,313
Southeast Plant New Headworks Grit Removal and Influent Pump Station	20,323
Program Management - Land Reuse 1800 and 1801 Jerrold Avenue	17,832
Southeast Plant Building 521/522 and Disinfection Upgrades	16,428
North Point Outfall Refurbishment	11,036
Southeast Plant Existing Digester Gas Handling Improvements	10,572
Collection Division Consolidation	10,426
Wastewater As-Needed Spot Sewer Replacement #36	9,820
Channel Tunnel/Bayside Drainage	8,770
Southeast Plant Primary and Secondary Clarifier	8,500
Oceanside Plant Condition Assessment Repairs	6,319
Wastewater As-Needed Spot Sewer Replacement #35	5,868
Wastewater Crocker Amazon/Excelsior/Ingleside Districts Sewer Replacement	5,570
Various Locations Sewer Replacement #2	5,141
Griffith Pump Station Improvements	4,990
Various Sewer Replacement (Sunset)	4,066
Westside Pump Station Reliability Improvements	4,022
Other project additions individually below $4,000	113,416
Total	$ 334,409

Major depreciable facilities, improvements, intangible assets, machinery, and equipment placed in service, including transfers of completed projects from construction work in progress, during the year ended June 30, 2018 include the following:

Southeast Plant Primary and Secondary Clarifier	$ 32,667
Southeast Water Pollution Control Plant Chemical System Relocation and Facility Upgrades	21,101
Collection Division Consolidation	19,746
North Point Outfall Refurbishment	17,126
Wastewater As-Needed Spot Sewer Replacement #36	9,823
Wastewater As-Needed Spot Sewer Replacement #35	9,391
Various Sewer Replacement (Sunset)	9,161
Lake Merced Early Implementation Project	6,634
Public Works Haight Street Topography Survey	6,154
Oceanside Water Pollution Control Flare Stack and Control Upgrades	5,697
South of Market/Bernal Heights/Excelsior	5,294
Marin Street Sewer Replacement	4,558
Public Works Urbano Drive Infrastructure Improvements	4,507
Public Works Irving Street Phase 1 Infrastructure Improvements	4,306
Public Works Guerrero and Other Street Infrastructure Improvements	3,388
Masonic Avenue Sewer Improvements	3,000
Other project additions individually below $3,000	28,146
Total	$ 190,699

See Note 4 for additional information about capital assets.

Sewer System Improvement Program

The Sewer System Improvement Program (SSIP) includes three phases over 20 years to improve the existing wastewater system. In March 2016, the refined program scope and budget increased from $6.9 billion to $7.0 billion endorsed by the Commission along with the baseline for scope, schedule and budget for phase I, II, and III projects.

As of June 30, 2018, 17 projects or 24.3% totaling $95 million were completed, with 32 projects in pre-construction phase, 18 projects in construction phase, and 3 projects in close-out phase. The Lake Merced Green Infrastructure Project was completed on April 24, 2018 with reported project expenditures of $6.1 million. The project is designed to manage stormwater runoff from 2.1 acres, starting at Ashton Avenue intersection and extends along eight blocks to the Lee Avenue intersection, removing 1.0 million gallons of stormwater in a typical year. The Oceanside Plant and Westside Pump Station Improvements are on-going construction with reported completion in October 2018. Program expenditures as of June 30, 2018 totaled $712.4 million. Additional details regarding the SSIP are available at www.sfwater.org.

Wastewater Capital Assets, Fiscal Year 2017

The Wastewater Enterprise has capital assets of $2,251,700, net of accumulated depreciation and amortization, invested in a broad range of utility capital assets as of June 30, 2017 (see Table 3B). This amount represents an increase of $192,038 or 9.3% from prior fiscal year. The investment in capital assets includes land, buildings, improvements, wastewater treatment plants, sewer pipes and mains, underground transport and storage boxes, pump stations, machinery, and equipment. Construction work in progress increased by $185,221 or 51.0%, and facilities, improvements, machinery, and equipment increased by $6,954, or 0.4%, offset by a decrease of $137, or 3.8%, in intangible assets due to amortization.

Major additions to construction work in progress during the year ended June 30, 2017 include the following:

Biosolids Digester Project	$ 35,666
SEP Primary and Secondary Clarifier	19,809
Water System Improvement	14,862
SSIP Program Management	14,793
New Grit Removal and Influent Pump Station	13,543
Spot Sewer Replacement	9,482
Channel Tunnel/Bayside Drainage	6,874
Collection Division Consolidation	6,095
Sunset Sewer Replacement	4,962
Westside Pump Station Reliability Improvements	4,721
Land Reuse 1800 Jerrold	4,700
SOMA, Bernal Heights & Excelsior	4,606
32nd, France, Peru Avenues and Lisbon & Vienna	4,315
Other project additions individually below $4,000	104,225
Total	$ 248,653

Major depreciable facilities, improvements, intangible assets, machinery, and equipment placed in service, including transfers of completed projects from construction work in progress, during the year ended June 30, 2017 include the following:

As-Needed Spot Sewer Replacement	$ 9,934
As-Needed Main Sewer Replacement	7,863
Naples Street Sewer Replacement	5,749
17th, 33rd, 37th Julian and Revere Avenues Sewer	4,318
Various Locations Sewer Replacement	4,302
Other project additions individually below $3,000	30,184
Total	$ 62,350

See Note 4 for additional information about capital assets.

Sewer System Improvement Program

The Sewer System Improvement Program (SSIP) includes three phases over 20 years to improve the existing wastewater system. In March 2016, the refined program scope and budget increased from $6.9 billion to $7.0 billion endorsed by the Commission along with the baseline for scope, schedule and budget for phase I, II, and III projects.

As of June 30, 2017, 13 projects or 18.6% totaling $97 million were completed, with 39 projects in pre-construction phase, 18 projects in construction phase, and no project in close-out phase. The North Shore to Channel Force Main Drainage Improvement (NSCFM) which was completed in June 2017 is now in service and combined sewage flows are diverted to the NSCFM. One of the SSIP projects, the rehabilitation of the North Point Facility (NPF) outfall system is on-going with expected completion date in February 2018. Program expenditures as of June 30, 2017 totaled $523.2 million. Additional details regarding the SSIP are available at www.sfwater.org.

The following table summarizes Hetchy Water's changes in capital assets.

Table 3C – A
Proprietary Fund – Hetchy Water
Capital Assets, Net of Accumulated Depreciation and Amortization
As of June 30, 2018, 2017, and 2016

		2018	2017	2016	2018 - 2017 Change	2017 - 2016 Change
Facilities, improvements, machinery, and equipment	$	97,038	86,787	72,737	10,251	14,050
Intangible assets		11,203	11,410	11,618	(207)	(208)
Land and rights-of-way		3,232	3,055	3,003	177	52
Construction work in progress		28,326	26,479	26,509	1,847	(30)
Total	$	139,799	127,731	113,867	12,068	13,864

Hetchy Water Capital Assets, Fiscal Year 2018

Hetchy Water has capital assets of $139,799, net of accumulated depreciation and amortization, invested in a broad range of utility capital assets as of June 30, 2018 (see Table 3C-A). This amount represents an increase of $12,068 or 9.4%, primarily due to increases of $10,251 in facilities, improvements, machinery, and equipment, $1,847 in construction work in progress, and $177 in land and rights-of-way; offset by a decrease of $207 in intangible assets due to amortization.

For the year ended June 30, 2018, Hetchy Water's major additions to construction work in progress totaled $17,041. Major depreciable facilities, improvements, intangible assets, machinery, and equipment placed in service totaled $15,110 (see Table 3D).

See Note 4 for additional information about capital assets.

Hetchy Water Capital Assets, Fiscal Year 2017

Hetchy Water has capital assets of $127,731, net of accumulated depreciation and amortization, invested in a broad range of utility capital assets as of June 30, 2017 (see Table 3C-A). This amount represents an increase of $13,864 or 12.2%, primarily due to increases of $14,050 in facilities, improvements, machinery, and equipment, and $52 in land and rights-of-way; offset by decreases of $208 in amortization of intangible assets, and $30 in construction work in progress.

For the year ended June 30, 2017, Hetchy Water's major additions to construction work in progress totaled $18,380. Major depreciable facilities, improvements, intangible assets, machinery, and equipment placed in service totaled $18,347 (see Table 3E).

See Note 4 for additional information about capital assets.

The following table summarizes Hetchy Power's changes in capital assets.

Table 3C – B
Proprietary Fund – Hetchy Power
Capital Assets, Net of Accumulated Depreciation and Amortization
As of June 30, 2018, 2017, and 2016

		2018	2017	2016	2018 - 2017 Change	2017 - 2016 Change
Facilities, improvements, machinery, and equipment	$	242,371	229,093	214,161	13,278	14,932
Intangible assets		15,112	15,366	15,619	(254)	(253)
Land and rights-of-way		1,949	1,732	1,662	217	70
Construction work in progress		80,191	70,799	58,940	9,392	11,859
Total	$	339,623	316,990	290,382	22,633	26,608

Hetchy Power Capital Assets, Fiscal Year 2018

Hetchy Power has capital assets of $339,623, net of accumulated depreciation and amortization, invested in utility capital assets as of June 30, 2018 (see Table 3C-B). This amount represents an increase of $22,633 or 7.1%, primarily due to increases of $13,278 in facilities, improvements, machinery, and equipment, $9,392 in construction work in progress, and $217 in land and rights-of-way; offset by a decrease of $254 in intangible assets due to amortization.

For the year ended June 30, 2018, Hetchy Power's major additions to construction work in progress totaled $36,567. Major depreciable facilities, improvements, intangible assets, machinery, and equipment placed in service totaled $27,154 (see Table 3D).

See Note 4 for additional information about capital assets.

Hetchy Power Capital Assets, Fiscal Year 2017

Hetchy Power has capital assets of $316,990, net of accumulated depreciation and amortization, invested in utility capital assets as of June 30, 2017 (see Table 3C-B). This amount represents an increase of $26,608 or 9.2%, primarily due to increases of $14,932 in facilities, improvements, machinery, and equipment, $11,859 in construction work in progress, and $70 in land and rights-of-way; offset by a decrease of $253 in amortization of intangible assets.

For the year ended June 30, 2017, Hetchy Power's major additions to construction work in progress totaled $39,786. Major depreciable facilities, improvements, intangible assets, machinery, and equipment placed in service totaled $27,904 (see Table 3E).

See Note 4 for additional information about capital assets.

CleanPowerSF Capital Assets

CleanPowerSF had no capital assets as of June 30, 2018 and 2017.

Major additions to construction work in progress, depreciable facilities, improvements, intangible assets, machinery, and equipment placed in service, including transfers of completed projects from construction work in progress, during the year ended June 30, 2018 and 2017 include the following:

Table 3D
Proprietary Funds – Hetchy Water and Hetchy Power
Major Additions to Construction Work in Progress and Facilities, Improvements, Intangible Assets, Machinery, and Equipment Placed in Service
Year ended June 30, 2018

	Hetchy Water	Hetchy Power	Total 2018
Cherry Dam Outlet Works Rehabilitation	$ 3,688	4,507	8,195
Moccasin Facilities New Construction	2,779	3,397	6,176
Mountain Tunnel Improvement	2,185	2,671	4,856
2018 Moccasin Storm	3,414	273	3,687
Warnerville Substation Rehabilitation	—	3,595	3,595
San Joaquin Pipeline Rehabilitation	2,615	—	2,615
Tenderloin Street Improvement	—	2,371	2,371
Bay Corridor Transmission and Distribution	—	2,285	2,285
Treasure Island Capital Improvements	—	2,127	2,127
Other project additions individually below $2,000	2,360	15,341	17,701
Add tions to Construction Work in Progress	$ 17,041	36,567	53,608
Moccasin Facilities Upgrades	$ 9,087	11,109	20,196
Cherry Dam Outlet Works Rehabilitation	4,557	5,570	10,127
Streetlight Light-Emitting Diode Conversion	—	7,652	7,652
O'Shaughnessy Dam Improvement	504	616	1,120
Other project additions individually below $1,000	962	2,207	3,169
Facilities, Improvements, Intangible Assets, Machinery, and Equipment Placed in Service	$ 15,110	27,154	42,264

Table 3E
Proprietary Funds – Hetchy Water and Hetchy Power
Major Additions to Construction Work in Progress and Facilities, Improvements, Intangible Assets, Machinery, and Equipment Placed in Service
Year ended June 30, 2017

	Hetchy Water	Hetchy Power	Total 2017
Mountain Tunnel Improvement	$ 5,369	6,561	11,930
Moccasin Facilities New Construction	3,513	4,293	7,806
San Joaquin Pipeline Rehabilitation	6,816	—	6,816
Transbay Transit Center	—	5,012	5,012
Streetlight Light-Emitting Diode (LED) Conversion	—	2,089	2,089
Other project additions individually below $2,000	2,682	21,831	24,513
Addition to Construction Work in Progress	$ 18,380	39,786	58,166
Mountain Tunnel Improvement	$ 3,668	4,484	8,152
Streetlight LED Conversion	—	3,090	3,090
San Joaquin Pipeline Rehabilitation	3,051	—	3,051
3rd Street Corridor Rehabilitation	—	1,615	1,615
O'Shaughnessy Dam Drum Gate Automation	602	735	1,337
Other project additions individually below $1,200	11,026	17,980	29,006
Facilities, Improvements, Intangible Assets, Machinery, and Equipment Placed in Service	$ 18,347	27,904	46,251

Debt Administration

Department-wide Business Type Activities

The following table summarizes the department-wide outstanding debt, net of unamortized costs, discount, and premium. Detailed discussion follows for each proprietary fund.

Table 4
Business Type Activities
Outstanding Debt, Net of Unamortized Costs
As of June 30, 2018, 2017, and 2016

	2018	2017	2016	2018 - 2017 Change	2017 - 2016 Change
Revenue bonds	$ 5,971,153	5,643,806	5,373,491	327,347	270,315
Clean Renewable Energy Bonds 2008	2,047	2,453	2,861	(406)	(408)
Capital appreciation bonds	6,725	6,278	5,860	447	418
Commercial paper	323,451	276,469	297,000	46,982	(20,531)
Certificates of participation	150,008	153,673	157,207	(3,665)	(3,534)
State revolving fund loans	22,607	—	—	22,607	—
Qualified Energy Conservation Bonds 2011	5,294	5,817	6,334	(523)	(517)
New Clean Renewable Energy Bonds	4,934	5,716	6,761	(782)	(1,045)
Total	$ 6,486,219	6,094,212	5,849,514	392,007	244,698

Water Debt Administration

As of June 30, 2018, the Water Enterprise had $5,063,184 total debt outstanding, an increase of $247,217 over the prior year, as shown below in Table 4A. More detailed information about the Water Enterprise's debt activity is presented in Notes 6, 7, 8 and 9 to the financial statements.

Table 4A
Proprietary Fund – Water
Outstanding Debt, Net of Unamortized Costs
As of June 30, 2018, 2017, and 2016

	2018	2017	2016	2018 - 2017 Change	2017 - 2016 Change
Revenue bonds	$ 4,909,041	4,554,967	4,257,454	354,074	297,513
Capital appreciation bonds	6,725	6,278	5,860	447	418
Commercial paper	40,312	145,000	236,000	(104,688)	(91,000)
Certificates of participation	107,106	109,722	112,246	(2,616)	(2,524)
Total	$ 5,063,184	4,815,967	4,611,560	247,217	204,407

The increase of $354,074 in revenue bonds was due to $928,695 from the issuance of 2017 Series ABC and 2017 Series DEFG bonds, and $15 from the amortization of discount, offset by $499,673 from refunding, $48,875 from bond repayment, and $26,088 from amortization. The decrease of $2,616 in certificates of participation was due to $2,431 from repayment and $185 from amortization of premium. The Water Enterprise had $25,312 in taxable and $15,000 in tax-exempt commercial paper as of June 30, 2018, and $120,000 in tax-exempt and $25,000 in taxable commercial paper outstanding as of June 30, 2017.

Credit Ratings and Bond Insurance – The Water Enterprise carried underlying ratings of "Aa3" and "AA-" from Moody's and Standard & Poor's (S&P) at June 30, 2018 and 2017, respectively.

Debt Service Coverage – Pursuant to the Amended and Restated Indenture, the Water Enterprise is required to collect sufficient net revenues each fiscal year, together with any Water Enterprise funds (except

Bond Reserve Funds), which are available for payment of debt service and are not budgeted to be expended, at least equal to 1.25 times annual debt service for said fiscal year. During fiscal years 2018 and 2017, the Water Enterprise's net revenues, together with fund balances available to pay debt service and not budgeted to be expended, were sufficient to meet the rate covenant requirements under the Water Enterprise's Amended and Restated Indenture (see Note 9).

Debt Authorization – Pursuant to the Charter Section 8B.124, the Water Enterprise can incur indebtedness upon two-thirds vote of the Board of Supervisors, as approved by voters in Proposition E in November 2002. As of June 30, 2018, the Board of Supervisors has authorized the issuance of $4,234,873 in revenue bonds under Proposition E, with $3,278,440 issued against this authorization. The Water Enterprise can also incur indebtedness of up to $1,628,000 for improvements to the water system pursuant to Proposition A that was approved by the voters in November 2002. As of June 30, 2018, $1,348,335 of the $1,628,000 Proposition A authorized bonds were issued. In December 2017, the Water Enterprise issued $339,540 of Water 2017 Series ABC bonds and $442,180 of Water 2017 Series DEFG refunding bonds pursuant to this Board authorization. The Water Enterprise is also authorized to issue up to $500,000 in commercial paper.

Cost of Debt Capital – The Water Enterprise's outstanding long-term debt has coupon interest rates ranging from 0.9% to 7.0% as of June 30, 2018 and 2017. The Water Enterprise's short-term debt has interest rates ranging from 0.8% to 2.2% during fiscal years 2018 and 2017.

Wastewater Debt Administration

As of June 30, 2018, 2017 and 2016, the Wastewater Enterprise's debt from revenue bonds, commercial paper, certificates of participation, and State revolving fund loans were $1,332,933, $1,185,349, and $1,162,563, respectively, as shown in Table 4B. More detailed information about the Wastewater Enterprise's debt activity is presented in Notes 6, 7, 8 and 9 to the financial statement.

Table 4B
Proprietary Fund – Wastewater
Outstanding Debt, Net of Unamortized Costs
As of June 30, 2018, 2017, and 2016

	2018	2017	2016	2018 - 2017 Change	2017 - 2016 Change
Revenue bonds	$ 1,019,146	1,044,925	1,071,883	(25,779)	(26,958)
Commercial paper	262,859	111,411	61,000	151,448	50,411
Certificates of participation	28,321	29,013	29,680	(692)	(667)
State revolving fund loans	22,607	—	—	22,607	—
Total	$ 1,332,933	1,185,349	1,162,563	147,584	22,786

The increase of $147,584 was mainly due to $151,448 issuance of commercial paper coupled with $22,607 State revolving fund loans for the North Point Facility Outfall and Lake Merced Projects offset by $20,658 repayment of outstanding debt and $5,813 of premium amortizations.

Credit Ratings and Bond Insurance – As of June 30, 2018, the Wastewater Enterprise carried underlying ratings of "Aa3" and "AA" from Moody's and Standard & Poor's (S&P), respectively. As of June 30, 2017, the Wastewater Enterprise carried underlying ratings of "Aa3" and "AA" from Moody's and S&P, respectively.

Debt Service Coverage – Pursuant to the Indenture for the Wastewater bonds, the Wastewater Enterprise covenants to collect sufficient net revenues each fiscal year, together with any Wastewater Enterprise funds (except Bond Reserve Funds) that are available for payment of debt service and are not budgeted to be

expended, at least equal to 1.25 times annual debt service for said fiscal year. During fiscal years 2018 and 2017, the Wastewater Enterprise's net revenues, together with fund balances available to pay debt service and not budgeted to be expended, were sufficient to meet the rate covenant requirements under the Indenture (see Note 9).

Debt Authorization – Pursuant to the Charter Section 8B.124, the Wastewater Enterprise can incur indebtedness upon two-thirds vote of the Board of Supervisors. As of June 30, 2018, the Wastewater Enterprise had $2,426,577 in combined debt issuance authorization from the Board of Supervisors under Proposition E, with $639,985 issued against this authorization. The Wastewater Enterprise has a $750,000 authorized commercial paper program, with $262,859 in tax-exempt commercial paper outstanding as of June 30, 2018 and $111,411 in tax-exempt commercial paper outstanding as of June 30, 2017.

Cost of Debt Capital – The interest rates on the Wastewater Enterprise's outstanding revenue bonds ranged from 1.0% to 5.8%, with a blended true interest cost of 3.0%, after factoring in federal interest subsidy receipts on Build America Bonds at June 30, 2018. The 2009 Series C certificates of participation carried interest rates ranging from 2.0% to 5.0% and 2009 Series D certificates of participation carried interest rates from 6.4% 6.5% in fiscal years 2018 and 2017, respectively. The interest rates on short-term debt ranged from 0.84% to 1.65% as of end of fiscal year 2018. The State revolving fund loans (CWSRF loans) carried interest rates ranging from 1.6% to 1.8% as of end of fiscal year 2018.

Hetchy Water Debt Administration

Hetchy Water did not have debt outstanding as of June 30, 2018 and 2017. Debt, including bond issuances, associated with the funding of water-related, upcountry infrastructure capital improvements is issued through the Water Enterprise, and is reflected in the Water Enterprise's financial statements.

Hetchy Power Debt Administration

As of June 30, 2018, and 2017, Hetchy Power had outstanding debt of $90,102 and $92,896, respectively, as shown in Table 4C. More detailed information about the Hetchy Power's debt activity is presented in Notes 6, 7, 8 and 9 to the financial statements.

Table 4C
Proprietary Fund – Hetchy Power
Outstanding Debt, Net of Unamortized Costs
As of June 30, 2018, 2017, and 2016

	2018	2017	2016	2018 - 2017 Change	2017 - 2016 Change
Clean Renewable Energy Bonds 2008	$ 2,047	2,453	2,861	(406)	(408)
Certificates of Participation 2009 Series C	1,988	2,345	2,688	(357)	(343)
Certificates of Participation 2009 Series D (BABs)	12,593	12,593	12,593	—	—
Qualified Energy Conservation Bonds 2011	5,294	5,817	6,334	(523)	(517)
New Clean Renewable Energy Bonds 2012	1,283	1,839	2,661	(556)	(822)
New Clean Renewable Energy Bonds 2015	3,651	3,877	4,100	(226)	(223)
2015 Series A Revenue Bonds	35,720	35,851	35,976	(131)	(125)
2015 Series B Revenue Bonds	7,246	8,063	8,178	(817)	(115)
Commercial Paper	20,280	20,058	—	222	20,058
Total	$ 90,102	92,896	75,391	(2,794)	17,505

The decrease of $2,794 was mainly due to $2,764 in principal repayment, and $252 in amortization of premium and discount; offset by an increase of $222 in commercial paper issuance.

Credit Ratings and Bond Insurance – The Power Enterprise's 2015 Series AB Power Revenue Bonds have been rated "AA-" and "A+" by Fitch Inc. and Standard and Poor's (S&P), respectively, as of June 30, 2018 and 2017.

Debt Service Coverage – Pursuant to the Indenture, the Power Enterprise is required to collect sufficient net revenues each fiscal year, together with any Available Funds (except Bond Reserve Funds) which include unappropriated fund balances and reserves, and cash and book value of investments held by the Treasurer for the Hetchy Power, that the SFPUC reasonably expects would be available, to pay principal and interest becoming due and payable on all outstanding bonds as provided in the Indenture, less any refundable credits, at least equal to 1.25 times annual debt service for said fiscal year. The Series 2015 AB power revenue bonds represent the first series of senior lien revenue bonds of Hetchy Power. Pursuant to Power's Master Trust Indenture, senior lien debt service coverage excludes debt service on subordinate obligations, such as Hetchy Power's existing Clean Renewable Energy Bonds (CREBs), New CREBs, and Qualify Energy Conservation Bonds (QECBs). Because interest on the Series 2015 AB power revenue bonds was capitalized, Hetchy Power was not obligated to make debt service payments on the Series 2015 AB power revenue bonds until fiscal year 2018. Therefore, Hetchy Power did not calculate and report the Indenture-based debt service coverage ratio prior to fiscal year 2018. During fiscal year 2018, the Power Enterprise's net revenues, together with fund balances available to pay debt service and not budgeted to be expended, were sufficient to meet the rate covenant requirements under the Power Enterprise's Indenture (see Note 9).

Debt Authorization – Pursuant to Charter Section 9.107(6), the Power Enterprise can incur indebtedness upon three-fourths vote of the Board of Supervisors, for the purpose of the reconstruction or replacement of existing water facilities and electric power facilities, or combinations thereof, under the jurisdiction of the Public Utilities Commission. Pursuant to Charter Section 9.107(8), the Power Enterprise can issue revenue bonds, without voter approval, upon an affirmative vote of the Board of Supervisors, for the purpose of the acquisition, construction, installation, equipping, improvement, or rehabilitation of equipment or facilities for renewable energy and energy conservation. Pursuant to Proposition A, approved by the San Francisco voters on June 5, 2018, City Charter Section 8B.124 is amended to authorize the Power Enterprise to enter into indebtedness, including revenue bonds, notes, commercial paper or other forms of indebtedness, when authorized by ordinance approved by a two-thirds vote of the Board of Supervisors to reconstruct, replace, expand, repair, improve or construct new power facilities under the jurisdiction of SFPUC or for any other purpose of the Power Enterprise, and in compliance with City Charter Section 8B.124. Proposition A expressly prohibits the SFPUC from issuing bonds to finance the construction of power plants that generate electricity using fossil fuels or nuclear energy. As of June 30, 2018, and 2017, $39,555 of Hetchy Power revenue bonds were issued against existing authorization of $144,830.

Cost of Debt Capital – The Power Enterprise's outstanding long-term senior lien debt consists of the 2015 Series AB Power Revenue Bonds issued in May 2015, which are the first series of bonds issued under the Master Indenture, and are senior in lien to all of the other Power Enterprise's outstanding debt obligations. Coupon interest rates range from 3.0% to 5.0%. The Power Enterprise has previously issued and incurred debt service on Tax Credit Bonds and certificates of participation, which constitute subordinate obligations. Interest rates on the Tax Credit Bonds, which include QECBs and NCREBs, range from 1.2% to 1.5% (net of the federal tax subsidy). Certificates of participation carried interest rates range from 2.0% to 6.5%. The Power Enterprise's short-term debt issued under its commercial paper program has interest rates ranging from 0.72% to 1.64% during fiscal years 2018 and 2017.

CleanPowerSF Debt Administration

CleanPowerSF did not have debt outstanding as of June 30, 2018 and 2017.

Rates and Charges

Water and Wastewater Enterprises

Proposition E, as approved by the voters in November 2002, amended the City Charter by adding the new Article VIIIB, entitled "Public Utilities," which changed the Commission's ability to issue new revenue bonds and set retail water and wastewater rates. The Commission is required to:

- Establish rates, fees, and charges based on cost of service;
- Retain an independent rate consultant to conduct cost of service studies at least every five years;
- Consider establishing new connection fees;
- Consider conservation incentives and lifeline rates;
- Adopt a rolling five-year forecast annually; and
- Establish a Rate Fairness Board.

Pursuant to the City and County of San Francisco Charter Section 8B.125, an independent rate study is performed at least once every five years. In compliance with City Charter section 8B.125, a rate study was completed in April 2014 and resulted in an approved four-year water and wastewater rate increase. The Commission adopted retail rates effective for four fiscal years from July 1, 2014 through June 30, 2018.

In April of 2018 a subsequent retail water and wastewater rate study was completed. The 2018 rate study resulted in the Commission's approval and adoption of four years of retail rate increases effective from July 1, 2018 through June 30, 2022. The SFPUC Rates Schedules and Fees is available at https://sfwater.org/modules/showdocument.aspx?documentid=7743.

Water Enterprises

Wholesale Customers

The WSA prescribes the rate setting process for the wholesale water rates. The WSA has a 25-yer term, beginning on July 1, 2009, with two 5-year extension options. The contract changed the rate basis by which the capital cost recovery is determined from a "utility basis" to a "cash basis," resulting in the repayment of the cost of capital over the life of the debt funding of those assets rather than the life of the asset. The WSA requires the rate be calculated and set annually and include a reconciliation between prior year revenues and expenses. Refer to Note 10 of the notes to financial statements for further discussion on the balancing account of the wholesale customers.

Next Year's Rates

Water Enterprise

The following table is the Water Enterprise's ten-year average rate adjustments:

Ten-year Average Rate Adjustments

Effective date	Retail	Wholesale[3]
July 1, 2012	12.5 [1] %	11.4 %
July 1, 2013	6.5 [1]	(16.4)
July 1, 2014	12.0 [2]	19.6
July 1, 2015	12.0 [2]	28.0
July 1, 2016	10.0 [2]	9.3
July 1, 2017	7.0 [2]	—
July 1, 2018	9.0 [4]	—
July 1, 2019	8.0 [4]	—
July 1, 2020	7.0 [4]	—
July 1, 2021	7.0 [4]	—

[1] Five-year retail rate increases adopted and effective July 1, 2009.
[2] Four-year retail rate increases adopted and effective July 1, 2014.
[3] Wholesale rates adopted annually; no increase for wholesale rates effective July 1, 2017; no increase projected through July 1, 2021 from 10 Year Financial Plan.
[4] Four-year retail rate increases adopted and effective July 1, 2018.

Wastewater Enterprise

The following table is the Wastewater Enterprise's ten-year approved average rate adjustments:

Ten-year Average Rate Adjustments

Effective Date	Rate
July 1, 2012	5.0 [1] %
July 1, 2013	5.0 [1]
July 1, 2014	5.0 [2]
July 1, 2015	5.0 [2]
July 1, 2016	7.0 [2]
July 1, 2017	11.0 [2]
July 1, 2018	7.0 [3]
July 1, 2019	7.0 [3]
July 1, 2020	8.0 [3]
July 1, 2021	8.0 [3]

[1] Four-year rate increases adopted and effective July 1, 2009.
[2] Four-year rate increases adopted and effective July 1, 2014.
[3] Four-year rate increases adopted and effective July 1, 2018.

Hetchy Water

Hetchy Water charges for services relates to the storage and delivery of water. Assessment fees from the Water Enterprise, which cover the water-related upcountry costs, were $32,600 and $34,600 for the years ended June 30, 2018 and 2017, respectively. In fiscal year 2019, the assessment fees will be $33,578, an increase of $978 or 3% as reflected in the fiscal year 2019 adopted budget. Hetch Hetchy charges for services related to the storage and delivery of water, including providing electricity to contractual and municipal customers.

Hetchy Power

Municipal Rates

Hetchy Power charges for services relates to power generation and electricity delivery to contractual and municipal customers. For municipal power services, customers are typically charged a General Use rate or

Enterprise rate. Enterprise rates are charged based on projected PG&E equivalent rates by customer class. General fund department customers are mostly charged a General Use rate, a rate that is currently below cost of service. These General Use rates, however, are moving closer towards cost of service and increasing by $0.005 per kWh on an annual basis. The Commission adopted General Use rates ranged from $0.03500/kWh to $0.10630/kWh in fiscal year 2017 and $0.04000/kWh to $0.11130/kWh in fiscal year 2018. The General Use rates have been adopted every two years.

On May 10, 2018, the Commission adopted a new General Use rate that consolidated six previous subcategories of General Use rates into a single rate. The Commission adopted two years of General Use rates effective July 1, 2018 through June 30, 2020. The adopted General Use rate for fiscal year 2019 is $0.07377/kWh. The Power Enterprise continues to develop rates under the cost of service analysis model and has started work on the next power rate study which is projected to be completed in 2020.

For fiscal year 2017, the MID and TID class one rates were $0.05126/kWh and $0.04644/kWh, respectively. Per the MID and TID contracts through the end of fiscal year 2017, MID and TID rates are trued up every year based on actual costs.

Retail Rates

The Commission approved a new schedule of retail electric rates, fees, and charges for residential, commercial, and industrial customers where Hetch Hetchy has been designated as the power provider for retail customers to be applied to meter readings on or after July 1, 2016. Total bundled service charges for residential service rates and low-income residential service rates are calculated using the total rates, on a monthly basis, based on monthly meter reading, plus any applicable taxes.

To date, Hetchy Power has prepared service standards, developed system plans and specifications, acquired materials and equipment, and initiated construction of primary distribution facilities.

Pursuant to City and County of San Francisco Charter Section 8B.125, an independent rate study is performed at least once every five years. The rate study is undertaken to examine future revenue requirements and cost-of-service of the Power Enterprise. In fall 2015, SFPUC engaged a consultant to perform a cost-of-service study. The informed rate setting from this study resulted in recommendation and approval by the Commission in the spring 2016 for rates to be effective July 1, 2016. The SFPUC Rates Schedules and Fees is available at http://sfwater.org/modules/showdocument.aspx?documentid=7743. Work is underway on the next power rate study which is projected to be completed in 2020 and provide power rates effective for fiscal year 2021.

CleanPowerSF Rates

CleanPowerSF began offering services in May 2016, giving residential and commercial electricity consumers in San Francisco a choice of having their electricity supplied from clean renewable sources, such as solar and wind, at competitive rates. Through resolution 17-0074, the Commission approved rates and charges on April 11, 2017, to be effective July 1, 2017. CleanPowerSF offers two products: a "Green" product comprised of at least 40% renewable energy and a "SuperGreen" product comprised of 100% renewable energy. Most customers take service under the "Green" product rates and remaining customers have opted to upgrade to "SuperGreen" product rates. On January 23, 2018, Commission took action on SuperGreen rates which resulted in a reduction to SuperGreen rate premiums effective March 1, 2018. The adopted SuperGreen rates varied depending upon customer classes and reflect the program's policy objective to remain competitive with PG&E comparable rates. Through resolution 18-0056, the Commission approved rates and charges on April 10, 2018, to be effective July 1, 2018, and each successive July 1 thereafter, the Commission authorizes the SFPUC General Manager to adjust rates not otherwise adjusted

by Commission action. The CleanPowerSF Rate schedule is available at http://sfwater.org/index.aspx?page=993.

CleanPowerSF revenues are adequate to support its own operations; the SFPUC intends that these rates be sufficient to pay for impending projects, and be financially independent from Hetch Hetchy in the future. CleanPowerSF is subject to Section 8B.125 of the City Charter, which requires an independent rate study be performed at least once every five years, and the Commission sets rates and charges for the program. CleanPowerSF rates will be included in the next power rate study which is projected to be completed in 2020.

Request for Information

This report is designed to provide our citizens, customers, investors, and creditors with an overview of the SFPUC's finances and to demonstrate the Department's accountability for the money it receives. Questions regarding any of the information provided in this report or requests for additional financial information should be addressed to San Francisco Public Utilities Commission, Chief Financial Officer, 525 Golden Gate Avenue, 13th Floor, San Francisco, CA 94102. This report is available at https://www.sfwater.org/index.aspx?page=346.

THE SAN FRANCISCO PUBLIC UTILITIES COMMISSION
Statements of Net Position
Proprietary Funds
June 30, 2018 and 2017
(In thousands)

	Business Type Activities – Proprietary Funds													
	Water		Wastewater		Hetchy Water		Hetchy Power		CleanPowerSF		Eliminations		SFPUC Total	
Assets	2018	2017	2018	2017	2018	2017	2018	2017	2018	2017	2018	2017	2018	2017
Current assets:														
Cash and investments with City Treasury	$ 358,768	319,162	164,107	195,559	78,283	75,345	184,193	174,633	12,395	14,048	–	–	797,746	778,747
Cash and investments outside City Treasury	274	34	262	–	2	2	8	8	–	–	–	–	546	44
Receivables:														
Charges for services (net of allowance for doubtful accounts of $2,211, $2,585, $0, $52 and $306 in 2018 and $2,251, $2,854, $0, $0 and $50 in 2017)	53,835	54,425	30,915	28,874	28	42	7,273	8,373	5,371	5,528	–	–	97,422	97,242
Due from other City departments, current portion	294	632	116	160	–	–	980	3,282	–	–	(109) A	(2,105) B	1,281	1,969
Due from other governments	325	150	17,248	2,251	53	–	207	244	–	–	–	–	17,833	2,645
Interest	1,289	475	1,051	255	263	53	641	191	59	17	–	–	3,303	991
Restricted interest and other receivable (net of allowance for doubtful accounts of $51, $191, $0, $0 and $0 in 2018 and $48, $170, $0, $0 and $0 in 2017)	4,491	4,100	731	1,149	–	–	174	268	–	–	–	–	5,396	5,517
Total current receivables	60,234	59,782	50,061	32,689	344	95	9,275	12,358	5,430	5,545	(109)	(2,105)	125,235	108,364
Prepaid charges, advances, and other receivables, current portion	1,435	1,207	116	147	462	399	1,088	415	2,438	7	–	–	5,539	2,175
Inventory	5,561	7,436	2,082	2,046	186	186	215	215	–	–	–	–	8,044	9,883
Restricted cash and investments outside City Treasury, current portion	143,739	107,188	14,282	28,128	–	–	2,777	3,783	–	–	–	–	160,798	139,099
Total current assets	570,011	494,809	230,910	258,569	79,277	76,027	197,556	191,412	20,263	19,600	(109)	(2,105)	1,097,908	1,038,312
Non-current assets:														
Restricted cash and investments with City Treasury	102,011	100,701	36,054	24,767	18,137	4,154	23,283	35,998	–	–	–	–	179,485	165,620
Restricted cash and investments outside City Treasury, less current portion	–	–	–	–	–	–	1,038	–	–	–	–	–	1,038	–
Charges for services, less current portion	791	839	810	875	–	–	–	28	–	–	–	–	1,601	1,742
Prepaid charges, advances, and other receivables, less current portion	3,471	3,451	1,209	1,233	164	169	793	804	–	–	–	–	5,637	5,657
Capital assets, not being depreciated and amortized	1,430,759	1,223,296	726,384	586,962	31,564	29,540	83,571	73,962	–	–	–	–	2,272,278	1,913,760
Capital assets, net of accumulated depreciation and amortization	3,832,474	3,830,168	1,799,822	1,664,738	108,235	98,191	256,052	243,028	–	–	–	–	5,996,583	5,836,125
Due from other City departments, less current portion	–	–	–	–	–	–	15,353	15,164	–	–	(6,553) A	(6,311) B	8,800	8,853
Total non-current assets	5,369,506	5,158,455	2,564,279	2,278,575	158,100	132,054	380,090	368,984	–	–	(6,553)	(6,311)	8,465,422	7,931,757
Total assets	5,939,517	5,653,264	2,795,189	2,537,144	237,377	208,081	577,646	560,396	20,263	19,600	(6,662)	(8,416)	9,563,330	8,970,069
Deferred outflows of resources														
Unamortized loss on refunding of debt	150,255	126,805	500	705	–	–	–	–	–	–	–	–	150,755	127,510
Pensions	62,062	105,357	29,984	48,192	7,488	12,659	9,152	15,473	323	–	–	–	109,009	181,681
Other post-employment benefits	9,122	–	3,264	–	870	–	1,064	–	40	–	–	–	14,360	–
Total deferred outflows of resources	$ 221,439	232,162	33,748	48,897	8,358	12,659	10,216	15,473	363	–	–	–	274,124	309,191

(Continued)

A Included interfund payables and interfund receivables for fiscal year 2018 of $1,061 between Wastewater and Hetchy Power for the 525 Golden Gate Avenue Headquarters construction costs and $5,601 working capital loan between Hetch Power and CleanPowerSF.

B Included interfund payables and interfund receivables for fiscal year 2017 of $1,166 between Wastewater and Hetchy Power for the 525 Golden Gate Avenue Headquarters construction costs and $7,250 working capital loan between Hetch Power and CleanPowerSF.

See accompanying notes to basic financial statements.

THE SAN FRANCISCO PUBLIC UTILITIES COMMISSION
Statements of Net Position
Proprietary Funds
June 30, 2018 and 2017
(In thousands)

	Business Type Activities – Proprietary Funds													
	Water		Wastewater		Hetchy Water		Hetchy Power		CleanPowerSF		Eliminations		SFPUC Total	
	2018	2017	2018	2017	2018	2017	2018	2017	2018	2017	2018	2017	2018	2017
Liabilities														
Current liabilities:														
Accounts payable	$ 15,554	7,268	18,080	5,517	810	433	14,495	6,904	4,080	3,480	–	–	53,019	23,602
Accrued payroll	6,660	6,483	4,394	4,594	638	686	1,654	1,647	53	35	–	–	13,399	13,445
Accrued vacation and sick leave, current portion	6,125	6,166	3,766	3,429	835	741	1,504	1,388	46	25	–	–	12,276	11,749
Accrued workers' compensation, current portion	2,024	1,612	1,027	1,031	174	185	351	363	–	–	–	–	3,576	3,191
Due to other City departments, current portion	96	7	109	189	–	–	–	–	–	2,387	(109)	C (2,105) D	96	478
Damage claims liability, current portion	4,656	3,616	6,376	4,790	110	218	727	773	–	–	–	–	11,869	9,397
Unearned revenues, refunds, and other, current portion	17,395	17,041	4,185	4,037	8	3	6,256	3,141	73	105	–	–	27,917	24,327
Bond and loan interest payable	38,769	36,615	11,528	11,495	–	–	525	533	–	–	–	–	50,822	48,643
Bonds, current portion	71,665	48,875	21,010	20,015	–	–	2,480	2,437	–	–	–	–	95,155	71,327
Capital appreciation bonds, current portion	5,000	–	–	–	–	–	–	–	–	–	–	–	5,000	–
Certificates of participation, current portion	2,556	2,431	676	643	–	–	348	331	–	–	–	–	3,580	3,405
Commercial paper	40,312	145,000	262,859	111,411	–	–	20,280	20,058	–	–	–	–	323,451	276,469
Wholesale balancing account, current portion	415	8,214	–	–	–	–	–	–	–	–	–	–	415	8,214
State revolving funds loans payable, current portion	–	–	296	–	–	–	–	–	–	–	–	–	296	–
Current liabilities payable from restricted assets	45,882	31,580	48,720	23,477	6,403	4,027	5,423	2,968	–	–	–	–	106,428	62,052
Total current liabilities	257,109	314,908	383,026	190,628	8,978	6,293	54,043	40,543	4,252	6,032	(109)	(2,105)	707,299	556,299
Long-term liabilities:														
Other post-employment benefits obligations	166,336	121,330	59,517	51,670	15,872	11,280	19,400	16,855	728	87	–	–	261,853	201,222
Net pension liability	209,003	259,956	100,973	118,907	25,216	31,235	30,819	38,177	1,087	–	–	–	367,098	448,275
Accrued vacation and sick leave, less current portion	4,561	4,845	2,649	2,520	488	447	1,060	1,009	18	13	–	–	8,776	8,834
Accrued workers' compensation, less current portion	8,933	7,477	4,757	4,549	815	814	1,609	1,607	–	–	–	–	16,114	14,447
Due to other City departments, less current portion	–	–	952	1,061	–	–	–	–	5,601	5,250	(6,553)	C (6,311) D	–	–
Damage claims liability, less current portion	8,746	7,122	7,690	9,359	123	368	1,506	1,079	–	–	–	–	18,065	17,928
Unearned revenues, refunds, and other, less current portion	–	–	–	–	609	609	3,552	3,208	–	–	–	–	4,161	3,817
Bonds, less current portion	4,837,376	4,506,092	998,136	1,024,910	–	–	52,761	55,463	–	–	–	–	5,888,273	5,586,465
Capital appreciation bonds, less current portion	1,725	6,278	–	–	–	–	–	–	–	–	–	–	1,725	6,278
Certificates of participation, less current portion	104,550	107,291	27,645	28,370	–	–	14,233	14,607	–	–	–	–	146,428	150,268
Wholesale balancing account, less current portion	55,451	35,257	–	–	–	–	–	–	–	–	–	–	55,451	35,257
State revolving funds loans payable, less current portion	–	–	22,311	–	–	–	–	–	–	–	–	–	22,311	–
Pollution remediation obligations	2,311	2,468	4,703	2,711	–	–	–	–	–	–	–	–	7,014	5,179
Total long-term liabilities	5,398,992	5,058,116	1,229,333	1,244,057	43,123	44,753	124,940	132,005	7,434	5,350	(6,553)	(6,311)	6,797,269	6,477,970
Total liabilities	5,656,101	5,373,024	1,612,359	1,434,685	52,101	51,046	178,983	172,548	11,686	11,382	(6,662)	(8,416)	7,504,568	7,034,269
Deferred inflows of resources														
Related to pensions	15,063	11,135	7,277	5,093	1,818	1,338	2,222	1,635	79	–	–	–	26,459	19,201
Other post-employment benefits	268	–	96	–	26	–	31	–	1	–	–	–	422	–
Total deferred inflows of resources	15,331	11,135	7,373	5,093	1,844	1,338	2,253	1,635	80	–	–	–	26,881	19,201
Net position														
Net investment in capital assets	504,476	495,868	1,207,703	1,095,165	139,799	127,731	270,918	260,681	–	–	–	–	2,122,896	1,979,445
Restricted for debt service	22,933	10,989	1,312	977	–	–	834	485	–	–	–	–	25,079	12,451
Restricted for capital projects	32,978	37,904	–	1,653	11,712	–	–	–	–	–	–	–	44,690	39,557
Unrestricted	(70,863)	(43,494)	190	48,468	40,279	40,625	134,874	140,520	8,860	8,218	–	–	113,340	194,337
Total net position	$ 489,524	501,267	1,209,205	1,146,263	191,790	168,356	406,626	401,686	8,860	8,218	–	–	2,306,005	2,225,790

C Included interfund payables and interfund receivables for fiscal year 2018 of $1,061 between Wastewater and Hetchy Power for the 525 Golden Gate Avenue Headquarters construction costs and $5,601 working capital loan between Hetch Power and CleanPowerSF.

D Included interfund payables and interfund receivables for fiscal year 2017 of $1,166 between Wastewater and Hetchy Power for the 525 Golden Gate Avenue Headquarters construction costs and $7,250 working capital loan between Hetch Power and CleanPowerSF.

See accompanying notes to basic financial statements.

THE SAN FRANCISCO PUBLIC UTILITIES COMMISSION
Statements of Revenues, Expenses, and Changes in Net Position
Proprietary Funds
Years ended June 30, 2018 and 2017
(In thousands)

	Business Type Activities – Proprietary Funds											
	Water		Wastewater		Hetchy Water		Hetchy Power		CleanPowerSF		SFPUC Total	
	2018	2017	2018	2017	2018	2017	2018	2017	2018	2017	2018	2017
Operating revenues:												
Charges for services	$ 495,138	438,207	303,037	267,601	33,427	35,008	118,672	120,789	39,568	33,867	989,842	895,472
Rents and concessions	12,906	8,813	611	606	133	142	163	173	–	–	13,813	9,734
Capacity fees	1,720	1,432	5,786	4,345	–	–	–	–	–	–	7,506	5,777
Other revenues	15,875	11,879	5,662	4,789	–	–	–	–	–	–	21,537	16,668
Total operating revenues	525,639	460,331	315,096	277,341	33,560	35,150	118,835	120,962	39,568	33,867	1,032,698	927,651
Operating expenses:												
Personnel services	128,295	182,034	91,977	115,288	14,516	21,998	34,950	44,961	2,150	1,213	271,888	365,494
Contractual services	14,131	10,664	16,061	13,825	1,524	1,017	5,526	4,916	2,166	1,141	39,408	31,563
Transmission/distribution and other power costs	–	–	–	–	–	–	24,238	18,447	231	214	24,469	18,661
Purchased electricity	–	–	–	–	–	–	10,197	2,523	30,066	22,223	40,263	24,746
Materials and supplies	15,936	12,564	9,446	8,736	1,101	1,161	1,541	1,510	–	1	28,024	23,972
Depreciation and amortization	118,751	118,826	55,591	55,441	5,066	4,505	14,049	13,225	–	–	193,457	191,997
Services provided by other departments	56,860	59,173	36,374	36,832	1,572	1,962	5,848	6,716	1,545	734	102,199	105,417
General and administrative and other	36,174	38,566	1,144	14,098	16,013	19,456	23,046	24,637	2,270	1,570	78,647	98,327
Total operating expenses	370,147	421,827	210,593	244,220	39,792	50,099	119,395	116,935	38,428	27,096	778,355	860,177
Operating income (loss)	155,492	38,504	104,503	33,121	(6,232)	(14,949)	(560)	4,027	1,140	6,771	254,343	67,474
Non-operating revenues (expenses):												
Federal and state grants	597	–	–	3,274	1,050	–	–	37	–	–	1,647	3,311
Interest and investment income	6,448	4,331	2,317	2,327	218	46	2,537	1,718	174	89	11,694	8,511
Interest expenses	(164,001)	(148,075)	(24,978)	(28,474)	–	–	(3,103)	(3,200)	(101)	(70)	(192,183)	(179,819)
Amortization of premium, discount, refunding loss, and issuance costs	13,540	9,029	5,400	5,806	–	–	248	255	–	–	19,188	15,090
Net gain (loss) from sale of assets	727	6,407	(3)	37	6	21	49	26	–	–	779	6,491
Other non-operating revenues	37,740	30,998	5,333	5,322	181	595	10,024	11,701	1	4	53,279	48,620
Other non-operating expenses	(1,920)	(2,607)	(414)	(383)	(68)	(68)	(1,727)	(1,408)	–	–	(4,129)	(4,466)
Net non-operating revenues (expenses)	(106,869)	(99,917)	(12,345)	(12,091)	1,387	594	8,028	9,129	74	23	(109,725)	(102,262)
Change in net pos tion before transfers	48,623	(61,413)	92,158	21,030	(4,845)	(14,355)	7,468	13,156	1,214	6,794	144,618	(34,788)
Transfers from the City and County of San Francisco	382	128	–	40	30,000	60,000	87	100	–	–	30,469	60,268
Transfers to the City and County of San Francisco	(31,368)	(60,116)	(26,960)	(30,747)	–	–	(512)	(49)	–	–	(58,840)	(90,912)
Net transfers	(30,986)	(59,988)	(26,960)	(30,707)	30,000	60,000	(425)	51	–	–	(28,371)	(30,644)
Change in net pos tion	17,637	(121,401)	65,198	(9,677)	25,155	45,645	7,043	13,207	1,214	6,794	116,247	(65,432)
Net position at beginning of year												
Beginning of year, as previously reported	501,267	622,668	1,146,263	1,155,940	168,356	122,711	401,686	389,903	8,218	1,424	2,225,790	2,292,646
Cumulative effect of accounting change*	(29,380)	–	(2,256)	–	(1,721)	–	(2,103)	–	(572)	–	(36,032)	–
Less: CleanPowerSF beginning net pos tion	–	–	–	–	–	–	–	(1,424)	–	–	–	(1,424)
Beginning of year as restated	471,887	622,668	1,144,007	1,155,940	166,635	122,711	399,583	388,479	7,646	1,424	2,189,758	2,291,222
Net position at end of year	$ 489,524	501,267	1,209,205	1,146,263	191,790	168,356	406,626	401,686	8,860	8,218	2,306,005	2,225,790

* Cumulative effect of accounting change per GASB Statement No. 75, *Accounting and Financial Reporting for Postemployment Benefits Other than Pensions*.

See accompanying notes to basic financial statements.

THE SAN FRANCISCO PUBLIC UTILITIES COMMISSION
Statements of Cash Flows
Proprietary Funds
Years ended June 30, 2018 and 2017
(In thousands)

	Business Type Activities – Proprietary Funds											
	Water		Wastewater		Hetchy Water		Hetchy Power		CleanPowerSF		SFPUC Total	
	2018	2017	2018	2017	2018	2017	2018	2017	2018	2017	2018	2017
Cash flows from operating activities:												
Cash received from customers, including cash deposits	$ 525,886	464,244	312,769	277,219	33,441	35,264	125,278	126,062	39,693	31,407	1,037,067	934,196
Cash received from tenants for rent	12,783	11,945	657	606	138	139	170	169	—	—	13,748	12,859
Cash paid to employees for services	(121,352)	(114,537)	(85,045)	(82,623)	(12,560)	(12,813)	(35,449)	(33,376)	(1,234)	(1,053)	(255,640)	(244,402)
Cash paid to suppliers for goods and services	(108,216)	(133,655)	(43,346)	(75,478)	(19,080)	(24,465)	(61,142)	(60,730)	(39,972)	(24,495)	(271,756)	(318,823)
Cash paid for judgments and claims	(2,925)	(4,598)	(2,124)	(2,313)	(1,356)	(1,045)	(2,005)	(2,150)	(190)	—	(8,600)	(10,106)
Net cash provided by (used in) operating activities	306,176	223,399	182,911	117,411	583	(2,920)	26,852	29,975	(1,703)	5,859	514,819	373,724
Cash flows from non-capital financing activities:												
Cash received from grants	422	1,496	891	2,055	997	540	37	2,254	—	—	2,347	6,345
Cash received from settlements	8,308	800	141	—	—	—	3	3	—	—	8,452	803
Cash received from license fees	—	—	—	—	—	—	4,467	3,148	—	—	4,467	3,148
Cash received from miscellaneous revenues	5,401	6,067	1,181	1,325	181	595	4,651	8,438	1	4	11,415	16,429
Cash paid for Hetchy Power loan interest	—	—	—	—	—	—	—	—	(83)	(70)	(83)	(70)
Cash paid for rebates, program incentives, and other	(1,920)	(2,607)	(414)	(383)	(68)	(68)	(1,727)	(1,408)	—	—	(4,129)	(4,466)
Transfers from the City and County of San Francisco	382	128	—	40	30,000	60,000	87	100	—	—	30,469	60,268
Transfers to the City and County of San Francisco	(31,368)	(60,116)	(26,960)	(30,747)	—	—	(512)	(49)	—	—	(58,840)	(90,912)
Net cash provided by (used in) non-capital financing activities	(18,775)	(54,232)	(25,161)	(27,710)	31,110	61,067	7,006	12,486	(82)	(66)	(5,902)	(8,455)
Cash flows from capital and related financing activities:												
Proceeds from sale of capital assets	3,231	6,407	21	37	6	21	130	26	—	—	3,388	6,491
Proceeds from bond issuance, net of premium, discount, refunding loss, and issuance costs	928,694	1,191,788	—	—	—	—	—	—	—	—	928,694	1,191,788
Proceeds from commercial paper borrowings	15,664	145,736	151,448	50,411	—	—	222	20,058	—	—	167,334	216,205
Proceeds from State revolving fund loans	—	—	6,719	—	—	—	—	—	—	—	6,719	—
Principal paid on commercial paper	(120,352)	(236,736)	—	—	—	—	—	—	—	—	(120,352)	(236,736)
Principal paid on long-term debt	(527,881)	(973,571)	(20,658)	(21,482)	—	—	(2,768)	(2,298)	—	—	(551,307)	(997,351)
Interest paid on long-term debt	(278,284)	(199,196)	(45,924)	(44,850)	—	—	(3,305)	(3,460)	—	—	(327,513)	(247,506)
Interest paid on commercial paper	(830)	(829)	(1,436)	(402)	—	—	(219)	—	—	—	(2,485)	(1,231)
Issuance costs paid on long-term debt	(1,405)	(996)	(208)	(97)	—	—	—	—	—	—	(1,613)	(1,093)
Acquisition and construction of capital assets	(257,777)	(243,231)	(287,297)	(238,625)	(14,786)	(15,101)	(33,820)	(40,063)	—	—	(593,680)	(537,020)
Federal interest income subsidy	24,042	24,158	4,008	3,998	—	—	756	532	—	—	28,806	28,688
Net cash used in capital and related financing activities	(214,898)	(286,470)	(193,327)	(251,010)	(14,780)	(15,080)	(39,004)	(25,205)	—	—	(462,009)	(577,765)
Cash flows from investing activities:												
Interest income received	5,204	4,442	1,828	2,578	658	112	2,956	1,747	196	87	10,842	8,966
Proceeds from sale of investment outside City Treasury	485,074	454,457	85,012	84,957	—	—	4,990	3,051	—	—	575,076	542,465
Purchase of investments outside City Treasury	(436,878)	(520,024)	(77,977)	(92,976)	—	—	(3,446)	(3,056)	—	—	(518,301)	(616,056)
Net cash provided by (used in) investing activities	53,400	(61,125)	8,863	(5,441)	658	112	4,500	1,742	196	87	67,617	(64,625)
Increase (decrease) in cash and cash equivalents	125,903	(178,428)	(26,714)	(166,750)	17,571	43,179	(646)	18,998	(1,589)	5,880	114,525	(277,121)
Cash and cash equivalents:												
Beginning of year	461,701	640,129	240,531	407,281	79,546	36,367	211,921	192,923	14,054	8,174	1,007,753	1,284,874
End of year	$ 587,604	461,701	213,817	240,531	97,117	79,546	211,275	211,921	12,465	14,054	1,122,278	1,007,753
Reconciliation of cash and cash equivalents to the statements of net position:												
Cash and investments with City Treasury:												
Unrestricted	$ 358,768	319,162	164,107	195,559	78,283	75,345	184,193	174,633	12,395	14,048	797,746	778,747
Restricted	102,011	100,701	36,054	24,767	18,137	4,154	23,283	35,998	—	—	179,485	165,620
Cash and investments outside City Treasury:												
Unrestricted	274	34	262	—	2	2	8	8	—	—	546	44
Restricted	143,739	107,188	14,282	28,128	—	—	3,815	3,783	—	—	161,836	139,099
Less: Restricted (with maturity more than 90 days – see table in Note 3)	(19,786)	(65,567)	(2,016)	(8,019)	—	—	(1,038)	(2,582)	—	—	(22,840)	(76,168)
Add: Unrealized loss on investments	2,598	183	1,128	96	695	45	1,014	81	70	6	5,505	411
Cash and cash equivalents at end of year on statements of cash flows	$ 587,604	461,701	213,817	240,531	97,117	79,546	211,275	211,921	12,465	14,054	1,122,278	1,007,753

(Continued)

THE SAN FRANCISCO PUBLIC UTILITIES COMMISSION
Statements of Cash Flows
Proprietary Funds
Years ended June 30, 2018 and 2017
(In thousands)

	Business Type Activities – Proprietary Funds											
	Water		Wastewater		Hetchy Water		Hetchy Power		CleanPowerSF		SFPUC Total	
	2018	2017	2018	2017	2018	2017	2018	2017	2018	2017	2018	2017
Reconciliation of operating income (loss) to net cash provided by (used in) operating activities:												
Operating income (loss)	$ 155,492	38,504	104,503	33,121	(6,232)	(14,949)	(560)	4,027	1,140	6,771	254,343	67,474
Adjustments to reconcile operating income (loss) to net cash provided by (used in) operating activities:												
Depreciation and amortization	118,751	118,826	55,591	55,441	5,066	4,505	14,049	13,225	–	–	193,457	191,997
Provision for uncollectible accounts	(37)	101	(248)	597	–	–	52	–	256	50	23	748
Write-off of capital assets and other non-cash items	910	2,448	4,729	1,960	28	499	30	983	–	–	5,697	5,890
Changes in operating assets and liabilities:												
Receivables:												
Charges for services	678	(10,456)	(1,707)	(3,235)	14	256	1,076	2,540	(99)	(2,615)	(38)	(13,510)
Due from other City departments	338	(186)	44	(132)	–	–	2,026	1,130	–	–	2,408	812
Prepaid charges, advances, and other	(224)	3,285	132	1,447	(58)	(332)	(375)	(13)	(2,431)	(7)	(2,956)	4,380
Inventory	1,875	(90)	(36)	133	–	33	–	42	–	–	1,839	118
Accounts payable	8,286	(9,051)	12,563	(2,725)	377	(2,124)	7,591	(4,858)	600	1,758	29,417	(17,000)
Accrued payroll	177	758	(184)	613	(48)	62	7	82	18	35	(30)	1,550
Other post-employment benefits obligations	6,772	9,784	2,423	5,617	2,027	1,335	(591)	1,631	30	87	10,661	18,454
Pension obligations	(3,730)	53,828	2,458	25,919	(368)	7,662	(450)	9,363	843	–	(1,247)	96,772
Accrued vacation and sick leave	(325)	555	466	(596)	135	(99)	167	(123)	26	38	469	(225)
Accrued workers' compensation	1,868	275	204	(78)	(10)	2	(10)	3	–	–	2,052	202
Due to other City departments	89	(779)	(84)	84	–	–	–	–	(2,054)	(363)	(2,049)	(1,058)
Wholesale balancing account	12,395	21,932	–	–	–	–	–	–	–	–	12,395	21,932
Damage claims liability	2,664	(6,162)	(83)	(2,484)	(353)	233	381	344	–	–	2,609	(8,069)
Unearned revenues, refunds, and other liabilities	354	325	148	1,639	5	(3)	3,459	1,599	(32)	105	3,934	3,665
Pollution remediation obligations	(157)	(498)	1,992	90	–	–	–	–	–	–	1,835	(408)
Total adjustments	150,684	184,895	78,408	84,290	6,815	12,029	27,412	25,948	(2,843)	(912)	260,476	306,250
Net cash provided by (used in) operating activities	$ 306,176	223,399	182,911	117,411	583	(2,920)	26,852	29,975	(1,703)	5,859	514,819	373,724
Noncash transactions:												
Accrued capital asset costs	$ 45,882	31,580	48,720	23,477	6,403	4,027	5,423	2,968	–	–	106,428	62,052
Interfund payable	96	7	1,061	1,250	–	–	–	–	5,601	7,637	6,758	8,894
Interfund receivables	–	–	–	–	–	1,166	6,662	7,637	–	–	6,662	8,803
Unrealized loss on investments	2,598	183	1,128	96	695	45	1,014	81	70	6	5,505	411

See accompanying notes to basic financial statements.

(1) Definition of Reporting Entity

The San Francisco Public Utilities Commission (the Commission), established in 1932, is responsible for providing operational oversight of the public utility enterprises of the City, which include the Water, Wastewater and Hetchy Water and Power. The Commission is responsible for determining such matters as the rates and charges for services, approval of contracts, and organizational policy.

Until August 1, 2008, the Commission consisted of five members, all appointed by the Mayor. Proposition E, a City and County of San Francisco Charter amendment approved by the voters in the June 3, 2008 election, terminated the terms of all five existing members of the Commission, changed the process for appointing new members, and set qualifications for all members. Under the amended Charter, the Mayor continues to nominate candidates to the Commission, but nominees do not take office until the Board of Supervisors votes to approve their appointments by a majority (at least six members). The amended Charter provides for staggered four-year terms for the Commission members and requires them to meet the following qualifications:

- Seat 1 must have experience in environmental policy and an understanding of environmental justice issues.
- Seat 2 must have experience in ratepayer or consumer advocacy.
- Seat 3 must have experience in project finance.
- Seat 4 must have expertise in water systems, power systems, or public utility management.
- Seat 5 is an at-large member.

The SFPUC is a department of the City, and as such, the financial operations of the Water Enterprise, the Wastewater Enterprise, and Hetchy Water and Hetchy Power and CleanPowerSF (Hetch Hetchy) are included in the Comprehensive Annual Financial Report of the City as enterprise funds. These financial statements are intended to present only the financial position, and the changes in financial position and cash flows of only the portion of the City that is attributable to the transactions of the enterprises. They do not purport to, and do not, present fairly the financial position of the City as of June 30, 2018 and 2017, the changes in its financial position, or, where applicable, the cash flows for the years then ended in conformity with U.S. generally accepted accounting principles (GAAP).

Water Enterprise

The San Francisco Water Enterprise was established in 1930 under the provisions of the Charter of the City and County of San Francisco (the City). The Water Enterprise acquired the fully developed, mature water works for San Francisco on March 3, 1930. Since then, the City has operated and maintained the water works as the San Francisco Water Enterprise. The Board of Supervisors of the City has adopted resolutions (the Water Resolutions) providing for the issuance of various water revenue and refunding bond series. The Water Resolutions require the City to keep separate books of records and accounts of the Water Enterprise. The Water Enterprise, which consists of a system of reservoirs, storage tanks, water treatment plants, pump stations, and pipelines, is engaged in the distribution of water to San Francisco and certain suburban areas. In fiscal year 2018, the Water Enterprise sold approximately 69,344 million gallons, i.e., about 190 million gallons per day of water, to approximately 2.7 million people within San Francisco and certain suburban areas.

Wastewater Enterprise

The San Francisco Wastewater Enterprise, formerly known as the San Francisco Clean Water Program (the Program), was established in 1977 following the transfer of all sewage system related assets and liabilities of the City to the Program.

In 1976, the electorate of the City approved a proposition authorizing the City to issue $240,000 in revenue bonds pursuant to the Revenue Bond Law of 1941 of the State of California for the purpose of acquiring, constructing, improving, and financing improvements to the City's municipal sewage treatment and disposal system. Since then, the City's Board of Supervisors has adopted resolutions (Wastewater Resolutions) providing for the issuance of various sewer revenue and refunding bond series. The Wastewater Resolutions require the City to keep separate books of records and accounts of the Wastewater Enterprise.

Hetch Hetchy

San Francisco Hetch Hetchy Water and Power (Hetch Hetchy) was established as a result of the Raker Act of 1913, which granted water and power resources rights-of-way on the Tuolumne River in Yosemite National Park and Stanislaus National Forest to the City. CleanPowerSF launched in May 2016, provides green electricity from renewable sources to residential and commercial customers in San Francisco and was reported as part of Hetchy Power in fiscal year 2016. Hetch Hetchy is a stand-alone enterprise comprised of three funds, Hetchy Power (aka the Power Enterprise), CleanPowerSF, and Hetchy Water, the portion of the Water Enterprise's operations, specifically the upcountry water supply and transmission service. Hetch Hetchy accounts for the activities of Hetch Hetchy Water and Power and is engaged in the collection and conveyance of approximately 85% of the regional water supply and in the generation and transmission of electricity from that resource, as well as the City Power services including energy efficiency and renewables.

Approximately 81% of the electricity generated by Hetchy Power is used to provide electric service to the City's municipal customers (including the San Francisco Municipal Transportation Agency, Recreation and Parks Department, the Port of San Francisco, the San Francisco International Airport and its tenants, San Francisco General Hospital, streetlights, Moscone Convention Center, and the Water and Wastewater Enterprises). The majority of the remaining 19% of electricity generated is sold to CleanPowerSF and other publicly owned utilities. As a result of the 1913 Raker Act, energy produced above the City's Municipal Load is sold first to the Districts to cover their agricultural pumping and municipal load needs and any remaining energy is either sold to other municipalities and/or government agencies (not for resale) or sold into the California Independent System Operator (CAISO). Hetch Hetchy operation is an integrated system of reservoirs, hydroelectric power plants, aqueducts, pipelines, and transmission lines.

Hetch Hetchy also purchases wholesale electric power from various energy providers that are used in conjunction with owned hydro resources to meet the power requirements of its customers. Operations and business decisions can be greatly influenced by market conditions, state and federal power matters before the California Public Utilities Commission (CPUC), the CAISO, and the Federal Energy Regulatory Commission (FERC). Therefore, Hetch Hetchy serves as the City's representative at CPUC, CAISO, and FERC forums and continues to monitor regulatory proceedings.

(2) Significant Accounting Policies

(a) Basis of Accounting and Measurement Focus

Fund Financial Statements

The accounts of Water, Wastewater, Hetchy Water, Hetchy Power and CleanPowerSF are organized on the basis of a proprietary fund type and are included as enterprise funds of the City. The activities are accounted for with a separate set of self-balancing accounts that comprise the funds' assets, deferred outflows, liabilities, deferred inflows, net position, revenues, and expenses. Enterprise funds account for activities (i) that are financed with debt that is secured solely by a pledge of the net revenues from fees and charges of the activity; or (ii) that are required by laws or regulations that the activity's costs of providing services, including capital costs (such as depreciation or debt service), be recovered with fees and charges, rather than with taxes or similar revenues; or (iii) that the pricing policies of the activity establish fees and charges designed to recover its costs, including capital costs (such as depreciation or debt service).

The financial activities of Water, Wastewater, Hetchy Water, Hetchy Power and CleanPowerSF are accounted for on a flow of economic resources measurement focus, using the accrual basis of accounting in accordance with U.S. GAAP. Under this method, all assets and liabilities associated with its operations are included on the statements of net position; revenues are recognized when earned, and expenses are recognized when liabilities are incurred. Water and Wastewater Enterprises' operating revenues are defined as charges to customers, rental income, capacity fees and other revenues while Hetchy Water, Hetchy Power and CleanPowerSF's operating revenues are defined as charges to customers and rental incomes. Operating expenses include the costs of delivering services, administrative expenses, and depreciation and amortization on capital assets. Revenues and expenses not meeting this definition are reported as non-operating revenues and expenses.

The funds apply all applicable GASB pronouncements.

(b) Cash and Cash Equivalents

The SFPUC considers its pooled deposits and investments held with the City Treasury to be demand deposits and, therefore, cash and cash equivalents for financial reporting. The City Treasury also holds non-pooled cash and investments for the SFPUC. Non-pooled restricted deposits and restricted deposits and investments held outside the City Treasury with original maturities of three months or less are also considered to be cash equivalents.

(c) Investments

Money market funds are carried at cost, which approximates fair value. All other investments are stated at fair value based upon quoted market prices. Changes in fair value are recognized as investment gains or losses and are recorded as a component of non-operating revenues.

(d) Inventory

Inventory consists primarily of construction materials and maintenance supplies and is valued at average cost. Inventory is expensed as it is consumed.

(e) Capital Assets

Capital assets are defined as assets with an initial individual cost of more than $5 and an estimated useful life in excess of one year. Capital assets with an original acquisition date prior to July 1, 1977 are recorded in the financial statements at estimated cost, as determined by an independent professional appraisal, or at cost, if known. All subsequent acquisitions have been recorded at cost. All donated capital assets are valued at acquisition value at the time of donation. Depreciation and amortization are computed using the straight-line method over the estimated useful lives of the related assets, which range from 1 to 100 years for equipment and 1 to 200 years for buildings, structures, and improvements. No depreciation or amortization is recorded in the year of acquisition, and depreciation or amortization is recorded in the year of disposal.

(f) Intangible Assets

Under GASB Statement No. 51, *Accounting and Financial Reporting for Intangible Assets*, intangible assets are defined as identifiable, non-financial assets capable of being separated, sold, transferred, or licensed, and include contractual or legal rights. Examples of intangible assets include rights-of-way easements, land use rights, water rights, licenses, and permits. The accounting pronouncement also provides guidance on the capitalization of internally generated intangible assets, such as the development and installation of computer software by or on behalf of the reporting entity.

According to the standard, the SFPUC is required to capitalize intangible assets with a useful life extending beyond one reporting period. The SFPUC has established a capitalization threshold of $100. GASB Statement No. 51 also requires amortization of intangible assets over the benefit period, except for certain assets having an indefinite useful life. Assets with an indefinite useful life generally provide a benefit that is not constrained by legal or contractual limitations or any other external factor, and therefore, are not amortized (see Note 4).

(g) Construction Work in Progress

The cost of acquisition and construction of major plant and equipment is recorded as construction work in progress. Costs of discontinued construction projects are recorded as an expense in the year in which the decision is made to discontinue such projects.

(h) Capitalization of Interest

A portion of the interest cost incurred on capital projects is capitalized on assets that require a period of time for construction or to otherwise prepare them for their intended use. Such amounts are amortized over the useful lives of the assets (see Note 4).

(i) Bond Discount, Premium, and Issuance Costs

Bond issuance costs related to prepaid insurance costs are capitalized and amortized using the effective interest method. Other bond issuance costs are expensed when incurred. Original issue bond discount or premium are offset against the related debt and are also amortized using the effective interest method.

(j) Accrued Vacation and Sick Leave

Accrued vacation pay, which may be accumulated up to ten weeks per employee, is charged to expense as earned. Sick leave earned subsequent to December 6, 1978 is non-vesting and may be accumulated up to six months per employee.

(k) Workers' Compensation

The SFPUC is self-insured for workers' compensation claims and accrues the estimated cost of those claims, including the estimated cost of incurred but not reported claims (see Note 14(c)).

(l) General Liability

The SFPUC is self-insured for general liability and uninsurable property damage claims. Commercially uninsurable property includes assets that are underground or provide transmission and distribution. Maintained commercial coverage does not cover claims attributed to loss from earthquake, contamination, pollution remediation efforts, and other specific naturally occurring contaminants such as mold. The liability represents an estimate of the cost of all outstanding claims, including adverse loss development, and estimated incurred but not reported claims (see Note 14(a)).

(m) Arbitrage Rebate Payable

Certain bonds are subject to arbitrage rebate requirements in accordance with regulations issued by the U.S. Treasury Department. The requirements generally stipulate that earnings from the investment of the tax-exempt bond proceeds that exceed related interest costs on the bonds must be remitted to the federal government on every fifth anniversary of each bond issue. The Water Enterprise, Wastewater Enterprise, Hetch Hetchy Water and Power and CleanPowerSF Enterprise did not have arbitrage rebate liability as of June 30, 2018 and 2017.

(n) Refunding of Debt

Gains or losses occurring from refunding of debt prior to maturity are reported as deferred outflows and deferred inflows of resources from refunding of debt. Deferred outflows and deferred inflows of resources are recognized as a component of interest expense using the effective interest method over the remaining life of the old debt or the life of the new debt, whichever is shorter.

(o) Income Taxes

As a department of a government agency, the SFPUC is exempt from both federal income taxes and California franchise taxes.

(p) Revenue Recognition

Charges for water, wastewater, and power services are based on usage. Effective July 1, 2013, the majority of residential and non-residential customers are billed on a monthly basis except for building and contractor customers which are billed on a bi-monthly basis by the Water and Wastewater Enterprises. Hetchy Water, Hetchy power and CleanPowerSF revenues are based on consumption and billing rates. Generally, customers are billed monthly. Revenues earned but unbilled are accrued as charges for services and reflected as a receivable on the Statements of Net Position.

(q) Use of Estimates

The preparation of financial statements in conformity with U.S. GAAP requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and the disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenses during the reporting period. Actual results could differ from those estimates.

(r) Eliminations

Eliminations for internal activities between the Wastewater, Hetchy Power and CleanPowerSF are made in the *Statements of Net Position*. There were activities requiring eliminations during the fiscal years ended June 30, 2018 and 2017.

(s) Accounting and Financial Reporting for Pollution Remediation Obligations

According to GASB Statement No. 49, *Accounting and Financial Reporting for Pollution Remediation Obligations*, a government would have to estimate its expected outlays for pollution remediation if it knows a site is polluted, and any of the following recognition triggers occur:

- Pollution poses an imminent danger to the public or environment and a government has little or no discretion to avoid fixing the problem;
- A government has violated a pollution prevention-related permit or license;
- A regulator has identified (or evidence indicates it will identify) a government as responsible (or potentially responsible) for cleaning up pollution, or for paying all or some of the cost of the cleanup;
- A government is named (or evidence indicates that it will be named) in a lawsuit to compel it to address the pollution; or
- A government begins or legally obligates itself to begin cleanup or post-cleanup activities (limited to amounts the government is legally required to complete).

As a part of ongoing operations, situations may occur requiring the removal of pollution or other hazardous material. These situations typically arise in the process of acquiring an asset, preparing an asset for its intended use, or during the design phase of projects under review by the project managers. Other times, pollution may arise during the implementation and construction of a major or minor capital project. Examples of pollution may include, but are not limited to: asbestos or lead paint removal; leaking of sewage in underground pipes or neighboring areas, chemical spills, removal and disposal of known toxic waste, harmful biological and chemical pollution of water, or contamination of surrounding soils by underground storage tanks (see Note 15(d)).

(t) Other Post-employment Benefits Other than Pensions (OPEB)

As prescribed under GASB Statement No. 75, *Accounting and Financial Reporting for Postemployment Benefits Other than Pensions*, net OPEB liability, deferred outflows/inflows of resources related to OPEB, and OPEB expense are actuarially determined on a citywide basis. Net OPEB liability is measured as the portion of the present value of projected benefit payments to be provided to current active and inactive employees attributed to those employees' past service, less the amount of the Retiree Healthcare Trust Fund investments measured at fair value.

The provision of GASB Statement No. 75 is effective for the SFPUC's year ending June 30, 2018. While restatement of all prior periods was not practical because the actuarial information was not available, the cumulative effect of applying this Statement is reported as a restatement of beginning net position as of July 1, 2017 as follows:

	Water	Wastewater	Hetch Hetchy*	SFPUC Total
Record Beginning Net OPEB Liability	$ (158,939)	(56,870)	(34,399)	(250,208)
Record Beginning Deferred Outflows of Resources - OPEB items	8,229	2,944	1,781	12,954
Remove Net OPEB Obligation (Change from GASB Statement No. 45)	121,330	51,670	28,222	201,222
Total Cumulative Effect of Change in Accounting Principle	$ (29,380)	(2,256)	(4,396)	(36,032)

*Hetch Hetchy included Hetchy Water, Hetchy Power and CleanPowerSF.

(u) New Accounting Standards Adopted in Fiscal Year 2018

1) In June 2015, the GASB issued Statement No. 75*, Accounting and Financial Reporting for Postemployment Benefit Other Than Pension Plans*. GASB Statement No. 75 revises and establishes new accounting and financial reporting requirements for governments that provides their employees with other post-employment benefits other than pensions (OPEB). The new standard is effective for periods beginning after June 15, 2017. The SFPUC adopted the provisions of this Statement (see Note 12(b)).

2) In March 2016, the GASB issued Statement No. 81, *Irrevocable Split-Interest Agreements*. GASB Statement No. 81 establishes accounting and financial reporting standards for irrevocable split-interest agreement created through trusts in which a donor irrevocably transfers resources to an intermediary. The new standard is effective for periods beginning after December 15, 2016. The SFPUC adopted the provisions of this Statement, which did not have a significant impact on its financial statements.

3) In March 2017, the GASB issued Statement No. 85, *Omnibus 2017*. GASB Statement No. 85 addresses practice issues identified during the implementation and application of certain GASB Statements. The new standard is effective for periods beginning after June 15, 2017. The SFPUC adopted the provisions of this Statement, which did not have a significant impact on its financial statements.

4) In May 2017, the GASB issued Statement No. 86, *Certain Debt Extinguishment Issues*. GASB Statement No. 86 improves accounting and financial reporting for in-substance defeasance of debt using existing resources other than proceeds of refunding debt. The new standard is effective for periods beginning after June 15, 2017. The SFPUC adopted the provisions of this Statement, which did not have a significant impact on its financial statements.

(v) GASB Statements Implemented in Fiscal Year 2017

1) In June 2015, the GASB issued Statement No. 73, *Accounting and Financial Reporting for Pensions and Related Assets That Are Not within the Scope of GASB Statement No. 68, and Amendments to Certain Provisions of GASB Statements No. 67 and 68*. GASB Statement No. 73 addresses accounting and financial reporting for pensions provided by governments that are not within the scope of Statement No. 68. The new standard is effective for periods beginning after June 15, 2016. The SFPUC adopted the provisions of this Statement, which did not have a significant impact on its financial statements.

2) In August 2015, the GASB issued Statement No. 77, *Tax Abatement Disclosures*. GASB Statement No. 77 establishes financial reporting standards for tax abatement agreements entered into by state and local governments. The new standard is effective for periods beginning after December 15, 2015. The SFPUC adopted the provisions of this Statement, which did not have a significant impact on its financial statements.

3) In December 2015, the GASB issued Statement No. 78, *Pensions Provided through Certain Multiple-Employer Defined Benefit Pension Plans*. GASB Statement No. 78 establishes accounting and financial reporting standards for defined benefit pensions provided by state or local governments through a cost sharing plan that meets the criteria of Statement No. 68 and is not a state or local governmental pension plan. The new standard is effective for periods beginning after December 15, 2015. The SFPUC adopted the provisions of this Statement, which did not have a significant impact on its financial statements.

(w) Future Implementation of New Accounting Standards

1) In November 2016, the GASB issued Statement No. 83, *Certain Asset Retirement Obligations*. GASB Statement No. 83 establishes accounting and financial reporting standards for certain asset retirement obligations (AROs). The new standard is effective for periods beginning after June 15, 2018. The SFPUC will implement the provisions of Statement No. 83 in fiscal year 2019.

2) In January 2017, the GASB issued Statement No. 84, *Fiduciary Activities*. GASB Statement No. 84 establishes criteria for state and local governments to identify fiduciary activities and how those activities should be reported. The new standard is effective for periods beginning after December 15, 2018. The SFPUC will implement the provisions of Statement No. 84 in fiscal year 2020.

3) In June 2017, the GASB issued Statement No. 87, *Leases*. GASB Statement No. 87 establishes a single model for lease accounting and requires reporting of certain lease liabilities that currently are not reported. The new standard is effective for periods beginning after December 15, 2019. The SFPUC will implement the provisions of Statement No. 87 in fiscal year 2021.

4) In March 2018, the GASB issued Statement No. 88, *Certain Disclosures Related to Debt, Including Direct Borrowings and Direct Placements.* GASB Statement No. 88 establishes additional financial statement note disclosure requirements related to debt obligations of governments, including direct borrowings and direct placements. The new standard is effective for periods beginning after June 15, 2018. The SFPUC will implement the provisions of Statement No. 88 in fiscal year 2019.

5) In June 2018, the GASB issued Statement No. 89, *Accounting for Interest Cost Incurred before the End of a Construction Period*. GASB Statement No. 89 establishes accounting requirements for interest cost incurred before the end of a construction period. The new standard is effective for periods beginning after December 15, 2019. The SFPUC will implement the provisions of Statement No. 89 in fiscal year 2021.

6) In August 2018, the GASB issued Statement No. 90, *Accounting and Financial Reporting for Majority Equity Interests*. GASB Statement No. 90 provides clarification when a government should report a majority equity interest in a legally separate organization as either a

component unit or an investment. The new standard is effective for periods beginning after December 15, 2018. The SFPUC will implement the provisions of Statement No. 90 in fiscal year 2020.

(3) Cash, Cash Equivalents, and Investments

Cash, cash equivalents, and investments with the City Treasury are invested in an unrated City pool pursuant to investment policy guidelines established by the City Treasurer. The objectives of the policy guidelines are, in order of priority, preservation of capital, liquidity, and yield. The policy addresses soundness of financial institutions in which the City will deposit funds, types of investment instruments as permitted by the California Government Code, and the percentage of the portfolio that may be invested in certain instruments with longer terms to maturity. The City Treasurer allocates income from the investment of pooled cash at month-end in proportion to SFPUC's average daily cash balances. The primary objectives of SFPUC's investment policy are consistent with the City's policy.

The SFPUC categorizes its fair value measurements within the fair value hierarchy established by GAAP. The hierarchy is based on the valuation inputs used to measure fair value of the assets. Level 1 inputs are quoted prices in active markets for identical assets; Level 2 inputs are significant other observable inputs; and Level 3 inputs are significant unobservable inputs. The inputs and techniques used for valuing securities are not necessarily an indication of risk associated with investing in those securities.

Commercial paper is valued using a variety of techniques such as matrix pricing; market corroborated pricing inputs such as yield curve, indices, and other market related data. Commercial paper, money market investments, and cash and cash equivalents are exempt from fair value treatment under GASB Statement No. 72.

Department-wide Business Type Activities

Department-wide restricted and unrestricted cash and investments outside City Treasury as of June 30, 2018 and 2017:

SFPUC's Cash and Investments outside City Treasury

		June 30, 2018			Fair Value Measurements Using		
Investments	Credit Ratings (S&P/Moody's)	Maturities	Fair Value	Investments exempt from fair value	Quoted prices in active markets for identical (Level 1)	Significant other observable inputs (Level 2)	Unobservable Inputs (Level 3)
U.S. Agencies	AA+/Aaa	March 20, 2020	$ 10,680	–	–	10,680	–
Commercial Paper	A-1/P-1	March 8, 2019	12,160	12,160	–	–	–
Commercial Paper	A-1+/P-1	September 26, 2018	270	270	–	–	–
Commercial Paper	A-1+/P-1	< 90 days	56,776	56,776	–	–	–
U.S. Treasury Money Market Funds	AAAm/Aaa-mf	< 90 days	81,893	81,893	–	–	–
Money Market Funds	A-1+/P-1	< 90 days	45	45	–	–	–
Cash and Cash Equivalents	N/A		12	12	–	–	–
Total Restricted Cash and Investments outside City Treasury			$ **161,836**	**151,156**	**–**	**10,680**	**–**
Cash and Cash Equivalents	N/A		546	546	–	–	–
Total Cash and Investments outside City Treasury			$ **546**	**546**	**–**	**–**	**–**

SFPUC's Cash and Investments outside City Treasury

Investments	Credit Ratings (S&P/Moody's)	June 30, 2017 Maturities		Fair Value	Investments exempt from fair value	Fair Value Measurements Using: Quoted prices in active markets for identical (Level 1)	Significant other observable inputs (Level 2)	Unobservable Inputs (Level 3)
U.S. Agencies	AA+/Aaa	October 13, 2017	$	2,582	–	–	2,582	–
Commercial Paper	A-1+/P-1	October 31, 2017		73,586	73,586	–	–	–
Money Market Funds	A-1+/P-1	< 90 days		23	23	–	–	–
U.S. Treasury Money Market Funds	AAAm/Aaa-mf	< 90 days		62,904	62,904	–	–	–
Cash and Cash Equivalents	N/A			4	4	–	–	–
Total Restricted Cash and Investments outside City Treasury			$	**139,099**	**136,517**	**–**	**2,582**	**–**
Cash and Cash Equivalents	N/A			44	44	–	–	–
Total Cash and Investments outside City Treasury			$	**44**	**44**	**–**	**–**	**–**

Department-wide cash, cash equivalents, and investments are shown on the accompanying statements of net position as follows:

		2018	2017
Current assets:			
Cash and investments with City Treasury	$	797,746	778,747
Cash and investments outside City Treasury		546	44
Restricted cash and investments outside City Treasury		160,798	139,099
Non-current assets:			
Restricted cash and investments with City Treasury		179,485	165,620
Restricted cash and investments outside City Treasury		1,038	–
Total cash, cash equivalents, and investments	$	1,139,613	1,083,510

The following table shows the percentage distribution of the City's pooled investments by maturity:

	Investment maturities (in months)			
Fiscal Years ended June 30	Under 1	1 to less than 6	6 to less than 12	12 to 60
2018	14.3%	22.1%	18.5%	45.1%
2017	20.1%	21.2%	18.0%	40.7%

Water Enterprise

Restricted assets are held by an independent trustee outside the City's investment pool. The assets are held for the purpose of paying future interest and principal on the bonds and for eligible capital project expenditures. The balances as of June 30, 2018 and 2017 were $143,739 and $107,188, respectively. The Water Enterprise held all investments in guaranteed investment contracts, treasury and government obligations, commercial paper, corporate bonds, and notes, as well as money market mutual funds consisting of Treasury and Government Obligations.

Funds held by the trustee established under the 2002 Amended and Restated Indentures agreements are invested in "Permitted Investments," as defined in the agreement, which includes money market funds and investment agreements. The agreement permits investment in money market funds registered under the Federal Investment Company Act of 1940 whose shares are registered under the Federal Securities Act of 1933 and have a rating by S&P of "AAAm-G," "AAAm," or "AAm," and a rating by Moody's of "Aaa," "Aa1," or "Aa2". The credit ratings of the money market

funds invested in as of June 30, 2018 were "Aaa-mf" and "P-1" by Moody's, and "AAAm" and "A-1+" by S&P. The credit ratings of the money market funds invested in as of June 30, 2017 were "Aaa-mf" and "P-1" by Moody's, and "AAAm" and "A-1+" by S&P. Investment agreements must be with a U.S. bank or trust company that have a rating by Moody's and S&P of "A" or higher, or are guaranteed by any entity with a rating of "A" or higher, at the time the agreement is entered.

The following tables present the Water Enterprise's restricted and unrestricted cash and investments outside City Treasury as of June 30, 2018 and 2017:

Water's Cash and Investments outside City Treasury

		June 30, 2018			Fair Value Measurements Using		
Investments	Credit Ratings (S&P/Moody's)	Maturities	Fair Value	Investments exempt from fair value	Quoted prices in active markets for identical (Level 1)	Significant other observable inputs (Level 2)	Unobservable Inputs (Level 3)
U.S. Agencies	AA+/Aaa	March 20, 2020	$ 7,626	–	–	7,626	–
Commercial Paper	A-1/P-1	March 8, 2019	12,160	12,160	–	–	–
Commercial Paper	A-1+/P-1	September 26, 2018	270	270	–	–	–
Commercial Paper	A-1+/P-1	< 90 days	48,633	48,633	–	–	–
U.S. Treasury Money Market Funds	AAAm/Aaa-mf	< 90 days	75,019	75,019	–	–	–
Money Market Funds	A-1+/P-1	< 90 days	31	31	–	–	–
Total Restricted Cash and Investments outside City Treasury			$ **143,739**	**136,113**	**–**	**7,626**	**–**
Cash and Cash Equivalents	N/A		274	274	–	–	–
Total Cash and Investments outside City Treasury			$ **274**	**274**	**–**	**–**	**–**

Water's Cash and Investments outside City Treasury

		June 30, 2017			Fair Value Measurements Using		
Investments	Credit Ratings (S&P/Moody's)	Maturities	Fair Value	Investments exempt from fair value	Quoted prices in active markets for identical (Level 1)	Significant other observable inputs (Level 2)	Unobservable Inputs (Level 3)
Commercial Paper	A-1+/P-1	October 31, 2017	$ 65,567	65,567	–	–	–
U.S. Treasury Money Market Funds	AAAm/Aaa-mf	< 90 days	41,603	41,603	–	–	–
Money Market Funds	A-1+/P-1	< 90 days	18	18	–	–	–
Total Restricted Cash and Investments outside City Treasury			$ **107,188**	**107,188**	**–**	**–**	**–**
Cash and Cash Equivalents	N/A		34	34	–	–	–
Total Cash and Investments outside City Treasury			$ **34**	**34**	**–**	**–**	**–**

The restricted cash and investments outside City Treasury as of June 30, 2018 and 2017 included an unrealized gain due to changes in fair value on commercial paper of $418 and $138, respectively.

Additional cash outside of the investment pool included revolving fund and cash in transit. The revolving fund has a balance of $33 at June 30, 2018 and 2017, which is held in a commercial bank in non-interest bearing checking accounts covered by Federal Deposit Insurance Corporation depository insurance. These accounts were established as provided by the City's Administrative Code for revolving fund needs. The cash in transit was $241 and $1 at June 30, 2018 and 2017, respectively.

The Water Enterprise's cash, cash equivalents, and investments are shown on the accompanying statements of net position as follows:

	2018	2017
Current assets:		
Cash and investments w th City Treasury	$ 358,768	319,162
Cash and investments outside City Treasury	274	34
Restricted cash and investments outside City Treasury	143,739	107,188
Non-current assets:		
Restricted cash and investments w th City Treasury	102,011	100,701
Total cash, cash equivalents, and investments	$ 604,792	527,085

Wastewater Enterprise

The restricted cash for bond reserves is held by an independent trustee outside the City investment pool. The balances as of June 30, 2018 and 2017 were $14,282 and $28,128 , respectively. Funds held by the trustee established under the 2003 Indenture are invested in "Permitted Investments" as defined in the Indenture. "Permitted Investments" include money market funds registered under the Federal Investment Company Act of 1940 and whose shares are registered under the Federal Securities Act of 1933 and having a rating by S&P of "AAAm-G," "AAAm," or "AAm" and a rating by Moody's of "Aaa," "Aa1," or "Aa2."

The following tables present the Wastewater Enterprise's restricted and unrestricted cash and investments outside City Treasury as of June 30, 2018 and 2017:

Wastewater's Cash and Investments outside City Treasury

		June 30, 2018			Fair Value Measurements Using		
Investments	Credit Ratings (S&P/Moody's)	Maturities	Fair Value	Investments exempt from fair value	Quoted prices in active markets for identical (Level 1)	Significant other observable inputs (Level 2)	Unobservable Inputs (Level 3)
U.S. Agencies	AA+/Aaa	March 20, 2020	$ 2,016	–	–	2,016	–
Commercial Paper	A-1+/P-1	< 90 days	8,143	8,143	–	–	–
U.S. Treasury Money Market Funds	AAAm/Aaa-mf	< 90 days	4,102	4,102	–	–	–
Money Market Funds	A-1+/P-1	< 90 days	14	14	–	–	–
Cash and Cash Equivalents	N/A		7	7	–	–	–
Total Restricted Cash and Investments outside City Treasury			$ **14,282**	**12,266**	**–**	**2,016**	**–**
Cash and Cash Equivalents	N/A		262	262	–	–	–
Total Cash and Investments outside City Treasury			$ **262**	**262**	**–**	**–**	**–**

Wastewater's Cash and Investments outside City Treasury

		June 30, 2017			Fair Value Measurements Using		
Investments	Credit Ratings (S&P/Moody's)	Maturities	Fair Value	Investments exempt from fair value	Quoted prices in active markets for identical (Level 1)	Significant other observable inputs (Level 2)	Unobservable Inputs (Level 3)
Commercial Paper	A-1+/P-1	October 31, 2017	$ 8,019	8,019	–	–	–
U.S. Treasury Money Market Funds	AAAm/Aaa-mf	< 90 days	20,100	20,100	–	–	–
Money Market Funds	A-1+/P-1	< 90 days	5	5	–	–	–
Cash and Cash Equivalents	N/A		4	4	–	–	–
Total Restricted Cash and Investments outside City Treasury			$ **28,128**	**28,128**	**–**	**–**	**–**

The restricted cash and investments outside City Treasury as of June 30, 2018 and 2017 included a $70 and $21 unrealized gain due to changes in fair values on Commercial Paper.

The Wastewater Enterprise's cash, cash equivalents, and investments are shown on the accompanying statements of net position as follows:

	2018	2017
Current assets:		
Cash and investments with City Treasury	$ 164,107	195,559
Cash and investments outside City Treasury	262	–
Restricted cash and investments outside C ty Treasury	14,282	28,128
Non-current assets:		
Restricted cash and investments with City Treasury	36,054	24,767
Total cash, cash equivalents, and investments	$ 214,705	248,454

Hetch Hetchy

Restricted assets are held by an independent trustee outside the City's investment pool. The assets are held for the purpose of paying future interest and principal on the bonds and for eligible capital project expenditures. The balances as of June 30, 2018 and 2017 were $3,815 and $3,783, respectively. The Hetch Hetchy held all investments in guaranteed investment contracts, treasury and government obligations, commercial paper, corporate bonds, and notes, as well as money market mutual funds consisting of treasury and government obligations. The balance as of June 30, 2018 included 2015 Series A bonds proceeds of $2,132, certificates of participation proceeds of $1,177, 2015 Series B bonds proceeds of $501, commercial paper of $5, and $10 held at a commercial bank in a non-interest bearing checking account that is covered by depository insurance. The balance as of June 30, 2017 included 2015 Series A bonds proceeds of $2,113, certificates of participation proceeds of $1,171, 2015 Series B bonds proceeds of $497, commercial paper of $2 and $10 held at a commercial bank in a non-interest bearing checking account that is covered by depository insurance.

The restricted cash and investments outside City Treasury as of June 30, 2018 and 2017 included $0 and $2 unrealized gain due to changes in fair values on U.S. Agencies, respectively.

For fiscal year 2018, proceeds from 2015 Series A and B bonds held as restricted cash and investments outside City Treasury in the amount of $2,633 were invested in U.S. Treasury Money Market with a maturity date less than 90 days, and $5 in cash and cash equivalents. The credit ratings of the U.S. Treasury Money Market as of June 30, 2018 were "AAAm" by S&P and "Aaa-mf" by Moody's. For fiscal year 2017, proceeds from 2015 Series A and B bonds held as restricted cash and investments outside City Treasury in the amount of $2,582 were invested in U.S. Agencies with a maturity date of October 13, 2017. The credit ratings of the U.S. Agencies as of June 30, 2017 were "AA+" by S&P and "Aaa" by Moody's.

The following tables present the Hetch Hetchy restricted and unrestricted cash and investments outside City Treasury as of June 30, 2018 and 2017:

Hetchy Water and Hetchy Power's Cash and Investments outside City Treasury

Investments	Credit Ratings (S&P/Moody's)	June 30, 2018 Maturities	Fair	Investments exempt from fair value	Fair Value Measurements Using: Quoted prices in active markets for identical assets (Level 1)	Significant other observable inputs (Level 2)	Unobservable Inputs (Level 3)
Hetchy Water							
Cash and Cash Equivalents	N/A		$ 2	2	–	–	–
Total Cash and Investments outside City Treasury			$ **2**	**2**	**–**	**–**	**–**
Hetchy Power							
U.S. Agencies	AA+/Aaa	March 20, 2020	$ 1,038	–	–	1,038	–
U.S. Treasury Money Market Funds	AAAm/Aaa-mf	< 90 days	2,772	2,772	–	–	–
Cash and Cash Equivalents	N/A		5	5	–	–	–
Total Restricted Cash and Investments outside City Treasury			$ **3,815**	**2,777**	**–**	**1,038**	**–**
Cash and Cash Equivalents	N/A		8	8	–	–	–
Total Cash and Investments outside City Treasury			$ **8**	**8**	**–**	**–**	**–**

Hetchy Water and Hetchy Power's Cash and Investments outside City Treasury

Investments	Credit Ratings (S&P/Moody's)	June 30, 2017 Maturities	Fair	Investments exempt from fair value	Fair Value Measurements Using: Quoted prices in active markets for identical assets (Level 1)	Significant other observable inputs (Level 2)	Unobservable Inputs (Level 3)
Hetchy Water							
Cash and Cash Equivalents	N/A		$ 2	2	–	–	–
Total Cash and Investments outside City Treasury			$ **2**	**2**	**–**	**–**	**–**
Hetchy Power							
U.S. Agencies	AA+/Aaa	October 13, 2017	$ 2,582	–	–	2,582	–
U.S. Treasury Money Market Funds	AAAm/Aaa-mf	< 90 days	1,201	1,201	–	–	–
Total Restricted Cash and Investments outside City Treasury			$ **3,783**	**1,201**	**–**	**2,582**	**–**
Cash and Cash Equivalents	N/A		8	8	–	–	–
Total Cash and Investments outside City Treasury			$ **8**	**8**	**–**	**–**	**–**

Hetch Water and Hetchy Power and CleanPowerSF cash, cash equivalents, and investments as of June 30, 2018 and 2017 are shown on the accompanying statements of net position as follows:

	Hetchy Water	Hetchy Power	CleanPowerSF	Total 2018
Current assets:				
Cash and investments with City Treasury	$ 78,283	184,193	12,395	274,871
Cash and investments outside City Treasury	2	8	–	10
Restricted cash and investments outside City Treasury	–	2,777	–	2,777
Non-current assets:				
Restricted cash and investments with City Treasury	18,137	23,283	–	41,420
Restricted cash and investments outside City Treasury	–	1,038	–	1,038
Total cash, cash equivalents, and investments	$ 96,422	211,299	12,395	320,116

	Hetchy Water	Hetchy Power	CleanPowerSF	Total 2017
Current assets:				
Cash and investments with C ty Treasury	$ 75,345	174,633	14,048	264,026
Cash and investments outside C ty Treasury	2	8	—	10
Restricted cash and investments outside City Treasury	—	3,783	—	3,783
Non-current assets:				
Restricted cash and investments with City Treasury	4,154	35,998	—	40,152
Total cash, cash equivalents, and investments	$ 79,501	214,422	14,048	307,971

(4) Capital Assets

Department-wide Business Type Activities

Capital assets with a useful life of 50 years or greater include buildings and structures, reservoirs, dams, treatment plants, pump stations, certain water mains and pipelines, sewer systems, transmission and distributions systems, tunnels, and bridges.

Department-wide capital assets as of June 30, 2018 and 2017 consist of the following:

	2017	Increases		Decreases		2018
Capital assets not being depreciated and amortized:						
Land and rights-of-way	$ 67,301	6,150	*	(2,504)		70,947
Intangible assets	5,162	—		—		5,162
Construction work in progress	1,841,297	716,452		(361,580)	*	2,196,169
Total capital assets not being depreciated and amortized	1,913,760	722,602		(364,084)		2,272,278
Capital assets being depreciated and amortized:						
Facilities and improvements	8,230,182	338,141		—		8,568,323
Intangible assets	68,799	3,988		—		72,787
Machinery and equipment	506,732	11,891		(1,966)		516,657
Total capital assets being depreciated and amortized	8,805,713	354,020	*	(1,966)		9,157,767
Less accumulated depreciation and amortization for:						
Facilities and improvements	(2,614,991)	(168,257)		—		(2,783,248)
Intangible assets	(39,057)	(1,936)		—		(40,993)
Machinery and equipment	(315,540)	(23,264)		1,861		(336,943)
Total accumulated depreciation and amortization	(2,969,588)	(193,457)		1,861		(3,161,184)
Total capital assets being depreciated and amortized, net	5,836,125	160,563		(105)		5,996,583
Total capital assets, net	$ 7,749,885	883,165		(364,189)		8,268,861

* Decrease in construction work in progress includes $5,697 in capital project write-offs for Water, Wastewater, Hetchy Water, and Hetchy Power.

	2016	Increases	Decreases	2017
Capital assets not being depreciated and amortized:				
Land and rights-of-way	$ 67,213	127	(39)	67,301
Intangible assets	5,162	—	—	5,162
Construction work in progress	1,436,187	579,137	(174,027) *	1,841,297
Total capital assets not being depreciated and amortized	1,508,562	579,264	(174,066)	1,913,760
Capital assets being depreciated and amortized:				
Facilities and improvements	8,072,284	157,898	—	8,230,182
Intangible assets	68,544	255	—	68,799
Machinery and equipment	492,754	16,211	(2,233)	506,732
Total capital assets being depreciated and amortized	8,633,582	174,364	(2,233)	8,805,713
Less accumulated depreciation and amortization for:				
Facilities and improvements	(2,449,920)	(165,071)	—	(2,614,991)
Intangible assets	(37,032)	(2,025)	—	(39,057)
Machinery and equipment	(292,780)	(24,901)	2,141	(315,540)
Total accumulated depreciation and amortization	(2,779,732)	(191,997)	2,141	(2,969,588)
Total capital assets being depreciated and amortized, net	5,853,850	(17,633)	(92)	5,836,125
Total capital assets, net	$ 7,362,412	561,631	(174,158)	7,749,885

* Decrease in construction work in progress includes $5,890 in capital project write-offs for Water, Wastewater, Hetchy Water, and Hetchy Power.

GASB Statement No. 62, *Codification of Accounting and Financial Reporting Guidance Contained in Pre-November 30, 1989 Financial Accounting Standards Board (FASB) and American Institute of Certified Public Accountants (AICPA) Pronouncements*, requires that interest expense incurred during construction of assets be capitalized. Interest included in the construction work in progress and total interest expense incurred during the years ended June 30, 2018 and 2017 are as follows:

	2018			
	Water	Wastewater	Hetchy Power	SFPUC Total
Interest expensed	$ 164,001	24,978	3,103	192,082
Interest included in construction work in progress	59,855	22,415	413	82,683
Total interest incurred	$ 223,856	47,393	3,516	274,765

	2017			
	Water	Wastewater	Hetchy Power	SFPUC Total
Interest expensed	$ 148,075	28,474	3,200	179,749
Interest included in construction work in progress	49,013	18,607	259	67,879
Total interest incurred	$ 197,088	47,081	3,459	247,628

Water Capital Assets – Water's capital assets as of June 30, 2018 and 2017 consist of the following:

	2017	Increases	Decreases	2018
Capital assets not being depreciated and amortized:				
Land	$ 26,777	5,756 *	(2,504)	30,029
Intangible assets	679	—	—	679
Construction work in progress	1,195,840	328,435	(124,224) *	1,400,051
Total capital assets not being depreciated and amortized	1,223,296	334,191	(126,728)	1,430,759
Capital assets being depreciated and amortized:				
Facilities and improvements	4,819,814	109,255	—	4,929,069
Intangible assets	18,469	3,988	—	22,457
Machinery and equipment	280,866	7,814	(643)	288,037
Total capital assets being depreciated and amortized	5,119,149	121,057 *	(643)	5,239,563
Less accumulated depreciation and amortization for:				
Facilities and improvements	(1,085,497)	(104,844)	—	(1,190,341)
Intangible assets	(14,477)	(1,338)	—	(15,815)
Machinery and equipment	(189,007)	(12,569)	643	(200,933)
Total accumulated depreciation and amortization	(1,288,981)	(118,751)	643	(1,407,089)
Total capital assets being depreciated and amortized, net	3,830,168	2,306	—	3,832,474
Total capital assets, net	$ 5,053,464	336,497	(126,728)	5,263,233

* Decrease in construction work in progress includes $910 in capital project write-offs, mainly related to San Francisco Groundwater, San Joaquin Water System Improvement, and Sunol Valley Water System Improvement projects.

	2016	Increases	Decreases	2017
Capital assets not being depreciated and amortized:				
Land	$ 26,811	—	(34)	26,777
Intangible assets	679	—	—	679
Construction work in progress	987,780	272,318	(64,258) *	1,195,840
Total capital assets not being depreciated and amortized	1,015,270	272,318	(64,292)	1,223,296
Capital assets being depreciated and amortized:				
Facilities and improvements	4,759,140	60,674	—	4,819,814
Intangible assets	18,214	255	—	18,469
Machinery and equipment	277,447	4,834	(1,415)	280,866
Total capital assets being depreciated and amortized	5,054,801	65,763	(1,415)	5,119,149
Less accumulated depreciation and amortization for:				
Facilities and improvements	(982,075)	(103,422)	—	(1,085,497)
Intangible assets	(13,050)	(1,427)	—	(14,477)
Machinery and equipment	(176,445)	(13,977)	1,415	(189,007)
Total accumulated depreciation and amortization	(1,171,570)	(118,826)	1,415	(1,288,981)
Total capital assets being depreciated and amortized, net	3,883,231	(53,063)	—	3,830,168
Total capital assets, net	$ 4,898,501	219,255	(64,292)	5,053,464

* Decrease in construction work in progress includes $2,448 in capital project write-offs, mainly related to Auxiliary Water Supply System, Local Water Repairs and Replacement, and Building & Grounds Improvements projects.

During fiscal years ended 2018 and 2017, the Water Enterprise expensed $910 and $2,448, respectively, related to design and planning costs on certain projects. The amounts of the write offs were recognized as other operating expenses in the accompanying statements of revenues, expenses, and changes in net position.

Wastewater Capital Assets – Wastewater's capital assets as of June 30, 2018 and 2017 consist of the following:

	2017	Increases	Decreases	2018
Capital assets not being depreciated and amortized:				
Land and rights-of-way	$ 35,737	—	—	35,737
Intangible assets	3,046	—	—	3,046
Construction work in progress	548,179	334,409	(194,987) *	687,601
Total capital assets not being depreciated and amortized	586,962	334,409	(194,987)	726,384
Capital assets being depreciated and amortized:				
Facilities and improvements	2,806,674	189,974	—	2,996,648
Intangible assets	4,615	—	—	4,615
Machinery and equipment	97,825	725	(327)	98,223
Total capital assets being depreciated and amortized	2,909,114	190,699 *	(327)	3,099,486
Less accumulated depreciation and amortization for:				
Facilities and improvements	(1,181,236)	(50,562)	—	(1,231,798)
Intangible assets	(4,204)	(137)	—	(4,341)
Machinery and equipment	(58,936)	(4,892)	303	(63,525)
Total accumulated depreciation and amortization	(1,244,376)	(55,591)	303	(1,299,664)
Total capital assets being depreciated and amortized, net	1,664,738	135,108	(24)	1,799,822
Total capital assets, net	$ 2,251,700	469,517	(195,011)	2,526,206

* Decrease in construction work in progress is greater than increase in capital assets being depreciated is explained by $4,729 in capital project write-offs, mainly related to the Primary Sludge Handling Improvement Project, Collection System Assessment Project, OSP Condition Assessment Repair Project, and the As-Needed Sewer Joint Sealing Project.

	2016	Increases	Decreases	2017
Capital assets not being depreciated and amortized:				
Land and rights-of-way	$ 35,737	—	—	35,737
Intangible assets	3,046	—	—	3,046
Construction work in progress	362,958	248,653	(63,432) *	548,179
Total capital assets not being depreciated and amortized	401,741	248,653	(63,432)	586,962
Capital assets being depreciated and amortized:				
Facilities and improvements	2,749,916	56,758	—	2,806,674
Intangible assets	4,615	—	—	4,615
Machinery and equipment	92,732	5,592	(499)	97,825
Total capital assets being depreciated and amortized	2,847,263	62,350 *	(499)	2,909,114
Less accumulated depreciation and amortization for:				
Facilities and improvements	(1,131,048)	(50,188)	—	(1,181,236)
Intangible assets	(4,067)	(137)	—	(4,204)
Machinery and equipment	(54,227)	(5,116)	407	(58,936)
Total accumulated depreciation and amortization	(1,189,342)	(55,441)	407	(1,244,376)
Total capital assets being depreciated and amortized, net	1,657,921	6,909	(92)	1,664,738
Total capital assets, net	$ 2,059,662	255,562	(63,524)	2,251,700

* Decrease in construction work in progress is greater than increase in capital assets being depreciated is explained by $1,960 in capital project write-offs, mainly related to the Combined Sewer Discharge Improvements Project, Oceanside Plant Aeration System Upgrade Project, 1260J-Cesar Chavez PH-2 Project, and the Westside Plant Site Reliability Improvements Project.

During fiscal years ended 2018 and 2017, the Wastewater Enterprise expensed $4,729 and $1,960 respectively, related to demolition, maintenance, and planning costs on certain projects. The amounts of the write-offs were recognized as other operating expenses in the accompanying statements of revenues, expenses, and changes in net position.

Hetchy Water Capital Assets – Hetchy Water's capital assets as of June 30, 2018 and 2017 consist of the following:

	2017	Increases	Decreases	2018
Capital assets not being depreciated and amortized:				
Land and rights-of-way	$ 3,055	177	—	3,232
Intangible assets	6	—	—	6
Construction work in progress	26,479	17,041	(15,194) *	28,326
Total capital assets not being depreciated and amortized	29,540	17,218	(15,194)	31,564
Capital assets being depreciated and amortized:				
Facilities and improvements	235,604	14,074	—	249,678
Intangible assets	20,522	—	—	20,522
Machinery and equipment	25,535	1,036	(72)	26,499
Total capital assets being depreciated and amortized	281,661	15,110 *	(72)	296,699
Less accumulated depreciation and amortization for:				
Facilities and improvements	(158,429)	(3,638)	—	(162,067)
Intangible assets	(9,118)	(207)	—	(9,325)
Machinery and equipment	(15,923)	(1,221)	72	(17,072)
Total accumulated depreciation and amortization	(183,470)	(5,066)	72	(188,464)
Total capital assets being depreciated and amortized, net	98,191	10,044	—	108,235
Total capital assets, net	$ 127,731	27,262	(15,194)	139,799

* Decrease in construction work in progress includes $28 in capital project write-offs, mainly related to Hetchy Water's share of Communication Systems Upgrades, Road Improvement Project, and San Joaquin Pipeline Rehabilitation Project.

	2016	Increases	Decreases	2017
Capital assets not being depreciated and amortized:				
Land and rights-of-way	$ 3,003	57	(5)	3,055
Intangible assets	6	—	—	6
Construction work in progress	26,509	18,380	(18,410) *	26,479
Total capital assets not being depreciated and amortized	29,518	18,437	(18,415)	29,540
Capital assets being depreciated and amortized:				
Facilities and improvements	218,618	16,986	—	235,604
Intangible assets	20,522	—	—	20,522
Machinery and equipment	24,318	1,361	(144)	25,535
Total capital assets being depreciated and amortized	263,458	18,347 *	(144)	281,661
Less accumulated depreciation and amortization for:				
Facilities and improvements	(155,343)	(3,086)	—	(158,429)
Intangible assets	(8,910)	(208)	—	(9,118)
Machinery and equipment	(14,856)	(1,211)	144	(15,923)
Total accumulated depreciation and amortization	(179,109)	(4,505)	144	(183,470)
Total capital assets being depreciated and amortized, net	84,349	13,842	—	98,191
Total capital assets, net	$ 113,867	32,279	(18,415)	127,731

* Decrease in construction work in progress is greater than increase in capital assets being depreciated is explained by $499 in capital project write-offs, mainly related to Hetchy Water's share of Mountain Tunnel Inspection Projects, and San Joaquin Pipeline Rehabilitation Project.

During fiscal years ended 2018 and 2017, Hetchy Water expensed $28 and $499, respectively, related to repair and maintenance costs on various Hetch Hetchy projects. During fiscal year 2018, Hetchy Water write-offs of $28 were mainly related to Hetchy Water's share of Communication Systems Upgrades, Road Improvement, and San Joaquin Pipeline Rehabilitation projects. During fiscal year 2017, Hetchy Water write-offs of $499 were mainly related to Hetchy Water's share of Mountain Tunnel Inspection and Repair, and San Joaquin Pipeline Rehabilitation.

Hetchy Power Capital Assets – Hetchy Power's capital assets as of June 30, 2018 and 2017 consist of the following:

	2017	Increases	Decreases		2018
Capital assets not being depreciated and amortized:					
Land and rights-of-way	$ 1,732	217	–		1,949
Intangible assets	1,431	–	–		1,431
Construction work in progress	70,799	36,567	(27,175)	*	80,191
Total capital assets not being depreciated and amortized	73,962	36,784	(27,175)		83,571
Capital assets being depreciated and amortized:					
Facilities and improvements	368,090	24,838	–		392,928
Intangible assets	25,193	–	–		25,193
Machinery and equipment	102,506	2,316	(924)		103,898
Total capital assets being depreciated and amortized	495,789	27,154	* (924)		522,019
Less accumulated depreciation and amortization for:					
Facilities and improvements	(189,829)	(9,213)	–		(199,042)
Intangible assets	(11,258)	(254)	–		(11,512)
Machinery and equipment	(51,674)	(4,582)	843		(55,413)
Total accumulated depreciation and amortization	(252,761)	(14,049)	843		(265,967)
Total capital assets being depreciated and amortized, net	243,028	13,105	(81)		256,052
Total capital assets, net	$ 316,990	49,889	(27,256)		339,623

* Decrease in construction work in progress is greater than increase in capital assets being depreciated is explained by $30 in capital project write-offs, mainly related to Hetchy Power's share of Communication Systems Upgrades, and Road Improvement Project.

	2016	Increases	Decreases		2017
Capital assets not being depreciated and amortized:					
Land and rights-of-way	$ 1,662	70	–		1,732
Intangible assets	1,431	–	–		1,431
Construction work in progress	58,940	39,786	(27,927)	*	70,799
Total capital assets not being depreciated and amortized	62,033	39,856	(27,927)		73,962
Capital assets being depreciated and amortized:					
Facilities and improvements	344,610	23,480	–		368,090
Intangible assets	25,193	–	–		25,193
Machinery and equipment	98,257	4,424	(175)		102,506
Total capital assets being depreciated and amortized	468,060	27,904	* (175)		495,789
Less accumulated depreciation and amortization for:					
Facilities and improvements	(181,454)	(8,375)	–		(189,829)
Intangible assets	(11,005)	(253)	–		(11,258)
Machinery and equipment	(47,252)	(4,597)	175		(51,674)
Total accumulated depreciation and amortization	(239,711)	(13,225)	175		(252,761)
Total capital assets being depreciated and amortized, net	228,349	14,679	–		243,028
Total capital assets, net	$ 290,382	54,535	(27,927)		316,990

* Decrease in construction work in progress is greater than increase in capital assets being depreciated is explained by $983 in capital project write-offs, mainly related to Hetchy Power's share of Mountain Tunnel Inspection Projects, Transmission and Distribution System Project, and Oil Containment Project.

During fiscal years ended 2018 and 2017, Hetchy Power expensed $30 and $983, respectively, related to repair and maintenance costs on various Hetch Hetchy projects. During fiscal year 2018, Hetchy Power write-offs of $30 were mainly related to Hetchy Power's share of Communication Systems Upgrades, and Road Improvement projects. During fiscal year 2017, Hetchy Power write-offs of $983 were mainly related to Hetchy Power's share of Mountain Tunnel Inspection and Repair, Transmission and Distribution System, and Oil Containment projects.

(5) Restricted Assets

Department-wide Business Type Activities

The following table summarizes the department-wide restricted assets as of June 30, 2018 and 2017.

	2018	2017
Cash and investments with City Treasury	$ 179,485	165,620
Cash and investments outside City Treasury	161,836	139,099
Interest and other receivables	5,396	5,517
Total restricted assets	$ 346,717	310,236

Water Restricted Assets

Pursuant to the Indentures, all revenues of the Water Enterprise (except amounts on deposit in the rebate fund) are irrevocably pledged to the punctual payment of debt service on the Water Revenue and Refunding Bonds. Accordingly, the revenues of the Water Enterprise shall not be used for any other purpose while any of its Water Revenue and Refunding Bonds are outstanding, except as expressly permitted by the Indentures. Further, all revenues shall be deposited by the City Treasurer, by instruction of the Water Enterprise, in special funds designated as the Water Enterprise Revenue Fund (the Water Revenue Fund), which must be maintained in the City Treasury. These funds, held at the City Treasury, are recorded in the Statement of Net Position of the Water Enterprise as cash and investments. Deposits in the Water Revenue Fund, including earnings thereon, shall be appropriated, transferred, expended, or used for the following purposes pertaining to the financing, maintenance, and operation of the Water Enterprise in accordance with the following priority:

1. The payment of operation and maintenance expenses for such utility and related facilities;
2. The payment of pension charges and proportionate payments to such compensation and other insurance or outside reserve funds as the Water Enterprise may establish or the Board of Supervisors may require with respect to employees of the Water Enterprise;
3. The payment of principal, interest, reserve, sinking fund, and other mandatory funds created to secure Revenue Bonds issued by the Water Enterprise for the acquisition, construction, or extension of facilities owned, operated, or controlled by the Water Enterprise;
4. The payment of principal and interest on General Obligation Bonds issued by the City for the Water Enterprise's purposes;
5. Reconstruction and replacement as determined by the Water Enterprise or as required by any of the Water Enterprise's Revenue Bond ordinances duly adopted and approved; and
6. The acquisition of land, real property, or interest in real property for, and the acquisition, construction, enlargement, and improvement of, new and existing buildings, structures, facilities, equipment, appliances, and other property necessary or convenient to the development or improvement of such utility owned, controlled, or operated by the Water Enterprise; and for any other lawful purpose of the Water Enterprise, including the transfer of surplus funds pursuant to the Charter.

In accordance with the Indenture, the bond financing program maintains certain restricted cash and investment balances in trust. Restricted assets held in trust consisted of the following as of June 30, 2018 and 2017:

		2018	2017
Cash and investments with City Treasury:			
Water revenue bond construction fund	$	102,011	100,701
Cash and investments outside City Treasury:			
1991A Cap tal Appreciation Bond		2,534	2,516
2010B Water revenue bond fund		22,722	22,497
2010D Water revenue bond fund		3,711	3,687
2010E Water revenue bond fund		20,267	20,021
2010F Water revenue bond fund		1	—
2010G Water revenue bond fund		22,216	21,917
2011A Water revenue bond fund		2	1
2011B Water revenue bond fund		1,004	1,168
2011C Water revenue bond fund		1,164	1,354
2011D Water revenue bond fund		1,922	2,235
2012A Water revenue bond fund		2,960	2,938
2012B Water revenue bond fund		787	782
2012C1 Water revenue refunding bond fund		1,152	1,144
2012C2 Water revenue refunding bond fund		3,314	3,291
2012D Water revenue refunding bond fund		2,422	2,405
2015A Water revenue refunding bond fund		2	—
2016A Water revenue refunding bond fund		3	71
2016B Water revenue refunding bond fund		—	13
2016C Water revenue bond fund		1	316
2017A Water revenue bond fund		12,302	—
2017B Water revenue bond fund		18,687	—
2017C Water revenue bond fund		5,393	—
2017D Water revenue refunding bond fund		40	—
2017E Water revenue refunding bond fund		10	—
2017F Water revenue refunding bond fund		7	—
2017G Water revenue refunding bond fund		6	—
2009C Certificates of participation - 525 Golden Gate		1,745	1,737
2009D Certificates of participation - 525 Golden Gate		6,904	6,871
Commercial Paper - Tax Exempt		8	18
Commercial Paper - Taxable		23	—
Habitat reserve endowment fund		12,430	12,206
Total cash and investments outside City Treasury		143,739	107,188
Interest and other receivables:			
Water bond construction fund including capacity fee receivables		4,491	4,100
Total restricted assets	$	250,241	211,989

Restricted assets listed above as cash and investments with City Treasury are held in subfund accounts within the Water Revenue Fund of the City Treasury.

Wastewater Restricted Assets

The Master Bond Resolution was discharged upon the issuance of the 2003 Series A Refunding Bonds. Pursuant to the Indenture, which became effective with the issuance of the 2003 Series A Refunding Bonds, all net revenues of the Wastewater Enterprise (except amounts on deposit in the rebate fund) are irrevocably pledged to the punctual payment of debt service on the Wastewater revenue bonds. Accordingly, the net revenues of the Wastewater Enterprise shall not be used for any other purpose while any of its revenue bonds are outstanding except as expressly permitted by the Indenture. Further, all net revenues shall be deposited by the City Treasurer, by instruction of the

Wastewater Enterprise, in special funds designated as the Revenue Fund, which must be maintained in the City Treasury. These funds, held at the City Treasury, are recorded in the statements of net position of the Wastewater Enterprise as cash and investments. Deposits in the Revenue Fund, including earnings thereon, shall be appropriated, transferred, expended, or used for the following purposes and only in accordance with the following priority:

1. The payment of operation and maintenance costs of the Wastewater Enterprise;
2. The payment of State revolving fund loans;
3. The payment of bonds, parity State revolving fund loans, policy costs, and amounts due as reimbursement under any letter of credit agreement; and
4. Any other lawful purpose of the Wastewater Enterprise.

In accordance with the Indenture, the Wastewater Enterprise maintains certain restricted cash and investment balances in trust. Restricted assets held in trust consisted of the following as of June 30, 2018 and 2017:

	2018	2017
Cash and investments with City Treasury:		
Wastewater revenue bond construction fund	$ 36,054	24,767
Cash and investments outside C ty Treasury:		
2009 Series C Cert ficates of Participation – 525 Golden Gate	461	459
2009 Series D Certificates of Participation – 525 Golden Gate	1,826	1,817
2010 Series A Wastewater revenue bond fund	3,531	3,542
2010 Series B Wastewater revenue bond fund	6,366	6,595
2013 Series D Wastewater revenue bond fund	1	—
2016 Series A Wastewater revenue bond fund	1,619	12,251
2016 Series B Wastewater revenue bond fund	457	3,455
Commercial Paper - Tax Exempt	21	9
Total cash and investments outside City Treasury	14,282	28,128
Interest and other receivables:		
Wastewater revenue bond construction fund including capacity fee receivables	731	1,149
Total restricted assets	$ 51,067	54,044

Restricted assets listed above as cash and investments with City Treasury are held in subfund accounts within the Sewer Revenue Fund of the City Treasury.

Hetchy Power Restricted Assets

Pursuant to the Hetchy Power Trust Indenture (the “Indenture”), established in fiscal year 2015, net revenues of the Hetchy Power are pledged first to the 2015 Series AB Bonds, and have a priority lien on the pledge of net revenues to the outstanding CREBs, QECBs, and NCREBs (the “Subordinate Obligations”). The Lease/Purchase Agreements for the Subordinate Obligations pledge the net revenues of the Hetchy Power to these bonds, and such pledge is subordinate in lien to the net revenues pledge for the 2015 Series AB Bonds (the “Bonds” or “Bond”).

In the Indenture, the SFPUC covenants and agrees that it will pay into the Revenue Fund as received all Revenues of Hetchy Power and shall be used and applied, as provided by the Indenture, solely for the purposes of operating and maintaining Hetchy Power and paying all costs, charges, and expenses in connection therewith and for the purpose of making repairs, renewals, and replacements to Hetchy Power and constructing additions, betterments, and extensions thereto.

The Indenture provides that Revenues deposited in the Revenue Fund shall be disbursed in the following order of priority:

1. The payment of operation and maintenance expenses;
2. Any priority reconstruction and replacement fund deposits;
3. Deposit in the interest account of each Bond Fund;
4. Deposit in the bond retirement account of each Bond Fund;
5. Deposit in the reserve fund;
6. (i) Payment of principal and premium, if any, and interest on any Subordinate Obligations; (ii) deposit into a reserve fund securing any Subordinate Obligations; (iii) Swap Agreement payments pursuant to Swap Agreements entered into by the SFPUC with respect to any Subordinate Obligations; and (iv) payment to any financial institution or insurance company providing any letter of credit, line of credit, or other credit or liquidity facility, including municipal bond insurance and guarantees, that secures the payment of principal of or interest on any Subordinate Obligations; in each case in any order of priority within this paragraph which may be hereafter established by the SFPUC by resolution;
7. Any additional reconstruction and replacement fund deposits into the reconstruction and replacement fund;
8. Any necessary or desirable capital additions or improvements to the Hetchy Power;
9. Any payment under a Take-or-Pay Power Purchase Agreement that does not constitute an operation and maintenance expense;
10. Any payment under a Swap Agreement that does not constitute a Swap Agreement payment; and
11. Any other lawful purpose of the SFPUC.

In the Indenture, the SFPUC covenants and agrees to transfer to the Trustee for deposit in the Interest Account of each applicable Bond Fund all Refundable Credits received by the SFPUC.

In accordance with the Agreements, Hetchy Water and Hetchy Power maintains certain restricted cash and investment balances in trust. Restricted assets held in trust consist of the following as of June 30, 2018 and 2017:

	2018	2017
Hetchy Water		
Cash and investments with City Treasury:		
Hetch Hetchy bond construction fund	$ 18,137	4,154
Total restricted assets	$ 18,137	4,154
Hetchy Power		
Cash and investments with City Treasury:		
Hetch Hetchy bond construction fund	$ 23,283	35,998
Cash and investments outside City Treasury:		
2009 Series C Certificates of Participation – 525 Golden Gate	237	236
2009 Series D Certificates of Participation – 525 Golden Gate	940	935
2015 Series A Revenue Bonds	2,132	2,113
2015 Series B Revenue Bonds	501	497
Commercial Paper	5	2
Total restricted cash and investments outside City Treasury	3,815	3,783
Interest receivable:		
Hetch Hetchy bond construction fund	174	268
Total restricted assets	$ 27,272	40,049

Restricted assets listed above as cash and investments with City Treasury are held in subfunds accounts within the Hetchy Water and Hetchy Power Revenue Fund.

(6) Short-Term Debt

Department-wide Business Type Activities

The following table summarizes the department-wide short-term debt.

	2017	Additions	Reductions	2018
Water	$ 145,000	—	(104,688)	40,312
Wastewater	111,411	151,448	—	262,859
Hetchy Power	20,058	222	—	20,280
SFPUC Total	$ 276,469	151,670	(104,688)	323,451

Water Short-Term Debt

The Commission and the Board of Supervisors have authorized the issuance of up to $500,000 in commercial paper pursuant to the voter-approved 2002 Proposition E. As of June 30, 2018 and 2017, amounts outstanding under Proposition E were $40,312 and $145,000, respectively. Commercial paper interest rates ranged from 0.8% to 2.2%.

With maturities up to 270 days, the Water Enterprise intends to maintain the program by remarketing the commercial paper upon maturity over the near-to-medium term, at which time outstanding commercial paper will likely be refunded with revenue bonds. This is being done to take advantage of the continued low interest rate environment. If the commercial paper interest rates rise to a level that exceeds these benefits, the Water Enterprise will refinance the commercial paper with the long-term, fixed-rate debt.

Wastewater Short-Term Debt

Under the voter-approved 2002 Proposition E, in fiscal year 2017 the Commission and Board of Supervisors authorized an increase in the commercial paper authorization to $750,000 from $500,000, which authorizes the issuance of up to $750,000 in commercial paper for the purpose of reconstructing, expanding, repairing, or improving the Wastewater Enterprise's facilities. The Wastewater Enterprise had $262,859 and $111,411 in commercial paper outstanding as of June 30, 2018 and 2017, respectively

Hetchy Water Short-Term Debt

Hetchy Water had no commercial paper outstanding as of June 30, 2018 and 2017.

Hetchy Power Short-Term Debt

Effective December 2015, under Charter Sections 9.107(6) and 9.107(8), the Commission and Board of Supervisors authorized the issuance of up to $90,000 in commercial paper notes for the purpose of reconstruction or replacement of existing generation, transmission, and distribution facilities of Hetchy Power. Interest rates for the commercial paper ranged from 0.85% to 1.64% in fiscal year 2018. Hetchy Power had $20,280 and $20,058 commercial paper outstanding as of June 30, 2018 and 2017, respectively.

CleanPowerSF Short-Term Debt

CleanPowerSF had no commercial paper outstanding as of June 30, 2018 and 2017.

(7) Changes in Long-Term Liabilities

Department-wide Long-Term Liability activities for the years ended June 30, 2018 and 2017 are as follows:

	Interest rate	Maturity (Calendar Year)	2017	Additions	Reductions	2018	Due within one year
Revenue Bonds:							
2009A water revenue bonds	4.00% – 5.25%	2019	$ 20,210	—	(3,325)	16,885	7,250
2009B water revenue bonds	4.00 – 5.00	2019	19,930	—	(5,020)	14,910	5,275
2010A water revenue bonds	2.00 – 5.00	2019	3,515	—	(480)	3,035	505
2010A wastewater revenue bonds	4.00 – 5.00	2021	40,115	—	(7,295)	32,820	7,630
2010B water revenue bonds (Build America)	4.00 – 6.00	2040	407,095	—	(10,905)	396,190	11,215
2010B wastewater revenue bonds (Build America)	4.65 – 5.82	2040	192,515	—	—	192,515	—
2010D water revenue refunding bonds	3.00 – 5.00	2021	75,200	—	(11,465)	63,735	15,965
2010E water revenue bonds (Build America)	4.90 – 6.00	2040	344,200	—	—	344,200	—
2010F water revenue bonds	3.00 – 5.50	2021	30,335	—	(3,235)	27,100	3,125
2010G water revenue bonds (Build America)	6.95	2050	351,470	—	—	351,470	—
2011A water revenue bonds	4.25 – 5.00	2041	602,715	—	(280,235)	322,480	—
2011B water revenue bonds	3.50 – 5.00	2041	28,525	—	(10,210)	18,315	445
2011C water revenue bonds	3.00 – 5.00	2041	30,140	—	(10,665)	19,475	—
2011D water revenue refunding bonds	4.00 – 5.00	2028	47,165	—	(28,030)	19,135	—
2012A water revenue bonds	4.00 – 5.00	2043	591,610	—	(132,155)	459,455	—
2012B water revenue bonds	4.00 – 5.00	2043	16,520	—	—	16,520	—
2012C1 water revenue refunding bonds	4.00	2031	24,180	—	(15,715)	8,465	—
2012C2 water revenue refunding bonds	4.00 – 5.00	2032	69,570	—	—	69,570	—
2012D water revenue refunding bonds	1.75 – 5.00	2019	24,040	—	—	24,040	11,825
2013A wastewater revenue bonds	1.00 – 5.00	2025	84,650	—	(12,720)	71,930	13,380
2013B wastewater revenue bonds	4.00 – 5.00	2042	331,585	—	—	331,585	—
2015A water revenue refunding bonds	2.00 – 5.00	2036	429,600	—	—	429,600	3,220
2015A Hetchy Power Revenue Bonds	4.00 – 5.00	2045	32,025	—	—	32,025	—
2015B Hetchy Power Revenue Bonds	3.00 – 4.00	2026	7,530	—	(710)	6,820	730
2016A water revenue refunding bonds	4.00 – 5.00	2039	763,005	—	—	763,005	—
2016B water revenue refunding bonds	1.50 – 5.00	2030	119,425	—	(8,545)	110,880	5,980
2016C water revenue bonds	0.87 – 4.19	2046	259,350	—	(5,465)	253,885	5,525
2016A wastewater revenue bonds	4.00 – 5.00	2046	240,580	—	—	240,580	—
2016B wastewater revenue bonds	4.00 – 5.00	2046	67,820	—	—	67,820	—
2017A water revenue bonds	5.00	2047	—	121,140	—	121,140	—
2017B water revenue bonds	5.00	2047	—	147,725	—	147,725	—
2017C water revenue bonds	5.00	2047	—	70,675	—	70,675	—
2017D water revenue refunding bonds	2.00 – 5.00	2035	—	350,305	—	350,305	835
2017E water revenue refunding bonds	4.00 – 5.00	2031	—	48,890	—	48,890	—
2017F water revenue refunding bonds	5.00	2031	—	8,705	—	8,705	—
2017G water revenue refunding bonds	2.03 – 2.91	2024	—	34,280	—	34,280	500
Clean Renewable Energy Bonds	0.00	2022	2,527	—	(418)	2,109	422
Qualified Energy Conservation Bonds	4.74	2027	5,817	—	(523)	5,294	529
New Clean Renewable Energy Bonds 2012	4.74	2020	1,839	—	(556)	1,283	570
New Clean Renewable Energy Bonds 2015	4.62	2032	3,877	—	(226)	3,651	229
Less issuance discount			(255)	—	27	(228)	—
Add issuance premiums			389,367	146,975	(55,188)	481,154	—
Total revenue bonds payable			5,657,792	928,695	(603,059)	5,983,428	95,155
1991 Capital appreciation bonds	0.00	2019	6,278	447	—	6,725	5,000
2009C Certificates of Participation (COPs)	2.00 – 5.00	2022	23,240	—	(3,405)	19,835	3,580
2009C COPs issuance premiums			883	—	(260)	623	—
2009D COPs (Build America)	6.36 – 6.49	2041	129,550	—	—	129,550	—
State Revolving Fund Loans (CWSRF Loans)	1.60 – 1.80	2050	—	22,607	—	22,607	296
Other post-employment benefits obligations			201,222	71,292	(10,661)	261,853	—
Net Pension Liability			448,275	57,649	(138,826)	367,098	—
Accrued vacation and sick leave			20,583	20,501	(20,032)	21,052	12,276
Accrued workers' compensation			17,638	6,712	(4,660)	19,690	3,576
Damage claims liability			27,325	11,062	(8,453)	29,934	11,869
Wholesale balancing account			43,471	12,395	—	55,866	415
Pollution remediation obligations			5,179	2,603	(768)	7,014	—
Total			$ 6,581,436	1,133,963	(790,124)	6,925,275	132,167

	Interest rate	Maturity (Calendar Year)	2016	Additions	Reductions	2017	Due within one year
Revenue Bonds:							
2006B water revenue refunding bonds	4.00% – 5.00%	2016	$ 78,635	–	(78,635)	–	–
2006C water revenue refunding bonds	4.00 – 5.00	2016	24,630	–	(24,630)	–	–
2009A water revenue bonds	4.00 – 5.30	2019	324,780	–	(304,570)	20,210	3,325
2009B water revenue bonds	4.00 – 5.00	2019	364,655	–	(344,725)	19,930	5,020
2010A water revenue bonds	2.00 – 5.00	2019	41,965	–	(38,450)	3,515	480
2010A wastewater revenue bonds	4.00 – 5.00	2021	47,050	–	(6,935)	40,115	7,295
2010B water revenue bonds (Build America)	4.00 – 6.00	2040	417,720	–	(10,625)	407,095	10,905
2010B wastewater revenue bonds (Build America)	4.65 – 5.82	2040	192,515	–	–	192,515	–
2010D water revenue refunding bonds	3.00 – 5.00	2021	86,105	–	(10,905)	75,200	11,465
2010E water revenue bonds (Build America)	4.90 – 6.00	2040	344,200	–	–	344,200	–
2010F water revenue bonds	3.00 – 5.50	2021	177,665	–	(147,330)	30,335	3,235
2010G water revenue bonds (Build America)	6.95	2050	351,470	–	–	351,470	–
2011A water revenue bonds	4.30 – 5.00	2041	602,715	–	–	602,715	–
2011B water revenue bonds	3.50 – 5.00	2041	28,525	–	–	28,525	435
2011C water revenue bonds	3.00 – 5.00	2041	30,140	–	–	30,140	–
2011D water revenue refunding bonds	4.00 – 5.00	2028	47,165	–	–	47,165	–
2012A water revenue bonds	4.00 – 5.00	2043	591,610	–	–	591,610	–
2012B water revenue bonds	4.00 – 5.00	2043	16,520	–	–	16,520	–
2012C1 water revenue refunding bonds	4.00 – 5.00	2031	24,180	–	–	24,180	–
2012C2 water revenue refunding bonds	4.00 – 5.00	2032	69,570	–	–	69,570	–
2012D water revenue refunding bonds	1.80 – 5.00	2019	24,040	–	–	24,040	–
2013A wastewater revenue bonds	1.00 – 5.00	2025	98,585	–	(13,935)	84,650	12,720
2013B wastewater revenue bonds	4.00 – 5.00	2042	331,585	–	–	331,585	–
2015A water revenue refunding bonds	2.00 – 5.00	2036	429,600	–	–	429,600	–
2015A Hetchy Power Revenue Bonds	4.00 – 5.00	2045	32,025	–	–	32,025	–
2015B Hetchy Power Revenue Bonds	3.00 – 4.00	2026	7,530	–	–	7,530	710
2016A water revenue refunding bonds	4.00 – 5.00	2039	–	763,005	–	763,005	–
2016B water revenue refunding bonds	1.50 – 5.00	2030	–	130,815	(11,390)	119,425	8,545
2016C water revenue bonds	0.87 – 3.95	2046	–	259,350	–	259,350	5,465
2016A wastewater revenue bonds	4.00 – 5.00	2046	240,580	–	–	240,580	–
2016B wastewater revenue bonds	4.00 – 5.00	2046	67,820	–	–	67,820	–
Clean Renewable Energy Bonds	0.00	2022	2,949	–	(422)	2,527	422
Qualified Energy Conservation Bonds	4.74	2027	6,334	–	(517)	5,817	523
New Clean Renewable Energy Bonds 2012	4.74	2020	2,661	–	(822)	1,839	556
New Clean Renewable Energy Bonds 2015	4.62	2032	4,100	–	(223)	3,877	226
Less issuance discount			(88)	(191)	24	(255)	–
Add issuance premiums			279,911	164,833	(55,377)	389,367	–
Total revenue bonds payable			5,389,447	1,317,812	(1,049,467)	5,657,792	71,327
1991 Capital appreciation bonds	0.00	2019	5,860	418	–	6,278	–
2009C Certificates of Participation (COPs)	2.00 – 5.00	2022	26,480	–	(3,240)	23,240	3,405
2009C COPs issuance premiums			1,177	–	(294)	883	–
2009D COPs (Build America)	6.36 – 6.49	2041	129,550	–	–	129,550	–
Other post-employment benefits obligations			182,768	31,331	(12,877)	201,222	–
Net Pension Liability			183,075	312,821	(47,621)	448,275	–
Accrued vacation and sick leave			20,808	15,226	(15,451)	20,583	11,749
Accrued workers' compensation			17,436	4,949	(4,747)	17,638	3,191
Damage claims liability			35,394	12,596	(20,665)	27,325	9,397
Wholesale balancing account			21,539	21,932	–	43,471	8,214
Pollution remediation obligations			5,587	90	(498)	5,179	–
Total			$ 6,019,121	1,717,175	(1,154,860)	6,581,436	107,283

Water Long-Term Liability activities for the years ended June 30, 2018 and 2017 are as follows:

	Interest rate	Maturity (Calendar Year)	2017	Additions	Reductions	2018	Due within one year
Revenue Bonds:							
2009A revenue bonds	4.00% – 5.25%	2019	$ 20,210	–	(3,325)	16,885	7,250
2009B revenue bonds	4.00 – 5.00	2019	19,930	–	(5,020)	14,910	5,275
2010A revenue bonds	2.00 – 5.00	2019	3,515	–	(480)	3,035	505
2010B revenue bonds (Build America)	4.00 – 6.00	2040	407,095	–	(10,905)	396,190	11,215
2010D revenue refunding bonds	3.00 – 5.00	2021	75,200	–	(11,465)	63,735	15,965
2010E revenue bonds (Build America)	4.90 – 6.00	2040	344,200	–	–	344,200	–
2010F revenue bonds	3.00 – 5.50	2021	30,335	–	(3,235)	27,100	3,125
2010G revenue bonds (Build America)	6.95	2050	351,470	–	–	351,470	–
2011A revenue bonds	4.25 – 5.00	2041	602,715	–	(280,235)	322,480	–
2011B revenue bonds	3.50 – 5.00	2041	28,525	–	(10,210)	18,315	445
2011C revenue bonds	3.00 – 5.00	2041	30,140	–	(10,665)	19,475	–
2011D revenue refunding bonds	4.00 – 5.00	2028	47,165	–	(28,030)	19,135	–
2012A revenue bonds	4.00 – 5.00	2043	591,610	–	(132,155)	459,455	–
2012B revenue bonds	4.00 – 5.00	2043	16,520	–	–	16,520	–
2012C1 revenue refunding bonds	4.00	2031	24,180	–	(15,715)	8,465	–
2012C2 revenue refunding bonds	4.00 – 5.00	2032	69,570	–	–	69,570	–
2012D revenue refunding bonds	1.75 – 5.00	2019	24,040	–	–	24,040	11,825
2015A revenue refunding bonds	2.00 – 5.00	2036	429,600	–	–	429,600	3,220
2016A revenue refunding bonds	4.00 – 5.00	2039	763,005	–	–	763,005	–
2016B revenue refunding bonds	1.50 – 5.00	2030	119,425	–	(8,545)	110,880	5,980
2016C revenue bonds	0.87 – 4.19	2046	259,350	–	(5,465)	253,885	5,525
2017A revenue bonds	5.00	2047	–	121,140	–	121,140	–
2017B revenue bonds	5.00	2047	–	147,725	–	147,725	–
2017C revenue bonds	5.00	2047	–	70,675	–	70,675	–
2017D revenue refunding bonds	2.00 – 5.00	2035	–	350,305	–	350,305	835
2017E revenue refunding bonds	4.00 – 5.00	2031	–	48,890	–	48,890	–
2017F revenue refunding bonds	5.00	2031	–	8,705	–	8,705	–
2017G revenue refunding bonds	2.03 – 2.91	2024	–	34,280	–	34,280	500
Less issuance discount			(181)	–	15	(166)	–
Add issuance premiums			297,348	146,975	(49,186)	395,137	–
Total revenue bonds payable			4,554,967	928,695	(574,621)	4,909,041	71,665
1991 Capital appreciation bonds	0.00	2019	6,278	447	–	6,725	5,000
2009C Certificates of Participation (COPs)	2.00 – 5.00	2022	16,593	–	(2,431)	14,162	2,556
2009C COPs issuance premiums			630	–	(185)	445	–
2009D COPs (Build America)	6.36 – 6.49	2041	92,499	–	–	92,499	–
Other post-employment benefits obligations			121,330	51,778	(6,772)	166,336	–
Net pension liability			259,956	29,430	(80,383)	209,003	–
Accrued vacation and sick leave			11,011	10,202	(10,527)	10,686	6,125
Accrued workers' compensation			9,089	4,382	(2,514)	10,957	2,024
Damage claims liability			10,738	4,151	(1,487)	13,402	4,656
Wholesale balancing account			43,471	12,395	–	55,866	415
Pollution remediation obligations			2,468	–	(157)	2,311	–
Total			$ 5,129,030	1,041,480	(679,077)	5,491,433	92,441

	Interest rate	Maturity (Calendar Year)	2016	Additions	Reductions	2017	Due within one year
Revenue Bonds:							
2006B revenue refunding bonds	4.00% – 5.00%	2016	$ 78,635	–	(78,635)	–	–
2006C revenue refunding bonds	4.00 – 5.00	2016	24,630	–	(24,630)	–	–
2009A revenue bonds	4.00 – 5.30	2019	324,780	–	(304,570)	20,210	3,325
2009B revenue bonds	4.00 – 5.00	2019	364,655	–	(344,725)	19,930	5,020
2010A revenue bonds	2.00 – 5.00	2019	41,965	–	(38,450)	3,515	480
2010B revenue bonds (Build America)	4.00 – 6.00	2040	417,720	–	(10,625)	407,095	10,905
2010D revenue refunding bonds	3.00 – 5.00	2021	86,105	–	(10,905)	75,200	11,465
2010E revenue bonds (Build America)	4.90 – 6.00	2040	344,200	–	–	344,200	–
2010F revenue bonds	3.00 – 5.50	2021	177,665	–	(147,330)	30,335	3,235
2010G revenue bonds (Build America)	6.95	2050	351,470	–	–	351,470	–
2011A revenue bonds	4.30 – 5.00	2041	602,715	–	–	602,715	–
2011B revenue bonds	3.50 – 5.00	2041	28,525	–	–	28,525	435
2011C revenue bonds	3.00 – 5.00	2041	30,140	–	–	30,140	–
2011D revenue refunding bonds	4.00 – 5.00	2028	47,165	–	–	47,165	–
2012A revenue bonds	4.00 – 5.00	2043	591,610	–	–	591,610	–
2012B revenue bonds	4.00 – 5.00	2043	16,520	–	–	16,520	–
2012C1 revenue refunding bonds	4.00 – 5.00	2031	24,180	–	–	24,180	–
2012C2 revenue refunding bonds	4.00 – 5.00	2032	69,570	–	–	69,570	–
2012D revenue refunding bonds	1.80 – 5.00	2019	24,040	–	–	24,040	–
2015A revenue refunding bonds	2.00 – 5.00	2036	429,600	–	–	429,600	–
2016A revenue refunding bonds	4.00 – 5.00	2039	–	763,005	–	763,005	–
2016B revenue refunding bonds	1.50 – 5.00	2030	–	130,815	(11,390)	119,425	8,545
2016C revenue bonds	0.87 – 3.95	2046	–	259,350	–	259,350	5,465
Less issuance discount			–	(191)	10	(181)	–
Add issuance premiums			181,564	164,833	(49,049)	297,348	–
Total revenue bonds payable			4,257,454	1,317,812	(1,020,299)	4,554,967	48,875
1991 Capital appreciation bonds	0.00	2019	5,860	418	–	6,278	–
2009C Certificates of Participation (COPs)	2.00 – 5.00	2022	18,906	–	(2,313)	16,593	2,431
2009C COPs issuance premiums			841	–	(211)	630	–
2009D COPs (Build America)	6.36 – 6.49	2041	92,499	–	–	92,499	–
Other post-employment benefits obligations			111,546	17,849	(8,065)	121,330	–
Net pension liability			108,024	181,175	(29,243)	259,956	–
Accrued vacation and sick leave			10,456	10,314	(9,759)	11,011	6,166
Accrued workers' compensation			8,814	2,976	(2,701)	9,089	1,612
Damage claims liability			16,900	9,085	(15,247)	10,738	3,616
Wholesale balancing account			21,539	21,932	–	43,471	8,214
Pollution remediation obligations			2,966	–	(498)	2,468	–
Total			$ 4,655,805	1,561,561	(1,088,336)	5,129,030	70,914

The payments of principal and interest amounts on various bonds are secured by net revenues of the Water Enterprise.

a) Capital Appreciation Bonds

The capital appreciation bonds mature from November 1, 2018 and November 1, 2019. The bonds were insured by Municipal Bond Insurance Association (MBIA) and carried "Aaa" and "AAA" ratings from Moody's and S&P, respectively. In February 2009, the bonds were further reinsured by National Public Finance Guarantees Corp. (NPFGC) and carried "Baa1" and "A" ratings from Moody's and S&P, respectively. On May 29, 2013, the SFPUC transferred $2,500 to U.S. Bank, trustee of the 1991 Series A San Francisco Water Revenue Bonds (the Bonds), for the purpose of replacing the debt service reserve surety policy that had been satisfying the reserve requirement of the bonds. The surety policy had been provided by NPFGC. With this transfer, the surety policy is effectively terminated. The amount deposited with the U.S. Bank will continue to satisfy the

reserve requirement on the bonds. Interest on the capital appreciation bonds is due upon maturity and is recognized as annual interest expense over the life of the bonds using the interest method. The Water Enterprise has recognized $6,725 and $6,278 of unpaid principal and interest on the capital appreciation bonds as of June 30, 2018 and 2017, respectively, and has reported it as capital appreciation bonds in the accompanying statements of net position.

b) Water Revenue Refunding Bonds 2006 Series B

During fiscal year 2006, the Water Enterprise issued revenue refunding bonds, 2006 Series B in the amount of $110,065. The purpose of the bonds is to refund a portion of the 1996 Series A bonds and the 2001 Series A bonds. The bonds were insured by Syncora (formerly, XL Capital) and carried "Aaa" and "AAA" ratings from Moody's and S&P, respectively. As of June 30, 2017, Syncora was rated "Ca" and "NR" by Moody's and S&P, respectively. The 2006 Series B refunding bonds mature serially through 2026 with interest rates ranging from 4.0% to 5.0%. As of June 30, 2018 and 2017, the principal amount of 2006 Series B bonds outstanding was $0.

A portion of the proceeds of the 2016 Series B refunding bonds was deposited with the trustee to refund, on a current basis, and redeem all of the outstanding 2006 Series B bonds.

c) Water Revenue Refunding Bonds 2006 Series C

During fiscal year 2007, the Water Enterprise issued revenue refunding bonds, 2006 Series C in the amount of $48,730 for the purpose of refunding the remaining portion of the outstanding 1996 Series A bonds maturing on and after November 1, 2007 (the Refunded 1996 Series A bonds). The bonds were insured by Syncora (formerly XL Capital) and carried "Aaa" and "AAA" ratings from Moody's and S&P, respectively. As of June 30, 2016, Syncora was rated "Ca" and "NR" by Moody's and S&P, respectively. The 2006 Series C refunding bonds mature serially through fiscal year 2027 with interest rates ranging from 4.0% to 5.0%. As of June 30, 2018 and 2017, the principal amount of 2006 Series C bonds outstanding was $0.

A portion of the proceeds of the 2016 Series B refunding bonds was deposited with the trustee to refund, on a current basis, and redeem all of the outstanding 2006 Series C bonds.

d) Water Revenue Bonds 2009 Series A

On April 16, 2015, the Water Enterprise issued $429,600 of the 2015 Series A revenue bonds for the purpose of refunding $431,860 of the then outstanding 2006 Series A revenue bonds and $39,030 of the 2009 Series A revenue bonds. The 2015 bonds bear coupon rates of 2.0% and 5.0% and mature serially from 2018 to 2036. The refunded 2009 Series A bonds carried coupon rates of 5.0% and matured serially between 2023 and 2026. Although the refunding resulted in the recognition of a deferred accounting loss of $6,168, the economic gain was $2,559 or 6.6% of the refunded principal. The remaining 2009 Series A bonds not refunded included serial and term bonds with interest rates ranging from 4.0% to 5.3%. The Bonds mature through November 1, 2039.

A portion of the proceeds of the 2015 Series A revenue refunding bonds was deposited with the trustee, acting as escrow agent under the irrevocable Escrow Agreement, dated April 1, 2015, to refund and legally defease a portion of the outstanding 2009 Series A bonds. This deposit, together with certain other available monies was held by the escrow agent under the Escrow Agreement and invested in non-callable Federal Securities consisting of United States Treasury Securities - SLGS. The principal and interest on monies held by the escrow agent will be sufficient

to refund and legally defease the 2009 Series A bonds maturing on November 1, 2023 to and including November 1, 2026.

A portion of the proceeds of the 2016 Series A refunding bonds was deposited with the trustee, acting as escrow agent under the irrevocable Escrow Agreement, dated October 1, 2016, to refund and legally defease a portion of the outstanding 2009 Series A bonds. This deposit, together with certain other available monies was held by the escrow agent under the Escrow Agreement and invested in non-callable Federal Securities. The principal and interest on monies held by the escrow agent will be sufficient to refund and legally defease bonds maturing November 1, 2020 through and including November 1, 2022 and November 1, 2026 to and including November 1, 2039. As of June 30, 2018 and 2017, the principal amount of 2009 Series A bonds outstanding was $16,885 and $20,210, respectively.

e) Water Revenue Bonds 2009 Series B

During fiscal year 2010, the Water Enterprise issued revenue bonds, 2009 Series B in the amount of $412,000. The purpose of the bonds is to provide $377,778 in new money for WSIP capital projects, with the balance applied to financing costs and a cash-funded debt service reserve. The bonds were rated “AA-” and “A1” from S&P and Moody’s, respectively. The bonds include serial and term bonds with interest rates varying from 4.0% to 5.0%. The bonds mature through November 1, 2039. The 2009 Series B bonds have a true interest cost of 4.5%.

On February 27, 2013, the Wholesale Water Customers BAWSCA made an early repayment of $356,139 to the Water Enterprise. Prepayment proceeds in the amount of $24,014 were deposited with the trustee, acting as escrow agent under the irrevocable Escrow Agreement, dated February 27, 2013, to refund and legally defease a portion of the outstanding 2009 Series B bonds. This deposit, together with certain other available monies, was held by the escrow agent under the Escrow Agreement and invested in non-callable Federal Securities consisting of United States Treasury Securities - SLGS. The principal and interest on monies held by the escrow agent will be sufficient to partially defease a portion of the 2009 Series B bonds maturing November 1, 2013 through 2018.

A portion of the proceeds of the 2016 Series A refunding bonds was deposited with the trustee, acting as escrow agent under the irrevocable Escrow Agreement, dated October 1, 2016, to refund and legally defease a portion of the outstanding 2009 Series B bonds. This deposit, together with certain other available monies was held by the escrow agent under the Escrow Agreement and invested in non-callable Federal Securities. The principal and interest on monies held by the escrow agent will be sufficient to refund and legally defease all of the maturities of the 2009 Series B bonds starting on November 1, 2020 and thereafter. As of June 30, 2018 and 2017, the principal amount of 2009 Series B bonds outstanding was $14,910 and $19,930, respectively.

f) Water Revenue Bonds 2010 Series ABC

In fiscal year 2010, the Water Enterprise issued revenue bonds, 2010 Series ABC in the combined principal amount of $488,705. The purpose of the bonds is to refund $14,400 of outstanding 2001 Series A revenue bonds, to provide $58,748 in proceeds for the Advanced Meter Infrastructure System (AMI) Project and to provide $364,757 in new money for WSIP capital projects, with the balance applied to financing costs and a cash-funded debt service

reserve fund. The bonds were rated "AA-" and "Aa2" from S&P and Moody's, respectively. The bonds included serial and term bonds with interest rates ranging from 2.0% to 6.0%.

The 2010 Series A Bonds in the par amount of $56,945 were issued as tax-exempt bonds to provide funds for the SFPUC's AMI Project and pay financing costs. The 2010 Series A bonds were issued as serial bonds with coupons ranging from 2.0% to 5.0% and have a final maturity of 2030. The Series A bonds have a true interest cost of 3.8%.

On February 27, 2013, the Wholesale Water Customers BAWSCA made an early repayment of $356,139 to the Water Enterprise. Prepayment proceeds in the amount of $11,681 were deposited with the trustee, acting as escrow agent under the irrevocable Escrow Agreement, dated February 27, 2013, to refund and legally defease a portion of the outstanding 2010 Series A bonds. This deposit, together with certain other available monies, was held by the escrow agent under the Escrow Agreement and invested in non-callable Federal Securities consisting of United States Treasury Securities - SLGS. The principal and interest on monies held by the escrow agent will be sufficient to partially defease a portion of the 2010 Series A bonds maturing November 1, 2013 through 2018.

A portion of the proceeds of the 2016 Series B refunding bonds was deposited with the trustee, acting as escrow agent under the irrevocable Escrow Agreement, dated October 1, 2016, to refund and legally defease a portion of the outstanding 2010 Series A bonds. This deposit, together with certain other available monies was held by the escrow agent under the Escrow Agreement and invested in non-callable Federal Securities. The principal and interest on monies held by the escrow agent will be sufficient to redeem all of the maturities of the 2010 Series A bonds starting on November 1, 2020 and thereafter. As of June 30, 2018 and 2017, the principal amount of 2010 Series A bonds outstanding was $3,035 and $3,515, respectively.

The 2010 Series B Bonds in the par amount of $417,720 were issued as taxable Build America Bonds (with Direct Pay Subsidy) to provide $364,757 in new money for WSIP capital projects and pay financing costs. The 2010 Series B bonds were issued as serial and term bonds with coupons ranging from 4.0% to 6.0% and have a final maturity of 2040. The Series B bonds have a true interest cost (net of federal subsidy) of 3.9%. As of June 30, 2018 and 2017, the principal amount outstanding was $396,190 and $407,095, respectively.

g) Water Revenue Bonds 2010 Series DE

In July 2010, the Water Enterprise issued revenue bonds 2010 Series DE in the combined principal amount of $446,925. The purpose of the bonds is to advance refund $31,570 of outstanding 2002 Series A revenue bonds and to provide $372,689 in new money for WSIP capital projects, with the balance applied to financing costs and a cash-funded debt service reserve fund. The bonds were rated "AA-" and "Aa2" from S&P and Moody's, respectively. The bonds included serial and term bonds with interest rates ranging from 3.0% to 6.0%.

The 2010 Series D Bonds in the par amount of $102,725 were issued as tax-exempt bonds to provide $72,243 in new money for WSIP capital projects and $35,080 to advance refund a portion of outstanding 2002 Series A revenue bonds. The Series D bonds were issued as serial bonds with coupons ranging from 3.0% to 5.0% and have a final maturity of 2021. The Series D bonds have a true interest cost of 2.5%.

On February 27, 2013, the Wholesale Water Customers BAWSCA made an early repayment of $356,139 to the Water Enterprise. $12,360 of the repayment proceeds were deposited with the trustee, acting as escrow agent under the irrevocable Escrow Agreement, dated February 27, 2013, to refund and legally defease a portion of the outstanding 2010 Series D bonds. BAWSCA repayment funds were combined with $165 from the 2010 Series D Capitalized Interest Account. This deposit, together with certain other available monies, was held by the escrow agent under the Escrow Agreement and invested in non-callable Federal Securities consisting of United States Treasury Securities - SLGS. The principal and interest on monies held by the escrow agent will be sufficient to partially defease a portion of the 2010 Series D bonds maturing November 1, 2015 through 2017. As of June 30, 2018 and 2017, the principal amount of 2010 Series D bonds outstanding was $63,735 and $75,200 respectively.

The 2010 Series E Bonds in the par amount of $344,200 were issued as taxable Build America Bonds (with Direct Pay Subsidy) to provide $300,446 in new money proceeds for WSIP capital projects. The Series E bonds were issued as serial and term bonds with coupons ranging from 4.9% to 6.0% and have a final maturity of 2040. The Series E bonds have a true interest cost (net of federal subsidy) of 3.8%. As of June 30, 2018 and 2017, the principal amount of 2010 Series E bonds outstanding was $344,200.

h) Water Revenue Bonds 2010 Series FG

In December 2010, the Water Enterprise issued revenue bonds 2010 Series FG in the combined principal amount of $532,430. The purpose of the bonds is to provide $437,980 in new money for WSIP capital projects, with the balance applied to financing costs and a cash-funded debt service reserve. The bonds were rated “AA-” and “Aa2” from S&P and Moody’s, respectively. The bonds included serial and term bonds with interest rates ranging from 3.0% to 7.0%.

The $180,960 Series F bonds were issued as tax-exempt bonds to provide $149,728 in new money for WSIP capital projects. The Series F bonds were issued as serial and term bonds with coupons ranging from 3.0% to 5.5% and have a final maturity of 2030. The Series F bonds have a true interest cost of 4.8%.

On February 27, 2013, the Wholesale Water Customers BAWSCA made an early repayment of $356,139 to the Water Enterprise. $3,646 of the repayment proceeds were deposited with the trustee, acting as escrow agent under the irrevocable Escrow Agreement, dated February 27, 2013, to refund and legally defease a portion of the outstanding 2010 Series F bonds. BAWSCA repayment funds were combined with $131 from the 2010 Series F Capitalized Interest Account. This deposit, together with certain other available monies, was held by the escrow agent under the Escrow Agreement and invested in non-callable Federal Securities consisting of United States Treasury Securities - SLGS. The principal and interest on monies held by the escrow agent will be sufficient to partially defease a portion of the 2010 Series F bonds maturing November 1, 2017 and 2018.

A portion of the proceeds of the 2016 Series A refunding bonds was deposited with the trustee, acting as escrow agent under the irrevocable Escrow Agreement, dated October 1, 2016, to refund and legally defease a portion of the outstanding 2010 Series F bonds. This deposit, together with certain other available monies was held by the escrow agent under the Escrow Agreement and invested in non-callable Federal Securities. The principal and interest on monies held by the escrow agent will be sufficient to refund and legally defease all of the maturities of the

2010 Series F bonds starting on November 1, 2021 and thereafter. As of June 30, 2018 and 2017, the principal amount of 2010 Series F bonds outstanding was $27,100 and $30,335 respectively.

The $351,470 Series G bonds were issued as taxable Build America Bonds (with Direct Pay Subsidy) to provide $288,252 in new money for WSIP capital projects. The Series G bonds were issued as term bonds with a coupon of 7.0% and have a final maturity of 2050. The Series G bonds have a true interest cost (net of federal subsidy) of 4.5%. As of June 30, 2018 and 2017, the principal amount of 2010 Series G bonds outstanding was $351,470.

i) Water Revenue Bonds 2011 Series ABCD

In August 2011, the Water Enterprise issued revenue bonds, 2011 Series ABCD in the combined principal amount of $720,750. The purpose of the bonds is to provide new money for WSIP capital projects, to finance Hetch Hetchy Water Improvements, and to finance the Local Water Main Replacement Projects, as well as refund $56,670 of outstanding 2001 Series A and 2002 Series A revenue bonds, with the balance applied to financing costs and a cash-funded debt service reserve. The bonds were rated “AA-” and “Aa3” from S&P and Moody’s, respectively. The bonds included serial and term bonds with interest rates varying from 3.0% to 5.0%.

The $602,715 Series A bonds were issued as tax-exempt bonds to provide $525,000 in new money for WSIP capital projects. The Series A bonds were issued as serial and term bonds with coupons ranging from 4.3% to 5.0% and have a final maturity of 2041. The Series A bonds have a true interest cost of 4.6%.

A portion of the proceeds of the 2017 Series D and 2017 Series G refunding bonds was deposited with the trustee, acting as escrow agent under the irrevocable Escrow Agreement, dated December 1, 2017, to refund and legally defease a portion of the outstanding 2011 Series A bonds. This deposit, together with certain other available monies was held by the escrow agent under the Escrow Agreement and invested in non-callable Federal Securities. The principal and interest on monies held by the escrow agent will be sufficient to redeem the maturities of the 2011 Series A bonds starting on November 1, 2022 and thereafter. As of June 30, 2018 and 2017, the principal amount of 2011 Series A bonds outstanding was $322,480 and $602,715, respectively.

The $28,975 Series B bonds were issued as tax-exempt bonds to provide $27,710 to finance improvements to certain up-country water storage and transmission facilities under the jurisdiction of Hetch Hetchy Water and Power and CleanPowerSF. The Series B bonds were issued as serial and term bonds with coupons ranging from 3.5% to 5.0% and have a final maturity of 2041. The Series B bonds have a true interest cost of 4.5%.

On February 27, 2013, the Wholesale Water Customers BAWSCA made an early repayment of $356,139 to the Water Enterprise. $515 of the repayment proceeds were deposited with the trustee, acting as escrow agent under the irrevocable Escrow Agreement, dated February 27, 2013, to refund and legally defease a portion of the outstanding 2011 Series B bonds. This deposit, together with certain other available monies, was held by the escrow agent under the Escrow Agreement and invested in non-callable Federal Securities consisting of United States Treasury Securities - SLGS. The principal and interest on monies held by the escrow agent will be

sufficient to partially defease a portion of the 2011 Series B bonds maturing November 1, 2017 through 2018.

A portion of the proceeds from the 2017 Series F refunding bonds was deposited with the trustee, acting as escrow agent under the irrevocable Escrow Agreement, dated December 1, 2017, to refund and legally defease a portion of the outstanding 2011 Series B bonds. This deposit, together with certain other available monies was held by the escrow agent under the Escrow Agreement and invested in non-callable Federal Securities. The principal and interest on monies held by the escrow agent will be sufficient to redeem the maturities of the 2011 Series B bonds starting on November 1, 2022 and thereafter. As of June 30, 2018 and 2017, the principal amount of 2011 Series B bonds outstanding was $18,315 and $28,525, respectively.

The $33,595 Series C bonds were issued as tax-exempt bonds to provide $33,772 to finance certain water main replacement projects within the City. The Series C bonds were issued as serial and term bonds with coupons ranging from 3.0% to 5.0% and have a final maturity of 2041. The Series C bonds have a true interest cost of 4.4%.

On February 27, 2013, the Wholesale Water Customers BAWSCA made an early repayment of $356,139 to the Water Enterprise. $3,824 of the repayment proceeds were deposited with the trustee, acting as escrow agent under the irrevocable Escrow Agreement, dated February 27, 2013, to refund and legally defease a portion of the outstanding 2011 Series C bonds. This deposit, together with certain other available monies, was held by the escrow agent under the Escrow Agreement and invested in non-callable Federal Securities consisting of United States Treasury Securities - SLGS. The principal and interest on monies held by the escrow agent will be sufficient to partially defease a portion of the 2011 Series C bonds maturing November 1, 2014 through 2018.

A portion of the proceeds of the 2017 Series E refunding bonds was deposited with the trustee, acting as escrow agent under the irrevocable Escrow Agreement, dated December 1, 2017, to refund and legally defease a portion of the outstanding 2011 Series C bonds. This deposit, together with certain other available monies was held by the escrow agent under the Escrow Agreement and invested in non-callable Federal Securities. The principal and interest on monies held by the escrow agent will be sufficient to redeem the maturities of the 2011 Series C bonds starting on November 1, 2022 and thereafter. As of June 30, 2018 and 2017, the principal amount of 2011 Series C bonds outstanding was $19,475 and $30,140, respectively.

The $55,465 Series D bonds were issued as tax-exempt bonds to provide $59,381 to refund, on a current basis, a portion of the 2001 Series A bonds as well as refund, on an advance basis, a portion of the 2002 Series A bonds. The Series D bonds were issued as serial bonds with coupons ranging from 4.0% to 5.0% and have a final maturity of 2028. The Series D bonds have a true interest cost of 3.8%.

A portion of the proceeds of the 2017 Series E refunding bonds was deposited with the trustee, acting as escrow agent under the irrevocable Escrow Agreement, dated December 1, 2017, to refund and legally defease a portion of the outstanding 2011 Series D bonds. This deposit, together with certain other available monies was held by the escrow agent under the Escrow Agreement and invested in non-callable Federal Securities. The principal and interest on monies held by the escrow agent will be sufficient to redeem the maturities of the 2011 Series D bonds starting on November 1, 2022 and thereafter. As of June 30, 2018 and 2017, the principal amount of 2011 Series D bonds outstanding was $19,135 and $47,165, respectively.

j) Water Revenue Bonds 2012 Series AB and C (C1 and C2)

In June 2012, the Water Enterprise issued revenue bonds, 2012 Series ABC in the combined principal amount of $701,880. The purpose of the bonds was to provide $530,000 of new money for WSIP capital projects, $15,750 to reimburse the Water Enterprise for costs to settle litigation arising out of certain capital projects of benefit to the Water Enterprise, and to refund $99,180 of outstanding 2001 Series A and 2002 Series A revenue bonds, with the balance applied to financing costs and a cash-funded debt service reserve. The bonds were rated "AA-" and "Aa3" from S&P and Moody's, respectively. The bonds included serial and term bonds with interest rates varying from 4.0% to 5.0%.

The $591,610 Series A bonds were issued as tax-exempt bonds to provide $530,000 in new money for WSIP capital projects. The Series A bonds were issued as serial and term bonds with coupons ranging from 4.0% to 5.0% and have a final maturity of 2043. The Series A bonds have a true interest cost of 4.3%. A portion of the proceeds of the 2017 Series D refunding bonds was deposited with the trustee, acting as escrow agent under the irrevocable Escrow Agreement, dated December 1, 2017, to refund and legally defease a portion of the outstanding 2012 Series A bonds. This deposit, together with certain other available monies was held by the escrow agent under the Escrow Agreement and invested in non-callable Federal Securities. The principal and interest on monies held by the escrow agent will be sufficient to redeem the maturities of the 2012 Series A bonds starting on November 1, 2031 and thereafter. As of June 30, 2018 and 2017, the principal amount of 2012 Series A bonds outstanding was $459,455 and $591,610, respectively.

The $16,520 Series B bonds were issued as tax-exempt bonds to reimburse the Water Enterprise $15,750 for costs to settle litigation arising out of certain capital projects of benefit to the Water Enterprise. The Series B bonds were issued as serial and term bonds with coupons ranging from 4.0% to 5.0% and have a final maturity of 2043. The Series B bonds have a true interest cost of 4.1%. As of June 30, 2018 and 2017, the principal amount of 2012 Series B bonds outstanding was $16,520.

The $93,750 Series C bonds were issued as tax-exempt bonds to provide $101,147 to refund, on a current basis, a portion of the 2001 Series A bonds as well as refund, on an advance basis, a portion of the 2002 Series A bonds. The Series C bonds were issued as serial bonds with coupons ranging from 4.0% to 5.0% and have a final maturity of 2032. The Series C bonds have a true interest cost of 3.7%. A portion of the proceeds of the 2017 Series E refunding bonds was deposited with the trustee, acting as escrow agent under the irrevocable Escrow Agreement, dated December 1, 2017, to refund and legally defease a portion of the outstanding 2012 Series C bonds. This deposit, together with certain other available monies was held by the escrow agent under the Escrow Agreement and invested in non-callable Federal Securities. The principal and interest on monies held by the escrow agent will be sufficient to redeem the maturities of the 2012 Series C bonds starting on November 1, 2029 and thereafter. As of June 30, 2018 and 2017, the principal amount of 2012 Series C bonds outstanding was $78,035 and $93,750, respectively.

k) Water Revenue Refunding Bonds 2012 Series D

In August 2012, the Water Enterprise issued tax-exempt revenue bonds, 2012 Series D in the amount of $24,040 for the purpose of refunding the remaining portion of the outstanding 2002

Series B bonds maturing on and after November 1, 2013. The bonds carried "Aa3" and "AA-" ratings from Moody's and S&P, respectively. The 2012 Series D refunding bonds include serial bonds with interest rates ranging from 1.8% to 5.0% and have a final maturity in 2019. The Series D bonds have a true interest cost of 1.34%. Unamortized 2002 Series B bond issuance costs were $258 at the date of the refunding. The refunding resulted in the recognition of a deferred accounting loss of $582, $108 gross debt service savings over the next seven-year terms, and an economic gain of $1,397 or 5.8% of the refunded principal. As of June 30, 2018 and 2017, the principal amount of 2012 Series D bonds outstanding was $24,040.

l) Water Revenue Refunding Bonds 2015 Series A

In April 2015, the Water Enterprise issued tax-exempt revenue bonds, 2015 Series A in the amount of $429,600 for the purpose of refunding all the outstanding 2006 Series A bonds maturing on and after November 1, 2015 and portion of the outstanding 2009 Series A bonds maturing on and after November 1, 2023. The bonds carried "Aa3" and "AA-" ratings from Moody's and S&P, respectively. The 2015 Series A bonds include serial bonds with interest rates varying from 2.0% to 5.0% and have a final maturity in 2036. The Series A bonds have a true interest cost of 3.3%. Unamortized 2006 Series A bond issuance costs were $1,392, and there were no unamortized bond issuance costs for 2009 Series A bonds at the date of the refunding. The refunding resulted in the recognition of a deferred accounting loss of $25,365, gross debt service savings of $28,148 over the next 20 two-year terms, and an economic gain of $48,561 or 10.3% of refunded principal. As of June 30, 2018 and 2017, the principal amount of 2015 Series A bonds outstanding was $429,600.

m) Water Revenue Refunding Bonds 2016 Series AB

In October 2016, the Water Enterprise issued tax-exempt revenue bonds, 2016 Series AB in the aggregate amount of $893,820. The 2016 Series A bonds were issued for the purpose of refunding a portion of the outstanding 2009 Series A bonds maturing on and after November 1, 2020, a portion of the outstanding 2009 Series B bonds maturing on and after November 1, 2020, and a portion of the outstanding 2010 Series F bonds maturing on and after November 1, 2021. The 2016 Series B bonds were issued for the purpose of refunding, on a current basis, all the outstanding 2006 Series B and Series C bonds, and a portion of the outstanding 2010 Series A bonds maturing on and after November 1, 2020, the bonds carried "Aa3" and "AA-" ratings from Moody's and S&P, respectively. The 2016 Series AB bonds include serial bonds with interest rates varying from 1.5% to 5.0% and have a final maturity in 2039. The Series AB bonds have a true interest cost of 2.9%. Unamortized bond issuance costs at the date of refunding were $145 for 2006 Series B bonds and $54 for 2006 Series C bonds. The refunding resulted in the recognition of a deferred accounting loss of $106,205, gross debt service savings of $135,966, and an economic gain of $107,152 or 11.5% of refunded principal. As of June 30, 2018 and 2017, the principal amount of 2016 Series AB bonds outstanding was $873,885 and $882,430, respectively.

n) Water Revenue Bonds 2016 Series C

In December 2016, the Water Enterprise issued taxable bonds, 2016 Series C in the amount of $259,350. The bonds were issued as Green Bonds. The purpose of the bonds was to refund all of the outstanding taxable commercial paper notes in the approximate amount of $237,000, and to provide $19,975 of new money for WSIP capital projects. The bonds carried "Aa3" and "AA-"

ratings from Moody's and S&P, respectively. The 2016 Series C bonds include serial bonds with interest rates varying from 0.9% to 4.0% and have a final maturity in 2046, and two term bonds with 4.0% and 4.2% interest rates and final maturities of 2041 and 2046. The Series C bonds have a true interest cost of 3.9%. As of June 30, 2018 and 2017, the principal amount of 2016 Series C bonds outstanding was $253,885 and $259,350, respectively.

o) Water Revenue Bonds 2017 Series ABC

In December 2017, the Water Enterprise issued tax-exempt revenue bonds, 2017 ABC in the aggregate amount of $339,540. The purpose of the 2017 Series ABC Bonds was to refund approximately $120,500 aggregate principal amount of commercial paper notes and to provide $230,500 new money for WSIP capital projects, other various capital projects of the Water Enterprise, and capital projects of Hetch Hetchy Water. The bonds carried "Aa3" and "AA-" ratings from Moody's and S&P, respectively. The 2017 Series ABC bonds include serial bonds with coupon rates of 5.0% and have final maturity in 2045, and four term bonds with coupons of 5.0% and final maturities from 2045 to 2047.

The $121,140 2017 Series A bonds were issued as tax-exempt Green Bonds to refund approximately $60,265 of commercial paper notes and to provide $65,500 in new money for WSIP capital projects. The Series A bonds were issued as serial and term bonds with coupons of 5.0% and a final maturity of 2047. The Series A bonds have a true interest cost of 3.8%. As of June 30, 2018, the principal amount of 2017 Series A bonds outstanding was $121,140.

The $147,725 2017 Series B bonds were issued as tax-exempt bonds to provide $150,000 in new money for Water Enterprise capital projects (non-WSIP). The Series B bonds were issued as serial and term bonds with coupons of 5.0% and have a final maturity of 2047. The Series B bonds have a true interest cost of 3.8%. As of June 30, 2018, the principal amount of 2017 Series B bonds outstanding was $147,725.

The $70,675 2017 Series C bonds were issued as tax-exempt bonds to refund approximately $60,266 of commercial paper notes and to provide $15,000 in new money for Hetch Hetchy Water capital projects. The Series C bonds were issued as serial bonds and a term bond with coupons of 5.0% and have a final maturity of 2047. The Series C bonds have a true interest cost of 3.8%. As of June 30, 2018, the principal amount of 2017 Series C bonds outstanding was $70,675.

p) Water Revenue Bonds 2017 Series DEFG

In December 2017, the Water Enterprise issued tax-exempt revenue bonds, 2017 Series DEF, and taxable 2017 Series G refunding bonds in the aggregate amount of $442,180. The 2017 Series D (WSIP, Green) bonds were issued for the purpose of refunding a portion of the outstanding 2011 Series A (WSIP) bonds maturing on and after November 1, 2022, a portion of the outstanding 2012 Series A bonds maturing on and after November 1, 2031.

The 2017 Series E bonds were issued for the purpose of refunding a portion of the outstanding 2011 Series C bonds maturing on or after November 1, 2022, a portion of the outstanding 2011 Series D bonds maturing on and after November 1, 2022, a portion of 2012 Series C1 bonds maturing on or after November 1, 2029.

The 2017 Series F bonds were issued for the purpose of refunding a portion of the outstanding 2011 Series B bonds maturing on or after November 1, 2022.

The taxable 2017 Series G (WSIP, Green) bonds were issued to refund a portion of the outstanding 2011 Series A bonds maturing on and after November 1, 2022.

The bonds carried "Aa3" and "AA-" ratings from Moody's and S&P, respectively. The 2017 Series DEFG bonds include serial bonds with interest rates varying from 2.0% to 5.0% and have a final maturity in 2035. The Series DEFG bonds have a true interest cost of 2.9%. The refunding resulted in the recognition of a deferred accounting loss of $34,275, gross debt service savings of $68,942, and an economic gain of $51,698 or 10.7% of refunded principal. As of June 30, 2018, the principal amount of 2017 Series DEGF bonds outstanding was $442,180.

q) Clean Water State Revolving Fund (CWSRF) Loan and Grant

In September 2017, the SFPUC entered into an Installment Sale Agreement with the State Water Resources Control Board for a Clean Water State Revolving Fund (CWSRF) Loan and Grant to fund the Water Enterprise's SF Westside Recycled Water Project. The CWSRF loan is in the amount of $186,220, which includes $15,000 of principal forgiveness, or a grant. It will bear an interest rate of 1% for a 30-year term, with loan repayment beginning one year after substantial completion of project construction. The CWSRF loan is secured on a parity lien basis with the Water Enterprise's outstanding revenue bonds. The principal outstanding as of June 30, 2018 was $0.

r) Future Annual Debt Service of Revenue Bonds

The following table presents the future annual debt service relating to the revenue and refunding bonds outstanding as of June 30, 2018. The federal interest subsidy amounts represent 35.0%, excluding sequestration, of the interest for the revenue bond 2010 Series B, E, and G.

	Principal	Interest before subsidy	Federal interest subsidy*	Interest net of subsidy
Fiscal years ending June 30:				
2019	$ 71,665	223,972	(22,069)	201,903
2020	98,870	220,490	(21,897)	198,593
2021	108,390	215,835	(21,712)	194,123
2022	113,425	210,701	(21,506)	189,195
2023	121,410	205,321	(21,177)	184,144
2024-2028	706,425	931,499	(98,677)	832,822
2029-2033	887,605	732,530	(83,206)	649,324
2034-2038	1,083,705	482,543	(58,830)	423,713
2039-2043	921,685	214,057	(29,753)	184,304
2044-2048	326,000	64,447	(14,709)	49,738
2049-2051	74,890	7,964	(2,615)	5,349
	4,514,070	3,509,359	(396,151)	3,113,208
Less: Current portion	(71,665)			
Less: Unamortized bond discount	(166)			
Add: Unamortized bond premiums	395,137			
Long-term portion as of June 30, 2018	$ 4,837,376			

* The SFPUC received IRS notice dated June 21, 2018 that the federal interest subsidies on the 2010 Series B bonds, 2010 Series E bonds, and 2010 Series G bonds are reduced by 6.2%, or a total reduction of $26,186, due to sequestration over the remaining life of the bonds assuming the sequestration rate will remain the same.

As defined in the Indentures, the principal and interest of the Water Enterprise's revenue and refunding bonds are payable from its revenues, as well as monies deposited in certain funds and accounts pledged thereto (See Note 5).

s) *Proposition A*

On November 5, 2002, the San Francisco voters passed Proposition A, which provides for the issuance of revenue bonds and/or other forms of indebtedness by the Commission in a principal amount not to exceed $1,628,000 to finance the acquisition and construction of improvements to the City's Water System. As of June 30, 2018, there was no commercial paper outstanding pursuant to this authorization and $1,348,335 of bonds had been issued in fiscal years 2006, 2010, and 2012 against this authorization.

t) *Proposition E*

On November 5, 2002, the San Francisco voters passed Proposition E, which authorizes the Board of Supervisors' approval of the issuance of revenue bonds and/or other forms of indebtedness by the Commission to finance costs for the Commission's capital programs, including WSIP. As of June 30, 2018, the Board of Supervisors has authorized the issuance of $4,234,873 in revenue bonds with $3,278,440 issued against this authorization. Additionally, $40,312 and $145,000 in commercial paper was outstanding pursuant to this authorization as of June 30, 2018 and 2017, respectively.

Wastewater Long-Term Liability activities for the year ended June 30, 2018 and 2017 are as follows:

	Interest rate	Maturity (Calendar Year)	2017	Additions	Reductions	2018	Due within one year
Revenue bonds:							
2010 Series A	4.00% – 5.00%	2021	$ 40,115	–	(7,295)	32,820	7,630
2010 Series B (Build America)	4.65 – 5.82	2040	192,515	–	–	192,515	–
2013 Series A	1.00 – 5.00	2025	84,650	–	(12,720)	71,930	13,380
2013 Series B	4.00 – 5.00	2042	331,585	–	–	331,585	–
2016 Series A	4.00 – 5.00	2046	240,580	–	–	240,580	–
2016 Series B	4.00 – 5.00	2046	67,820	–	–	67,820	–
For issuance premiums			87,660	–	(5,764)	81,896	–
Total revenue bonds payable			1,044,925	–	(25,779)	1,019,146	21,010
2009 Series C Certificates of Participation (COPs)	2.00 – 5.00	2022	4,388	–	(643)	3,745	676
2009 Series C COPs issuance premiums			167	–	(49)	118	–
2009 Series D COPs (Build America)	6.36 – 6.49	2041	24,458	–	–	24,458	–
State Revolving Fund Loans (CWSRF Loans)	1.60 – 1.80	2050	–	22,607	–	22,607	296
Other post-employment benefits obligations			51,670	10,270	(2,423)	59,517	–
Net pension liability			118,907	18,832	(36,766)	100,973	–
Accrued vacation and sick leave			5,949	4,081	(3,615)	6,415	3,766
Accrued workers' compensation			5,580	1,769	(1,565)	5,784	1,027
Damage claims liability			14,149	3,936	(4,019)	14,066	6,376
Pollution remediation obligations			2,711	2,603	(611)	4,703	–
Total			$ 1,272,904	64,098	(75,470)	1,261,532	33,151

	Interest rate	Maturity (Calendar Year)	2016	Additions	Reductions	2017	Due within one year
Revenue bonds:							
2010 Series A	4.00% – 5.00%	2021	$ 47,050	–	(6,935)	40,115	7,295
2010 Series B (Build America)	4.65 – 5.82	2040	192,515	–	–	192,515	–
2013 Series A	1.00 – 5.00	2025	98,585	–	(13,935)	84,650	12,720
2013 Series B	4.00 – 5.00	2042	331,585	–	–	331,585	–
2016 Series A	4.00 – 5.00	2046	240,580	–	–	240,580	–
2016 Series B	4.00 – 5.00	2046	67,820	–	–	67,820	–
For issuance premiums			93,748	–	(6,088)	87,660	–
Total revenue bonds payable			1,071,883	–	(26,958)	1,044,925	20,015
2009 Series C Certificates of Participation (COPs)	2.00 – 5.00	2022	5,000	–	(612)	4,388	643
2009 Series C COPs issuance premiums			222	–	(55)	167	–
2009 Series D COPs (Build America)	6.36 – 6.49	2041	24,458	–	–	24,458	–
Other post-employment benefits obligations			46,053	8,594	(2,977)	51,670	–
Net pension liability			48,177	82,872	(12,142)	118,907	–
Accrued vacation and sick leave			6,545	2,996	(3,592)	5,949	3,429
Accrued workers' compensation			5,658	1,112	(1,190)	5,580	1,031
Damage claims liability			16,633	365	(2,849)	14,149	4,790
Pollution remediation obligations			2,621	90	–	2,711	–
Total			$ 1,227,250	96,029	(50,375)	1,272,904	29,908

The payments of principal and interest amounts on various bonds are secured by net revenues of the Wastewater Enterprise.

(a) Wastewater Revenue Bonds 2010 Series A

During fiscal year 2010, the Wastewater Enterprise issued revenue bonds 2010 Series A in the amount of $47,050 with interest rates ranging from 4.0% to 5.0%. Proceeds from the bonds were used to redeem $50,000 in outstanding commercial paper notes, fund a cash debt service reserve fund, and pay the costs of issuing the bonds. The bonds were rated "Aa3" and "AA-" by Moody's and S&P, respectively. Bonds mature through October 1, 2021. The true interest cost is 2.9%. As of June 30, 2018 and 2017, the 2010 Series A bonds' principal amount outstanding was $32,820 and $40,115, respectively.

(b) Wastewater Revenue Bonds 2010 Series B

During fiscal year 2010, the Wastewater Enterprise issued revenue bonds 2010 Series B (Federally Taxable – Build America Bonds – Direct Payment) in the amount of $192,515 with interest rates ranging from 4.7% to 5.8%. Proceeds from the bonds were used to redeem $53,500 in outstanding commercial paper notes, provide funding for capital projects in the amount of $112,429, fund a cash debt service reserve fund, and pay financing costs for the bonds. The bonds were rated "Aa3" and "AA-" by Moody's and S&P, respectively. Bonds mature through October 1, 2040. The true interest cost is 3.7%. As of June 30, 2018 and 2017, the 2010 Series B bonds' principal amount outstanding was $192,515.

(c) Wastewater Revenue Bonds 2013 Series A

In January 2013, the Wastewater Enterprise issued tax-exempt revenue bonds 2013 Series A in the amount of $193,400 for the purpose of refunding the remaining portion of the outstanding 2003 Series A bonds maturing on and after October 1, 2013. The bonds carried "Aa3" and "AA-" ratings from Moody's and S&P, respectively. The 2013 Series A refunding bonds include serial bonds with interest rates varying from 1.0% to 5.0% and have a final maturity in October 2025. The Series A bonds have a true interest cost of 1.2%. The 2013 Series A bonds also

refunded the remaining portion of the outstanding state revolving fund loans. The refunding resulted in the recognition of a deferred accounting loss of $2,986, gross debt service savings of $35,107 over the next 13 years, and an economic gain of $32,783 or 15.4% of the refunded principal. As of June 30, 2018 and 2017, the principal amount outstanding of the 2013 Series A bonds was $71,930 and $84,650, respectively.

(d) Wastewater Revenue Bonds 2013 Series B

In February 2013, the Wastewater Enterprise issued revenue bonds 2013 Series B in the amount of $331,585 with interest rates ranging from 4.0% to 5.0%. Proceeds from the bonds were used for Wastewater capital projects, pay off all outstanding Wastewater commercial paper notes, and pay the costs of issuing the bonds. The bonds were rated "Aa3" and "AA-" by Moody's and S&P, respectively. Bonds mature through October 1, 2042. The true interest cost is 3.6%. As of June 30, 2018 and 2017, the principal amount outstanding of the 2013 Series B bonds was $331,585.

(e) Wastewater Revenue Bonds 2016 Series A

In May 2016, the Wastewater Enterprise issued tax-exempt revenue bonds 2016 Series A (Green Bonds) in the amount of $240,580 with interest rates ranging from 4.0% to 5.0%. Proceeds from the bonds were used for Wastewater capital projects, to pay off $53,439 of outstanding commercial paper notes, to fund capitalized interest, and pay the costs of issuing the bonds. The bonds carried ratings of "AA" and "Aa3" from S&P and Moody's, respectively. Bonds mature through October 1, 2046. The bonds have a true interest cost of 3.2%. As of June 30, 2018 and 2017, the principal amount outstanding of the 2016 Series A bonds was $240,580.

(f) Wastewater Revenue Bonds 2016 Series B

In May 2016, the Wastewater Enterprise issued tax-exempt revenue bonds 2016 Series B in the amount of $67,820 with interest rates ranging from 4.0% to 5.0%. Proceeds from the bonds were used for Wastewater capital projects, to pay off $20,560 of outstanding commercial paper notes, to fund capitalized interest, and pay the costs of issuing the bonds. The bonds carried ratings of "AA" and "Aa3" from S&P and Moody's, respectively. Bonds mature through October 1, 2046. The bonds have a true interest cost of 3.2%. As of June 30, 2018 and 2017, the principal amount outstanding of the 2016 Series B bonds was $67,820.

(g) Future Annual Debt Service of Revenue and Refunding Bonds

The following table presents the future annual debt service relating to the revenue and refunding bonds outstanding as of June 30, 2018. The interest before subsidy amounts include the interest for 2010 Series A and B, 2013 Series A and B, and 2016 Series A and B bonds. The federal interest subsidy amounts represent 35% of the interest, excluding sequestration, for the 2010 Series B revenue bonds.

	Principal	Interest before subsidy	Federal interest subsidy*	Interest net of subsidy
Fiscal years ending June 30:				
2019	$ 21,010	43,191	(3,508)	39,683
2020	22,085	42,201	(3,508)	38,693
2021	23,240	41,118	(3,508)	37,610
2022	22,880	40,015	(3,508)	36,507
2023	20,370	38,997	(3,452)	35,545
2024-2028	131,060	177,138	(15,404)	161,734
2029-2033	164,455	139,832	(11,562)	128,270
2034-2038	205,115	93,940	(6,639)	87,301
2039-2043	250,990	42,215	(1,167)	41,048
2044-2047	76,045	6,235	—	6,235
	937,250	664,882	(52,256)	612,626
Less: Current portion	(21,010)			
Add: Unamortized bond premiums	81,896			
Long-term portion as of June 30, 2018	$ 998,136			

* The SFPUC received IRS notice dated June 21, 2018 that the federal interest subsidy on the 2010 Series B bonds is reduced 6.2% or a total reduction of $3,454 due to sequestration over the remaining life of the bonds assuming the sequestration rate will remain the same.

As defined in the Indenture, the principal and interest of the Wastewater Enterprise's refunding bonds are payable from its corresponding revenue as well as monies deposited in certain funds and accounts pledged thereto (see Note 5).

(h) Lake Merced Green Infrastructure Project CWSRF Loan

In January 2016, then amended in May 2016, the SFPUC entered into an Installment Sale Agreement with the State Water Resources Control Board for a Clean Water State Revolving Fund (CWSRF) Loan to fund the Lake Merced Green Infrastructure Project of the Sewer System Improvement Program. The aggregate amount of the CWSRF loans is $7,435. The loan bears an interest rate of 1.6% which was equal to one-half of the State of California's most recent 30-year General Obligation Bond true interest cost at the time the agreement was executed. The CWSRF loan will have a 30-year term, with loan repayment beginning one year after substantial completion of each project's construction; substantial completion is expected by July 2020. The CWSRF loan is secured on a parity lien basis with the Wastewater Enterprise's outstanding revenue bonds. The SFPUC has received loan disbursements to date totaling $1,998. As of June 30, 2018, the principal amount outstanding of the loan was $4,893.

(i) Southeast Plant (SEP) 521/522 and Disinfection Upgrade Project CWSRF Loan

In September 2017, then amended in December 2017 and May 2018, the SFPUC entered into an Installment Sale Agreement with the State Water Resources Control Board for a Clean Water State Revolving Fund (CWSRF) Loan to fund the SEP 521/522 and Disinfection Upgrade Project of the Sewer System Improvement Program. The aggregate amount of the CWSRF loans is $40,007. The loan bears an interest rate of 1.8% which was equal to one-half of the State of California's most recent 30-year General Obligation Bond true interest cost at the time the agreement was executed. The CWRSF loan will have a 30-year term, with loan repayment beginning one year after substantial completion of each project's construction; substantial completion is expected by July 2019. The CWSRF loan is secured on a parity lien basis with the Wastewater Enterprise's outstanding revenue bonds. The SFPUC has not submitted any

requests for loan disbursements to date and there is no outstanding loan principal as of June 30, 2018.

(j) North Point Facility Outfall Rehabilitation Project CWSRF Loan

In September 2017 the SFPUC entered into an Installment Sale Agreement with the State Water Resources Control Board for a Clean Water State Revolving Fund (CWSRF) Loan to fund the North Point Facility Outfall Rehabilitation Project of the Sewer System Improvement Program. The aggregate amount of the CWSRF loans is $20,199. The loan bears an interest rate of 1.8% which was equal to one-half of the State of California's most recent 30-year General Obligation Bond true interest cost at the time the agreement was executed. The CWRSF loan will have a 30-year term, with loan repayment beginning one year after substantial completion of each project's construction; substantial completion occurred in February 2018. The CWSRF loans is secured on a parity lien basis with the Wastewater Enterprise's outstanding revenue bonds. The SFPUC has received loan disbursements to date totaling $4,720. As of June 30, 2018, the principal amount outstanding of the loan was $17,714.

(k) SEP Primary/Secondary Clarifier Upgrade Project CWSRF Loan

In September 2017 the SFPUC entered into an Installment Sale Agreement with the State Water Resources Control Board for a Clean Water State Revolving Fund (CWSRF) Loan to fund the SEP Primary/Secondary Clarifier Upgrade Project of the Sewer System Improvement Program. The aggregate amount of the CWSRF loans is $34,446. The loan bears an interest rate of 1.8% which was equal to one-half of the State of California's most recent 30-year General Obligation Bond true interest cost at the time the agreement was executed. The CWRSF loan will have a 30-year term, with loan repayment beginning one year after substantial completion of each project's construction; substantial completion occurred in June 2018. The CWSRF loan is secured on a parity lien basis with the Wastewater Enterprise's outstanding revenue bonds. The SFPUC has not submitted any requests for loan disbursements to date and there is no outstanding loan principal as of June 30, 2018.

(I) Future Annual Debt Services of State Revolving Fund Loans (CWSRF Loans)

The future annual debt services relating to the State Revolving Fund Loan to fund the Lake Merced Green Infrastructure Project and the North Point Facility Outfall Rehabilitation Project outstanding as of June 30, 2018 are as follows:

Lake Merced Green Infrastructure Project		Principal	Interest	Total
Fiscal years ending June 30:				
2022	$	128	78	206
2023		130	76	206
2024		133	74	207
2025		135	72	207
2026		137	70	207
2027-2031		717	316	1,033
2032-2036		777	257	1,034
2037-2041		841	192	1,033
2042-2046		910	123	1,033
2047-2051		985	48	1,033
Total			1,306	6,199
Long-term portion as of June 30, 2018	$	4,893		

North Point Facility Outfall Rehabilitation Project		Principal	Interest	Total
Fiscal years ending June 30:				
2019	$	296	113	409
2020		423	207	630
2021		487	291	778
2022		480	297	777
2023		489	288	777
2024-2028		2,580	1,307	3,887
2029-2033		2,820	1,067	3,887
2034-2038		3,083	804	3,887
2039-2043		3,371	516	3,887
2044-2048		3,685	201	3,886
		17,714	5,091	22,805
Less: Current portion		(296)		
Long-term portion as of June 30, 2018	$	17,418		

Hetchy Water Long-Term Liability activities for the years ended June 30, 2018 and 2017 are as follows:

		2017	Additions	Reductions	2018	Due within one year
Other post-employment benef ts obligations	$	11,280	5,238	(646)	15,872	—
Net pension liability		31,235	3,639	(9,658)	25,216	—
Accrued vacation and sick leave		1,188	1,655	(1,520)	1,323	835
Accrued workers' compensation		999	207	(217)	989	174
Damage claims liability		586	786	(1,139)	233	110
Total	$	45,288	11,525	(13,180)	43,633	1,119

	2016	Additions	Reductions	2017	Due within one year
Other post-employment benefits obligations	$ 9,945	2,157	(822)	11,280	–
Net pension liability	12,093	21,948	(2,806)	31,235	–
Accrued vacation and sick leave	1,287	425	(524)	1,188	741
Accrued workers' compensation	997	224	(222)	999	185
Damage claims liability	353	1,082	(849)	586	218
Total	$ 24,675	25,836	(5,223)	45,288	1,144

Hetchy Power Long-Term Liability activities for the years ended June 30, 2018 and 2017 are as follows:

	Interest Rate	Maturity (Calendar Year)	2017	Additions	Reductions	2018	Due within one year
Bonds:							
Clean Renewable Energy Bonds	0.00 %	2022	$ 2,527	–	(418)	2,109	422
Qualified Energy Conservation Bonds	4.74	2027	5,817	–	(523)	5,294	529
New Clean Renewable Energy Bonds 2012	4.74	2020	1,839	–	(556)	1,283	570
New Clean Renewable Energy Bonds 2015	4.62	2032	3,877	–	(226)	3,651	229
2015 Series A Revenue Bonds	4.00 - 5.00	2045	32,025	–	–	32,025	–
2015 Series B Revenue Bonds	3.00 - 4.00	2026	7,530	–	(710)	6,820	730
Less issuance discount			(74)	–	12	(62)	–
Add issuance premiums			4,359	–	(238)	4,121	–
Total bonds payable			57,900	–	(2,659)	55,241	2,480
2009 Series C Certificates of Participation (COPs)	2.00 – 5.00	2022	2,259	–	(331)	1,928	348
2009 Series C COPs issuance premiums			86	–	(26)	60	–
2009 Series D COPs (Build America)	6.36 – 6.49	2041	12,593	–	–	12,593	–
Other post-employment benefits obligations			16,855	3,335	(790)	19,400	–
Net pension liability			38,177	4,447	(11,805)	30,819	–
Accrued vacation and sick leave			2,397	4,495	(4,328)	2,564	1,504
Accrued workers' compensation			1,970	354	(364)	1,960	351
Damage claims liability			1,852	2,189	(1,808)	2,233	727
Total			$ 134,089	14,820	(22,111)	126,798	5,410

	Interest Rate	Maturity (Calendar Year)	2016	Additions	Reductions	2017	Due within one year
Bonds:							
Clean Renewable Energy Bonds	0.00 %	2022	$ 2,949	–	(422)	2,527	422
Qualified Energy Conservation Bonds	4.74	2027	6,334	–	(517)	5,817	523
New Clean Renewable Energy Bonds 2012	4.74	2020	2,661	–	(822)	1,839	556
New Clean Renewable Energy Bonds 2015	4.62	2032	4,100	–	(223)	3,877	226
2015 Series A Revenue Bonds	4.00 - 5.00	2045	32,025	–	–	32,025	–
2015 Series B Revenue Bonds	3.00 - 4.00	2026	7,530	–	–	7,530	710
Less issuance discount			(88)	–	14	(74)	–
Add issuance premiums			4,599	–	(240)	4,359	–
Total bonds payable			60,110	–	(2,210)	57,900	2,437
2009 Series C Certificates of Participation (COPs)	2.00 – 5.00	2022	2,574	–	(315)	2,259	331
2009 Series C COPs issuance premiums			114	–	(28)	86	–
2009 Series D COPs (Build America)	6.36 – 6.49	2041	12,593	–	–	12,593	–
Other post-employment benefits obligations			15,224	2,637	(1,006)	16,855	–
Net pension liability			14,781	26,826	(3,430)	38,177	–
Accrued vacation and sick leave			2,520	1,453	(1,576)	2,397	1,388
Accrued workers' compensation			1,967	637	(634)	1,970	363
Damage claims liability			1,508	2,064	(1,720)	1,852	773
Total			$ 111,391	33,617	(10,919)	134,089	5,292

CleanPowerSF Long-Term Liability activities for the years ended June 30, 2018 and 2017 are as follows:

	2017	Additions	Reductions	2018	Due within one year
Other post-employment benefits obligations	$ 87	671	(30)	728	–
Net pension liability	–	1,301	(214)	1,087	–
Accrued vacation and sick leave	38	68	(42)	64	46
Total	$ 125	2,040	(286)	1,879	46

	2016	Additions	Reductions	2017	Due within one year
Other post-employment benefits obligations	$ –	94	(7)	87	–
Accrued vacation and sick leave	–	38	–	38	25
Total	$ –	132	(7)	125	25

(a) Clean Renewable Energy Bonds

In November 2008, Hetchy Power issued $6,325 of taxable CREBs to finance the installation of solar energy equipment on City-owned facilities, including Chinatown Branch Library, Maxine Hall Medical Center, City Distribution Division Warehouse, North Point Wastewater Plant, Chinatown Public Health Center, Municipal Transportation Agency Woods, and Municipal Transportation Agency Ways and Structures. The CREBs were non-rated and privately-placed with Banc of America Leasing. The net effective interest rate on the CREBs, after the federal tax subsidy, is 0% through 2022. Hetchy Power began making principal payments in the amount of $422 on December 15, 2008 and will continue annual payments for 15 years until December 15, 2022. Funding for these payments will be guaranteed by net power revenues. Interest payments are not required, since the effective equivalent of interest on the bonds is paid in the form of federal tax credits in lieu of interest paid by the issuer.

The future annual debt service relating to the CREBs outstanding as of June 30, 2018 is as follows:

	Principal
Fiscal years ending June 30:	
2019	$ 422
2020	422
2021	422
2022	422
2023	421
	2,109
Less: Current portion	(422)
Less: Unamortized bond discount	(62)
Long-term portion as of June 30, 2018	$ 1,625

(b) Qualified Energy Conservation Bonds

In December 2011, Hetchy Power issued $8,291 of taxable QECBs. The QECBs were issued to fund certain qualified green components for the SFPUC's 525 Golden Gate Headquarters project. The QECBs were non-rated and privately placed with Banc of America Leasing. The net effective interest rate on the QECBs, after the federal tax subsidy, is 1.2% through 2028.

The future annual debt service relating to the QECBs outstanding as of June 30, 2018 is as follows:

	Principal	Interest before subsidy	Federal interest subsidy*	Interest net of subsidy
Fiscal years ending June 30:				
2019	$ 529	245	(171)	74
2020	536	219	(154)	65
2021	542	194	(136)	58
2022	549	168	(118)	50
2023	555	142	(100)	42
2024-2028	2,583	309	(216)	93
	5,294	1,277	(895)	382
Less: Current portion	(529)			
Long-term portion as of June 30, 2018	$ 4,765			

* The SFPUC received IRS notice dated June 21, 2018 that the federal interest subsidy is reduced by 6.2% or a total reduction of $59 due to sequestration over the remaining life of the bonds assuming the sequestration rate will remain the same.

(c) New Clean Renewable Energy Bonds 2012

In April 2012, Hetchy Power issued $6,600 of taxable NCREBs. The NCREBs were issued to fund certain qualified facilities that provide clean, renewable energy at Davies Symphony Hall, City Hall, and University Mound Reservoir. The NCREBs were non-rated and privately placed with Banc of America Leasing. The net effective interest rate on the NCREBs, after the federal tax subsidy, is 1.5% through 2021. $288 and $2,523 were prepaid in fiscal year 2017 and 2016, respectively. There was no prepaid in fiscal year 2018.

The future annual debt service relating to the 2012 NCREBs outstanding as of June 30, 2018 is as follows:

	Principal	Interest before subsidy	Federal interest subsidy*	Interest net of subsidy
Fiscal years ending June 30:				
2019	$ 570	54	(35)	19
2020	583	27	(18)	9
2021	130	3	(2)	1
	1,283	84	(55)	29
Less: Current portion	(570)			
Long-term portion as of June 30, 2018	$ 713			

* The SFPUC received IRS notice dated June 21, 2018 that the federal interest subsidy is reduced by 6.2% or a total reduction of $4 due to sequestration over the remaining life of the bonds assuming the sequestration rate will remain the same.

(d) New Clean Renewable Energy Bonds 2015

In October 2015, Hetchy Power issued $4,100 of taxable 2015 NCREBs. The 2015 NCREBs were issued to fund certain qualified clean, renewable energy solar generation facilities at the Marina Middle School and the San Francisco Police Academy. The 2015 NCREBs were non-rated and privately placed with Banc of America Leasing. The net effective interest rate on the 2015 NCREBs, after the federal tax subsidy, is 1.4% through 2033.

The future annual debt service relating to the 2015 NCREBs outstanding as of June 30, 2018 is as follows:

	Principal	Interest before subsidy	Federal interest subsidy*	Interest net of subsidy
Fiscal years ending June 30:				
2019	$ 229	166	(109)	57
2020	232	155	(102)	53
2021	235	145	(95)	50
2022	239	134	(88)	46
2023	242	123	(81)	42
2024-2028	1,262	442	(290)	152
2029-2033	1,212	141	(92)	49
	3,651	1,306	(857)	449
Less: Current portion	(229)			
Long-term portion as of June 30, 2018	$ 3,422			

* The SFPUC received IRS notice dated June 21, 2018 that the federal interest subsidy is reduced by 6.2% or a total reduction of $57 due to sequestration over the remaining life of the bonds assuming the sequestration rate will remain the same.

(e) Power Revenue Bonds 2015 Series A (Green) and Series B

In May 2015, Hetchy Power issued tax-exempt revenue bonds, 2015 Series A (Green) in the amount of $32,025 with interest rates ranging from 4.0% to 5.0% and 2015 Series B in the amount of $7,530 with interest rates ranging from 3.0% to 4.0%. Proceeds from the bonds were used to finance reconstruction or replacement of existing facilities of the SFPUC's Hetch Hetchy project, to fund capitalized interest on the 2015 Series AB Bonds, to fund a debt service reserve account for the 2015 Series AB Bonds, and to pay costs of issuance of the 2015 Series AB bonds. The bonds were rated "A+" and "AA-" by S&P and Fitch, respectively. Final maturity for 2015 Series AB are November 1, 2045 and November 1, 2026, respectively. The true interest cost is 3.95%. As of June 30, 2018, the outstanding principal amount was $38,845.

The future annual debt service relating to Hetchy Power revenue bonds 2015 Series A (Green) as of June 30, 2018 is as follows:

	Principal	Interest	Total
Fiscal years ending June 30:			
2019	$ —	1,593	1,593
2020	—	1,593	1,593
2021	—	1,593	1,593
2022	—	1,593	1,593
2023	—	1,593	1,593
2024-2028	1,850	7,889	9,739
2029-2033	5,930	6,831	12,761
2034-2038	7,565	5,153	12,718
2039-2043	9,650	3,011	12,661
2044-2046	7,030	539	7,569
	32,025	31,388	63,413
Add: Unamortized bond premium	3,695		
Long-term portion as of June 30, 2018	$ 35,720		

The future annual debt service relating to Hetchy Power revenue bonds 2015 Series B outstanding as of June 30, 2018 is as follows:

	Principal	Interest	Total
Fiscal years ending June 30:			
2019	$ 730	246	976
2020	755	220	975
2021	785	189	974
2022	815	157	972
2023	850	124	974
2024-2027	2,885	183	3,068
	6,820	1,119	7,939
Less: Current portion	(730)		
Add: Unamortized bond premium	426		
Long-term portion as of June 30, 2018	$ 6,516		

(8) Certificates of Participation Issued for the 525 Golden Gate Avenue Headquarters Building

Department-wide Business Type Activities

In October 2009, the City issued $167,670 in certificates of participation to fund the headquarters building of the SFPUC at 525 Golden Gate Avenue. The 2009 Series C were issued for $38,120 and 2009 Series D for $129,550 as "Build America Bonds" (BABs) on a taxable basis under the 2009 American Recovery and Reinvestment Act. The 2009 Series C certificates carry interest rates ranging from 2.0% to 5.0% and mature on November 1, 2022. The 2009 Series D certificates carry interest rates ranging from 6.4% to 6.5% and mature on November 1, 2041. After adjusting for the federal interest subsidy, the true interest cost averages 3.4% and 4.3% for Series C and Series D, respectively.

Under the terms of a memorandum of understanding (MOU) between the City and the SFPUC dated October 1, 2009, the City conveyed the real property to the Trustee, the Bank of New York Mellon Trust Company, N.A., which was replaced by U.S. Bank in March 2014 under a property lease in exchange for the proceeds of the sale of the certificates. The Trustee has leased the property back to the City for the City's use under a project lease. The City is obligated under the project lease to pay base rental payments and other payments to the Trustee each year during the 32-year term of the project lease. The Commission makes annual base rental payments to the City for the building equal to annual debt service on the certificates. It is anticipated these lease costs will be offset with reductions in costs associated with current office rental expense.

Each of the three Enterprises has an ownership interest in the building equal to their projected usage of space as follows: Water (73%), Wastewater (15%), and Hetchy Power (12%). Similarly, each Enterprise is responsible for a portion of the annual base rental payment based on their ownership percentages less contributed equity. The percentage share of Base Rental Payments for the Enterprises is as follows: Water (71.4%), Wastewater (18.9%), and Hetchy Power (9.7%).

Water Enterprise

The future annual debt services relating to the certificates of participation 2009 Series C and D outstanding as of June 30, 2018 are as follows:

Certificates of Participation 2009 Series C (Tax-Exempt)	Principal	Interest	Total
Fiscal years ending June 30:			
2019	$ 2,556	644	3,200
2020	2,687	513	3,200
2021	2,824	375	3,199
2022	2,970	230	3,200
2023	3,125	78	3,203
	14,162	1,840	16,002
Less: Current portion	(2,556)		
Add: Unamortized bond premiums	445		
Long-term portion as of June 30, 2018	$ 12,051		

Certificates of Participation 2009 Series D (Taxable BABs)	Principal	Interest before subsidy	Federal interest subsidy*	Interest net of subsidy
Fiscal years ending June 30:				
2019	$ —	5,968	(1,959)	4,009
2020	—	5,968	(1,959)	4,009
2021	—	5,968	(1,959)	4,009
2022	—	5,968	(1,959)	4,009
2023	—	5,968	(1,959)	4,009
2024-2028	17,761	27,108	(8,899)	18,209
2029-2033	21,834	20,808	(6,831)	13,977
2034-2038	26,918	12,940	(4,248)	8,692
2039-2042	25,986	3,460	(1,136)	2,324
Total		94,156	(30,909)	63,247
Long-term portion as of June 30, 2018	$ 92,499			

* The SFPUC received IRS notice dated June 21, 2018 that the federal interest subsidy on the 2009 Series D bonds is reduced by 6.2%, or a total reduction of $2,046, due to sequestration over the remaining life of the bonds assuming the sequestration rate will remain the same.

Wastewater Enterprise

The future annual debt services relating to the certificates of participation 2009 Series C and D outstanding as of June 30, 2018 are as follows:

Certificates of Participation 2009 Series C (Tax-Exempt)	Principal	Interest	Total
Fiscal years ending June 30:			
2019	$ 676	170	846
2020	711	136	847
2021	747	99	846
2022	785	61	846
2023	826	21	847
	3,745	487	4,232
Less: Current portion	(676)		
Add: Unamortized bond premiums	118		
Long-term portion as of June 30, 2018	$ 3,187		

Certificates of Participation 2009 Series D (Taxable BABs)	Principal	Interest before subsidy	Federal interest subsidy*	Interest net of subsidy
Fiscal years ending June 30:				
2019	$ —	1,578	(518)	1,060
2020	—	1,578	(518)	1,060
2021	—	1,578	(518)	1,060
2022	—	1,578	(518)	1,060
2023	—	1,578	(518)	1,060
2024-2028	4,696	7,168	(2,353)	4,815
2029-2033	5,773	5,502	(1,806)	3,696
2034-2038	7,118	3,422	(1,123)	2,299
2039-2042	6,871	915	(300)	615
Total		24,897	(8,172)	16,725
Long-term portion as of June 30, 2018	$ 24,458			

* The SFPUC received IRS notice dated June 21, 2018 that the federal interest subsidy on the 2009 Series D bonds is reduced by 6.2%, or a total reduction of $540, due to sequestration over the remaining life of the bonds assuming the sequestration rate will remain the same.

Hetchy Power

The future annual debt services relating to the certificates of participation 2009 Series C and D outstanding as of June 30, 2018 are as follows:

Certificates of Participation 2009 Series C (Tax-Exempt)	Principal	Interest	Total
Fiscal years ending June 30:			
2019	$ 348	88	436
2020	366	70	436
2021	384	51	435
2022	405	31	436
2023	425	10	435
	1,928	250	2,178
Less: Current portion	(348)		
Add: Unamortized bond premium	60		
Long-term portion as of June 30, 2018	$ 1,640		

Certificates of Participation 2009 Series D (Taxable BABs)	Principal	Interest before subsidy	Federal interest subsidy*	Interest net of subsidy
Fiscal years ending June 30:				
2019	$ —	812	(267)	545
2020	—	812	(267)	545
2021	—	812	(267)	545
2022	—	812	(267)	545
2023	—	812	(267)	545
2024-2028	2,418	3,690	(1,212)	2,478
2029-2033	2,972	2,833	(930)	1,903
2034-2038	3,665	1,762	(578)	1,184
2039-2042	3,538	473	(153)	320
Total		12,818	(4,208)	8,610
Long-term portion as of June 30, 2018	$ 12,593			

* The SFPUC received IRS notice dated June 21, 2018 that the federal interest subsidy on the 2009 Series D bonds is reduced by 6.2%, or a total reduction of $278, due to sequestration over the remaining life of the bonds assuming the sequestration rate will remain the same.

(9) Revenue Pledge

Department-wide Business Type Activities

Department-wide revenue pledge for the years ended June 30, 2018 ad 2017 are as follows:

	2018	2017
Bonds issued with revenue pledge	$ 5,898,751	5,593,606
Principal and interest remaining due at the end of the year	9,711,917	9,431,263
Principal and interest paid during the year	285,786	270,512
Net revenues for the year ended June 30	528,257	389,806
Funds available for debt service	905,130	709,411

Water Revenue Pledge

The Water Enterprise has pledged future revenues to repay various revenue bonds. Proceeds from the revenue bonds provided financing for various capital construction projects, and to refund previously issued bonds. The bonds are payable solely from revenues of the Water Enterprise through the fiscal year ending 2051.

The original amount of revenue bonds issued, total principal and interest remaining, principal and interest paid during fiscal 2018 and 2017, applicable net revenues and funds available for debt service are as follows:

	2018	2017
Bonds issued with revenue pledge	$ 4,760,930	4,455,785
Principal and interest remaining due at the end of the year	8,023,429	7,673,811
Principal and interest paid during the year	233,959	207,812
Net revenues for the year ended June 30	312,831	238,588
Funds available for debt service	499,583	394,440

Wastewater Revenue Pledge

The Wastewater Enterprise has pledged future revenues to repay various revenue bonds. Proceeds from the revenue bonds provided financing for various capital construction projects, and to refund previously issued bonds. The bonds are payable through fiscal year 2047 and are solely from revenues of the Wastewater Enterprise.

The original amount of revenue bonds issued, total principal and interest remaining, principal and interest paid during fiscal years 2018 and 2017, applicable net revenues, and funds available for debt service are as follows:

	2018	2017
Bonds issued with revenue pledge	$ 1,072,950	1,072,950
Principal and interest remaining due at the end of the year	1,602,132	1,666,275
Principal and interest paid during the year	47,003	60,407
Net revenues for the year ended June 30	184,739	119,989
Funds available for debt service	338,335	251,543

Hetchy Power Revenue Pledge

Hetchy Power has pledged future power revenues to repay the 2008 CREBs, the 2011 QECBs, the 2012 NCREBs, and the 2015 NCREBs. Additionally, Hetchy Power has pledged future power revenues

for 2015 Series AB power revenue bonds. Proceeds from the bonds provided financing for various capital construction and facility energy efficiency projects. The Series 2015 AB power revenue bonds are payable through fiscal year 2046 and are solely payable from net revenues of Hetchy Power on a senior lien basis to the 2008 CREBs, the 2011 QECBs, the 2012 NCREBs, and the 2015 NCREBs.

The original amount of bonds issued, total principal and interest remaining, principal and interest paid during fiscal years 2018 and 2017, applicable net revenues, and funds available for debt service are as follows:

Hetchy Power	2018	2017
Bonds issued with revenue pledge	$ 64,871	64,871
Principal and interest remaining due at the end of the year	86,356	91,177
Principal and interest paid during the year*	4,824	2,293
Net revenues for the year ended June 30	30,687	31,229
Funds available for debt service	67,212	63,428

* Per Indenture, debt service for coverage is calculated using the amount of principal and interest paid during the year for the 2015 series AB power revenue bonds, which has a senior lien on power enterprise revenues; principal and interest paid during the year for the 2015 Series AB power revenue bonds was $2,570.

(10) Water Wholesale Balancing Account

(a) Water Supply Agreement

From 1984-2009, the Water Enterprise provided water service pursuant to the terms of the 1984 Water Settlement Agreement and Master Water Sales Contract, which established the basis for water rates to be charged to those customers (Wholesale Customers). The Master Water Sales Contract expired on June 30, 2009. The Commission and the Wholesale Customers approved a Water Supply Agreement (WSA) effective July 1, 2009. The WSA has a 25-year term with two options for five-year extensions. The existing 184 million gallons per day (mgd) Supply Assurance continues under the WSA and no increase in the Supply Assurance will be considered before December 31, 2018. During the period from 2009 to 2018, the WSA limits the quantity of water delivered to Retail Customers and Wholesale Customers from the watersheds to 265 mgd. Under the WSA, annual operating expenses, including debt service on bonds sold to finance regional system improvements and regional capital projects funded from revenues, will be allocated between Retail Customers and Wholesale Customers on the basis of proportionate annual water use. The original WSA stated the Wholesale Customers' share of net book value of existing regional assets as of June 30, 2009 would be recovered on level annual payment over the 25-year term of the WSA at an interest rate of 5.13%. The 25-year term repayment obligation was settled in February 2013. The Wholesale Customers made an early repayment to the Water Enterprise of the outstanding balance of $356,139 as discussed further in the "BAWSCA Early Repayment" Section Note 10(b), of this report. The WSA continues much of the rate setting, accounting, and dispute resolution provisions contained in the expired contract, and has emergency and drought-pricing adjustment provisions.

Pursuant to the terms of the WSA, the Water Enterprise is required to establish water rates applicable to the Wholesale Customers annually. The wholesale water rates are based on an estimate of the level of revenues necessary to recoup the cost of distributing water to the Wholesale Customers in accordance with the methodology outlined in Article V of the WSA (the Wholesale Revenue Requirement (WRR), previously known as the Suburban Revenue Requirement). During fiscal years ending in 2018 and 2017, the WRR, net of adjustments,

charged to such wholesale customers was $248,085 and $205,934, respectively. Such amounts are subject to final review by the Wholesale Customers, along with a trailing wholesale balancing account compliance audit of the WRR calculation.

Pursuant to Article VII, Section 7.02 of the WSA, the Water Enterprise is required to re-compute the WRR after the close of each fiscal year based on the actual costs incurred in the delivery of water to the Wholesale Customers. The difference between the wholesale revenues earned during the year and the "actual" WRR is recorded in a separate account (the Balancing Account) and represents the cumulative amount that is either owed to the Wholesale Customers (if the wholesale revenues exceed the WRR) or owed to the City (if the WRR exceeds the wholesale revenues paid). In accordance with Article VI of the WSA, the amount recorded in the Balancing Account shall earn interest at a rate equal to the average rate received by the City during the year on the invested pooled funds of the City Treasury, and shall be taken into consideration in the determination of subsequent wholesale water rates. The Water Enterprise owed the Wholesale Customers $55,866 and $43,471 for the years ended June 30, 2018 and 2017, respectively, an increase of $12,395. Refer to the compliance audit report for the final balancing account available at https://www.sfwater.org/index.aspx?page=345.

In addition to advancing funds to acquire the pre-2009 assets as discussed previously, the Water Enterprise has also previously appropriated funds, advanced through rates charged to Retail Customers, for construction of capital projects that were not yet placed into service as of June 30, 2009. Wholesale Customers' share of these construction work in progress costs is calculated in accordance with the provisions in the WSA, including a 10-year repayment term and payment of annual principal and interest rate calculated at 4.0% annually. The total obligation of the Wholesale Customers to the Water Enterprise is estimated at $9,542, and the level annual payment including principal and interest is approximately $1,159. The Wholesale Customers made the first annual payment as of June 30, 2015, and will end on June 30, 2024.

(b) BAWSCA Early Repayment in Fiscal Year 2013

On February 27, 2013, the Wholesale Customers, through BAWSCA, made an early repayment to the Commission of capital cost recovery payments in the amount of $356,139. Of this repayment amount, $247,143 was deposited with the City Treasury for Retail Fund Balance accounts and regional and local capital projects to be spent in fiscal years ended 2013, 2014, 2015, and 2016. As of June 30, 2016, $0 remains to be appropriated in future capital projects. Another repayment of $108,996 was deposited to the Escrow Account (U.S. Bank National Association) for advance refunding/defeasance of a portion of water revenue bonds 2006 Series A, 2009 Series A and B, 2010 Series A, D, and F, and 2011 Series B and C. The Escrow Agent shall apply interest payments on the refunded bonds when they become due and to the principal amounts of the refunded bonds on their respective maturity dates, based on the Escrow Agreement. The defeasance of the refunded bonds and the deposit of monies with the escrow agent pursuant to the escrow agreement are authorized by and comply with the conditions and terms of the Water Enterprise Prepayment and Collection Agreement entered into between BAWSCA and the Water Enterprise, as well as the Water Enterprise Indenture.

(11) Other Non-Operating Revenues - Hetchy Power Trans Bay Cable Construction and Licensing Fees

In 2007, the Board of Supervisors adopted the resolution to enter into two non-exclusive licenses with the Trans Bay Cable LLC (the Licensee) for the Trans Bay Cable Project. The Licensee proposed to install, operate, and maintain approximately 53 miles of high-voltage direct current transmission cable running from the City of Pittsburg to the City. The first license is a Construction License to install a 400 MW high-voltage transmission line, with a four-year term. The Licensee has paid Hetchy Power $3,500 in Renewable Energy, Transmission and Grid Reliability to use the payments for study and development of two City-owned transmission projects, a Newark-San Francisco project, and a Potrero-Embarcadero project. Of the $3,500, only $1,904 has been spent to date. For fiscal years ended June 30, 2018 and 2017, expenses were $2 and $621, respectively.

The second license is an operational license for operation of the transmission line with 25-year term and an option to renew for 10 years. The Licensee agrees to pay Hetchy Power in excess of $20,000 in 10 separate installments of $2,000 annually with adjustments for inflation, as the “San Francisco Electric Reliability Payment” to implement, advance, promote, or enhance policies and projects consistent with City Energy Policies. The project came on line November 29, 2010, and Hetchy Power received the first installment of $2,000. As of June 30, 2018, cumulative revenues to date of $17,612 were recorded, with $2,434 and $2,348 recorded in fiscal years 2018 and 2017, respectively. Per agreement, the SFPUC shall consult with Departments of Environment and Public Health, as well as community members, including the Power Plant Task Force, in developing its proposals to the Board of Supervisors on how to spend the San Francisco Electricity Reliability Payment, and shall consider specifically renewable energy, conservation, and environmental health programs, which benefit low-income, at-risk, and environmentally disadvantaged communities. The San Francisco Electricity Reliability Payment shall also be partly used for green jobs training and placement programs, which benefit low-income, at-risk, and environmentally disadvantaged communities. As of June 30, 2018, cumulative expenses of $5,778 have been incurred, with $648 and $611 in fiscal years 2018 and 2017, respectively.

(12) Employee Benefits

a) Pension Plan

The SFPUC participates in a cost-sharing multiple employer defined benefit pension plan (the Plan). The Plan is administered by the San Francisco City and County Employees’ Retirement System (SFERS). For purposes of measuring the net pension liability, deferred outflows/inflows of resources related to pensions, pension expense, information about the fiduciary net position of the SFERS plans, and additions to/deductions from the Plan’s fiduciary net position have been determined on the same basis as they are reported by Cheiron, the consulting actuary for the Plan. Benefit payments (including refunds of employee contributions) are recognized when currently due and payable in accordance with the benefit terms. Investments are reported at fair value.

GASB Statement No. 68 requires that the reported results must pertain to liability and asset information within certain defined timeframes. For this report, the following timeframes are used:

San Francisco Employees' Retirement System (SFERS) – Cost Sharing

	Fiscal Year 2018	Fiscal Year 2017
Valuation Date (VD)	June 30, 2016 updated to June 30, 2017	June 30, 2015 updated to June 30, 2016
Measurement Date (MD)	June 30, 2017	June 30, 2016
Measurement Period (MP)	July 1, 2016 to June 30, 2017	July 1, 2015 to June 30, 2016

The City is an employer of the plan with a proportionate share of 94.07% as of June 30, 2017 (measurement date), and 94.22% as of June 30, 2016 (measurement date). SFPUC's allocation percentage was determined based on its employer contributions divided by the City's total employer contributions for fiscal years 2017 and 2016. The net pension liability, deferred outflows/inflows of resources related to pensions, amortization of deferred outflows/inflows and pension expense to each department is based on allocated percentage. As of June 30, 2017 (measurement date), SFPUC's allocation of the City's proportionate share was 7.81%: 4.45% for Water, 2.15% for Wastewater, 1.19% for Hetchy Water and Hetchy Power and 0.02% for CleanPowerSF. As of June 30, 2016 (measurement date), SFPUC's allocation of the City's proportionate share was 8.19%: 4.75% for Water, 2.17% for Wastewater, 1.27% for Hetchy Water and Hetchy Power and 0% for CleanPowerSF.

Plan Description – The Plan provides basic service retirement, disability, and death benefits based on specified percentages of defined final average monthly salary and provides annual cost-of-living adjustments (COLA) after retirement. The Plan also provides pension continuation benefits to qualified survivors. The City Charter and the Administrative Code are the authorities which establish and amend the benefit provisions and employer obligations of the Plan. The Retirement System issues a publicly available financial report that includes financial statements and required supplementary information for the Plan. That report may be obtained by writing to the San Francisco Employees' Retirement System, 1145 Market Street, 5th Floor, San Francisco, CA 94103 or by calling (415) 487-7000.

Benefits – The Retirement System provides service retirement, disability and death benefits based on specified percentages of defined final average monthly salary and annual COLA after retirement. Benefits and refunds are recognized when due and payable in accordance with the terms of the Plan. The Retirement System pays benefits according to the category of employment and the type of benefit coverage provided by the City.

The four main categories of Plan members are:

a) Miscellaneous Non-Safety Members – staff, operational, supervisory, and all other eligible employees who are not in special membership categories.
b) Sheriff's Department and Miscellaneous Safety members – sheriffs assuming office on and after January 7, 2012, and undersheriffs, deputized personnel of the Sheriff's department, and miscellaneous safety employees hired on and after January 7, 2012.
c) Firefighter Members – firefighters and other employees whose principal duties are in fire prevention and suppression work or who occupy positions designated by law as firefighter member positions.

d) Police Members – police officers and other employees whose principal duties are in active law enforcement or who occupy positions designated by law as police member positions.

The membership groups and the related service retirement benefits are included in the Notes to the Basic Financial Statements of San Francisco Employees' Retirement System.

All members are eligible to apply for a disability retirement benefit, regardless of age, when they have 10 or more years of credited service and they sustain an injury or illness that prevents them from performing their duties. Safety members are eligible to apply for an industrial disability retirement benefit from their first day on the job if their disability is caused by an illness or injury that they receive while performing their duties.

All retired members receive a benefit adjustment each July 1, which is the Basic COLA. The majority of adjustments are determined by changes in Consumer Price Index with increases capped at 2%. The Plan provides for a Supplemental COLA in years when there are sufficient "excess" investment earnings in the Plan. The maximum benefit adjustment each July 1 is 3.5% including the Basic COLA. Effective July 1, 2012, voters approved changes in the criteria for payment of the Supplemental COLA benefit, so that Supplemental COLAs would only be paid when the Plan is also fully funded on a market value of assets basis. Certain provisions of this voter-approved proposition were challenged in the Courts. A decision by the California Courts modified the interpretation of the proposition. Effective July 1, 2012, members who retired before November 6, 1996 will receive a Supplemental COLA only when the Plan is also fully funded on a market value of assets basis. However, the "full funding" requirement does not apply to members who retired on or after November 6, 1996 and were hired before January 7, 2012. For all members hired before January 7, 2012, all Supplemental COLAs paid to them in retirement benefits will continue into the future even where an additional Supplemental COLA is not payable in any given year. For members hired on and after January 7, 2012, a Supplemental COLA will only be paid to retirees when the Plan is fully funded on a market value of asset basis and in addition for these members, Supplemental COLAs will not be permanent adjustments to retirement benefits. That is, in years when a Supplemental COLA is not paid, all previously paid Supplemental COLAs will expire.

Funding and Contribution Policy – Contributions are made to the basic plan by both the City and the participating employees. Employee contributions are mandatory as required by the Charter. Employee contribution rates for fiscal year 2018 varied from 7.5% to 13.0% as a percentage of gross covered salary and from 7.5% to 12.0% as a percentage of gross covered salary for fiscal year 2017. Most employee groups agreed through collective bargaining for employees to contribute the full amount of the employee contributions on a pretax basis. The City is required to contribute at an actuarially determined rate. Based on the July 1, 2016 actuarial valuation report, the required employer contribution rate for fiscal year 2018 was 18.96% to 23.46%. Based on the July 1, 2015 actuarial report, the required employer contribution rate for fiscal year 2017 was 17.90% to 21.40%.

Employer contributions and employee contributions made by the employer to the Plan are recognized when due and the employer has made a formal commitment to provide the contributions. The City's proportionate share of employer contributions recognized by the Retirement System in fiscal years ended June 30, 2017 and 2016 (measurement periods) were $519,073 and $496,343, respectively. The Water Enterprise's allocation of employer contributions for fiscal years 2017 and 2016 (measurement periods) were $24,638 and

$24,497, respectively. The Wastewater Enterprise's allocation of employer contributions for fiscal years 2017 and 2016 (measurement periods) were $11,270 and $10,930, respectively. Hetchy Water's allocation of employer contributions for fiscal years 2017 and 2016 (measurement periods) were $2,961 and $2,806, respectively. Hetchy Power's allocation of employer contributions for fiscal years 2017 and 2016 (measurement periods) were $3,618 and $3,430, respectively. CleanPowerSF had no allocation of employer contribution for fiscal years 2017 and 2016 (measurement periods).

Pension Liabilities, Pension Expenses, and Deferred Outflows and Inflows of Resources Related to Pensions

Fiscal Year 2018

As of June 30, 2018, the City reported net pension liabilities for its proportionate share of the pension liability of the Plan of $4,697,129. The City's net pension liability for the Plan is measured as the proportionate share of the net pension liability. The net pension liability of the Plan is measured as of June 30, 2017 (measurement date), and the total pension liability for the Plan used to calculate the net pension liability was determined by an actuarial valuation as of June 30, 2016 rolled forward to June 30, 2017 using standard update procedures. The City's proportion of the net pension liability was based on a projection of the City's long-term share of contributions to the pension plan relative to the projected contributions of all participating employers, actuarially determined. The SFPUC's allocation of the City's proportionate share of the net pension liability for the plan as of June 30 2018 and 2017 (reporting years) were $367,098 and $448,275, respectively. The Water Enterprise's share of the net pension liability for fiscal years 2018 and 2017 (reporting years) were $209,003 and $259,956, respectively. The Wastewater Enterprise's share of the net pension liability for fiscal years 2018 and 2017 (reporting years) were $100,973 and $118,907, respectively. Hetchy Water's share of the net pension liability for fiscal years 2018 and 2017 (reporting years) were $25,216 and $31,235, respectively. Hetchy Power's share of net pension liability for fiscal year 2018 and 2017 (reporting years) were $30,819 and $38,177, respectively. CleanPowerSF's share of net pension liability for fiscal year 2018 and 2017 (reporting years) were $1,087 and $0, respectively. During the measurement year 2017, the actual investment earnings decreased total pension liability. This was partially offset by an increase in service costs and interest costs, resulting in an overall decrease in net pension liability.

For the years ended June 30, 2018, the City's recognized pension expense was $732,895 including amortization of deferred outflow/inflow related pension items. SFPUC's allocation of pension expense including amortization of deferred outflows and inflows related pension items were $44,367: $22,240 for the Water Enterprise, $15,005 for the Wastewater Enterprise, $2,765 for Hetchy Water, $3,379 for Hetchy Power, and $978 for CleanPowerSF. Pension expense decreased from the prior year, largely due to the impact of actual investment earnings.

At June 30, 2018, the SFPUC's reported deferred outflows of resources and deferred inflows of resources related to pensions from the following sources:

Schedule of Deferred Outflows of Resources

Fiscal Year 2018		Water	Wastewater	Hetchy Water	Hetchy Power	CleanPowerSF	SFPUC Total
Pension contribution subsequent to the measurement date	$	25,922	12,523	3,127	3,823	135	45,530
Differences between expected and actual experience		1,939	937	234	286	10	3,406
Changes in assumptions		33,889	16,373	4,089	4,997	176	59,524
Change in employer's proportion		312	151	38	46	2	549
Total	$	62,062	29,984	7,488	9,152	323	109,009

Schedule of Deferred Inflows of Resources

Fiscal Year 2018		Water	Wastewater	Hetchy Water	Hetchy Power	CleanPowerSF	SFPUC Total
Differences between expected and actual experience	$	6,310	3,048	761	931	33	11,083
Changes in assumptions		614	297	74	91	3	1,079
Net difference between projected and actual earnings on pension plan investments		7,797	3,767	942	1,149	41	13,696
Change in employer's proportion		342	165	41	51	2	601
Total	$	15,063	7,277	1,818	2,222	79	26,459

Amounts reported as deferred outflows, exclusive of contributions made after the measurement date, and deferred inflows of resources will be amortized annually and recognized in pension expense as follows:

Fiscal years		Deferred Outflows/(Inflows) of Resources: Water	Wastewater	Hetchy Water	Hetchy Power	CleanPowerSF	SFPUC Total
2019	$	969	468	117	143	5	1,702
2020		17,568	8,487	2,120	2,590	91	30,856
2021		11,157	5,391	1,346	1,645	58	19,597
2022		(8,617)	(4,162)	(1,040)	(1,271)	(45)	(15,135)
Total	$	21,077	10,184	2,543	3,107	109	37,020

Fiscal Year 2017

As of June 30, 2017, the City reported net pension liabilities for its proportionate share of the pension liability of the Plan of $5,476,653. The City's net pension liability for the Plan is measured as the proportionate share of the net pension liability. The net pension liability of the Plan is measured as of June 30, 2016 (measurement date), and the total pension liability for the Plan used to calculate the net pension liability was determined by an actuarial valuation as of June 30, 2015 rolled forward to June 30, 2016 using standard update procedures. The City's proportion of the net pension liability was based on a projection of the City's long-term share of contributions to the pension plan relative to the projected contributions of all participating employers, actuarially determined. The SFPUC's allocation of the City's proportionate share of

the net pension liability for each plan as of June 30 2017 and 2016 (reporting years) were $448,275 and $183,075, respectively. The Water Enterprise's share of the net pension liability for fiscal years 2017 and 2016 (reporting years) were $259,956 and $108,024, respectively. The Wastewater Enterprise's share of the net pension liability for fiscal years 2017 and 2016 (reporting years) were $118,907 and $48,177, respectively. Hetchy Water's share of the net pension liability for fiscal years 2017 and 2016 (reporting years) were $31,235 and $12,093, respectively. Hetchy Power's share of net pension liability for fiscal year 2017 and 2016 (reporting years) were $38,177 and $14,781, respectively. During the measurement year 2016, the increase in service costs, interest costs, change in benefits, change in assumptions, and difference between projected and actual investment earnings increased total pension liability. This was only partially offset by an increase in the discount rate, contributions, investment income, and actuarial experience gains, resulting in an overall increase in net pension liability.

For the years ended June 30, 2017, the City's recognized pension expense was $1,808,992 including amortization of deferred outflow/inflow related pension items. SFPUC's allocation of pension expense including amortization of deferred outflows and inflows related pension items were $139,260: $78,466 for the Water Enterprise, $37,189 for the Wastewater Enterprise, $10,622 for Hetchy Water and $12,983 for Hetchy Power. Pension expense increased significantly, largely due to the impact of changes in benefits, namely the updated Supplemental COLA assumptions and amortization of deferred inflows/outflows.

At June 30, 2017, the SFPUC's reported deferred outflows of resources and deferred inflows of resources related to pensions from the following sources:

Schedule of Deferred Outflows of Resources

Fiscal Year 2017		Water	Wastewater	Hetchy Water	Hetchy Power	SFPUC Total
Pension contribution subsequent to the measurement date	$	24,638	11,270	2,961	3,618	42,487
Changes in assumptions		44,719	20,455	5,373	6,568	77,115
Net difference between projected and actual earnings on pension plan investments		35,543	16,258	4,270	5,220	61,291
Change in employer's proportion		457	209	55	67	788
	Total $	105,357	48,192	12,659	15,473	181,681

Schedule of Deferred Inflows of Resources

Fiscal Year 2017		Water	Wastewater	Hetchy Water	Hetchy Power	SFPUC Total
Differences between expected and actual experience	$	9,580	4,382	1,152	1,406	16,520
Changes in assumptions		1,311	600	157	193	2,261
Change in employer's proportion		244	111	29	36	420
	Total $	11,135	5,093	1,338	1,635	19,201

Amounts reported as deferred outflows, exclusive of contributions made after the measurement date, and deferred inflows of resources will be amortized annually and recognized in pension expense as follows:

Fiscal years	Deferred Outflows/(Inflows) of Resources				
	Water	Wastewater	Hetchy Water	Hetchy Power	SFPUC Total
2018	$ 10,241	4,684	1,230	1,505	17,660
2019	10,241	4,684	1,230	1,505	17,660
2020	27,975	12,797	3,361	4,108	48,241
2021	21,127	9,664	2,539	3,102	36,432
Total	$ 69,584	31,829	8,360	10,220	119,993

Actuarial Assumptions

Fiscal Year 2018

A summary of the actuarial assumptions and methods used to calculate the Total Pension Liability as of June 30, 2017 (measurement period) is provided below, including any assumptions that differ from those used in the July 1, 2016 actuarial valuation. Refer to the July 1, 2016 actuarial valuation report for a complete description of all other assumptions, which can be found on the Retirement System's website http://mysfers.org.

Key Actuarial Assumptions	
Valuation Date	June 30, 2016 updated to June 30, 2017
Measurement Date	June 30, 2017
Actuarial Cost Method	Entry-Age Normal Cost Method
Expected Rate of Return	7.50%
Municipal Bond Yield	2.85% as of June 30, 2016
	3.85% as of June 30, 2017
	Bond Buyer 20-Bond GO Index, June 30, 2016 and June 29, 2017
Inflation	3.25%
Salary Increases	3.75% plus merit component based on employee classification and years of service
Discount Rate	7.50% as of June 30, 2016
	7.50% as of June 30, 2017
Administrative Expenses	0.60% of payroll as of June 30, 2016
	0.60% of payroll as of June 30, 2017

		Old Miscellaneous and all New Plans	Old Police & Fire, pre 7/1/75	Old Police & Fire, Charters A8.595 and A8.596	Old Police & Fire, Charters A8.559 and A8.585
Basic COLA	June 30, 2016	2.00%	2.70%	3.30%	4.40%
Basic COLA	June 30, 2017	2.00%	2.70%	3.30%	4.40%

Mortality rates for active members and healthy annuitants were based upon adjusted Employee and Healthy Annuitant CalPERS mortality tables projected generationally from the 2009 base year using a modified version of the MP-2015 projection scale.

Fiscal Year 2017

A summary of the actuarial assumptions and methods used to calculate the Total Pension Liability as of June 30, 2016 (measurement period) is provided below, including any

assumptions that differ from those used in the July 1, 2015 actuarial valuation. Refer to the July 1, 2015 actuarial valuation report for a complete description of all other assumptions, which can be found on the Retirement System's website http://mysfers.org.

Key Actuarial Assumptions	
Valuation Date	June 30, 2015 updated to June 30, 2016
Measurement Date	June 30, 2016
Actuarial Cost Method	Entry-Age Normal Cost Method
Expected Rate of Return	7.50%
Municipal Bond Yield	3.85% as of June 30, 2015 2.85% as of June 30, 2016 Bond Buyer 20-Bond GO Index, July 2, 2015 and June 30, 2016
Inflation	3.25%
Salary Increases	3.75% plus merit component based on employee classification and years of service
Discount Rate	7.46% as of June 30, 2015 7.50% as of June 30, 2016
Administrative Expenses	0.45% of payroll as of June 30, 2015 0.60% of payroll as of June 30, 2016

		Old Miscellaneous and all New Plans	Old Police & Fire, pre 7/1/75	Old Police & Fire, Charters A8.595 and A8.596	Old Police & Fire, Charters A8.559 and A8.585
Basic COLA	June 30, 2015	2.00%	3.00%	4.00%	5.00%
Basic COLA	June 30, 2016	2.00%	2.70%	3.30%	4.40%

Mortality rates for active members and healthy annuitants were based upon adjusted Employee and Healthy Annuitant CalPERS mortality tables projected generationally from the 2009 base year using a modified version of the MP-2015 projection scale.

Discount Rate

Fiscal Year 2018

The beginning and end of year measurements are based on different assumptions and contribution methods that result in different discount rates. The discount rate was 7.50% as of June 30, 2017 (measurement date) and June 30, 2016 (measurement date), respectively.

The discount rate used to measure the Total Pension Liability as of the June 30, 2017 measurement date was 7.50%. The projection of cash flows used to determine the discount rate assumed that plan member contributions will continue to be made at the rates specified in the Charter. Employer contributions were assumed to be made in accordance with the contribution policy in effect for July 1, 2016 actuarial valuation. That policy includes contributions equal to the employer portion of the Entry Age normal costs for members as of the valuation date, a payment for the expected administrative expenses, and an amortization payment on the unfunded actuarial liability.

The amortization payment is based on closed periods that vary in length depending on the source. Charter amendments prior to July 1, 2014 are amortized over 20 years. After July 1, 2014, any Charter changes to active member benefits are amortized over 15 years and changes to inactive member benefits, including Supplemental COLAs, are amortized over 5 years. The remaining Unfunded Actuarial Liability not attributable to Charter amendments as of July 1, 2013 is amortized over a 19-year period commencing July 1, 2014. Experience gains and losses and assumption or method changes on or after July 1, 2014 are amortized over 20

years. For the July 1, 2016 valuation, the increase in the Unfunded Actuarial Liability attributable to the Supplemental COLAs granted on July 1, 2013 and July 1, 2014 are amortized over 17-years and 5-years, respectively. All amortization schedules are established as a level percentage of payroll so payments increase 3.75% each year. The Unfunded Actuarial Liability is based on an Actuarial Value of Assets that smooths investment gains and losses over five years and a measurement of the Actuarial Liability that excludes the value of any future Supplemental COLAs.

While the contributions and measure of Actuarial Liability in the valuation do not anticipate any future Supplemental COLAs, the projected contributions for the determination of the discount rate include the anticipated future amortization payments on future Supplemental COLAs for current members when they are expected to be granted. For members who worked after November 6, 1996 and before Proposition C passed, a Supplemental COLA is granted if the actual investment earnings during the year exceed the expected investment earnings on the Actuarial Value of Assets. For members who did not work after November 6, 1996 and before Proposition C passed, the Market Value of Assets must also exceed the actuarial liability at the beginning of the year for a Supplemental COLA to be granted. When a Supplemental COLA is granted, the amount depends on the amount of excess earnings and the basic COLA amount for each membership group. The large majority of members receive a 1.50% Supplemental COLA when granted.

Because the probability of a Supplemental COLA depends on the current funded level of the System for certain members, Cheiron developed an assumption as of the June 30, 2017 measurement date for the probability and amount of Supplemental COLA for each future year. The table below shows the net assumed Supplemental COLA for members with a 2.00% Basic COLA for sample years.

Assumed Supplemental COLA for Members with a 2.00% Basic COLA

Fiscal years	96 - Prop C	Before 11/6/96 or After Prop C
2018	0.750 %	0.000 %
2023	0.750	0.290
2028	0.750	0.350
2033	0.750	0.380
2038+	0.750	0.380

The projection of benefit payments to current members for determining the discount rate includes the payment of anticipated future Supplemental COLAs.

Based on these assumptions, the System's fiduciary net position was projected to be available to make projected future benefit payments for current members until fiscal year end 2096 when only a portion of the projected benefit payments can be made from the projected fiduciary net position. Projected benefit payments are discounted at the long-term expected return on assets of 7.50% to the extent the fiduciary net position is available to make the payments and at the municipal bond rate of 3.58% to the extent they are not available. The single equivalent rate used to determine the Total Pension Liability as of June 30, 2017 is 7.50%.

The long-term expected rate of return on pension plan investments was 7.50%. It was set by the Retirement Board after consideration of both expected future returns and historical returns experienced by the Retirement System. Expected future returns were determined by using a

building-block method in which best-estimate ranges of expected future real rates of return were developed for each major asset class. These ranges were combined to produce the long-term expected rate of return by weighting the expected future real rates of return by the target asset allocation percentage and by adding expected inflation.

Target allocation and best estimates of geometric long-term expected real rates of return (net of pension plan investment expense and inflation) for each major asset class are summarized in the following table:

Long-Term Expected Real Rates of Return

Asset Class	Target Allocation	Long-term Expected Real Rate of Return
Global Equity	40.0 %	5.3 %
Fixed Income	20.0	1.6
Private Equity	18.0	6.5
Real Assets	17.0	4.6
Hedge Funds/Absolute Returns	5.0	3.6
Total	100.0	

Fiscal Year 2017

The beginning and end of year measurements are based on different assumptions and contribution methods that result in different discount rates. The discount rate was 7.50% as of June 30, 2016 (measurement date) and 7.46% as of June 30, 2015 (measurement date).

The discount rate used to measure the Total Pension Liability as of the June 30, 2016 measurement date was 7.50%. The projection of cash flows used to determine the discount rate assumed that plan member contributions will continue to be made at the rates specified in the Charter. Employer contributions were assumed to be made in accordance with the contribution policy in effect for July 1, 2015 actuarial valuation. That policy includes contributions equal to the employer portion of the Entry Age normal costs for members as of the valuation date, a payment for the expected administrative expenses, and an amortization payment on the unfunded actuarial liability.

The amortization payment is based on closed periods that vary in length depending on the source. Charter amendments prior to July 1, 2014 are amortized over 20 years. After July 1, 2014, any Charter changes to active member benefits are amortized over 15 years and changes to inactive member benefits, including Supplemental COLAs, are amortized over 5 years. The remaining Unfunded Actuarial Liability not attributable to Charter amendments as of July 1, 2013 is amortized over a 19-year period commencing July 1, 2014. Experience gains and losses and assumption or method changes on or after July 1, 2014 are amortized over 20 years. For the July 1, 2016 valuation, the increase in the Unfunded Actuarial Liability attributable to the Supplemental COLAs granted on July 1, 2013 and July 1, 2014 are amortized over 17-years and 5-years, respectively. All amortization schedules are established as a level percentage of payroll so payments increase 3.75% each year. The Unfunded Actuarial Liability is based on an Actuarial Value of Assets that smooths investment gains and losses over five years and a measurement of the Actuarial Liability that excludes the value of any future Supplemental COLAs.

While the contributions and measure of Actuarial Liability in the valuation do not anticipate any future Supplemental COLAs, the projected contributions for the determination of the discount rate include the anticipated future amortization payments on future Supplemental COLAs for current members when they are expected to be granted. For members who worked after November 6, 1996 and before Proposition C passed, a Supplemental COLA is granted if the actual investment earnings during the year exceed the expected investment earnings on the Actuarial Value of Assets. For members who did not work after November 6, 1996 and before Proposition C passed, the Market Value of Assets must also exceed the actuarial liability at the beginning of the year for a Supplemental COLA to be granted. When a Supplemental COLA is granted, the amount depends on the amount of excess earnings and the basic COLA amount for each membership group. The large majority of members receive a 1.50% Supplemental COLA when granted.

Because the probability of a Supplemental COLA depends on the current funded level of the System for certain members, Cheiron developed an assumption as of the June 30, 2016 measurement date for the probability and amount of Supplemental COLA for each future year. The table below shows the net assumed Supplemental COLA for members with a 2.00% Basic COLA for sample years.

Assumed Supplemental COLA for Members with a 2.00% Basic COLA

Fiscal years	96 - Prop C	Before 11/6/96 or After Prop C
2018	0.750 %	0.000 %
2023	0.750	0.220
2028	0.750	0.322
2033	0.750	0.370
2038+	0.750	0.375

The projection of benefit payments to current members for determining the discount rate includes the payment of anticipated future Supplemental COLAs.

Based on these assumptions, the System's fiduciary net position was projected to be available to make projected future benefit payments for current members until fiscal year end 2093 when only a portion of the projected benefit payments can be made from the projected fiduciary net position. Projected benefit payments are discounted at the long-term expected return on assets of 7.50% to the extent the fiduciary net position is available to make the payments and at the municipal bond rate of 2.85% to the extent they are not available. The single equivalent rate used to determine the Total Pension Liability as of June 30, 2016 is 7.50%.

The long-term expected rate of return on pension plan investments was 7.50%. It was set by the Retirement Board after consideration of both expected future returns and historical returns experienced by the Retirement System. Expected future returns were determined by using a building-block method in which best-estimate ranges of expected future real rates of return were developed for each major asset class. These ranges were combined to produce the long-term expected rate of return by weighting the expected future real rates of return by the target asset allocation percentage and by adding expected inflation.

Target allocation and best estimates of geometric long-term expected real rates of return (net of pension plan investment expense and inflation) for each major asset class are summarized in the following table:

Long-Term Expected Real Rates of Return

Asset Class	Target Allocation	Long-term Expected Real Rate of Return
Global Equity	40.0 %	5.1 %
Fixed Income	20.0	1.1
Private Equity	18.0	6.3
Real Assets	17.0	4.3
Hedge Funds/Absolute Returns	5.0	3.3
Total	100.0	

Sensitivity of Proportionate Share of the Net Pension Liability to Changes in the Discount Rate

The SFPUC's allocation of the employer's proportionate share of the net pension liability for the Plan, calculated using the discount rate, as well as what SFPUC'S allocation of the employer's proportionate share of the net pension liability would be if it were calculated using a discount rate that is 1% lower or 1% higher than the current rate.

Schedule of Employers' Proportionate Share of the Net Pension Liability

Fiscal Year 2018	Water	Wastewater	Hetchy Water	Hetchy Power	CleanPowerSF	SFPUC Total
1% Decrease Share of NPL @ 6.50%	$ 358,055	172,984	43,199	52,798	1,862	628,898
Share of NPL @ 7.50%	209,003	100,973	25,216	30,819	1,087	367,098
1% Increase Share of NPL @ 8.50%	85,673	41,390	10,336	12,633	445	150,477

Schedule of Employers' Proportionate Share of the Net Pension Liability

Fiscal Year 2017	Water	Wastewater	Hetchy Water	Hetchy Power	SFPUC Total
1% Decrease Share of NPL @ 6.50%	$ 411,950	188,430	49,499	60,498	710,377
Share of NPL @ 7.50%	259,956	118,907	31,235	38,177	448,275
1% Increase Share of NPL @ 8.50%	134,240	61,403	16,130	19,714	231,487

b) *Other Post-Employment Benefits*

The SFPUC participates in the City's agent multiple employer defined benefit plan, which operates as a cost-sharing multiple employer defined benefit plan (the Plan). The Plan is maintained by the City and is administered through the City's Health Service System and provides post-employment medical, dental and vision insurance benefits to eligible employees, retired employees, and surviving spouses. Health benefit provisions are established and may be amended through negotiations between the City and the respective bargaining units. The City does not issue a separate report on its other post-employment benefit plan.

GASB Statement No. 75 requires that reported results must pertain to liability and asset information within certain defined timeframes. For this report, the following timeframes are used.

San Francisco Health Service System Retiree Plan	
Valuation Date (VD)	June 30, 2016 updated to June 30, 2017
Measurement Date (MD)	June 30, 2017
Measurement Period (MP)	July 1, 2016 to June 30, 2017

The SFPUC's allocation percentage of the Plan was determined based on its percentage of citywide "pay-as-you-go" contributions for the year ended June 30, 2017. SFPUC's net OPEB liability, deferred outflows/inflows of resources related to OPEB, amortization of deferred outflows/inflows and OPEB expense to each department is based on SFPUC's allocated percentage. The SFPUC's proportionate share of the City's OPEB elements as of June 30, 2017 (measurement date) was 7.04%: 4.47% for the Water Enterprise, 1.60% for the Wastewater Enterprise, 0.43% for Hetchy Water, 0.52% for Hetchy Power, and 0.02% for CleanPowerSF.

Benefit

Permanent full-time and elected employees are eligible to retire and receive postretirement health insurance benefits when they are eligible for retirement benefits from the City and County of San Francisco's Retirement System. The eligibility requirements are as follows:

Normal Retirement	Miscellaneous	Age 50 with 20 years of credited service[1]
		Age 60 with 10 years of credited service
	Safety	Age 50 with 5 years of credited service
Disabled Retirement[2]		Any age with 10 years of credited service
Terminated Vested[3]		Age 50 with 5 years of credited service at separation
Active Death[2]		Any age with 10 years of credited service

[1] Age 53 with 20 years of credited service, age 60 with 10 years of credited service, or age 60 for Miscellaneous members hired on or after January 7, 2012.
[2] No service requirement for Safety members retiring under the industrial disability benefit or for surviving spouses/domestic partners of those killed in the line of duty.
[3] Effective with Proposition B, passed June 3, 2008, participants hired on or after January 10, 2009 must retire within 180 days of separation in order to be eligible for retiree healthcare benefits.

Retiree healthcare benefits are administered by the San Francisco Health Service System and include the following:

Medical:	PPO – City Health Plan (self-insured)
	HMO – Kaiser (fully-insured) and Blue Shield (flex-funded)
Dental:	Delta Dental & DeltaCare USA
Vision:	Vision benefits are provided under the medical insurance plans and are administered by Vision Service Plan.

Projections of the sharing of benefit related costs are based on an established pattern of practice.

Contributions

Benefits provided under the Plan are currently paid through "pay-as-you-go" funding. Additionally, under the City Charter, active officers and employees of the City who commenced employment on or after January 10, 2009, shall contribute to the Retiree Health Care Trust Fund (Trust Fund) a percentage of compensation not to exceed 2% of pre-tax compensation. The City shall contribute 1% of compensation for officers and employees who commenced employment on or after January 10, 2009 until the City's GASB Actuary has determined that the City's portion of the Trust Fund is fully funded. At that time, the City's 1% contribution shall cease, and officers and employees will each contribute 50% of the maximum 2% of pre-tax compensation.

Starting July 1, 2016, active officers and employees of the City who commenced employment on or before January 9, 2009, shall contribute 0.25% of pre-tax compensation into the Trust Fund. Beginning on July 1st of each subsequent year, the active officers and employees of the City who commenced employment on or before January 9, 2009, shall contribute an additional 0.25% of pre-tax compensation up to a maximum of 1%. Starting July 1, 2016, the City shall contribute 0.25% of compensation into the Trust Fund for each officer and employee who commenced employment on or before January 9, 2009. Beginning on July 1st of each subsequent year, the City shall contribute an additional 0.25% of compensation, up to a maximum of 1% for each officer and employee who commenced employment on or before January 9, 2009. When the City's GASB Actuary has determined that the City's portion of the Trust Fund is fully funded, the City's 1% contribution shall cease, and officers and employees will each contribute 50% of the maximum 1% of pre-tax compensation.

Additional or existing contribution requirements may be established or modified by amendment to the City's Charter.

For the fiscal year ending June 30, 2018, the City's funding was based on "pay-as-you-go" plus a contribution of $25,839 to the Retiree Healthcare Trust Fund. The "pay-as-you-go" portion paid by the City was $178,019 for a total contribution of $203,858 for the fiscal year ending June 30, 2018. The SFPUC's proportionate share of contributions for fiscal year 2018 was $14,360: $9,122 for Water Enterprise, $3,264 for the Wastewater Enterprise, $870 for Hetchy Water, $1,064 for Hetchy Power, and $40 for CleanPowerSF.

OPEB liabilities, OPEB Expenses and Deferred Outflows/Inflows of Resources Related to OPEB

As of June 30, 2018, the City reported net OPEB liabilities related to the Plan of $3,717,207. The SFPUC's proportionate share of the City's net OPEB liability as of June 30, 2018 was $261,853: $166,336 for Water Enterprise, $59,517 for the Wastewater Enterprise, $15,872 for Hetchy Water, $19,400 for Hetchy Power, and $728 for CleanPowerSF.

For the year ended June 30, 2018, the City's recognized OPEB expense was $355,186. Amortization of the City's deferred inflow is included as a component of pension expense. The SFPUC's proportionate share of the City's OPEB expense was $25,020: $15,894 for Water Enterprise, $5,687 for the Wastewater Enterprise, $1,516 for Hetchy Water, $1,854 for Hetchy Power, and $69 for CleanPowerSF.

As of June 30, 2018, the SFPUC's reported deferred outflows/inflows of resources related to OPEB from the following sources:

Deferred Outflows of Resources		Water	Wastewater	Hetchy Water	Hetchy Power	CleanPowerSF	SFPUC Total
Contributions subsequent to measurement date	$	9,122	3,264	870	1,064	40	14,360
Deferred Inflows of Resources							
Net difference between projected and actual earnings on plan investments	$	268	96	26	31	1	422

Amounts reported as deferred outflows, exclusive of contributions made after the measurement date, and deferred inflows of resources will be amortized annually and recognized in OPEB expense as follows:

Fiscal years		Water	Wastewater	Hetchy Water	Hetchy Power	CleanPowerSF	SFPUC Total
2019	$	(67)	(24)	(6)	(8)	(1)	(106)
2020		(67)	(24)	(6)	(8)	—	(105)
2021		(67)	(24)	(6)	(8)	—	(105)
2022		(67)	(24)	(8)	(7)	—	(106)
2023		—	—	—	—	—	—
Thereafter		—	—	—	—	—	—

Actuarial Assumptions

A summary of the actuarial assumptions and methods used to calculate the Total OPEB Liability as of June 30, 2017 (measurement year) is provided below:

Key Actuarial Assumptions	
Valuation Date	June 30, 2016 updated to June 30, 2017
Measurement Date	June 30, 2017
Actuarial Cost Method	The Entry Age Actuarial Cost Method is used to measure the Plan's Total OPEB Liability
Healthcare Cost Trend Rates	Pre-Medicare trend starts at 7.25% and trends down to ultimate rate of 4.5% Medicare trend starts at 7.0% and trends down to ultimate rate of 4.5% 10-County average trend starts at 6.0% and trends down to ultimate rate of 4.5%
Expected Rate of Return on Plan Assets	7.50%
Discount Rate	7.50%
Salary Increase Rate	Wage Inflation Component: 3.50% Additional Merit Component (dependent on years of service): Police: 0.00% - 8.00% Fire: 0.00% - 15.00% Muni Drivers: 0.00% - 15.00% Craft: 0.00% - 3.50% Misc: 0.00% - 5.25%
Inflation Rate	Wage Inflation: 3.50% compounded annually Consumer Price Inflation: 3.00% compounded annually
Mortality Tables	Base mortality tables are developed by multiplying a published table by an adjustment factor developed in SFERS experience study for the period ending June 30, 2014.

Non-Annuitant - CalPERS employee mortality tables without scale BB projection

Gender	Adjustment Factor	Base Year
Female	0.918	2009
Male	0.948	2009

Healthy Annuitants - CalPERS healthy annuitant mortality table without scale BB projection

Gender	Adjustment Factor	Base Year
Female	1.014	2009
Male	0.909	2009

Miscellaneous Disable Annuitants - RP-2014 Disabled Retiree Tables without MP-2014 projection

Gender	Adjustment Factor	Base Year
Female	1.066	2006
Male	0.942	2006

Safety Disables Annuitants - CalPERS industrial disability mortality table without scale BB projection

Gender	Adjustment Factor	Base Year
Female	0.983	2009
Male	0.909	2009

Sensitivity of Liabilities to Changes in the Healthcare Cost Trend Rate and Discount Rate

The following presents the SFPUC's proportionate share of the City's net OPEB liability calculated using the healthcare cost trend rate, as well as what SFPUC's allocation of the City's net OPEB liability would be if it were calculated using a healthcare cost trend rate that is 1% lower or 1% higher than the current rate:

	Water	Wastewater	Hetchy Water	Hetchy Power	CleanPowerSF	SFPUC Total
-1.00%	$ 145,162	51,941	13,852	16,930	635	228,520
Baseline	166,336	59,517	15,872	19,400	728	261,853
1.00%	192,510	68,883	18,370	22,453	842	303,058

Discount Rate

The discount rate used to measure the total OPEB liability as of June 30, 2017 was 7.50%. Based on the assumption that plan member contributions will continue to be made at the rates specified in the Charter, it was determined that the Plan's projected fiduciary net position will be greater than or equal to the benefit payments projected for each future period. As such, the long-term expected rate of return on plan investments was applied to all periods of projected benefit payments to determine the total OPEB liability.

The long-term expected rate of return on OPEB plan investments was 7.50% based on expected future returns and historical returns experienced by the Trust Fund. Expected future returns were determined based on 10-year and 20-year capital market assumptions for the Trust Fund's asset allocation. Target allocation for each major asset class are summarized in the following table:

Asset Class	Target Allocation	20-year Expected Return
U.S. Equities	41.0 %	7.3 %
Developed Market Equity (non-U.S.)	20.0	7.1
Emerging Market Equ ty	16.0	9.4
High Yield Bonds	3.0	5.4
Bank Loans	3.0	5.0
Emerging Market Bonds	3.0	5.4
Treasury Inflation Protected Securities	5.0	3.3
Investment Grade Bonds	9.0	3.6
Total	100.0	

The asset allocation targets summarized above have a 20-year return estimate of 7.75%, which was weighted against a 10-year model estimating a 6.59% return, resulting in the ultimate long-term expected rate of return of 7.50%.

The following presents the SFPUC's proportionate share of the City's net OPEB liability calculated using the discount rate, as well as what SFPUC's proportionate share of the City's net OPEB liability would be if it were calculated using a discount rate that is 1% lower or 1% higher than the current rate:

	Water	Wastewater	Hetchy Water	Hetchy Power	CleanPowerSF	SFPUC Total
1% Decrease Share of NOL @ 6.50%	$ 190,549	68,181	18,183	22,224	833	299,970
Share of NOL @ 7.50%	166,336	59,517	15,872	19,400	728	261,853
1% Increase Share of NOL @ 8.50%	146,479	52,412	13,978	17,084	640	230,593

(13) Related Parties

Various common costs incurred by the Commission are allocated proratably between Water, Wastewater, Hetchy Water and Hetchy Power. The allocations are based on the Commission management's best estimate and may change from year to year depending on the activities incurred by each Enterprise and the information available.

The following tables show the administrative costs for the years ended June 30, 2018 and 2017:

Fiscal Years	Water		Wastewater		Hetchy Water		Hetchy Power		SFPUC Total
2018	$ 42,392	50.7%	26,473	31.6%	3,499	4.2%	11,310	13.5%	83,674
2017	41,923	50.8%	26,253	31.8%	3,462	4.2%	10,899	13.1%	82,537

SFPUC's 75-year lease agreement with the San Francisco Recreation and Parks Department (SFRPD), for the use of parking spaces for its fleet of vehicles at the Civic Center Garage, commenced on February 1, 2011. The total payment under this agreement is $6,274, which was fully made as of fiscal year 2015. The expenses and prepayments among the three SFPUC Enterprises are based on 525 Golden Gate occupancy.

The following tables show the allocable share of expenses and prepayments for the years ended June 30, 2018 and 2017:

	2018				
	Water	Wastewater	Hetchy Water	Hetchy Power	SFPUC Total
Allocable share of expenses	$ 45	23	4	12	84
Allocable share of prepayment	3,445	1,231	168	805	5,649

	2017				
	Water	Wastewater	Hetchy Water	Hetchy Power	SFPUC Total
Allocable share of expenses	$ 46	21	4	12	83
Allocable share of prepayment	3,490	1,254	173	816	5,733

Water Enterprise

The Water Enterprise purchases water from Hetch Hetchy Water. The amounts, totaling $32,600 and $34,600 for the years ended June 30, 2018 and 2017, respectively, have been included in the services provided by other departments in the accompanying financial statements.

The Water Enterprise purchases electricity from Hetch Hetchy Power at market rates. The amounts, totaling $9,047 and $8,480 for the years ended June 30, 2018 and 2017, respectively, have been included in services provided by other departments in the accompanying financial statements.

Since fiscal year 2008, the Water Enterprise has charged City departments for water usage with the exception of fire hydrants, which are used for general public safety. In fiscal years 2018 and 2017, the Water Enterprise delivered water for fire hydrant purposes totaling $13 and $9, respectively, based on metered usage and applicable water rates, and the amount has been excluded from operating revenues in the accompanying financial statements.

A variety of City departments provide services such as engineering, purchasing, legal, data processing, telecommunications, and human resources to the Water Enterprise and charge amounts designed to recover those departments' costs. These charges, totaling $15,213 and $16,105 for the years ended June 30, 2018 and 2017, respectively, have been included in services provided by other departments in the accompanying financial statements.

During the fiscal year ended June 30, 2018, the Water Enterprise transferred $30,000 to Hetch Hetchy Water to fund various upcountry capital projects, $1,244 to San Francisco Recreation and Parks Department for Alta Plaza Park and Moscone Recreation Center projects, $92 to San Francisco

Municipal Transportation Agency for the Forest Hill Station project, and $32 to the Office of the City Administrator for the Surety Bond Program. The Water Enterprise received $282 from the City for Earthquake Safety and Emergency Response projects, and $100 from the General Fund for the San Francisco War Memorial Veterans Building project.

As of June 30, 2018 and 2017, the Water Enterprise has payables in the amount of $96 and $7 to the Department of Public Works for Road Structure Support projects.

Wastewater Enterprise

The Wastewater Enterprise purchases electricity from Hetch Hetchy Power at market rates. This amount, totaling $10,195 and $10,738 for the years ended June 30, 2018 and 2017, respectively, has been included in services provided by other departments in the accompanying financial statements.

The Wastewater Enterprise provides sewer services to other City departments at non-residential rates established by the Commission, and through the Customer Services Department, bills and collects sewer service charges on behalf of the Wastewater Enterprise.

The City's Department of Public Works provides certain engineering and other services to the Wastewater Enterprise and charges amounts designed to recover its costs. These services are primarily related to street cleaning, engineering, building repair, and sewer repair. These amounts totaling approximately $14,417 and $13,586 for the years ended June 30, 2018 and 2017, respectively, have been included in services provided by other departments in the accompanying financial statements.

A variety of other City departments provide services such as purchasing, legal, data processing, telecommunications, and human resources to the Wastewater Enterprise and charge amounts designed to recover those departments' costs. These charges totaling approximately $11,762 and $12,508 for the years ended June 30, 2018 and 2017, respectively, have been included in services provided by other departments in the accompanying financial statements.

As of June 30, 2018, the Wastewater Enterprise has payables in the amount of $1,061, which is associated with the SFPUC Headquarters Living Machine system.

Hetchy Water

The City performs certain administrative services such as maintenance of accounting records and investment of cash for all fund groups within the City. The various funds are charged for these services based on the City's indirect cost allocation plan. The overhead allocation paid to the General Fund of the City is included in other operating expenses in the accompanying financial statements. Hetchy Water overhead costs were $29 and $54 for the years ended June 30, 2018 and 2017.

The Water Enterprise purchases water from Hetchy Water. Included in the operating revenues are the water assessment fees of $32,600 and $34,600 for the years ended June 30, 2018 and 2017, respectively. The water assessment fees represent a recovery to fund upcountry, water-related costs that are not otherwise funded through Hetchy water-related revenue or Water revenue bonds.

A variety of City departments provide direct services such as engineering, purchasing, legal, data processing, telecommunication, and human resources to Hetchy Water and charge amounts designed

to recover those departments' costs. These charges totaling approximately $1,572 and $1,962 for the years ended June 30, 2018 and 2017, respectively, have been included in services provided by other departments in the accompanying financial statements.

Hetchy Water received $30,000 and $60,000 for the years ended June 30, 2018 and 2017, respectively, from the Water Enterprise to fund upcountry projects.

Hetchy Power

As of June 30, 2018 and 2017, operating revenues in sales of power to departments within the City were $90,019 and $87,656, respectively. Hetchy Power overhead costs were $90 and $170 for the years ended June 30, 2018 and 2017.

A variety of City departments provide direct services such as engineering, purchasing, legal, data processing, telecommunication, and human resources to Hetchy Power and charge amounts designed to recover those departments' costs. These charges totaling approximately $5,848 and $6,716 for the years ended June 30, 2018 and 2017, respectively, have been included in services provided by other departments in the accompanying financial statements.

The Water Enterprise also purchases electricity and gas from Hetchy Power. This amount totaled $9,047 and $8,480 for the years ended June 30, 2018 and 2017, respectively.

The Wastewater Enterprise purchases electricity and gas from Hetchy Power. This amount totaled $10,195 and $10,738 for the years ended June 30, 2018 and 2017, respectively.

Hetchy Power facilitates all electric and gas service connections between PG&E and City departments. In this capacity, Hetchy Power facilitates and coordinates the terms and payment for the service connections that are performed by PG&E. As of June 30, 2018, and 2017, there was no outstanding amount due from City departments related to this work. In the event Hetchy Power received money from PG&E after project completion, monies are to be refunded to the City departments for their respective credits.

Due from other City departments was $10,732 and $11,196 with elimination of a $5,601 working capital loan to CleanPowerSF for the years ended June 30, 2018 and 2017, respectively. Hetchy Power serves as the City's department for energy efficiency projects and maintains the Sustainable Energy Account (SEA) (formerly known as the Mayor's Energy Conservation Account) fund to sponsor and financially support such projects at various City departments. In this role, Hetchy Power may secure low-interest financing to supplement funds available in the SEA fund. At June 30, 2018 and 2017, projects completed or under way throughout the City amounted to $6,254 and $6,931, respectively, and are recorded as due from other government agencies.

Besides funding the SEA projects, in fiscal year 2010, Hetch Hetchy funded a project for the Treasure Island Development Authority and recorded $2,599 as due from other government agencies. Hetchy Power and the Moscone Center have renegotiated the memoranda of understanding to extend the payment terms of the receivables to match the useful life of underlying assets.

As of June 30, 2018 and 2017, Hetchy Power recorded receivables of $1,061 and $1,166, respectively, due from the Wastewater Enterprise for its share of costs relating to SFPUC Headquarters Living Machine System. Details of due from other City departments are as follows:

	2018	2017
Moscone Center	$ 6,075	6,581
San Francisco General Hospital	179	350
Total SEA-related projects	6,254	6,931
Treasure Island Development Authority	2,599	2,599
Wastewater - 525 Golden Gate Headquarters Project	1,061	1,166
San Francisco Recreation and Park	734	–
Department of Public Works	84	37
CleanPowerSF - Electricity Purchases	–	387
Office of Community Investment and Infrastructure	–	76
Total due from other City departments	10,732	11,196
Less: current portion	(980)	(1,282)
Long-term portion as of June 30, net	$ 9,752	9,914

CleanPowerSF

As of June 30, 2018 and 2017, operating revenues in sales of power to Hetchy Power were $0 and $12, respectively. Operating expenses in purchase of power from Hetchy Power were $3,501 and $1,893, respectively. Wholesale sales of energy, capacity and/or other electric power related products may be made between the CleanPowerSF and Hetchy Power, when available. CleanPowerSF and Hetchy Power transact for such products at prevailing market prices.

CleanPowerSF received program support services from Hetchy Power. This amount totaled $207 and $181 for the years ended June 30, 2018 and 2017, respectively.

(14) Risk Management

The SFPUC's Risk Management program includes both self-insured (i.e., self-retention) and insured exposures at risk. Risk assessments and purchasing of insurance coverage are collaboratively coordinated by SFPUC Enterprise Risk Management and the City's Office of Risk Management. With certain exceptions, the City and the SFPUC's general approach is to first evaluate the exposure at risk for self-insurance. Based on this analysis, internal mitigation strategies and financing through a self-retention mechanism are generally more economical as the SFPUC in coordination with the City Attorney's Office administers, adjusts, settles, defends, and pays claims from budgeted resources (i.e., pay-as-you-go fund). When economically more viable or when required by debt financing covenants, the SFPUC obtains commercial insurance. At least annually, the City actuarially determines general liability and workers' compensation risk exposures. The SFPUC does not maintain commercial earthquake coverage, with certain minor exceptions, such as a sub-limit for fire-sprinkler leakage due to earthquake under the SFPUC Property Insurance program.

Primary Risks	Typical Coverage Approach
General liability	Self-Insured
Property	Purchased Insurance and Self-Insured
Electronic data processing	Purchased Insurance and Self-Insured
Workers' compensation	Self-Insured through Citywide Pool

Other Risks	Typical Coverage Approach
Surety bonds	Purchased and Contractually Transferred
Errors and omissions	Combination of Self-Insured and Contractual Risk Transfer
Professional liability	Combination of Self-Insured and Contractual Risk Transfer
Public officials liability	Purchased Insurance
Employment practices liability	Purchased Insurance
Builders' risk	Contractually Transferred
Crime	Purchased Insurance

a) *General Liability*

Through coordination with the Controller and the City Attorney's Office, the general liability risk exposure is actuarially determined and is addressed through pay-as-you-go funding as part of the budgetary process. Associated costs and estimates are booked as expenses as required under GAAP for financial statement purposes for both the SFPUC and the City and County of San Francisco's Comprehensive Annual Financial Report. The claim expense allocations are determined based on actuarially determined anticipated claim payments and the projected timing of disbursement.

The changes for the general liability (damage claims) for the years ended June 30, 2018 and 2017 are as follows:

	2018				
	Water	Wastewater	Hetchy Water	Hetchy Power	SFPUC Total
Beginning of year	$ 10,738	14,149	586	1,852	27,325
Claims and changes in estimates	4,151	3,936	786	2,189	11,062
Claims paid	(1,487)	(4,019)	(1,139)	(1,808)	(8,453)
End of year	$ 13,402	14,066	233	2,233	29,934

	2017				
	Water	Wastewater	Hetchy Water	Hetchy Power	SFPUC Total
Beginning of year	$ 16,900	16,633	353	1,508	35,394
Claims and changes in estimates	9,085	365	1,082	2,064	12,596
Claims paid	(15,247)	(2,849)	(849)	(1,720)	(20,665)
End of year	$ 10,738	14,149	586	1,852	27,325

* CleanPowerSF had no general liability as of June 30, 2018 and 2017.

b) *Property and Electronic Data Processing*

The SFPUC's property risk management approach varies depending on whether the facility is currently under construction, the property is part of revenue-generating operations, the property is of high value, or is mission-critical in nature. During the course of construction, the SFPUC requires each contractor to provide its own insurance, while ensuring the full scope of work is covered with satisfactory levels to limit the SFPUC's risk exposure. Once construction is complete, the SFPUC performs an assessment to determine whether liability/loss coverage will

be obtained through the commercial property policy or self-insurance. The majority of property scheduled in the insurance program is for (1) revenue generating facilities, (2) debt financed facilities, (3) mandated coverage to meet statutory requirements for bonding of various public officials, or (4) high-value, mission-critical property or equipment. The Electronic Data Processing policy protects selected high-value electronic property in case of damage or loss.

c) *Workers' Compensation*

The City actuarially determines and allocates workers' compensation costs to the SFPUC according to a formula based on the following: (i) the dollar amount of claims; (ii) yearly projections of payments based on historical experience; and (iii) the size of the SFPUC's payroll. The administration of workers' compensation claims and payouts are handled by the Workers' Compensation Division of the City's Department of Human Resources. Statewide workers' compensation reforms have resulted in budgetary savings in recent years. The City continues to develop and implement improved programs, such as return-to-work programs, to lower or mitigate the growth of workers' compensation costs. Programs include accident prevention, investigation, and duty modification for injured employees with medical restrictions so return to work can occur as soon as possible.

The changes in the liabilities for workers' compensation for the years ended June 30, 2018 and 2017 are as follows:

	2018				
	Water	Wastewater	Hetchy Water	Hetchy Power	SFPUC Total
Beginning of year	$ 9,089	5,580	999	1,970	17,638
Claims and changes in estimates	4,382	1,769	207	354	6,712
Claims paid	(2,514)	(1,565)	(217)	(364)	(4,660)
End of year	$ 10,957	5,784	989	1,960	19,690

	2017				
	Water	Wastewater	Hetchy Water	Hetchy Power	SFPUC Total
Beginning of year	$ 8,814	5,658	997	1,967	17,436
Claims and changes in estimates	2,976	1,112	224	637	4,949
Claims paid	(2,701)	(1,190)	(222)	(634)	(4,747)
End of year	$ 9,089	5,580	999	1,970	17,638

* CleanPowerSF had no workers' compensation liability as of June 30, 2018 and 2017.

d) *Surety Bonds*

Bonds are required in most phases of the public utilities construction contracting process for such phases as bid, performance, and payment or maintenance. Additionally, bonds may be required in other contracts where goods or services are provided to ensure compliance with applicable terms and conditions such as warranty.

e) *Errors and Omissions, Professional Liability*

Errors and omissions and professional liability are commonly transferred through contract to the contracted professional, or retained through self-insurance on a case-by-case basis depending on the size, complexity, or scope of construction or professional service contracts. Examples of such contracts are inclusive of services provided by engineers, architects, design professionals, and other licensed or certified professional service providers.

f) *Public Officials Liability, Employment Practices Liability*

All Enterprise public officials with financial oversight responsibilities are provided coverage through a commercial Public Officials Liability Policy. An Employment Practices Liability Policy is retained to protect against employment-related claims and liabilities.

g) *Builders' Risk*

Builders' Risk policies of insurance are required to be provided by the contractor on all construction projects for the full value of construction.

h) *Crime*

The SFPUC also retains a Commercial Crime Policy, in lieu of bonding its employees, to provide coverage against liabilities or losses due to third-party crime or employee fraud.

i) *Energy Risk Management*

Similar to other electric utilities with a heavy reliance on hydro-electric generation, Hetch Hetchy is exposed to risks that could impact its ability to generate net revenues to fund operating and capital investment activities. Hydroelectric generation facilities in the Sierra Nevada are the primary source of electricity for Hetch Hetchy. For this reason, the Hetch Hetchy revenues can vary with watershed hydrology, unexpected generator outages, and market prices for energy. Given the inherent risk for all hydroelectric generation, several risk management interventions have been developed to mitigate exposure.

j) *Enterprise Risk Management*

The Power Enterprise adopted the ISO 31000 standard for the Hetchy Power and CleanPowerSF program as the framework for implementing Enterprise Risk Management (ERM). The Power Enterprise utilizes this framework to systematically and proactively identify and mitigate risks that threatens its business objectives. Since not all risks are insurable or transferable contractually, the ERM program provides an additional method to manage risks and protect the Power Enterprise's current and expanding business allowing for increased operational resiliency and the ability to capitalize on opportunities.

(15) Commitments and Litigation

a) *Commitments*

SFPUC has outstanding commitments with third parties for various capital projects and other purchase agreements for materials and services. As of June 30, 2018 and 2017, the Water Enterprise had outstanding commitments with third parties of $290,923 and $279,754, respectively. Wastewater Enterprise had outstanding commitments with third parties of $226,025 in 2018, and $229,714 in 2017. Hetch Hetchy had outstanding commitments with third parties of $113,361 in 2018, and $72,736 in 2017.

Hetchy Water

To meet certain requirements of the Don Pedro Reservoir operating license, the City entered into an agreement with the MID and TID in which the Districts would be responsible for an increase in water flow releases from the reservoir in exchange for annual payments from the

City, which are included in Hetchy Water's operating expenses. The payment amounts were $4,793 and $4,716 for fiscal years 2018 and 2017, respectively. The payments are to be made for the duration of the license, but may be terminated with one year's prior written notice after 2001. The City and the Districts have also agreed to monitor the fisheries in the lower Tuolumne River for the duration of the license. A maximum monitoring expense of $1,400 is to be shared between the City and the Districts over the term of the license. The City's share of the monitoring costs is 52%, while the Districts are responsible for 48% of the costs.

Hetchy Power

District Sales

In April 1988, Hetchy Power entered into two separate long-term power sales agreements (the Agreement) with the two irrigation districts, the MID and TID, which expired June 30, 2015. In April 2015, the Commission and the Board of Supervisors approved the extension of both agreements for one year to June 30, 2016. A second extension agreement was subsequently approved to extend both agreements for an additional year to June 30, 2017, with an automatic six month extension through December 31, 2017. Terms and conditions for the MID extension agreement were the same as the original agreement. The second extension agreement for TID removed the District's rights to excess energy from the project and terminated those conditions with the first extension agreement on June 30, 2016. Extended agreements for MID and TID expired on December 31, 2017.

The SFPUC will continue to comply with the Raker Act by making Hetch Hetchy generated hydropower available at cost to MID and TID for their agricultural pumping and municipal loads as energy from the Hetch Hetchy project is available after meeting the SFPUC's municipal load obligations.

For fiscal years 2018 and 2017, energy sales to the Districts totaled 46,651 Megawatt hours (MWh) or $2,636 and 152,321 MWh or $7,808 respectively. The decrease was primarily due to no purchase agreement with MID and TID in fiscal year 2018, beginning January 1, 2018.

1987 Interconnection Agreement and 2015 Replacement Agreements

In 1987, the City entered into an interconnection agreement with PG&E to provide transmission, distribution, and other support services for the City's use of PG&E's transmission and distribution system to deliver the City's Hetchy power and purchases to the City's customers. The renegotiated agreement in 2007 expired on July 1, 2015. In December 2014, PG&E filed several separate replacement service and facilities agreements with the FERC for its approval. By FERC order, the City is currently taking transmission service on PG&E's transmission system using the CAISO Open-Access Transmission Tariff and is taking distribution service under PG&E's Wholesale Distribution Tariff pursuant to PG&E's replacement agreements, but subject to waiver of certain terms and conditions and subject to refund by PG&E, pending the FERC's final decision. During fiscal years 2018 and 2017, Hetchy Power purchased $9,570 and $8,595, respectively, of transmission, distribution services, and other support services from PG&E under the terms of the replacement agreements and the 1987 Interconnection Agreement.

Western System Power Pool and other Market Purchases and Sales

Hetchy Power may purchase or sell energy and other related products (such as ancillary services, spinning reserves, resource adequacy products, and congestion revenue rights) with different market entities through the Western System Power Pool (WSPP) and the CAISO. During

fiscal years 2018 and 2017, Hetchy Power purchased $6,656 and $0 of power and other related products, respectively. Sales of excess power, after meeting Hetch Hetchy's obligations, were 15,900 MWh, or $668, for 2018 and 29,050 MWh, or $755, for 2017.

Power Purchase Agreement (PPA)

Hetchy Power (Buyer) purchases energy, capacity, and environmental attributes from a solar photovoltaic project located at Sunset Reservoir (the facility) pursuant to the 2009 25-year PPA with SFCity1, LP, owned by Duke Energy (Seller). In November 2010, the facility commenced commercial operation and began to provide Hetchy Power energy generated by the facility.

The PPA sets the starting purchase price of generated energy at $235/MWh, increasing by 3% each year throughout the term of the agreement, and it is expected that the facility will generate 6,560 MWh per year. In fiscal year 2018, the facility generated 6,887 MWh and rate was at $306/MWh. In the event that the facility generates more energy than expected due to better than normal meteorological conditions, the PPA requires the Buyer to purchase all the excess energy but generation in excess of 120% of expected is purchased at no cost. The PPA also requires the Seller to generate a minimum amount of energy from the facility annually. If energy production falls below 50% of expected, the Seller must provide replacement power, and if energy falls below 90% of expected, the price for energy generated is lowered. In fiscal years 2018 and 2017, purchases of energy under the Agreement were $2,015, or 6,887 MWh, and $1,847, or 6,505 MWh, respectively.

CleanPowerSF

CleanPowerSF began serving customers in May 2016 and entered into contracts with Calpine Energy Services L.P. (Calpine) and Shiloh I Wind Project LLC (Shiloh) to purchase renewable and conventional energy and resource adequacy capacity to meet its retail sales obligations. Both contracts feature 10-year master agreements under which multiple transactions may be executed. CleanPowerSF had executed two multi-year transactions with Calpine (three-year term) and Shiloh (five-year term). The Calpine requires a reserve balance of $3,049 and $2,640 as of June 30, 2018 and 2017, respectively, which is equivalent to two months' worth of estimated payment. As of June 30, 2018, and 2017, total electricity purchased from Calpine and Shiloh were $19,796 and $17,265 respectively

Since its launch, CleanPowerSF has added multiple short-term and medium-term contracts to purchase renewable, carbon-free and conventional energy and resource adequacy capacity, as well as long-term contracts for renewable energy with sPower and Terra-Gen. These contracts have been entered into to allow CleanPowerSF to both meet its existing retail sales obligations and to support future retail sales from the citywide expansion of the CleanPowerSF program planned to occur by the end of 2019. The total contract cost of long-term renewable energy contracts with sPower (a 22-year contract starting delivery in July 2019) and Terra-Gen (a 15-year contract starting delivery in December 2020) are $219,219 and $102,339, respectively, over each contract's term. Additional short-term and medium-term contracts (of commitments ranging from less than 1 year to 5 years) for renewable, carbon-free and conventional energy to be delivered during 2019 to 2023 totaled to be $353,216 over their terms.

Customer and Administrative Services

CleanPowerSF entered into a contract with Noble Americas Energy Solutions in November 2015 for a three-year term, not to exceed $5,600 to provide data management, billing administration and customer care services. On December 1, 2016, Noble Americas Energy Solutions was

acquired by Calpine Corporation and was renamed Calpine Energy Solutions. Subsequently, CleanPowerSF's contract was assigned to Calpine Energy Solutions under its new name and ownership. During fiscal year 2018 and 2017, amounts paid were $1,526 and $990, respectively.

CleanPowerSF Guarantee

In March 2018, CleanPowerSF entered into a five-year, $75,000 Credit Agreement with J.P. Morgan Chase in order for the program to secure letters of credit to guarantee certain payment obligations of CleanPowerSF and to meet working capital needs of CleanPowerSF, if necessary. The Credit Agreement is secured by CleanPowerSF net revenues; there is no pledge of or Lien on CleanPowerSF net revenues that ranks senior to the obligations of the Credit Agreement. The letters of credit, issued by J.P. Morgan Chase, were in the amount of $18,091 and $13,939 as of June 30, 2018 and 2017, respectively. There was no draw against the Credit Agreement during fiscal years 2018 and 2017.

b) Grants

Grants that the SFPUC receives are subject to audit and final acceptance by the granting agency. Current and prior year costs of such grants are subject to adjustment upon audit.

c) Litigation

The SFPUC is a defendant in various legal actions and claims that arise during the normal course of business. The final disposition of these legal actions and claims is not determinable. However, in the opinion of management, the outcome of any litigation of these matters will not have a material effect on the financial position or changes in net position of SFPUC.

d) Environmental Issue

Water

As of June 30, 2018 and 2017, the Water Enterprise recorded $2,311 and $2,468 in pollution remediation liability, respectively. This decrease of $157 in pollution remediation liability in fiscal year 2018 is for expenses relating to the excavation of contaminated soil that contained polycyclic aromatic hydrocarbons from the Pacific Rod & Gun Club site in the Lake Merced area, and remediation activities for the 17th and Folsom site. As of June 30, 2018, the pollution remediation liability of $2,311 consisted of $1,375 for the Pacific Rod & Gun Club site, and $936 for the 17th and Folsom site. As of June 30, 2017, the pollution remediation liability of $2,468 consisted of $1,484 for the Pacific Rod & Gun Club site, and $984 for the 17th and Folsom site.

Wastewater

As of June 30, 2018 and 2017, the Wastewater Enterprise recorded $4,703 and $2,711 in pollution remediation liability, respectively. This increase of $1,992 in pollution remediation liability in fiscal year 2018 is due to increases in cleanup cost estimates of $2,500 for the toxic sediments at Yosemite Creek and $103 for the hazardous materials at the Southeast Wastewater Treatment Plant, offset by violation penalty payments of $380 for the discharge of chlorinated treated wastewater at Southeast Plant and $231 for the discharge of treated wastewater at Oceanside Plant. As of June 30, 2018, the pollution remediation liability of $4,703 consisted of $4,500 for the Yosemite Creek toxic sediments and $203 for the Southeast Wastewater Treatment Plant hazardous materials. As of June 30, 2017, the pollution

remediation liability of $2,711 consisted of $2,000 for the Yosemite Creek, $611 penalties and fines to the State of California Regional Water Board, and $100 for the Southeast Wastewater Treatment Plant hazard materials.

Hetch Hetchy

Hetch Hetchy had no pollution remediation liability as of June 30, 2018 and 2017.

(16) Subsequent Events

a) *Conditional Property Exchange of 639 Bryant Street for 2000 Marin Street – Water*

On July 24, 2018, the Board of Supervisors approved Water Enterprise to transfer 639 Bryant Street that has severed its purpose as a utility yard in exchange for 2000 Marin Street from 2000 Marin Property L.P (Developer), in San Francisco, California. The property exchange is conditional subject to California Environmental Quality Act Guidelines and the reimbursement of certain SFPUC costs.

b) *Water Infrastructure Finance and Innovation Act (WIFIA) Loan Agreement Approval – Wastewater*

On July 27, 2018, the SFPUC entered into a "Water Infrastructure Finance and Innovation Act (WIFIA)" Loan Agreement ("WIFIA Loan") with the United States Environmental Protection Agency in the amount of $699,242. The WIFIA Loan was entered into pursuant to the WIFIA authorized by Congress in 2014. The WIFIA Loan will fund 49% of the costs of the Wastewater Enterprise's Biosolids Digester Facility Project plus certain eligible expenses. Payment of the WIFIA Loan will be secured by a senior lien pledge of the Wastewater Enterprise's net revenues and is on a parity lien basis with the SFPUC's outstanding Wastewater Revenue Bonds and Clean Water State Revolving Fund ("SRF") Loans entered into with the California State Water Resources Control Board. The loan will bear a fixed interest rate of 3.09% for a 35-year term, with loan repayment expected to begin in fiscal year 2026, after substantial completion of project construction. There is no outstanding loan principal as of the date of this report.

c) *Revenue Bonds, Series 2018 ABC Issuance - Wastewater*

On August 9, 2018 the SFPUC issued its San Francisco Wastewater Revenue Bonds, 2018 Sub-Series A (SSIP) (Green Bonds), Sub-Series B (Non-SSIP) and Sub-Series C (SSIP) (Green Bonds) (the "Bonds") in an aggregate principal amount of $594,145. The Bonds were issued to (i) refund approximately $25,000 aggregate principal amount of commercial paper notes issued pursuant to the Wastewater Enterprise's Interim Project Funding Program, ii) finance and refinance a portion of the design, acquisition and construction of various capital projects in furtherance of the SFPUC's Sewer System Improvement Program ("SSIP"), and iii) finance and refinance a portion of the design, acquisition and construction of various capital non-SSIP projects of benefit to the SFPUC's Wastewater Enterprise. Payment for the Bonds is secured by a senior lien pledge of Wastewater Enterprise net revenues and are on a parity lien basis with the outstanding Wastewater Revenue Bonds, Clean Water State Revolving Fund ("SRF") loans, and the federal WIFIA Loan.

d) Jurisdictional exchange of Asphalt Plant Property from the Department of Public Works for Wastewater Enterprise's Napoleon Site - Wastewater

The jurisdictional exchange of the Napoleon Site and Asphalt Plant Site occurred on July 1, 2018. The SFPUC took possession of the Asphalt Plant Site while the Department of Public Works (DPW) took possession of the Napoleon Site along with the trailers and site improvements. The jurisdictional transfer is an intra-entity transfer of the assets and is treated as an even exchange with no financial impact on the financial statements. The Asphalt Plant Site is located directly across from the SFPUC's Southeast Water Pollution Control Plant (SEP) facilities.

e) Revenue Bonds Rating Change – Hetchy Power

On November 2, 2018, S&P Global Ratings, a division of Standard & Poor's Financial Services LLC ("S&P"), raised its long-term rating on the Power Enterprise Revenue Bonds to "AA" from "A+" and affirmed Hetchy Power's "stable" outlook.

f) Commercial Paper Program – Hetchy Power

On November 13, 2018, the Commission approved Resolution No. 18-0188 which authorized an increase in the authorization of the Power Enterprise Commercial Paper Program from not-to-exceed $90,000 to not-to-exceed $250,000 of aggregate principal amount. In support of the expanded Program, Resolution No. 18-0188 also authorized the SFPUC to enter into bank credit facilities with Bank of America, N.A. and Sumitomo Mitsui Bank, each in the principal amount of $125,000 and for terms of three years and four years, respectively; and it also authorized extending the dealer agreements with RBC Capital Markets, Barclays and Goldman Sachs for four years each.

g) Calpine Energy Solutions Contract Extension – CleanPowerSF

In November 2018, upon expiration of the first contract term, CleanPowerSF extended its contract with Calpine Energy Solutions for an additional three-year term and increased the contract's total not-to-exceed value to $18,769.

h) PG&E Intension to File Bankruptcy – Hetchy Power and CleanPowerSF

On January 13, 2019, Pacific Gas and Electric (PG&E) filed Form 8-K with the Securities and Exchange Commission, which is the 15-day advance notice required by recently enacted California law that it and its wholly owned subsidiary Pacific Gas and Electric Company (the "Utility") currently intend to file petitions to reorganize under Chapter 11 of the U.S. Bankruptcy Code on or about January 29, 2019. Hetchy Power and CleanPowerSF have a number of business relationships involving PG&E in the provision of electric services to customers, including electric transmission, distribution and customer billing services. As of January 25, 2019, Hetchy Power and CleanPowerSF have not yet determined the impact of PG&E's intended filing to reorganize under Chapter 11 of the U.S. Bankruptcy Code, to Hetchy Power and CleanPowerSF program operations.

Photo by: Robin Scheswohl

The North Point Facility Outfall Rehabilitation Project will remove sediment buildup inside and outside the North Point Outfall structure, and reline/install corrosion protection systems on pipes and structural supports. These facilities are a critical part of wastewater operations and due to aging and the harsh marine environment are in need of repair.

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

SUPPLEMENTARY INFORMATION

(Proprietary Funds)

Schedule of Changes in Net Position – Dollar and Percentage Change vs. Prior Year

Schedule of Changes in Revenues, Expenses, and Net Position – Dollar and Percentage Change vs. Prior Year

Photo by Robin Scheswohl

The Calaveras Dam Replacement Project consists of building a new zoned earth and rock fill dam immediately downstream of the existing dam.

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

THE SAN FRANCISCO PUBLIC UTILITIES COMMISSION
Schedule of Changes in Net Position – Dollar and Percentage Change vs. Prior Year
Proprietary Funds
June 30, 2018 and 2017
(In thousands)

	Water		Wastewater		Hetchy Water		Hetchy Power		CleanPowerSF		Eliminations		SFPUC Total	
Assets	2018-17 $ Change	2018-17 % Change	2018-17 $ Change	2018-17 % Change	2018-17 $ Change	2018-17 % Change	2018-17 $ Change	2018-17 % Change	2018-17 $ Change	2018-17 % Change	2018-17 $ Change	2018-17 % Change	2018-17 $ Change	2018-17 % Change
Current assets:														
Cash and investments with City Treasury	$ 39,606	12.4	(31,452)	(16.1)	2,938	3.9	9,560	5.5	(1,653)	(11.8)	–	–	18,999	2.4
Cash and investments outside City Treasury	240	705.9	262	100.0	–	–	–	–	–	–	–	–	502	1,140.9
Receivables:														
Charges for services (net of allowance for doubtful accounts of $2,211, $2,585, $0, $52 and $306 in 2018 and $2,251, $2,854, $0, $0 and $50 in 2017)	(590)	(1.1)	2,041	7.1	(14)	(33.3)	(1,100)	(13.1)	(157)	(2.8)	–	–	180	0.2
Due from other City departments, current portion	(338)	(53.5)	(44)	(27.5)	–	–	(2,302)	(70.1)	–	–	1,996	(94.8)	(688)	(34.9)
Due from other governments	175	116.7	14,997	666.2	53	100.0	(37)	(15.2)	–	–	–	–	15,188	574.2
Interest	814	171.4	796	312.2	210	396.2	450	235.6	42	247.1	–	–	2,312	233.3
Restricted interest and other receivable (net of allowance for doubtful accounts of $51, $191, $0, $0 and $0 in 2018 and $48, $170, $0, $0 and $0 in 2017)	391	9.5	(418)	(36.4)	–	–	(94)	(35.1)	–	–	–	–	(121)	(2.2)
Total current receivables	452	0.8	17,372	53.1	249	262.1	(3,083)	(24.9)	(115)	(2.1)	1,996	(94.8)	16,871	15.6
Prepaid charges, advances, and other receivables, current portion	228	18.9	(31)	(21.1)	63	15.8	673	162.2	2,431	34,728.6	–	–	3,364	154.7
Inventory	(1,875)	(25.2)	36	1.8	–	–	–	–	–	–	–	–	(1,839)	(18.6)
Restricted cash and investments outside City Treasury, current portion	36,551	34.1	(13,846)	(49.2)	–	–	(1,006)	(26.6)	–	–	–	–	21,699	15.6
Total current assets	75,202	15.2	(27,659)	(10.7)	3,250	4.3	6,144	3.2	663	3.4	1,996	(94.8)	59,596	5.7
Non-current assets:														
Restricted cash and investments with City Treasury	1,310	1.3	11,287	45.6	13,983	336.6	(12,715)	(35.3)	–	–	–	–	13,865	8.4
Restricted cash and investments outside City Treasury, less current portion	–	–	–	–	–	–	1,038	100.0	–	–	–	–	1,038	100.0
Charges for services, less current portion	(48)	(5.7)	(65)	(7.4)	–	–	(28)	(100.0)	–	–	–	–	(141)	(8.1)
Prepaid charges, advances, and other receivables, less current portion	20	0.6	(24)	(1.9)	(5)	(3.0)	(11)	(1.4)	–	–	–	–	(20)	(0.4)
Capital assets, not being depreciated and amortized	207,463	17.0	139,422	23.8	2,024	6.9	9,609	13.0	–	–	–	–	358,518	18.7
Capital assets, net of accumulated depreciation and amortization	2,306	0.1	135,084	8.1	10,044	10.2	13,024	5.4	–	–	–	–	160,458	2.7
Due from other City departments, less current portion	–	–	–	–	–	–	189	1.2	–	–	(242)	3.8	(53)	(0.6)
Total non-current assets	211,051	4.1	285,704	12.5	26,046	19.7	11,106	3.0	–	–	(242)	3.8	533,665	6.7
Total assets	286,253	5.1	258,045	10.2	29,296	14.1	17,250	3.1	663	3.4	1,754	(20.8)	593,261	6.6
Deferred outflows of resources														
Unamortized loss on refunding of debt	23,450	18.5	(205)	(29.1)	–	–	–	–	–	–	–	–	23,245	18.2
Pensions	(43,295)	(41.1)	(18,208)	(37.8)	(5,171)	(40.8)	(6,321)	(40.9)	323	100.0	–	–	(72,672)	(40.0)
Other post-employment benefits	9,122	100.0	3,264	100.0	870	100.0	1,064	100.0	40	100.0	–	–	14,360	100.0
Total deferred outflows of resources	$ (10,723)	(4.6)	(15,149)	(31.0)	(4,301)	(34.0)	(5,257)	(34.0)	363	100.0	–	–	(35,067)	(11.3)

(Continued)

See accompanying basic financial statements.

THE SAN FRANCISCO PUBLIC UTILITIES COMMISSION
Schedule of Changes in Net Position – Dollar and Percentage Change vs. Prior Year
Proprietary Funds
June 30, 2018 and 2017
(In thousands)

	Water		Wastewater		Hetchy Water		Hetchy Power		CleanPowerSF		Eliminations		SFPUC Total	
	2018-17 $ Change	2018-17 % Change	2018-17 $ Change	2018-17 % Change	2018-17 $ Change	2018-17 % Change	2018-17 $ Change	2018-17 % Change	2018-17 $ Change	2018-17 % Change	2018-17 $ Change	2018-17 % Change	2018-17 $ Change	2018-17 % Change
Liabilities														
Current liabilities:														
Accounts payable	$ 8,286	114.0	12,563	227.7	377	87.1	7,591	110.0	600	17.2	–	–	29,417	124.6
Accrued payroll	177	2.7	(200)	(4.4)	(48)	(7.0)	7	0.4	18	51.4	–	–	(46)	(0.3)
Accrued vacation and sick leave, current portion	(41)	(0.7)	337	9.8	94	12.7	116	8.4	21	84.0	–	–	527	4.5
Accrued workers' compensation, current portion	412	25.6	(4)	(0.4)	(11)	(5.9)	(12)	(3.3)	–	–	–	–	385	12.1
Due to other City departments, current portion	89	1,271.4	(80)	(42.3)	–	–	–	–	(2,387)	(100.0)	1,996	(94.8)	(382)	(79.9)
Damage claims liability, current portion	1,040	28.8	1,586	33.1	(108)	(49.5)	(46)	(6.0)	–	–	–	–	2,472	26.3
Unearned revenues, refunds, and other, current portion	354	2.1	148	3.7	5	166.7	3,115	99.2	(32)	(30.5)	–	–	3,590	14.8
Bond and loan interest payable	2,154	5.9	33	0.3	–	–	(8)	(1.5)	–	–	–	–	2,179	4.5
Bonds, current portion	22,790	46.6	995	5.0	–	–	43	1.8	–	–	–	–	23,828	33.4
Capital appreciation bonds, current portion	5,000	100.0	–	–	–	–	–	–	–	–	–	–	5,000	100.0
Certificates of participation, current portion	125	5.1	33	5.1	–	–	17	5.1	–	–	–	–	175	5.1
Commercial paper	(104,688)	(72.2)	151,448	135.9	–	–	222	1.1	–	–	–	–	46,982	17.0
Wholesale balancing account, current portion	(7,799)	(94.9)	–	–	–	–	–	–	–	–	–	–	(7,799)	(94.9)
State revolving funds loans payable, current portion	–	–	296	100.0	–	–	–	–	–	–	–	–	296	100.0
Current liabilities payable from restricted assets	14,302	45.3	25,243	107.5	2,376	59.0	2,455	82.7	–	–	–	–	44,376	71.5
Total current liabilities	(57,799)	(18.4)	192,398	100.9	2,685	42.7	13,500	33.3	(1,780)	(29.5)	1,996	(94.8)	151,000	27.1
Long-term liabilities:														
Other post-employment benefits obligations	45,006	37.1	7,847	15.2	4,592	40.7	2,545	15.1	641	736.8	–	–	60,631	30.1
Net pension liability	(50,953)	(19.6)	(17,934)	(15.1)	(6,019)	(19.3)	(7,358)	(19.3)	1,087	100.0	–	–	(81,177)	(18.1)
Accrued vacation and sick leave, less current portion	(284)	(5.9)	129	5.1	41	9.2	51	5.1	5	38.5	–	–	(58)	(0.7)
Accrued workers' compensation, less current portion	1,456	19.5	208	4.6	1	0.1	2	0.1	–	–	–	–	1,667	11.5
Due to other City departments, less current portion	–	–	(109)	(10.3)	–	–	–	–	351	6.7	(242)	3.8	–	–
Damage claims liability, less current portion	1,624	22.8	(1,669)	(17.8)	(245)	(66.6)	427	39.6	–	–	–	–	137	0.8
Unearned revenues, refunds, and other, less current portion	–	–	–	–	–	–	344	10.7	–	–	–	–	344	9.0
Bonds, less current portion	331,284	7.4	(26,774)	(2.6)	–	–	(2,702)	(4.9)	–	–	–	–	301,808	5.4
Capital appreciation bonds, less current portion	(4,553)	(72.5)	–	–	–	–	–	–	–	–	–	–	(4,553)	(72.5)
Certificates of participation, less current portion	(2,741)	(2.6)	(725)	(2.6)	–	–	(374)	(2.6)	–	–	–	–	(3,840)	(2.6)
Wholesale balancing account, less current portion	20,194	57.3	–	–	–	–	–	–	–	–	–	–	20,194	57.3
State revolving funds loans payable, less current portion	–	–	22,311	100.0	–	–	–	–	–	–	–	–	22,311	100.0
Pollution remediation obligations	(157)	(6.4)	1,992	73.5	–	–	–	–	–	–	–	–	1,835	35.4
Total long-term liabilities	340,876	6.7	(14,724)	(1.2)	(1,630)	(3.6)	(7,065)	(5.4)	2,084	39.0	(242)	3.8	319,299	4.9
Total liabilities	283,077	5.3	177,674	12.4	1,055	2.1	6,435	3.7	304	2.7	1,754	(20.8)	470,299	6.7
Deferred inflows of resources														
Related to pensions	3,928	35.3	2,184	42.9	480	35.9	587	35.9	79	100.0	–	–	7,258	37.8
Other post-employment benefits	268	100.0	96	100.0	26	100.0	31	100.0	1	100.0	–	–	422	100.0
Total deferred inflows of resources	4,196	37.7	2,280	44.8	506	37.8	618	37.8	80	100.0	–	–	7,680	40.0
Net position														
Net investment in capital assets	8,608	1.7	112,538	10.3	12,068	9.4	10,237	3.9	–	–	–	–	143,451	7.2
Restricted for debt service	11,944	108.7	335	34.3	–	–	349	72.0	–	–	–	–	12,628	101.4
Restricted for capital projects	(4,926)	(13.0)	(1,653)	(100.0)	11,712	100.0	–	–	–	–	–	–	5,133	13.0
Unrestricted	(27,369)	62.9	(48,278)	(99.6)	(346)	(0.9)	(5,646)	(4.0)	642	7.8	–	–	(80,997)	(41.7)
Total net position	$ (11,743)	(2.3)	62,942	5.5	23,434	13.9	4,940	1.2	642	7.8	–	–	80,215	3.6

See accompanying basic financial statements.

THE SAN FRANCISCO PUBLIC UTILITIES COMMISSION
Schedule of Changes in Revenues, Expenses, and Net Position – Dollar and Percentage Change vs. Prior Year
Proprietary Funds
June 30, 2018 and 2017
(In thousands)

	Water		Wastewater		Hetchy Water		Hetchy Power		CleanPowerSF		SFPUC Total	
	2018-17 $ Change	2018-17 % Change	2018-17 $ Change	2018-17 % Change	2018-17 $ Change	2018-17 % Change	2018-17 $ Change	2018-17 % Change	2018-17 $ Change	2018-17 % Change	2018-17 $ Change	2018-17 % Change
Operating revenues:												
Charges for services	$ 56,931	13.0	35,436	13.2	(1,581)	(4.5)	(2,117)	(1.8)	5,701	16.8	94,370	10.5
Rents and concessions	4,093	46.4	5	0.8	(9)	(6.3)	(10)	(5.8)	—	—	4,079	41.9
Capacity fees	288	20.1	1,441	33.2	—	—	—	—	—	—	1,729	29.9
Other revenues	3,996	33.6	873	18.2	—	—	—	—	—	—	4,869	29.2
Total operating revenues	65,308	14.2	37,755	13.6	(1,590)	(4.5)	(2,127)	(1.8)	5,701	16.8	105,047	11.3
Operating expenses:												
Personnel services	(53,739)	(29.5)	(23,311)	(20.2)	(7,482)	(34.0)	(10,011)	(22.3)	937	77.2	(93,606)	(25.6)
Contractual services	3,467	32.5	2,236	16.2	507	49.9	610	12.4	1,025	89.8	7,845	24.9
Transmission/distribution and other power costs	—	—	—	—	—	—	5,791	31.4	17	7.9	5,808	31.1
Purchased electricity	—	—	—	—	—	—	7,674	304.2	7,843	35.3	15,517	62.7
Materials and supplies	3,372	26.8	710	8.1	(60)	(5.2)	31	2.1	(1)	(100.0)	4,052	16.9
Depreciation and amortization	(75)	(0.1)	150	0.3	561	12.5	824	6.2	—	—	1,460	0.8
Services provided by other departments	(2,313)	(3.9)	(458)	(1.2)	(390)	(19.9)	(868)	(12.9)	811	110.5	(3,218)	(3.1)
General and administrative and other	(2,392)	(6.2)	(12,954)	(91.9)	(3,443)	(17.7)	(1,591)	(6.5)	700	44.6	(19,680)	(20.0)
Total operating expenses	(51,680)	(12.3)	(33,627)	(13.8)	(10,307)	(20.6)	2,460	2.1	11,332	41.8	(81,822)	(9.5)
Operating income (loss)	116,988	303.8	71,382	215.5	8,717	(58.3)	(4,587)	(113.9)	(5,631)	(83.2)	186,869	276.9
Non-operating revenues (expenses):												
Federal and state grants	597	100.0	(3,274)	(100.0)	1,050	100.0	(37)	(100.0)	—	—	(1,664)	(50.3)
Interest and investment income	2,117	48.9	(10)	(0.4)	172	373.9	819	47.7	85	95.5	3,183	37.4
Interest expenses	(15,926)	10.8	3,496	(12.3)	—	—	97	(3.0)	(31)	44.3	(12,364)	6.9
Amortization of premium, discount, refunding loss, and issuance costs	4,511	50.0	(406)	(7.0)	—	—	(7)	(2.7)	—	—	4,098	27.2
Net gain (loss) from sale of assets	(5,680)	(88.7)	(40)	(108.1)	(15)	(71.4)	23	88.5	—	—	(5,712)	(88.0)
Other non-operating revenues	6,742	21.7	11	0.2	(414)	(69.6)	(1,677)	(14.3)	(3)	(75.0)	4,659	9.6
Other non-operating expenses	687	(26.4)	(31)	8.1	—	—	(319)	22.7	—	—	337	(7.5)
Net non-operating revenues (expenses)	(6,952)	7.0	(254)	2.1	793	133.5	(1,101)	(12.1)	51	221.7	(7,463)	7.3
Change in net position before transfers	110,036	(179.2)	71,128	338.2	9,510	(66.2)	(5,688)	(43.2)	(5,580)	(82.1)	179,406	(515.7)
Transfers from the City and County of San Francisco	254	198.4	(40)	(100.0)	(30,000)	(50.0)	(13)	(13.0)	—	—	(29,799)	(49.4)
Transfers to the City and County of San Francisco	28,748	(47.8)	3,787	(12.3)	—	—	(463)	944.9	—	—	32,072	(35.3)
Net transfers	29,002	(48.3)	3,747	(12.2)	(30,000)	(50.0)	(476)	(933.3)	—	—	2,273	(7.4)
Change in net position	139,038	(114.5)	74,875	(773.7)	(20,490)	(44.9)	(6,164)	(46.7)	(5,580)	(82.1)	181,679	(277.7)
Net position at beginning of year												
Beginning of year, as previously reported	(121,401)	(19.5)	(9,677)	(0.8)	45,645	37.2	11,783	3.0	6,794	477.1	(66,856)	(2.9)
Cumulative effect of accounting change*	(29,380)	(100.0)	(2,256)	(100.0)	(1,721)	(100.0)	(2,103)	(100.0)	(572)	(100.0)	(36,032)	(100.0)
Less: CleanPowerSF beginning net position	—	—	—	—	—	—	1,424	(100.0)	—	—	1,424	(100.0)
Beginning of year as restated	(150,781)	(24.2)	(11,933)	(1.0)	43,924	35.8	11,104	2.9	6,222	436.9	(101,464)	(4.4)
Net position at end of year	$ (11,743)	(2.3)	62,942	5.5	23,434	13.9	4,940	1.2	642	7.8	80,215	3.6

* Cumulative effect of accounting change per GASB Statement No. 75, *Accounting and Financial Reporting for Postemployment Benefits Other than Pensions*.

See accompanying basic financial statements.

KPMG LLP
Suite 1400
55 Second Street
San Francisco, CA 94105

Independent Auditors' Report on Internal Control over Financial Reporting and on Compliance and Other Matters Based on an Audit of Financial Statements Performed in Accordance with *Government Auditing Standards*

The Honorable Mayor and Board of Supervisors
City and County of San Francisco:

We have audited, in accordance with the auditing standards generally accepted in the United States of America and the standards applicable to financial audits contained in *Government Auditing Standards*, issued by the Comptroller General of the United States, the financial statements of the business-type activities of each major fund of the San Francisco Public Utilities Commission (the SFPUC), a department of the City and County of San Francisco, California (the City), which comprise the statement of financial position as of June 30, 2018, and the related statements of revenues, expenses, and changes in net position, and cash flows for the year then ended, and the related notes to the financial statements, and have issued our report thereon dated February 22, 2019. Our report also includes an emphasis of matter paragraph related to the SFPUC's adoption of Governmental Accounting Standards Board (GASB) Statement No. 75, *Accounting and Financial Reporting for Postemployment Benefits Other than Pensions.* The July 1, 2017 beginning net position was restated for the retrospective application of this new accounting guidance.

Internal Control over Financial Reporting

In planning and performing our audit of the financial statements, we considered SFPUC's internal control over financial reporting (internal control) to determine the audit procedures that are appropriate in the circumstances for the purpose of expressing our opinion on the financial statements, but not for the purpose of expressing an opinion on the effectiveness of SFPUC's internal control. Accordingly, we do not express an opinion on the effectiveness of SFPUC's internal control.

A deficiency in internal control exists when the design or operation of a control does not allow management or employees, in the normal course of performing their assigned functions, to prevent, or detect and correct, misstatements on a timely basis. A material weakness is a deficiency, or combination of deficiencies, in internal control, such that there is a reasonable possibility that a material misstatement of the entity's financial statements will not be prevented, or detected and corrected, on a timely basis. A significant deficiency is a deficiency, or a combination of deficiencies, in internal control that is less severe than a material weakness yet important enough to merit attention by those charged with governance.

Our consideration of internal control was for the limited purpose described in the first paragraph of this section and was not designed to identify all deficiencies in internal control that might be material weaknesses or significant deficiencies. Given these limitations, during our audit we did not identify any deficiencies in internal control that we consider to be material weaknesses. However, material weaknesses may exist that have not been identified.

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Compliance and Other Matters

As part of obtaining reasonable assurance about whether SFPUC's financial statements are free from material misstatement, we performed tests of its compliance with certain provisions of laws, regulations, contracts, and grant agreements, noncompliance with which could have a direct and material effect on the determination of financial statement amounts. However, providing an opinion on compliance with those provisions was not an objective of our audit, and accordingly, we do not express such an opinion. The results of our tests disclosed no instances of noncompliance or other matters that are required to be reported under *Government Auditing Standards*.

Purpose of this Report

The purpose of this report is solely to describe the scope of our testing of internal control and compliance and the results of that testing, and not to provide an opinion on the effectiveness of SFPUC's internal control or on compliance. This report is an integral part of an audit performed in accordance with *Government Auditing Standards* in considering SFPUC's internal control and compliance. Accordingly, this communication is not suitable for any other purpose.

KPMG LLP

San Francisco, California
February 22, 2019

To supplement San Francisco's imported water supplies and save valuable drinking water, recycled water will be used for applications such as landscape irrigation, toilet/urinal flushing, cooling and water features.

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

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

Statistical Section

(Unaudited)

Financial Trends

These schedules contain trend information to help understand how SFPUC's financial performance and well-being have changed over time.

Revenue Capacity

These schedules contain information to help the reader assess SFPUC's revenues sources and rate structures.

Debt Capacity

These schedules contain information to help the reader assess the affordability of the SFPUC's current levels of outstanding debt and its ability to issue additional debt in the future.

Demographic & Economic Information

These schedules offer demographic and economic indicators to help the reader understand the environment within which SFPUC's financial activities take place.

Operating Information

These schedules contain service and infrastructure data to enhance the reader's ability to understand how the information in the SFPUC financial report relates to the services it provides and the activities it performs.

Photo by: Carmen Magana

Lake Merced Parking Lot-view of bioswales: An innovative storm-water discharge system that aids to regenerate and repair the environment.

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

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

Financial Trends

Comparative Highlights of Revenues & Expenses

Changes in Net Position

Summary of Net Position by Component

Investments in Capital Assets

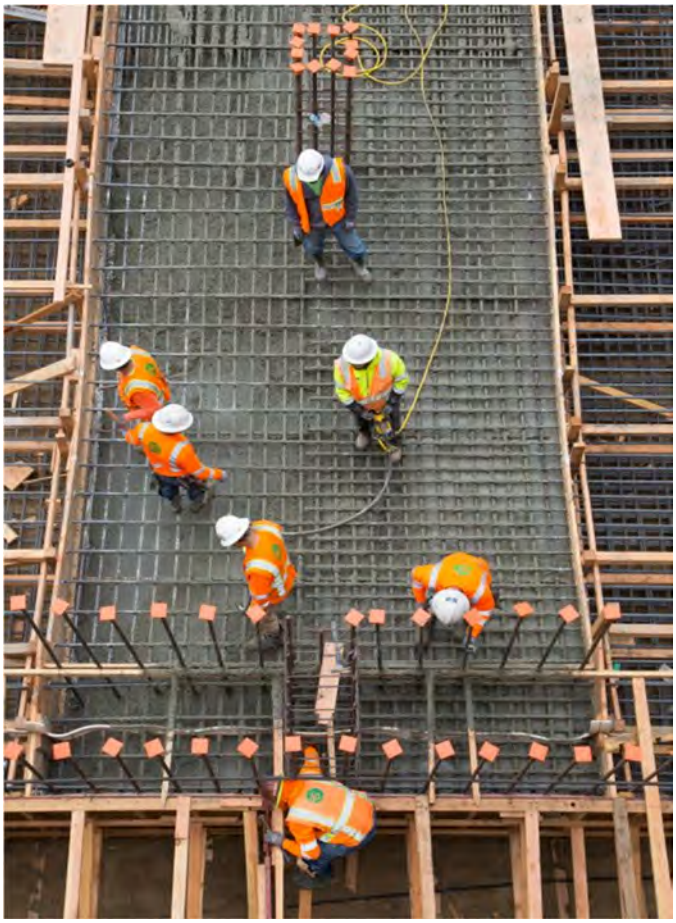


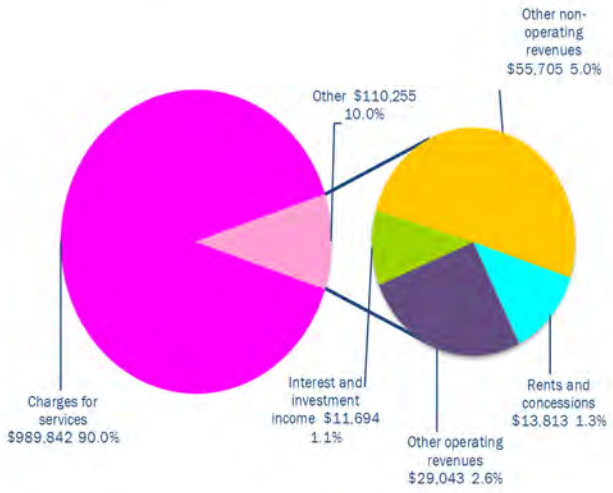
Photo by: Robin Scheswohl

Concrete pour for the Recycled Water Treatment Facility at the Oceanside plant.

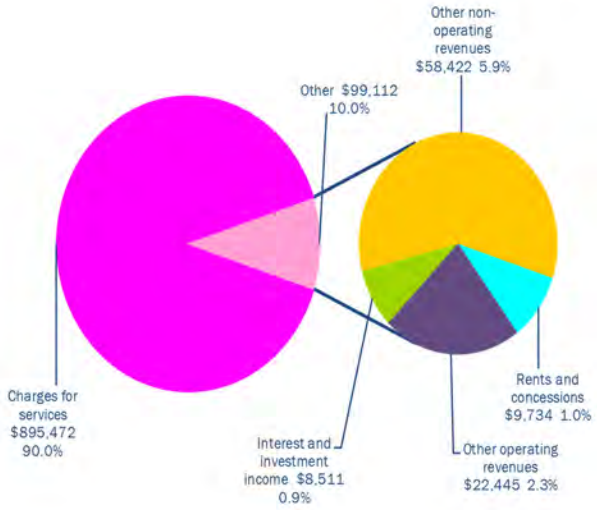
San Francisco
Water Power Sewer
Services of the San Francisco Public Utilities Commission

Financial Trends
Department-wide
Comparative Highlights of Revenues & Expenses
Fiscal Years Ended 2018 and 2017
(Dollars in Thousands)

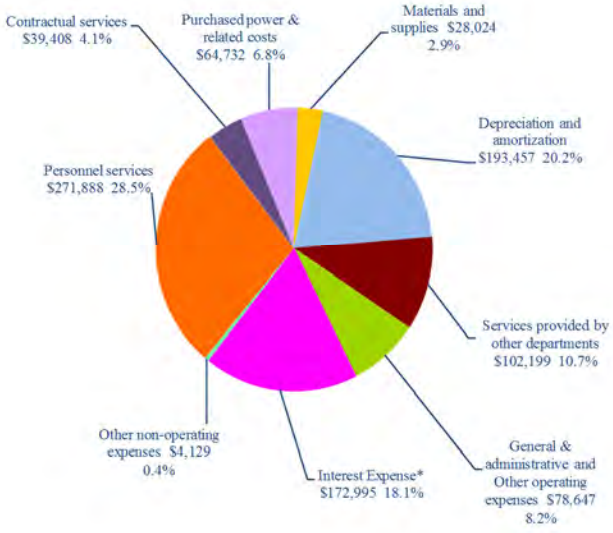
2018 Revenues - $1,100,097



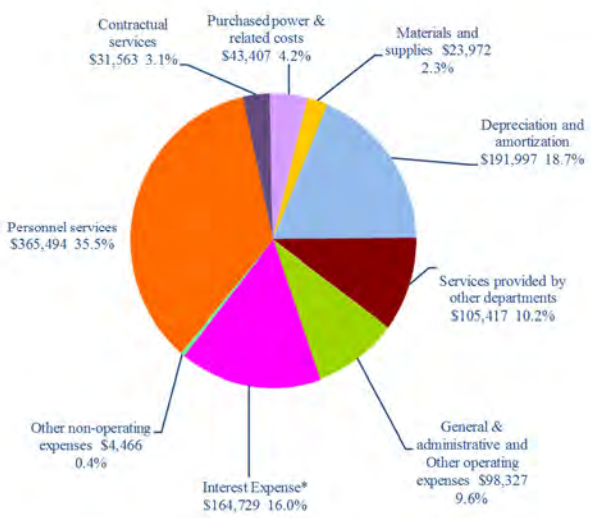
2017 Revenues - $994,584



2018 Expenses - $955,479



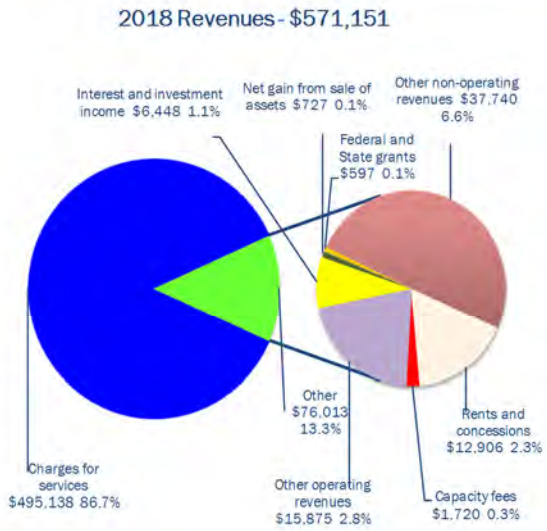
2017 Expenses - $1,029,372

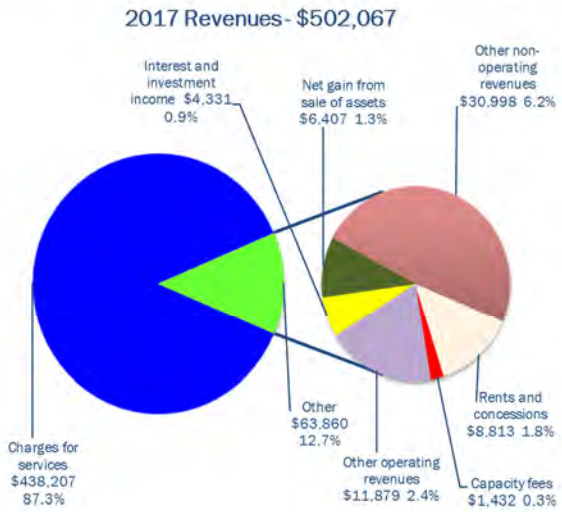


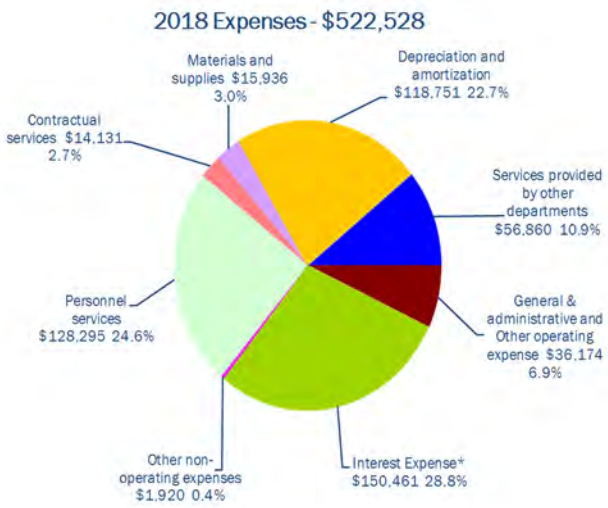
* Interest expenses are net of amortization of premium, discount, refunding loss, and issuance costs.

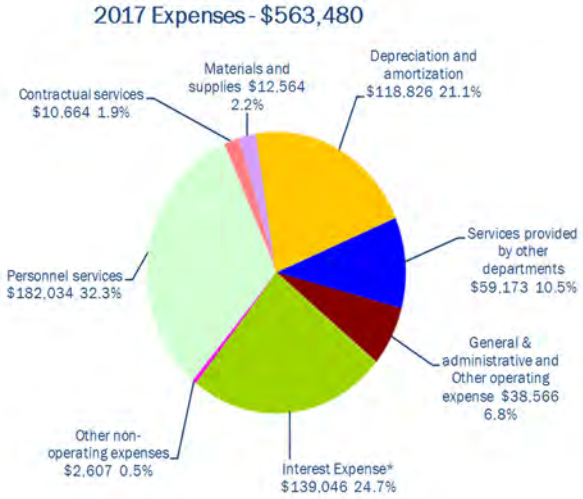
Source: City and County of San Francisco Financial System and San Francisco Public Utilities Commission Audited Financial Statements.

Financial Trends
Water Fund
Comparative Highlights of Revenues & Expenses
Fiscal Years Ended 2018 and 2017
(Dollars in Thousands)







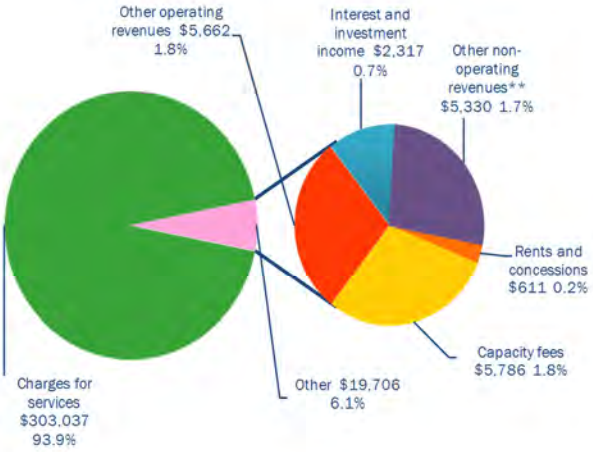


* Interest expenses are net of amortization of premium, discount, refunding loss, and issuance costs.

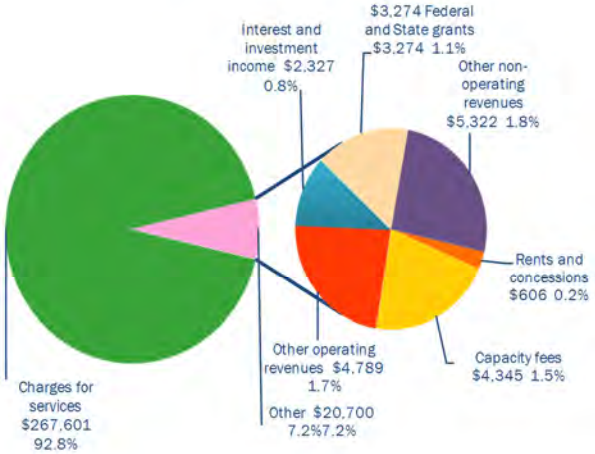
Source: City and County of San Francisco Financial System and San Francisco Public Utilities Commission Audited Financial Statements.

Financial Trends
Wastewater Fund
Comparative Highlights of Revenues & Expenses
Fiscal Years Ended 2018 and 2017
(Dollars in Thousands)

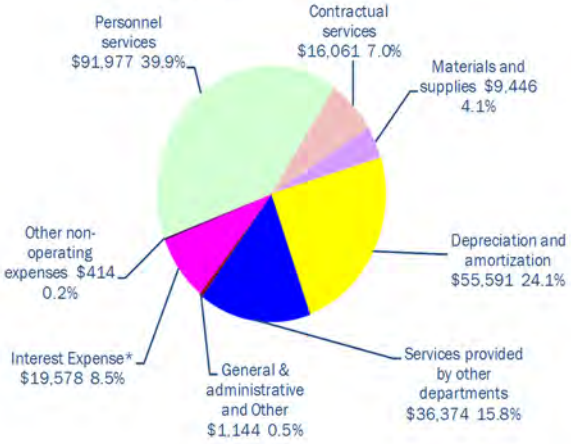
2018 Revenues - $322,743



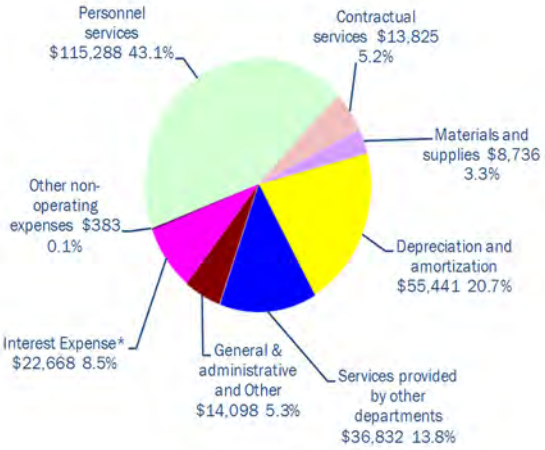
2017 Revenues - $288,301



2018 Expenses - $230,585



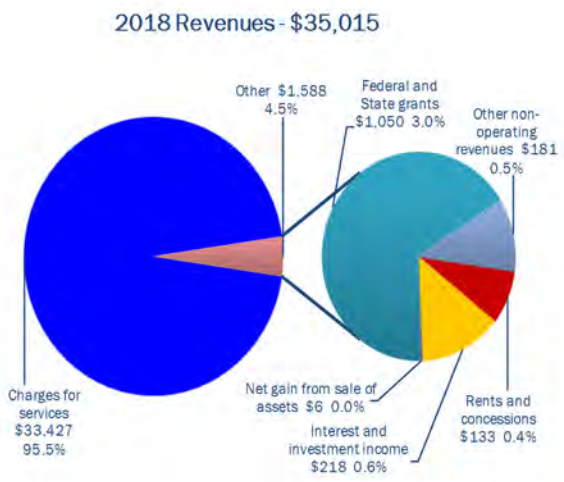
2017 Expenses - $267,271

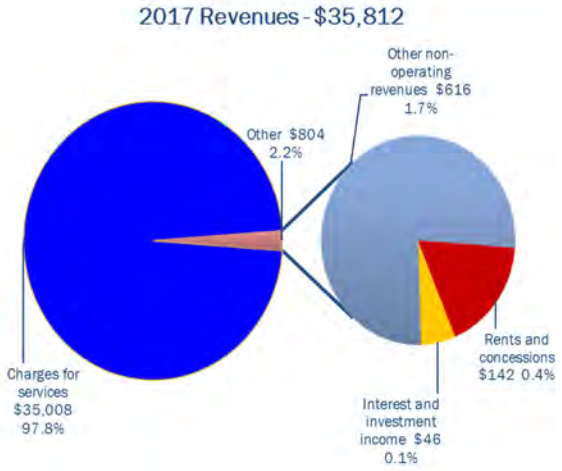


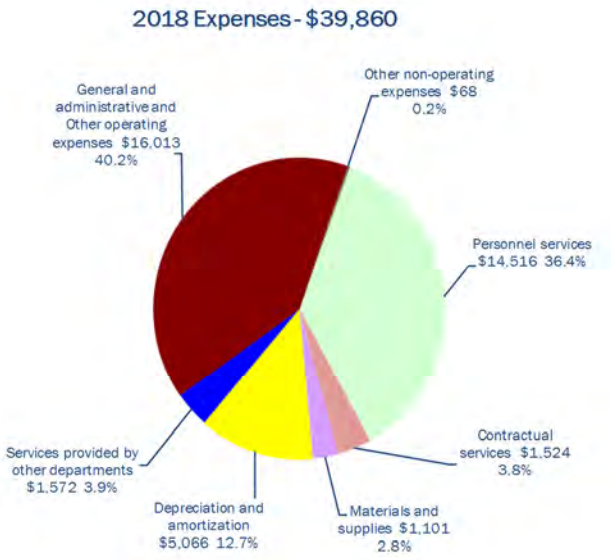
* Interest expenses are net of amortization of premium, refunding loss, and issuance costs.
** Other non-operating revenues included net loss from sale of assets.

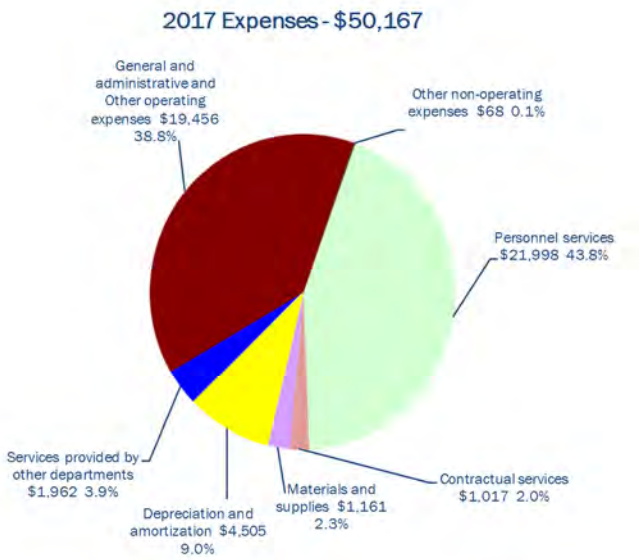
Source: City and County of San Francisco Financial System and San Francisco Public Utilities Commission Audited Financial Statements.

Financial Trends
Hetchy Water Fund
Comparative Highlights of Revenues & Expenses
Fiscal Years Ended 2018 and 2017
(Dollars in Thousands)



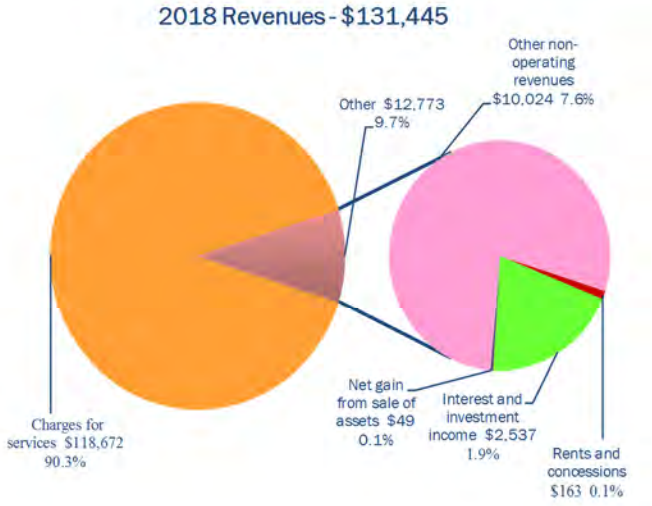


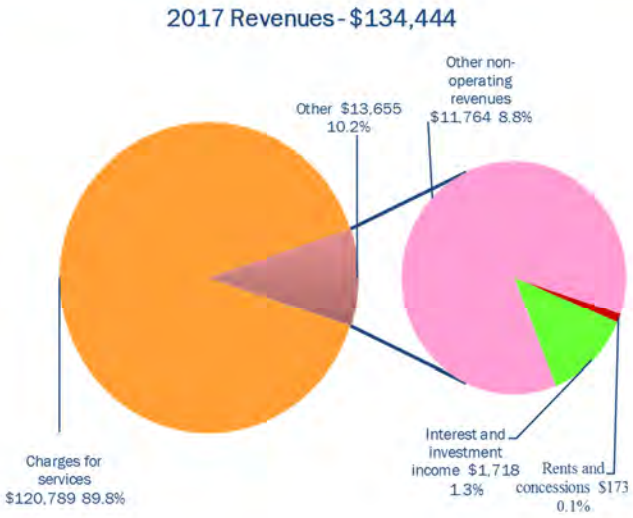


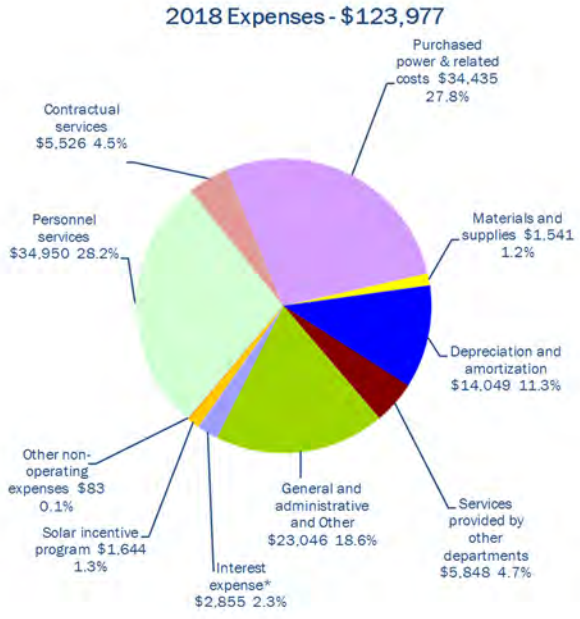


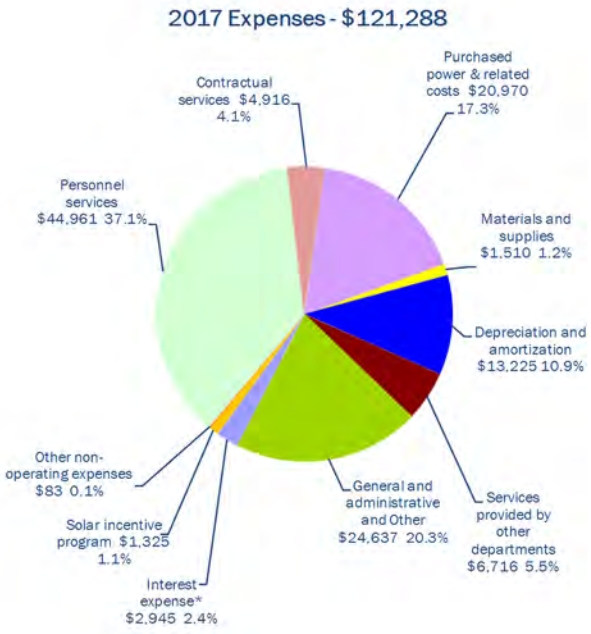
Source: City and County of San Francisco Financial System and San Francisco Public Utilities Commission Audited Financial Statements.

Financial Trends
Hetchy Power Fund
Comparative Highlights of Revenues & Expenses
Fiscal Years Ended 2018 and 2017
(Dollars in Thousands)









* Interest expenses are net of amortization of premium, discount, and issuance costs.

Source: City and County of San Francisco Financial System and San Francisco Public Utilities Commission Audited Financial Statements.

Financial Trends
CleanPowerSF
Comparative Highlights of Revenues & Expenses
Fiscal Years Ended 2018 and 2017
(Dollars in Thousands)

Source: City and County of San Francisco Financial System and San Francisco Public Utilities Commission Audited Financial Statements.

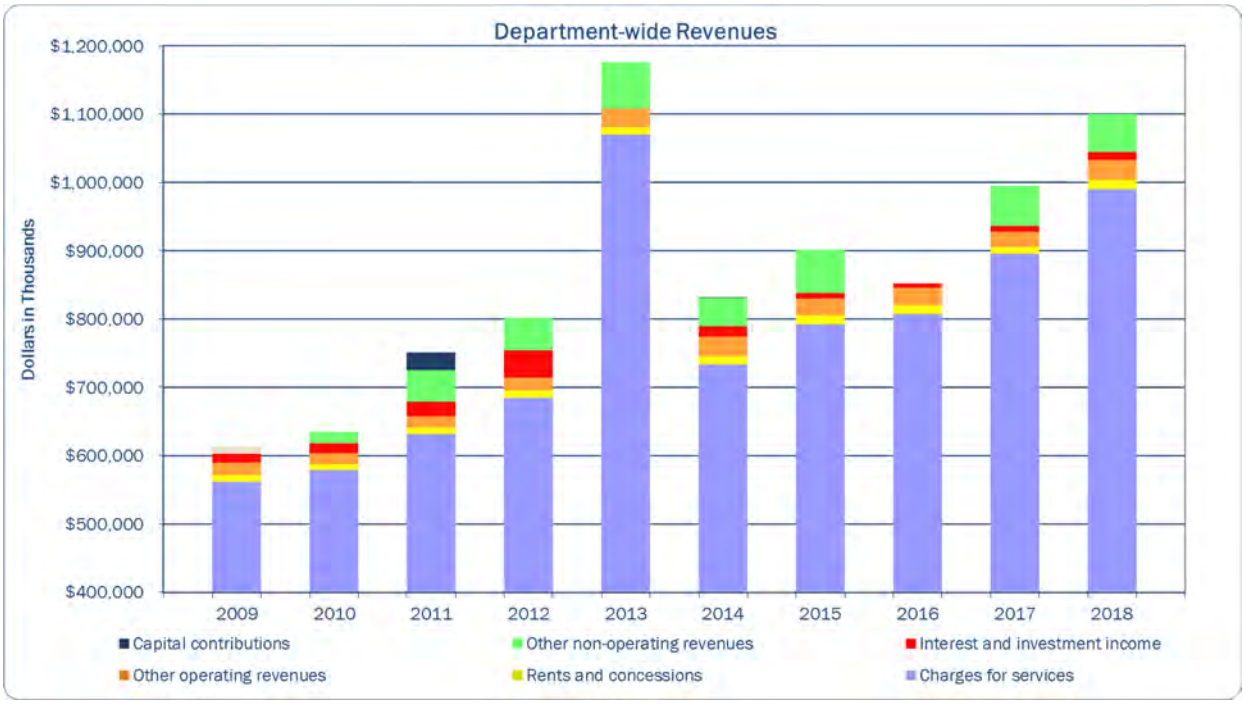
Financial Trends
Department-wide - Changes in Net Position
Fiscal Years Ended 2009 to 2018
(Dollars in Thousands)

Revenues:	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Charges for services	$ 562,024	579,077	631,753	684,863	1,069,674	733,746	792,199	807,259	895,472	989,842
Rents and concessions	9,645	8,829	9,643	10,447	10,736	11,727	13,336	13,096	9,734	13,813
Other operating revenues	18,040	15,745	16,250	19,061	27,541	28,944	24,317	25,672	22,445	29,043
Subtotal operating revenues	**589,709**	**603,651**	**657,646**	**714,371**	**1,107,951**	**774,417**	**829,852**	**846,027**	**927,651**	**1,032,698**
Interest and investment income	13,240	14,617	21,395	39,888	38	15,083	8,175	6,060	8,511	11,694
Other non-operating revenues	10,929	16,582	45,957	47,729	67,989	41,946	63,430	51,972	58,422	55,705
Capital contributions	–	–	26,154*	–	–	678	–	–	–	–
Subtotal non-operating revenues	**24,169**	**31,199**	**93,506**	**87,617**	**68,027**	**57,707**	**71,605**	**58,032**	**66,933**	**67,399**
Total revenues	**$ 613,878**	**634,850**	**751,152**	**801,988**	**1,175,978**	**832,124**	**901,457**	**904,059**	**994,584**	**1,100,097**

(Continued)

* Include transfers of $6,510 in inventory and $11,747 in capital assets for the auxiliary water supply system (AWSS) from the Fire Department. Include net transfers of $7,897 in cash for the AWSS from the City and County of San Francisco.

Source: City and County of San Francisco Financial System and San Francisco Public Utilities Commission Audited Financial Statements.

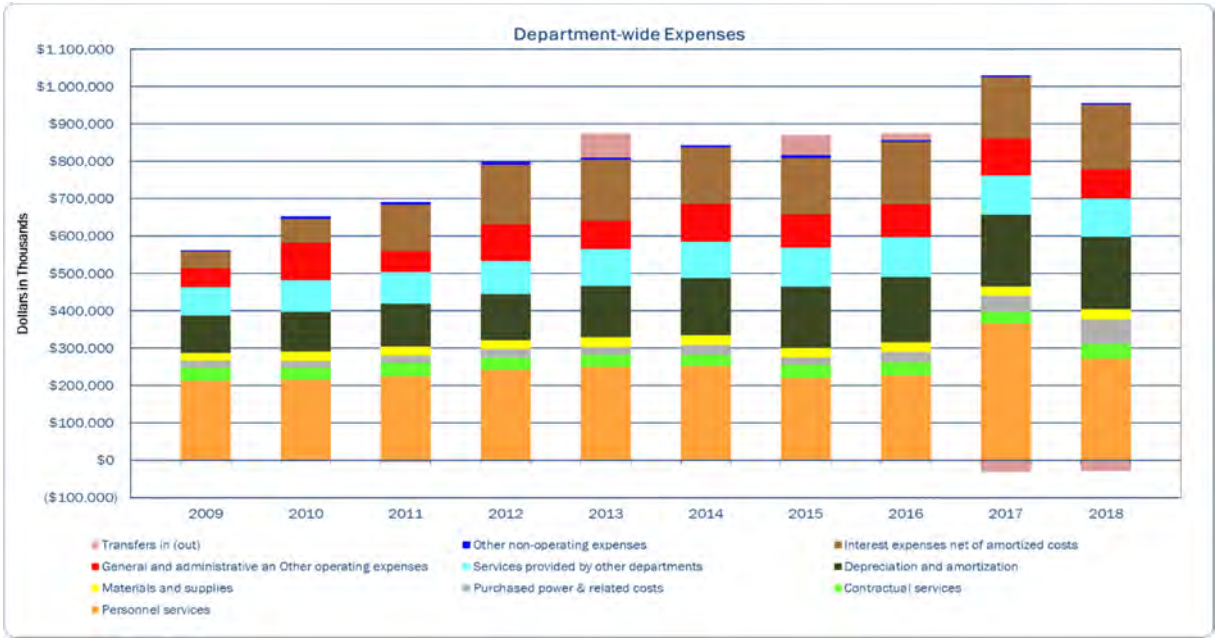


Financial Trends
Department-wide - Changes in Net Position
Fiscal Years Ended 2009 to 2018
(Dollars in Thousands)

Expenses:		2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Personnel services	$	212,479	215,695	224,794	241,621	249,927	252,068	220,385	227,930	365,494	271,888
Contractual services		35,545	32,189	35,334	33,911	32,082	30,133	35,216	34,915	31,563	39,408
Purchased power & related costs		18,466	17,726	19,269	21,539	20,891	26,215	20,296	26,792	43,407	64,732
Materials and supplies		20,668	25,146	24,884	23,963	26,557	26,411	24,842	26,128	23,972	28,024
Depreciation and amortization		99,784	105,950	114,676	123,249	137,252	152,742	163,525	173,978	191,997	193,457
Services provided by other departments		76,214	84,890	84,422	88,511	98,533	96,918	104,535	106,476	105,417	102,199
General and administrative and Other operating expenses		50,687	100,273	56,352	98,235	74,917	101,473	88,559	88,615	98,327	78,647
Subtotal operating expenses		**513,843**	**581,869**	**559,731**	**631,029**	**640,159**	**685,960**	**657,358**	**684,834**	**860,177**	**778,355**
Interest expenses		44,531	63,885	123,982	150,217	169,105	165,345	161,712	178,864	179,819	192,183
Amortization of premium, discount, refunding loss, and issuance costs		–	–	–	9,339	(5,607)	(13,908)	(10,554)	(11,950)	(15,090)	(19,188)
Other non-operating expenses		3,181	7,094	6,892	7,908	5,986	5,206	7,916	4,439	4,466	4,129
Subtotal non-operating expenses		**47,712**	**70,979**	**130,874**	**167,464**	**169,484**	**156,643**	**159,074**	**171,353**	**169,195**	**177,124**
Total expenses		**561,555**	**652,848**	**690,605**	**798,493**	**809,643**	**842,603**	**816,432**	**856,187**	**1,029,372**	**955,479**
Change in net position before transfers and extraordinary item		52,323	(17,998)	60,547	3,495	366,335	(10,479)	85,025	47,872	(34,788)	144,618
Transfers in (out)		(1,444)	(1,893)	(4,490) *	485 *	64,176 #	386	52,806	17,899	(30,644)	(28,371)
Extraordinary item:											
Rim fire – loss		–	–	–	–	–	(6,843)	–	–	–	–
Change in net position		**50,879**	**(19,891)**	**56,057**	**3,980**	**430,511**	**(16,936)**	**137,831**	**65,771**	**(65,432)**	**116,247**
Net position at beginning of year											
Beginning of year, as previously reported		1,866,402	1,917,281	1,897,390	1,953,447	1,971,500	2,366,565	2,349,629 ~	2,225,451	2,292,646	2,225,790 ⌂
Cumulative effect of accounting change		–	–	–	(21,373) ^	(35,446) ^	–	(262,009)	–	–	(36,032)
Less: CleanPowerSF beginning net position		–	–	–	–	–	–	–	–	(1,424)	–
Beginning of year as restated		1,866,402	1,917,281	1,897,390	1,932,074	1,936,054	2,366,565	2,087,620	2,225,451	2,291,222	2,189,758
Net position at end of year	**$**	**1,917,281**	**1,897,390**	**1,953,447**	**1,936,054**	**2,366,565**	**2,349,629**	**2,225,451**	**2,291,222**	**2,225,790**	**2,306,005**

* Include eliminations of $13,638 and $14,073 in fiscal years 2011 and 2012, respectively, for interfund transfers in/out between Hetchy Water and Water Enterprise to finance upcountry water storage and transmission facilities improvements.
# Include transfer in of $63,075 from the Department of Public Works related to the improvement of the AWSS Earthquake Safety and Emergency Response project.
^The beginning net position for fiscal years 2012 and 2013 have been restated for the retrospective application of GASB Statement No. 65.
~The beginning net position for fiscal year 2015 has been restated for the application of GASB Statement No. 68.
⌂ The beginning net position for fiscal year 2018 has been restated for the retrospective application of GASB Statement No. 75.

Source: City and County of San Francisco Financial System and San Francisco Public Utilities Commission Audited Financial Statements.



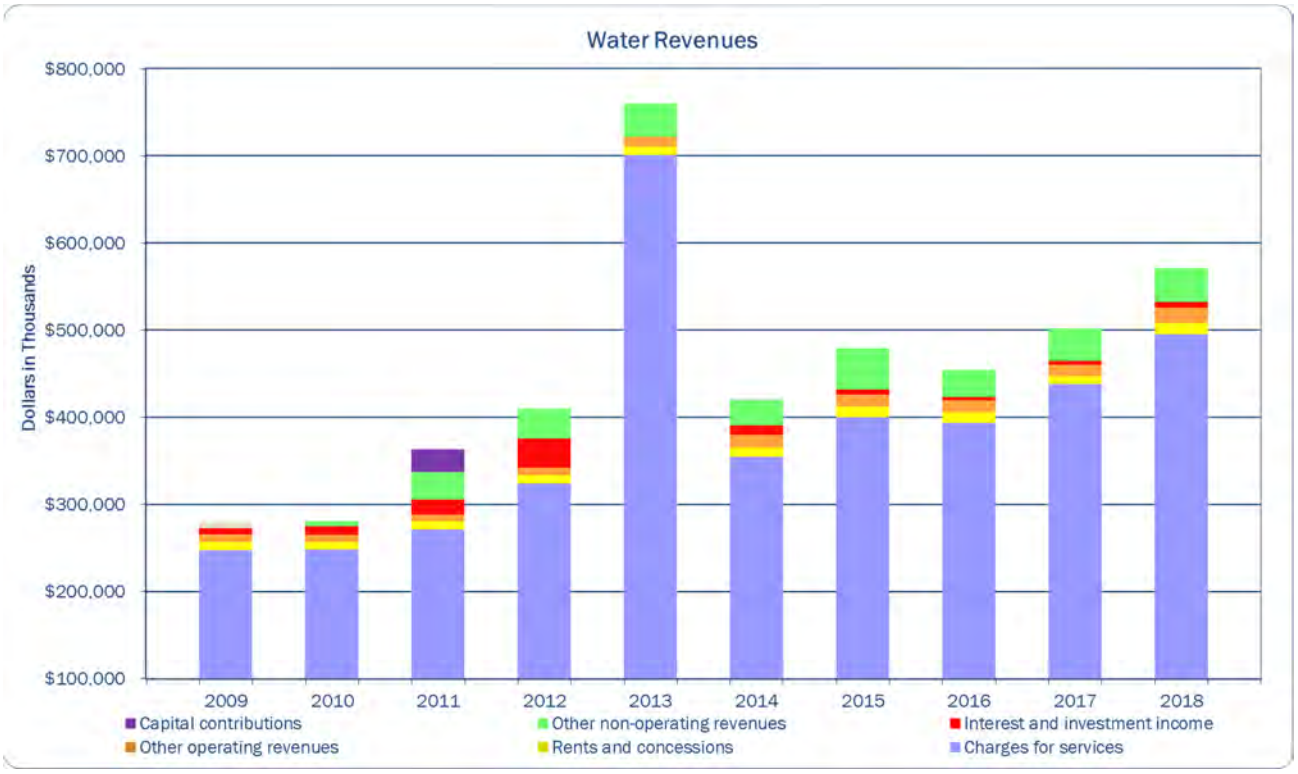
Financial Trends
Water - Changes in Net Position
Fiscal Years Ended 2009 to 2018
(Dollars in Thousands)

Revenues:	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Charges for services	$ 247,664	248,369	271,387	324,169	700,513 ^	354,827	400,023	393,582	438,207	495,138
Rents and concessions	9,399	8,584	9,388	9,398	9,599	10,675	12,284	12,081	8,813	12,906
Other operating revenues	8,718	8,265	7,620	8,534	11,358	14,380	13,740	13,853	13,311	17,595
Subtotal operating revenues	**265,781**	**265,218**	**288,395**	**342,101**	**721,470**	**379,882**	**426,047**	**419,516**	**460,331**	**525,639**
Interest and investment income	7,088	9,823	17,283	33,450	(281)	10,907	5,789	3,595	4,331	6,448
Other non-operating revenues	7,202	5,851	31,499	34,180	37,921	29,197	47,314	31,253	37,405	39,064
Capital contributions	–	–	26,154 *	–	–	310 **	–	–	–	–
Subtotal non-operating revenues	**14,290**	**15,674**	**74,936**	**67,630**	**37,640**	**40,414**	**53,103**	**34,848**	**41,736**	**45,512**
Total revenues	**$ 280,071**	**280,892**	**363,331**	**409,731**	**759,110**	**420,296**	**479,150**	**454,364**	**502,067**	**571,151**

(Continued)

* Include transfers of $6,510 in inventory and $11,747 in capital assets for the AWSS from the Fire Department. Include net transfers of $7,897 in cash for the AWSS from the City and County of San Francisco.
** Include transfer of $310 in capital asset from the Department of Emergency Management.
^ Include a one-time early repayment of $356,139 from BAWSCA for capital costs recovery.

Source: City and County of San Francisco Financial System and San Francisco Public Utilities Commission Audited Financial Statements.

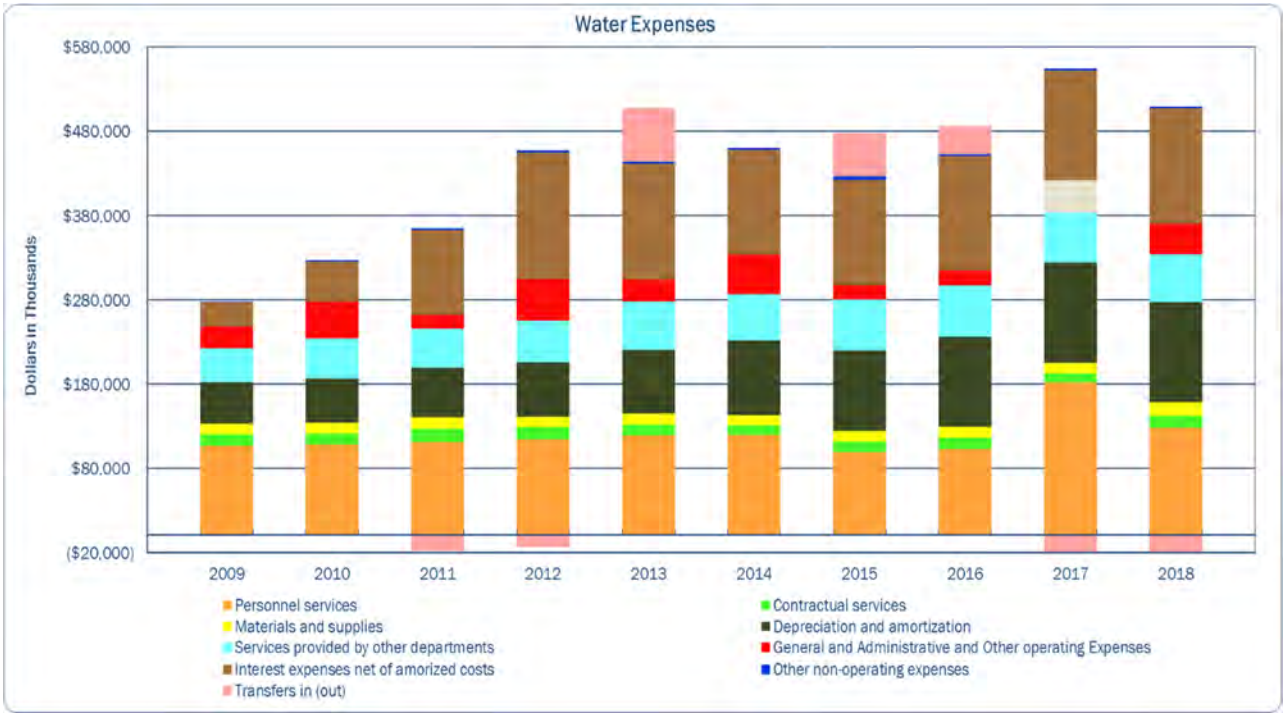


Financial Trends
Water - Changes in Net Position
Fiscal Years Ended 2009 to 2018
(Dollars in Thousands)

Expenses:		2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Personnel services	$	106,869	108,178	111,363	114,337	119,151	119,849	99,192	103,027	182,034	128,295
Contractual services		13,619	13,087	15,586	14,838	12,819	10,921	12,729	13,451	10,664	14,131
Materials and supplies		12,671	12,748	13,839	12,140	13,074	12,154	12,667	12,896	12,564	15,936
Depreciation and amortization		49,100	52,571	58,752	64,595	75,448	89,026	95,384	106,666	118,826	118,751
Services provided by other departments		40,103	47,574	46,308	49,395	57,684	54,856	60,365	60,868	59,173	56,860
General and administrative and Other operating expenses		25,953	43,812	16,079	49,257 *	25,563	46,749	16,613	17,878	38,566	36,174
Subtotal operating expenses		248,315	277,970	261,927	304,562	303,739	333,555	296,950	314,786	421,827	370,147
Interest expenses		28,847	47,272	100,875	131,334	147,741	136,645	137,106	153,258	148,075	164,001
Amortization of premium, discount, refunding loss, and issuance costs		–	–	–	9,363	(5,002)	(6,169)	(6,100)	(8,849)	(9,029)	(13,540)
Other non-operating expenses		799	1,773	2,121	2,661	2,327	2,089	4,829	2,210	2,607	1,920
Subtotal non-operating expenses		29,646	49,045	102,996	143,358	145,066	132,565	135,835	146,619	141,653	152,381
Total expenses		277,961	327,015	364,923	447,920	448,805	466,120	432,785	461,405	563,480	522,528
Change in net position before transfers		2,110	(46,123)	(1,592)	(38,189)	310,305	(45,824)	46,365	(7,041)	(61,413)	48,623
Transfers in (out)		(1,143)	(493)	(17,834) ^	(13,585) ^	63,484 #	405	50,995	33,244	(59,988)	(30,986)
Change in net position		967	(46,616)	(19,426)	(51,774)	373,789	(45,419)	97,360	26,203	(121,401)	17,637
Net position at beginning of year											
Beginning of year, as previously reported		461,333	462,300	415,684	396,258	358,495	699,631	654,212 **	596,465	622,668	501,267 ⌂
Cumulative effect of accounting change		–	–	–	(18,642) ~	(32,653) ~	–	(155,107)	–	–	(29,380)
Beginning of year as restated		461,333	462,300	415,684	377,616	325,842	699,631	499,105	596,465	622,668	471,887
Net Position at end of year	$	462,300	415,684	396,258	325,842	699,631	654,212	596,465	622,668	501,267	489,524

* Increase in other operating expenses due to construction contract expenses net of capitalization for higher construction activities.
^ Include eliminations of $13,638 and $14,073 in fiscal years 2011 and 2012, respectively, for interfund transfers out to Hetchy Water to finance upcountry water storage and transmission facilities improvements.
# Include transfer in of $63,075 from the Department of Public Works related to the improvement of the AWSS Earthquake Safety and Emergency Response project.
~ The beginning net position for fiscal years 2012 and 2013 have been restated for the retrospective application of GASB Statement No. 65.
** The beginning net position for fiscal year 2015 has been restated for the application of GASB Statement No. 68.
⌂ The beginning net position for fiscal year 2018 has been restated for the retrospective application of GASB Statement No. 75.

Source: City and County of San Francisco Financial System and San Francisco Public Utilities Commission Audited Financial Statements.



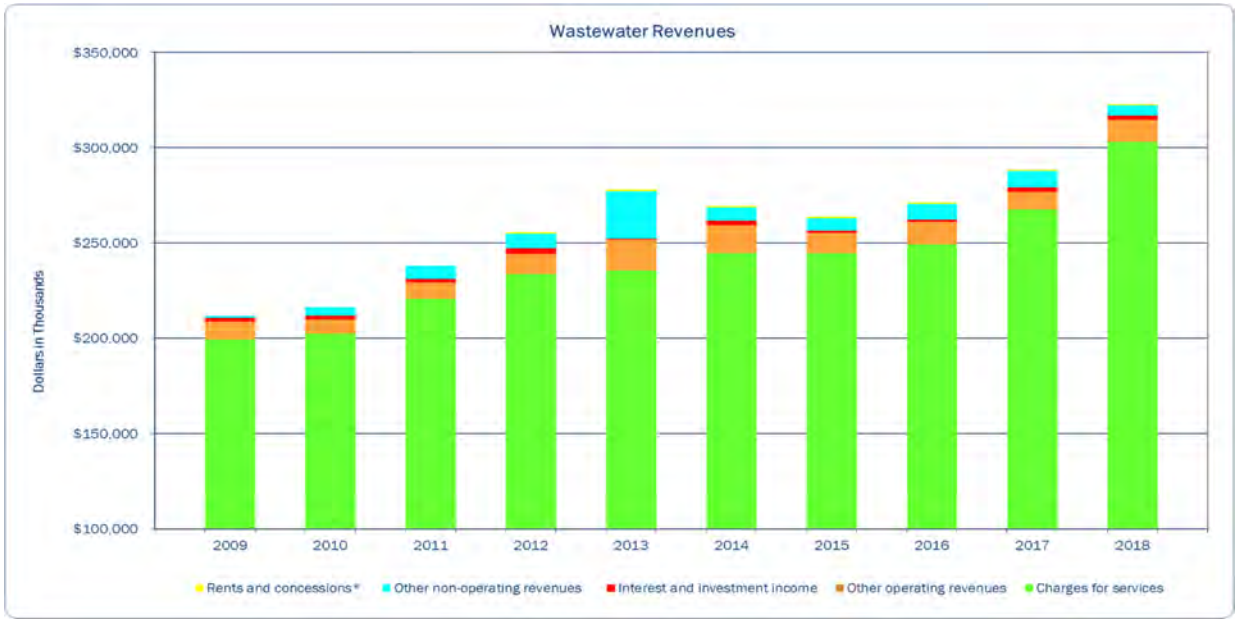
Financial Trends
Wastewater - Changes in Net Position
Fiscal Years Ended 2009 to 2018
(Dollars in Thousands)

Revenues:	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Charges for services	$ 199,332	202,363	220,586	233,628	235,479	244,705	244,604	249,203	267,601	303,037
Rents and concessions*	–	–	–	806	892	828	821	753	606	611
Other operating revenues	9,322	7,480	8,630	10,527	16,183	14,564	10,577	11,819	9,134	11,448
Subtotal operating revenues	**208,654**	**209,843**	**229,216**	**244,961**	**252,554**	**260,097**	**256,002**	**261,775**	**277,341**	**315,096**
Interest and investment income	1,992	2,056	1,927	2,975	524	2,400	1,207	1,185	2,327	2,317
Other non-operating revenues	1,022	4,236	6,841	7,692	24,886	6,882	6,564	8,263	8,633	5,330
Subtotal non-operating revenues	**3,014**	**6,292**	**8,768**	**10,667**	**25,410**	**9,282**	**7,771**	**9,448**	**10,960**	**7,647**
Total revenues	**$ 211,668**	**216,135**	**237,984**	**255,628**	**277,964**	**269,379**	**263,773**	**271,223**	**288,301**	**322,743**

(Continued)

* Beginning fiscal year 2012, the amounts for rents and concessions are reclassed from other operating revenues.

Source: City and County of San Francisco Financial System and San Francisco Public Utilities Commission Audited Financial Statements.

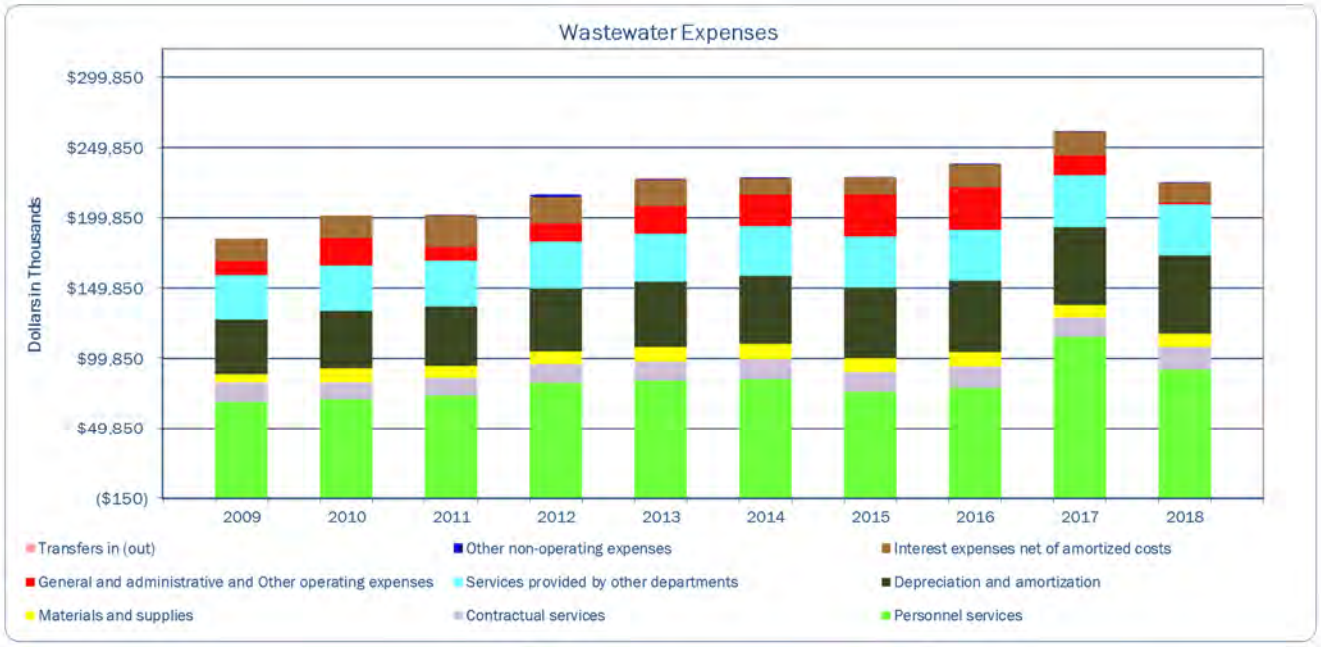


Financial Trends
Wastewater - Changes in Net Position
Fiscal Years Ended 2009 to 2018
(Dollars in Thousands)

Expenses:	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Personnel services	$ 69,141	70,992	73,630	82,709	84,155	85,114	76,396	79,088	115,288	91,977
Contractual services	13,828	12,018	12,577	13,257	13,418	14,314	13,841	15,069	13,825	16,061
Materials and supplies	5,754	9,888	8,338	8,921	10,481	10,830	9,815	10,192	8,736	9,446
Depreciation and amortization	38,815	40,748	42,217	44,799	46,347	48,402	50,254	50,799	55,441	55,591
Services provided by other departments	31,634	32,305	32,689	33,292	34,141	35,274	36,212	36,157	36,832	36,374
General and administrative and Other operating expenses	10,128	19,561	9,633 **	12,879 **	19,718	22,406	29,967	30,248	14,098	1,144
Subtotal operating expenses	**169,300**	**185,512**	**179,084**	**195,857**	**208,260**	**216,340**	**216,485**	**221,553**	**244,220**	**210,593**
Interest expenses	15,677	15,891	22,545	18,798	19,723	27,126	22,791	22,251	28,474	24,978
Amortization of premium, refunding loss, and issuance costs	–	–	–	(62)	(612)	(7,711)	(5,347)	(2,979)	(5,806)	(5,400)
Other non-operating expenses	–	–	300	1,962	566	533	280	485	383	414
Subtotal non-operating expenses	**15,677**	**15,891**	**22,845**	**20,698**	**19,677**	**19,948**	**17,724**	**19,757**	**23,051**	**19,992**
Total expenses	**184,977**	**201,403**	**201,929**	**216,555**	**227,937**	**236,288**	**234,209**	**241,310**	**267,271**	**230,585**
Change in net position before transfers	26,691	14,732	36,055	39,073	50,027	33,091	29,564	29,913	21,030	92,158
Transfers in (out)	– *	– *	(110)	(1)	888	19	(232)	(16,025)	(30,707)	(26,960)
Change in net position	**26,691**	**14,732**	**35,945**	**39,072**	**50,915**	**33,110**	**29,332**	**13,888**	**(9,677)**	**65,198**
Net position at beginning of year										
Beginning of year, as previously reported	983,913	1,010,604	1,025,336	1,061,281	1,100,353	1,148,757	1,181,867	1,142,052	1,155,940	1,146,263
Cumulative effect of accounting change	–	–	–	(2,511) ^	(2,511) ^	–	(69,147)~	–	–	(2,256) ⌂
Beginning of year as restated	983,913	1,010,604	1,025,336	1,058,770	1,097,842	1,148,757	1,112,720	1,142,052	1,155,940	1,144,007
Net Position at end of year	**$ 1,010,604**	**1,025,336**	**1,061,281**	**1,097,842**	**1,148,757**	**1,181,867**	**1,142,052**	**1,155,940**	**1,146,263**	**1,209,205**

* No refunding loss and transfers in (out) from fiscal years 2009 to 2010.
** The decrease in fiscal year ended 2011 was due to lower damage claims expenses, and the increase in fiscal year ended 2012 was mainly due to the estimated judgment and claims liability cost.
^ The beginning net position for fiscal years 2012 and 2013 have been restated for the retrospective application of GASB Statement No. 65.
~ The beginning net position for fiscal year 2015 has been restated for the application of GASB Statement No. 68.
⌂ The beginning net position for fiscal year 2018 has been restated for the retrospective application of GASB Statement No. 75.

Source: City and County of San Francisco Financial System and San Francisco Public Utilities Commission Audited Financial Statements.

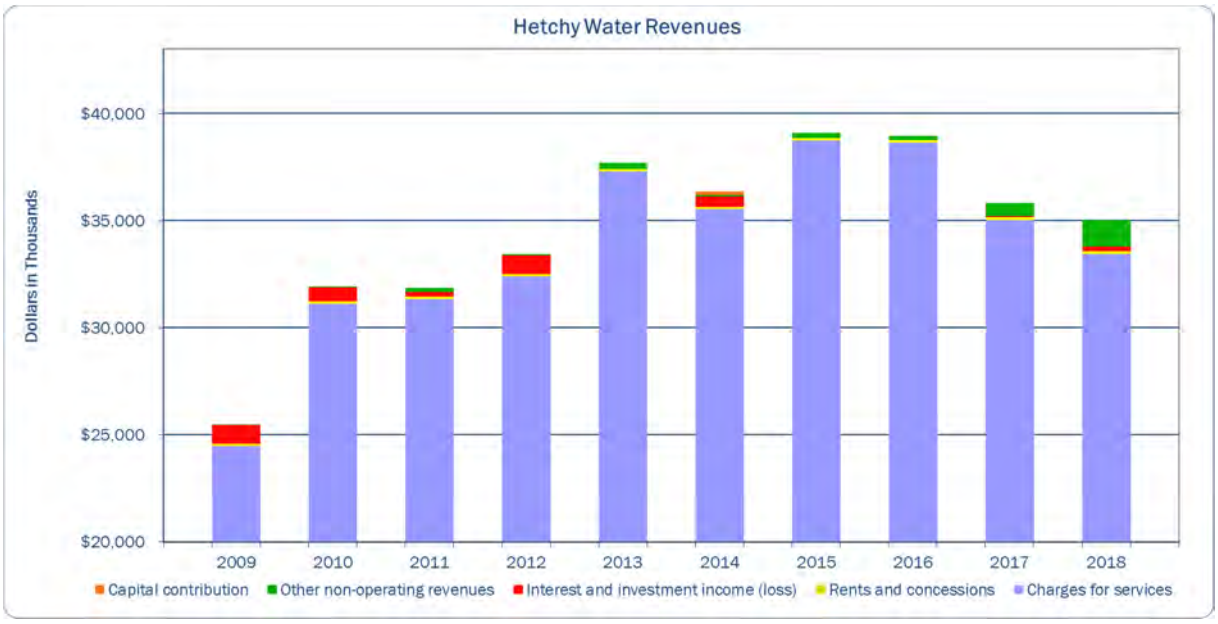


Financial Trends
Hetchy Water - Changes in Net Position
Fiscal Years Ended 2009 to 2018
(Dollars in Thousands)

Revenues:		2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Charges for services	$	24,468	31,109	31,326	32,386	37,284	35,521	38,731	38,624	35,008	33,427
Rents and concessions		111	110	115	109	110	101	104	118	142	133
Subtotal operating revenues		**24,579**	**31,219**	**31,441**	**32,495**	**37,394**	**35,622**	**38,835**	**38,742**	**35,150**	**33,560**
Interest and investment income (loss)		874	657	220	874	(344)	487	(74)	(38)	46	218
Other non-operating revenues		16	39	193	57	290	69	250	200	616	1,237
Capital contribution		–	–	–	–	–	166	–	–	–	–
Subtotal non-operating revenues		**890**	**696**	**413**	**931**	**(54)**	**722**	**176**	**162**	**662**	**1,455**
Total revenues	**$**	**25,469**	**31,915**	**31,854**	**33,426**	**37,340**	**36,344**	**39,011**	**38,904**	**35,812**	**35,015**

(Continued)

Source: City and County of San Francisco Financial System and San Francisco Public Utilities Commission Audited Financial Statements.

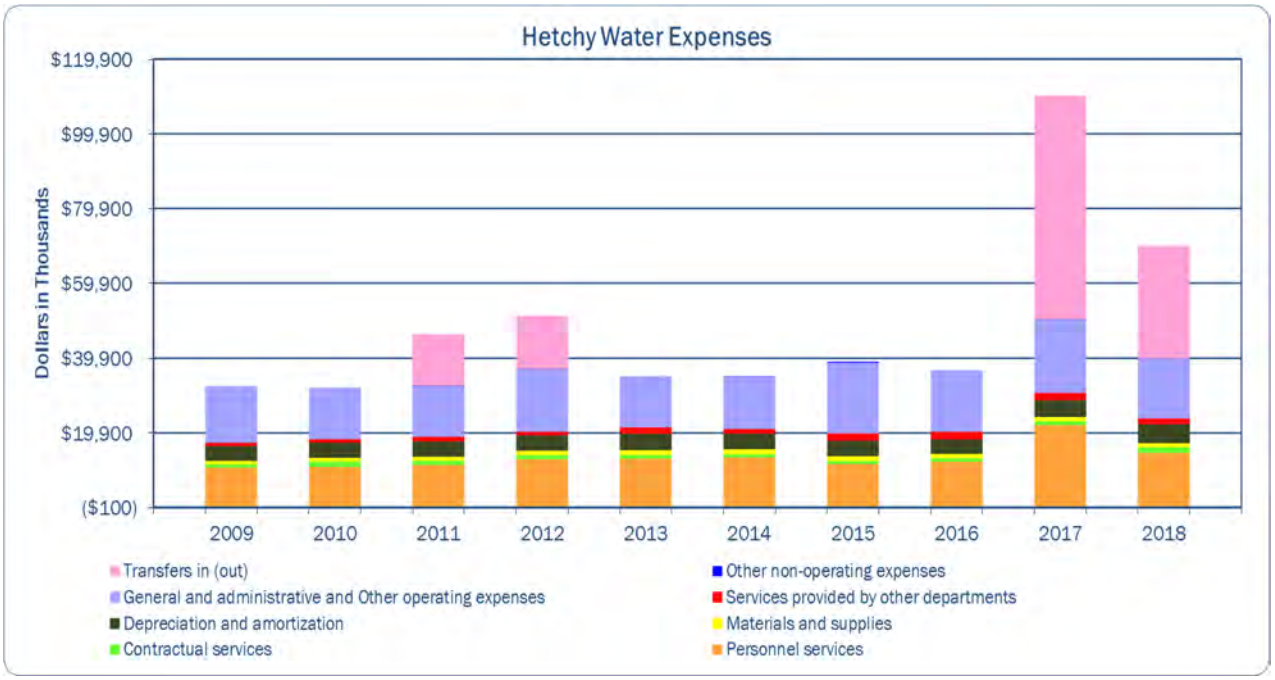


Financial Trends
Hetchy Water - Changes in Net Position
Fiscal Years Ended 2009 to 2018
(Dollars in Thousands)

Expenses:	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Personnel services	$ 10,630	10,770	11,327	12,856	13,057	13,343	11,557	12,183	21,998	14,516
Contractual services	883	1,457	1,108	1,090	889	835	794	902	1,017	1,524
Materials and supplies	877	970	1,069	1,208	1,331	1,352	1,321	1,191	1,161	1,101
Depreciation and amortization	3,939	4,092	4,125	4,059	4,378	4,186	4,102	3,874	4,505	5,066
Services provided by other departments	916	924	1,261	984	1,706	1,211	1,979	2,054	1,962	1,572
General and administrative and Other operating expenses	15,242	13,840	13,589	16,806	13,540	14,098	18,948	16,332	19,456	16,013
Subtotal operating expenses	**32,487**	**32,053**	**32,479**	**37,003**	**34,901**	**35,025**	**38,701**	**36,536**	**50,099**	**39,792**
Other non-operating expenses	–	–	68	68	68	99	313	68	68	68
Total expenses	**32,487**	**32,053**	**32,547**	**37,071**	**34,969**	**35,124**	**39,014**	**36,604**	**50,167**	**39,860**
Change in net position before transfers and extraordinary item	(7,018)	(138)	(693)	(3,645)	2,371	1,220	(3)	2,300	(14,355)	(4,845)
Transfers in (out)	(24)	–	13,638 *	14,073 *	–	–	–	–	60,000	30,000
Extraordinary item:										
Rim fire – loss	–	–	–	–	–	(2,709)	–	–	–	–
Change in net position	**(7,042)**	**(138)**	**12,945**	**10,428**	**2,371**	**(1,489)**	**(3)**	**2,300**	**45,645**	**25,155**
Net position at beginning of year										
Beginning of year, as previously reported	120,329	113,287	113,149	126,094	136,522	138,893	137,404	120,411	122,711	168,356 ⌂
Cumulative effect of accounting change	–	–	–	–	–	–	(16,990) #	–	–	(1,721)
Beginning of year as restated	120,329	113,287	113,149	126,094	136,522	138,893	120,414	120,411	122,711	166,635
Net position at end of year	**$ 113,287**	**113,149**	**126,094**	**136,522**	**138,893**	**137,404**	**120,411**	**122,711**	**168,356**	**191,790**

* Include eliminations of $13,638 and $14,073 in fiscal years 2011 and 2012, respectively, for interfund transfers in from Water Enterprise to finance upcountry water storage and transmission facilities improvements.
# The beginning net position for fiscal year 2015 has been restated for the application of GASB Statement No. 68.
⌂ The beginning net position for fiscal year 2018 has been restated for the retrospective application of GASB Statement No. 75.

Source: City and County of San Francisco Financial System and San Francisco Public Utilities Commission Audited Financial Statements.

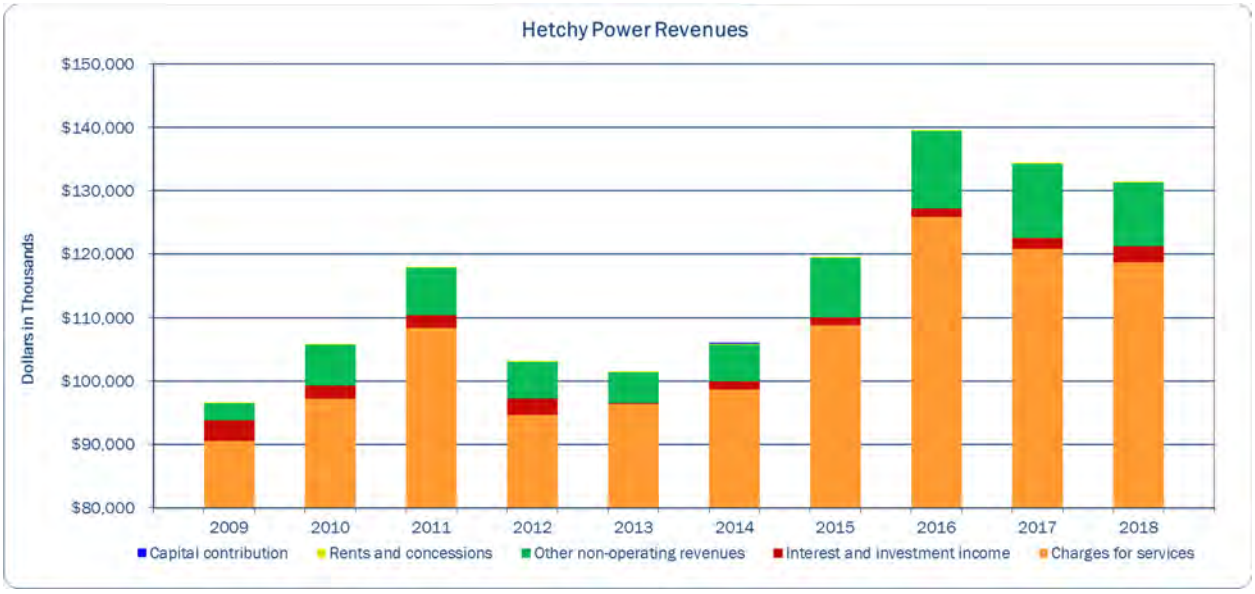


Financial Trends
Hetchy Power - Changes in Net Position
Fiscal Years Ended 2009 to 2018
(Dollars in Thousands)

Revenues:	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Charges for services	$ 90,560	97,236	108,454	94,680	96,398	98,693	108,841	125,850	120,789	118,672
Rents and concessions	135	135	140	134	135	123	127	144	173	163
Subtotal operating revenues	**90,695**	**97,371**	**108,594**	**94,814**	**96,533**	**98,816**	**108,968**	**125,994**	**120,962**	**118,835**
Interest and investment income	3,286	2,081	1,965	2,589	139	1,289	1,253	1,318	1,718	2,537
Other non-operating revenues	2,689	6,456	7,424	5,800	4,892	5,798	9,302	12,256	11,764	10,073
Capital contribution	–	–	–	–	–	202	–	–	–	–
Subtotal non-operating revenues	**5,975**	**8,537**	**9,389**	**8,389**	**5,031**	**7,289**	**10,555**	**13,574**	**13,482**	**12,610**
Total revenues	**$ 96,670**	**105,908**	**117,983**	**103,203**	**101,564**	**106,105**	**119,523**	**139,568**	**134,444**	**131,445**

(Continued)

Source: City and County of San Francisco Financial System and San Francisco Public Utilities Commission Audited Financial Statements.

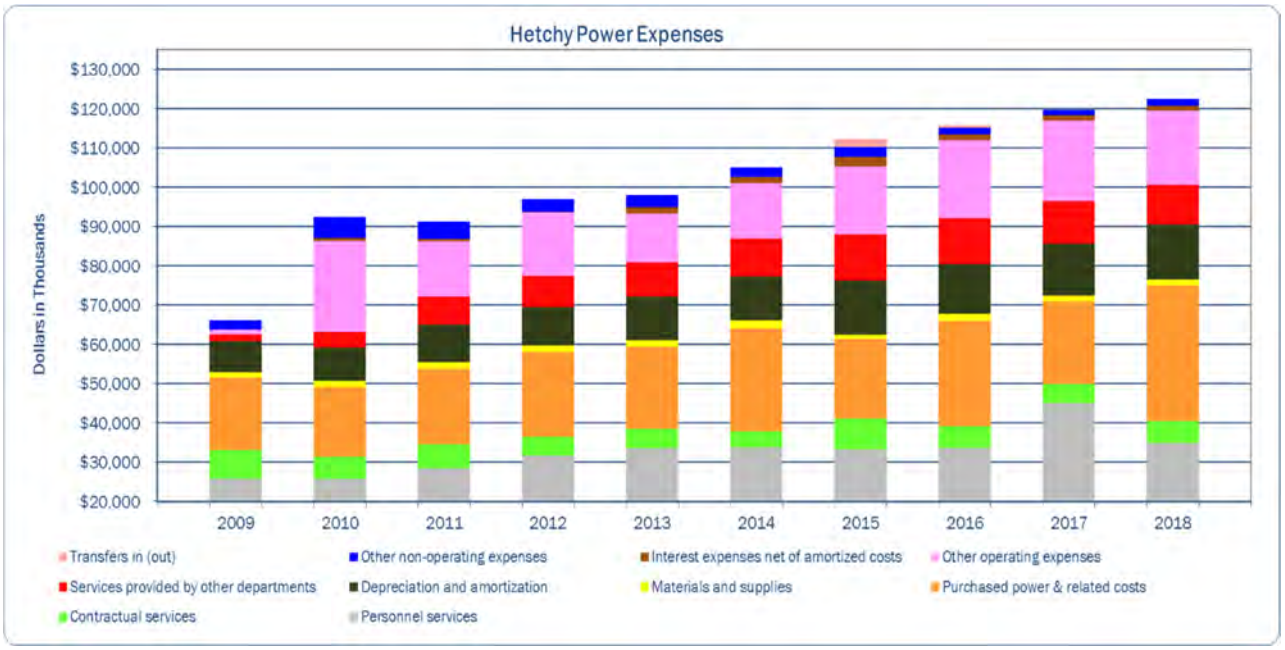


Financial Trends
Hetchy Power - Changes in Net Position
Fiscal Years Ended 2009 to 2018
(Dollars in Thousands)

Expenses:		2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Personnel services	$	25,839	25,755	28,474	31,719	33,564	33,762	33,240	33,632	44,961	34,950
Contractual services		7,215	5,627	6,063	4,726	4,956	4,063	7,852	5,493	4,916	5,526
Purchased power & related costs		18,466	17,726	19,269	21,539	20,891	26,215	20,296	26,792	20,970	34,435
Materials and supplies		1,366	1,540	1,638	1,694	1,671	2,075	1,039	1,849	1,510	1,541
Depreciation and amortization		7,930	8,539	9,582	9,796	11,079	11,128	13,785	12,639	13,225	14,049
Services provided by other departments and general & administrative		1,677	4,018	7,101	7,947	8,665	9,711	11,717	11,716	10,818	10,086
Other operating expenses		1,248	23,129	14,114	16,186	12,433	14,086	17,293	19,838	20,535	18,808
Subtotal operating expenses		**63,741**	**86,334**	**86,241**	**93,607**	**93,259**	**101,040**	**105,222**	**111,959**	**116,935**	**119,395**
Interest expenses		7	722	562	85	1,641	1,574	1,815	3,355	3,200	3,103
Amortization of premium, discount, and issuance costs		–	–	–	38	7	(28)	893	(122)	(255)	(248)
Other non-operating expenses		2,382	5,321	4,403	3,217	3,025	2,485	2,494	1,676	1,408	1,727
Total expenses		**66,130**	**92,377**	**91,206**	**96,947**	**97,932**	**105,071**	**110,424**	**116,868**	**121,288**	**123,977**
Change in net position before transfers and extraordinary item		30,540	13,531	26,777	6,256	3,632	1,034	9,099	22,700	13,156	7,468
Transfers in (out)		(277)	(1,400)	(184)	(2)	(196)	(38)	2,043	680	51	(425)
Extraordinary item:											
Rim fire – loss		–	–	–	–	–	(4,134)	–	–	–	–
Change in net position		**30,263**	**12,131**	**26,593**	**6,254**	**3,436**	**(3,138)**	**11,142**	**23,380**	**13,207**	**7,043**
Net position at beginning of year											
Beginning of year, as previously reported		300,827	331,090	343,221	369,814	376,130	379,284	376,146	366,523	389,903	401,686
Cumulative effect of accounting change		–	–	–	(220) *	(282) *	–	(20,765) ^	–	–	(2,103) ⌂
Less: CleanPowerSF beginning net position		–	–	–	–	–	–	–	–	(1,424)	–
Beginning of year as restated		300,827	331,090	343,221	369,594	375,848	379,284	355,381	366,523	388,479	399,583
Net position at end of year	$	**331,090**	**343,221**	**369,814**	**375,848**	**379,284**	**376,146**	**366,523**	**389,903**	**401,686**	**406,626**

* The beginning net position for fiscal years 2012 and 2013 have been restated for the retrospective application of GASB Statement No. 65.
^ The beginning net position for fiscal year 2015 has been restated for the application of GASB Statement No. 68.
⌂ The beginning net position for fiscal year 2018 has been restated for the retrospective application of GASB Statement No. 75.

Source: City and County of San Francisco Financial System and San Francisco Public Utilities Commission Audited Financial Statements.



Financial Trend
CleanPowerSF - Changes in Net Position
Fiscal Years Ended 2017 to 2018
(Dollars in Thousands)

Revenues:		2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Charges for services	$	*Data not available - CleanPowerSF launched in May 2016.								33,867	39,568
Rents and concessions										–	–
Subtotal operating revenues										**33,867**	**39,568**
Interest and investment income										89	174
Other non-operating revenues										4	1
Subtotal non-operating revenues										**93**	**175**
Total revenues	**$**									**33,960**	**39,743**

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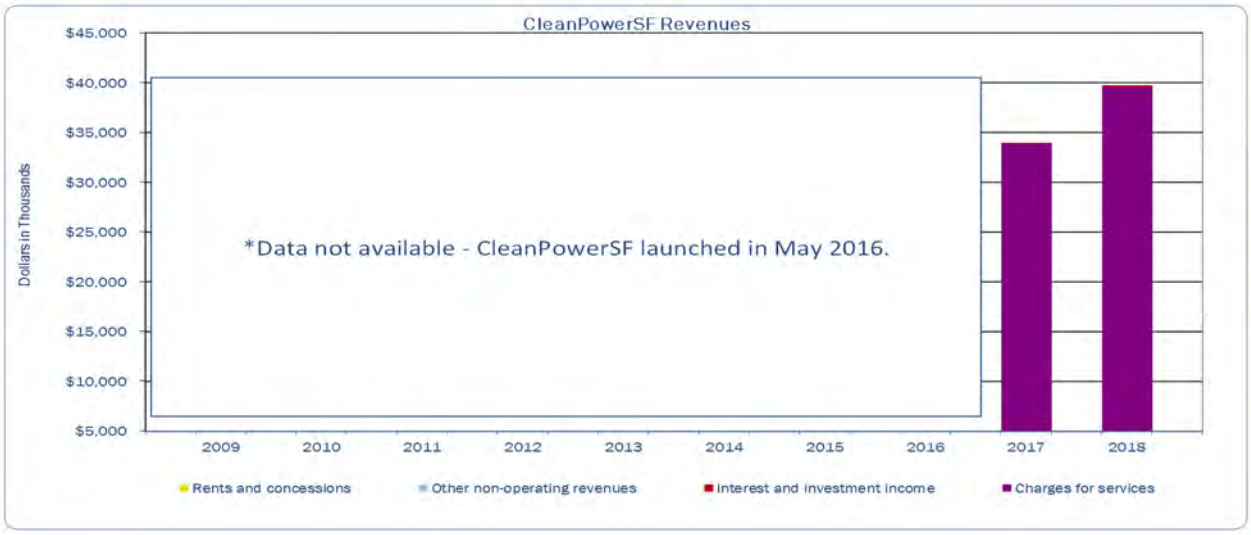
* CleanPowerSF was presented as part of Hetchy Power in fiscal year 2016.

Source: City and County of San Francisco Financial System and San Francisco Public Utilities Commission Audited Financial Statements.



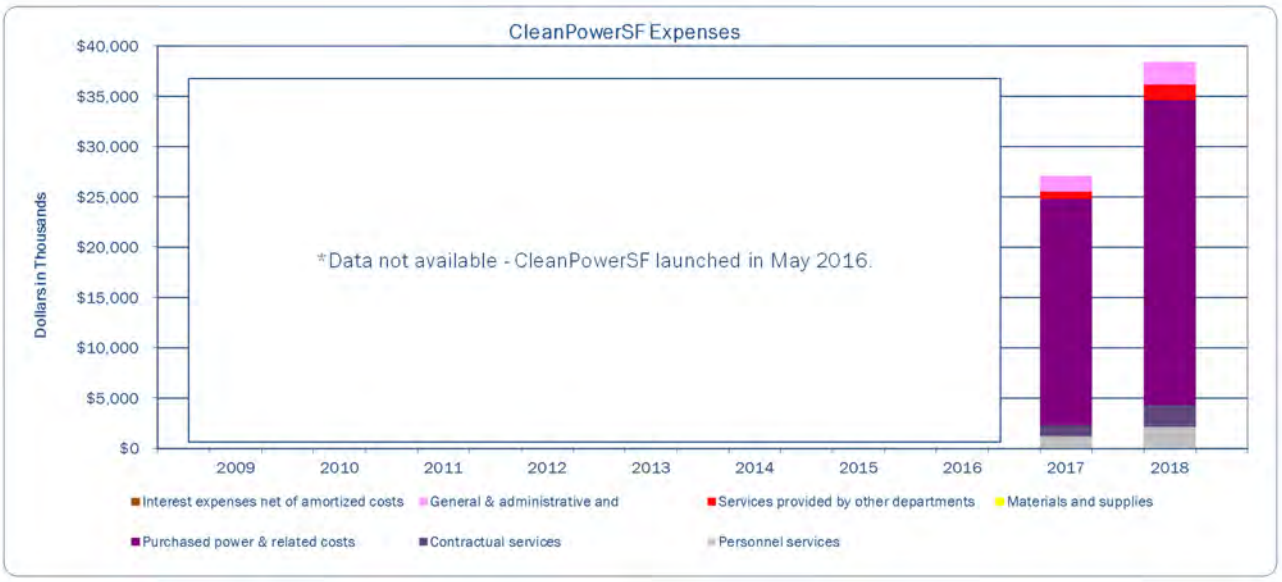
Financial Trend
CleanPowerSF - Changes in Net Position
Fiscal Years Ended 2017 to 2018
(Dollars in Thousands)

Expenses:		2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Personnel services	$									1,213	2,150
Contractual services										1,141	2,166
Purchased power & related costs										22,437	30,297
Materials and supplies										1	–
Services provided by other departments										734	1,545
General & administrative and											
Other operating expenses										1,570	2,270
Subtotal operating expenses										**27,096**	**38,428**
Interest expenses										70	101
Total expenses										**27,166**	**38,529**
Change in net position										**6,794**	**1,214**
Net position at beginning of year											
Beginning of year, as previously reported										1,424	8,218
Cumulative effect of accounting change										–	(572)⌂
Beginning of year as restated										1,424	7,646
Net position at end of year	**$**									**8,218**	**8,860**

*Data not available - CleanPowerSF launched in May 2016.

* CleanPowerSF was presented as part of Hetchy Power in fiscal year 2016.
⌂ The beginning net position for fiscal year 2018 has been restated for the retrospective application of GASB Statement No. 75.

Source: City and County of San Francisco Financial System and San Francisco Public Utilities Commission Audited Financial Statements.

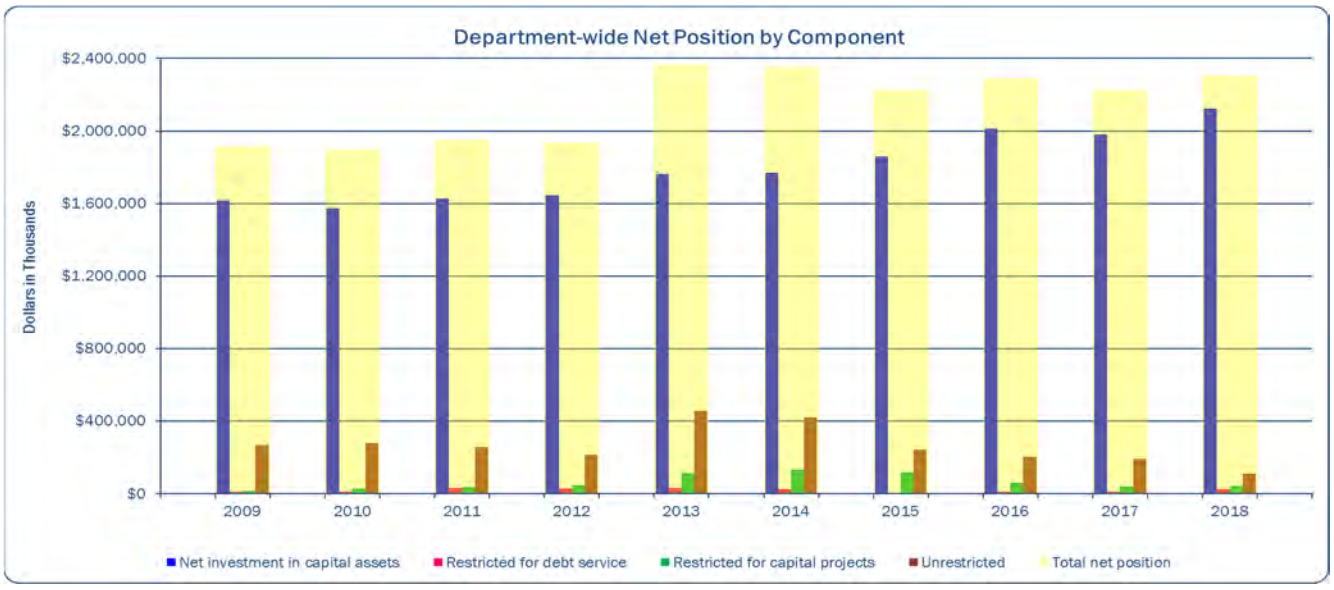


Financial Trends
Department-wide - Summary of Net Position by Component
Fiscal Years Ended 2009 to 2018
(Dollars in Thousands)

	2009	2010	2011	2012 ^	2013 ^	2014	2015 *	2016	2017	2018 ☖
Net investment in capital assets	$ 1,617,849	1,572,805	1,627,228	1,645,558	1,762,526	1,769,815	1,859,439	2,011,814	1,979,445	2,122,896
Restricted for debt service	13,301	13,550	31,775	28,240	33,683	25,990	1,704	13,409	12,451	25,079
Restricted for capital projects	16,232	30,191	37,244	47,734	114,299	131,590	120,496	60,357	39,557	44,690
Unrestricted	269,899	280,844	257,200	214,522	456,057	422,234	243,812	205,642	194,337	113,340
Total net position	**$ 1,917,281**	**1,897,390**	**1,953,447**	**1,936,054**	**2,366,565**	**2,349,629**	**2,225,451**	**2,291,222**	**2,225,790**	**2,306,005**

^ The beginning net position for fiscal years 2012 and 2013 have been restated for the retrospective application of GASB Statement No. 65.
* The beginning net position for fiscal years 2015 have been restated for the cumulative effect of accounting change per GASB Statement No. 68.
☖ The beginning net position for fiscal year 2018 has been restated for the retrospective application of GASB Statement No. 75.

Source: City and County of San Francisco Financial System and San Francisco Public Utilities Commission Audited Financial Statements.



Financial Trends
Water - Summary of Net Position by Component
Fiscal Years Ended 2009 to 2018
(Dollars in Thousands)

		2009	2010	2011	2012 ^	2013 ^	2014	2015 *	2016	2017	2018 ⌂
Net investment in capital assets	$	372,421	319,581	333,386	268,614	364,863	366,799	425,073	543,327	495,868	504,476
Restricted for debt service		11,941	12,073	30,840	27,213	32,723	25,356	1,053	12,122	10,989	22,933
Restricted for capital projects		1,209	4,346	19,163	13,665	103,616	103,154	95,735	40,743	37,904	32,978
Unrestricted		76,729	79,684	12,869	16,350	198,429	158,903	74,604	26,476	(43,494)	(70,863)
Total net position	**$**	**462,300**	**415,684**	**396,258**	**325,842**	**699,631**	**654,212**	**596,465**	**622,668**	**501,267**	**489,524**

^ The beginning net position for fiscal years 2012 and 2013 have been restated for the retrospective application of GASB Statement No. 65.
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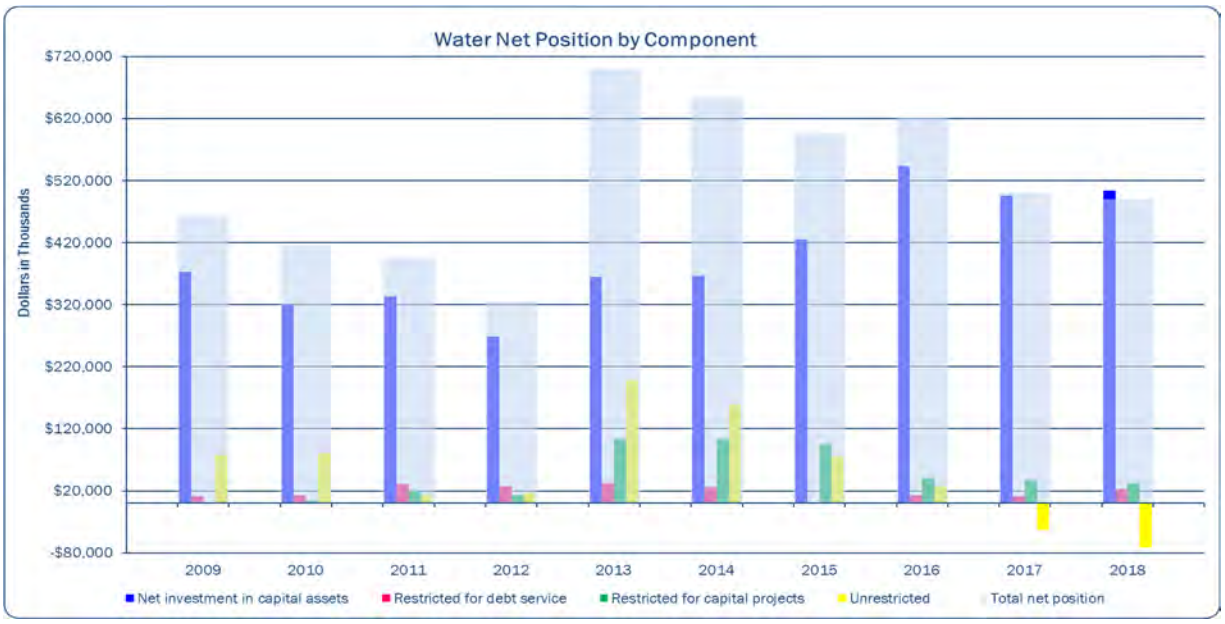

Financial Trends
Wastewater - Summary of Net Position by Component
Fiscal Years Ended 2009 to 2018
(Dollars in Thousands)

		2009	2010	2011	2012 ^	2013 ^	2014	2015 *	2016	2017	2018 ☖
Net investment in capital assets	$	971,789	970,526	1,000,242	1,067,586	1,074,526	1,066,814	1,088,552	1,098,723	1,095,165	1,207,703
Restricted for debt service		1,360	1,477	935	1,027	960	634	349	981	977	1,312
Restricted for capital projects		15,023	25,845	18,081	19,787	2,931	22,929	20,327	18,205	1,653	–
Unrestricted		22,432	27,488	42,023	9,442	70,340	91,490	32,824	38,031	48,468	190
Total net position	**$**	**1,010,604**	**1,025,336**	**1,061,281**	**1,097,842**	**1,148,757**	**1,181,867**	**1,142,052**	**1,155,940**	**1,146,263**	**1,209,205**

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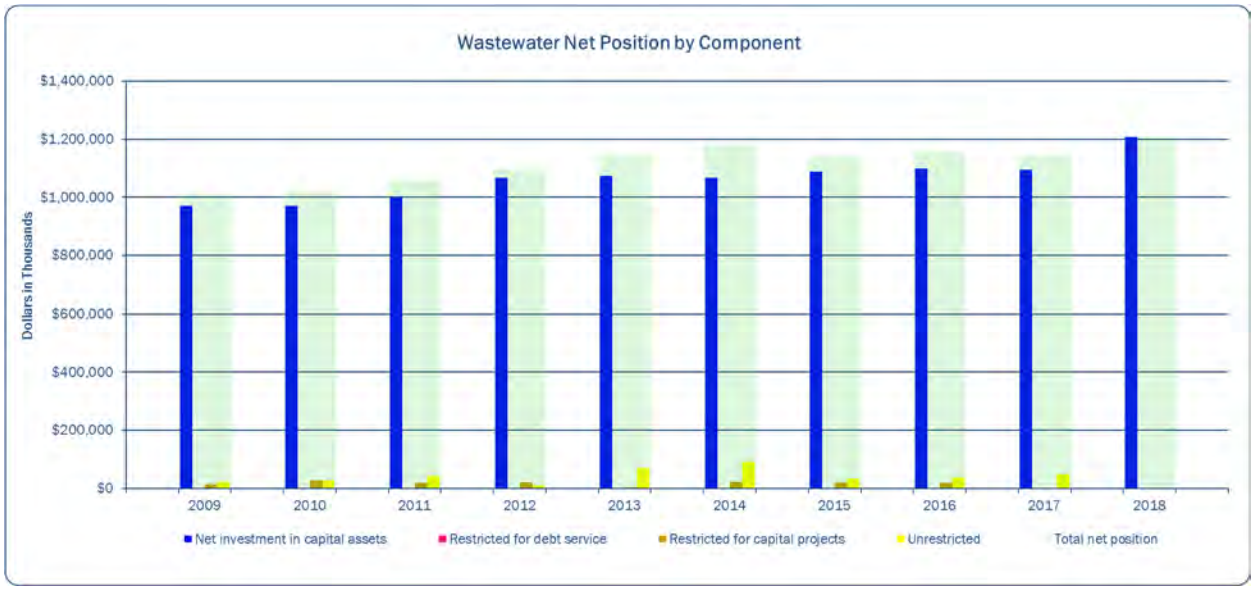
Source: City and County of San Francisco Financial System and San Francisco Public Utilities Commission Audited Financial Statements.



Financial Trends
Hetchy Water - Summary of Net Position by Component
Fiscal Years Ended 2009 to 2018
(Dollars in Thousands)

		2009	2010	2011	2012	2013	2014	2015*	2016	2017	2018 ⌂
Net investment in capital assets	$	83,306	86,634	85,508	87,941	91,228	95,186	104,330	113,867	127,731	139,799
Restricted for capital projects		–	–	–	14,170	7,752	5,507	4,434	1,409	–	11,712
Unrestricted		29,981	26,515	40,586	34,411	39,913	36,711	11,647	7,435	40,625	40,279
Total net position	**$**	**113,287**	**113,149**	**126,094**	**136,522**	**138,893**	**137,404**	**120,411**	**122,711**	**168,356**	**191,790**

* The beginning net position for fiscal years 2015 have been restated for the cumulative effect of accounting change per GASB Statement No. 68.
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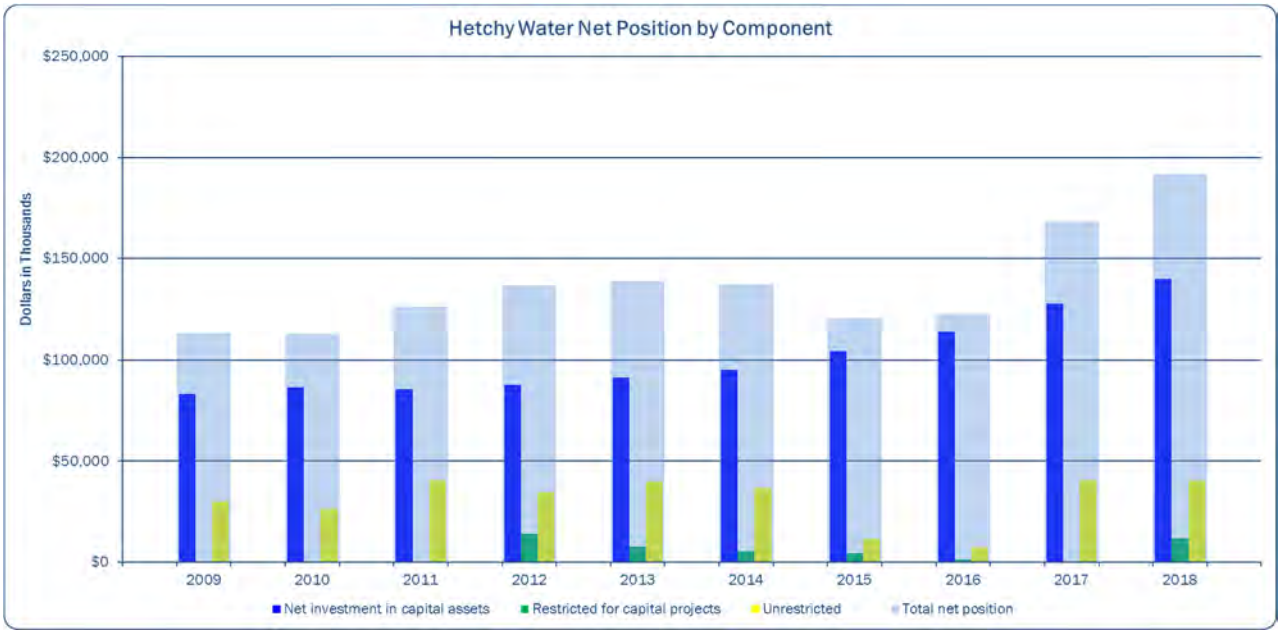
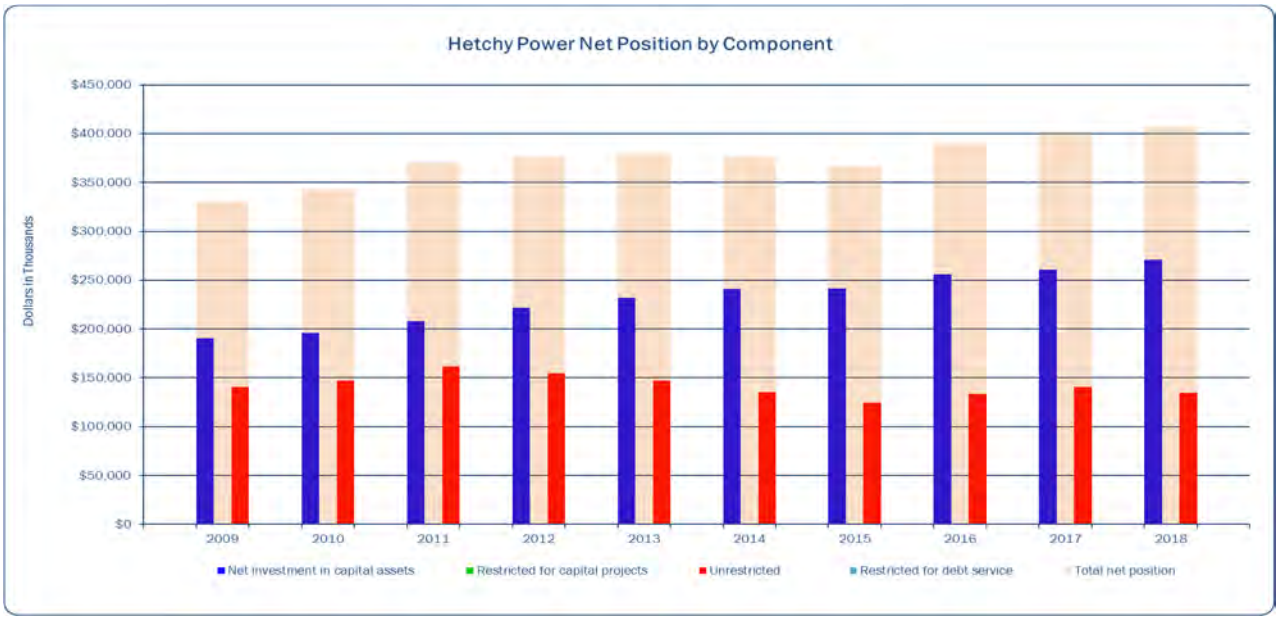


Financial Trends
Hetchy Power - Summary of Net Position by Component
Fiscal Years Ended 2009 to 2018
(Dollars in Thousands)

		2009	2010	2011	2012 ^	2013 ^	2014	2015 *	2016	2017	2018 ☖
Net investment in capital assets	$	190,333	196,064	208,092	221,417	231,909	241,016	241,484	255,897	260,681	270,918
Restricted for debt service		–	–	–	–	–	–	302	306	485	834
Restricted for capital projects		–	–	–	112	–	–	–	–	–	–
Unrestricted		140,757	147,157	161,722	154,319	147,375	135,130	124,737	133,700	140,520	134,874
Total net position	**$**	**331,090**	**343,221**	**369,814**	**375,848**	**379,284**	**376,146**	**366,523**	**389,903**	**401,686**	**406,626**

^ The beginning net position for fiscal years 2012 and 2013 have been restated for the retrospective application of GASB Statement No. 65.
* The beginning net position for fiscal years 2015 have been restated for the cumulative effect of accounting change per GASB Statement No. 68.
☖ The beginning net position for fiscal year 2018 has been restated for the retrospective application of GASB Statement No. 75.

Source: City and County of San Francisco Financial System and San Francisco Public Utilities Commission Audited Financial Statements.

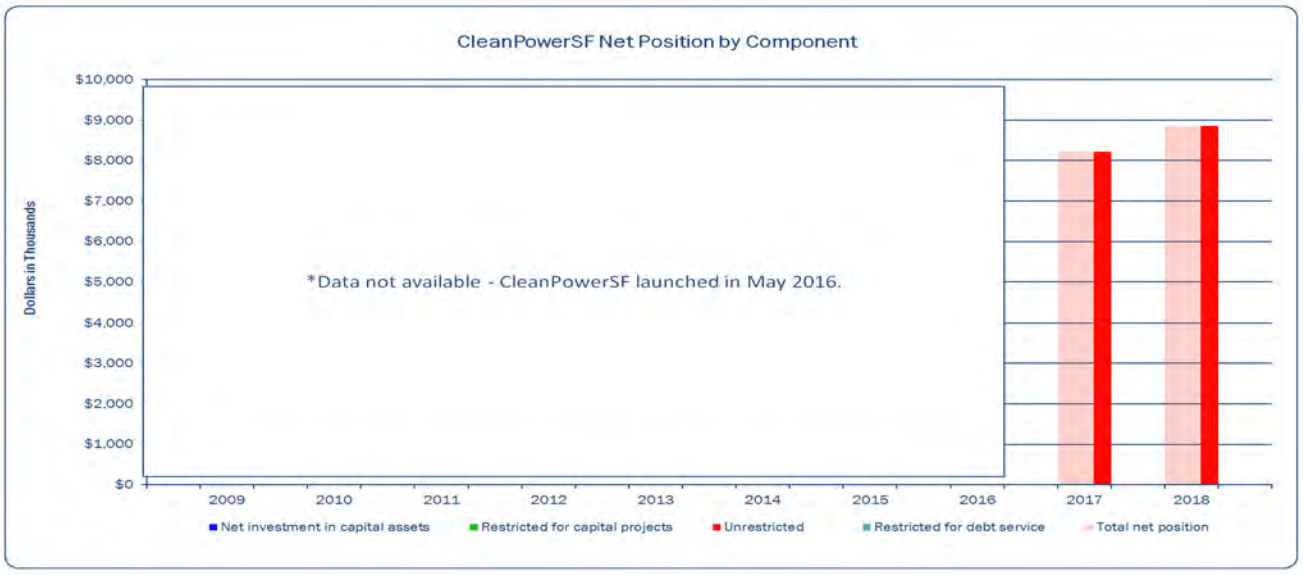


Financial Trend
CleanPowerSF - Summary of Net Position by Component
Fiscal Years Ended 2017 to 2018
(Dollars in Thousands)

		2009	2010	2011	2012	2013	2014	2015	2016	2017	2018 ⌂
Net investment in capital assets	$	*Data not available - CleanPowerSF launched in May 2016.								–	–
Restricted for debt service										–	–
Restricted for capital projects										–	–
Unrestricted										8,218	8,860
Total net position	**$**									**8,218**	**8,860**

* CleanPowerSF was presented as part of Hetchy Power in fiscal year 2016.
⌂ The beginning net position for fiscal year 2018 has been restated for the retrospective application of GASB Statement No. 75.

Source: City and County of San Francisco Financial System and San Francisco Public Utilities Commission Audited Financial Statements.

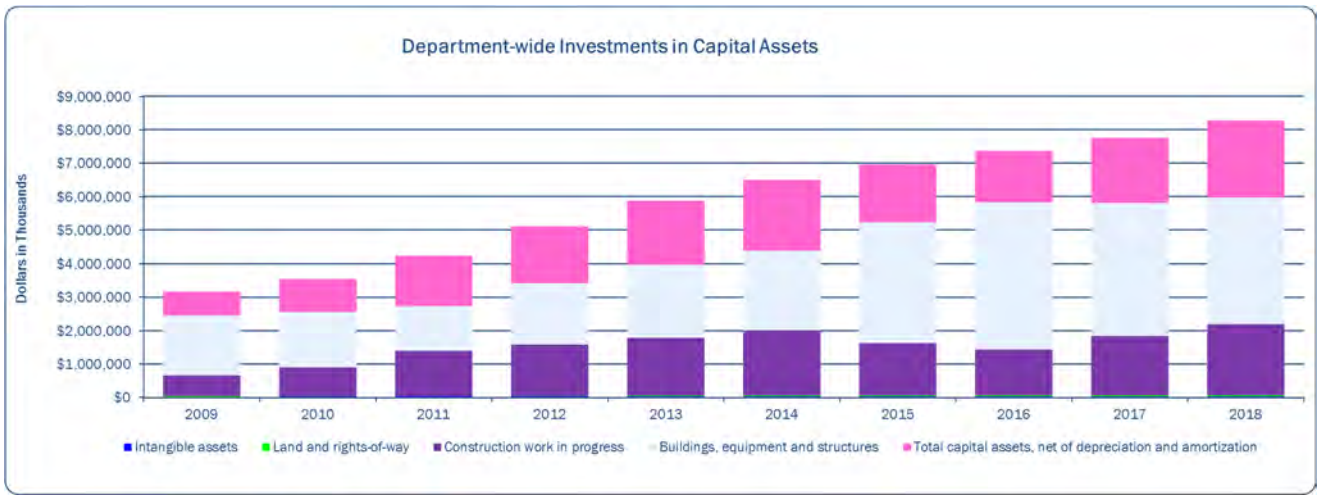


Financial Trends
Department-wide Investments in Capital Assets
Summary of Intangible Assets, Property, Plant and Equipment
Fiscal Years Ended 2009 to 2018
(Dollars in Thousands)

		2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Buildings, equipment and structures	$	4,284,867	4,470,809	4,752,922	5,555,284	6,238,702	6,790,353	7,800,455	8,565,038	8,736,914	9,084,980
Less accumulated depreciation		(1,823,482)	(1,907,161)	(2,013,982)	(2,133,525)	(2,266,290)	(2,413,969)	(2,572,737)	(2,742,700)	(2,930,531)	(3,120,191)
Subtotal		2,461,385	2,563,648	2,738,940	3,421,759	3,972,412	4,376,384	5,227,718	5,822,338	5,806,383	5,964,789
Intangible assets, net of amortization*		–	39,240	44,636	44,596	41,525	39,122	38,885	36,674	34,904	36,956
Land and rights-of-way		44,849	43,582	44,687	50,641	64,764	67,290	67,213	67,213	67,301	70,947
Construction work in progress		663,588	901,265	1,395,510	1,586,702	1,789,980	2,012,810	1,625,592	1,436,187	1,841,297	2,196,169
Total capital assets, net of depreciation and amortization	**$**	**3,169,822**	**3,547,735**	**4,223,773**	**5,103,698**	**5,868,681**	**6,495,606**	**6,959,408**	**7,362,412**	**7,749,885**	**8,268,861**

* Include amortizable and non-amortizable intangible assets.

Source: City and County of San Francisco Financial System and San Francisco Public Utilities Commission Audited Financial Statements.



Financial Trends
Water - Investments in Capital Assets
Summary of Intangible Assets, Property, Plant and Equipment
Fiscal Years Ended 2009 to 2018
(Dollars in Thousands)

	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Buildings, equipment and structures	$ 1,572,968	1,744,214	1,965,019	2,618,140	3,177,874	3,594,412	4,497,411	5,036,587	5,100,680	5,217,106
Less accumulated depreciation	(637,387)	(689,587)	(741,708)	(804,377)	(876,972)	(962,863)	(1,054,987)	(1,158,520)	(1,274,504)	(1,391,274)
Subtotal	935,581	1,054,627	1,223,311	1,813,763	2,300,902	2,631,549	3,442,424	3,878,067	3,826,176	3,825,832
Intangible assets, net of amortization*	–	4,652	9,191	9,832	8,030	6,896	7,244	5,843	4,671	7,321
Land and rights-of-way	18,386	17,707	18,812	24,711	24,307	26,811	26,811	26,811	26,777	30,029
Construction work in progress	547,293	787,367	1,228,574	1,385,860	1,525,689	1,662,294	1,176,805	987,780	1,195,840	1,400,051
Total capital assets, net of depreciation and amortization	**$ 1,501,260**	**1,864,353**	**2,479,888**	**3,234,166**	**3,858,928**	**4,327,550**	**4,653,284**	**4,898,501**	**5,053,464**	**5,263,233**

* Include amortizable and non-amortizable intangible assets.

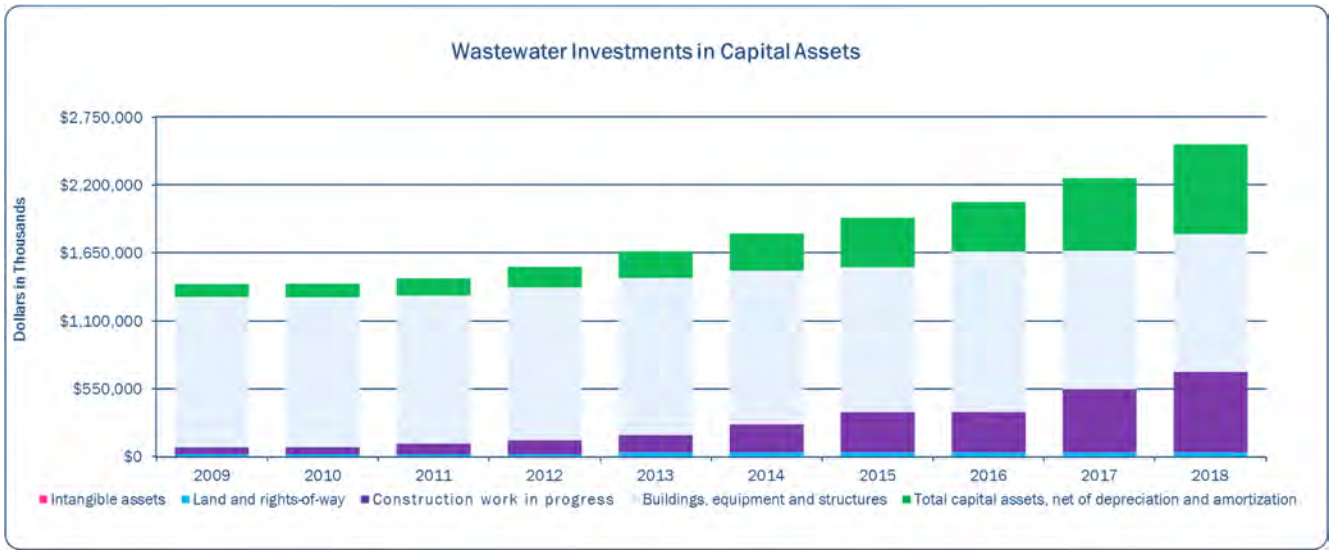
Source: City and County of San Francisco Financial System and San Francisco Public Utilities Commission Audited Financial Statements.

Financial Trends
Wastewater - Investments in Capital Assets
Summary of Intangible Assets, Property, Plant and Equipment
Fiscal Years Ended 2009 to 2018
(Dollars in Thousands)

		2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Buildings, equipment and structures	$	2,167,395	2,200,989	2,255,442	2,365,601	2,481,895	2,588,575	2,665,863	2,842,648	2,904,499	3,094,871
Less accumulated depreciation		(871,589)	(907,647)	(949,154)	(992,972)	(1,038,309)	(1,085,418)	(1,134,843)	(1,185,275)	(1,240,172)	(1,295,323)
Subtotal		1,295,806	1,293,342	1,306,288	1,372,629	1,443,586	1,503,157	1,531,020	1,657,373	1,664,327	1,799,548
Intangible assets, net of amortization*		–	4,587	5,793	5,595	4,809	4,023	3,921	3,594	3,457	3,320
Land and rights-of-way		21,787	21,210	21,210	21,210	35,737	35,737	35,737	35,737	35,737	35,737
Construction work in progress		77,330	78,473	107,176	134,703	176,711	262,642	362,110	362,958	548,179	687,601
Total capital assets, net of depreciation and amortization	**$**	**1,394,923**	**1,397,612**	**1,440,467**	**1,534,137**	**1,660,843**	**1,805,559**	**1,932,788**	**2,059,662**	**2,251,700**	**2,526,206**

* Include amortizable and non-amortizable intangible assets.

Source: City and County of San Francisco Financial System and San Francisco Public Utilities Commission Audited Financial Statements.

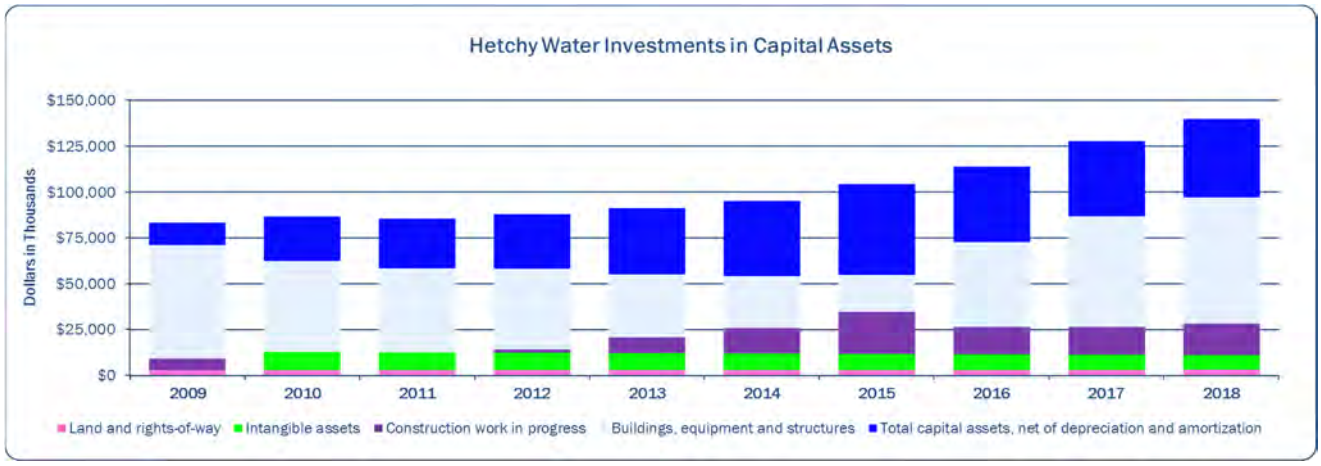


Financial Trends
Hetchy Water - Investments in Capital Assets
Summary of Intangible Assets, Property, Plant and Equipment
Fiscal Years Ended 2009 to 2018
(Dollars in Thousands)

		2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Buildings, equipment and structures	$	221,750	209,448	209,336	212,935	213,936	216,910	221,345	242,936	261,139	276,177
Less accumulated depreciation		(150,671)	(147,019)	(150,912)	(154,688)	(158,796)	(162,724)	(166,546)	(170,199)	(174,352)	(179,139)
Subtotal		71,079	62,429	58,424	58,247	55,140	54,186	54,799	72,737	86,787	97,038
Intangible assets, net of amortization*		–	12,860	12,653	12,446	12,239	12,032	11,825	11,618	11,410	11,203
Land and rights-of-way		3,008	3,003	3,003	3,028	3,028	3,038	3,003	3,003	3,055	3,232
Construction work in progress		9,219	8,342	11,428	14,220	20,821	25,922	34,703	26,509	26,479	28,326
Total capital assets, net of depreciation and amortization	**$**	**83,306**	**86,634**	**85,508**	**87,941**	**91,228**	**95,178**	**104,330**	**113,867**	**127,731**	**139,799**

* Include amortizable and non-amortizable intangible assets.

Source: City and County of San Francisco Financial System and San Francisco Public Utilities Commission Audited Financial Statements.



Financial Trends
Hetchy Power - Investments in Capital Assets
Summary of Intangible Assets, Property, Plant and Equipment
Fiscal Years Ended 2009 to 2018
(Dollars in Thousands)

		2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Buildings, equipment and structures	$	322,754	316,158	323,125	358,608	364,997	390,456	415,836	442,867	470,596	496,826
Less accumulated depreciation		(163,835)	(162,908)	(172,208)	(181,488)	(192,213)	(202,964)	(216,361)	(228,706)	(241,503)	(254,455)
Subtotal		158,919	153,250	150,917	177,120	172,784	187,492	199,475	214,161	229,093	242,371
Intangible assets, net of amortization*		–	17,141	16,999	16,723	16,447	16,171	15,895	15,619	15,366	15,112
Land and rights-of-way		1,668	1,662	1,662	1,692	1,692	1,704	1,662	1,662	1,732	1,949
Construction work in progress		29,746	27,083	48,332	51,919	66,759	61,952	51,974	58,940	70,799	80,191
Total capital assets, net of depreciation and amortization	**$**	**190,333**	**199,136**	**217,910**	**247,454**	**257,682**	**267,319**	**269,006**	**290,382**	**316,990**	**339,623**

* Include amortizable and non-amortizable intangible assets.

Source: City and County of San Francisco Financial System and San Francisco Public Utilities Commission Audited Financial Statements.

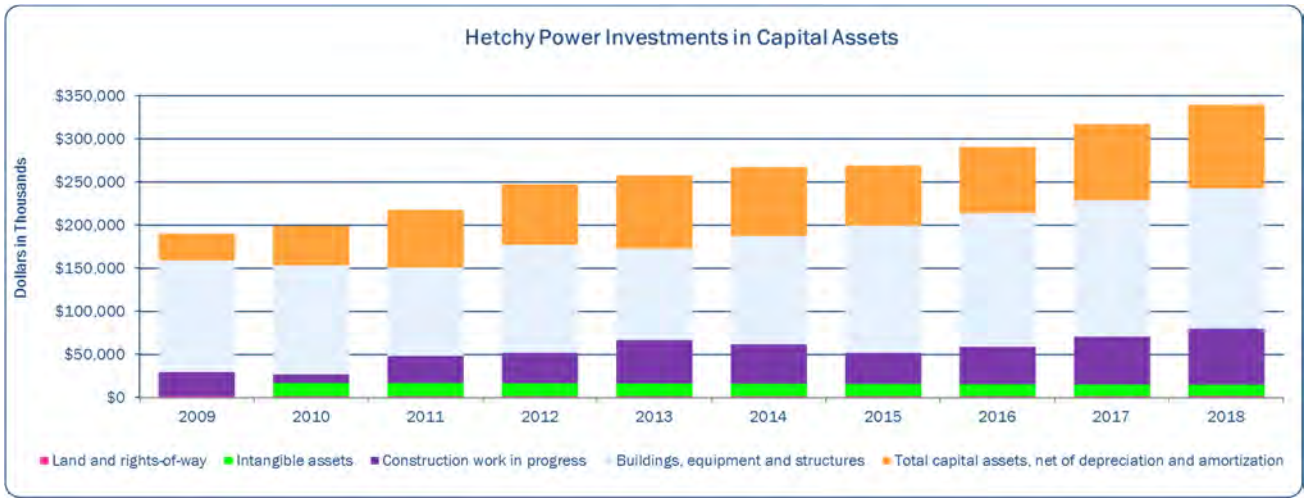


Photo by: Katherine Du Tiel

Panorama of Lower Crystal Springs Dam

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

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

Revenue Capacity

Water Rates History

Wastewater Rates History

Hetchy Power Electric Rates History

CleanPowerSF Electric Rates History

Net Revenue and Debt Service Coverage

Photo by: Katherine Du Tiel

Construction of the new Crystal Springs Pump Station

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

Revenue Capacity
Water Rate History
Fiscal Years Ended 2009 to 2018

Rates Per Hundred Cubic Feet

	Retail									Wholesale	
		Single-Family			Multiple-Family			Non-Residential			
Fiscal Years Ended June 30	Service Charge Rate[1] ($)	Volume Charge ($/ccf) (0-3 ccf)	Volume Charge ($/ccf) (over 3 ccf)	% Increase /(Decrease)[4]	Volume Charge ($/ccf) (0-3 ccf)	Charge ($/ccf) (over 3 ccf)	% Increase /(Decrease)[4]	Volume Charge ($/ccf)	% Increase /(Decrease)	Volume Charge ($/ccf)	% Increase /(Decrease)
2009	4.70	2.28	2.89	10.2	2.87	2.87	11.7	2.92	15.9	1.43	10.0
2010	5.40	2.61	3.48	17.1	2.87	3.82	10.2	3.35	14.7	1.65	15.4
2011	6.20	3.09	4.12	17.6	3.28	4.37	14.5	3.89	16.1	1.90	15.2
2012	7.00	3.50	4.60	12.5	3.70	4.90	12.7	4.52	16.2	2.63	38.4
2013	7.90	3.90	5.20	12.5	4.20	5.50	13.0	5.10	12.8	2.93	11.4
2014	8.40	4.20	5.50	6.5	4.50	5.90	6.9	5.40	5.9	2.45	(16.4)

	Retail									Wholesale	
		Single-Family			Multiple-Family			Non-Residential			
Fiscal Years Ended June 30	Service Charge Rate[1] ($)	Volume Charge ($/ccf) (0-4 ccf)	Volume Charge ($/ccf) (over 4 ccf)	% Increase /(Decrease)[4]	Volume Charge ($/ccf) (0-3 ccf)	Volume Charge ($/ccf) (over 3 ccf)	% Increase /(Decrease)[4]	Volume Charge ($/ccf)	% Increase /(Decrease)	Volume Charge ($/ccf)	% Increase /(Decrease)
2015[2,3]	8.81	4.86	6.52	10.1	4.98	6.67	9.4	5.79	7.2	2.93	19.6
2016	9.87	5.45	7.31	12.1	5.58	7.48	12.1	6.49	12.1	3.75	28.0
2017	10.86	6.00	8.05	10.1	6.14	8.23	10.0	7.14	10.0	4.10	9.3
2018	11.63	6.42	8.62	7.0	6.57	8.81	7.0	7.64	7.0	4.10	0.0

[1] Monthly service charge for 5/8" meter.
[2] Rates approved on May 13, 2014.
[3] Effective July 1, 2015, the Single-Family Residential Tier 1 changed from 0-3 ccf to 0-4 ccf.
[4] The percentage increase/(decrease) is based on an average monthly bill of 6 ccf for Single-Family and 4 ccf for Multiple-Family.

Source: San Francisco Public Utilities Commission Annual Disclosure Reports and Rate Schedules.

Revenue Capacity
Wastewater Rate History
Fiscal Years Ended 2009 to 2018

Rates Per Hundred Cubic Feet

	Residential				Non-Residential			
Fiscal Years Ended June 30	Volume Charge ($/ccf) (0-3 ccf)	Volume Charge ($/ccf) (4-5 ccf)	Volume Charge ($/ccf) (over 5 ccf)[2]	% Increase/ (Decrease)[6]	Volume Charge ($/ccf)	Chemical Oxygen Demand Charge ($/lb)	Suspended Solids Charge ($/lb)	Oil and Grease Charge ($/lb)
2009[1]	3.42	8.55	9.77	9.0	6.55	0.22	0.88	1.10

	Single-Family			Multiple-Family			Non-Residential			
Fiscal Years Ended June 30	Volume Charge ($/ccf) (0-3 ccf)	Volume Charge ($/ccf) (over 3 ccf)[2]	% Increase/ (Decrease)[6]	Volume Charge ($/ccf) (0-3 ccf)	Volume Charge ($/ccf) (over 3 ccf)	% Increase/ (Decrease)[6]	Volume Charge ($/ccf)	Chemical Oxygen Demand Charge ($/lb)	Suspended Solids Charge ($/lb)	Oil and Grease Charge ($/lb)
2010[3]	6.05	8.35	22.1	5.66	7.45	34.2	6.55	0.22	0.88	1.10
2011	6.91	9.21	12.2	6.51	8.68	15.4	6.55	0.22	0.88	1.10
2012	7.16	9.55	3.6	7.49	9.99	15.1	6.55	0.22	0.88	1.10
2013	7.52	10.03	5.1	7.86	10.49	5.0	6.55	0.22	0.88	1.10
2014	7.90	10.53	5.0	8.25	11.01	5.0	6.62	0.22	0.89	1.11

	Single-Family			Multiple-Family			Non-Residential			
Fiscal Years Ended June 30	Volume Charge ($/ccf) (0-4 ccf)	Volume Charge ($/ccf) (over 4 ccf)	% Increase/ (Decrease)[6]	Volume Charge ($/ccf) (0-3 ccf)	Volume Charge ($/ccf) (over 3 ccf)	% Increase/ (Decrease)[6]	Volume Charge ($/ccf)	Chemical Oxygen Demand Charge ($/lb)	Suspended Solids Charge ($/lb)	Oil and Grease Charge ($/lb)
2015[4,5]	9.06	11.23	6.1	9.24	11.48	10.0	6.15	0.44	0.83	0.87
2016	9.82	11.34	6.9	9.95	11.51	5.8	6.45	0.46	0.87	0.91
2017	10.84	11.66	9.0	10.91	11.75	7.9	6.90	0.49	0.93	0.97
2018[7]	12.40	12.40	12.2	12.40	12.40	11.8	7.66	0.55	1.03	1.08

[1] Adjustment effective July 14, 2007.
[2] On July 1, 2005, the SFPUC changed its basis of billing from water units to discharge units and implemented a three-tiered rate structure for residential customers to promote conservation. Tier 2 and tier 3 were combined effective July 1, 2009.
[3] Single-Family Residential and Multiple-Family Residential rates were differentiated effective July 1, 2009.
[4] Effective July 1, 2015, the Single-Family Residential Tier 1 rate structure changed from 0-3 ccf to 0-4 ccf.
[5] Four years of rates were approved on May 13, 2014.
[6] The percentage increase/(decrease) is based on an average monthly bill of 5.4 ccf for Single-Family (based on a 90% flow factor) and 3.8 ccf for Multiple-Family (based on a 95% flow factor).
[7] Effective July 1, 2017, no tiers for wastewater volumetric charges for single-family and multi-family.

Source: San Francisco Public Utilities Commission Annual Disclosure Reports and Rate Schedules.

Revenue Capacity
Hetchy Power Electric Rate History
Fiscal Years Ended 2009 to 2018

Rates Per Kilowatt Hour		2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Residential*											
Residential Services - Multi-family	$	0.16474	0.17643	0.18259	0.18581	0.18590	0.20052	0.20526	0.21784	0.23073	0.22894
Residential - Public Power											
Tier 1		N/A	N/A	N/A	0.10689	0.10931	0.11200	0.11451	0.11705	0.13391	0.14198
Tier 2		N/A	N/A	N/A	0.12152	0.12427	0.12733	0.13018	0.13306	0.15222	0.16139
Tier 3		N/A	N/A	N/A	0.24877	0.25440	0.26065	0.26649	0.27238	0.31160	0.33037
Commercial											
Small General Service		0.16528	0.17886	0.18075	0.18098	0.18531	0.19717	0.21152	0.22560	0.23020	0.23786
Medium General Demand-Metered Service		0.13764	0.15816	0.16041	0.16013	0.15876	0.17573	0.18503	0.19667	0.20346	0.21265
Medium General Demand-Metered TOU** Service		0.11353	0.13490	0.13033	0.12724	0.12833	0.13953	0.14761	0.15049	0.15893	0.16176
Industrial											
Service to Customers with equal to or greater than Demand of 1,000 Kilowatts or More - Secondary Voltage		0.11475	0.13330	0.13552	0.13478	0.13170	0.14434	0.15216	0.15969	0.16868	0.17553
Service to Customers with equal to or greater than Demand of 1,000 Kilowatts or More - Primary Voltage		0.10460	0.12335	0.12450	0.12247	0.11990	0.13169	0.13908	0.14498	0.15229	0.15874
Service to Customers with equal to or greater than Demand of 1,000 Kilowatts or More - Transmission Voltage		0.08230	0.09762	0.09794	0.09907	0.09431	0.10383	0.10608	0.10743	0.11719	0.12501
General Fund City Departments		0.03750	0.03750	0.03750	0.03750	0.04250	0.04750	0.05750	0.06750	0.07250	0.07750
Streetlights		0.11279	0.12206	0.12173	0.12153	0.13085	0.13840	0.15045	0.15712	0.15874	0.16451
Traffic Signals		0.11942	0.13046	0.13571	0.13571	0.14111	0.14762	0.15866	0.17187	0.18018	0.18432

* Residential rates include master-metered multi-family services (EM) and multi-family services (ES). Tiers for Residential Public Power vary between Winter and Summer months.
** TOU stands for time-of-use.

Note: The rates shown for each year are average rates per kWh charged in the months of March through June for residential, commercial and industrial rates. Rates are subject to change at any time.

Source: Rates originated from San Francisco Public Utilities Commission Resolution No. 89-0355 and PG&E electric rates schedules.

Revenue Capacity
CleanPowerSF Electric Rate History
Fiscal Years Ended 2016 to 2018

	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Rates per Kilowatt-hour										
Residential										
E-1 (Green)	$							0.07267	0.07267	0.06836
E-1 (SuperGreen)								0.09267	0.09267	0.08836
E-6 (Green)								0.06719	0.06693	0.05868
E-6 (SuperGreen)								0.08719	0.08693	0.07868
E-TOUA (Green)								N/A	0.06801	0.06283
E-TOUA (SuperGreen)								N/A	0.08801	0.08283
E-TOUB (Green)								N/A	0.06819	0.06285
E-TOUB (SuperGreen)								N/A	0.08819	0.08285
EVA (Green)								0.05837	0.05822	0.05350
EVA (SuperGreen)								0.07837	0.07822	0.07350
EVB (Green)								N/A	0.04747	0.04263
EVB (SuperGreen)								N/A	0.06747	0.06263
Commercial										
A-1 (Green)								0.07772	0.07740	0.07447
A-1 (SuperGreen)								0.09772	0.09740	0.08847
A-1X (Green)								0.07770	0.07751	0.07509
A-1X (SuperGreen)								0.09770	0.09751	0.08909
A-6 (Green)								0.08883	0.08820	0.08631
A-6 (SuperGreen)								0.10883	0.10820	0.10031
A-10S (Non Time of Use - Green)								0.07940	0.07940	0.07674
A-10S (Non Time of Use - SuperGreen)								0.09940	0.09940	0.09074
A-10SX (Time of Use - Green)								0.07899	0.07813	0.07579
A-10SX (Time of Use - SuperGreen)								0.09899	0.09813	0.08979
E-19S (Green)								0.07925	0.07853	0.07658
E-19S (SuperGreen)								0.09925	0.09853	0.09058
E-19SV (Green)								0.07368	0.07304	0.07104
E-19SV (SuperGreen)								0.09368	0.09304	0.08504
E-20P (Green)								0.07005	0.06895	0.06729
E-20P (SuperGreen)								0.09005	0.08895	0.08129
E-20S (Green)								0.07502	0.07395	0.07167
E-20S (SuperGreen)								0.09502	0.09395	0.08567

*Data not available - CleanPowerSF launched in May 2016.

Note: The rates shown for each year are the average rates per kWh calculated by the SFPUC and PG&E in its Joint Rate Comparisons prepared in 2016 to 2018. Each average rate is calculated using the energy consumption (and if applicable, demand) of a typical customer on that rate schedule in San Francisco and the rates in place during each reported fiscal year.

May exclude new rates due to insufficient data for average rate calculation

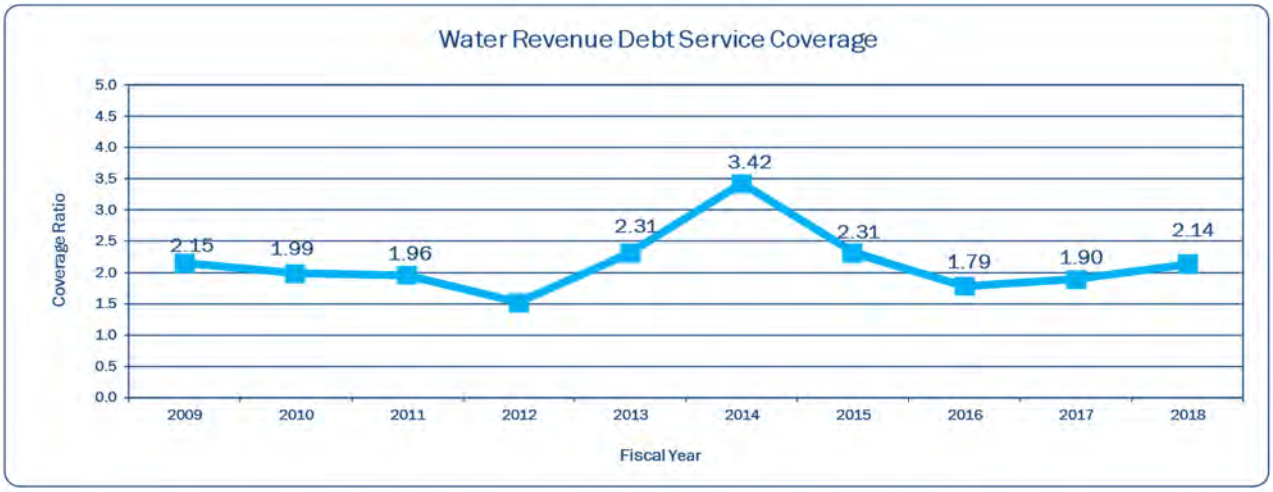
Source: San Francisco Public Utilities Commission and PG&E Joint Rate Comparisons.

Revenue Capacity
Water - Net Revenue and Debt Service Coverage
Fiscal Years Ended 2009 to 2018
(Dollars in Thousands)

	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Operating and investment revenue $	272,869	275,041	305,678	375,551	721,189	390,789	431,836	423,111	464,662	532,087
Less operating and maintenance expenses	(248,315)	(277,970)	(261,927)	(304,562)	(303,739)	(333,555)	(296,950)	(314,786)	(421,827)	(370,147)
Adjustment to investing activities[1]	2,021	2,896	325	(784)	258	(2,438)	732	635	111	(1,245)
Depreciation and non-cash expenses	54,055	60,448	60,619	72,264	78,323	95,355	98,192	107,268	121,375	119,624
Changes in working capital	2,348	17,320	21,052	16,714	52,193	46,088	(37,175)	(11,062)	63,520	31,060
Appropriated fund balance	–	–	–	–	–	–	–	23,994	10,747	1,452
Net revenue[4]	82,978	77,735	125,747	159,183	548,224	196,239	196,635	229,160	238,588	312,831
Other available funds[2]	66,779	60,951	44,130	27,473	26,744	287,522	248,390	162,733	155,852	186,752
Funds available for revenue debt service $	149,757	138,686	169,877	186,656	574,968	483,761	445,025	391,893	394,440	499,583
Revenue debt service[3] $	69,585	69,621	86,554	122,289	248,530	141,325	192,312	219,195	207,812	233,959
Revenue debt service coverage	**2.15**	**1.99**	**1.96**	**1.53**	**2.31**	**3.42**	**2.31**	**1.79**	**1.90**	**2.14**

[1] Adjustment of investing activities and non-operating revenues to a cash basis.
[2] As per the Indenture, in addition to current year cash flow, the coverage calculation permits the inclusion of all funds except for Trust and Agency Fund not budgeted to be spent in such months and legally available to pay debt service.
[3] Revenue debt service is calculated net of capitalized interest and federal interest subsidy the Commission is scheduled to receive during the 12-month period ending June 30 for any series of bonds.
[4] Net revenues beginning fiscal years 2016 includes appropriated available funds.

Source: San Francisco Public Utilities Commission Annual Disclosure Reports.

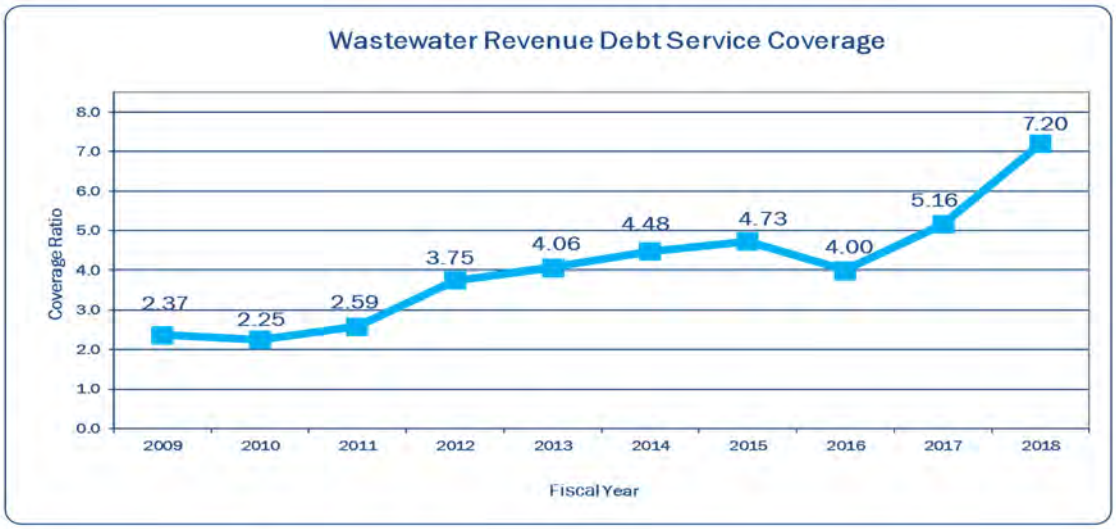


Revenue Capacity
Wastewater - Net Revenue and Debt Service Coverage
Fiscal Years Ended 2009 to 2018
(Dollars in Thousands)

		2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Operating and investment revenue	$	210,646	211,899	231,143	247,130	253,078	262,497	257,209	262,960	279,668	317,413
Less operating and maintenance expenses		(169,300)	(185,512)	(179,084)	(195,857)	(208,260)	(216,340)	(216,485)	(221,553)	(244,220)	(210,593)
Adjustment to investing activities[1]		161	225	108	(299)	337	(601)	127	(12)	251	(489)
Depreciation and non-cash expenses		41,429	52,912	44,232	46,271	52,108	50,717	51,773	56,285	57,998	60,072
Changes in working capital		4,699	976	5,633	21,375	(13,795)	12,908	3,923	2,404	26,292	18,336
State revolving fund loan payments		(16,505)	(16,505)	(16,503)	(10,983)	(9,421)	– ^	–	–	–	–
Net revenue		71,130	63,995	85,529	107,637	74,047	109,181	96,547	100,084	119,989	184,739
Other available funds[2]		48,016	49,272	22,769	50,761	80,094	109,807	134,413	139,847	131,554	153,596
Funds available for revenue debt service	$	119,146	113,267	108,298	158,398	154,141	218,988	230,960	239,931	251,543	338,335
Revenue debt service*	$	50,311	50,313	41,839 [3]	42,190	37,921	48,932	48,878	60,022	48,769**	47,003
Revenue debt service coverage		**2.37**	**2.25**	**2.59**	**3.75**	**4.06**	**4.48**	**4.73**	**4.00**	**5.16**	**7.20**

[1] Adjustment of investing activities and non-operating revenues to a cash basis.
[2] As per the Indenture, in addition to current year cash flow, the coverage calculation permits the inclusion of all funds except for Trust and Agency Fund not budgeted to be spent in such 12 months and legally available to pay debt service.
[3] Effective on October 2, 2010, pursuant to the First Amendment to Indenture, dated May 1, 2010, between U.S. Bank National Association (the "Trustee") and the Commission, for the purpose of determining the amount of interest coming due during any 12-month period ending June 30 on any series of bonds that were issued as Build America Bonds, such amount will be reduced by an amount equal to the federal interest subsidy the Commission is scheduled to receive during such 12-month period ending June 30.
^ In January 2013, 2013 Series A refunded the remaining portion of the outstanding state revolving fund loans.
* Effective fiscal year 2013, revenue debt service is calculated net of capitalized interest.
** In fiscal year 2018 Wastewater financial statements, fiscal year 2017 revenue debt service is presented gross of capitalized interest, $60,407.

Source: San Francisco Public Utilities Commission Annual Disclosure Reports.



Revenue Capacity
Hetchy Power - Net Revenue and Debt Service Coverage
Fiscal Years Ended 2009 to 2018
(Dollars in Thousands)

	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Operating and investment revenue	$						117,704	122,954	122,187	122,251
Less operating and maintenance expenses							(105,222)	(110,012)	(116,935)	(119,395)
Adjustment to investing activities*							(8)	11	29	419
Depreciation and non-cash expenses							17,654	15,331	14,208	14,131
Changes in working capital							7,037	(9,214)	11,740	13,281
Net revenue				No senior lien debt service coverage prior to fiscal year 2015			37,165	19,070	31,229	30,687
Other available funds							14,031	13,974	32,199	36,525
Funds available for revenue debt service	$						51,196	33,044	63,428	67,212
Revenue debt service**	$						N/A	N/A	N/A	2,570
Revenue debt service coverage							**N/A**	**N/A**	**N/A**	**26.2**

Not Applicable (N/A) debt service for CREBs, QECBs and NCREBs, is subordinate in lien pursuant to Power's Master Trust Indenture dated May 1, 2015.
* Adjustment of investing activities and non-operating revenues to a cash basis.
** Series 2015 AB power revenue bonds senior lien debt service is capitalized through fiscal year 2018. So there is no basis for calculating debt service coverage from fiscal years 2015 to 2017.

Source: San Francisco Public Utilities Commission Annual Disclosure Reports.

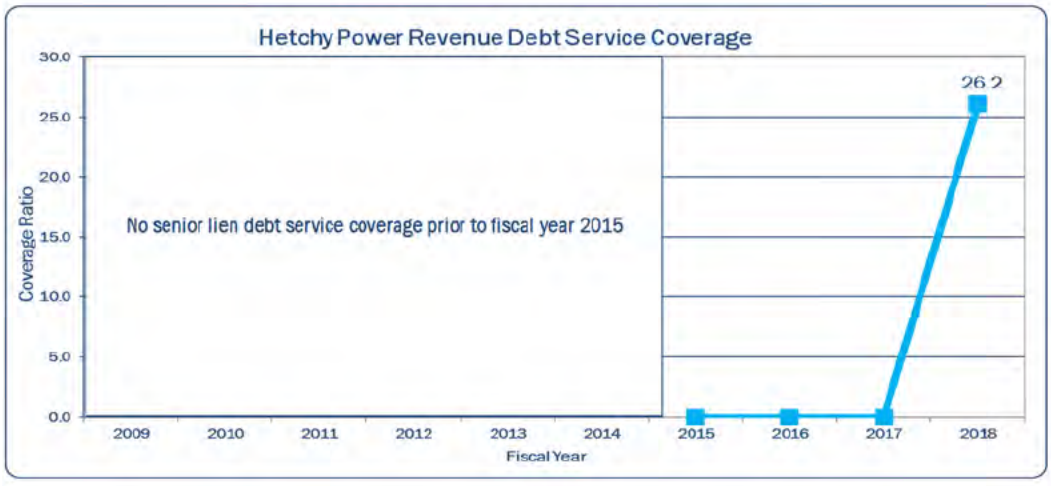


Photo by: Robin Scheswohl

The Mission Valencia Green Gateway includes rain gardens and permeable pavement to allow stormwater to soak into the soil on site before it can enter the combined sewer system.

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

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

Debt Capacity

Debt Ratings

Summary of Debt Outstanding

History of Outstanding Debt by Type

Department-wide - Principal and Interest Payments for Debt Issues

Water - Principal and Interest Payments for Debt Issues

Wastewater - Principal and Interest Payments for Debt Issues

Hetchy Power - Principal and Interest Payments for Debt Issues

SFPUC has developed Standards for the protection of the City's existing water and wastewater assets. The Standards support streetscape innovation while enabling effective and reliable delivery of water and conveyance of stormwater and sewage and while preserving infrastructure functionality and accessibility during planned and emergency operations. This includes the AWSS.

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

Debt Capacity
Debt Ratings
As of June 30, 2018

Debt by Type	Ratings by Moody's Investors Service	Ratings by Standard & Poor's
Water		
Revenue bonds	Aa3	AA-
Commercial paper - $500 million tax-exempt/taxable		
$100 million Bank of America Letter of Credit	P-1	A-1
$100 million Barclays PLC Letter of Credit	P-1	A-1
$100 million US Bank Revolving Credit Agreement	P-1	A-1+
$200 million MUFG (formerly the Bank of Tokyo) Liquidity Facility	P-1	A-1
Certificates of participation - SFPUC Headquarters Project*	Aa2	AA
Wastewater		
Revenue bonds	Aa3	AA
Commercial paper - $750 million tax-exempt		
$75 million MUFG (formerly the Bank of Tokyo) Liquidity Facility	P-1	A-1
$75 million US Bank Revolving Credit Agreement	P-1	A-1+
$100 million Barclays Letter of Credit	P-1	A-1
$100 million State Street Liquidity Facility	P-1	A-1+
$100 million Sumitomo Mitsui Letter of Credit	P-1	A-1
$150 million Bank of America Letter of Credit	P-1	A-1
$150 million Sumitomo Mitsui Letter of Credit	P-1	A-1
Certificates of participation - SFPUC Headquarters Project*	Aa2	AA
Hetchy Power		
Revenue bonds**	N/A	A+
$90 million Bank of America Letter of Credit***	N/A	A-1
Certificates of participation - SFPUC Headquarters Project*	Aa2	AA

*Debt issued by the City and reflects General Fund COP credit rating.
**Hetchy Power revenue bonds are rated AA- by Fitch.
***Hetchy Power letter of credit is rated F1+ by Fitch.

Source: Rating agency reports.

Water, Wastewater, and Hetchy Power
Revenue Bonds Credit Ratings
Fiscal Years Ended 2009 to 2018

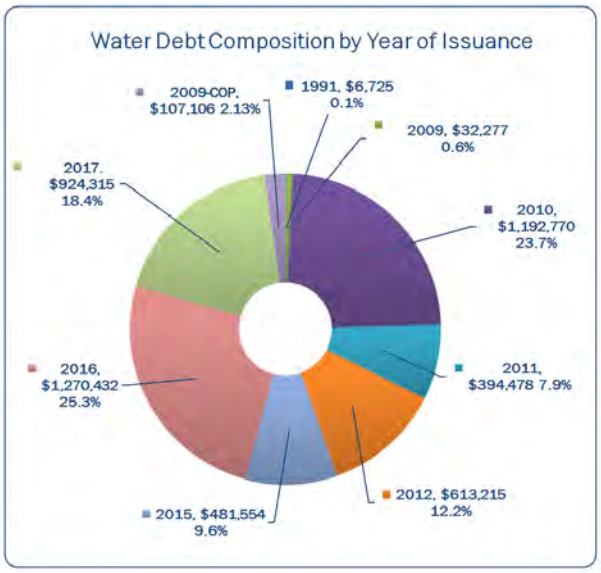
	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Moody's Investors Service										
Water	A1	Aa2	Aa2	Aa3	Aa3	Aa3	Aa3	Aa3	Aa3	Aa3
Wastewater	A2	Aa3	Aa3	Aa3	Aa3	Aa3	Aa3	Aa3	Aa3	Aa3
Standard & Poor's										
Water	AA-	AA-	AA-	AA-	AA-	AA-	AA-	AA-	AA-	AA-
Wastewater	A+	AA-	AA-	AA-	AA-	AA-	AA-	AA	AA	AA
Hetchy Power	Zero debt prior to fiscal year 2015						A+	A+	A+	A+

Debt Capacity
Water - Summary of Debt Outstanding (Exclude Commercial Paper)
As of June 30, 2018
(Dollars in Thousands)

Revenue Bonds and Certificates of Participation

Revenue bonds		Amount	Use of proceeds
1991 Series A (Capital Appreciation Bonds)	$	6,725	Repair and Replacement of Water Facilities
2009 Series A		17,033	Water System Improvement Program and refunding of commercial paper
2009 Series B		15,244	Water System Improvement Program
2010 Series A		3,132	Advanced Meter Infrastructure Project
2010 Series B (Build America Bonds)		396,190	Water System Improvement Program
2010 Series D		65,835	Water System Improvement Program and partial refunding of 2002A Bonds
2010 Series E (Build America Bonds)		345,545	Water System Improvement Program
2010 Series F		27,401	Water System Improvement Program
2010 Series G (Build America Bonds)		354,667	Water System Improvement Program
2011 Series A		334,908	Water System Improvement Program
2011 Series B		18,986	Hetchy Water Improvements
2011 Series C		20,217	Local Water Main Replacement Project
2011 Series D		20,367	Partial refunding of 2001A Bonds and 2002B Bonds
2012 Series A		486,734	Water System Improvement Program
2012 Series B		16,812	Capital Project Litigation Settlement
2012 Series C1		9,184	Refunded remainder of 2001A Bonds and partial refunding of 2002A Bonds
2012 Series C2		76,064	Refunded remainder of 2001A Bonds and partial refunding of 2002A Bonds
2012 Series D		24,421	Refunded remainder of 2002B Bonds
2015 Series A		481,554	Refunded remainder of 2006A Bonds and partial refunding of 2009A Bonds
2016 Series A		893,772	Refunded portion of 2009A, 2009B and 2010F Bonds
2016 Series B		122,941	Refunded remainder of 2006B and 2006C Bonds and portion of 2010A
2016 Series C		253,719	Refund all of outstanding taxable commercial paper notes.
2017 Series A		140,507	Water System Improvement Program
2017 Series B		171,424	Non Water System Improvement Program
2017 Series C		82,013	Hetchy Water Improvements
2017 Series D		425,848	Refund 2011A and 2012A Bonds
2017 Series E		59,641	Refund 2011C, 2011D and 2012C1 Bonds
2017 Series F		10,602	Refund 2011B Bonds
2017 Series G		34,280	Refund 2011A Bonds
Total revenue bonds		**4,915,766**	
Certificates of participation (COPs)			
2009 Series C		14,607	525 Golden Gate Avenue Headquarters Building
2009 Series D (Build America Bonds)		92,499	525 Golden Gate Avenue Headquarters Building
Total certificates of participation (COPs)		**107,106**	
Total Water debt outstanding	**$**	**5,022,872**	

Source: City and County of San Francisco Financial System and San Francisco Public Utilities Commission Audited Financial Statements.

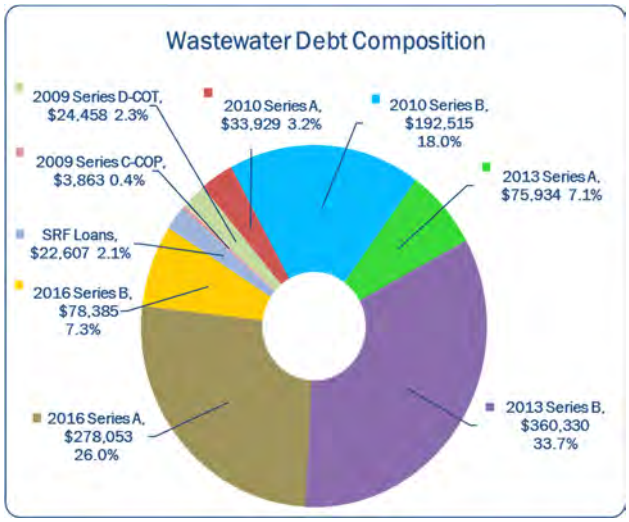


Debt Capacity
Wastewater - Summary of Debt Outstanding (Exclude Commercial Paper)
As of June 30, 2018
(Dollars in Thousands)

Revenue Bonds, Loans and Certificates of Participation

		Amount	Use of proceeds
Revenue bonds			
2010 Series A	$	33,929	Clean Water Capital Improvement Programs
2010 Series B (Build America Bonds)		192,515	Clean Water Capital Improvement Programs
2013 Series A		75,934	Refunded the remaining portion of the 2003 Series A bonds
2013 Series B		360,330	Sewer System Improvement Program
2016 Series A		278,053	Sewer System Improvement Program
2016 Series B		78,385	Sewer System Improvement Program
Total revenue bonds		**1,019,146**	
State of California revolving fund loans		**22,607**	State Revolving Fund loans issued in 2018
Certificates of participation (COPs)			
2009 Series C		3,863	525 Golden Gate Avenue Headquarters Building
2009 Series D (Build America Bonds)		24,458	525 Golden Gate Avenue Headquarters Building
Total certificates of participation (COPs)		**28,321**	
Total Wastewater debt outstanding	**$**	**1,070,074**	

Source: City and County of San Francisco Financial System and San Francisco Public Utilities Commission Audited Financial Statements.

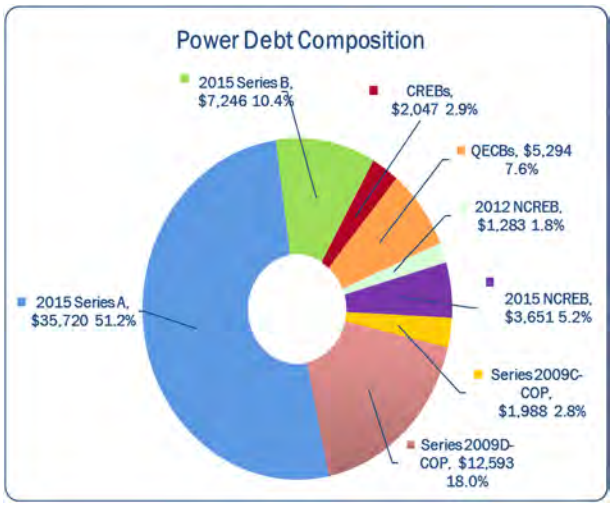


Debt Capacity
Power - Summary of Debt Outstanding
As of June 30, 2018
(Dollars in Thousands)

Bonds and Certificates of Participation

		Amount	Use of proceeds
Revenue Bonds			
2015 Series A (Green)	$	35,720	Reconstruction or replacement of Hetch Hetchy facilities
2015 Series B		7,246	Reconstruction or replacement of Hetch Hetchy facilities
Total revenue bonds		**42,966**	
Other Bonds			
Clean Renewable Energy Bonds (CREBs)		2,047	Installation of solar energy equipment on City facilities
Qualified Energy Conservation Bonds (QECBs)		5,294	Qualified green components for the 525 Golden Gate Avenue Headquarters Building
2012 New Clean Renewable Energy Bonds (NCREBs)		1,283	Provide clean renewable energy to qualified City facilities
2015 New Clean Renewable Energy Bonds (NCREBs)		3,651	Provide clean renewable energy to qualified City facilities
Total other bonds		**12,275**	
Certificates of participation (COPs)			
2009 Series C		1,988	525 Golden Gate Avenue Headquarters Building
2009 Series D (Build America Bonds)		12,593	525 Golden Gate Avenue Headquarters Building
Total certificates of participation (COPs)		**14,581**	
Total Hetchy Power debt outstanding	**$**	**69,822**	

Source: City and County of San Francisco Financial System and San Francisco Public Utilities Commission Audited Financial Statements.



Debt Capacity
History of Outstanding Debt by Type - Principal Payments Only (Exclude Commercial Paper)
Fiscal Years Ended 2009 to 2018
(Dollars in Thousands)

Department-wide

Fiscal Year Ended	Revenue Bonds^	Capital Appreciation Bonds*	State Revolving Fund Loans	Certificates of Participation^	Total
2009	$ 1,261,056	$ 3,620	$ 75,339	$ —	$ 1,340,015
2010	2,780,157	3,878	61,140	171,562	3,016,737
2011	3,692,941	4,155	46,492	171,029	3,914,617
2012	4,990,472	4,450	36,898	170,483	5,202,303
2013	5,194,820	4,767	—	167,219	5,366,806
2014	5,123,609	5,107	—	163,934	5,292,650
2015	5,106,187	5,471	—	160,615	5,272,273
2016	5,389,447	5,860	—	157,207	5,552,514
2017	5,657,792	6,278	—	153,673	5,817,743
2018	5,983,428	6,725	22,607	150,008	6,162,768

Water

Fiscal Year Ended	Revenue Bonds^	Capital Appreciation Bonds*	Certificates of Participation^	Total	Service Area by Population	Debt per Capita (in thousands)	Number of Customer Accounts	Debt per Customer Account (in thousands)
2009	$ 946,319	$ 3,620	$ —	$ 949,939	2,521,195	$ 0.38	172,885	$ 5.49
2010	2,257,205	3,878	122,496	2,383,579	2,521,579	0.95	172,680	13.80
2011	3,198,490	4,155	122,115	3,324,760	2,514,582	1.32	173,033	19.21
2012	4,505,296	4,450	121,726	4,631,472	2,535,093	1.83	173,453	26.70
2013	4,351,610	4,767	119,395	4,475,772	2,550,368	1.75	173,744	25.76
2014	4,322,713	5,107	117,049	4,444,869	2,595,166	1.71	173,970	25.55
2015	4,298,827	5,471	114,680	4,418,978	2,635,893	1.68	174,111	25.38
2016	4,257,454	5,860	112,246	4,375,560	2,657,633	1.65	174,083	25.13
2017	4,554,967	6,278	109,722	4,670,967	2,685,902	1.74	174,349	26.79
2018 **	4,909,041	6,725	107,106	5,022,872	2,714,474	1.85	175,054	28.69

Wastewater

Fiscal Year Ended	Revenue Bonds^	State Revolving Fund Loans	Certificates of Participation^	Total	Service Area by Population	Debt per Capita (in thousands)	Number of Customer Accounts	Debt per Customer Account (in thousands)
2009	$ 309,020	$ 75,339	$ —	$ 384,359	815,358	$ 0.47	163,123	$ 2.36
2010	517,642	61,140	32,390	611,172	805,235	0.76	162,737	3.76
2011	489,549	46,492	32,289	568,330	812,826	0.70	163,041	3.49
2012	465,792	36,898	32,186	534,876	825,863	0.65	163,316	3.28
2013	824,821	—	31,570	856,391	841,138	1.02	163,445	5.24
2014	783,801	—	30,950	814,751	852,469	0.96	163,537	4.98
2015	747,185	—	30,323	777,508	862,004	0.90	163,686	4.75
2016	1,071,883	—	29,680	1,101,563	876,103	1.26	163,587	6.73
2017	1,044,925	—	29,013	1,073,938	884,363	1.21	163,738	6.56
2018 **	1,019,146	22,607	28,321	1,070,074	892,701	1.20	163,976	6.53

Power

Fiscal Years Ended	Bonds^	Certificates of Participation^	Total	Number of Customer Accounts	Debt per Customer Account (in thousands)
2009	$ 5,717	$ —	$ 5,717	2,221	$ 2.57
2010	5,310	16,676	21,986	2,256	9.75
2011	4,902	16,625	21,527	2,270	9.48
2012	19,384	16,571	35,955	2,260	15.91
2013	18,389	16,254	34,643	2,257	15.35
2014	17,095	15,935	33,030	2,271	14.54
2015	60,175	15,612	75,787	2,305	32.88
2016	60,110	15,281	75,391	2,627	28.70
2017	57,900	14,938	72,838	3,068	23.74
2018	55,241	14,581	69,822	3,547	19.68

*No annual payments for Series 1991A Capital Appreciation Bonds.
** 2018 population was estimated by multiplying 2017 population by the 2016 and 2017 population growth rate.
^Bonds and Certificates of Participation include unamortized costs.

Note: Numbers of water and wastewater customer accounts prior to fiscal year 2010 were estimated. Fiscal year 2010 and thereafter reflect actuals from the Customer Care and Billing System.

Source: San Francisco Public Utilities Commission Water Sewer System and Power Enterprise Billing System, Customer Care and Billing System, Audited Financial Statements, Office of the Controller, City and County of San Francisco and BAWSCA.org.

Debt Capacity
Department-wide - Principal and Interest Payments for Debt Issues
(Exclude Commercial Paper)
(Dollars in Thousands)

Payments Due for FY Ended	Water			Wastewater			Power			SFPUC Total		
	Total Principal	Total Interest*	Total Principal & Interest* Payments	Total Principal	Total Interest*	Total Principal & Interest* Payments	Total Principal	Total Interest*	Total Principal & Interest* Payments	Total Principal	Total Interest*	Total Principal & Interest* Payments
2019	$ 79,052	206,555	285,607	21,982	41,026	63,008	2,828	2,622	5,450	103,862	250,203	354,065
2020	103,451	203,115	306,566	23,219	40,096	63,315	2,894	2,555	5,449	129,564	245,766	375,330
2021	111,214	198,508	309,722	24,474	39,060	63,534	2,498	2,487	4,985	138,186	240,055	378,241
2022	116,395	193,435	309,830	24,273	38,003	62,276	2,430	2,422	4,852	143,098	233,860	376,958
2023	124,535	188,230	312,765	21,816	36,989	58,805	2,493	2,356	4,849	148,844	227,575	376,419
2024	130,312	182,768	313,080	25,428	35,994	61,422	2,132	2,294	4,426	157,872	221,056	378,928
2025	135,982	177,031	313,013	26,562	34,856	61,418	2,191	2,232	4,423	164,735	214,119	378,854
2026	146,725	170,751	317,476	27,741	33,709	61,450	2,255	2,163	4,418	176,721	206,623	383,344
2027	152,705	163,867	316,572	28,986	32,489	61,475	2,322	2,095	4,417	184,013	198,451	382,464
2028	158,462	156,615	315,077	30,304	31,158	61,462	2,098	2,011	4,109	190,864	189,784	380,648
2029	166,083	148,997	315,080	31,688	29,763	61,451	1,884	1,930	3,814	199,655	180,690	380,345
2030	174,905	140,954	315,859	33,145	28,291	61,436	1,961	1,848	3,809	210,011	171,093	381,104
2031	181,884	132,892	314,776	34,680	26,749	61,429	2,048	1,761	3,809	218,612	161,402	380,014
2032	191,540	124,660	316,200	36,290	25,117	61,407	2,133	1,670	3,803	229,963	151,447	381,410
2033	195,027	115,799	310,826	37,985	23,406	61,391	2,088	1,574	3,662	235,100	140,779	375,879
2034	204,176	106,572	310,748	39,687	21,694	61,381	2,043	1,478	3,521	245,906	129,744	375,650
2035	212,290	97,010	309,300	41,386	19,979	61,365	2,137	1,377	3,514	255,813	118,366	374,179
2036	228,553	86,942	315,495	43,157	18,196	61,353	2,241	1,272	3,513	273,951	106,410	380,361
2037	242,160	76,227	318,387	45,013	16,324	61,337	2,348	1,163	3,511	289,521	93,714	383,235
2038	223,444	65,654	289,098	46,874	14,443	61,317	2,461	1,047	3,508	272,779	81,144	353,923
2039	233,364	55,690	289,054	48,740	12,555	61,295	2,575	927	3,502	284,679	69,172	353,851
2040	243,280	45,539	288,819	50,683	10,591	61,274	2,700	801	3,501	296,663	56,931	353,594
2041	202,566	35,879	238,445	52,710	8,547	61,257	2,827	668	3,495	258,103	45,094	303,197
2042	158,866	27,872	186,738	54,824	6,418	61,242	2,961	530	3,491	216,651	34,820	251,471
2043	109,595	21,648	131,243	55,143	4,234	59,377	2,125	405	2,530	166,863	26,287	193,150
2044	115,015	16,211	131,226	18,783	2,775	21,558	2,230	296	2,526	136,028	19,282	155,310
2045	52,620	12,198	64,818	19,524	2,029	21,553	2,340	181	2,521	74,484	14,408	88,892
2046	55,100	9,682	64,782	20,300	1,256	21,556	2,460	62	2,522	77,860	11,000	88,860
2047	57,705	7,047	64,752	21,106	445	21,551	–	–	–	78,811	7,492	86,303
2048	45,560	4,599	50,159	957	25	982	–	–	–	46,517	4,624	51,141
2049	23,845	2,939	26,784	197	9	206	–	–	–	24,042	2,948	26,990
2050	24,945	1,801	26,746	200	6	206	–	–	–	25,145	1,807	26,952
2051	26,100	609	26,709	203	3	206	–	–	–	26,303	612	26,915
Total	$ 4,627,456	3,178,294	7,805,750	988,060	636,235	1,624,295	65,703	42,227	107,930	5,681,219	3,856,756	9,537,975

Note: May not total due to rounding.
* Total interest is net of federal interest subsidy.

Source: San Francisco Public Utilities Commission Official Statements.

Debt Capacity
Water - Principal and Interest Payments for Debt Issues
(Exclude Commercial Paper)
(Dollars in Thousands)

Payments Due for FY Ended	Principal Payments												
	Capital Appreciation Bonds* 1991A	2009A	2009B	COPs Series 2009C	COPs Series 2009D	2010A	2010B	2010D	2010E	2010F	2010G	2011A
2019	$ 4,831	7,250	5,275	2,556	–	505	11,215	15,965	–	3,125	–	–
2020	1,894	9,635	9,635	2,687	–	2,530	11,555	16,780	–	5,175	–	–
2021	–	–	–	2,824	–	–	11,920	17,640	–	5,405	–	15,760
2022	–	–	–	2,970	–	–	12,330	13,350	–	13,395	–	16,550
2023	–	–	–	3,125	–	–	12,780	–	12,745	–	–	–
2024	–	–	–	–	3,267	–	13,245	–	13,165	–	–	–
2025	–	–	–	–	3,402	–	13,725	–	13,610	–	–	–
2026	–	–	–	–	3,545	–	14,225	–	14,080	–	–	–
2027	–	–	–	–	3,695	–	14,765	–	14,585	–	–	–
2028	–	–	–	–	3,852	–	15,355	–	15,125	–	–	–
2029	–	–	–	–	4,013	–	15,965	–	15,715	–	–	–
2030	–	–	–	–	4,180	–	16,600	–	16,340	–	–	–
2031	–	–	–	–	4,359	–	17,260	–	16,990	–	–	–
2032	–	–	–	–	4,545	–	17,945	–	17,665	–	11,060	26,960
2033	–	–	–	–	4,737	–	18,660	–	18,365	–	11,575	–
2034	–	–	–	–	4,941	–	19,405	–	19,095	–	12,110	–
2035	–	–	–	–	5,155	–	20,175	–	19,855	–	12,665	–
2036	–	–	–	–	5,373	–	20,980	–	20,645	–	13,255	32,540
2037	–	–	–	–	5,605	–	21,810	–	21,470	–	13,865	34,000
2038	–	–	–	–	5,844	–	22,680	–	22,320	–	14,505	35,695
2039	–	–	–	–	6,094	–	23,580	–	23,210	–	15,175	37,485
2040	–	–	–	–	6,355	–	24,520	–	24,130	–	15,880	39,170
2041	–	–	–	–	6,626	–	25,495	–	25,090	–	16,610	41,130
2042	–	–	–	–	6,911	–	–	–	–	–	17,380	43,190
2043	–	–	–	–	–	–	–	–	–	–	18,180	–
2044	–	–	–	–	–	–	–	–	–	–	19,025	–
2045	–	–	–	–	–	–	–	–	–	–	19,900	–
2046	–	–	–	–	–	–	–	–	–	–	20,820	–
2047	–	–	–	–	–	–	–	–	–	–	21,785	–
2048	–	–	–	–	–	–	–	–	–	–	22,790	–
2049	–	–	–	–	–	–	–	–	–	–	23,845	–
2050	–	–	–	–	–	–	–	–	–	–	24,945	–
2051	–	–	–	–	–	–	–	–	–	–	26,100	–
Total	$ 6,725	16,885	14,910	14,162	92,499	3,035	396,190	63,735	344,200	27,100	351,470	322,480

(Continued)

*The amount represents net present value of 1991A Capital Appreciation Bonds' principal and interest payments.
Note: May not total due to rounding.

Source: San Francisco Public Utilities Commission Official Statements.

Debt Capacity
Water - Principal and Interest Payments for Debt Issues
(Exclude Commercial Paper)
(Dollars in Thousands)

Principal Payments

Payments Due for FY Ended	2011B	2011C	2011D	2012A	2012B	2012C1	2012C2	2012D	2015A	2016A	2016B
2019	$ 445	–	–	–	–	–	–	11,825	3,220	–	5,980
2020	700	760	–	–	–	–	–	12,215	14,000	–	8,920
2021	730	795	–	–	–	–	–	–	14,635	19,955	14,455
2022	755	825	–	–	–	–	–	–	15,325	23,315	10,015
2023	–	–	6,060	–	–	–	–	–	16,045	32,790	12,530
2024	–	–	6,375	–	–	–	–	–	28,070	23,590	13,175
2025	–	–	6,700	–	–	–	–	–	29,485	24,800	13,720
2026	–	–	–	–	–	–	7,275	–	30,990	26,050	7,715
2027	–	–	–	–	–	–	7,650	–	20,945	38,150	8,015
2028	–	–	–	–	–	–	8,040	–	20,530	46,305	3,815
2029	–	–	–	–	–	–	8,450	–	21,580	48,655	3,990
2030	–	–	–	–	–	–	8,880	–	22,685	51,135	4,180
2031	–	–	–	–	–	–	9,340	–	23,810	53,460	4,370
2032	–	–	–	–	975	8,465	9,770	–	25,000	34,135	–
2033	1,255	1,370	–	–	1,015	–	10,165	–	26,280	35,875	–
2034	1,315	1,435	–	–	1,055	–	–	–	27,490	37,710	–
2035	1,375	1,495	–	–	1,105	–	–	–	28,610	39,670	–
2036	1,440	1,570	–	27,375	1,160	–	–	–	29,765	41,745	–
2037	1,515	1,650	–	43,615	1,215	–	–	–	31,135	43,670	–
2038	1,590	1,735	–	48,695	1,260	–	–	–	–	45,455	–
2039	1,670	1,820	–	50,930	1,315	–	–	–	–	47,305	–
2040	1,755	1,910	–	53,010	1,370	–	–	–	–	49,235	–
2041	1,840	2,005	–	55,175	1,425	–	–	–	–	–	–
2042	1,930	2,105	–	57,425	1,480	–	–	–	–	–	–
2043	–	–	–	60,075	1,540	–	–	–	–	–	–
2044	–	–	–	63,155	1,605	–	–	–	–	–	–
2045	–	–	–	–	–	–	–	–	–	–	–
2046	–	–	–	–	–	–	–	–	–	–	–
2047	–	–	–	–	–	–	–	–	–	–	–
2048	–	–	–	–	–	–	–	–	–	–	–
2049	–	–	–	–	–	–	–	–	–	–	–
2050	–	–	–	–	–	–	–	–	–	–	–
2051	–	–	–	–	–	–	–	–	–	–	–
Total	**$ 18,315**	**19,475**	**19,135**	**459,455**	**16,520**	**8,465**	**69,570**	**24,040**	**429,600**	**763,005**	**110,880**

(Continued)

Note: May not total due to rounding.

Source: San Francisco Public Utilities Commission Official Statements.

Debt Capacity
Water - Principal and Interest Payments for Debt Issues
(Exclude Commercial Paper)
(Dollars in Thousands)

Payments Due for FY Ended	Principal Payments								Total Principal Payments
	2016C	2017A	2017B	2017C	2017D	2017E	2017F	2017G	
2019	$ 5,525	—	—	—	835	—	—	500	79,052
2020	5,605	—	—	—	860	—	—	500	103,451
2021	5,705	—	—	—	890	—	—	500	111,214
2022	5,820	—	—	—	925	—	—	820	116,395
2023	5,955	2,325	2,835	1,355	1,455	765	700	13,070	124,535
2024	6,105	2,445	2,985	1,425	1,270	795	735	13,665	130,312
2025	6,275	2,570	3,135	1,500	10,230	835	770	5,225	135,982
2026	6,455	2,705	3,295	1,575	20,515	7,425	875	—	146,725
2027	6,645	2,840	3,465	1,660	21,540	7,830	920	—	152,705
2028	6,850	2,990	3,645	1,745	22,615	6,630	965	—	158,462
2029	7,075	3,140	3,830	1,830	23,740	7,080	1,020	—	166,083
2030	7,310	3,300	4,025	1,925	24,935	8,555	855	—	174,905
2031	7,565	3,470	4,230	2,025	26,140	7,960	905	—	181,884
2032	7,835	3,650	4,450	2,130	14,980	1,015	960	—	191,540
2033	8,120	3,835	4,680	2,240	46,855	—	—	—	195,027
2034	8,435	4,035	4,920	2,355	59,875	—	—	—	204,176
2035	8,760	4,240	5,170	2,475	61,540	—	—	—	212,290
2036	9,110	4,455	5,435	2,600	11,105	—	—	—	228,553
2037	9,475	4,685	5,715	2,735	—	—	—	—	242,160
2038	9,860	4,925	6,005	2,875	—	—	—	—	223,444
2039	10,265	5,180	6,315	3,020	—	—	—	—	233,364
2040	10,685	5,445	6,640	3,175	—	—	—	—	243,280
2041	11,125	5,725	6,980	3,340	—	—	—	—	202,566
2042	11,585	6,015	7,335	3,510	—	—	—	—	158,866
2043	12,070	6,325	7,715	3,690	—	—	—	—	109,595
2044	12,590	6,650	8,110	3,880	—	—	—	—	115,015
2045	13,125	6,990	8,525	4,080	—	—	—	—	52,620
2046	13,685	7,350	8,960	4,285	—	—	—	—	55,100
2047	14,270	7,725	9,420	4,505	—	—	—	—	57,705
2048	—	8,125	9,905	4,740	—	—	—	—	45,560
2049	—	—	—	—	—	—	—	—	23,845
2050	—	—	—	—	—	—	—	—	24,945
2051	—	—	—	—		—	—	—	26,100
Total	**$ 253,885**	**121,140**	**147,725**	**70,675**	**350,305**	**48,890**	**8,705**	**34,280**	**4,627,456**

(Continued)

Note: May not total due to rounding.

Source: San Francisco Public Utilities Commission Official Statements.

Debt Capacity
Water - Principal and Interest Payments for Debt Issues
(Exclude Commercial Paper)
(Dollars in Thousands)

Payments Due for FY Ended	Interest Payments											
	2009A	2009B	COPs Series 2009C	COPs 2009D Before Subsidy	2010A	2010B Before Subsidy	2010D	2010E Before Subsidy	2010F	2010G Before Subsidy	2011A	2011B
2019	$ 530	614	644	5,968	139	22,735	2,521	20,062	1,155	24,427	15,572	867
2020	193	241	513	5,968	63	22,211	1,702	20,062	990	24,427	15,572	845
2021	–	–	375	5,968	–	21,648	841	20,062	778	24,427	15,178	816
2022	–	–	230	5,968	–	21,020	200	20,062	335	24,427	14,370	787
2023	–	–	78	5,968	–	20,329	–	19,748	–	24,427	13,956	771
2024	–	–	–	5,864	–	19,613	–	19,104	–	24,427	13,956	771
2025	–	–	–	5,653	–	18,871	–	18,417	–	24,427	13,956	771
2026	–	–	–	5,430	–	18,102	–	17,691	–	24,427	13,956	771
2027	–	–	–	5,201	–	17,269	–	16,917	–	24,427	13,956	771
2028	–	–	–	4,960	–	16,365	–	16,084	–	24,427	13,956	771
2029	–	–	–	4,710	–	15,426	–	15,182	–	24,427	13,956	771
2030	–	–	–	4,450	–	14,448	–	14,219	–	24,428	13,956	771
2031	–	–	–	4,176	–	13,433	–	13,219	–	24,428	13,956	771
2032	–	–	–	3,887	–	12,376	–	12,180	–	24,043	13,383	771
2033	–	–	–	3,585	–	11,278	–	11,099	–	23,256	12,810	743
2034	–	–	–	3,272	–	10,136	–	9,976	–	22,433	12,810	685
2035	–	–	–	2,944	–	8,950	–	8,809	–	21,572	12,810	621
2036	–	–	–	2,602	–	7,714	–	7,593	–	20,672	12,078	551
2037	–	–	–	2,247	–	6,430	–	6,329	–	19,729	10,496	477
2038	–	–	–	1,875	–	5,096	–	5,015	–	18,743	8,754	400
2039	–	–	–	1,488	–	3,708	–	3,650	–	17,712	7,018	318
2040	–	–	–	1,084	–	2,265	–	2,229	–	16,633	5,195	232
2041	–	–	–	664	–	765	–	753	–	15,504	3,188	143
2042	–	–	–	224	–	–	–	–	–	14,323	1,080	48
2043	–	–	–	–	–	–	–	–	–	13,087	–	–
2044	–	–	–	–	–	–	–	–	–	11,794	–	–
2045	–	–	–	–	–	–	–	–	–	10,441	–	–
2046	–	–	–	–	–	–	–	–	–	9,026	–	–
2047	–	–	–	–	–	–	–	–	–	7,546	–	–
2048	–	–	–	–	–	–	–	–	–	5,997	–	–
2049	–	–	–	–	–	–	–	–	–	4,376	–	–
2050	–	–	–	–	–	–	–	–	–	2,681	–	–
2051	–	–	–	–	–	–	–	–	–	907	–	–
Total	**$ 723**	**855**	**1,840**	**94,156**	**202**	**310,188**	**5,264**	**298,462**	**3,258**	**598,028**	**285,920**	**15,246**

(Continued)

Note: May not total due to rounding.

Source: San Francisco Public Utilities Commission Official Statements.

Debt Capacity
Water - Principal and Interest Payments for Debt Issues
(Exclude Commercial Paper)
(Dollars in Thousands)

	Interest Payments											
Payments Due for FY Ended	2011C	2011D	2012A	2012B	2012C1	2012C2	2012D	2015A	2016A	2016B	2016C	2017A
2019	$ 936	957	20,807	683	339	3,279	611	20,094	35,759	4,763	9,048	6,057
2020	921	957	20,807	683	339	3,279	221	19,757	35,758	4,454	8,967	6,057
2021	890	957	20,807	683	339	3,279	–	19,124	35,260	3,880	8,866	6,057
2022	857	957	20,807	683	339	3,279	–	18,430	34,178	3,274	8,748	6,057
2023	841	805	20,807	683	339	3,279	–	17,708	32,776	2,723	8,614	5,999
2024	841	494	20,807	683	339	3,279	–	16,643	31,366	2,099	8,463	5,880
2025	841	168	20,807	684	339	3,280	–	15,223	30,157	1,569	8,298	5,754
2026	841	–	20,807	684	339	3,098	–	13,721	28,885	1,209	8,118	5,622
2027	841	–	20,807	684	338	2,724	–	12,421	27,280	894	7,925	5,484
2028	841	–	20,807	684	338	2,332	–	11,385	25,169	639	7,719	5,338
2029	841	–	20,807	684	338	1,920	–	10,332	22,795	464	7,498	5,185
2030	841	–	20,807	684	338	1,487	–	9,225	20,300	279	7,260	5,024
2031	841	–	20,808	684	338	1,031	–	8,097	17,952	87	7,007	4,855
2032	841	–	20,808	664	169	602	–	6,915	16,030	–	6,738	4,676
2033	810	–	20,808	624	–	203	–	5,632	14,280	–	6,448	4,489
2034	747	–	20,808	583	–	–	–	4,425	12,440	–	6,138	4,293
2035	677	–	20,808	534	–	–	–	3,303	10,506	–	5,809	4,086
2036	601	–	20,123	477	–	–	–	2,145	8,470	–	5,463	3,868
2037	520	–	18,348	424	–	–	–	778	6,554	–	5,098	3,640
2038	435	–	16,040	375	–	–	–	–	4,771	–	4,712	3,400
2039	347	–	13,805	323	–	–	–	–	2,916	–	4,306	3,147
2040	253	–	11,726	269	–	–	–	–	985	–	3,883	2,881
2041	155	–	9,562	214	–	–	–	–	–	–	3,443	2,602
2042	53	–	7,310	155	–	–	–	–	–	–	2,985	2,309
2043	–	–	4,660	95	–	–	–	–	–	–	2,499	2,000
2044	–	–	1,579	31	–	–	–	–	–	–	1,983	1,676
2045	–	–	–	–	–	–	–	–	–	–	1,445	1,335
2046	–	–	–	–	–	–	–	–	–	–	884	976
2047	–	–	–	–	–	–	–	–	–	–	299	599
2048	–	–	–	–	–	–	–	–	–	–	–	203
2049	–	–	–	–	–	–	–	–	–	–	–	–
2050	–	–	–	–	–	–	–	–	–	–	–	–
2051	–	–	–	–	–	–	–	–	–	–	–	–
Total	$ 16,610	5,295	456,877	13,654	4,571	36,351	832	215,358	454,587	26,334	168,662	119,549

(Continued)

Note: May not total due to rounding.

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Debt Capacity
Water - Principal and Interest Payments for Debt Issues
(Exclude Commercial Paper)
(Dollars in Thousands)

Payments Due for FY Ended	Interest Payments 2017B	2017C	2017D	2017E	2017F	2017G	Federal Interest Subsidy	Total Interest Payments Net of Subsidy	Total Principal & Interest Payments
2019	$ 7,386	3,534	17,342	2,395	435	925	(24,028)	206,555	285,607
2020	7,386	3,534	17,321	2,395	435	915	(23,856)	203,115	306,566
2021	7,386	3,534	17,290	2,395	435	904	(23,671)	198,508	309,722
2022	7,386	3,534	17,254	2,395	435	888	(23,465)	193,435	309,830
2023	7,315	3,500	17,199	2,376	418	706	(23,136)	188,230	312,765
2024	7,170	3,430	17,131	2,337	382	344	(22,655)	182,768	313,080
2025	7,017	3,357	16,843	2,296	344	76	(22,118)	177,031	313,013
2026	6,856	3,280	16,074	2,090	303	—	(21,554)	170,751	317,476
2027	6,687	3,200	15,023	1,709	258	—	(20,949)	163,867	316,572
2028	6,509	3,114	13,919	1,347	211	—	(20,300)	156,615	315,077
2029	6,323	3,025	12,760	1,004	162	—	(19,614)	148,997	315,080
2030	6,126	2,931	11,543	613	115	—	(18,892)	140,954	315,859
2031	5,920	2,832	10,307	220	71	—	(18,141)	132,892	314,776
2032	5,703	2,729	9,331	20	24	—	(17,231)	124,660	316,200
2033	5,475	2,619	7,797	—	—	—	(16,159)	115,799	310,826
2034	5,235	2,504	5,129	—	—	—	(15,041)	106,572	310,748
2035	4,982	2,384	2,094	—	—	—	(13,878)	97,010	309,300
2036	4,717	2,257	278	—	—	—	(12,666)	86,942	315,495
2037	4,438	2,123	—	—	—	—	(11,404)	76,227	318,387
2038	4,145	1,983	—	—	—	—	(10,089)	65,654	289,098
2039	3,837	1,836	—	—	—	—	(8,720)	55,690	289,054
2040	3,514	1,681	—	—	—	—	(7,292)	45,539	288,819
2041	3,173	1,518	—	—	—	—	(5,805)	35,879	238,445
2042	2,815	1,347	—	—	—	—	(4,776)	27,872	186,738
2043	2,438	1,166	—	—	—	—	(4,296)	21,648	131,243
2044	2,043	978	—	—	—	—	(3,872)	16,211	131,226
2045	1,627	779	—	—	—	—	(3,428)	12,198	64,818
2046	1,190	569	—	—	—	—	(2,963)	9,682	64,782
2047	731	350	—	—	—	—	(2,477)	7,047	64,752
2048	248	119	—	—	—	—	(1,969)	4,599	50,159
2049	—	—	—	—	—	—	(1,437)	2,939	26,784
2050	—	—	—	—	—	—	(880)	1,801	26,746
2051	—	—	—	—	—	—	(298)	609	26,709
Total	**$ 145,778**	**69,744**	**224,633**	**23,592**	**4,029**	**4,757**	**(427,061)**	**3,178,294**	**7,805,750**

Note: May not total due to rounding.

Source: San Francisco Public Utilities Commission Official Statements.

Debt Capacity
Wastewater - Principal and Interest Payments for Debt Issues
(Exclude Commercial Paper)
(Dollars in Thousands)

Payments Due for FY Ended	State Revolving Fund Loans	COPs Series 2009C	COPs Series 2009D	2010A	2010B	2013A	2013B	2016A	2016B	Total Principal Payments
				Principal Payments						
2019	$ 296	676	–	7,630	–	13,380	–	–	–	21,982
2020	423	711	–	7,980	–	14,105	–	–	–	23,219
2021	487	747	–	8,390	–	14,850	–	–	–	24,474
2022	608	785	–	8,820	–	14,060	–	–	–	24,273
2023	620	826	–	–	7,280	13,090	–	–	–	21,816
2024	631	–	862	–	7,505	575	8,835	5,475	1,545	25,428
2025	642	–	900	–	7,745	610	9,280	5,760	1,625	26,562
2026	653	–	938	–	8,000	1,260	9,130	6,055	1,705	27,741
2027	664	–	977	–	8,270	–	10,915	6,365	1,795	28,986
2028	675	–	1,019	–	8,560	–	11,475	6,690	1,885	30,304
2029	687	–	1,061	–	8,860	–	12,065	7,035	1,980	31,688
2030	700	–	1,105	–	9,180	–	12,680	7,395	2,085	33,145
2031	712	–	1,153	–	9,520	–	13,330	7,775	2,190	34,680
2032	724	–	1,201	–	9,875	–	14,015	8,170	2,305	36,290
2033	737	–	1,253	–	10,250	–	14,735	8,590	2,420	37,985
2034	750	–	1,307	–	10,640	–	15,415	9,030	2,545	39,687
2035	763	–	1,363	–	11,045	–	16,045	9,495	2,675	41,386
2036	776	–	1,421	–	11,470	–	16,695	9,980	2,815	43,157
2037	791	–	1,482	–	11,910	–	17,375	10,495	2,960	45,013
2038	804	–	1,545	–	12,365	–	18,090	10,975	3,095	46,874
2039	818	–	1,612	–	12,845	–	18,820	11,425	3,220	48,740
2040	833	–	1,680	–	13,340	–	19,590	11,890	3,350	50,683
2041	848	–	1,752	–	13,855	–	20,390	12,375	3,490	52,710
2042	862	–	1,827	–	–	–	35,625	12,880	3,630	54,824
2043	878	–	–	–	–	–	37,080	13,405	3,780	55,143
2044	893	–	–	–	–	–	–	13,955	3,935	18,783
2045	909	–	–	–	–	–	–	14,520	4,095	19,524
2046	925	–	–	–	–	–	–	15,115	4,260	20,300
2047	941	–	–	–	–	–	–	15,730	4,435	21,106
2048	957	–	–	–	–	–	–	–	–	957
2049	197	–	–	–	–	–	–	–	–	197
2050	200	–	–	–	–	–	–	–	–	200
2051	203	–	–	–	–	–	–	–	–	203
Total	$ 22,607	3,745	24,458	32,820	192,515	71,930	331,585	240,580	67,820	988,060

(Continued)

Note: May not total due to rounding.

Source: San Francisco Public Utilities Commission Official Statements.

Debt Capacity
Wastewater - Principal and Interest Payments for Debt Issues
(Exclude Commercial Paper)
(Dollars in Thousands)

	Interest Payments												
Payments Due for FY Ended	State Revolving Fund Loans	COPs Series 2009C	COPs 2009D Before Subsidy	2010A	2010B Before Subsidy	2013A	2013B	2016A	2016B	Federal Interest Subsidy	Total Interest Payments Net of Subsidy	Total Principal & Interest Payments
2019	$ 113	170	1,578	1,412	10,685	3,018	14,428	10,647	3,001	(4,026)	41,026	63,008
2020	207	136	1,578	1,060	10,685	2,381	14,428	10,646	3,001	(4,026)	40,096	63,315
2021	291	99	1,578	651	10,685	1,707	14,428	10,646	3,001	(4,026)	39,060	63,534
2022	375	61	1,578	220	10,685	1,035	14,428	10,646	3,001	(4,026)	38,003	62,276
2023	364	21	1,578	–	10,516	405	14,428	10,646	3,001	(3,970)	36,989	58,805
2024	354	–	1,551	–	10,169	89	14,207	10,509	2,962	(3,847)	35,994	61,422
2025	343	–	1,494	–	9,801	62	13,754	10,228	2,883	(3,709)	34,856	61,418
2026	332	–	1,436	–	9,409	25	13,294	9,964	2,809	(3,560)	33,709	61,450
2027	320	–	1,375	–	8,992	–	12,793	9,683	2,729	(3,403)	32,489	61,475
2028	308	–	1,312	–	8,550	–	12,233	9,356	2,637	(3,238)	31,158	61,462
2029	297	–	1,246	–	8,084	–	11,645	9,013	2,541	(3,063)	29,763	61,451
2030	284	–	1,177	–	7,592	–	11,026	8,652	2,439	(2,879)	28,291	61,436
2031	273	–	1,104	–	7,073	–	10,376	8,274	2,333	(2,684)	26,749	61,429
2032	259	–	1,027	–	6,523	–	9,692	7,875	2,220	(2,479)	25,117	61,407
2033	247	–	948	–	5,945	–	8,973	7,455	2,101	(2,263)	23,406	61,391
2034	234	–	865	–	5,344	–	8,297	7,015	1,977	(2,038)	21,694	61,381
2035	221	–	778	–	4,720	–	7,667	6,552	1,847	(1,806)	19,979	61,365
2036	207	–	689	–	4,073	–	7,013	6,067	1,710	(1,563)	18,196	61,353
2037	194	–	594	–	3,397	–	6,331	5,553	1,565	(1,310)	16,324	61,337
2038	180	–	496	–	2,690	–	5,622	5,071	1,430	(1,046)	14,443	61,317
2039	166	–	393	–	1,957	–	4,884	4,623	1,303	(771)	12,555	61,295
2040	151	–	287	–	1,194	–	4,116	4,157	1,172	(486)	10,591	61,274
2041	136	–	175	–	403	–	3,316	3,672	1,035	(190)	8,547	61,257
2042	121	–	60	–	–	–	2,196	3,167	893	(19)	6,418	61,242
2043	107	–	–	–	–	–	741	2,641	745	–	4,234	59,377
2044	91	–	–	–	–	–	–	2,094	590	–	2,775	21,558
2045	76	–	–	–	–	–	–	1,524	429	–	2,029	21,553
2046	60	–	–	–	–	–	–	932	264	–	1,256	21,556
2047	43	–	–	–	–	–	–	314	88	–	445	21,551
2048	25	–	–	–	–	–	–	–	–	–	25	982
2049	9	–	–	–	–	–	–	–	–	–	9	206
2050	6	–	–	–	–	–	–	–	–	–	6	206
2051	3	–	–	–	–	–	–	–	–	–	3	206
Total	**$ 6,397**	**487**	**24,897**	**3,343**	**159,172**	**8,722**	**240,316**	**197,622**	**55,707**	**(60,428)**	**636,235**	**1,624,295**

Note: May not total due to rounding.

Source: San Francisco Public Utilities Commission Official Statements.

Debt Capacity
Power - Principal and Interest Payments for Debt Issues
(Dollars in Thousands)

Principal Payments										
Payments Due for FY Ended	Clean Renewable Energy Bonds 2008*	COPs Series 2009C	COPs Series 2009D	Qualified Energy Conservation Bonds 2011	New Clean Renewable Energy Bonds 2012	2015A	2015B	New Clean Renewable Energy Bonds 2015	Total Principal Payments
2019	$ 422	348	—	529	570	—	730	229	2,828
2020	422	366	—	536	583	—	755	232	2,894
2021	422	384	—	542	130	—	785	235	2,498
2022	422	405	—	549	—	—	815	239	2,430
2023	421	425	—	555	—	—	850	242	2,493
2024	—	—	445	562	—	—	880	245	2,132
2025	—	—	463	569	—	—	910	249	2,191
2026	—	—	483	575	—	—	945	252	2,255
2027	—	—	503	583	—	830	150	256	2,322
2028	—	—	524	294	—	1,020	—	260	2,098
2029	—	—	546	—	—	1,075	—	263	1,884
2030	—	—	569	—	—	1,125	—	267	1,961
2031	—	—	593	—	—	1,185	—	270	2,048
2032	—	—	619	—	—	1,240	—	274	2,133
2033	—	—	645	—	—	1,305	—	138	2,088
2034	—	—	673	—	—	1,370	—	—	2,043
2035	—	—	702	—	—	1,435	—	—	2,137
2036	—	—	731	—	—	1,510	—	—	2,241
2037	—	—	763	—	—	1,585	—	—	2,348
2038	—	—	796	—	—	1,665	—	—	2,461
2039	—	—	830	—	—	1,745	—	—	2,575
2040	—	—	865	—	—	1,835	—	—	2,700
2041	—	—	902	—	—	1,925	—	—	2,827
2042	—	—	941	—	—	2,020	—	—	2,961
2043	—	—	—	—	—	2,125	—	—	2,125
2044	—	—	—	—	—	2,230	—	—	2,230
2045	—	—	—	—	—	2,340	—	—	2,340
2046	—	—	—	—	—	2,460	—	—	2,460
Total	**$ 2,109**	**1,928**	**12,593**	**5,294**	**1,283**	**32,025**	**6,820**	**3,651**	**65,703**

(Continued)

Note: May not total due to rounding.
*No interest payments are required.

Source: San Francisco Public Utilities Commission Official Statements.

Debt Capacity
Power - Principal and Interest Payments for Debt Issues
(Dollars in Thousands)

	Interest Payments									
Payments Due for FY Ended	COPs Series 2009C	COPs 2009D Before Subsidy	QECBs 2011 Before Subsidy	NCREBs 2012 Before Subsidy	2015A	2015B	NCREBs 2015 Before Subsidy	Federal Interest Subsidy	Total Interest Payments Net of Subsidy	Total Principal & Interest Payments
2019	$ 88	812	245	54	1,593	246	166	(582)	2,622	5,450
2020	70	812	219	27	1,593	220	155	(541)	2,555	5,449
2021	51	812	194	3	1,593	189	145	(500)	2,487	4,985
2022	31	812	168	–	1,593	157	134	(473)	2,422	4,852
2023	10	812	142	–	1,593	124	123	(448)	2,356	4,849
2024	–	798	116	–	1,593	93	111	(417)	2,294	4,426
2025	–	769	89	–	1,593	62	100	(381)	2,232	4,423
2026	–	739	62	–	1,593	25	88	(344)	2,163	4,418
2027	–	709	35	–	1,576	3	78	(306)	2,095	4,417
2028	–	675	7	–	1,534	–	65	(270)	2,011	4,109
2029	–	641	–	–	1,482	–	53	(246)	1,930	3,814
2030	–	606	–	–	1,427	–	41	(226)	1,848	3,809
2031	–	568	–	–	1,369	–	28	(204)	1,761	3,809
2032	–	530	–	–	1,308	–	16	(184)	1,670	3,803
2033	–	488	–	–	1,245	–	3	(162)	1,574	3,662
2034	–	446	–	–	1,178	–	–	(146)	1,478	3,521
2035	–	401	–	–	1,108	–	–	(132)	1,377	3,514
2036	–	354	–	–	1,034	–	–	(116)	1,272	3,513
2037	–	306	–	–	957	–	–	(100)	1,163	3,511
2038	–	255	–	–	876	–	–	(84)	1,047	3,508
2039	–	203	–	–	790	–	–	(66)	927	3,502
2040	–	148	–	–	701	–	–	(48)	801	3,501
2041	–	90	–	–	607	–	–	(29)	668	3,495
2042	–	32	–	–	508	–	–	(10)	530	3,491
2043	–	–	–	–	405	–	–	–	405	2,530
2044	–	–	–	–	296	–	–	–	296	2,526
2045	–	–	–	–	181	–	–	–	181	2,521
2046	–	–	–	–	62	–	–	–	62	2,522
Total	**$ 250**	**12,818**	**1,277**	**84**	**31,388**	**1,119**	**1,306**	**(6,015)**	**42,227**	**107,930**

Note: May not total due to rounding.

Source: San Francisco Public Utilities Commission Official Statements.

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

Demographic and Economic Information

City and County of San Francisco Economic and General Information

Summary of Accounts by Type of Customer

Water Accounts and Billings

Historical Water Sales in Hundred Cubic Feet

Historical Water Sales in Millions of Gallons per Day

Historical Water Sales in Millions of Gallons

Wholesale Water Customers

Accounts and Billings by Type of Customer

Historical Hetchy Water Sales

Historical Hetchy Power Electric Sales

Historical CleanPowerSF Electric Sales

The City Distribution Division Standard Specifications and Plans for Water Main Installation contain the requirements for new low pressure (potable and recycled) water main installations in San Francisco for pipelines smaller than or equal to 16 inches in diameter.

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

City and County of San Francisco Economic and General Information

The following provides general economic and demographic information about the City and County of San Francisco (the "City").

San Francisco Area

The corporate limits of the City encompass over 93 square miles, of which approximately 49 square miles are land, with the balance consisting of tidelands and a portion of the San Francisco Bay (the "Bay"). The City is located on a peninsula bounded by the Pacific Ocean to the west, the Bay to the east, the entrance to the Bay and the Golden Gate Bridge to the north and San Mateo County to the south.

San Francisco Economy and Employment

San Francisco benefits from a highly skilled, educated and professional labor force. Key industries include high tech, tourism, real estate, banking and finance, retailing, apparel design and manufacturing. Emerging industries include multimedia and bioscience. The City is the economic center of the nine counties contiguous to the Bay: Alameda, Contra Costa, Marin, Napa, San Francisco, San Mateo, Santa Clara, Solano and Sonoma Counties (the "Bay Area"). The economy of the Bay Area includes a wide range of industries, supplying local needs as well as the needs of national and international markets. Major business sectors in the Bay Area include retail and entertainment, conventions and tourism, service businesses, banking, professional and financial services, corporate headquarters, international and wholesale trade, technology, multimedia and advertising, biotechnology, and higher education.

San Francisco's unemployment rate is 2.7 percent in June 2018, which is well below the state figure of 4.5 percent. The City had the second-lowest unemployment rate in California behind only neighboring San Mateo county. San Francisco's tech boom, which studies say has created additional support jobs ranging from baristas to attorneys, is credited with much of the City's economic recovery.

During the calendar year 2017, the total number of jobs in the region increased by 15,400. The biggest job gains were in professional and business services and trade, transportation and utilities. Median home prices in the San Francisco area have been among the most expensive in the country every year since 2007. As of June 2018, the median price of homes in San Francisco increased by $205,000 from $1,415,000 to $1,620,000 a 14.5% increase from last year. While residents are quite wealthy with household median income of $102,300 in 2018, home prices far exceeded local incomes. A typical home costs approximately 16 times the typical income, one of the highest home price-to-income ratio in the nation.

San Francisco Population and Income

The City had a population estimated at 892,701 as of fiscal year 2018. The table on the left reflects the population and per capita personal income of the City, as estimated based on the U.S. Census Bureau.

CITY AND COUNTY OF SAN FRANCISCO Population and Income - Fiscal Years 2013-2018		
Fiscal Year	Population[1]	Per Capita Personal Income[1]
2013	841,138	86,619
2014	852,469	90,600
2015	862,004	103,867
2016	876,103	109,760
2017	884,363	113,216
2018	892,701	115,327

[1] Per capita personal income for 2016 and 2017 was estimated by dividing the estimated personal income for 2016 and 2017 by the reported and estimated population in 2016 and 2017, respectively. 2018 was estimated by multiplying the latest quarterly State income by 1,000 and dividing by the estimated 2018 population. Fiscal year 2016 and 2017 is updated from last year's CAFR with newly available data.

San Francisco Conventions and Tourism

According to the San Francisco Travel Association (the "Travel Association"), a non-profit membership organization, during the calendar year 2017 approximately 25.5 million people visited the City, generating approximately $9.1 billion for local businesses, an increase of 1.4% from previous year. Visitors in San Francisco spent on average $24.9 million daily or $1 million per hour (including spending related to meetings and conventions). As reported by San Francisco Scorecards, hotel occupancy rates in May 2018 is 83.7%, an increase of 2.7% from June in previous year.

Moscone Center Expansion Illustration

The Moscone Convention Center offers more than 2 million square feet of building area including over 700,000 square feet of exhibit space, up to 106 meeting rooms, and close to 123,000 square feet of prefunction lobbies. It covers more than 20 acres on three adjacent blocks, with more than two-thirds of San Francisco's 34,000 hotel rooms within walking distance. A proposed $500 million Moscone Center expansion broke ground in 2015 with an opening anticipated in early 2019. Plans include adding 504,000 square foot of contiguous exhibition space, improving pedestrian conditions, and enhancing connections to the neighborhood.

San Francisco Employment

According to the California Employment Development Department, the unemployment rate for the City was 2.7% for June 2018 compared with an unadjusted unemployment rate of 4.5% for the State.

See tables for more information on the civilian labor, employment, and unemployment in the City; and employment by industry from calendar years 2013 to 2017.

CITY AND COUNTY OF SAN FRANCISCO
Civilian Labor Force, Employment, and Unemployment [1]
June 2017 and 2018[2]

Year	Area	Labor Force	Employment	Unemployment	Unemployment Rate
June 2018	San Francisco	565,700	550,700	15,100	2.7%
	State	19,356,100	18,485,900	870,200	4.5%
June 2017[3]	San Francisco	566,500	549,100	17,400	3.1%
	State	19,296,700	18,365,000	931,800	4.8%

[1] The Unemployment Rate and Labor Force data are based upon "place of residence" – where people live, regardless of where they work. Individuals who have more than one job are counted only once. Civilian Labor Force is the sum of civilian employment and civilian unemployment. Civilian Employment includes all individuals who worked during the week including the 12th of the month. Civilian Unemployment includes those individuals who were not working but were able, available, and actively looking for work. Unemployment Rate is the number of unemployed divided by the labor force then multiplied by 100.
[2] Data not seasonally adjusted.
[3] June 2017 data is updated from last year's CAFR with newly available data.

Source: California Employment Development Department, Labor Market Information Division.

CITY AND COUNTY OF SAN FRANCISCO
Estimated Average Annual Employment by Sector - Calendar Years 2013-2017

	2013	2014	2015	2016[1]	2017
Total Farm	100	200	200	200	200
Total Nonfarm	607,300	633,300	675,000	703,400	718,800
Professional & Business Services	156,700	168,800	183,400	188,800	194,900
Leisure & Hospitality	86,200	90,200	93,800	97,300	96,800
Government	88,400	89,600	92,100	94,800	96,500
Educational & Health Services	82,900	83,000	85,800	88,300	89,100
Trade, Transportation & Utilities	68,600	70,800	75,600	79,600	82,800
Financial Activities	49,400	50,200	53,600	55,800	56,400
Information	25,700	28,300	35,200	38,900	41,500
Manufacturing & Construction	25,200	27,000	29,400	33,100	33,500
Other Services	24,200	25,400	26,100	26,800	27,300
Total All Industries	**607,400**	**633,500**	**675,200**	**703,600**	**719,000**

Source: California Employment Development Department, Labor Market Information Division.

The table below lists 26 major employers in San Francisco County, as reported by the San Francisco Business Times.

CITY AND COUNTY OF SAN FRANCISCO
Major Employers

Employer Name	Industry
More than 10,000 Employees	
City and County of San Francisco	City Government
San Francisco Unified School District	Public Education
State of California	State Government
United States Postal Service	Mailing and Shipping
University of California, San Francisco	Health Sciences University and Medical Center
5,000 - 9,999 Employees	
Salesforce	Customer Relationship Management Software
Sutter Health	Health Care System
Uber Technologies Inc.	Ride-Sharing Service
Wells Fargo Bank	Financial Services
1,000 - 4,999 Employees	
Academy of Art University	Art and Design University
Airbnb Inc.	Online Vacation Rental Services
Allied Universal	Security Systems, Guarding Services

CITY AND COUNTY OF SAN FRANCISCO Major Employers	
Employer Name	**Industry**
Amazon	Ecommerce and Cloud Computing
Cisco Systems Inc.	Technology, Networking, Security, Digital
City College of San Francisco	Community College
Deloitte LLP	Accounting, Audit, Tax, Advisory, Consulting
Dignity Health	Health Care System
First Republic Bank	Financial Services
Gap Inc.	Clothing and Accessories Retailer
Kaiser Permanente	Health Care System
PG&E Corp.	Electric and Gas Energy Company
San Francisco State University	Public State University
San Francisco VA Medical Center	Health Care System for Veterans
University of San Francisco	University Education
Williams-Sonoma Inc.	Home Goods Retailer
Yelp, Inc.	Online Review Site

Source: San Francisco Business Times.

San Francisco Taxable Sales

The following table provides information on taxable sales for the City for calendar years 2012 through 2016. Total retail sales increased in 2016 by approximately $190 million compared to 2015. Data for 2017 are not available from the California State Board of Equalization at this time.

CITY AND COUNTY OF SAN FRANCISCO Taxable Sales - Calendar Years 2012-2016[1] ($ in Thousands)					
	2012	**2013**	**2014**	**2015**	**2016**
Building Material/Garden Equipment/Supplies $	446,949	508,070	537,424	588,279	586,373
Clothing and Clothing Accessories Stores	1,886,746	2,040,734	2,168,822	2,163,743	2,132,167
Food and Beverage Stores	698,890	740,746	782,750	830,061	843,717
Food Services and Drinking Places	3,442,081	3,750,056	4,104,185	4,441,352	4,670,360
Gasoline Stations	664,318	650,678	611,354	471,496	428,473
General Merchandise Stores	804,628	897,608	864,009	825,300	797,833
Home Furnishings and Appliance Stores	825,268	880,330	938,256	1,010,769	965,919
Motor Vehicle and Parts Dealers	505,612	548,713	588,769	565,639	573,965
Other Retail Stores[2]	1,588,780	1,852,618	2,037,646	2,136,115	2,223,654
Retails Stores Total	**$ 10,863,272**	**11,869,553**	**12,633,215**	**13,032,754**	**13,222,461**
All Other Outlets	5,070,334	5,224,609	5,836,514	5,839,079	6,174,841
Total All Outlets	**$ 15,933,606**	**17,094,162**	**18,469,729**	**18,871,833**	**19,397,302**

[1] The latest data as of calendar year 2016 is presented.
[2] Other Retail Stores include Health and Personal Care Stores, Sporting Goods, Hobby Book, and Music stores, Miscellaneous Store Retailers, and Non-store Retailers.

Source: California State Board of Equalization - Taxable Sales in California (Sales & Use Tax) Annual Reports.

Demographic and Economic Information
San Francisco Population and Income
Fiscal Years Ended 2009 to 2018

Year	Population [1]	Personal Income (In Thousands) [2]	Per Capita Personal income [2]
2009	815,358	55,559,545	68,141
2010	805,235	57,619,120	71,556
2011	812,826	63,102,121	77,633
2012	825,863	70,573,974	85,455
2013	841,138	72,858,445	86,619
2014	852,469	77,233,279	90,600
2015	862,004	89,533,450	103,867
2016	876,103	96,161,308	109,760 [5]
2017	884,363	100,123,866 [4]	113,216 [5]
2018	892,701 [3]	102,952,634 [4]	115,327 [5]

[1] US Census Bureau, fiscal years 2016 and 2017 are updated from last year's CAFR with newly available data.
[2] US Bureau of Economic Analysis, fiscal years 2016 and 2017 are updated from last year's CAFR with newly available data.
[3] 2018 population was estimated by multiplying the estimated 2017 population by the 2017 to 2018 population growth rate.
[4] Personal income was estimated by assuming that its percentage of state personal income in fiscal years 2017 and 2018 remained at the 2016 level of 4.35 percent.
[5] Per capita personal income for 2016 and 2017 was estimated by dividing the estimated personal income for 2016 and 2017 by the reported and estimated population in 2016 and 2017, respectively. 2018 was estimated by multiplying the latest quarterly State income by 1,000 and dividing by the estimated 2018 population.

Source: Office of the Controller, City and County of San Francisco.

Demographic & Economic Information
San Francisco City and County Principal Employers

Employer	2017[1] Employees	Rank	Percentage of Total City Employment	2008 Employees	Rank	Percentage of Total City Employment[2]
City and County of San Francisco	31,038	1	5.6 %	26,656	1	6.3 %
University of California, San Francisco	25,522	2	4.6	18,200	2	4.3
San Francisco Unified School District	10,000	3	1.8	—	—	—
Wells Fargo Bank	7,838	4	1.4	8,718	3	2.1
Salesforce	7,000	5	1.3	—	—	—
Sutter Health	6,447	6	1.2	—	—	—
Uber Technologies Inc.	5,000	7	0.9	—	—	—
Kaiser Permanente	4,517	8	0.8	—	—	—
Gap, Inc.	4,050	9	0.7	4,172	9	1.0
PG&E Corporation	3,800	10	0.7	4,350	8	1.0
California Pacific Medical Center	—	—	—	6,600	4	1.6
State of California	—	—	—	6,021	5	1.4
Charles Schwab & Co. Inc	—	—	—	4,600	6	1.1
United States Postal Service	—	—	—	4,571	7	1.1
San Francisco State University	—	—	—	3,831	10	0.9
Total	**105,212**		**19.0 %**	**87,719**		**20.8 %**
Total City Employment			**554,750**			**426,700**

[1] The latest data as of calendar year 2017 is presented.
[2] Percentages have been restated based on updated employment information, and as a result, may differ from amounts reported in the Comprehensive Annual Financial Report for the City and County of San Francisco.

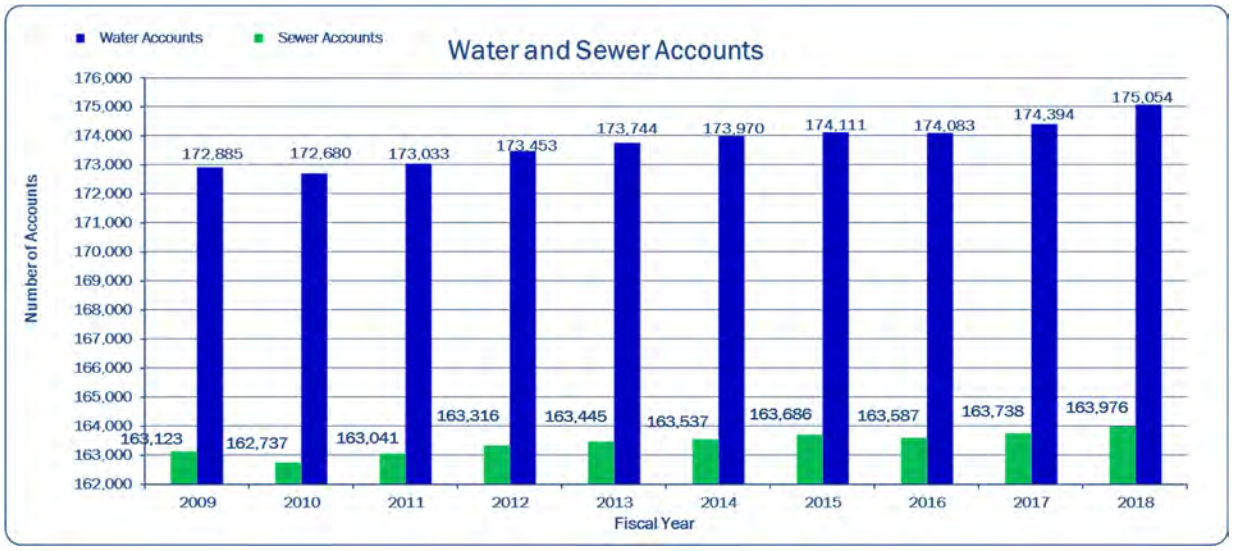
Source: Total City and County of San Francisco employee count is obtained from the State of California Employee Development Department. All other data is obtained from the San Francisco Business Times Book of Lists.

Demographic & Economic Information
Summary of Water and Sewer Accounts by Type of Customer
Fiscal Years Ended 2009 to 2018

	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Water Account Types[1]										
Retail - San Francisco										
Multi-Family Residential	39,664	40,844	40,919	40,990	41,121	41,165	41,279	41,369	41,594	42,101
Single-Family Residential	110,759	109,440	109,705	109,957	110,062	110,144	110,140	110,050	110,118	110,153
Commercial	20,197	20,153	20,166	20,245	20,270	20,354	20,384	20,320	20,344	20,429
Industrial	97	85	85	84	83	82	81	81	80	80
Municipal	1,765	1,768	1,775	1,795	1,826	1,843	1,849	1,885	1,882	1,915
Subtotal	**172,482**	**172,290**	**172,650**	**173,071**	**173,362**	**173,588**	**173,733**	**173,705**	**174,018**	**174,678**
Retail - Other										
Commercial	103	101	92	90	89	88	85	85	83	86
Municipal	1	1	1	1	1	1	1	1	1	1
Other	13	3	3	3	3	3	3	3	3	3
Residential	205	204	206	207	208	212	211	211	211	208
Subtotal	**322**	**309**	**302**	**301**	**301**	**304**	**300**	**300**	**298**	**298**
Wholesale										
Private utilities	20	21	21	21	21	21	22	22	22	22
Public utilities	61	60	60	60	60	57	56	56	56	56
Subtotal	**81**	**81**	**81**	**81**	**81**	**78**	**78**	**78**	**78**	**78**
Total water accounts	**172,885**	**172,680**	**173,033**	**173,453**	**173,744**	**173,970**	**174,111**	**174,083**	**174,394**	**175,054**
Sewer Account Types[2]										
Retail & Resale										
Multi-Family Residential	36,051	36,271	36,269	36,275	36,301	36,248	36,313	36,293	36,323	36,326
Single-Family Residential	110,759	110,324	110,608	110,875	111,007	111,125	111,173	111,137	111,268	111,385
Commercial[3]	15,526	15,416	15,439	15,439	15,400	15,430	15,460	15,411	15,388	15,494
Municipal	779	717	716	719	729	725	731	738	751	763
Suburban (Watershed Keepers)	8	9	9	8	8	9	9	8	8	8
Total sewer accounts	**163,123**	**162,737**	**163,041**	**163,316**	**163,445**	**163,537**	**163,686**	**163,587**	**163,738**	**163,976**

[1] Accounts were grouped by revenue class from the Water Sewer System for fiscal years 2008 to 2009. Effective with fiscal year 2010, accounts are grouped by service agreement from the Customer Care and Billing System.
[2] Number of customer accounts prior to fiscal year 2010 was estimated. Fiscal year 2010 and thereafter reflect actuals from the Customer Care and Billing System.
[3] Beginning fiscal year 2011, the Presidio Trust Accounts are under Multi-Family Residential and Commercial account type.

Source: San Francisco Public Utilities Commission Water Sewer System and Customer Care and Billing System as of June 30, 2018 and Rate Schedules.



Demographic & Economic Information
Summary of Hetchy Water, Hetchy Power and CleanPowerSF Accounts by Type of Customer
Fiscal Years Ended 2009 to 2018

Hetchy Water

Accounts	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Upcountry Water Sales	7	7	7	7	7	7	7	6	5	5

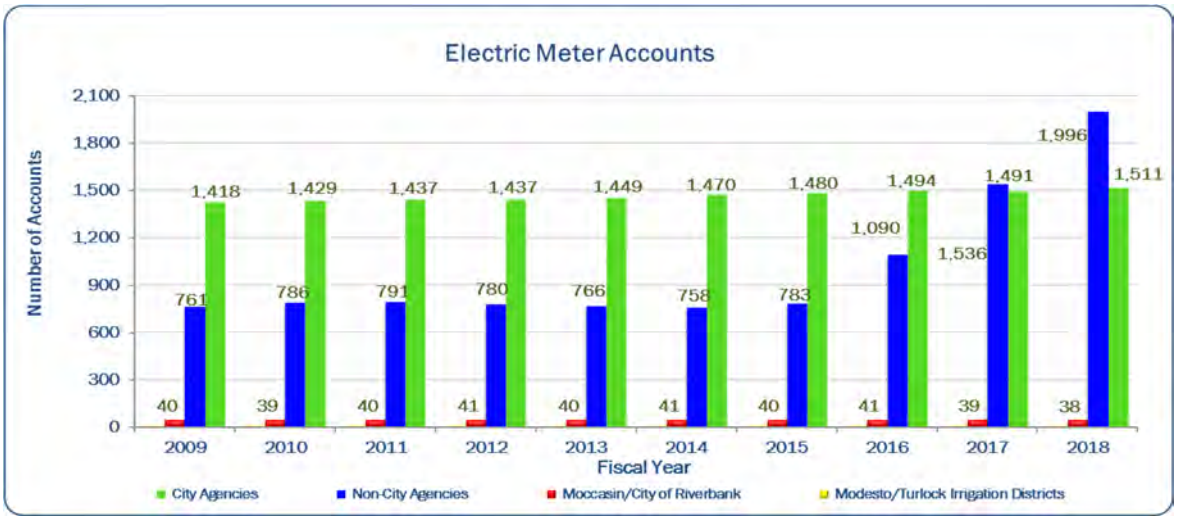
Source: San Francisco Public Utilities Commission Customer Care and Billing System.

Hetchy Power

Electric Meters	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
City Agencies	1,418	1,429	1,437	1,437	1,449	1,470	1,480	1,494	1,491	1,511
Non-City Agencies*	761	786	791	780	766	758	783	1,090 **	1,536**	1,996**
Moccasin/City of Riverbank	40	39	40	41	40	41	40	41	39	38
Modesto/Turlock Irrigation Districts	2	2	2	2	2	2	2	2	2	2
Total accounts	**2,221**	**2,256**	**2,270**	**2,260**	**2,257**	**2,271**	**2,305**	**2,627**	**3,068**	**3,547**
Gas and Steam Meters										
Nature Gas (City Agencies)	341	346	350	343	346	351	352	359	351	355
Steam (City Agencies)	12	11	11	11	12	12	12	12	12	12
Total accounts	**353**	**357**	**361**	**354**	**358**	**363**	**364**	**371**	**363**	**367**

* Non-City Agencies include electric retail and municipal customers such as Moscone tenants, Exploratorium, and Yerba Buena Gardens.
** Included in fiscal years 2016, 2017, and 2018, 307, 446 and 460 new accounts in the Hunter's Point Shipyard Redevelopment Project and the Distributed Antenna System.

Source: San Francisco Public Utilities Commission Power Enterprise Billing System.



CleanPowerSF

Accounts	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Residential	Data not available - CleanPowerSF launched in May 2016.							364	69,492	74,160
Commercial										
Small Commercial Service								6,256	6,169	6,422
Medium Commercial Service								541	504	688
Large Commercial Service								299	314	336
Agricultural								—	3	7
Commercial Subtotal								7,096	6,990	7,453
Total accounts								**7,460**	**76,482**	**81,613**

Source: Calpine's customer snapshot reports. Calpine obtains the data from PG&E.

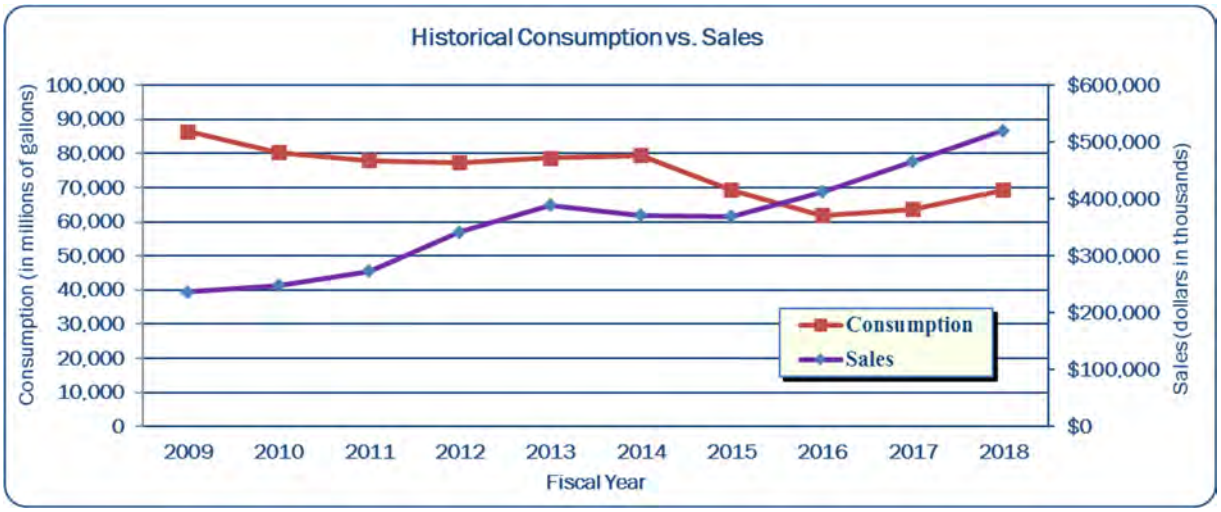
Demographic & Economic Information
Water Accounts and Billings
Fiscal Years Ended 2009 to 2018
(Dollars in Thousands)

Fiscal Year[1]	Number of Consumer Accounts	Water Consumed (CCF)#*	Water Consumed (MG)#**	Service Charges Billed ($)	Water Charges Billed ($)	Total Amount Billed ($)
2009	172,885	115,452,040	86,358	22,135	214,839	236,974
2010	172,680	107,309,005	80,267	21,191	226,806	247,997
2011	173,033	104,292,869	78,011	23,625	249,414	273,039
2012	173,453	103,463,474	77,390	26,267	315,713	341,980
2013	173,744	105,207,569	78,695	29,168	360,354	389,522
2014	173,970	106,220,305	79,453	31,849	339,139	370,988
2015	174,111	92,654,622	69,306	33,561	336,182	369,743
2016	174,083	82,796,451	61,932	37,125	375,020	412,145
2017	174,394	85,183,689	63,717	40,650	425,629	466,279
2018	175,054	92,706,490	69,344	43,748	476,385	520,133

* Hundred cubic feet = 748 gallons
** Millions of gallons

[1] Beginning in fiscal year 2011, total amount billed excludes BAWSCA fees and surcharge, and collections designated for Wholesale Coverage Reserve.
Consumption data updated from fiscal years 2011 to 2014.

Source: Summary of Annual Water Sales reports, San Francisco Public Utilities Commission Water Sewer System and Customer Care and Billing System.

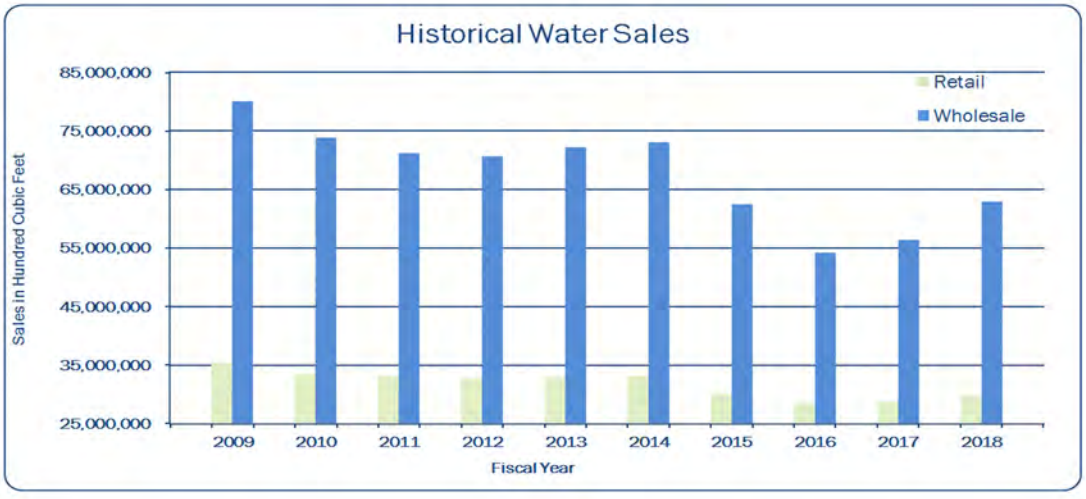


Demographic & Economic Information
Historical Water Sales in Hundred Cubic Feet
Fiscal Years Ended 2009 to 2018

	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2018 % of Total
Retail Customers#											
Multi-Family Residential	12,456,327	12,203,512	12,260,606	12,139,673	11,857,405	11,790,707	10,923,723	10,511,291	10,730,224	11,088,325	12.0%
Single-Family Residential	8,534,845	8,023,052	7,849,371	7,854,469	7,848,355	8,124,179	7,056,525	6,674,624	6,765,508	6,954,084	7.5%
Commercial[1,3]	10,160,387	9,505,871	9,428,821	9,387,963	9,369,923	9,249,884	8,881,095	8,486,990	8,286,580	8,539,377	9.2%
Industrial	100,217	83,063	87,068	90,174	91,641	96,073	100,995	94,178	92,846	86,555	0.1%
Municipal[2,3,4]	2,092,639	1,971,230	1,759,837	1,584,640	1,764,467	1,818,869	1,351,523	1,252,031	1,519,354	1,582,906	1.7%
Suburban Retail[2,3]	2,070,917	1,691,900	1,739,343	1,773,498	2,082,763	2,090,360	1,860,949	1,556,586	1,397,568	1,524,511	1.6%
Retail water sales	**35,415,332**	**33,478,628**	**33,125,046**	**32,830,417**	**33,014,554**	**33,170,072**	**30,174,810**	**28,575,700**	**28,792,081**	**29,775,757**	**32.1%**
Wholesale Customers#											
California Water Service[5]	17,544,304	15,889,763	15,719,285	16,081,904	16,104,269	16,478,539	14,177,253	11,442,469	11,853,307	13,437,872	14.5%
Hayward Municipal Water	9,256,544	8,418,044	8,308,740	7,610,980	7,552,956	7,402,067	6,634,616	5,979,616	6,281,522	7,101,954	7.7%
City of Palo Alto	5,677,018	5,362,543	5,440,236	5,561,559	5,528,554	5,520,468	4,671,433	4,006,084	4,382,560	4,859,576	5.2%
City of Sunnyvale	5,200,504	4,838,316	3,968,975	4,406,804	4,653,481	4,169,463	3,801,695	3,816,230	3,966,024	4,615,487	5.0%
City of Redwood City	5,048,309	4,689,257	4,462,944	4,420,594	4,541,338	4,457,196	3,909,265	3,484,888	3,764,419	4,109,993	4.4%
Alameda County Water District	5,528,087	5,274,040	3,920,455	3,953,054	4,423,129	5,837,509	3,885,891	2,924,129	3,039,722	3,875,669	4.2%
City of Mountain View	4,818,468	4,365,076	4,208,860	4,273,100	4,436,942	4,405,542	3,715,499	3,285,167	3,374,726	3,679,915	4.0%
City of Milpitas*	3,353,762	3,065,570	2,979,835	3,027,111	3,137,125	3,244,023	2,556,289	2,199,649	2,361,244	2,544,956	2.7%
City of San Jose*	2,188,104	2,015,340	2,051,706	2,138,714	2,197,501	2,263,880	2,189,406	1,990,436	2,017,559	2,198,147	2.4%
Estero Municipal Improvement District	2,509,929	2,392,875	2,272,167	1,982,291	1,977,026	1,983,373	1,942,828	1,755,953	1,869,684	2,064,667	2.2%
All Other Wholesale Customers[5]	18,911,679	17,519,553	17,834,620	17,176,946	17,640,694	17,288,173	14,995,637	13,336,130	13,480,842	14,442,496	15.6%
Wholesale water sales	**80,036,708**	**73,830,377**	**71,167,823**	**70,633,057**	**72,193,015**	**73,050,233**	**62,479,812**	**54,220,751**	**56,391,609**	**62,930,733**	**67.9%**
Total water sales	**115,452,040**	**107,309,005**	**104,292,869**	**103,463,474**	**105,207,569**	**106,220,305**	**92,654,622**	**82,796,451**	**85,183,689**	**92,706,490**	**100.0%**
% Change from prior year	**-4.4%**	**-7.1%**	**-2.8%**	**-0.8%**	**1.7%**	**1.0%**	**-12.8%**	**-10.6%**	**2.9%**	**8.8%**	
Number of accounts	**172,885**	**172,680**	**173,033**	**173,453**	**173,744**	**173,970**	**174,111**	**174,083**	**174,394**	**175,054**	
Retail	172,804	172,599	172,952	173,372	173,663	173,892	174,033	174,005	174,316	174,976	
Wholesale	81	81	81	81	81	78	78	78	78	78	

[1] Includes Docks & Ships under Commercial.
[2] San Francisco International Airport was historically included as a Municipal customer. Starting fiscal year 2011 and thereafter, the account was restated to Suburban Retail, as water sales represent resale to their tenants and not for its own consumption.
[3] Master-metered Treasure Island water sales were included under Commercial from fiscal year 2011 and 2012 and under Suburban Retail from fiscal year 2013 to fiscal year 2016. Beginning in fiscal year 2017, they have been classified under Municipal. Current Treasure Island usage represents purchases by the Treasure Island Development Authority and various commercial, residential, and governmental leasees. As new development is completed on Treasure Island, customers will open individual accounts under the appropriate commercial or residential line items, and the master-metered amount will be reduced accordingly.
[4] Beginning in fiscal year 2017, recycled water sales to Harding Park are included under Municipal.
[5] From fiscal year 2016 onward, California Water Service Company, Daly City, and San Bruno are participating in the conjunctive use groundwater program. These customers receive a bill credit for regional water system usage in-lieu of groundwater pumping. Totals reported in this table exclude water credited under the conjunctive use program.
* Data correction between City of Milpitas, San Jose and Daly City from fiscal years 2009 to 2017.
# Consumption data updated from fiscal years 2011 to 2014.

Source: Rate Schedules, Summary of Annual Water Sales reports, San Francisco Public Utilities Commission Customer Care and Billing System.



Demographic & Economic Information
Historical Water Sales in Millions of Gallons per Day
Fiscal Years Ended 2009 to 2018

	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2018 % of Total
Retail Customers#											
Multi-Family Residential	25.5	25.0	25.1	24.8	24.3	24.2	22.4	21.5	22.0	22.7	12.0%
Single-Family Residential	17.5	16.4	16.1	16.1	16.1	16.6	14.5	13.6	13.9	14.3	7.5%
Commercial[1, 3]	20.8	19.5	19.3	19.2	19.2	19.0	18.2	17.3	17.0	17.5	9.2%
Industrial	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1%
Municipal[2,3,4]	4.3	4.0	3.6	3.2	3.6	3.7	2.8	2.6	3.1	3.2	1.7%
Suburban Retail[2, 3]	4.2	3.5	3.6	3.6	4.3	4.3	3.8	3.2	2.9	3.1	1.6%
Retail water sales	**72.5**	**68.6**	**67.9**	**67.1**	**67.7**	**68.0**	**61.9**	**58.4**	**59.1**	**61.1**	**32.1%**
Wholesale Customers#											
California Water Service[5]	36.0	32.6	32.2	32.9	33.0	33.8	29.1	23.4	24.3	27.5	14.5%
Hayward Municipal Water	19.0	17.3	17.0	15.6	15.5	15.2	13.6	12.2	12.9	14.6	7.7%
City of Palo Alto	11.6	11.0	11.1	11.4	11.3	11.3	9.6	8.2	9.0	10.0	5.2%
City of Sunnyvale	10.7	9.9	8.1	9.0	9.5	8.5	7.8	7.8	8.1	9.5	5.0%
City of Redwood City	10.3	9.6	9.1	9.1	9.3	9.1	8.0	7.1	7.7	8.4	4.4%
Alameda County Water District	11.3	10.8	8.0	8.1	9.1	12.0	8.0	6.0	6.2	7.9	4.2%
City of Mountain View	9.9	8.9	8.6	8.7	9.1	9.0	7.6	6.7	6.9	7.5	4.0%
City of Milpitas*	6.9	6.3	6.1	6.2	6.4	6.6	5.2	4.5	4.8	5.2	2.7%
City of San Jose*	4.5	4.1	4.3	4.4	4.5	4.6	4.5	4.1	4.1	4.5	2.4%
Estero Municipal Improvement District	5.1	4.9	4.7	4.1	4.1	4.1	4.0	3.6	3.8	4.2	2.2%
All Other Wholesale Customers[5]	38.8	35.9	36.5	35.1	36.2	35.4	30.7	27.3	27.6	29.6	15.6%
Wholesale water sales	**164.1**	**151.3**	**145.8**	**144.6**	**147.9**	**149.7**	**128.0**	**110.8**	**115.5**	**128.9**	**67.9%**
Total water sales	**236.6**	**219.9**	**213.7**	**211.7**	**215.6**	**217.7**	**189.9**	**169.2**	**174.6**	**190.0**	**100.0%**
% Change from prior year	**-4.4%**	**-7.1%**	**-2.8%**	**-0.8%**	**1.7%**	**1.0%**	**-12.8%**	**-10.6%**	**2.9%**	**8.8%**	
Number of accounts	**172,885**	**172,680**	**173,033**	**173,453**	**173,744**	**173,970**	**174,111**	**174,083**	**174,394**	**175,054**	
Retail	172,804	172,599	172,952	173,372	173,663	173,892	174,033	174,005	174,316	174,976	
Wholesale	81	81	81	81	81	78	78	78	78	78	

[1] Includes Docks & Ships under Commercial.
[2] San Francisco International Airport was historically included as a Municipal customer. Starting fiscal year 2011 and thereafter, the account was restated to Suburban Retail, as water sales represent resale to their tenants and not for its own consumption.
[3] Master-metered Treasure Island water sales were included under Commercial from fiscal year 2011 and 2012 and under Suburban Retail from fiscal year 2013 to fiscal year 2016. Beginning in fiscal year 2017, they have been classified under Municipal. Current Treasure Island usage represents purchases by the Treasure Island Development Authority and various commercial, residential, and governmental leasees. As new development is completed on Treasure Island, customers will open individual accounts under the appropriate commercial or residential line items, and the master-metered amount will be reduced accordingly.
[4] Beginning in fiscal year 2017, recycled water sales to Harding Park are included under Municipal.
[5] From fiscal year 2016 onward, California Water Service Company, Daly City, and San Bruno are participating in the conjunctive use groundwater program. These customers receive a bill credit for regional water system usage in-lieu of groundwater pumping. Totals reported in this table exclude water credited under the conjunctive use program.
* Data correction between City of Milpitas, San Jose and Daly City from fiscal years 2009 to 2017.
# Consumption data updated from fiscal years 2011 to 2014.

Source: Rate Schedules, Summary of Annual Water Sales reports, San Francisco Public Utilities Commission Customer Care and Billing System.

Demographic & Economic Information
Historical Water Sales in Millions of Gallons
Fiscal Years Ended 2009 to 2018

	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2018 % of Total
Retail Customers#											
Multi-Family Residential	9,317	9,128	9,171	9,080	8,869	8,819	8,171	7,862	8,026	8,294	12.0%
Single-Family Residential	6,384	6,001	5,871	5,875	5,871	6,077	5,278	4,993	5,061	5,202	7.5%
Commercial[1, 3]	7,600	7,110	7,053	7,022	7,009	6,919	6,643	6,348	6,198	6,387	9.2%
Industrial	75	62	65	67	69	72	76	70	69	65	0.1%
Municipal[2,3,4]	1,565	1,474	1,316	1,185	1,320	1,361	1,011	937	1,136	1,184	1.7%
Suburban Retail[2, 3]	1,549	1,266	1,301	1,327	1,558	1,564	1,392	1,164	1,045	1,140	1.6%
Retail water sales	**26,491**	**25,042**	**24,778**	**24,557**	**24,695**	**24,811**	**22,571**	**21,375**	**21,536**	**22,272**	**32.1%**
Wholesale Customers#											
California Water Service[5]	13,123	11,886	11,758	12,029	12,046	12,326	10,605	8,559	8,866	10,052	14.5%
Hayward Municipal Water	6,924	6,297	6,215	5,693	5,650	5,537	4,963	4,473	4,699	5,312	7.7%
City of Palo Alto	4,246	4,011	4,069	4,160	4,135	4,129	3,494	2,997	3,278	3,635	5.2%
City of Sunnyvale	3,890	3,619	2,969	3,296	3,481	3,119	2,844	2,855	2,967	3,452	5.0%
City of Redwood City	3,776	3,508	3,338	3,307	3,397	3,334	2,924	2,607	2,816	3,074	4.4%
Alameda County Water District	4,135	3,945	2,933	2,957	3,309	4,366	2,907	2,187	2,274	2,899	4.2%
City of Mountain View	3,604	3,265	3,148	3,196	3,319	3,295	2,779	2,457	2,524	2,753	4.0%
City of Milpitas*	2,509	2,293	2,229	2,264	2,347	2,427	1,912	1,645	1,766	1,904	2.7%
City of San Jose*	1,637	1,507	1,535	1,600	1,644	1,693	1,638	1,489	1,509	1,644	2.4%
Estero Municipal Improvement District	1,877	1,790	1,700	1,483	1,479	1,484	1,453	1,313	1,399	1,544	2.2%
All Other Wholesale Customers[5]	14,146	13,105	13,340	12,848	13,195	12,932	11,217	9,975	10,084	10,803	15.7%
Wholesale water sales	**59,867**	**55,225**	**53,234**	**52,834**	**54,000**	**54,642**	**46,735**	**40,557**	**42,181**	**47,072**	**67.9%**
Total water sales	**86,358**	**80,267**	**78,011**	**77,390**	**78,695**	**79,453**	**69,306**	**61,932**	**63,717**	**69,344**	**100.0%**
% Change from prior year	**-4.4%**	**-7.1%**	**-2.8%**	**-0.8%**	**1.7%**	**1.0%**	**-12.8%**	**-10.6%**	**2.9%**	**8.8%**	
Number of accounts	**172,885**	**172,680**	**173,033**	**173,453**	**173,744**	**173,970**	**174,111**	**174,083**	**174,394**	**175,054**	
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[5] From fiscal year 2016 onward, California Water Service Company, Daly City, and San Bruno are participating in the conjunctive use groundwater program. These customers receive a bill credit for regional water system usage in-lieu of groundwater pumping. Totals reported in this table exclude water credited under the conjunctive use program.
* Data correction between City of Milpitas, San Jose and Daly City from fiscal years 2009 to 2017.
# Consumption data updated from fiscal years 2011 to 2014.

Source: Rate Schedules, Summary of Annual Water Sales reports, San Francisco Public Utilities Commission Customer Care and Billing System.

Wholesale Water Customers

Agency Name:

1. Alameda County Water District
2. City of Brisbane
3. City of Burlingame
4a. California Water Service Company - Bear Gulch
4b. California Water Service Company - Mid-Peninsula
4c. California Water Service Company - South San Francisco
5. Coastside County Water District
6. City of Daly City
7. City of East Palo Alto
8. Estero Municipal Improvement District
9. Guadalupe Valley Municipal Improvement District
10. City of Hayward
11. Town of Hillsborough
12. City of Menlo Park
13. Mid-Peninsula Water District
14. City of Millbrae
15. City of Milpitas
16. City of Mountain View
17. North Coast County Water District
18. City of Palo Alto
19. Purissima Hills Water District
20. City of Redwood City
21. City of San Bruno
22. San Jose Municipal Water System
23. City of Santa Clara
24. Stanford University
25. City of Sunnyvale
26. Westborough Water District

* Cordilleras Mutual Water is a SFPUC Wholesale Customer but not part of BAWSCA member.

Source: Bay Area Water Supply and Conservation Agency (BAWSCA), San Mateo County General Plan.

Demographic & Economic Information
Water Accounts & Billings by Type of Customer
Fiscal Years Ended 2009 to 2018
(Dollars in Thousands)

Customer Type		2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Multiple-Family Residential											
Number of accounts		39,664	40,844	40,919	40,990	41,121	41,165	41,279	41,369	41,594	42,101
Billings	$	40,515	43,741	50,143	55,929	61,681	65,880	68,517	74,055	83,180	91,994
Single-Family Residential											
Number of accounts		110,759	109,440	109,705	109,957	110,062	110,144	110,140	110,050	110,118	110,153
Billings	$	29,656	31,565	36,508	41,240	46,361	51,586	50,670	54,209	60,424	66,304
Commercial[1]											
Number of accounts		20,197	20,153	20,166	20,245	20,270	20,354	20,384	20,320	20,344	20,429
Billings	$	35,410	35,860	41,227	47,620	53,710	56,522	58,416	63,080	67,748	74,720
Industrial											
Number of accounts		97	85	85	84	83	82	81	81	80	80
Billings	$	327	310	375	447	511	568	644	677	736	738
Municipal[2]											
Number of accounts		1,765	1,768	1,775	1,795	1,826	1,843	1,849	1,885	1,882	1,916
Billings	$	6,047	6,534	6,477	7,030	8,663	9,455	8,719	9,274	11,999	13,147
Suburban Retail											
Number of accounts		322	309	302	301	301	304	300	300	298	297
Billings	$	6,392	5,187	6,096	7,105	7,525	8,023	8,122	7,845	8,836	10,466
Wholesale[3]											
Number of accounts		81	81	81	81	81	78	78	78	78	78
Billings	$	118,627	124,800	132,213	182,609	211,071	178,954	174,655	203,005	233,356	262,764
Total											
Number of accounts		172,885	172,680	173,033	173,453	173,744	173,970	174,111	174,083	174,394	175,054
Billings	$	236,974	247,997	273,039	341,980	389,522	370,988	369,743	412,145	466,279	520,133
Percentage of Revenue											
Residential		29.6%	30.4%	31.7%	28.3%	27.7%	31.7%	32.2%	31.1%	30.8%	30.4%
Non-residential[4]		20.3%	19.3%	19.8%	18.2%	18.1%	20.1%	20.5%	19.6%	19.2%	19.0%
Wholesale		50.1%	50.3%	48.5%	53.5%	54.2%	48.2%	47.3%	49.3%	50.0%	50.5%

[1] Includes Docks & Ships and Builders & Contractors under Commercial.
[2] Beginning in fiscal year 2017, Treasure Island and Harding Park recycled water revenues are included in Municipal.
[3] Beginning in fiscal year 2011, total amount billed excludes BAWSCA fees and surcharge, and collections designated for Wholesale Coverage Reserve.
[4] All Suburban Retail usage is included in the Non-Residential line item for purposes of calculating the percentage of revenue from each customer type. However, Suburban Retail usage includes some residential usage.

Source: San Francisco Public Utilities Commission Water Sewer System and Customer Care and Billing System.

Demographic & Economic Information
Wastewater Accounts, Billings & Discharge by Type of Customer
Fiscal Years Ended 2009 to 2018
(Dollars in Thousands)

Customer Type		2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Multiple-Family Residential[1]											
Number of accounts		36,051	36,271	36,269	36,275	36,301	36,248	36,313	36,293	36,323	36,326
Hundred cubic feet		11,536,298	11,332,818	11,413,151	11,305,560	11,034,590	10,979,262	10,199,389	9,854,965	9,996,526	10,282,601
Millions of gallons per day		23.6	23.2	23.4	23.1	22.6	22.5	20.9	20.1	20.2	21.1
Billings	$	63,690	70,499	82,056	93,264	95,607	99,603	100,178	101,730	110,829	126,789
Single-Family Residential											
Number of accounts		110,759	110,324	110,608	110,875	111,007	111,125	111,173	111,137	111,268	111,385
Hundred cubic feet		7,197,915	7,122,250	6,974,162	6,976,856	6,975,869	7,220,346	6,296,323	5,993,115	6,058,304	6,228,159
Millions of gallons per day		14.8	14.6	14.3	14.3	14.3	14.8	12.9	12.2	12.3	12.8
Billings	$	48,555	49,103	53,466	55,776	58,683	64,377	61,048	61,177	66,661	76,534
Commercial[1]											
Number of accounts		15,526	15,416	15,439	15,439	15,400	15,430	15,460	15,411	15,388	15,494
Hundred cubic feet		8,268,728	7,825,402	7,957,137	7,883,555	7,816,146	7,931,611	7,594,556	7,366,932	7,171,298	7,230,465
Millions of gallons per day		16.9	16.0	16.3	16.1	16.0	16.3	15.6	15.1	15.1	14.8
Billings	$	78,377	75,329	76,784	75,604	74,978	76,740	76,042	77,387	80,968	89,803
Municipal[2]											
Number of accounts		779	717	716	719	729	725	731	738	751	763
Hundred cubic feet		829,967	729,376	705,525	681,755	701,162	657,708	570,386	588,044	578,015	589,621
Millions of gallons per day		1.7	1.5	1.4	1.4	1.4	1.3	1.2	1.2	1.2	1.2
Billings	$	7,826	6,784	6,519	6,316	6,520	6,205	5,534	5,965	7,586	7,163
Suburban Retail (Watershed Keepers)											
Number of accounts		8	9	9	8	8	9	9	8	8	8
Hundred cubic feet		110	387	423	322	298	303	259	200	221	321
Millions of gallons per day		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Billings	$	2	2	3	2	2	3	2	2	2	4
Total											
Number of accounts		163,123	162,737	163,041	163,316	163,445	163,537	163,686	163,587	163,738	163,976
Hundred cubic feet		27,833,018	27,010,233	27,050,398	26,848,048	26,528,064	26,789,230	24,660,912	23,803,256	23,804,362	24,331,167
Millions of gallons per day		57.0	55.3	55.4	54.9	54.3	54.9	50.6	48.6	48.8	49.9
Billings	$	198,450	201,717	218,828	230,962	235,790	246,927	242,804	246,261	266,046	300,293
Percentage of Revenue											
Residential		56.6%	59.3%	61.9%	64.5%	65.4%	66.4%	66.4%	66.2%	66.7%	67.7%
Non-residential		43.4%	40.7%	38.1%	35.5%	34.6%	33.6%	33.6%	33.8%	33.3%	32.3%

[1] Beginning in fiscal year 2011, Presidio Trust Accounts are under Multi-Family Residential and Commercial.
[2] Beginning in fiscal year 2017, Treasure Island revenues are included under Municipal.

Note: The numbers of customer accounts prior to fiscal year 2010 are estimated. Fiscal year 2010 and thereafter reflect actuals from the Customer Care and Billing System.

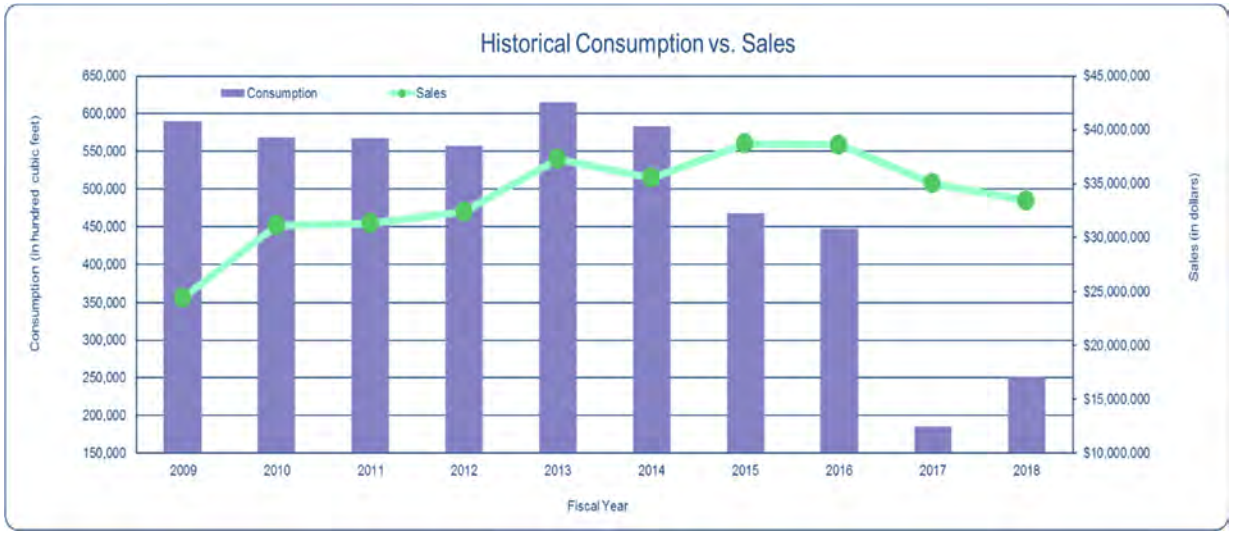
Source: San Francisco Public Utilities Commission Customer Care and Billing System.

Demographic & Economic Information
Historical Hetchy Water Sales
Fiscal Years Ended 2009 to 2018

	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Sales*										
Groveland Community Services District $	140,917	125,235	122,296	138,957	157,635	151,969	121,840	163,525	168,757	168,377
Lawrence Livermore	1,312,658	1,225,852	1,437,565	1,592,083	2,035,808	2,037,396	1,787,240	1,836,447	211,771	630,097
State of California	4,145	2,650	10,542	9,151	7,415	7,875	8,960	9,429	11,430	13,625
Other Residential Customers	10,394	9,021	8,697	6,606	11,581	15,165	13,391	14,368	15,680	14,726
Water Assessment	23,000,000	29,746,506	29,746,507	30,638,901	35,071,901	33,309,058	36,800,000	36,600,000	34,600,000	32,600,000
Total sales $	**24,468,114**	**31,109,264**	**31,325,607**	**32,385,699**	**37,284,340**	**35,521,463**	**38,731,431**	**38,623,769**	**35,007,638**	**33,426,825**
Consumption (hundred cubic feet)**										
Groveland Community Services District	226,487	199,209	194,097	181,530	210,561	200,328	156,801	161,249	154,319	166,624
Lawrence Livermore	358,830	365,189	368,771	371,466	398,026	376,662	307,606	282,531	28,389	81,029
State of California	988	643	2,462	1,839	3,466	3,026	1,174	1,230	1,302	1,459
Other Residential Customers	2,766	2,611	2,155	2,188	2,209	2,749	2,248	2,152	2,085	1,803
Total consumption	**589,071**	**567,652**	**567,485**	**557,023**	**614,261**	**582,764**	**467,829**	**447,162**	**186,095**	**250,915**

Note: May not total due to rounding.

Source:
* City and County of San Francisco Financial System and San Francisco Public Utilities Commission Audited Financial Statements.
** San Francisco Public Utilities Commission Customer Care and Billing System. Fiscal year 2015 and prior was Moccasin meter readings.



Demographic & Economic Information
Historical Hetchy Power Electric Sales
Fiscal Years Ended 2009 to 2018

	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Sales (Megawatt hours)										
General Fund Rate Subsidized ~~	394,673	393,030	387,645	378,503	365,234	367,904	359,519	373,114	366,880	375,327
Enterprise Rate ~~	484,342	471,034	481,921	485,204	484,628	493,254	487,869	495,272	484,070	471,554
Western Systems Power Pool	217,792	298,549	568,157	143,675	131,200	2,400	– #	9,520	29,050	15,900
Modesto/Turlock Irrigation Districts	258,268	286,908	459,320	277,838	227,544	103,489	115,026	377,981	152,321	46,651
Non-city Agencies*	79,231	84,378	87,142	101,128	116,996	117,289	101,605	99,568	95,297	112,157
Moccasin/City of Riverbank	15,094	9,578	7,652	7,552	7,808	9,206	25,472	30,451	9,114	9,650
Total sales	**1,449,401**	**1,543,477**	**1,991,837**	**1,393,900**	**1,333,410**	**1,093,542**	**1,089,491**	**1,385,906**	**1,136,732**	**1,031,239**
Purchases**	–^^	132,000	16,252	125,033	38,702	76,905	45,465	113,154	808	188,052
Generation ~	1,522,109	1,447,863	1,988,582	1,332,957	1,312,446	1,032,589	988,649	1,532,068	1,726,072	1,302,461
Total purchases/generation	**1,522,109**	**1,579,863**	**2,004,834**	**1,457,990**	**1,351,148**	**1,109,494**	**1,034,114**	**1,645,222**	**1,726,880**	**1,490,513**
Banked/(Withdrawal) ⌂	**68,071**	**(11,318)**	**(12,527)**	**(21,978)**	**6,707**	**17,102**	**78,391**	**–**	**–**	**–**
Sales (Dollars in thousands)* **										
General Fund Rate Subsidized ~~	$ 13,124	14,081	13,858	13,595	13,330	15,006	18,125	22,151	23,668	26,591
Enterprise Rate ~~	50,529	50,016	52,483	52,512	52,955	60,766	65,022	65,897	67,627	67,598
Western Systems Power Pool	6,162	10,106	16,292	3,817	5,143	127	– #	157	755	688
Modesto/Turlock Irrigation Districts	5,039	7,530	10,566	7,340	6,538	3,431	4,488	13,634	7,700	2,612
Non-city Agencies*	10,680	11,535	12,143	13,810	14,815	16,305	14,628	15,610	16,350	19,359
Moccasin/City of Riverbank	854	534	449	457	486	607	1,100	1,095	550	577
Total sales	**$ 86,388**	**93,802**	**105,791**	**91,531**	**93,267**	**96,242**	**103,363**	**118,544**	**116,650**	**117,425**
Purchases**	**$ –^^**	**328**	**1,233**	**4,754**	**2,494**	**4,408**	**2,045**	**5,546**	**1,859**	**8,671**
Average Sale per KWh (in Dollars)										
General Fund Rate Subsidized ~~	$ 0.0333	0.0358	0.0357	0.0359	0.0365	0.0408	0.0504	0.0594	0.0645	0.0708
Enterprise Rate ~~	0.1043	0.1062	0.1089	0.1082	0.1093	0.1232	0.1333	0.1331	0.1397	0.1434
Western Systems Power Pool	0.0283	0.0339	0.0287	0.0266	0.0392	0.0529	0.0000	0.0165	0.0260	0.0433
Modesto/Turlock Irrigation Districts	0.0195	0.0262	0.0230	0.0264	0.0287	0.0332	0.0390	0.0361	0.0506	0.0560
Non-city Agencies*	0.1348	0.1367	0.1393	0.1366	0.1266	0.1390	0.1440	0.1568	0.1716	0.1726
Moccasin/City of Riverbank	0.0566	0.0558	0.0587	0.0605	0.0622	0.0659	0.0432	0.0360	0.0603	0.0598
Total average sale per KWh	**$ 0.0596**	**0.0608**	**0.0531**	**0.0657**	**0.0699**	**0.0880**	**0.0949**	**0.0855**	**0.1026**	**0.1139**
Average Purchase per KWh**	**$ –^^**	**0.0025**	**0.0759**	**0.0380**	**0.0644**	**0.0573**	**0.0450**	**0.0490**	**2.3007**	**0.0461**
Surplus Sales vs. Purchase**										
Net WSPP Sales - Purchases (MWh)	217,792	166,549	551,905	18,642	92,498	(74,505)	(45,465)	(103,634)	N/A	(172,152)
Surplus WSPP Sales minus Purchases, $1,000s	$ 6,162	9,778	15,059	(937)	2,649	(4,281)	(2,045)	(5,389)	N/A	(7,983)
Net Surplus Revenue/(Cost) ($/KWh)	$ 0.0283	0.0314	(0.0472)	(0.0115)	(0.0252)	(0.0044)	(0.0450)	(0.0325)	N/A	(0.0028)
Number of meters										
Electric	2,221	2,256	2,270	2,260	2,257	2,271	2,305	2,627	3,068	3,547

* Non-city Agencies include electric retail and municipal customers such as Moscone tenants, Exploratorium, and Yerba Buena Gardens.
** Purchases include Western Systems Power Pool (WSPP), Spot Market with Modesto Irrigation District, Sunset Reservoir Photovoltaic generation. Decrease in fiscal year 2017 was due to no purchases with WSPP.
*** Sales in dollars do not include utility and surcharge taxes.
~ Includes cogeneration and all in-city solar generation. Generation is generic for all electricity production/output. Cogeneration is specific to the combustion turbines at the Southeast treatment plant.
~~ The breakdown for City Agencies is grouped per budget schedule.
^^ Power generation in fiscal year 2009 was sufficient to satisfy demand, therefore purchase not necessary.
# No sales in fiscal year 2015 due to no excess power for sale due to dry year condition.
⌂ Closure of the energy bank with PG&E in fiscal year 2015.

Source: San Francisco Public Utilities Commission Power Enterprise Billing System.

Demographic & Economic Information
Historical CleanPowerSF Electric Sales
Fiscal Years Ended 2016 to 2018

	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Power Sales (Megawatt hours)										
Residential								163	148,220	233,515
Commercial										
Small Commercial Service								14,985	111,618	116,296
Medium Commercial Service								14,129	92,718	88,924
Large Commercial Service								12,999	93,968	118,327
Agricultural								–	42	1,293
Street and Outdoor Lighting								–	–	38
Commercial Subtotal								42,113	298,346	324,878
Total Power Sales								**42,276**	**446,566**	**558,393**
Sales (Dollars in thousands)										
Residential	$							14	10,782	15,993
Commercial										
Small Commercial Service								1,226	8,649	8,716
Medium Commercial Service								1,386	7,278	6,809
Large Commercial Service								1,109	6,860	8,611
Agricultural								–	3	59
Street and Outdoor Lighting								–	–	3
Commercial Subtotal								3,721	22,790	24,198
Total Sales	$							**3,735**	**33,572**	**40,191**
Average Sale (in Dollars per Kilowatt hour)										
Residential	$							0.08334	0.07274	0.06849
Commercial										
Small Commercial Service								0.08181	0.07749	0.07495
Medium Commercial Service								0.09812	0.07850	0.07657
Large Commercial Service								0.08530	0.07300	0.07277
Agricultural								–	0.06597	0.04563
Street and Outdoor Lighting								–	–	0.07256
Commercial Subtotal								0.08836	0.07639	0.07448
Total Average Sales	$							**0.08834**	**0.07518**	**0.07198**

Data not available - CleanPowerSF launched in May 2016.

Source: CleanPowerSF Management Reports.

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

Operating Information

Budgeted Full-Time Equivalent (FTEs) Employees by Division

Operating and Capacity Indicators

Major Water Wholesale, Retail and Sewer Customer Accounts by Revenue

Major Electric Retail and Wholesale Customer Accounts by Revenue

Performance Measures

Photo by: Katherine Du Tiel

GoSolarSF is a City program that has helped residents and businesses install thousands of kilowatts of solar energy on residential, business and non-profit rooftops across San Francisco, reducing participants' electricity bills and shrinking the City's carbon footprint.

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

Operating Information
Budgeted Full-Time Equivalent (FTEs) Employees by Division
Fiscal Years Ended 2009 to 2018

Enterprises and Bureaus	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Water Enterprise										
City Distribution & Water Administration	268	257	258	260	260	259	260	268	276	291
Natural Resources	65	67	69	71	81	81	82	82	84	85
Water Quality	80	78	78	78	76	76	76	81	82	83
Water Resources	22	21	26	26	25	25	24	24	23	23
Water Supply & Treatment	235	231	235	234	236	236	229	229	232	232
Total Water	**670**	**654**	**666**	**669**	**678**	**677**	**671**	**684**	**697**	**714**
Wastewater Enterprise										
Administration	32	14	13	12	12	12	11	14	12	12
Source Control* & Wastewater Labs	63	69	66	66	66	66	66	66	65	66
Environmental Engineering	45	43	43	50	50	51	53	53	54	54
Maintenance	138	141	131	143	146	147	141	141	137	138
Operations	141	144	128	117	117	117	114	115	114	114
Planning & Regulation	10	8	43	43	43	43	47	47	46	47
Sewer Operations	39	42	49	51	51	51	51	51	51	51
Total Wastewater	**468**	**461**	**473**	**482**	**485**	**487**	**483**	**487**	**479**	**482**
Hetch Hetchy Water and Power Enterprise										
Hetchy Water										
Water Project Operations	174	176	185	192	195	195	201	207	203	206
Hetchy Power										
Energy Services	64	62	27	29	30	30	30	30	29	30
Long Range Planning & Light, Heat, and Power	17	26	51	53	53	53	51	51	52	52
Power Administration	6	5	22	23	23	23	23	23	20	21
Subtotal Hetchy Power	87	93	100	105	106	106	104	104	101	103
Total Hetch Hetchy Water and Power	**261**	**269**	**285**	**297**	**301**	**301**	**305**	**311**	**304**	**309**
CleanPowerSF										
Administration	Data not available - CleanPowerSF launched in May 2016.								9	11
Total CleanPowerSF									**9**	**11**
Bureaus										
Business Services Admin, AIC#, and Financial	56	63	65	69	70	70	71	71	73	73
Customer Services	110	111	106	106	106	106	106	106	103	103
Communications	21	21	21	22	22	22	22	22	22	22
General Manager and Others ^	7	8	13	13	13	13	11	11	12	13
Governmental Affairs, Real Estate Services, and Community Benefits	17	13	12	17	17	18	18	18	18	18
Human Resource Services	51	51	52	55	57	57	58	59	58	58
Information Technology Services	79	71	73	73	74	74	78	78	78	78
Infrastructure	414	400	385	382	369	368	384	389	385	385
Total Bureaus	**755**	**738**	**727**	**737**	**728**	**728**	**748**	**754**	**749**	**750**
Total SFPUC annually budgeted positions ~	**2,154**	**2,122**	**2,151**	**2,185**	**2,192**	**2,193**	**2,207**	**2,236**	**2,238**	**2,266**
Annual Salary Ordinance Positions	**2,307**	**2,324**	**2,359**	**2,396**	**2,404**	**2,404**	**2,430**	**2,456**	**2,473**	**2,493**

* Fiscal year 2014 and prior is known as BERM, acronym for Bureau of Environmental Regulation Management.
# AIC is acronym for Assurance and Internal Controls.
^ FTEs were added for Emergency Response & Security in fiscal year 2011 and Enterprise Workforce Planning in fiscal year 2017.
~ Include operating and project-funded positions and exclude attrition savings and temporary positions.

Source: Annual Salary Ordinance.

Operating Information
Water Operating & Capacity Indicators
Fiscal Years Ended 2009 to 2018

Water	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Water mains (miles)^^	1,235	1,235	1,235	1,240 *	1,240	1,240	1,240	1,718 ^	1,717	1,718
Water main breaks repaired	92	82	58	74	113	116	97	136	102	133
New service installations	437	478	251	494	350	1,144	837	710	1,162	733
Meter installed and replaced	1,115	1,243	990	956	994	1,030	1,360	1,395	2,209	1,888
Responses to fire alarms	18	13	26	29	37	28	22	20	20	24
Production and Consumption (millions of gallons)										
Water production	85,556	80,300	79,215	81,252	79,935	80,582	69,553	64,454	68,995	73,330
Average daily production	234	220	217	222	219	221	191	176	189	201
Maximum daily production	333	326	312	298	302	300	255	242	283	272
Water consumption#	86,358	80,267	78,011	77,390	78,695	79,453	69,306	61,932	63,717	69,344
Average daily consumption#	236.6	219 9	213.7	211.7	215.6	217.7	189.9	169.2	174.6	190.0
Watershed area (acres)										
Alameda	36,895	36,895	37,055	37,314	37,314	37,314	37,314	37,314	37,314	37,314
Peninsula	22,854	22,854	22,854	22,854	22,854	22,854	22,854	22,854	22,854	22,854
Total	**59,749**	**59,749**	**59,909**	**60,168**	**60,168**	**60,168**	**60,168**	**60,168**	**60,168**	**60,168**
Reservoir storage (millions of gallons)**										
Calaveras	12,242	13,222	13,644	8,418	6,337	5,488	6,491	8,774	11,986	8,220
Crystal Springs	15,932	17,114	17,189	15,486	17,191	16,707	17,380	17,103	17,385	16,192
Pilarcitos	726	773	849	784	864	815	767	783	872	773
San Andreas	5,842	5,625	5,392	4,968	5,622	5,603	5,626	5,786	5,935	5,587
San Antonio	14,990	15,558	15,483	15,395	13,456	13,579	14,433	14,927	14,576	13,263
Total	**49,732**	**52,292**	**52,557**	**45,051**	**43,470**	**42,192**	**44,697**	**47,373**	**50,754**	**44,035**
Treatment plant capacity (millions of gallons)										
Harry Tracy	26.9	35 5	44.4	22.1	26.0	21.2	29.3	35.9	45.3	33.2
Sunol Valley	23.6	32 2	35.8	29.1	22.3	10.0 ***	16.9	27.0	39.6	16.5
Total	**50.5**	**67.7**	**80.2**	**51.2**	**48.3**	**31.2**	**46.2**	**62.9**	**84.9**	**49.7**

* The increase in fiscal year 2012 included approximately 3.5 miles of pipe that was installed as part of the Mission Bay development project.
** In addition to these regional reservoirs, San Francisco Public Utilities Commission has In-city system storage capacity of 413 million gallons (value revised based on current reservoir storage operation limits).
*** The decrease in fiscal year 2014 was due to a reduction in treating local reservoir water (Calaveras and San Antonio) in favor of increasing use of Hetchy Water which was not filtered at the plant. Increasing Hetchy Water use reduces treatment costs and conserves local supplies.
^ The increase in fiscal year 2016 included the suburban mains of 245.9 miles, upcountry mains of 229.5 miles and an increase of approximately 2.8 miles of pipe that was installed as part of the Mission Bay, Candlestick Point and Hunter's View project.
^^ Starting fiscal year 2016, water mains (miles) includes suburban.
# Consumption data updated from fiscal years 2010 to 2014.

Source: Water Monthly Operating Report, Hetch Hetchy Capital Outlays Summary, Treatment Plant Influent Flow and Sewer Service Charge Calculation Reports.

Operating Information
Wastewater, Hetchy Water and Hetchy Power Operating & Capacity Indicators
Fiscal Years Ended 2009 to 2018

	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Wastewater										
Sanitary sewers (miles)	993	993	993	993	993	993	993	993	993	993
Transport/storage sewers (miles)	17	17	17	17	24	17	17	17	17	17
Sewer breaks repaired	540	309	558	550	927	861	1,663	1,520	1,481	912
Inspection performed (miles)	111	127	109	125	135	90	156	80	93	135
Sewer replaced (miles)	3.2	3.0	9.2	12.7	20.6	12.8	14.9	19.5	13.6	11.0
Responses to customer calls	14,722	13,634	15,271	9,951	7,124	8,697	16,190	10,863	8,260	8,410
Treatment plant/ facilities average daily flow (millions of gallons per day)										
Oceanside plant	19.1	17.4	19.7	18.4	16.5	15.4	15.6	16.0	18.4	15.3
North Point plant	2.8	3.2	4.1	2.4	4.8	3.1	4.7	7.1	11.8	2.7
Southeast plant	67.2	70.4	73.0	65.5	67.0	66.4	64.4	65.4	74.7	61.9
Yerba Buena & Treasure Island	0.4	0.4	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.3
Total	**89.5**	**91.4**	**97.2**	**86.6**	**88.6**	**85.2**	**85.0**	**88.8**	**105.2**	**80.2**
Hetchy Water										
Watershed area (square miles)										
Hetch Hetchy	459	459	459	459	459	459	459	459	459	459
Lake Eleanor	79	79	79	79	79	79	79	79	79	79
Lake Lloyd (Cherry)	114	114	114	114	114	114	114	114	114	114
Total	**652**	**652**	**652**	**652**	**652**	**652**	**652**	**652**	**652**	**652**
Reservoir storage (millions of gallons)*										
Hetch Hetchy	117,424	115,349	111,945	113,973	117,359	114,354	110,745	117,424	111,755	117,231
Lake Eleanor	8,677	8,065	8,217	7,428	7,671	7,731	7,731	8,677	7,610	8,186
Lake Lloyd (Cherry)	87,763	88,248	87,478	86,962	85,358	72,627	64,025	88,478	77,951 ⌂	83,067
Total	**213,864**	**211,662**	**207,640**	**208,363**	**210,388**	**194,712**	**182,501**	**214,579**	**197,316**	**208,484**
Hetchy Power										
Hydroelectric generation (megawatt hours)										
Holm	668,994	649,707	843,926	529,520	533,719	382,689	436,499	654,952	919,492	431,659
Kirkwood	474,522	452,770	710,174	461,569	440,950	318,379	283,922	528,724	482,996	510,888
Moccasin	373,730	337,370	418,871	326,535	327,054	320,577	255,778	338,005	319,691	356,004
Moccasin Low-Head	4,106	6,094	12,108	3,442	2,775	22	– #	1,359	– #	– #
Total	**1,521,352**	**1,445,941**	**1,985,079**	**1,321,066**	**1,304,498**	**1,021,667****	**976,199** **	**1,523,040** ^	**1,722,179** ^	**1,298,551** **

* In addition to these regional reservoirs, San Francisco Public Utilities Commission has In-City System Storage Capacity of 413 million gallons (value revised based on current reservoir storage operation limits).
⌂ The decrease in fiscal year 2017 was mainly due to repair work at Lake Lloyd.
** The decrease in fiscal years 2014, 2015 and 2018 was mainly due to the dry year condition which resulted in less water available for hydroelectric generation.
# Moccasin Low-Head was out of service in fiscal years 2015, 2017 and 2018.
^ The increase in fiscal years 2016 and 2017 was due to higher precipitation and lower water bank.

Source: Wastewater Monthly Operating Report, Hetch Hetchy Capital Outlays Summary, Treatment Plant Influent Flow, and Sewer Service Charge Calculation Reports.

Operating Information
Major Water and Sewer Customer Accounts by Revenue
Fiscal Years Ended 2009 to 2018
(Dollars in Thousands)

Customer Type	2009*	2010	2011	2012	2013	2014	2015	2016	2017	2018
Water Wholesale Customers										
California Water Service Company	$ 7,494	26,432	29,987	42,512	47,655	47,436	46,911	48,792	57,541	63,489
Hayward Municipal Water System	13,500	14,066	15,957	20,176	21,475	21,193	21,475	21,475	28,613	32,316
City of Palo Alto	8,383	9,050	10,528	14,761	16,389	15,855	15,743	16,946	19,975	21,985
City of Sunnyvale	7,703	8,143	7,706	11,573	13,767	12,201	12,885	15,600	17,810	21,265
City of Redwood City	4,946	7,931	8,680	11,763	13,488	12,847	13,151	14,661	17,169	18,781
Alameda County Water District	7,198	9,028	7,766	10,732	13,274	16,141	13,213	13,847	14,366	16,947
City of Mountain View	7,091	7,291	8,082	11,187	13,059	12,691	12,407	13,750	15,340	16,791
City of Daly City								8,804	12,555	13,076
City of Milpitas	4,964	5,151	5,752	7,953	9,267	9,311	8,612	9,389	10,722	11,509
ESD/San Jose Municipal Water System				5,625	6,494	6,512	7,185	8,222	9,307	10,182
Water Retail Customers										
San Francisco International Airport	2,314	2,066	2,462	2,748	2,938	3,046	3,095	3,220	3,907	4,452
NASA Shared Services Center (NSSC)	1,070	838	988	1,341	1,548	1,551	1,484	1,347	1,741	2,514
Parkmerced Investors Properties, LLC	811	740	1,079	976	1,082	1,311	1,393	1,449	1,678	1,840
University of California, San Francisco	491	1,073	1,351	1,331	1,318	1,364	1,100	1,435	1,534	1,689
Recreation & Parks Department									1,393	1,397
Public Health Department				526	624	628	672	808	1,040	1,168
Golden Gate National Cemetery							649	839	836	946
NRG Energy Center San Francisco	400	453	560	596	670	669	704	839	915	925
Menlo Country Club						693	639	785	785	833
San Francisco State University										801
Sewer Retail Customers										
Parkmerced Investors Properties, LLC	1,715	1,367	2,010	1,860	1,921	2,281	2,326	2,248	2,493	2,790
University of California, San Francisco	1,270	2,893	2,840	2,564	2,120	2,078	1,882	2,266	2,068	2,360
Public Health Department		935	931	897	941	897	647	1,041	1,334	1,547
Hilton Hotel		947	620	842	815	911	873	1,261	864	1,346
NRG Energy Center San Francisco	852	843	899	822	819	779	782	874	926	970
San Francisco State University							601	618	648	860
Anchor Brewing Company							770	695	719	745
Hyatt Corporation	400	884	855	674	701	671	607	579	640	743
The Stonestown Properties									595	722
Marriott Hotel	596	861	609	608	642	797	897	1,004	718	628

*In fiscal year 2009, major wholesale and retail customers were grouped by accounts.

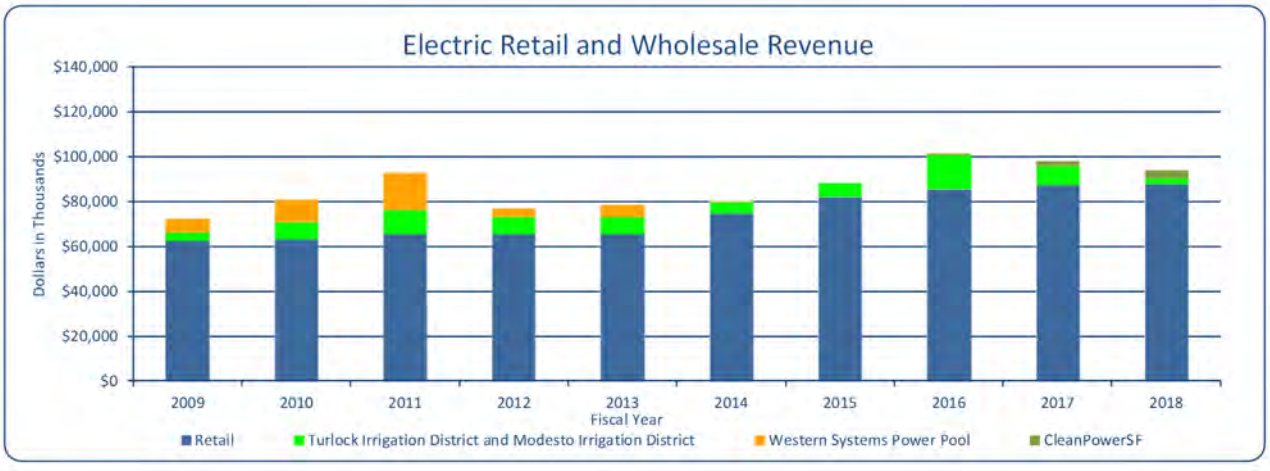
Source: San Francisco Public Utilities Commission Water Sewer System and Customer Care and Billing System.

Operating Information
Major Electric Retail and Wholesale Customer Accounts by Revenue
Fiscal Years Ended 2009 to 2018
(Dollars in Thousands)

Customer Type	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Retail Customers										
San Francisco International Airport	$ 31,659	32,234	33,895	33,659	33,244	39,199	41,614	42,687	43,070	43,434
SFPUC - Wastewater Enterprise	7,567	8,080	8,731	8,388	8,180	8,861	9,748	9,847	10,397	9,979
Municipal Transportation Agency	4,513	4,470	4,292	4,387	4,805	5,403	6,466	7,631	8,193	8,594
SFPUC - Water Enterprise	5,477	6,513	6,413	7,250	8,009	8,582	8,640	7,954	8,950	8,592
Administrative Services Agency	4,233	2,138	2,141	2,100	2,508	3,025	4,386	5,419	5,442	5,743
Department of Public Health	1,179	1,958	2,087	2,058	983	1,319	1,878	2,842	3,125	3,470
San Francisco Unified School District	1,292	1,340	1,335	1,294	1,444	1,588	1,864	2,214	2,285	2,394
San Francisco Port	1,435	1,264	1,369	1,229	1,369	1,563	1,971	1,941	1,983	2,294
City-owned Parking Garages	1,719	1,770	1,774	1,618	1,689	1,780	1,876	1,910	1,924	1,960
San Francisco Housing Authority	3,672	3,742	4,008	4,031	3,846	3,562	3,557	3,188	2,024	1,439
Wholesale Customers										
CleanPowerSF	Data not available - CleanPowerSF launched in May 2016.							293	1,851	3,342
Modesto Irrigation District	1,322	2,437	3,264	2,718	2,283	1,879 *	2,666	6,345	8,003	2,422
Western Systems Power Pool	6,162	10,106	16,292	3,817	5,143	127 *	– *	50	237	668
Turlock Irrigation District	3,717	5,093	7,302	4,622	5,100	3,263 *	3,331	8,615	387	– ⌂

* Reflects reduced power generation and power available for sale.
⌂ Turlock Irrigation District had no purchases in fiscal year 2018.

Source: San Francisco Public Utilities Commission Power Enterprise Billing System.



Operating Information
Performance Measures
Fiscal Years Ended 2018 to 2020

	FY 2018 Actual Data	FY 2019 Target Data	FY 2020 Target Data
Invest in Customers/Community			
Billing accuracy for water/wastewater/power (error per 10,000 bills)	7.7	10	10
Water meter reading accuracy (error per 1,000 reads)	0.6	< 0.1	< 0.1
Water rate and fee structure reflects cost of service (including funding capital investment, operations & maintenance, and contribution to reserve)	100.0%	100.0%	100.0%
Wastewater rate and fee structure reflects cost of service (including fund capital investment, operations & maintenance, and contribution to reserve)	100.0%	100.0%	100.0%
Power rate and fee structure reflects cost of service (including funding capital investment, operations & maintenance, and contribution to reserve)	76.0%	77.0%	77.0%
Steward the Environment			
Number of unauthorized discharges from the combined sewer system	4.0	0.0	0.0
Percent of annual wet and dry weather flow treated before discharged per year (by level of quality)	100.0%	100.0%	100.0%
Average monthly electricity used per SFPUC street light (in kWh)	43.4	50.0	50.0
Annual peak load reduction (in kW)	177.0	100	100
Total electricity reduction achieved by customers (in MWh)	1,114.0	1,500.0	1,500.0
Direct energy consumption broken down by source = Energy Intensity (EI metric): MWh energy used per million gallons of water delivered (In-City Retail Water)	1.10	1.12	1.07
Direct energy consumption broken down by source = Energy Intensity (EI metric): MWh energy used per million gallons wastewater treated	2.2	2.1	2.1
Percent of laptops, desktops, and monitors that meet the EPEAT* Gold standard	100.0%	100.0%	100.0%
Percent of printers and servers that meet the Climate Savers Computing Base standard	95.0%	95.0%	95.0%
Total water sold to San Francisco residential customers in gallons per capita per day (gpcd)	41.5	50.0	50.0
Percent of total water supplied by alternative sources to retail customers	2.6%	3.6%	3.8%
Percent sewage sludge (the residual, semi-solid material left from the sewage treatment process) going to beneficial reuses	100.0%	100.0%	100.0%
Improve Governance			
Drinking water quality compliance rate (percent days in full compliance)	100.0%	100.0%	100.0%
Incidents of, and fines or non-monetary sanctions for non-compliance with applicable laws and regulations	11.0	0.0	0.0
Percent of completion within 45 days from Commission Award to Certification of components of professional service contracts that are within SFPUC control	11.4%	20.0%	30.0%
Percent of completion within 60 days from Commission Award to Certification of components of construction contracts that are within SFPUC control	14.3%	25.0%	30.0%
Percent power supplied vs. forecasted	99.0%	95.0%	95.0%
Preventive maintenance ratio for Water (percent)	91.4%	95.0%	95.0%
Preventive maintenance ratio for Wastewater (percent)	29.0%	58.0%	58.0%
System renewal and replacement rate for Water (percent and miles)	8.8% and 105.6 miles	0.9% and 10.9 miles	0.9% and 10.9 miles
System renewal and replacement rate for Wastewater (miles)	16.1	15.0	15.0
Recordable injury rate (number recordable/100 employees)	1.2	1.2	1.2
Recordable lost time rate (hrs/100 employees)	< 2.6	< 2.6	< 2.6
Number of work-related fatalities	1.0	0.0	0.0

*EPEAT is acronym for Electronic Product Environmental Assessment Tool.

Source: Target data is from Strategic Sustainability Plan (SSP)

San Francisco Public Utilities Commission
An Enterprise Department of the City and
County of San Francisco, California

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Our Mission

To provide our customers with high-quality, efficient and reliable water, power and sewer services in a manner that values environmental and community interests and sustains the resources entrusted to our care.