

FY 2020-21 & FY 2021-22

Adopted Budget



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





FY 2020-21 & FY 2021-22

SFPUC ADOPTED BUDGET

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GENERAL MANAGER'S MESSAGE

Dear Customers, Stakeholders and Commissioners,

On behalf of the San Francisco Public Utilities Commissioners, I am presenting the San Francisco Public Utilities Commission (SFPUC) approved budget, covering Fiscal Year (FY) 2020-21 and FY 2021-22.

This two-year budget reflects the unprecedented events that confronted our agency in 2020. This has been a year like no other, and it has fundamentally changed the SFPUC.

The coronavirus pandemic has completely upended our way of life, amounting to a global health tragedy while bringing the national economy to a standstill. Our nation has witnessed mass social uprising movements aimed at addressing institutional racism and discrimination. Additionally, we have dealt with a series of difficult and painful management changes at the SFPUC.

The SFPUC has always prided itself in our resiliency, and the way we have reacted to this year of upheaval is a testament to that belief. Our initial forecasts projected a two-year budget deficit of \$110 million, but we have managed to bridge that gap without any service cuts or employee layoffs. Due to the leadership of our newly-formed Financial Resiliency Team, we were able to identify \$93 million in budget savings through strategic reductions to our operating and capital plans and via salary savings from vacancies. The remaining shortfall was made up through our reserves, which still remain at levels necessary to meet future challenges.

While balancing our budget, we were able to make targeted investments in new equity programs. Inspired by the nationwide calls to end discrimination, we have redoubled our efforts to be national leaders in racial justice. The upcoming budget includes the hiring of an Equity and Innovation Manager, as well as key Human Resources positions to underscore the SFPUC's ongoing commitment to equity and culturally competent professional development of its diverse staff.

We have made these transformative changes while continuing to reliably deliver our water, wastewater and power services. We provide high-quality water to more than 2.7 million customers, and our Hetch Hetchy Power and CleanPowerSF programs collectively meet 80 percent of the electricity demand in San Francisco through renewable and greenhouse gas-free energy services. Our wastewater team maintains 1,900 miles of pipes throughout San Francisco and manages the City's water pollution control plants, pumping stations and collection system. All those services will continue to receive the support they need in this upcoming two-year budget.

As always, the SFPUC is planning for the future. We are funding innovative diversification, stormwater management, dam safety and pandemic response programs, all with an eye toward making this agency as resilient as possible. Our capital budget includes \$1.3 billion over the next two years for various projects in San Francisco and throughout the regional water, wastewater and power systems, helping to serve as an engine for economic and employment recovery in the Bay Area, while also strengthening our essential infrastructure. Environmental sustainability remains a key goal, and with more than 380,000 customers enrolled in CleanPowerSF, we are helping the City reach its ambitious carbon reduction goals.

Through the dedicated efforts of our employees, we have managed to weather the extraordinary trials facing the SFPUC this year. We look forward to continuing our mission while remaining an innovative utility of the future—one that has consistently proven that it can rise to the challenges of the day.

Michael Carlin

Acting General Manager,
San Francisco Public Utilities Commission

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ACKNOWLEDGEMENTS

SFPUC would like to thank the following individuals who had input into the FY2020-21 and FY 2021-22 Budget:

SFPUC Budget Team:

- Laura Busch, Budget Director
- Carlos Jacobo, Former Budget Director
- Andrea Gremer, Operating Budget Manager
- Frank McPartland, Capital Budget Manager
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- Steve Ritchie, Assistant General Manager Water
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- Masood Ordikhani, Chief Equity & Innovation Officer

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- Ashley Groffenberger, Acting Mayor's Budget Director
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- Todd Rydstrom, Deputy Controller
- Ted Egan, City Economist
- Michelle Allersma, Director of Budget & Analysis
- Carol Lu, Citywide Revenue Manager
- Risa Sandler, Citywide Budget Manager
- Edward De Asis, Assistant Citywide Budget Manager
- Nicolas Leo, Budget and Revenue Analyst

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- Robin Scheswohl



GOVERNMENT FINANCE OFFICERS ASSOCIATION

*Distinguished
Budget Presentation
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**San Francisco Public Utilities Commission
California**

For the Biennium Beginning

July 1, 2018

Christopher P. Morill

Executive Director

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EXECUTIVE SUMMARY

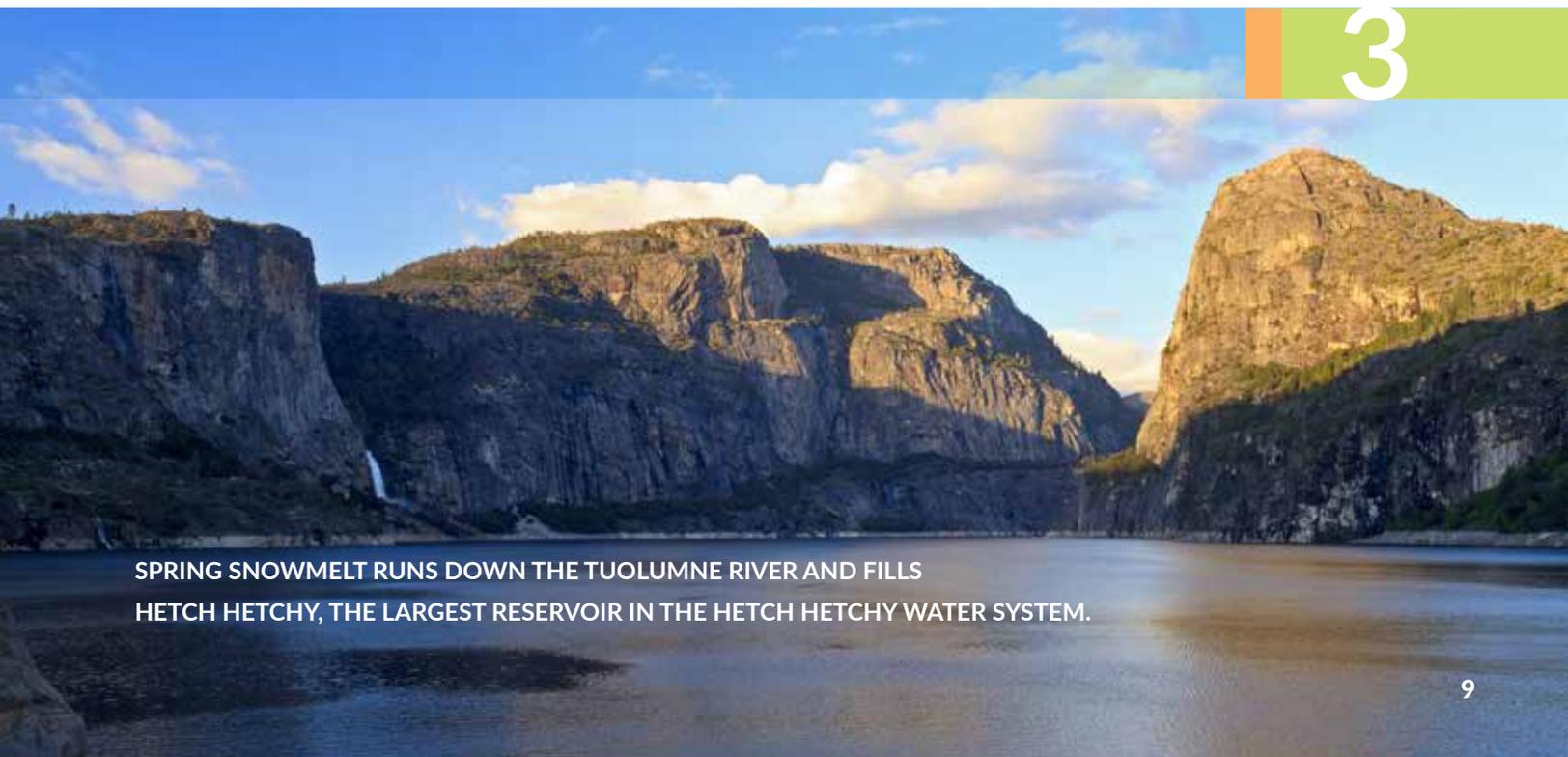
SFPUC’s FY 2020-21 and FY 2021-22 budget ensures that the agency will continue to provide high-quality delivery of essential water, wastewater, and power services. This two-year budget also reflects the unprecedented events that confronted the agency in 2020, which required a major pivot of the SFPUC’s budgeting strategy in the spring of 2020. The budget includes funding to respond to short-term challenges, while supporting the agency’s core mission.

SFPUC’s revenues were significantly impacted by the COVID-19 pandemic. However, the SFPUC’s essential services are critical for the City’s health and safety efforts, and in supporting San Francisco’s larger response efforts to the pandemic. The agency recognized the key role it plays in the San Francisco community, supporting our customers, promoting equity and contributing to economic recovery—all issues which are more important than ever this year. This budget reflects SFPUC’s strategic response to addressing the concerns brought about by the pandemic, as well as our longer-term organizational strategy that addresses wider challenges.

BUDGET SUMMARY

	FY 2019-20 Adopted Budget	FY 2020-21 Adopted Budget	Change From FY 2019-20	FY 2021-22 Adopted Budget	Change From FY 2020-21
Total Budget	1,411,692,142	1,433,954,907	22,262,765	1,483,386,733	49,431,826
Total FTE	2,376.4	2,382.8	6.5	2,423.6	40.7

3



SPRING SNOWMELT RUNS DOWN THE TUOLUMNE RIVER AND FILLS HETCH HETCHY, THE LARGEST RESERVOIR IN THE HETCH HETCHY WATER SYSTEM.

Summary of Budgetary Trends

The total SFPUC operating budget is \$1.4 billion in FY 2020-21, a \$22.3 million increase from FY 2019-20 or 1.6 percent. In FY 2021-22, the total operating budget is \$1.5 billion, an increase of \$49.4 million or 3.4 percent. The SFPUC's capital budget (prepared separately from the operating budget) for FY 2020-21 is \$517.7 million, and in FY 2021-22 is \$698.0 million.

Overall, operating expenditures are trending up over the two-year period mainly driven by increases in Debt

Service, Purchase of Power for the CleanPowerSF program, and Non-Personnel Services.

On the operating revenue side, approximately 90 percent of SFPUC's revenues are derived from utility sales and increases are driven by a combination of sales volumes and rate changes. While revenues have grown in this biennial budget, the significant negative revenue impacts of COVID-19 are incorporated.

CHART 3.1 >
SFPUC Budget
by Enterprise,
FY 2020-21 Budget.

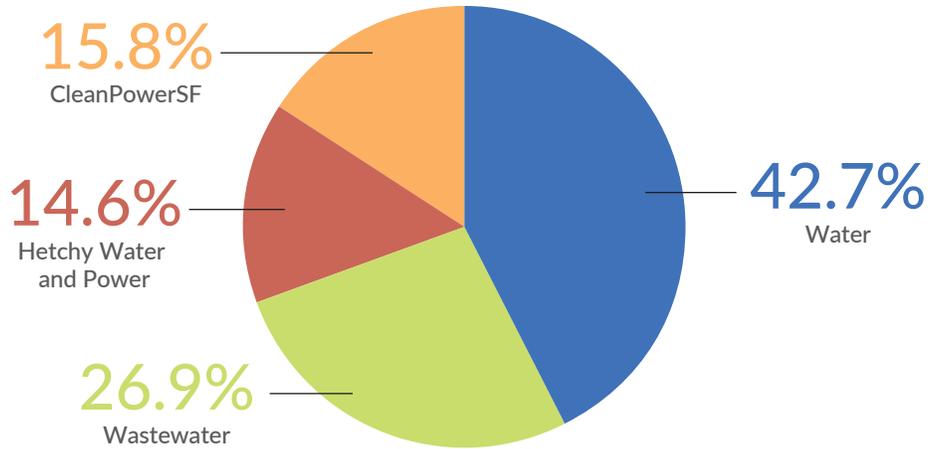
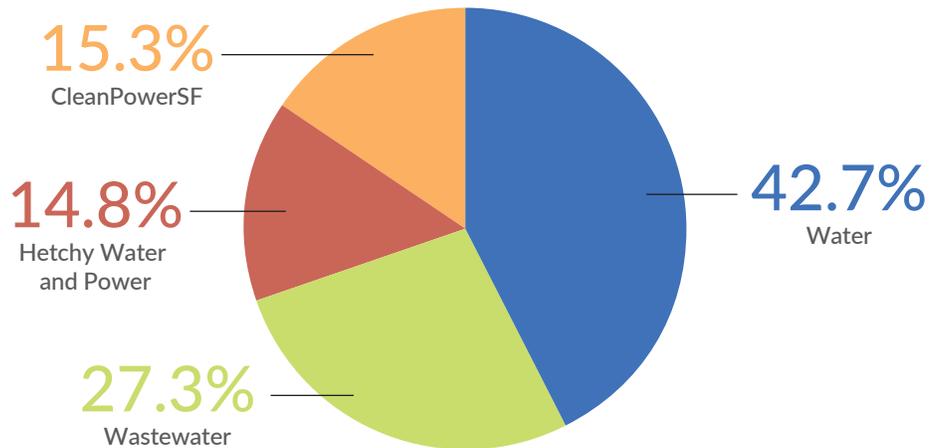


CHART 3.2 >
SFPUC Budget
by Enterprise,
FY 2021-22 Budget.



Budget Development and COVID-19 Response

Following the normal budget development timeline (described in more detail in section 5 of this book), work began on this budget in summer 2019 and was originally finalized in early 2020. On February 11, 2020 the SFPUC Commission approved the FY 2020-21 and FY 2021-22 budget, and it was proposed to the San Francisco Mayor's Office for review a few days later. The three core themes that drove the budgetary development were as follows:

1. Utility of the Future, Now

- Innovative technologies & practices
- High-touch, value add community engagement
- Efficient, nimble and rapid response
- Transparency & accountability

2. Resiliency

- Emergency preparation: seismic, flood, wildfires and drought
- Health and safety training

3. People

- Address recruitment and retention
- Ensure core functions are staffed with permanent employees

These budgetary themes are aligned with the overall SFPUC strategic goals, discussed at section 5 of this document.

Within a week of the Commission-approved budget being proposed to the Mayor's Office, a State of Emergency was declared in San Francisco, with a Shelter-in-Place order issued on March 16, 2020. It was soon clear that significant changes to the budget would be needed, to rebalance based on reduced revenue projections and to respond to the crisis.

The SFPUC Financial Resiliency team was formed and immediately began working on revising the budget to ensure the agency could continue to provide essential services to the public while maintaining our financial sustainability.

The original budget themes remained relevant and still stand in the revised budget proposal, with the following additional underlying priorities guiding our approach to rebalancing:

- Providing essential services, critical to health and safety
- Ensuring fiscal prudence and financial sustainability
- Being an engine of economic recovery
- Supporting employment, economic assistance and inclusion

The first step in revising the budget was to develop revised revenue projections, which provided the total shortfall we had to rebalance around. The Financial Resiliency Team went through an extensive analysis of sales volume data, developed multiple recovery scenarios, and examined data from previous economic shocks, such as droughts and recessions, to develop revised projections. In addition, the team met with the San Francisco City Economist to ensure our recovery assumptions were in line with the rest of the City government.

The revised budgetary projections assume a three-month extension of the Shelter-in-Place restrictions occurring during FY 2020-21 with containment efforts on the pandemic being successful by the end of FY 2020-21. On the economy, a slow three-year recovery beginning mid-way through FY 2020-21 was assumed. Based on data from previous recessions, it was assumed that that SFPUC will only recover up to 90 percent of "pre-pandemic" sales volume levels by FY 2023-24.

On the expenditure side, at the citywide level, due to overall General Fund deficits, there were automatic delays to the Cost of Living Adjustments (COLA) for all City staff, based on union Memorandums of Understanding (MOUs) which allowed for salary savings. In addition, a total of \$92.3 million in expenditure cuts over the two-year budget were put in place, with the remaining shortfall being met by additional use of reserves. These represented a balanced approach, with a mix of ongoing operating expenditure cuts (59 percent) and revenue-funded capital cuts (41 percent), and did not entail any service impacts or employee layoffs. In addition, 95 percent of our original Capital Plan remained intact.

Major Budgetary Initiatives and Service Level Changes

While balancing our budget, the SFPUC was still able to make targeted investments in line with our goals to improve services to our customers.

Economic Assistance Programs

The SFPUC recognizes the difficult financial situations many of our customers are currently facing. As such, the budget expands customer assistance programs that help residential, commercial and non-profit customers pay their water, power and sewer bills, while also maintaining community engagement and workforce initiatives. Customer assistance programs provide discounts on utility bills for those in need. In addition, a moratorium on utility shut-offs for non-payment of bills was put in place. The SFPUC has received additional San Francisco General Fund support to help support this program, showing the commitment not only of the SFPUC, but also of the Mayor, to supporting the City's residents in need during the pandemic.

Equity and Inclusion

Equity and inclusion goals have always been a priority for the SFPUC. Inspired by the nationwide calls to end discrimination in 2020, we have redoubled our efforts to be industry leaders in racial justice. SFPUC recently adopted its own Racial Justice Resolution, committing the agency to the fair treatment of people of all races, cultures and incomes and affirms diversity, inclusiveness and respect as core value of the agency. The resolution recognizes the need to proactively take on structural racism and prioritize racial equity in both policy and practice.

Each Enterprise and Bureau has identified a Racial Equity Lead that is working with their leadership and frontline staff around developing and submitting Racial Equity plans that will roll up into an overall agency plan. The agency has hired an Equity and Innovation Manager, who reports directly to the General Manager and will coordinate and lead Racial Equity initiatives. The budget also includes new Human Resources positions to underscore the SFPUC's ongoing commitment to equity and culturally competent professional development of its diverse staff. The SFPUC's community engagement programs will be also performed in alignment with the SFPUC Racial Equity Plan and will ensure project teams are getting real, meaningful feedback from diverse communities before and during projects.

Supporting Local Economic Recovery Through Capital Investments

SFPUC's capital budget and 10-Year Capital Plan is prepared separately from its operating budget. The Capital Program budget (including programmatic funding) for the 2 year budget is over \$1.3 billion. The total size of the 10-year Capital Plan is \$9.5 billion.

5.93 San Francisco jobs are created per million dollars of construction spending¹. SFPUC's Capital Budget will invest over \$1.3 billion in the next two years in various projects in San Francisco and throughout the regional water, wastewater and power system. SFPUC's largest capital investments are the Water Systems Improvement Program (WSIP), which is about 99 percent completed, and the Sewer System Improvement Program (SSIP), which includes 70 projects with 46 percent completed. Upgrades to the aging facilities of Hetchy Water and Hetchy Power are also under way, including the rehabilitation of several reservoirs and powerhouses. SFPUC also continues to invest in the diversification of water resources, including completing the San Francisco groundwater supply project and advancing the regional groundwater storage and recovery project. These continued investments

will serve as an engine for economic and employment recovery in San Francisco, as well as strengthen the region's essential infrastructure.

Utility of the Future

This budget prepares the SFPUC to become a utility of the future. Utilizing proven and modern technologies is especially important in the department's service area, where technology is core and customers expect and deserve reliable, safe and efficient service with an emphasis on equity. The SFPUC utilizes an array of software and monitoring systems in its daily operations to deliver utility services to the San Francisco Bay Area. The budget will allow the SFPUC to implement innovative technologies and practices such as cloud infrastructure in a manner that benefits the environment while implementing cyber security enhancements to ensure SFPUC's customers' confidential information continues to remain safe and secure.

For example, this budget includes new funding to support The San Francisco Water System Control and Data Acquisition (SCADA) system which is an automated systemwide monitoring and control system for the SFPUC's local and regional water network. It provides coverage of more than 100 water transmission, treatment and distribution facilities, from Tesla Portal through the East Bay and the Peninsula all the way to San Francisco. In addition, new investments will support the Hydrological Monitoring Network in the East Bay and Peninsula watersheds. This monitoring network provides data for reservoir system operation, planning and water rights reporting.

Resiliency

Water diversification, stormwater management, dam safety, wildfire mitigation and now pandemic response remain part of SFPUC's resiliency planning investments.

The SFPUC owns and manages approximately 60,000 acres of watershed lands and 200 miles of right-of-way outside of San Francisco, including overhead electrical distribution lines, distribution poles and high-voltage substations in Alameda and San Mateo counties. The Peninsula Watershed is designated as a Hazardous Fire Area, and the Alameda Watershed is classified by CalFire as a moderate/high fire hazard severity risk. In January 2019, the SFPUC approved the Wildfire Mitigation Plan to establish methods and procedures to construct, maintain and operate SFPUC electrical lines to minimize the risk of catastrophic wildfire, and to ensure SFPUC compliance with California State Senate Bill 1028. This budget expands resources for wildfire mitigation, including staff and equipment

¹ <https://onesanfrancisco.org/the-plan-2020/appendices-methodology-and-assumptions>

support. Additional staff have been added to perform mitigation maintenance on right of ways, watersheds, dams, facility grounds, diversion dams and tree management and vegetation removal. Furthermore, this budget includes resources for LiDAR technology for distribution lines and GIS mapping of threat trees as well as funding for equipment such as water trailers and pumps, an excavator and a lowbed equipment trailer used to transport heavy fire equipment.

Furthermore, water diversification is a core resiliency strategy. The new Westside Recycled Water Treatment Facility will generate and deliver 2 MGD of recycled water for irrigation use in the western side of San Francisco, consisting of membrane filtration, reverse osmosis, and ultraviolet light disinfection. The project also includes a 1.1-million-gallon storage reservoir, distribution pumping facilities and more than five miles of new pipelines. This budget also includes additional investments in the Regional Groundwater Storage and Recovery (GSR) Well Operations. The GSR project is part of the Water Supply Improvement Program, which seeks to enhance the reliability of the SFPUC water supply. Nine GSR wells that connect to seven well stations are undergoing startup testing and will be operational in FY 2020-21. These new facilities will be operated continuously and provide water during dry years.

In addition, environmental stewardship remains at the forefront of the SFPUC's work. CleanPowerSF, the City's local renewable energy program, is one of the Commission's highest priorities. The May 2019 CleanPowerSF enrollment met the Commission's adopted goal of citywide implementation goal of July 2019. As a result, more than 376,000 residents and businesses now receive renewable energy and high-quality service through CleanPowerSF.

Community Engagement

The San Francisco Public Utilities Commission's Community Benefits and Social Impact Partnership teams work hard to ensure that communities near our operations and projects benefit from our presence in their neighborhoods. Major projects in FY 2020-21 include work on expanding the SFPUC's approach to affordability and targeted outreach to high-risk communities with information on our emergency customer assistance programs. In addition, work continues on the groundbreaking new community center in Bayview/Hunter's Point which aims to more deeply fulfill SFPUC promises to communities surrounding our Southeast Treatment Plant. The

Community center will open in 2022. Other projects that are supported in this budget include the Project Learning Partnership Grant Program that will increase career exposure and readiness opportunities for utility careers for young people in San Francisco.

People

Staff are the SFPUC's most important asset. A skilled and diverse workforce is essential to delivering quality utility services. The SFPUC employs more than 2,300 Full Time Equivalents, and this budget adds more than 40 additional positions. However, as with many large utilities, the SFPUC is facing hiring and retention challenges. These challenges are only going to get more difficult as the number of retirement-eligible staff grows.

This budget includes investments to address recruitment and retention issues, shoring up the Human Resources team to meeting operational hiring needs, formalizing dedicated training teams and adding Equal Employment Opportunity staff. Furthermore, this budget prioritizes converting temporary staff to permanent positions throughout the agency, ensuring core functions are staffed by permanent employees. New positions are also added to staff new facilities and growing programs, such as the new groundwater wells, treatment plants, stormwater management and streetlights. To ensure capital projects are efficiently managed, support staffing is being expanded for Capital Projects, specifically in light of the critical Sewer System Improvement Program (SSIP) projects that are moving forward.

Financial Sustainability

Financial sustainability is also one of SFPUC's core strategic goals, and despite reductions in SFPUC's revenue projections due to the pandemic, this budget allows the department to continue to provide essential services to the public, while maintaining financial resiliency.

As described earlier in this section, the SFPUC formed a Financial Resiliency Team immediately to respond to the financial impacts of the COVID-19 pandemic. This team worked quickly to rebalance the FY 2019-20 budget as well as the FY 2020-21 and FY 2021-22 budget in light of reduced revenue projections. While reserves were used as a strategy to rebalance the budget in response to COVID-19 related revenue shortfalls, the vast majority of the deficit was met through agency-wide expenditure reductions in order to protect reserves and maintain financial strength and sustainability in the face of continued uncertainty.

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INTRODUCTION TO THE SFPUC

OVERVIEW. The San Francisco Public Utilities Commission (SFPUC) provides retail drinking water and wastewater services to the City, wholesale water to three Bay Area counties, and green hydroelectric and solar power to our municipal departments and retail customers.

The SFPUC supplies water to 2.7 million people in San Francisco and the San Francisco Bay Area. One-third of the water is supplied directly to retail customers primarily in San Francisco, and two-thirds is supplied to wholesale customers through a long-term Water Supply Agreement (WSA). Wastewater services are provided within the City and County of San Francisco (as well as to three neighboring districts, including the San Mateo Sanitation District, Bayshore Sanitary District, and the City of Brisbane). Power is supplied primarily to San Francisco City departments and their tenants, as well as to the Turlock and Modesto Irrigation Districts.

The SFPUC is an Enterprise Department of the City and County of San Francisco (CCSF).

MISSION. The mission of the SFPUC is to provide our customers with high quality, efficient and reliable water, power, and wastewater services in a manner that values environmental and community interests, and sustains the resources entrusted to our care. The SFPUC is an innovative utility leader, recognized for excellent results in service, safety, stewardship and inclusiveness.

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4

SFPUC HEADQUARTERS,
LOCATED AT 525 GOLDEN GATE,
CONSUMES 32% LESS ENERGY
THAN SIMILARLY-SIZED
OFFICE BUILDINGS.

STRUCTURE. The SFPUC is comprised of three Enterprises, Infrastructure, CleanPowerSF, and the Bureaus. The three Enterprises are the Water Enterprise, Wastewater Enterprise, and the Power Enterprise. Infrastructure manages the planning, design and construction of the capital programs. CleanPowerSF (a part of the Power enterprise), the electrical power community choice aggregation program, initiated in 2015, is a self-contained program that is managed by the Assistant General Manger (AGM) for Power. The Bureaus comprised of the Office of the General Manager, Business Services, and External Affairs provide critical support services and oversight to the Enterprises and Infrastructure. The Office of the General Manager includes, Human Resources, Security, Emergency Planning, and Real Estate. Business Services includes Administration, Strategy, Innovation and Change, Customer Services, Financial Services, Fleet Management & Operations and Information Technology Services. External Affairs includes Communications, Community Benefits and Legislative Affairs.

THE WATER ENTERPRISE

The Water Enterprise collects, transmits, treats, and distributes pure drinking water to approximately 2.7 million people, including retail customers in the City and wholesale customers located in San Mateo, Santa Clara, and Alameda Counties. Approximately two-thirds of the water delivered by the Enterprise is to wholesale customers. Retail customers include residential, commercial, industrial, and governmental uses. The Enterprise recovers costs of service through user fees assessed based on water consumption which is collected by smart water meters. Wholesale customers include other cities and water districts, one private utility and one nonprofit university. Services to these customers are provided pursuant to the 25-year Water Supply Agreement (WSA) commencing July 1, 2009, establishing the basis for cost recovery and rates for wholesale water service.

THE WASTEWATER ENTERPRISE

The Wastewater Enterprise was formally created after San Francisco voters approved a 1976 ballot proposition authorizing the City to issue \$240.0 million in bonds for acquiring, constructing, improving, and financing improvements to the City's municipal sewage treatment and disposal system. The Enterprise collects, transports, treats, and discharges sanitary and stormwater flows known as combined sewage, generated within the City for the protection of public health and the bay and ocean environment. The Enterprise provides services on a contractual basis to municipal customers located outside the City limits, including the North San Mateo County Sanitation District, Bayshore Sanitary District, and the City of Brisbane. The Enterprise recovers cost of service in two ways: through user fees which are

based on measured volume of water used by residential customers and through volume and strength charges of sanitary flow for commercial and industrial customers measured by meters and type of discharge. The Enterprise serves 163,589 retail accounts.

HETCH HETCHY WATER AND POWER

The Power Enterprise is San Francisco's clean energy backbone and the source of our municipal power. Services include the collection and distribution of approximately 85.0 percent of the City's water supply and the associated electricity generation and transmission. Approximately 65.0 percent of the electricity generated by the Enterprise is used by the City's municipal customers including the San Francisco International Airport, San Francisco Municipal Transportation Agency, Recreation and Parks, the Port of San Francisco, San Francisco General Hospital, City Hall, streetlights and traffic signals, the Moscone Convention Center, and the SFPUC Water and Wastewater Enterprises. Most of the balance of electricity is sold to other municipal utility districts and the Western System Power Pool (WSPP). The Enterprise includes a system of water and power infrastructure including reservoirs, hydroelectric power plants, aqueducts, pipelines, and transmission lines conveying water over 170 miles and power more than 160 miles from the Sierra Nevada Mountains to customers in the City and portions of the surrounding San Francisco Bay Area.

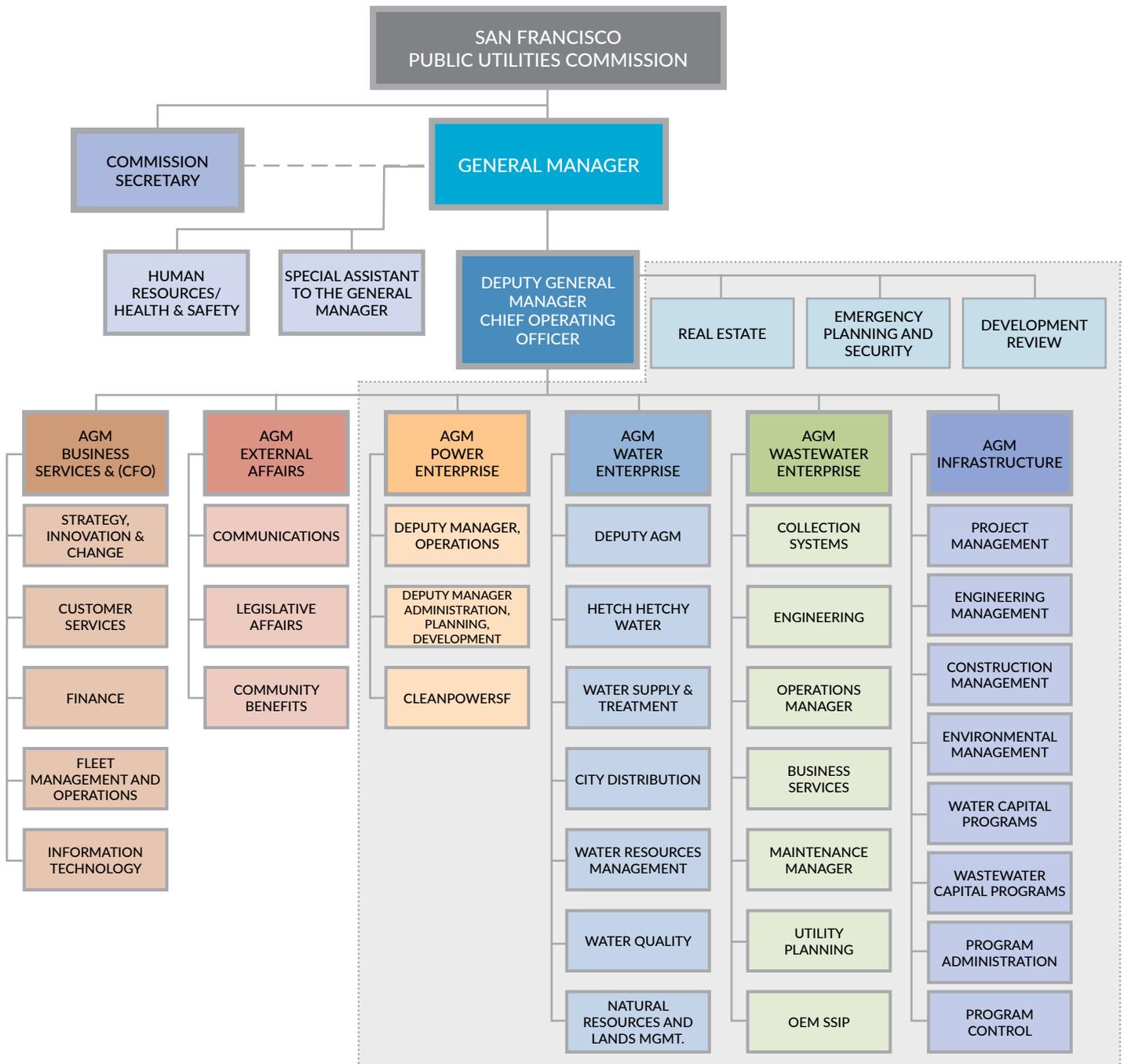
CleanPowerSF

CleanPowerSF is San Francisco's Community Choice Aggregation program. Community Choice Aggregation

allows cities and counties to partner with their investor-owned utility (PG&E in San Francisco) to deliver cleaner energy to residents and businesses. Under this program, PG&E continues to maintain the power grid, respond to outages and send customers their monthly bills. CleanPowerSF began delivering cleaner energy to customers in May 2016 and will expand until every eligible customer in San Francisco has been offered service. CleanPowerSF offers two products: Green and SuperGreen. Green initially contains a target of 43.0 percent renewable energy that meets California's strict Renewable Portfolio Standards (RPS). SuperGreen contains 100.0 percent RPS-eligible electricity.

BUREAUS

The SFPUC Bureaus provide support services to all three Enterprises, and include the Office of the General Manager, Business Services, and External Affairs. The Office of the General Manager includes four sections: Emergency Response and Security, The General Manager's Office, Human Resources, and Real Estate Services. Business Services includes Administration, Strategy, Innovation and Change, Customer Services, Financial Services, Fleet Management & Operations, and Information Technology Services. External Affairs includes Communications, Community Benefits, and Legislative Affairs. The Bureaus' budgets are funded through an allocation model that allocates costs of services to the three Enterprises and CleanPowerSF.



REVENUE SOURCES AND TRENDS

The vast majority of revenues across the SFPUC’s four distinct business lines, are driven by utility sales, a function of the volume of utility units each business line sells and the rates charged per utility unit sold. Across the entire agency’s \$1.4 billion of budgeted revenues in FY 2020-21, approximately 90 percent are derived from volumetric utility sales. Below are tables that show the total revenues for the SFPUC across all three Enterprises and the CleanPowerSF program.

SFPUC’s Main Revenues

Water

In FY 2020-21 total Water Enterprise budgeted revenues are \$611.9 million, a 1.2 percent increase from FY 2019-20, and budgeted revenues are \$633.3 million in FY 2021-22, a 3.5 percent increase over FY 2020-21. This growth is due to volumetric sales changes and rate increases. Overall, total Water revenues have grown 2.1 percent over

CHART 4.1 >
SFPUC
Sources
FY 2020-21

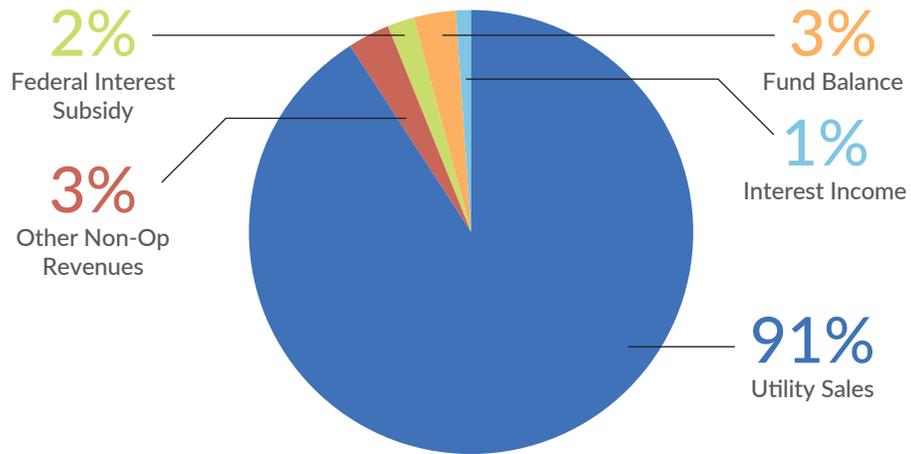
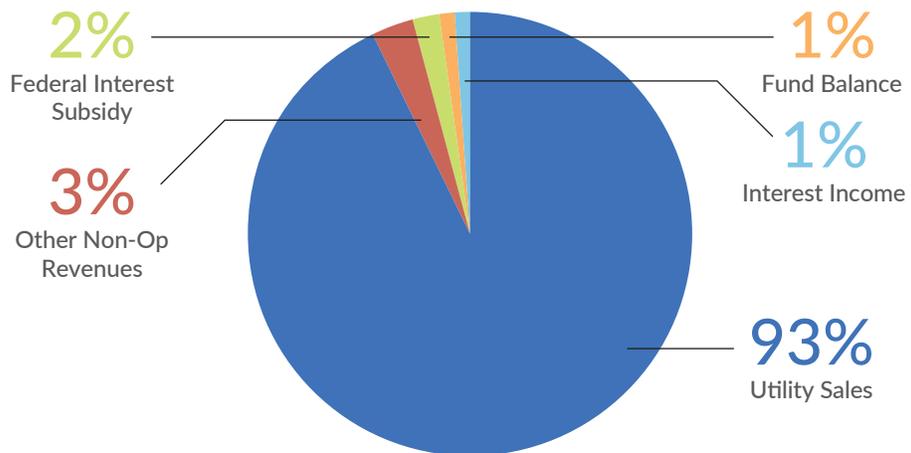


CHART 4.2 >
SFPUC Sources
FY 2021-22



the past three fiscal years from 2018 to 2020. The growth in revenues is driven by a 0.6 percent growth in total water sales volumes and retail rate increases averaging 7.7 percent over the same period of time.

In the Water Enterprise, the vast majority of revenues can be broken up between wholesale sales and retail sales. Wholesale revenues are derived from the Enterprise's 27 wholesale water customers and make up 40 percent of Enterprise revenues. Retail water sales comprise 46.5 percent of Enterprise revenues. The remaining portion of Water's revenues are comprised largely of federal interest subsidies, city property rentals, water service installation and connection charges, and interest income.

Wastewater

In FY 2020-21 Wastewater Enterprise budgeted revenues totaled \$385.8 million, an increase of 6.1 percent from FY 2019-20. In FY 2021-22 budgeted revenues total \$404.5 million, an increase of 4.9 percent from the 2020-21 budget. This growth is due to volumetric sales changes and rate increases. Overall, total Wastewater revenues have grown 12 percent over the past three fiscal years from 2018 to 2020. The growth in revenues is driven by an average retail rate increase of 8 percent annually, despite a slight 0.3 percent decline in wastewater billed volumes over the same time frame. Additionally, growth in actual interest earnings over this period contributed significantly to the overall revenue growth.

In the Wastewater Enterprise, utility sales are the primary source of revenues. Wastewater retail sales comprise 87.8 percent of overall Enterprise budgeted revenues in FY 2020-21. Wastewater retail sales are a derivative of water consumption. The remaining portion of Wastewater's budgeted revenues are comprised of wholesale utility sales, capacity charges, interest earnings and federal interest bond subsidies.

Hetchy Hetchy

In FY 2020-21 Hetch Hetchy Water and Power revenues totaled \$209.1 million, a decrease of 9.1 percent from FY 2019-20. In FY 2021-22 total \$218.8 million, an increase of 4.65 percent from the 2020-21 budget. These changes are the result of the COVID-19 impact on revenues and the subsequent projected

recovery. Overall, total Hetch Hetchy revenues have grown 22 percent over the past three fiscal years from 2018 to 2020. The significant growth in revenues is driven in part by one-time revenues received in FY 2019-20 the most impactful being the first sales associated with Low Carbon Fuel Standard credits. Not including the one-time revenues received in FY 2019-20, overall Enterprise revenues grew 12 percent over the same three year time period, driven by increases in rates as well as electric sales in the wholesale market and interest rate earnings.

In the Hetch Hetchy Power Enterprise, the primary source of revenues are utility sales, which comprise 94.5 percent of overall Enterprise budgeted revenues. These sources are a derivative of power load sales. A significant portion, 78.9 percent of total Enterprise revenues are from electric utility sales to retail power customers, where the vast majority of customers are City departments and other governmental agencies where the Hetch Hetchy Power Enterprise is the electric service provider. Electric utility sales to wholesale power customers comprise 10 percent of total Enterprise revenues. The remaining Enterprise revenues are primarily from gas and steam pass through sales, and interest earnings.

CleanPowerSF

In FY 2020-21 the CleanPowerSF program revenues totaled \$226.5 million, a 6.3 percent increase from FY 2019-20. In FY 2021-22 revenues totaled \$226.5 million, essentially flat from the 2020-21 budget. Overall, total CleanPowerSF Program revenues have grown 500 percent over the past three fiscal years from 2018 to 2020. The exponential growth in program revenues is attributed to the growth of the entire program and customer base from start-up to its current steady state with all phases of significant enrollment having been completed over this period of time. Total customers grew from 78,000 served in 2018 to more than 360,000 in 2020.

In the CleanPowerSF Program, electric sales comprise 99.6 percent of overall Program budgeted revenues for FY 2020-21. These sources are a derivative of volumetric power load sales. The remaining portion of Program budgeted revenues in FY 2020-21 are from interest earnings.

COVID-19 Impact on revenues

Despite overall revenue growth trends, the adopted budget for FY 2020-21 and FY 2021-22 includes a forecast of volumetric utility assumptions which incorporate the significant negative impact due to the COVID-19 pandemic. The SFPUC's budget development process was significantly delayed as a result of the pandemic, because of the need to reforecast revenues.

On February 11, 2020 the SFPUC Commission approved the FY 2020-21 and FY 2021-22 budget, and it was proposed to the San Francisco Mayor's Office on February 21, 2020, with anticipated adoption in July 2020. Within a week of the budget being proposed to the Mayor's Office, a State of Emergency was declared in San Francisco, with a Shelter-in-Place order issued on March 16, 2020. It was soon clear that significant changes to the budget would be needed, to rebalance around reduced revenue projections and respond to the crisis. The SFPUC Financial Resiliency Team was formed and immediately began working on revising the budget to ensure we could continue to provide essential services to the public and maintain our financial sustainability.

The first step in revising the budget was to develop revised revenue projections. The Financial Resiliency Team went through an extensive analysis of sales volume data, developed multiple recovery scenarios, as well as examined data from previous economic shocks (droughts and recessions) to develop revised projections. In addition, the team met with the San Francisco City Economist to ensure our recovery assumptions were in line with the rest of the city government's budget planning. The goal was to develop projections that were sufficiently conservative given the uncertainty, but also reasonable and reflective of actual sales data.

Our revised budgetary projections assume a 3-month extension of the Shelter-in-Place restrictions occurring during FY 2020-21 with containment efforts on the pandemic being successful by the end of FY 2020-21. On the economy, we assume that we will see a slow three-year recovery beginning mid-way through FY 2020-21. Based on data from previous recessions, we assume that we will only recover up to 90 percent of "pre-pandemic" sales volume levels by FY 2023-24.

The chart below show the impact of the COVID-19 Pandemic on sales volumes.

CHART 4.3 >
Water Sales Volumes (MGD)



FY 2020-21 SOURCES AND USES OF FUNDS BY DIVISION

\$	FY 2020-21					
	Water	Wastewater	Hetch Hetchy Water & Power	CleanPowerSF	Bureaus*	Total
SOURCE OF FUNDS						
Sale of Water	525,818,577	-	44,343,000	-	-	570,161,577
Sewer Service Charges	-	351,918,674	-	-	-	351,918,674
Sale of Electricity	-	-	142,563,790	-	-	142,563,790
Sale of Electricity-CCA	-	-	-	225,610,735	-	225,610,735
Sale of Natural Gas & Steam	-	-	13,033,095	-	-	13,033,095
Fund Balance	27,785,227	12,068,300	-	-	-	39,853,527
Other Non-Op Revenues	31,484,387	12,465,679	4,245,800	-	-	48,195,866
Federal Interest Subsidy	21,781,792	3,519,245	485,006	-	-	25,786,043
Interest Income	5,051,000	5,873,000	4,468,000	883,000	-	16,275,000
External Recoveries	-	-	-	-	556,600	556,600
Total Sources of Funds	611,920,983	385,844,898	209,138,691	226,493,735	556,600	1,433,954,907
USE OF FUNDS						
Personnel	102,284,413	76,251,135	49,016,888	6,787,126	-	234,339,562
Overhead	54,382,333	32,951,812	19,747,446	2,539,970	-	109,621,561
Purchase of Power	-	-	59,796,039	181,943,359	-	241,739,398
Non-Personnel Services	21,866,002	23,392,819	38,607,801	12,261,349	-	96,127,971
Materials & Supplies	15,283,545	11,188,300	3,361,083	228,358	-	30,061,286
City Grants Program	-	250,000	-	-	-	250,000
Low Carbon Fuel Standard (LCFS) Credit	-	-	2,507,000	-	-	2,507,000
Equipment	4,459,339	1,825,015	1,771,824	-	-	8,056,178
Debt Service	304,244,234	85,047,135	4,443,407	1,000,000	-	394,734,776
General Reserve	-	405,294	1,510,382	15,521,380	-	17,437,056
Service of Other Departments	24,666,919	37,945,780	8,511,134	3,588,696	-	74,712,529
Revenue-Funded Capital	47,600,000	107,894,500	3,669,000	1,898,497	-	161,061,997
Programmatic Projects	37,134,198	8,693,108	16,196,687	725,000	-	62,748,993
Bureaus Services to Other Departments	-	-	-	-	556,600	556,600
Total Uses of Funds	611,920,983	385,844,898	209,138,691	226,493,735	556,600	1,433,954,907

* Please note that Bureaus costs are allocated to enterprises through the overhead model and are not shown here to avoid double counting.

Long Term Revenue Trends

While the nature of the SFPUC's revenue sources are inherently variable, and fluctuate based on many different factors, including weather, or significant changes in behavior driven by a pandemic, these sources have trended higher in prior years. The department has historically been moving to recover a greater share of revenues from more fixed charges – contributing to greater longer term revenue predictability and stability in the long term.

Budgeted Fund Balance

Fund Balance is used on a one-time, planned basis to balance budgeted sources and uses in line with the SFPUC's Fund Balance Policy. In FY 2020-21 net use of Fund Balance as a source totals \$21.8. In FY 2021-22, net use of fund balance decreases to \$13.8 million. These uses are in line with fund balance policy, described in section 5 of this book.

FY 2021-22 SOURCES AND USES OF FUNDS BY DIVISION

\$	FY 2021-22					
	Water	Wastewater	Hetch Hetchy Water & Power	CleanPowerSF	Bureaus*	Total
SOURCE OF FUNDS						
Sale of Water	552,704,860	-	45,242,000	-	-	597,946,860
Sewer Service Charges	-	382,766,759	-	-	-	382,766,759
Sale of Electricity	-	-	152,506,731	-	-	152,506,731
Sale of Electricity-CCA	-	-	-	225,539,096	-	225,539,096
Sale of Natural Gas & Steam	-	-	14,652,501	-	-	14,652,501
Fund Balance	22,763,581	-	-	-	-	22,763,581
Other Non-Op Revenues	31,822,627	12,379,109	1,165,800	-	-	45,367,536
Federal Interest Subsidy	21,574,916	3,519,245	458,908	-	-	25,553,069
Interest Income	4,460,000	5,802,000	4,805,000	932,000	-	15,999,000
External Recoveries	-	-	-	-	291,600	291,600
Total Sources of Funds	633,325,984	404,467,113	218,830,940	226,471,096	291,600	1,483,386,733
USE OF FUNDS						
Personnel	104,119,982	77,506,706	49,551,816	7,641,805	-	238,820,309
Overhead	56,210,937	34,143,686	20,463,811	2,589,392	-	113,407,826
Purchase of Power	-	-	70,948,058	192,598,845	-	263,546,903
Non-Personnel Services	22,786,774	25,686,948	40,270,490	12,053,375	-	100,797,587
Materials & Supplies	15,994,604	11,686,122	3,498,442	229,358	-	31,408,526
City Grants Program	-	250,000	-	-	-	250,000
Low Carbon Fuel Standard (LCFS) Credit	-	-	735,000	-	-	735,000
Equipment	2,888,897	2,060,747	1,219,510	-	-	6,169,154
Debt Service	317,716,353	95,151,797	4,273,407	1,000,000	-	418,141,557
General Reserve	-	1,756,730	2,123,103	3,362,292	-	7,242,125
Service of Other Departments	25,303,218	38,306,643	8,509,529	3,548,200	-	75,667,590
Revenue-Funded Capital	55,657,679	110,252,390	1,686,000	2,432,829	-	170,028,898
Programmatic Projects	32,647,540	7,665,344	15,551,774	1,015,000	-	56,879,658
Bureaus Services to Other Departments	-	-	-	-	291,600	291,600
Total Uses of Funds	633,325,984	404,467,113	218,830,940	226,471,096	291,600	1,483,386,733

* Please note that Bureaus costs are allocated to enterprises through the overhead model and are not shown here to avoid double counting.

Use of Fund Balance varies across each enterprise. In Water and Wastewater, fund balance is used as a balancing source as planned expenditures exceed projected revenues. These uses of fund balance are to offset lower revenue projections related to COVID-19 and to reduce customer rate increases, and they align with the uses specified in the SFPUC fund balance policy.

CleanPowerSF and Hetch Hetchy Water and Power will, however, make contributions to fund balance as revenues exceed planned expenditures. In both enterprises, this contribution is intended to shore up reserve levels.

Change in Fund Balance

FY 2019-20 year-end fund balance is \$561.3 million. Taking into account budgeted use of fund balance in FY 2021-22 of \$21.8 million, as well as \$47.1 million

in planned de-obligations from currently appropriated revenue funded capital and programmatic project budgets that were done to offset COVID-19 impacts, FY 2020-21 ending fund balance is projected to be \$585.9 million. FY 2021-22 ending fund balance is projected to be \$572.1 million after taking into account budgeted use of fund balance of \$13.8 million.

EXPENDITURE TRENDS

Each budget cycle, the SFPUC engages its Enterprises and Bureaus to determine a spending plan for the next two years adhering to certain budget themes and priorities. Each Enterprise and Bureau establishes its operating needs within various constraints including revenue forecasts and non-discretionary expenditures. The total SFPUC operating budget is \$1.4 billion in

What is Fund Balance? The City and County of San Francisco and the SFPUC are legally required to balance their budgets each year. The San Francisco City Charter requires that proposed budgets be balanced such that the proposed expenditures of each fund do not exceed the projected revenues and available Fund Balance of that Enterprise. When actual spending is determined at the end of fiscal year, the net of actual expenditures and revenues is applied to fund balance. The reverse is true as well, if actual expenditures are greater than revenues, the difference is funded by use of fund balance.

Per the SFPUC's Fund Balance Policy, the SFPUC maintains a Fund Balance Reserve. For each enterprise, the SFPUC adopts budgets and establish rates to maintain undesignated fund balances that provide sufficient capacity to bridge shortfalls in cash flow and cover unanticipated expenditures, while also considering ratepayer impact and fairness.

FY 2020-21, a \$22.3 million increase from FY 2019-20 or 1.6 percent. In FY 2021-22, the total operating budget is \$1.5 billion, an increase of \$49.4 million or 3.4 percent. The capital budget is prepared and approved separately. Overall, operating expenditures are trending up over the two-year period mainly driven by increases in Debt Service, Purchase of Power for the CleanPowerSF program, and Non-Personnel Services.

Debt

The largest expenditure item for the SFPUC is debt service which funds the SFPUC's Capital Improvement Program, which has approximately \$400 million in debt funded expenditures annually. For example, the Water Enterprise's \$4.8 billion multi-year Water System Improvement Program (WSIP) to enhance the Enterprise's ability to provide high-quality reliable drinking water to local and regional customers, is 97 percent complete. Similarly, the Wastewater Enterprise has recently embarked on their own \$7.0 billion Sewer System Improvement Program (SSIP), leading to an increase in budgeted debt service over the period. Both improvement programs are mainly funded through debt financing.

Personnel

The personnel expenditure line item includes both salary and mandatory fringe benefit costs, with cost increases largely driven by retirement benefits. Due to ongoing negotiations between Labor Unions and the City, no salary raises are assumed in the FY2020-21 and 2021-22 budget.

In addition, the SFPUC added more than 40 Full Time Equivalent staff (FTE) through the budget, mainly in the Water Enterprise for additional staffing to run new facilities, as well as to ensure appropriate operational support at existing locations. Additional increases include supplementing staff in the Human Resources division of the Bureaus to ensure operational hiring needs can be met going forward.

Non-Personnel Services

The largest driver of increases to the agency's budget over the two-year period is in non-personnel services,

which includes professional services, software licensing fees, purchase of power, taxes, payments to other governments, and judgements & claims. The drivers for the increase are mainly purchase of power, due to the completion of CleanPowerSF customer enrollment, as well as payments to other governments for payments to the National Park Service related to watershed protections and environmental stewardship.

Revenue-Funded Capital

The only significant decrease to the budget over the two-year period is in revenue-funded capital. Revenue Funded Capital decreases from \$205 million in FY 2019-20 to \$161 million in FY 2020-21. SFPUC policy requires that a certain percentage of capital projects be funded by operating revenues each year. Although the 10-year capital plan continues to grow, the two-year budget plan has contracted in light of deliverability concerns and as such the revenue-funded portion of the capital budget has decreased as well.

Services of Other Departments

The services of other departments expenditure line item represents services provided to SFPUC by other City departments. These budgets are a mix of discretionary and non-discretionary items, such as when services are provided to the City as a whole and the budget is allocated to departments based on various cost drivers. Services of other departments increases from \$70.3 million in FY 2019-20 to \$74.7 million in FY 2020-21. The services of other departments budget increased from FY 2019-20 mainly due to moving the services of the Sheriff for security services at 525 Golden Gate, SFPUC headquarters, from the programmatic project budget to the services of other departments budget. Other major increases include an increase to the services of the City Attorney budget for legal assistance related to actions taken by the Environmental Protection Agency and the continuing inquiry into a potential purchase of various PG&E assets.

Materials & Supplies

The materials & supplies expenditure line item remains relatively flat over the next two-year period, with slight

increases for water and sewage treatment supplies as the cost of chemicals continues to increase.

Overhead

The overhead budget represents the recovery of the cost of support services provided by the SFPUC Bureaus. Bureau costs are allocated to each Enterprise based on an overhead allocation model. Changes to the overhead budget mainly represent adjustments made to the Bureaus' budget throughout the budget process.

Programmatic Projects

Programmatic projects are mainly comprised of annual programs including facilities maintenance; the programs are funded through operating revenues but are not considered part of regular recurring operations. The programmatic projects budget increases from \$53.8 million in FY 2019-20 to \$62.7 million in FY 2020-21. The budget is increasing in FY 2020-21 primarily due to planned maintenance of various watershed structures as well as updates required to the 525 Golden Gate

headquarters media wall and internal sewer system known as The Living Machine.

Capital Outlay

The capital outlay budget represents cost of new equipment that the agency expects to purchase over the next two years. The first year budget mainly includes costs to replace aging fleet vehicles as well as equipment to mitigate wildfire risk in the watersheds. The second year budget continues the effort to replace the SFPUC's aging fleet.

General Reserve

The general reserve is used to balance budgeted sources and uses, when budgeted revenues exceed budgeted expenditures. Use of general reserve must be approved by the Mayor and Board of Supervisors. The decrease in general reserve is mainly due to the increase in purchase of power for CleanPowerSF, offset by a slight increase in general reserve contributions for Hetch Hetchy Water & Power.

CHART 4.4 >
SFPUC FTEs
FY 2020-21

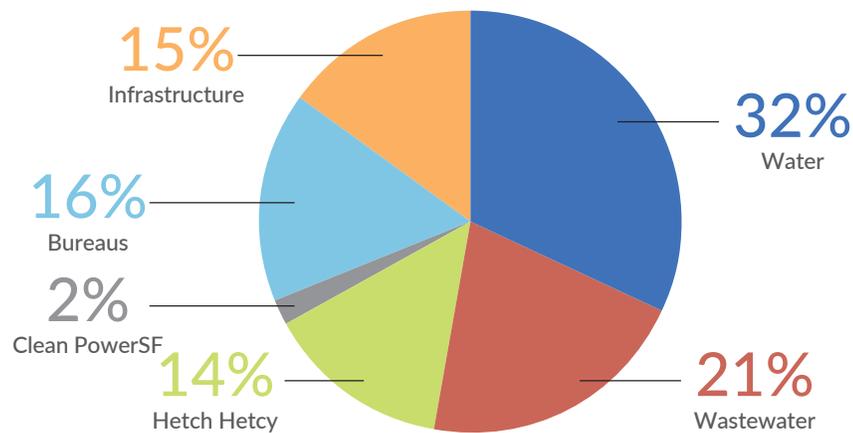


CHART 4.5 >
SFPUC FTEs
FY 2021-22

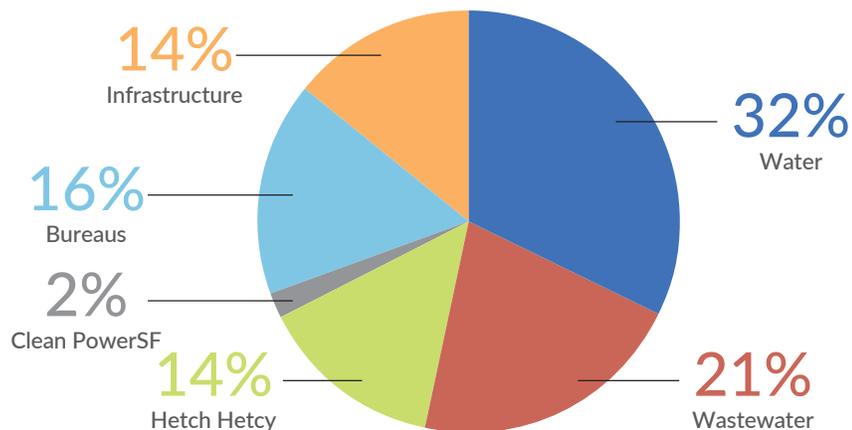
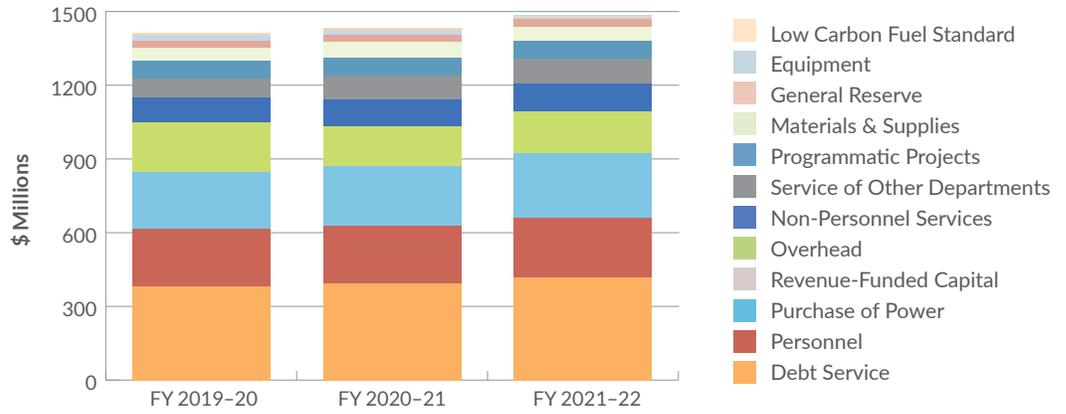


CHART 4.6 >
SFPUC Uses.



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FINANCIAL PLANNING AND POLICIES

OVERVIEW. This section presents SFPUC's financial structure, relevant financial policies, and long-range planning approach. It also includes a detailed description of the budget process and how this budget's preparation and adoption was affected by the COVID-19 pandemic.

The SFPUC's financial structure and operating budget is organized by each of its enterprises plus support bureaus. Each of the SFPUC enterprises are operated and managed as independent financial entities and separate enterprise funds are maintained. The bureaus are funded through a model that allocates costs to each of the enterprises.

To ensure that the SFPUC balances its immediate needs with long term considerations and rate affordability, the agency develops budgets alongside multi-year financial plans. The SFPUC operates on a two-year budget, which is guided by two main long-term planning documents. The first is the Ten-Year Financial Plan which consolidates revenue and expenditure projections and is updated annually alongside the budget development process. The second is the SFPUC Strategic Plan which sets overall strategic direction, key priorities and serves as a roadmap for the agency to ensure it meets the challenges ahead and continues to deliver reliable water, power and sewer services. In addition, the SFPUC's long term capital needs are assessed through long term capital planning, with a Ten-Year Capital Plan, updated annually alongside the SFPUC's capital budget.

Continued on next page...

5

DIVISION STREET COMBINED SEWER DISCHARGE REHABILITATION AND BACKFLOW PREVENTION: JACKHAMMERING THE AREA TO ROUGHEN UP THE CONCRETE IN PREPARATION FOR THE COATING.

The budget development process normally would begin in September and conclude the following July with the Mayor of San Francisco's signature and adoption of the City-wide budget. The COVID-19 pandemic emergency caused significant changes and delays to the normal budget process for the FY 2020-21 and FY 2021-22 budget. Overall, the effect of the pandemic was to delay the budget process by two months and cause the SFPUC to revise its budget to rebalance from reduced revenues during the Spring of 2020.

Other financial policies described in this section include the fund balance reserve policy, rate setting policy and the debt policy. Full text of relevant financial policies can be found in the appendix of this document.

FUND STRUCTURE

The City and County of San Francisco 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 San Francisco Public Utilities Commission is the department of the City responsible for the maintenance, operation and development of three utility enterprises: The Water Enterprise, the Wastewater Enterprise and the Hetch Hetchy Enterprise (which collectively represents the Power and Hetch Hetchy Water funds). Each of the SFPUC's Enterprise are operated and managed as a separate financial entity and separate enterprise funds are maintained.

FUNDS SUBJECT TO APPROPRIATION

The SFPUC is comprised of three Enterprises, Office of the General Manager, two support Bureaus and Infrastructure.

The Enterprises are Water, Wastewater, and Power, the last of which is a component of Hetch Hetchy Water and Power. The Enterprises support the management, operations, facilities maintenance, and capital needs of each utility.

The Business Services and External Affairs bureaus provide support and oversight services to the Enterprises. The Office of the General Manager, Business Services and External Affairs budgets are funded by the three Enterprises through an allocation model. Infrastructure provides the planning, design and construction services for Enterprise capital facilities; thus, the budget is funded through capital project appropriation.

DEPARTMENT AND FUND RELATIONSHIP

The SFPUC uses a cost-allocation model to determine the amount of funds to recover from the three Enterprises and CleanPowerSF for the cost of services provided by

the Office of the General Manager, Business Services and External Affairs. As the Bureaus provide operational support, the costs are allocated out to the operating funds based on the model. As in past years, the Business Services Bureau has the larger budget of the bureaus and so represents the largest amount of funds from the cost-allocation model.

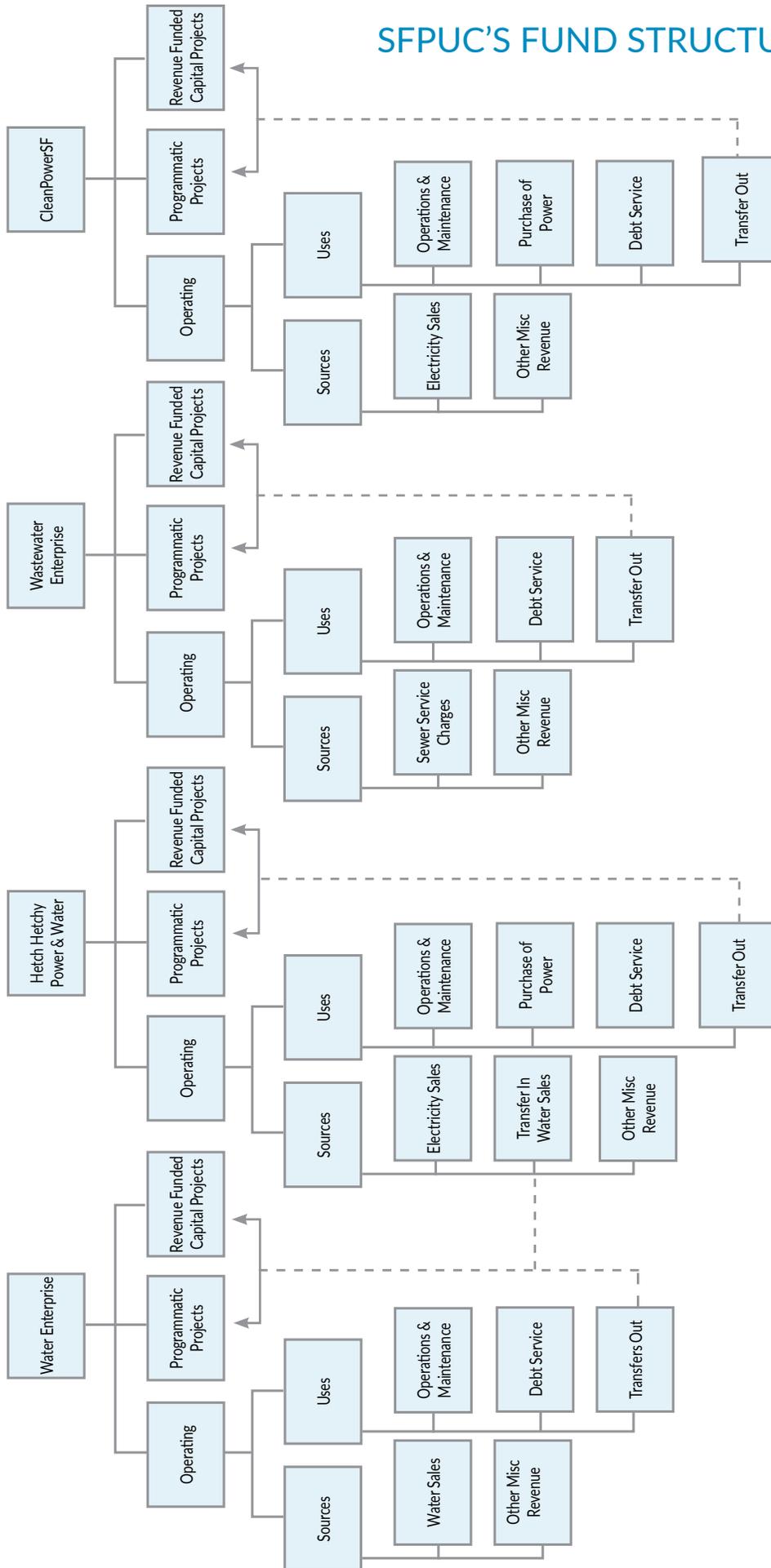
The sources of funds for Infrastructure are from capital project budgets, either directly for Infrastructure expenses to capital projects, or indirectly through an overhead rate that is applied to capital projects.

CleanPowerSF is a financially independent program funded through customer energy rates and is a component unit of the Power Enterprise.

BUDGETING BASIS

Historically the City of San Francisco adopted annual budgets for all government funds on a budget basis relying on a current financial resources measurement focus and a modified accrual basis of accounting. Since the passage of Proposition A (2009), the SFPUC and other enterprises within the City have transitioned to a two-year fixed, biennial budget. 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 not recognized until they are measurable and available; and 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. Under the modified accrual basis of accounting method, Actuals in the Tables located throughout this document include spending authorized by a carryforward appropriation; these are funds carried forward from the prior fiscal year to be expended in the subsequent fiscal year. Examples typically include capital project funds and certain debt service funds that adopt project-length budgets.

SFPUC'S FUND STRUCTURE



The City's budget is a detailed operating plan that identifies estimated costs in relation to estimated revenues. The budget includes (1) the programs, projects, services, and activities to be provided during the fiscal year; (2) the estimated sources (inflows) available for appropriation; and (3) the estimated uses or charges to appropriations. The budget represents a process through which policy decisions are deliberated, implemented, and controlled. The City Charter prohibits expending funds for which there is no legal appropriation.

ACCOUNTING BASIS

The budgeting and accounting basis are essentially the same. The accounts of the SFPUC Enterprises are organized on the basis of a proprietary fund type, specifically an enterprise fund. The activities of SFPUC's three Enterprises are each accounted for with a separate set of self-balancing accounts that comprise the Enterprises' assets, 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) 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 (3) 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 each Enterprise and the year-end audited financial statements are accounted for using an economic resources measurement focus, with a full accrual basis of accounting. Under this method, all assets and liabilities 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 do not apply Financial Accounting Standards Board (FASB) statements and interpretations issued after November 30, 1989. The Enterprises apply all applicable Governmental Accounting Standards Board (GASB) pronouncements, as well as statements and interpretations of the FASB, Accounting Principles Board Opinions, and Accounting Research Bulletins of the Committee on Accounting Procedures issued on or before November 30, 1989, unless those pronouncements conflict with or contradict GASB pronouncements.

CALENDAR AND BUDGET PROCESS

SFPUC's normal biennial budget cycle begins in September and ends in July. The two-year fixed budget is prepared, reviewed, enacted by the Commission and Board of Supervisors (BOS), signed by the Mayor, and then implemented by departments. The Board of Supervisors approves both years together and may amend the second year through supplemental budget adjustments if increases or decreases in revenues or expenditures are significant¹. SFPUC's two-year budget is comprised of two, single-year spending plans.

In FY 2010-11, the City adopted two-year budgets for the SFPUC and three other pilot departments (the Airport, the Port, and the Municipal Transportation Agency), in accordance with Proposition A passed in 2009. FY 2020-21 & FY 2021-22 represent SFPUC's sixth biennial budget. Under normal circumstances, the SFPUC would amend the budget mid-cycle only if revenue or expenditure changes are greater than five percent. The normal budget process is described below.

***At its most basic level,** a budget is divided into revenues (sources) and expenses (uses). The fund structure organizes both revenues and expenditures into a system of layers, each offering a different level and type of detail. These layers can be queried in a number of different ways, depending on what type of information is sought.*

A fund is a high-level classification unit that is organized according to its purpose.

An account is a unique six-digit code that identifies the general nature of a source or use, at its lowest level of detail. A value between 400000 and 499999 denotes a source, while a value between 500000 and 599999 denotes a use.

Accounts can be summarized at different levels. For the reports contained in this book, accounts are summarized at Level 5, into a 4-digit code. For example, accounts 501010 - Permanent Salaries and 501070 - Holiday Pay roll up to an Account Level 5 of 5010 - Salaries.

¹"Significant increases or decreases in revenues or expenditures shall be defined as greater than five percent difference between the projected and adopted budget for operating or capital expenditures or revenues for the second year of the department's biennial budget." (Resolution 464-11)

BUDGET CALENDAR

	Normal Budget Cycle	Budget Cycle with COVID-19
September 2019	<ul style="list-style-type: none"> SFPUC FY 2020-21 and FY 2021-22 budget process launch Commission budget policy discussion 	
October 2019	<ul style="list-style-type: none"> Staff review and analysis: Operating and capital budget proposals Ten-Year Capital Plan Ten-Year Financial Plan 	
November 2019	<ul style="list-style-type: none"> General Manager and Assistant General Manager review of budget proposals and plans 	
December 2019	<ul style="list-style-type: none"> Budget approved by General Manager 	
January 2020	<ul style="list-style-type: none"> Commission budget workshops Departmental technology plans submitted to COIT Biennial Capital budget requests submitted Capital Planning Committee Ten-Year Capital Plan submitted to Capital Planning Commission 	
February 2020	<ul style="list-style-type: none"> Commission adopts Operating Budget, Ten-Year Capital Plan, and Ten-Year Financial Plan Operating and Capital budget requests submittal to Controller and Mayor 	<ul style="list-style-type: none"> COVID-19 Emergency Declaration by the Mayor
March 2020	<ul style="list-style-type: none"> Mayor's Office and Controller's Office review of budget CPC reviews Ten-Year Capital Plan and staff recommendations 	<ul style="list-style-type: none"> Shelter-in-Place Order Declared
April 2020	<ul style="list-style-type: none"> Mayor's Office and Controller's Office review of budget 	<ul style="list-style-type: none"> Revised revenue projections developed Budget process delayed
May 2020	<ul style="list-style-type: none"> Operating and capital budget requests submitted to Board of Supervisors by Mayor 	<ul style="list-style-type: none"> Revised budget instructions issued by Mayor SFPUC budget adjusted to rebalance around reduced revenue projections
June 2020	<ul style="list-style-type: none"> Board review of operating and capital budget 	<ul style="list-style-type: none"> SFPUC submits revised budget proposal to Controller and Mayor's Office
July 2020	<ul style="list-style-type: none"> Mayor signs budget 	<ul style="list-style-type: none"> Mayor's Office and Controller's Office review of budget Operating and capital budget requests submitted to Board of Supervisors by Mayor
August 2020	<ul style="list-style-type: none"> Final budget adoption by Board of Supervisors and Mayor 	<ul style="list-style-type: none"> Board review of operating and capital budget
September 2020		<ul style="list-style-type: none"> Board adoption of budget
October 2020		<ul style="list-style-type: none"> Mayor signs and adopts final budget

Stakeholders

- The Public is invited to all public meetings, notified in advance to ensure stakeholder awareness of any budget items. This includes SFPUC's Citizen Advisory Committee.
- The SFPUC Commission holds publicly-noticed Budget meetings, during business hours for public comment on the proposed budget.
- The Committee on Information Technology (COIT) evaluates all departmental technology plans and makes recommendations for approval and funding of the departmental technologies budget requests.
- The Capital Planning Committee (CPC) reviews SFPUC proposed 10-Year Capital Plan and two-year capital project budget specifics along with associated funding requirements and provides recommendations to the Board of Supervisors' on City-wide priorities for capital and the level of investment needed to meet the priorities identified.
- The Mayor prepares and submits a balanced SFPUC budget to the Board of Supervisors for review and approval on a biennial basis.
- The Board of Supervisors is the City's legislative body and is responsible for budget review and may amend then approve the Mayor's proposed budget. As a function of this review, the Board's Budget and Legislative Analyst examines SFPUC's proposed budget as well as spending and financial projections.
- The Controller is the City's Chief Accounting and Auditing Officer and ensures the accuracy of the final budget.

Calendar and Process

Beginning in September and concluding in July, the biennial two-year budget cycle can be divided into four major stages.

1. **Commission Budget Policy Review:** budget policy review and implementation.
2. **Budget Preparation:** budget development and submission to the Commission.
3. **Approval:** budget review and enactment by the SFPUC, Mayor and Board of Supervisors.
4. **Implementation:** department execution and budget adjustments.

Preparation

The SFPUC's budgetary process precedes the citywide budgeting process as managed by the Mayor's Office. SFPUC implemented a "Project Charter" which governs the entire scope of the budget development and adoption cycle, up to and including final adoption by the Board of Supervisors.

Two categories of budgets are prepared:

Enterprise and Bureau Operating Budgets: SFPUC departments generate budgets to support operations based on the projected non-discretionary revenue primarily from charges for services. Operations include personnel, non-personnel services, materials and supplies, equipment, and services of other departments.

Capital Budgets: Comprised of a biennial capital budget for each of the three enterprise departments and CleanPowerSF and also includes an annually updated Ten-Year Capital Plan. Capital projects must result in the addition of new capital assets and/or improvements to existing assets which extend the asset's service life by at least five years. Capital projects may include associated costs of acquisition or construction of new assets and/or expenditures for activities that enhance the function, improve the performance and/or extend the service life of existing assets.

Beginning in October, SFPUC Enterprises prepare both their operating and capital budget requests which are then submitted to SFPUC's Budget Team. From November to December, the Assistant General Managers (AGM), the Deputy General Manager, and the General Manager review these requests. In December and early January, the General Manager's proposed budget, which includes all the Enterprises, CleanPowerSF, the Bureaus and Infrastructure, is consolidated and submitted to the SFPUC Commission for deliberation. From January to February, the Commission holds public hearings to review and ultimately approve the operating and capital budget requests, Ten-Year Capital Plan, and Ten-Year Financial Plan. By mid-February, the SFPUC approved budget requests are submitted to the Mayor and Controller's Office. The Controller consolidates, verifies, and refines all the information the SFPUC has submitted. The Controller submits the SFPUC proposed budget requests to the Mayor's Office of Public Policy and Finance for review by mid-March.

The Mayor's Office meets with community groups to provide budget updates and to hear concerns and requests for funding to improve public services. The Controller ensures that the Mayor's final budget request is balanced, accurate, and based on reasonable assumptions.

Approval

On May 1, the Mayor's proposed budget, which includes the SFPUC's budget is submitted to the Board of Supervisors. The Budget and Finance Committee of the Board of Supervisors holds public hearings during the months of May and June to review the Mayor's proposed budget and to solicit public input. The

Board of Supervisors' Budget Analyst then develops recommendations on the budget proposal which are shared and discussed with departments. Based on these discussions, the Board's Budget Analyst forwards budget recommendations to the Budget and Finance Committee for public review. If the Board of Supervisors' budget review lapses into the new fiscal year beginning July 1st, a continuing resolution adopting an Interim Budget--the Mayor's proposed budget with some limitations--is passed by the Board and serves as the operating budget until the budget is adopted. The Mayor typically signs the budget ordinance into law no later than July.

Original Budget Amendments: City Charter requires that the Board of Supervisors vote on the budget amendments twice between July 15 and August 1. The first reading occurs the first Tuesday after July 15, and amendments may be proposed. These amendments are added to the budget if they are passed by a simple majority. Amendments may be proposed by any member of the Board of Supervisors and can reflect further public input and/or Board policy priorities. The Board votes on the amended budget during the second reading and if the budget is passed, it is sent to the Mayor for final signature. If other amendments are proposed during the second reading, there is a further reading a week later. The Board of Supervisors must pass a final budget before the August 1st deadline.

The Mayor has ten days to approve the final budget, referred to as the Annual Appropriation Ordinance (AAO). The Mayor may sign the budget as approved by the Board, making it effective immediately. The Mayor may also veto any portion of the budget, whereupon it returns to the Board of Supervisors. The Board has ten days to override any or all the Mayor's vetoes with a two-thirds majority vote. In this case, upon the Board vote, the budget is immediately enacted, thus

completing the budget process for the fiscal year. Should the Mayor opt not to sign the budget within the ten-day period, the budget is automatically enacted but without the Mayor's signature of approval. Once the AAO is passed, it supersedes the Interim Budget.

Implementation

The budget is implemented and executed by SFPUC staff as adopted by the Mayor and the Board of Supervisors, at the start of the fiscal year.

Supplemental Budget Adjustments: Budget adjustments during the fiscal year can be made through surplus transfers, if available. A surplus transfer, moves funds from one budget line item to another (such as from materials & supplies to non-personnel services) to reflect realignment of priorities, duties or reorganization or to meet budget estimates related to actual operating realities. Adjustments to the budget can also be made through a supplemental appropriation requests, when a department has budget authority for the remainder of the fiscal year or when additional appropriation is needed for operating or capital project funding, grants appropriation legislation, or when a third-party awards funding to a department. Budget adjustments for the second year of the biennial budget can be made through a supplemental appropriation, when increases or decreases in revenues or expenditures between the adopted and projected budget are significant. These adjustment requests require Board of Supervisors approval before going to the Mayor for final signature. The Commission approves any budget adjustments in advance of it being presented to the Board of Supervisors. The public is informed and has the opportunity to engage in the budget amendment process through the agenda and public meetings scheduled with the SFPUC Commission and the Board of Supervisors.

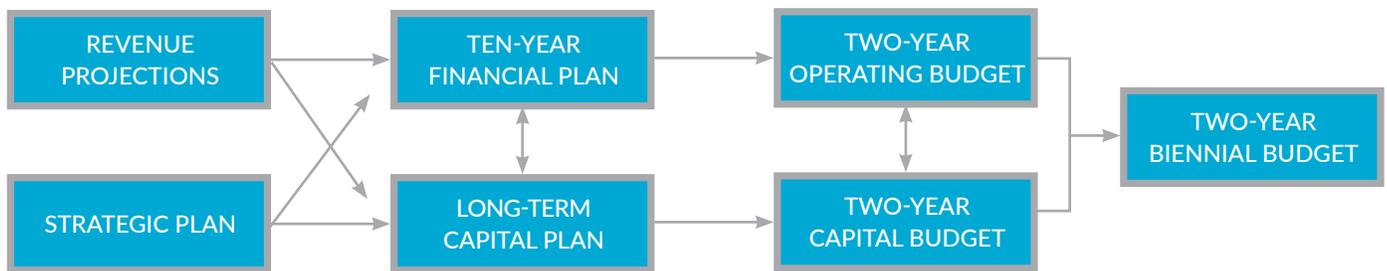


CHART 5.1 Illustration of the linkages between the various long range planning documents and the budget.

Year 2 of the fixed 2-year budget re-opening

Under normal circumstances, from January to March of the first year of the budget, if necessary, the SFPUC submits budget adjustments to the Controller's Office for changes greater than five percent between the projected and adopted budgets. From March to May, the Controller's Office submits a report to the Mayor and Board of Supervisors, stating whether they project significant changes in SFPUC revenues or expenditures. Budget adjustments greater than five percent triggers the reopening of the second-year budget. From May to June, the Budget and Finance Committee reviews and takes action on operating and capital supplemental budget adjustments. From July to August, the supplemental budget adjustments receive approval by the Board of Supervisors and Mayor's Office.

Adjustments to the Budget Process Due to COVID-19 Emergency

The COVID-19 pandemic emergency caused significant changes and delays to the normal budget process for the FY 2020-21 and FY 2021-22 budget. Within a week of the SFPUC's Commission-approved budget being proposed to the Controller's and Mayor's Office on February 21, 2020, a State of Emergency was declared in San Francisco, with a Shelter-in-Place order issued on March 16, 2020.

To allow for the necessary City response to COVID-19 and to ensure the City had enough time to incorporate updated economic projections into its budget process, the Mayor and Board of Supervisors agreed to an updated schedule for FY 2020-21 and FY 2021-22 budget process. The Mayor reissued Budget Instructions to departments in May and departments were instructed to submit new department proposals to aid the Mayor in developing the proposed balanced budget in June and July. The Mayor introduced a balanced interim budget at the Board of Supervisors on June 1, 2020 to support essential city spending from July through September while the budget process was concluded. The Mayor then introduced a balanced budget to the Board of Supervisors on July 31, 2020. Following the Budget and Finance Committee review and the full Board phase, the budget was signed by the Mayor on October 2, 2020.

Overall, the effect of the pandemic was to delay the budget process by 2 months and cause the SFPUC to revise its budget to rebalance from reduced revenues during the months of April and May 2020. In addition, due to the significant uncertainty about COVID-19 and the ensuing economic disruption, the SFPUC will make updates to the second year of its 2-year budget during the fall of 2020 to update revenue projections and make adjustments to rebalance.

LONG TERM FINANCIAL PLANNING AND EFFECT ON BUDGET DEVELOPMENT

To ensure that the SFPUC balances its immediate needs with long term considerations and rate affordability, the agency has adopted a process that develops annual budgets alongside multi-year financial plans. This process assumed its current form with the passage of Proposition A on November 3, 2009, which replaced annual budgeting with two-year budgeting, and required additional long-term financial planning. This section describes the processes that guide SFPUC's multi-year financial and strategic plans and how those effect the budget process.

Multi-Year Financial Planning Process

The SFPUC operates on a two-year budget, which is guided by two fundamental long-term planning documents. The first is the Ten-Year Financial Plan which consolidates revenue and expenditure projections and is updated annually alongside the budget development process. The second is the SFPUC strategic plan which is developed by the Executive Team to set overall strategic direction, identify key priorities and serve as a roadmap for the SFPUC to ensure we meet the challenges ahead and continue to deliver reliable water, power and sewer services. In addition, the SFPUC's long term capital needs are assessed through long term capital planning, with a Ten-Year Capital Plan, updated annually alongside the SFPUC's capital budget.

Two-Year Budget

Starting in FY 2010-11, SFPUC has implemented fixed two-year (biennial) budgets. FY 2020-21 & FY 2021-22 represent SFPUC's sixth biennial budget. SFPUC intended to implement a fixed biennial budget for FY 2020-21 and FY 2021-22, but given the uncertainty caused by the COVID-19 pandemic during 2020, the FY 2021-22 budget year will be re-opened mid cycle to adjust revenue projections and rebalance.

The budget process is guided by operating revenue and expenditure projections for the budget period which are developed through the Ten-Year Financial Plan and Ten-Year Capital Plan. These plans also allow the budget to be developed to take account of longer-term financial issues such as fund balance, rate affordability, meeting financial policy targets and debt service capacity. In addition, budget priorities are guided by the SFPUC's Strategic Plan.

Ten-Year Financial Plan

The SFPUC's Ten-Year Financial Plan as required by City and County of San Francisco Charter Section 8B.123, includes a ten-year financial summary (FY 2020-21 through FY 2029-30), describing projected sources

and uses, resulting fund balances and associated financial reserve ratios. The Ten-Year Financial Plan is updated annually and adopted by the Commission. This is a planning document intended to inform the development of the Ten-Year Capital Plan, water and power utility rates and the biennial budget. The revenue and cost estimates should be viewed as indications of expected trends, given certain expenditure, receipt, and financing assumptions. These assumptions are based on current Board of Supervisors' and Commission policies, goals, and objectives representing management's best estimates.

The biennial budget is developed alongside the Ten-Year Financial Plan and allows the SFPUC to have insights into the long term financial sustainability of the agency and longer term issues that affect current planning and priorities. In addition, the Ten-Year Financial Plan allows budgeting to be done with a view to long term rate impacts on customers.

Ten-Year Capital Plan

The Ten-Year Capital Plan is developed every year by the SFPUC and approved by the Commission. The Ten-Year Capital Plan informs and guides managers, policy makers, elected officials and the public by providing the proposed long-term capital program, projects and investment. The Ten-Year Capital Plan also guides the development of the Ten-Year Financial Plan and associated rate implications of the planned capital spending. 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.

Strategic Plan

The SFPUC's Strategic Plan serves as a roadmap to ensure the agency is equipped to meet the challenges ahead and continue to deliver reliable water, power and sewer services. The SFPUC sets its strategic course every five years and updates the plan every year, while adjusting and responding to the existing environment each day. Adjustments to the plan align with agency priorities and may include reprioritizing objectives, revising measures, or developing new action items. The five-year cycle would dictate a new strategic plan to begin in 2021, but given the current climate, the SFPUC is moving forward with revising its current plan to meet the needs of today and align with new priorities outlined as a result of challenges in 2020.

The Goals and Objectives included in the plan aim to ensure that objectives are met while the organization strives to implement capital programs, diversify the water and energy portfolio and ensure triple bottom line sustainability.

The strategic plan goals are as follows:

STRATEGIC PLAN GOALS AND GOALS DESCRIPTIONS	
Strategic Goals	Goal Descriptions
Reliable Service and Assets	We provide reliable service and value to our customers by optimizing the operations, maintenance, and replacement 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.

Each enterprise has its own strategic goals and objectives that are tied to the SFPUC's overall strategic plan. These are described in more detail in the enterprise sections of this book.

Budget Management

Throughout each fiscal year, SFPUC develops 4 budgetary projections at the end of each quarter which provide an insight into how the agency is spending against budget. These Quarterly Budget Variance Reports are presented to the Commission and published on the SFPUC website. These reports, (in addition to year-end financial statements/CAFR) allow the agency to monitor performance against the budget and make adjustments to actual spending if necessary. These reports also inform budget development by giving managers a view on actual spending in prior years. In addition, quarterly reports on capital project spending are produced for the Commission.

OTHER FINANCIAL POLICIES

Financial policies governing the budget include long range financial planning and reporting policies and budget development policies that have been described

in the previous section. In addition, other key financial policies that affect the budget include, fund balance policy and ratepayer assurance policy are summarized here. The full text of all relevant financial policies can be found in the Appendix of this book.

Definition of a Balanced Budget

The City and County of San Francisco and the SFPUC are legally required to balance their budgets each year. The San Francisco City Charter requires that proposed budgets be balanced such that the proposed expenditures of each fund do not exceed the projected revenues and available Fund Balance of that Enterprise. When actual spending is determined at the end of fiscal year, the net of actual expenditures and revenues is applied to fund balance. The reverse is true as well, if actual expenditures are greater than revenues, the difference is funded by use of fund balance.

Mission Driven Budgeting

Per City Charter, each departmental budget shall describe each proposed activity of that department and the cost of that activity. In addition, each department shall provide the Mayor and the Board of Supervisors with the following details regarding its budget:

- a) The overall mission and goals of the department;
- b) The specific programs and activities conducted by the department to accomplish its mission and goals;
- c) The customer(s) or client(s) served by the department;
- d) The service outcome desired by the customer(s) or client(s) of the department's programs and activities;
- e) Strategic plans that guide each program or activity;
- f) Productivity goals that measure progress toward strategic plans;
- g) The total cost of carrying out each program or activity; and
- h) The extent to which the department achieved, exceeded or failed to meet its missions, goals, productivity objectives, service objectives, strategic plans and spending constraints.

Departmental budget estimates shall be prepared in such form as the Controller, after consulting with the Mayor, directs in writing.

Fund Balance Reserve Policy

The SFPUC faces a number of risks to revenue stability, including multi-year rate packages, drought, weather variability, and highly volumetric rates. In addition, the COVID-19 pandemic and ensuing economic disruption has created more uncertainty for the future. To manage these risks and reduce susceptibility to emergency rate increases, the SFPUC ensures adequate ratepayer protection in the form of a Fund Balance Reserve policy.

For each enterprise, the SFPUC adopts budgets and establishes rates to maintain undesignated fund balances that provide sufficient capacity to bridge shortfalls in cash flow and cover unanticipated expenditures, while also considering ratepayer impact and fairness in compliance with the San Francisco Charter. Specifically, for the time period covered in the SFPUC's Charter-mandated 10-Year Financial Plan, operating and capital budgets and rates will be proposed for adoption such that the Fund Balance Reserve totals a minimum of 90 days or 25% of Operations & Maintenance Expenses (including programmatic projects, and excluding debt service and revenue-funded capital) throughout the forecast period. Amounts in excess of the minimum will be considered for contingencies and rate stabilization.

The FY 2020-21 and 2021-22 budget ensures that the SFPUC will meet the minimum fund balance policy across all enterprises.

Rate setting Policies and Process

The SFPUC recovers the cost to do business and serve its customers through the rates it charges on utilities purchased by customers. Rates typically change on an annual basis at the start of the fiscal year and any changes to rates require an action by the SFPUC Commission. The rationale which support the rates charged include long term operating and capital assumptions, projected volumetric sales by business line, and are verified by independent cost of service studies. Rates have been adopted on a multi-year basis for retail water, and wastewater customers; while rates for all other business lines are adopted or change on a bi-annual or annual basis.

In November 2002, voters passed Proposition E, establishing Article 8B of the Charter, which, among other things, outlined procedural and substantive requirements for setting rates and charges. Procedural requirements specified by Charter Section 8B.125, include the Commission's authority to set rates, fees and other charges for utility services under its jurisdiction, subject to rejection – within 30 days of submission – by resolution of the Board of Supervisors.

The Charter change also established the requirement for an independent cost of service study for each utility at least every five years. Charter section 8B.125 also includes the substantive requirement to set retail rates and charges, based on cost of service, to provide sufficient resources for the operation, maintenance and continued financial health, including appropriate reserves, of each enterprise.

Finally, section 8B.125 established the Rate Fairness Board (RFB) as the oversight body for SFPUC

rates and charges. The Rate Fairness Board may hold public hearings on rate proposals and provide recommendations to the Commission regarding those rate proposals.

Ratepayer Assurance Policy

In addition to the aforementioned substantive and procedural requirements to adopt rates, rates must also comport with the Ratepayer Assurance Policy revised and adopted by the Commission in 2017. This policy sets out principles to guide the development of rates and charges. The policy references the tradeoffs that are made amongst these principles that are inherent to the rate-setting process.

The Ratepayer Assurance Policy, adopted September 12, 2017, sets out principles to guide the development of rates and charges. The Ratepayer Assurance Policy principles are:

- Revenue Sufficiency. The Commission will aim to establish rates sufficient to cover the full cost of all SFPUC activities.
- Environmental Sustainability. The Commission will aim to establish rates in a manner that values environmental sustainability and preserves the natural resources entrusted to the SFPUC's care.
- Affordability. The Commission will consider SFPUC service affordability for all its customers. Prudent operating and capital planning ties annual spending to system demand and intergenerational equity, enabling financial engineering and reducing costly emergency expenditures.
- Predictability. The Commission will aim to establish rates designed to minimize bill fluctuations, enabling ratepayers to plan ahead for their personal finances.
- Simplicity. The Commission will aim to establish rates that are easy for ratepayers to understand.

In addition to the rate making principles listed above, the SFPUC has a goal that the average combined water and sewer bill does not exceed 2.5 percent of the median household income in San Francisco. This affordability index is consistent with the Federal Environmental Protection Agency guideline for utility cost affordability.

Throughout the most recent rate-setting process, SFPUC staff worked closely with the Rate Fairness Board during the development of rates to follow rate making principles and meet Charter and Commission objectives. SFPUC staff also participated in an extensive public outreach program, reaching out to over 400 organizations to describe SFPUC services, explain why rate increases are needed and the impact of the rate increases on monthly bills.

Over 50 community presentations were delivered to organizations representing a wide spectrum of community, environmental, business, labor and other interests. Outreach was also made through the SFPUC's website, which includes tools for customers to estimate bill impacts based on their current usage. In compliance with California's Proposition 218 which requires proposed rates be publicized through specific mailings, the proposed rates were mailed more than 45 days prior to the April 10, 2018 hearing to approximately 238,000 ratepayers and property owners; in response, the SFPUC received approximately 194 formal protest letters. Through the rate adoption, the Commission affirmed that the SFPUC met all requirements of the City Charter and Proposition 218.

Cost of Service Studies

As required by the City Charter (Sections 8B.125), the SFPUC must complete a cost of service study by an independent consultant at least once every five years. In Spring of 2018 the SFPUC completed its last Retail Rate Study for the Water and Wastewater Enterprises. The Water and Wastewater Retail Rate Study informed the four year rate package that was approved by the Commission in May of 2018. Water and Wastewater rate increases were adopted for FY 2018-19 through FY 2021-22.

A Power Rate Study is currently underway and expected to be completed in calendar year 2021 for the Hetchy Power Enterprise and CleanPowerSF Program, the last Power Rate Study was completed in 2016 and has informed Hetchy Rate Increases since that time.

Debt Policy

The SFPUC has established Debt Management Policies and Procedures for debt financings associated with the Water, Wastewater and Power Enterprises. The purpose of these Policies is to provide SFPUC officials and staff a comprehensive guide to SFPUC's issuance and use of debt to fund capital projects or to refund/refinance/restructure outstanding debt. The Policies primarily address debt instruments/securities issued by the SFPUC in public and/or private bond markets. This is consistent with examples of debt policies of other comparable municipalities, Government Finance Officers Association (GFOA) best practices and rating agency guidelines. The most recent policy was issued in November 2019.

These Policies govern the issuance and management of all bonds and other forms of indebtedness of the SFPUC, together with any credit, liquidity, or other security instruments and agreements that may be executed in connection with the issuance of bonds and other forms of indebtedness (Bonds).

The aim of the established policies and procedures is to assist the SFPUC in furthering the following goals and objectives related to debt financing activities:

- Maintain cost-effective access to capital markets through prudent debt management policies and practices;
- Ensure that the SFPUC's debt is consistent with the SFPUC's long-term financial planning goals and objectives and capital improvement program or budget, as applicable;
- Finance significant capital acquisitions or improvements in a timely and cost-effective manner;
- Ensure that judicious debt service commitments are made through effective planning and cash management;

- Maintain the highest practical credit ratings to ensure efficient access to capital markets at the lowest prevailing interest rates;
- Support strong internal controls through support of bond oversight committees;
- Structure long-term financings to minimize transaction specific risk and total debt portfolio risk to the SFPUC;
- Maintain user friendly and publicly accessible electronic portal for the timely dissemination of material information concerning the financial condition of the SFPUC; and
- Promote financial sustainability by adhering to sound debt management practices that are consistent with the SFPUC's mission and guiding principles.

A link to the full Debt Management Policies and Procedure Document is included at the Appendix of this document.

CAPITAL BUDGET

OVERVIEW. In addition to the SFPUC’s operating budget (the main focus of this book), a Two-Year Capital Budget and Ten-Year Capital Plan is prepared. A separate book describing the capital budget and Ten-Year Capital Plan has been prepared this year for the first time, and includes estimated project scoping and cost details.

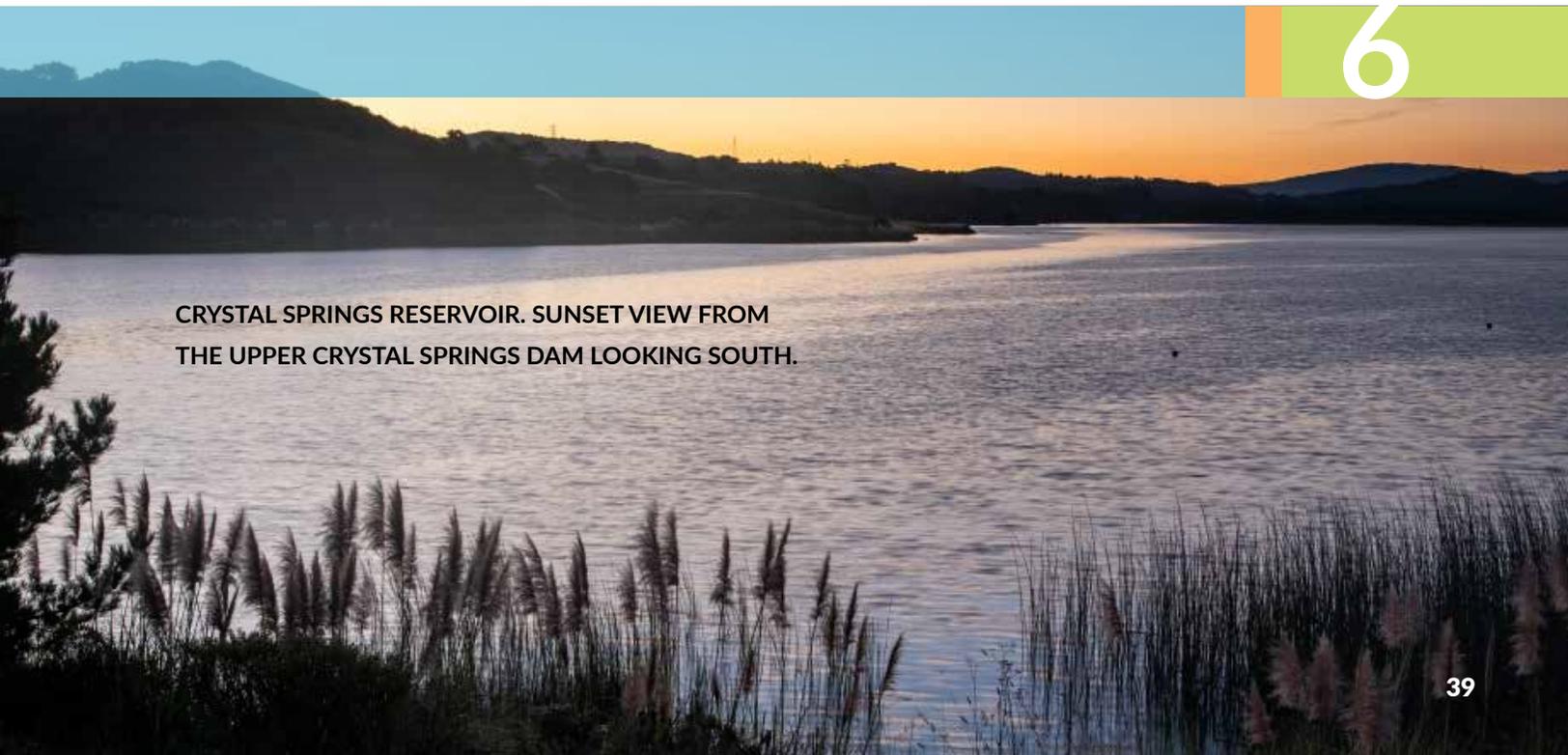
The capital budget for FY 2020-21 is \$517.7 million, and in FY 2021-22 is \$698.0 million. In addition, the overall capital program includes programmatic projects that are funded as part of the operating budget. The programmatic budget for FY 2020-21 is \$62.1 million, and in FY 2021-22 is \$53.0 million. In total, the SFPUC will invest \$1.3 billion through its capital program over the 2-year budget period. The total size of the Ten-Year Capital Plan, including programmatic projects, is \$9.5 billion.

Capital investments are essential for the reliable delivery of clean drinking water, the protection of public health and the environment, including the San Francisco Bay and Pacific Ocean off San Francisco and the continued delivery of clean energy for municipal services. Programmatic projects are mainly comprised of annual programs including facilities maintenance; the programs are funded through operating revenues but are not considered part of regular recurring operations.

The SFPUC Ten-Year Capital Plan provides an assessment of the agency’s capital needs aligned with the Commission’s Strategic Plan goals, as well as the required investments to meet those

Continued on next page...

6



**CRYSTAL SPRINGS RESERVOIR. SUNSET VIEW FROM
THE UPPER CRYSTAL SPRINGS DAM LOOKING SOUTH.**

needs. The purpose of the capital investment is to extend the useful life of the infrastructure and provide continued reliable and compliant operation of the system components. Therefore, understanding the long-term capital needs of the system and determining how to finance these capital needs are essential to the mission of the SFPUC.

Each Enterprise has a two-year capital budget and Ten-Year Capital Plan, which illustrates continued total growth in capital investments through FY 2029-30. Each enterprises's capital plan and budget is described in more detail in the respective enterprise sections of this book.

CAPITAL EXPENDITURES IMPACT ON OPERATING BUDGETS

Supporting capital expenditures is the most significant portion the SFPUC operating budget for FY 2020-21 and FY 2021-22. Debt service to support capital expenditures as well as revenue-funded (i.e. cash funded) capital expenditures make up around 39 percent of the total operating budget.

The SFPUC's single biggest operating cost driver is debt service, which supports around two thirds of capital expenditures. Debt Service comprises \$394.7 million or 28 percent of the total operating budget in FY 2020-21. In addition, revenue-funded capital accounts for \$168.8 million or 11 percent of the FY 2020-21 operating budget. In FY 2021-22 the total debt service increases to \$418.1 million which is 28 percent of the total budget, and revenue-funded capital increases to \$170.0 million which is 11 percent of the total budget.

In the longer term, the Ten-year Capital and Financial Plans assume significant debt financing of capital needs over the next ten-year period. The plans assume a financing strategy that utilizes short-term financing via the existing Commercial Paper (CP) program to calibrate financing needs with project spending. Long-term (30-year) 5 percent fixed rate debt issuance is assumed to periodically refund the CP program. The CP program facilitates short-term financing typically at lower interest rates than longer term debt, which minimizes costs.

In addition, programmatic projects are considered part of the SFPUC's capital program but are part of the operating

budget. Programmatic projects are mainly comprised of annual programs including facilities maintenance; the programs are funded through operating revenues but are not considered part of regular recurring operations. Projects include planned maintenance of various watershed structures and facilities maintenance at the SFPUC's 525 Golden Gate headquarters.

The capital programs are intended to support a defined Level of Service for each utility enterprise based on the SFPUC Vision and Mission. This level of capital investment has changed the SFPUC from an operating-based utility, that was primarily focused on service delivery, to a utility that is focused on reliable service delivery, while at the same time ensuring that the environmental, community and resource management components of the mission are at the forefront. For example, an essential outcome of the capital investment is the implementation of local hire, job training and job creation programs to benefit the community that pays for the capital program. Due to the nature of utility operations, which rely on personnel, chemicals and electricity, these multi-billion-dollar investments are not expected to reduce the annual operating budgets, rather to make the system reliable and resilient in the face of earthquakes, sea-level rise, droughts and other severe weather.

Ten-Year Capital Plan Process

Charter Section 8B.123 requires that the Commission hold public hearings on an annual basis to review,

What is a Capital Expenditure?: SFPUC's Capital Budget is comprised of a biennial capital budget for each of the three enterprise departments and an annually updated Ten-Year Capital Plan. Capital projects must result in the addition of new capital assets and/or improvements to existing assets which extend the asset's service life by at least five years. Capital projects may include associated costs of acquisition or construction of new assets and/or expenditures for activities that enhance the function, improve the performance and/or extend the service life of existing assets.

update, and adopt a Long-Term Capital Improvement Program (the Ten-Year Capital Plan) and a Long- Range Financial Plan (Ten-Year Financial Plan). The Capital Plan is to contain a list of projects to be executed during the Ten-year planning horizon, including cost estimates and schedules. The Financial Plan is to contain estimates of operations and maintenance expenses, repair and replacement costs, debt costs and projected rate increases. Together, the two plans provide visibility into the capital investment required to meet service levels and the rate impacts of these investments. In addition, they serve as a basis and supporting documentation for the Commission's capital budget and the issuance of revenue bonds and other indebtedness to support the SFPUC capital program.

Also, as required by the City & County of San Francisco Charter, the SFPUC prepares a biennial operating and capital budget, as well as Ten-Year Capital and Financial Plans, for each of its three enterprises.

The development of the plans occurred from June through December 2019 and was directed by the Budget Steering Committee comprised of the SFPUC executive team. The Ten-Year Capital Plan informs and guides managers, policy makers, elected officials, and the public by providing the proposed long-term capital program, projects, and investments. The Ten-Year Capital Plan also guides the Ten-Year Financial Plan and the rate analysis approved every five years. The Ten-Year Capital Plan is not a budget; it is the plan that guides the annual capital budget. As the budget process progresses through the spring and into final adoption in the summer, the annual CIPs can be revised, and final projects, costs, and totals for the two annual CIPs can change. The annual CIPs are based on the Ten-Year Capital Plan, but they do not always match by project or dollar amount.

Project Selection and Scheduling

As a preliminary step to Capital Plan development, a baseline review of all existing project appropriations was completed for potential closeout or repurposing to new capital budget needs. This important step focused on capital project delivery and reduced the 2-year capital budget request resulting in a more efficient use of financial resources.

The Capital planning decision making process includes prioritizing project submittals and allocating limited resources. The SFPUC's capital planning tool (Unifier) established a project prioritization methodology to assist in the efficient allocation of limited capital resources. The prioritization process included a project criticality score based on a set of factors including:

1. Probability and Consequence of Failure – how likely to fail and potential to result in interruption of service should the asset fail

2. Strategic Priority – does the project advance SFPUC towards meeting agency's overall Strategic Plan goals and objectives
3. Project Status – projects already in progress receive priority over those not yet started
4. Dependencies – are there other projects that require initiation or completion of the project in question
5. Regulatory Requirements – is there a regulatory requirement driving the project, and if so, what is the timeframe for meeting the requirement without penalty
6. Impact to Operations – if the project is not completed are there impacts to Productivity/Quality/ Reliability/ Revenue/ Supply/ Safety

New this capital planning cycle, Capital Plan project submissions were reviewed and validated by the SFPUC Infrastructure Bureau, resulting in a consistent and comprehensive capital planning approach across the agency comprised of individual project datasheets describing the project budget, schedule and scope. This new capital planning effort helps assure the 10-Year Capital Plan meets the Enterprises' long-range capital needs, reflects a sound project prioritization process and supports affordability by promoting efficient use of ratepayer funds.

Project submissions must be based on cost estimates and assumptions this includes focusing on scope, schedule and cost planning improvements across the agency so that project budgeting ties to annual project delivery; i.e. what can be accomplished each year. This results in the most efficient funding of projects and ratepayer fairness.

The ability to deliver the projects in the Ten-Year Capital Plan was assessed by converting the requested funding into estimated full-time-equivalents (FTE) based on an assumed annual cost for a resource. Where necessary, proposed project schedules were modified to ensure adequate staffing would be available to deliver the project. This assessment occurred after the initial scoring and selection of projects to include in the Ten-Year Capital Plan.

Two-Year Capital Budget Development

The Two-Year Capital Budget is developed and is consistent with the Ten-Year Capital Plan. As a preliminary step to Two-Year Capital budget development, a baseline review of all existing project appropriations was completed for potential closeout or repurposing to new capital budget needs. This important step focused on capital project delivery and reduced the amount of funding request in the Two-Year Capital budget and more efficient use of existing project appropriations, commercial paper and bond funding issuances.

The budget development and baseline review resulted in project budget re-appropriations and closeouts. The Wastewater Enterprise is re-appropriating \$391.4 million of prior year project appropriations to fund the 2 year budget request. The Water Enterprises is closing un-spent project balances returning \$3.5 million to the Waters fund balance and re-appropriating \$15.3 million to fund Water Supply projects in next the 2 year budget request. The Power Enterprise is including reallocations for project closeout.

A description of SFPUC's significant capital and programmatic expenditures is provided within the enterprise sections of this book.

CAPITAL BUDGET SOURCES

SFPUC's capital program is mostly supported by debt financing. In fact, as a result of this, The SFPUC's single biggest operating cost driver is debt service.

In FY 2020-21, SFPUC's \$517.7 million capital budget is funded by \$358.9 million of debt, or 67 percent, and \$168.8 million in cash (revenue funding), or 33 percent. In FY 2021-22, the \$698.0 million capital budget is supported by \$518.1 million in debt, or 74 percent and \$179.9 million in cash, or 26 percent. Of the Debt funding, in the majority is ESER GO bonds, with the remainder met by local and regional revenue bonds. Revenue funding includes general sales revenues as well as specific sources in Power such as Cap and Trade and Distributed Antenna revenues. The approximately \$62 million annual programmatic project budget is majority cash funded, with about 19 percent coming from other operating sources including Federal bond interest subsidies and recovery capital.

Debt

Debt is a major component of SFPUC's budget, with debt service comprising around 28 percent of total operating costs. In FY 2020-21 debt service costs \$394.7 million, rising to \$418.1 million in FY 2021-22. This debt supports about two-thirds of SFPUC's capital budget over the next two years. In the longer term, the Ten-Year Capital and Financial Plans assume significant debt financing of capital needs. The plans assume a financing strategy that utilizes short-term financing via the existing Commercial Paper (CP) program to calibrate financing needs with project spending. Long-term (30-year) 5 percent fixed rate debt issuance is assumed to periodically refund the CP program. The CP program facilitates short-term financing typically at lower interest rates than longer term debt, which minimizes costs.

The following table to the top right details the of budgeted principal and interest payments for each year, in aggregate and by enterprise. This table also includes allocated charges from Certificates of Participation (COPs).

BUDGETED PRINCIPAL AND INTEREST PAYMENTS

\$ millions	FY 2020-21 Adopted Budget	FY 2021-22 Adopted Budget
Water		
Interest	216.5	210.9
Principal	96.9	116.0
Allocated Charges (COPs)	(9.2)	(9.2)
Subtotal	304.2	317.7
Wastewater		
Interest	61.2	71.4
Principal	26.3	26.1
Allocated Charges (COPs)	(2.4)	(2.4)
Subtotal	85.0	95.2
Hetch Hetchy Water & Power		
Interest	3.1	2.9
Principal	2.6	2.6
Allocated Charges (COPs)	(1.2)	(1.2)
Subtotal	4.4	4.3
CleanPowerSF		
Interest	-	-
Principal	1.0	1.0
Allocated Charges (COPs)	-	-
Subtotal	1.0	1.0
SFPUC Aggregate		
Interest	280.8	285.2
Principal	126.7	145.7
Total	394.7	418.1

Total outstanding debt as of June 30, 2020 is as follows:

	Water	Wastewater	Power
Revenue Bonds	\$4.4B	\$1.5B	\$37.3M
SRF & WIFIA Loans (Executed/Drawn)	\$171M/\$0	\$1.5B/\$89M	-
Tax Credit Bonds	-	-	\$8.8M
Commercial Paper (Authorized/Drawn)	\$500M/\$362M	\$750M/\$208M	\$250M/\$64M

Policies Governing SFPUC's Debt

SFPUC's debt management mission is to serve, within the financial objectives and parameters established by the Commission, the capital financing needs of the respective enterprises in a cost effective, low risk and flexible manner, through the implementation of sound financial decision making and the use of appropriate financing tools.

The Debt Policy of the City and County of San Francisco, established by the Mayor's Office of Public Finance and Business Affairs, summarizes the City's existing debt policies and formally establishes them for all future debt. From time to time, the Mayor's Office of Public Finance and Business Affairs may deviate from policies herein. The following policies are relevant and are detailed in the Appendix of this document.

- San Francisco Public Utilities Commission Debt Management Policy and Procedures issued in November 2019
- Fund Balance Reserve Policy
- City and County of San Francisco Debt Policy - May 2017
- Debt Service Coverage Policy - March 2017
- Capital Financing Policy - March 2017

Current legal debt limit and authorizations (as of June 30, 2020) are as follows:

Water:

Pursuant to the Charter Section 8B.124, the 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, 2020, the Board of Supervisors has authorized the issuance of \$4.3 billion in revenue bonds under Proposition E, with \$3.5 billion issued against this authorization. The Enterprise can also incur indebtedness of up to \$1.6 billion for improvements to the water system pursuant to Proposition A that was approved by the voters in November 2002. As of June 30, 2020, \$1.3 billion of the \$1.6 billion Proposition A authorized bonds were issued. The Enterprise is also authorized to issue up to \$500 million in commercial paper with \$362.4 million outstanding as of June 30, 2020.

Wastewater:

Pursuant to the Charter Section 8B.124, the Enterprise can incur indebtedness upon two-thirds vote of the Board of Supervisors. As of June 30, 2020, the Enterprise had \$3.4 billion in combined debt issuance authorization from the Board of Supervisors under Proposition E, with \$2.7 billion issued against this authorization. The Enterprise has a \$750 million authorized commercial paper program, with \$208.0 million in tax-exempt commercial paper outstanding as of June 30, 2020.

Power Enterprise:

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, 2020, \$39.5 million of Hetchy Power revenue bonds were issued against existing authorization of \$392.7 million. The Enterprise is also authorized to issue up to \$250 million in commercial paper with \$63.5 million outstanding as of June 30, 2020.

Debt Service Coverage Policy

In addition to debt limits, SFPUC also imposes policy limits on debt service coverage. Pursuant to SFPUC bond covenants entered into with bondholders, enterprise revenues pledged for the repayment of debt service must meet the following financial ratios.

- Indenture Coverage: Net Revenues must equal a minimum of 1.25 x annual debt service
- Current Coverage: Annual Revenues must equal a minimum of 1.00 x annual debt service

To ensure that the SFPUC maintains access to low-cost capital and retains financial flexibility for contingencies, it is important to adopt and implement financial policies that impose higher standards than the minimum indenture requirements. Therefore, for each enterprise, the SFPUC adopt budgets, rates and financial plans that generate revenues such that:

- Indenture Coverage shall be at least 1.35x
- Current Coverage shall be at least 1.10x

To monitor compliance with this policy, SFPUC presents this information as part of the budget process and the 10-year financial plan. SFPUC is forecast to meet these policy minimums in the FY 2020-21 and FY 2021-22 budget and throughout the 10-year Financial Plan period.

Debt to be issued during the budget period

In the FY 2020-21 and FY 2021-22 period, the SFPUC anticipates issuing the following debt¹:

¹Note: Dates and amounts are approximate and subject to change. FY2022 Debt Issuances currently under development.

Description	Approximate Transaction Size	Estimated Closing
Water - Drinking Water SRF Loan for Mountain Tunnel Project	\$140M - \$240M	3/2021
Wastewater - Revenue Notes	\$250M - \$350M	6/2021
Power - Power Debt Transaction	To be determined	6/2021
Water & Wastewater - Approve renewal or replacement of bank credit facilities for interim funding programs	\$75M-Wastewater	1/2021
	\$100M-Water	1/2021
	\$150M-Wastewater	3/2021
	\$100M-Water	5/2021

SFPUC TEN-YEAR CAPITAL PLAN (CONTINUED ON NEXT PAGE...)

USES	FY 20-21	FY 21-22	FY 22-23	FY 23-24	FY 24-25	FY 25-26	FY 26-27	FY 27-28	FY 28-29	FY 29-30
Water Enterprise	272,686,937	189,382,054	285,460,308	439,878,826	378,643,368	198,881,306	111,639,704	115,496,755	110,415,519	102,284,870
Wastewater Enterprise	162,292,881	364,404,373	550,338,137	690,944,975	712,963,530	678,990,924	485,112,366	531,676,351	493,762,887	456,381,802
Hetch Hetchy Enterprise	80,833,733	141,778,552	244,540,577	197,170,847	196,947,346	189,974,346	175,638,336	146,900,336	110,998,459	82,043,659
CleanPowerSF Enterprise	1,898,497	2,432,829	1,473,000	1,423,000	1,638,000	1,673,000	1,483,000	1,583,000	19,519,000	42,696,000
Total SFPUC USES	517,712,048	697,997,808	1,081,812,022	1,329,417,648	1,290,192,244	1,069,519,576	773,873,406	795,656,442	734,695,865	683,406,331

SOURCES

Water Enterprise										
Debt										
Regional Bonds - Wholesale Only	-	-	-	-	-	-	-	-	-	-
Regional Bonds	34,488,155	43,772,181	181,258,804	208,935,709	135,938,151	75,607,934	26,447,000	34,062,200	22,701,732	19,967,000
General Obligation Bonds - ESER 2020 & Beyond	153,000,000									
Local Bonds	36,044,782	88,432,194	35,581,504	157,323,117	164,085,217	39,653,372	20,067,704	24,790,555	15,426,735	18,998,947
Subtotal	223,532,937	132,204,375	216,840,308	366,258,826	300,023,368	115,261,306	46,514,704	58,852,755	38,128,467	38,965,947
Revenue										
Capacity Fee	1,554,000	1,520,000	1,520,000	1,520,000	1,520,000	1,520,000	1,580,000	1,644,000	1,644,000	1,634,000
Local Revenue	27,600,000	35,698,998	42,100,000	47,100,000	52,100,000	57,100,000	38,545,000	30,000,000	42,000,000	40,327,975
Regional Revenue	20,000,000	19,958,681	25,000,000	25,000,000	25,000,000	25,000,000	25,000,000	25,000,000	28,643,052	21,356,948
Subtotal	49,154,000	57,177,679	68,620,000	73,620,000	78,620,000	83,620,000	65,125,000	56,644,000	72,287,052	63,318,923
Total Water SOURCES	272,686,937	189,382,054	285,460,308	439,878,826	378,643,368	198,881,306	111,639,704	115,496,755	110,415,519	102,284,870

SFPUC TEN-YEAR CAPITAL PLAN (CONTINUED)

SOURCES	FY 20-21	FY 21-22	FY 22-23	FY 23-24	FY 24-25	FY 25-26	FY 26-27	FY 27-28	FY 28-29	FY 29-30
Wastewater Enterprise										
<u>Revenue Funding</u>										
Revenue	107,894,500	110,252,390	122,657,438	125,110,586	127,612,798	130,165,054	132,768,355	135,423,722	138,132,197	140,894,841
Capacity Fee	5,800,000	5,319,000	5,695,000	5,695,000	5,695,000	5,695,000	5,695,000	5,695,000	5,695,000	5,695,000
Subtotal	113,694,500	115,571,390	128,352,438	130,805,586	133,307,798	135,860,054	138,463,355	141,118,722	143,827,197	146,589,841
<u>Debt Funding</u>										
Revenue Bonds	48,598,381	248,832,983	421,985,699	560,139,389	579,655,732	543,130,870	346,649,011	390,557,629	349,935,690	309,791,961
Subtotal	48,598,381	248,832,983	421,985,699	560,139,389	579,655,732	543,130,870	346,649,011	390,557,629	349,935,690	309,791,961
Total Wastewater SOURCES	162,292,881	364,404,373	550,338,137	690,944,975	712,963,530	678,990,924	485,112,366	531,676,351	493,762,887	456,381,802
Hetch Hetchy Enterprise										
<u>Revenue</u>										
Power Revenue	-1,757,000	-781,000	15,699,881	15,546,122	15,388,030	15,218,623	15,040,809	14,853,818	14,657,298	14,450,437
Distributed Antenna System	2,831,000	2,932,000	3,037,500	3,147,000	3,261,000	3,379,500	3,502,500	3,630,500	3,763,500	3,902,000
Power - Cap and Trade Auction Revenue	495,000	535,000	577,619	621,878	665,970	716,877	771,691	830,682	894,202	962,563
Low Carbon Fuel Standard	2,500,000	2,000,000	1,700,000	1,700,000	1,700,000	1,700,000	1,700,000	1,700,000	1,700,000	1,700,000
Subtotal	4,069,000	4,686,000	21,015,000	21,015,000	21,015,000	21,015,000	21,015,000	21,015,000	21,015,000	21,015,000
<u>Debt</u>										
Water Bonds	28,368,149	63,964,574	100,102,200	81,725,900	76,691,975	54,677,925	51,362,350	33,566,750	32,714,400	22,110,200
Power Bonds - Up-country	10,133,626	47,509,909	91,288,800	67,045,100	59,155,525	57,271,575	54,529,650	43,587,250	30,912,600	17,657,000
Power Bonds - Local	38,262,958	25,618,069	32,134,577	27,384,847	40,084,846	57,009,846	48,731,336	48,731,336	26,356,459	21,261,459
Subtotal	76,764,733	137,092,552	223,525,577	176,155,847	175,932,346	168,959,346	154,623,336	125,885,336	89,983,459	61,028,659
Total Hetch Hetchy SOURCES	80,833,733	141,778,552	244,540,577	197,170,847	196,947,346	189,974,346	175,638,336	146,900,336	110,998,459	82,043,659
CleanPowerSF Enterprise										
Revenues/Reserve	1,898,497	2,432,829	1,473,000	1,423,000	1,638,000	1,673,000	1,483,000	1,583,000	19,519,000	42,696,000
Total Wastewater SOURCES	1,898,497	2,432,829	1,473,000	1,423,000	1,638,000	1,673,000	1,483,000	1,583,000	19,519,000	42,696,000
Total SFPUC SOURCES	517,712,048	697,997,808	1,081,812,022	1,329,417,648	1,290,192,244	1,069,519,576	773,873,406	795,656,442	734,695,865	683,406,331

SFPUC TEN-YEAR PROGRAMMATIC PROJECT BUDGET

USES	FY 20-21 Approved	FY 21-22 Approved	FY 22-23	FY 23-24	FY 24-25	FY 25-26	FY 26-27	FY 27-28	FY 28-29	FY 29-30
Water Enterprise	36,136,198	31,422,540	32,798,389	32,496,186	35,486,712	36,463,521	36,893,158	36,223,168	35,050,641	35,540,807
Wastewater Enterprise	7,358,108	6,570,344	6,655,917	6,685,551	6,665,330	6,644,655	6,623,405	6,601,462	6,615,790	6,631,242
Hetch Hetchy Enterprise	18,629,687	14,986,774	11,067,541	11,826,204	12,620,793	13,313,148	14,041,207	14,821,909	15,631,721	16,473,082
Total SSIP	62,123,993	52,979,658	50,521,847	51,007,941	54,772,835	56,421,324	57,557,770	57,646,539	57,298,152	58,645,131

SOURCES	FY 20-21 Approved	FY 21-22 Approved	FY 22-23	FY 23-24	FY 24-25	FY 25-26	FY 26-27	FY 27-28	FY 28-29	FY 29-30
Water Enterprise										
Infrastructure - Recovery Capital (O&M)	1,142,000	1,176,000	1,211,000	1,248,000	1,248,000	1,248,000	1,285,000	1,324,000	1,324,000	1,324,000
Infrastructure - Recovery Capital (Lease)	2,650,000	2,650,000	2,650,000	2,650,000	2,650,000	2,650,000	2,650,000	2,650,000	2,650,000	2,650,000
Federal Bond Interest Subsidy	1,965,550	1,965,550	1,945,000	1,910,000	1,942,000	1,770,000	1,695,000	1,616,000	1,616,000	1,616,000
Subtotal	5,757,550	5,791,550	5,806,000	5,808,000	5,840,000	5,668,000	5,630,000	5,590,000	5,590,000	5,590,000
Revenue	30,378,648	25,630,990	26,992,389	26,688,186	29,646,712	30,795,521	31,263,158	30,633,168	29,460,641	29,950,807
Subtotal	30,378,648	25,630,990	26,992,389	26,688,186	29,646,712	30,795,521	31,263,158	30,633,168	29,460,641	29,950,807
Water Total	36,136,198	31,422,540	32,798,389	32,496,186	35,486,712	36,463,521	36,893,158	36,223,168	35,050,641	35,540,807
Wastewater Enterprise										
Infrastructure - Recovery Capital (O&M)	246,000	253,000	265,000	268,000	268,000	268,000	276,000	284,000	284,000	284,000
Infrastructure - Recovery Capital (Lease)	1,872,000	1,872,000	1,872,000	1,872,000	1,872,000	1,872,000	1,872,000	1,872,000	1,872,000	1,872,000
Federal Bond Interest Subsidy	519,724	519,724	514,000	505,000	487,000	468,000	448,000	427,000	427,000	427,000
Revenue	4,720,384	3,925,620	4,004,917	4,040,551	4,038,330	4,036,655	4,027,405	4,018,462	4,032,790	4,048,242
Wastewater Total	7,358,108	6,570,344	6,655,917	6,685,551	6,665,330	6,644,655	6,623,405	6,601,462	6,615,790	6,631,242
Hetch Hetchy Enterprise										
Infrastructure - Recovery Capital (O&M)	84,000	86,000	88,000	90,000	90,000	90,000	93,000	96,000	96,000	96,000
Infrastructure - Recovery Capital (Lease)	238,000	238,000	238,000	238,000	238,000	238,000	238,000	238,000	238,000	238,000
Federal Bond Interest Subsidy	267,589	267,589	265,000	265,000	260,000	251,000	241,000	230,000	230,000	230,000
Trans Bay Cable Payment	3,100,000		-	-	-	-	-	-	-	-
Subtotal	3,689,589	591,589	591,000	593,000	588,000	579,000	572,000	564,000	564,000	564,000
Revenue										
Treasure Island	3,825,000	4,016,000	4,217,000	4,428,000	4,649,000	4,788,000	4,930,000	5,077,000	5,229,000	5,386,000
Revenue - Power	11,115,098	10,379,185	6,259,541	6,805,204	7,383,793	7,946,148	8,539,207	9,180,909	9,838,721	10,523,082
Subtotal	14,940,098	14,395,185	10,476,541	11,233,204	12,032,793	12,734,148	13,469,207	14,257,909	15,067,721	15,909,082
Hetch Hetchy Total	18,629,687	14,986,774	11,067,541	11,826,204	12,620,793	13,313,148	14,041,207	14,821,909	15,631,721	16,473,082
TOTAL SOURCES	62,123,993	52,979,658	50,521,847	51,007,941	54,772,835	56,421,324	57,557,770	57,646,539	57,298,152	58,645,131

OPERATING BUDGET TABLES

OVERVIEW. This section includes tables summarizing major types of revenues and expenditures in aggregate as well as by major fund and division. These tables include summaries of revenues and of expenditures for the prior year budget and actuals (FY 2019-20), and both the two proposed budget years (FY 2020-21 and FY 2021-22). In addition, tables showing changes in staffing levels (Full Time Equivalents/FTEs) are shown. Lastly, this section includes tables describing projected changes in fund balances in aggregate and for each major fund.

This section contains no narrative, and is intended to be a simple reference point in the book for the main budgetary numbers. Explanation and discussion of the line items and numbers in these tables can be found in section 4 (Introduction to the SFPUC), and in the respective enterprise and bureaus sections (8, 9, 10, 11 and 12).



REPLACING THE EXISTING HIGH PRESSURE SODIUM (HPS) STREET LIGHT UNITS WITH LED STREET LIGHTS ON THE EMBARCADERO & BROADWAY. DAVID CONDON (ELECTRICAL LINE WORKER).

SOURCES AND USES OF FUNDS

\$	FY 2019-20 Unaudited Actuals	FY 2019-20 Adopted Budget	FY 2020-21 Adopted Budget	Change From FY 2019-20	FY 2021-22 Adopted Budget	Change From FY 2020-21
SOURCES OF FUNDS						
Sale of Water	562,777,048	567,493,123	570,161,577	2,668,454	597,946,860	27,785,283
Sewer Service Charges	338,372,579	349,169,385	351,918,674	2,749,289	382,766,759	30,848,085
Sale of Electricity	39,827,877	169,361,693	142,563,790	(26,797,903)	152,506,731	9,942,941
Sale of Electricity-CCA	244,956,489	212,070,541	225,610,735	13,540,194	225,539,096	(71,639)
Sale of Natural Gas & Steam	110,150,502	10,896,704	13,033,095	2,136,391	14,652,501	1,619,406
Fund Balance	97,625,569	28,395,409	39,853,527	11,458,118	22,763,581	(17,089,946)
Other Non-Op Revenues	42,636,229	40,331,863	48,752,466	8,420,603	45,659,136	(3,093,330)
Federal Interest Subsidy	28,301,665	28,301,665	25,786,043	(2,515,622)	25,553,069	(232,974)
Interest Income	23,047,017	5,671,759	16,275,000	10,603,241	15,999,000	(276,000)
Total Sources of Funds	1,487,694,975	1,411,692,142	1,433,954,907	22,262,765	1,483,386,733	49,431,826
USES OF FUNDS						
Personnel	214,325,774	233,543,646	234,339,562	795,916	238,820,309	4,480,747
Overhead	92,418,426	99,203,213	109,621,561	10,418,348	113,407,826	3,786,265
Purchase of Power	224,439,584	230,248,168	241,739,398	11,491,230	263,546,903	21,807,505
Non-Personnel Services	81,455,465	76,974,182	96,684,571	19,710,389	101,089,187	4,404,616
Materials & Supplies	24,613,089	29,635,436	30,061,286	425,850	31,408,526	1,347,240
City Grants Program	-	250,000	250,000	-	250,000	-
Low Carbon Fuel Standard (LCFS) Credit	116,435	-	2,507,000	2,507,000	735,000	(1,772,000)
Equipment	5,017,378	7,284,660	8,056,178	771,518	6,169,154	(1,887,024)
Debt Service	369,822,996	381,721,287	394,734,776	13,013,489	418,141,557	23,406,781
General Reserve	-	23,482,720	17,437,056	(6,045,664)	7,242,125	(10,194,931)
Service of Other Departments	66,852,890	70,290,838	74,712,529	4,421,691	75,667,590	955,061
Revenue-Funded Capital	211,498,332	205,304,397	161,061,997	(44,242,400)	170,028,898	8,966,901
Programmatic Projects	51,586,184	53,753,595	62,748,993	8,995,398	56,879,658	(5,869,335)
Total Uses of Funds	1,342,146,553	1,411,692,142	1,433,954,907	22,262,765	1,483,386,733	49,431,826

SOURCES AND USES OF FUNDS BY MAJOR FUND (CONTINUED ON NEXT PAGE...)

\$	FY 2019-20 Unaudited Actuals	FY 2019-20 Adopted Budget	FY 2020-21 Adopted Budget	Change From FY 2019-20	FY 2021-22 Adopted Budget	Change From FY 2020-21
WATER						
SOURCES OF FUNDS						
Sale of Water	562,513,876	564,550,422	569,967,576	5,417,154	597,738,859	27,771,283
Less Water Costs to Hetchy	(34,545,000)	(34,584,999)	(44,148,999)	(9,564,000)	(45,033,999)	(885,000)
Federal Interest Subsidy	23,754,893	23,754,893	21,781,792	(1,973,101)	21,574,916	(206,876)
Other Non-Op Revenues	31,920,836	31,523,811	31,484,387	(39,424)	31,822,627	338,240
Interest Income	8,654,600	2,241,291	5,051,000	2,809,709	4,460,000	(591,000)
Fund Balance	55,779,935	17,181,360	27,785,227	10,603,867	22,763,581	(5,021,646)
Total Sources of Funds	648,079,140	604,666,778	611,920,983	7,254,205	633,325,984	21,405,001

USES OF FUNDS						
Personnel	95,574,692	102,809,094	102,284,413	(524,681)	104,119,982	1,835,569
Non-Personnel Services	16,376,246	18,335,756	21,866,002	3,530,246	22,786,774	920,772
Materials & Supplies	12,878,034	15,091,344	15,283,545	192,201	15,994,604	711,059
Equipment	3,133,647	4,116,116	4,459,339	343,223	2,888,897	(1,570,442)
Overhead	45,533,436	49,320,744	54,382,333	5,061,589	56,210,937	1,828,604
Debt Service	291,142,271	306,282,521	304,244,234	(2,038,287)	317,716,353	13,472,119
Service of Other Departs	22,714,538	23,713,203	24,666,919	953,716	25,303,218	636,299
General Reserve	-	-	-	-	-	-
Revenue-Funded Capital	51,804,000	51,804,000	47,600,000	(4,204,000)	55,657,679	8,057,679
Programmatic Projects	33,194,000	33,194,000	37,134,198	3,940,198	32,647,540	(4,486,658)
Total Uses of Funds	572,350,864	604,666,778	611,920,983	7,254,205	633,325,984	21,405,001

WASTEWATER						
SOURCES OF FUNDS						
Sewer Service Charges	338,372,579	349,169,385	351,918,674	2,749,289	382,766,759	30,848,085
Federal Interest Subsidy	4,008,923	4,008,923	3,519,245	(489,678)	3,519,245	-
Other Non-Op Revenues	4,384,071	5,002,252	12,465,679	7,463,427	12,379,109	(86,570)
Interest Income	7,974,080	1,988,300	5,873,000	3,884,700	5,802,000	(71,000)
Fund Balance	18,045,634	3,497,321	12,068,300	8,570,979	-	(12,068,300)
Total Sources of Funds	372,785,287	363,666,181	385,844,898	22,178,717	404,467,113	18,622,215

USES OF FUNDS						
Personnel	70,854,676	75,816,162	76,251,135	434,973	77,506,706	1,255,571
Non-Personnel Services	20,706,768	18,490,821	23,392,819	4,901,998	25,686,948	2,294,129
City Grants Program	-	250,000	250,000	-	250,000	-
Materials & Supplies	8,428,506	11,165,340	11,188,300	22,960	11,686,122	497,822
Equipment	1,258,753	1,832,925	1,825,015	(7,910)	2,060,747	235,732
Overhead	27,896,875	29,937,223	32,951,812	3,014,589	34,143,686	1,191,874
Debt Service	70,690,359	70,690,359	85,047,135	14,356,776	95,151,797	10,104,662
Service of Other Departs	35,368,538	35,215,591	37,945,780	2,730,189	38,306,643	360,863
General Reserve	-	-	405,294	405,294	1,756,730	1,351,436
Revenue-Funded Capital	131,209,303	112,979,000	107,894,500	(5,084,500)	110,252,390	2,357,890
Programmatic Projects	6,371,509	7,288,760	8,693,108	1,404,348	7,665,344	(1,027,764)
Total Uses of Funds	372,785,287	363,666,181	385,844,898	22,178,717	404,467,113	18,622,215

SOURCES AND USES OF FUNDS BY MAJOR FUND (CONTINUED)

\$	FY 2019-20 Unaudited Actuals	FY 2019-20 Adopted Budget	FY 2020-21 Adopted Budget	Change From FY 2019-20	FY 2021-22 Adopted Budget	Change From FY 2020-21
HETCH HETCHY WATER AND POWER						
SOURCES OF FUNDS						
Sale of Water	34,808,172	37,527,700	44,343,000	6,815,300	45,242,000	899,000
Sale of Electricity	39,827,877	169,361,693	142,563,790	(26,797,903)	152,506,731	9,942,941
Sale of Natural Gas & Steam	110,150,502	10,896,704	13,033,095	2,136,391	14,652,501	1,619,406
Other Non-Op Revenues	6,039,722	3,514,200	4,245,800	731,600	1,165,800	(3,080,000)
Interest Income	5,425,947	603,400	4,468,000	3,864,600	4,805,000	337,000
Federal Interest Subsidy	537,849	537,849	485,006	(52,843)	458,908	(26,098)
Fund Balance	23,800,000	7,716,728	-	(7,716,728)	-	-
Total Sources of Funds	220,590,069	230,158,274	209,138,691	(21,019,583)	218,830,940	9,692,249
USES OF FUNDS						
Personnel	44,928,773	48,313,158	49,016,888	703,730	49,551,816	534,928
Non-Personnel Services	33,932,490	27,328,817	38,607,801	11,278,984	40,270,490	1,662,689
Purchase of Power	49,023,851	65,676,542	59,796,039	(5,880,503)	70,948,058	11,152,019
Materials & Supplies	3,285,981	3,151,815	3,361,083	209,268	3,498,442	137,359
Equipment	624,978	1,335,619	1,771,824	436,205	1,219,510	(552,314)
Overhead	16,947,264	17,831,413	19,747,446	1,916,033	20,463,811	716,365
Debt Service	5,990,366	4,748,407	4,443,407	(305,000)	4,273,407	(170,000)
Low Carbon Fuel Standard (LCFS) Credit	116,435	-	2,507,000	2,507,000	735,000	(1,772,000)
Service of Other Departs	6,329,169	8,250,271	8,511,134	260,863	8,509,529	(1,605)
General Reserve	-	-	1,510,382	1,510,382	2,123,103	612,721
Revenue-Funded Capital (incl. TransBay)	28,485,029	40,521,397	3,669,000	(36,852,397)	1,686,000	(1,983,000)
Programmatic Projects	11,964,210	13,000,835	16,196,687	3,195,852	15,551,774	(644,913)
Total Uses of Funds	201,628,546	230,158,274	209,138,691	(21,019,583)	218,830,940	9,692,249
CLEANPOWERSF						
SOURCES OF FUNDS						
Sale of Electricity - CCA	244,956,489	212,070,541	225,610,735	13,540,194	225,539,096	(71,639)
Interest Income	992,390	838,768	883,000	44,232	932,000	49,000
Total Sources of Funds	245,948,879	212,909,309	226,493,735	13,584,426	226,471,096	(22,639)
USES OF FUNDS						
Personnel	2,967,633	6,605,232	6,787,126	181,894	7,641,805	854,679
Non-Personnel Services	10,439,961	12,527,188	12,261,349	(265,839)	12,053,375	(207,974)
Purchase of Power	175,415,733	164,571,626	181,943,359	17,371,733	192,598,845	10,655,486
Materials & Supplies	20,568	226,937	228,358	1,421	229,358	1,000
Overhead	2,040,851	2,113,833	2,539,970	426,137	2,589,392	49,422
Debt Service	2,000,000	-	1,000,000	1,000,000	1,000,000	-
Service of Other Departs	2,440,645	3,111,773	3,588,696	476,923	3,548,200	(40,496)
General Reserve	-	23,482,720	15,521,380	(7,961,340)	3,362,292	(12,159,088)
Revenue-Funded Capital	-	-	1,898,497	1,898,497	2,432,829	534,332
Programmatic Projects	56,465	270,000	725,000	455,000	1,015,000	290,000
Total Uses of Funds	195,381,856	212,909,309	226,493,735	13,584,426	226,471,096	(22,639)

SOURCES AND USES OF FUNDS BY MAJOR FUND (CONTINUED)

\$	FY 2019-20 Unaudited Actuals	FY 2019-20 Adopted Budget	FY 2020-21 Adopted Budget	Change From FY 2019-20	FY 2021-22 Adopted Budget	Change From FY 2020-21
BUREAUS, INCLUDING INFRASTRUCTURE						
USES OF FUNDS						
Personnel	65,412,842	136,324,773	140,971,432	4,646,659	143,814,299	2,842,867
Non-Personnel	11,704,810	16,008,364	19,057,536	3,049,172	19,073,268	15,732
Materials & Supplies	2,273,558	2,344,845	2,435,226	90,381	2,828,291	393,065
Equipment	1,224,775	1,398,570	1,656,136	257,566	1,521,707	(134,429)
Service of Other Departs	11,818,041	28,992,954	28,374,964	(617,990)	28,391,375	16,411
General Reserve	-	-	580,123	580,123	1,686,542	1,106,419
Internal SFPUC Overhead Recovery	(92,378,139)	(184,777,906)	(192,518,817)	(7,740,911)	(197,023,882)	(4,505,065)
Total Uses of Funds	55,887	291,600	556,600	265,000	291,600	(265,000)
SOURCES OF FUNDS						
Non SFPUC Recoveries	1,076	291,600	556,600	265,000	291,600	(265,000)
Total Sources of Funds	1,076	291,600	556,600	265,000	291,600	(265,000)

SFPUC USES OF FUNDS BY DIVISION AND SECTION (CONTINUED ON NEXT PAGE...)

\$	FY 2019-20 Adopted Budget	FY 2020-21 Adopted Budget	Change From FY 2019-20	FY 2021-22 Adopted Budget	Change From FY 2020-21
WATER - USES OF FUNDS					
Administration	69,062,638	77,048,729	7,986,091	79,587,611	2,538,882
Debt Service	306,282,521	304,244,234	(2,038,287)	317,716,353	13,472,119
City Distribution	45,827,096	45,963,019	135,923	46,180,550	217,531
Water Quality	20,823,217	20,435,443	(387,774)	20,814,478	379,035
Water Supply & Treatment	55,528,616	56,492,172	963,556	58,085,825	1,593,653
Natural Resources	12,999,391	13,880,841	881,450	13,382,779	(498,062)
Water Resources	9,145,299	9,122,347	(22,952)	9,253,169	130,822
Programmatic Projects	33,194,000	37,134,198	3,940,198	32,647,540	(4,486,658)
Revenue-Funded Capital	51,804,000	47,600,000	(4,204,000)	55,657,679	8,057,679
Total Water	604,666,778	611,920,983	7,254,205	633,325,984	21,405,001

WASTEWATER - USES OF FUNDS					
Regulatory, Business Strategy and Performance	52,340,944	56,701,298	4,360,354	59,296,443	2,595,145
Maintenance	30,407,612	33,699,310	3,291,698	34,258,637	559,327
Bayside Operations	44,676,085	47,578,542	2,902,457	48,989,549	1,411,007
Environmental Engineering	6,284,179	6,583,451	299,272	6,627,926	44,475
Collection System	33,812,663	34,002,344	189,681	35,174,797	1,172,453
Laboratory	5,186,579	5,239,916	53,337	5,293,500	53,584
Debt Service	70,690,359	85,047,135	14,356,776	95,151,797	10,104,662
General Reserve	-	405,294	405,294	1,756,730	1,351,436
Revenue-Funded Capital	112,979,000	107,894,500	(5,084,500)	110,252,390	2,357,890
Programmatic Projects	7,288,760	8,693,108	1,404,348	7,665,344	(1,027,764)
Total Wastewater	363,666,181	385,844,898	22,178,717	404,467,113	18,622,215

SFPUC USES OF FUNDS BY DIVISION AND SECTION (CONTINUED)

\$	FY 2019-20 Adopted Budget	FY 2020-21 Adopted Budget	Change From FY 2019-20	FY 2021-22 Adopted Budget	Change From FY 2020-21
HETCH HETCHY - USES OF FUNDS					
PowerAdministration	16,325,279	252,625	(16,072,654)	266,687	14,062
Energy Services	11,782,323	-	(11,782,323)	-	-
Long Range Planning	56,980,974	3	(56,980,971)	3	-
Light, Heat and Power	19,206,465	105,409,161	86,202,696	115,585,003	10,175,842
Project Operations	-	-	-	-	-
Water Operations	67,592,594	77,657,426	10,064,832	79,344,963	1,687,537
Debt Service	4,748,407	4,443,407	(305,000)	4,273,407	(170,000)
General Reserve	-	1,510,382	1,510,382	2,123,103	612,721
Revenue-Funded Capital	40,521,397	3,669,000	(36,852,397)	1,686,000	(1,983,000)
Programmatic Projects	13,000,835	16,196,687	3,195,852	15,551,774	(644,913)
Total Hetch Hetchy Water and Power	230,158,274	209,138,691	(21,019,583)	218,830,940	9,692,249
CLEANPOWERSF - USES OF FUNDS					
CleanPowerSF	189,156,589	208,348,858	19,192,269	219,660,975	11,312,117
General Reserve	23,482,720	15,521,380	(7,961,340)	3,362,292	(12,159,088)
Revenue-Funded Capital	-	1,898,497	1,898,497	2,432,829	534,332
Programmatic Projects	270,000	725,000	455,000	1,015,000	290,000
Total CleanPowerSF	212,909,309	226,493,735	13,584,426	226,471,096	(22,639)
Total Bureaus	291,600	556,600	265,000	291,600	(265,000)
Total SFPUC	1,411,692,142	1,433,954,907	22,262,765	1,483,386,733	49,431,826

FY 2020-21 SOURCES AND USES OF FUNDS BY DIVISION

\$	FY 2020-21					
	Water	Wastewater	Hetch Hetchy Water & Power	CleanPowerSF	Bureaus*	Total
SOURCE OF FUNDS						
Sale of Water	525,818,577	-	44,343,000	-	-	570,161,577
Sewer Service Charges	-	351,918,674	-	-	-	351,918,674
Sale of Electricity	-	-	142,563,790	-	-	142,563,790
Sale of Electricity-CCA	-	-	-	225,610,735	-	225,610,735
Sale of Natural Gas & Steam	-	-	13,033,095	-	-	13,033,095
Fund Balance	27,785,227	12,068,300	-	-	-	39,853,527
Other Non-Op Revenues	31,484,387	12,465,679	4,245,800	-	-	48,195,866
Federal Interest Subsidy	21,781,792	3,519,245	485,006	-	-	25,786,043
Interest Income	5,051,000	5,873,000	4,468,000	883,000	-	16,275,000
External Recoveries	-	-	-	-	556,600	556,600
Total Sources of Funds	611,920,983	385,844,898	209,138,691	226,493,735	556,600	1,433,954,907
USE OF FUNDS						
Personnel	102,284,413	76,251,135	49,016,888	6,787,126	-	234,339,562
Overhead	54,382,333	32,951,812	19,747,446	2,539,970	-	109,621,561
Purchase of Power	-	-	59,796,039	181,943,359	-	241,739,398
Non-Personnel Services	21,866,002	23,392,819	38,607,801	12,261,349	-	96,127,971
Materials & Supplies	15,283,545	11,188,300	3,361,083	228,358	-	30,061,286
City Grants Program	-	250,000	-	-	-	250,000
Low Carbon Fuel Standard (LCFS) Credit	-	-	2,507,000	-	-	2,507,000
Equipment	4,459,339	1,825,015	1,771,824	-	-	8,056,178
Debt Service	304,244,234	85,047,135	4,443,407	1,000,000	-	394,734,776
General Reserve	-	405,294	1,510,382	15,521,380	-	17,437,056
Service of Other Departments	24,666,919	37,945,780	8,511,134	3,588,696	-	74,712,529
Revenue-Funded Capital	47,600,000	107,894,500	3,669,000	1,898,497	-	161,061,997
Programmatic Projects	37,134,198	8,693,108	16,196,687	725,000	-	62,748,993
Bureaus Services to Other Departments	-	-	-	-	556,600	556,600
Total Uses of Funds	611,920,983	385,844,898	209,138,691	226,493,735	556,600	1,433,954,907

* Please note that Bureaus costs are allocated to enterprises through the overhead model and are not shown here to avoid double counting.

FY 2021-22 SOURCES AND USES OF FUNDS BY DIVISION

\$	FY 2021-22					
	Water	Wastewater	Hetch Hetchy Water & Power	CleanPowerSF	Bureaus*	Total
SOURCE OF FUNDS						
Sale of Water	552,704,860	-	45,242,000	-	-	597,946,860
Sewer Service Charges	-	382,766,759	-	-	-	382,766,759
Sale of Electricity	-	-	152,506,731	-	-	152,506,731
Sale of Electricity-CCA	-	-	-	225,539,096	-	225,539,096
Sale of Natural Gas & Steam	-	-	14,652,501	-	-	14,652,501
Fund Balance	22,763,581	-	-	-	-	22,763,581
Other Non-Op Revenues	31,822,627	12,379,109	1,165,800	-	-	45,367,536
Federal Interest Subsidy	21,574,916	3,519,245	458,908	-	-	25,553,069
Interest Income	4,460,000	5,802,000	4,805,000	932,000	-	15,999,000
External Recoveries	-	-	-	-	291,600	291,600
Total Sources of Funds	633,325,984	404,467,113	218,830,940	226,471,096	291,600	1,483,386,733
USE OF FUNDS						
Personnel	104,119,982	77,506,706	49,551,816	7,641,805	-	238,820,309
Overhead	56,210,937	34,143,686	20,463,811	2,589,392	-	113,407,826
Purchase of Power	-	-	70,948,058	192,598,845	-	263,546,903
Non-Personnel Services	22,786,774	25,686,948	40,270,490	12,053,375	-	100,797,587
Materials & Supplies	15,994,604	11,686,122	3,498,442	229,358	-	31,408,526
City Grants Program	-	250,000	-	-	-	250,000
Low Carbon Fuel Standard (LCFS) Credit	-	-	735,000	-	-	735,000
Equipment	2,888,897	2,060,747	1,219,510	-	-	6,169,154
Debt Service	317,716,353	95,151,797	4,273,407	1,000,000	-	418,141,557
General Reserve	-	1,756,730	2,123,103	3,362,292	-	7,242,125
Service of Other Departments	25,303,218	38,306,643	8,509,529	3,548,200	-	75,667,590
Revenue-Funded Capital	55,657,679	110,252,390	1,686,000	2,432,829	-	170,028,898
Programmatic Projects	32,647,540	7,665,344	15,551,774	1,015,000	-	56,879,658
Bureaus Services to Other Departments	-	-	-	-	291,600	291,600
Total Uses of Funds	633,325,984	404,467,113	218,830,940	226,471,096	291,600	1,483,386,733

* Please note that Bureaus costs are allocated to enterprises through the overhead model and are not shown here to avoid double counting.

AUTHORIZED AND FUNDED FULL-TIME EQUIVALENTS (FTES)

Position Type	FY 2019-20 Adopted Budget	FY 2020-21 Adopted Budget	Change From FY 2019-20	FY 2021-22 Adopted Budget	Change From FY 2020-21
Permanent Positions	1,616.44	1,597.37	(19.07)	1,621.10	23.73
Temporary Positions	73.56	69.48	(4.08)	63.35	(6.13)
Subtotal Operating-Funded	1,690.00	1,666.85	(23.15)	1,684.45	17.60
Project-Funded	306.35	338.99	32.64	362.13	23.14
Infrastructure Positions	380.00	377.00	(3.00)	377.00	-
Total Funded Positions	2,376.35	2,382.84	6.49	2,423.58	40.74
Unfunded Positions (Attrition)	180.95	216.42	35.47	216.61	0.19
Total SFPUC	2,557.30	2,599.26	41.96	2,640.19	40.93

FY 2020-21 BEGINNING AND ENDING AVAILABLE FUND BALANCE

\$ Millions	FY 2020-21				
	All Funds	Water	Wastewater	Hetch Hetchy Water & Power	CleanPowerSF
Beginning Available Fund Balance, July 1, 2020	561.3	258.4	211.7	38.6	52.6
Total Sources of Funds	1,434.0	612.2	386.0	209.2	226.5
Total Uses of Funds	1,434.0	612.2	386.0	209.2	226.5
Budgeted Use of Reserves	(39.9)	(27.8)	(12.1)	-	-
Budgeted Contribution to Reserves*	18.0	0.3	0.6	1.6	15.6
Planned FY 2020-21 capital program deappropriations	46.4	9.0	10.2	27.3	-
Ending Available Fund Balance, June 30, 2021	585.9	239.9	210.4	67.5	68.2

* Includes Bureaus reserve contributions.

FY 2021-22 BEGINNING AND ENDING AVAILABLE FUND BALANCE

\$ Millions	FY 2021-22				
	All Funds	Water	Wastewater	Hetch Hetchy Water & Power	CleanPowerSF
Beginning Available Fund Balance, July 1, 2021	585.9	239.9	210.4	67.5	68.2
Total Sources of Funds	1,483.4	633.5	404.6	218.9	226.5
Total Uses of Funds	1,483.4	633.5	404.6	218.9	226.5
Budgeted Use of Reserves	(22.8)	(22.8)	-	-	-
Budgeted Contribution to Reserves*	8.9	0.8	2.3	2.4	3.4
Ending Available Fund Balance, June 30, 2022	572.1	218.0	212.7	69.9	71.6

* Includes Bureaus reserve contributions.

WATER ENTERPRISE

MISSION. The SFPUC serves as the retail water supplier for the City and County of San Francisco and is responsible for water deliveries to residents and businesses within the City limits, as well as to a number of retail customers outside of the City limits. The SFPUC sells water to 27 Wholesale Customer entities in San Mateo, Alameda and Santa Clara Counties. Altogether, 2.7 million people rely on water supplied by the Water Enterprise. The Water Enterprise consists of over 389 miles of pipeline, over 74 miles of tunnels, 11 reservoirs, five pump stations, and three water treatment plants located outside of the City (Regional Water System) and over 1,235 miles of pipeline, 11 reservoirs, eight storage tanks, 24 pump stations, eight hydropneumatic stations and 17 chlorination stations located within the City limits.

Wholesale sales are made under the under the Water Supply Agreement (WSA) and related individual contractual agreements. Collectively, except for the Cordilleras Mutual Water

Continued on next page...

WATER ENTERPRISE BUDGET SUMMARY

	FY 2019-20 Adopted Budget	FY 2020-21 Adopted Budget	Change From FY 2019-20	FY 2021-22 Adopted Budget	Change From FY 2020-21
Total Budget	604,666,778	611,920,983	7,254,205	633,325,984	21,405,001
Total FTE	738.7	736.7	(2.0)	752.5	15.9

VIEW OF CHERRY CREEK. THE HETCH HETCHY PROJECT SUPPLIES WATER AND POWER TO THE CITY OF SAN FRANCISCO AND SURROUNDING BAY AREA COMMUNITIES, AND REGULATES STREAM FLOW IN THE UPPER TUOLUMNE RIVER, CHERRY CREEK, AND ELEANOR CREEK.

Company, the Wholesale Customers are represented by BAWSCA, which is a public agency, separate and apart from the 27 Wholesale Customers.

The Regional Water System draws approximately 85 percent of its water from the Upper Tuolumne River Watershed, collected in the Hetch Hetchy Reservoir in Yosemite National Park, feeding a single aqueduct system, delivering water 167 miles by gravity to Bay Area reservoirs and customers. The remaining 15 percent of our water supply is drawn from local surface waters in the Alameda and Peninsula watersheds. Started in April 2017, less than one million gallons a day of groundwater has been pumped from the westside of San Francisco and blended with the regional water supplies.

The San Francisco Public Utilities Commission operates the facilities of its Water Enterprise to optimize the reliability and quality of its water deliveries. The SFPUC is making significant infrastructure capital investments, designed to maximize the Water Enterprise’s ability to deliver water sufficient to meet the needs of its customers following the occurrence of a major seismic event or during an extended period of drought.

SFPUC’s Water Enterprise is the third largest municipal utility in California. Approximately one-third of our delivered water goes to retail customers in San Francisco, while wholesale deliveries to 27 suburban agencies in Alameda, Santa Clara, and San Mateo counties comprise the other two-thirds.

SERVICES AND DIVISIONS

The Water Enterprise of the San Francisco Public Utilities Commission is responsible for the distribution and sale of high quality water to customers in San Francisco and the surrounding Bay Area. The Enterprise operates and maintains facilities listed in the table to the right.

The Water Enterprise is comprised of the following six divisions:

Water Administration

The Administrative Division provides direction and administrative support to the Water Enterprise. The budget funds Enterprise-wide expenses including debt service, travel/training, memberships and administrative services from other City departments.

City Distribution Division

The City Distribution Division (CDD) distributes high quality treated water to San Francisco customers. On average, approximately 70 million gallons of water

FACILITIES MAINTAINED BY THE WATER ENTERPRISE

	Regional Water System	In-City Distribution System
Pipelines	389 miles	1,235 miles
Tunnels	74 miles	None
Pump Stations	5	24
Reservoirs	11	11
Treatment Plants	3	None
Water Tanks	None	8

a day are delivered to nearly 900,000 people in San Francisco. CDD maintains the water distribution system within the City, which consists of 11 reservoirs, 24 pumping stations, eight water tanks, a network of 1,235 miles of pipeline and 12,000 water valves. CDD also operates and maintains the Auxiliary Water Supply System (AWSS) which includes 120 miles of high-pressure pipelines, two pump stations, approximately 200 cisterns and three reservoirs.

Water Quality Division

The Water Quality Division's (WQD) mission is to ensure that the SFPUC complies with all current and future water quality regulations and customer expectations through: sample collection; field and laboratory analyses; process engineering; applied research; inspections; quality control/assurance programs; regulatory liaison and reporting; and on-site support to source/treatment/distribution operations. In addition, the WQD's mission includes analysis of discharges (into the sewer system, Bay and Ocean) for the Wastewater Enterprise, and treatment performance samples, assessing environmental impacts, recommending/overseeing any necessary mitigation, and responding to and resolving customer inquiries about the quality of drinking and receiving waters.

Water Supply and Treatment Division

The Water Supply & Treatment (WST) Division manages the SFPUC's Regional Water System in the Bay Area and delivers high quality water to the supply reservoirs in the City and County of San Francisco as well as to wholesale customers in Santa Clara, Alameda, and San Mateo counties with supplies derived from watersheds in Yosemite National Park (Hetch Hetchy),

Alameda County, and the Peninsula. WS&T operates and maintains three major water treatment plants, 389 miles of pipelines and tunnels, associated right-of-way, five pump stations, two corporation yards, and five Bay Area reservoirs.

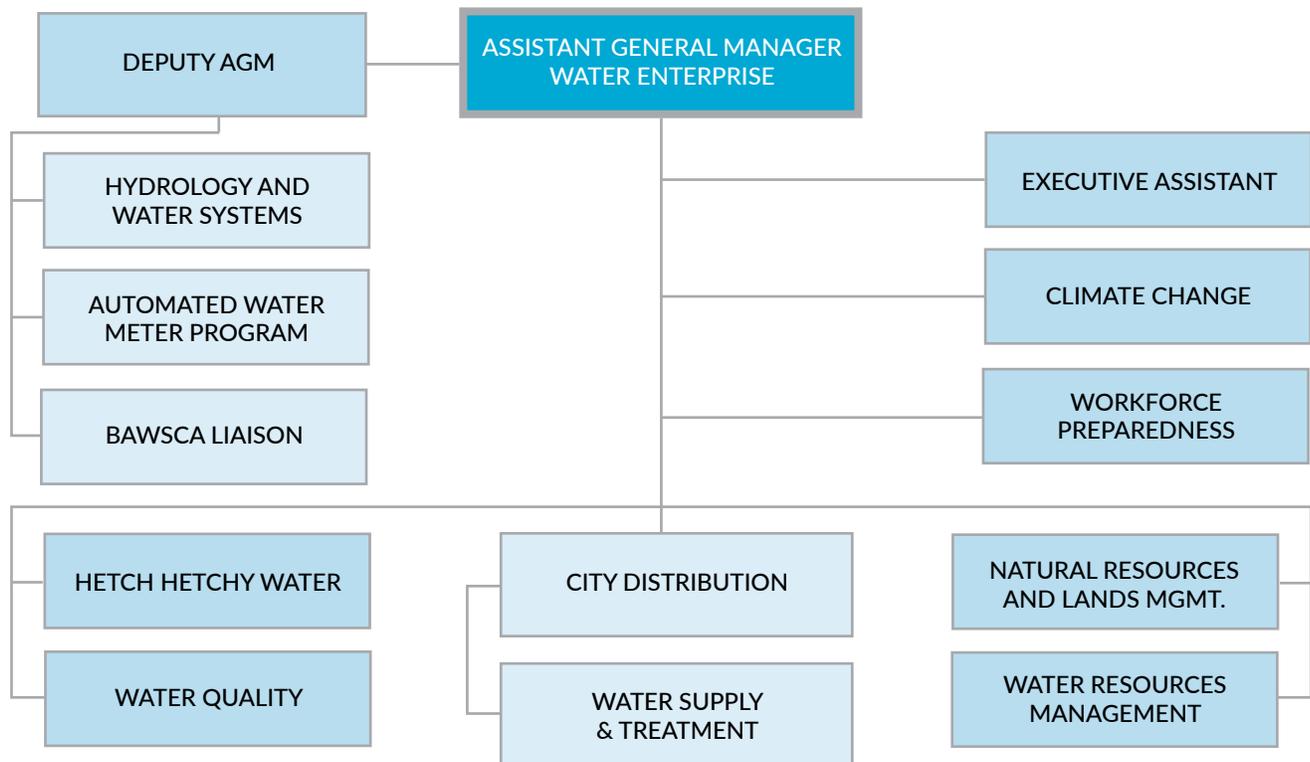
Natural Resources and Land Management Division

The Natural Resources Division is responsible for federal and state environmental compliance for the Hetch Hetchy Regional Water System and approximately 60,000 acres of watershed lands and 210-miles of right-of-way in the Bay Area. The Natural Resources Division is also responsible for biological monitoring of the significant ecological resources in the Tuolumne River, Alameda Creek, San Mateo Creek, and Pilarcitos Creek watersheds, and management of the Bay Area watershed and Right of Way lands, including annual fire risk reduction activities, daily patrols, and operations and maintenance of the roads, gates, fences, and mitigation sites.

Water Resources Division

The Water Resources Division conducts water supply planning studies and implements projects to develop additional water supplies from groundwater, recycled water, conservation, desalination, groundwater dewatering and other alternate water sources. These services are developed on a local and regional level. The Water Resources Division coordinates with bureaus and divisions within the SFPUC, other City departments, Bay Area Water Supply and Conservation Agency (BAWSCA), Wholesale Customers, and the public in the development and implementation of these water supply planning studies and projects.

WATER ENTERPRISE ORGANIZATION CHART



GOALS AND OBJECTIVES

As noted in the Financial Planning and Policies section, the SFPUC previously adopted a strategic plan to identify key priorities for the organization and serve as a roadmap through 2020 to ensure that the SFPUC meets the challenges ahead and continues to deliver reliable water, power, and sewer services. The five year cycle would dictate a new strategic plan to begin in 2021, but given the current climate, the SFPUC is moving forward with revising its current plan to meet the needs of today and align with new priorities outlined as a result of challenges in 2020.

The strategic plan goals include:

- Reliable Service and Assets

- Organizational Excellence
- Stakeholder and Community Interests
- Environmental Stewardship
- Effective Workforce
- Financial Sustainability

As part of the strategic plan goals, each Enterprise is responsible for meeting specific objectives and performance targets. Each year progress on those performance measures are reported to the Controller and Mayor. Reported performance for FY 2019-20 for the Water Enterprise and agency-wide goals are as follows:

Goal Area	Performance Measure	Target	FY2019-20 Actuals
Reliable Service and Assets	Number of unplanned water system outage events lasting for more than 4 hours in duration and affecting more than 0.1% of service connections.	Less than or equal to 0.1	0.7%
Reliable Service and Assets	Number of wholesale customer interruptions in the delivery of high-quality water resulting from planned maintenance shutdowns	Meeting target at 0, if greater than 0 then not meeting target	0
Reliable Service and Assets	Percent of AWSS critical valves exercised every 2 years	Meeting target at 100%. If less than 100% then not meeting target	90.8%

Goal Area	Performance Measure	Target	FY2019-20 Actuals
Reliable Service and Assets	System renewal and replacement rates for In-City water distribution mains	Greater than or equal to 15 miles/year. 1.25%	12.6
Organizational Excellence	Percent of actual/planned goals from the IT Strategic Plan, as taken at the end of the fiscal year	Greater than or equal to 80%	89%
Organizational Excellence	Single rating for SFPUC as a whole on meeting attendance of Health and Safety (H&S) committees agency-wide	Meeting target at 80%. If less than 80% then not meeting target	98%
Effective Workforce	Average Number of Learners in Instructor-led Trainings	8	11.17
Effective Workforce	Number of Completed Online Trainings	2734	6672
Effective Workforce	Number of Instructor-led Trainings held.	7336	433
Effective Workforce	Number of Offboarding Events	373	281
Effective Workforce	Number of Onboarding Events	611	499
Effective Workforce	Number of Promotions	251	184
Effective Workforce	Number of Recruitments	80	60
Effective Workforce	Percent of Completed Occupational Competency Models	26%	23%
Effective Workforce	Staff Turnover	9.4%	8.6%
Effective Workforce	Time to Hire	150 average days to hire	178
Financial Sustainability	Average residential Water bill as a percent of median income in San Francisco	.63%	0.64%
Financial Sustainability	Compliance with Fund Balance Reserve Policy - Water	Greater than or equal to 25%	92.6%
Financial Sustainability	Operating cost coverage (total operational revenues/ total operating costs) for Water	2.07	2.09
Financial Sustainability	Percent of Water volumetric sales at rates that reflect cost of services - including funding capital, investment, O&M and contribution to reserve	100%	100%
Financial Sustainability	Water credit rating	AA or better	Moody's Investor Service: Aa2; S&P: AA-
Financial Sustainability	Water debt service coverage - Current Coverage	1.1x	n/a
Financial Sustainability	Water debt service coverage - Indentured Coverage	1.35x	n/a
Stakeholder and Community Interest	Number of adults and children who have participated in transformative engagement through SFPUC sponsored education programs	Greater than or equal to 4000	3381
Stakeholder and Community Interest	Percent of eligible households enrolled in Community Assistance Program (CAP).	1) Greater than or equal to 4.62% OR 2) Greater than or equal to 1,200	4.32%
Stakeholder and Community Interest	Percent of employees who participated in the Employee Engagement Survey	Greater than or equal to 70%	55.6%
Environmental Stewardship	Average water used by San Francisco residential customers (Gallons Per Capita Day - gpcd)	Less than or equal to 50 gpcd	42.1
Environmental Stewardship	Number of Clean Water Act permit violations - Water	Meeting target at 0, if greater than 0 then not meeting target	0
Environmental Stewardship	Percent of water supplied by alternative sources to system as a whole	Greater than or equal to 3.4%	3.3%

WATER REVENUES

In FY 2020-21 total Water Enterprise budgeted revenues are 611.9 million, a 1.2 percent increase from FY 2019-20, and budgeted revenues are 633.3 million in FY 2021-22, a 3.5 percent increase over FY 2020-21.

The charts below show the Water Enterprise's total revenue budgets broken out amongst major revenue categories in FY 2020-21 and FY 2021-22.

CHART 8.1 >
Water FY 2020-21 Sources.

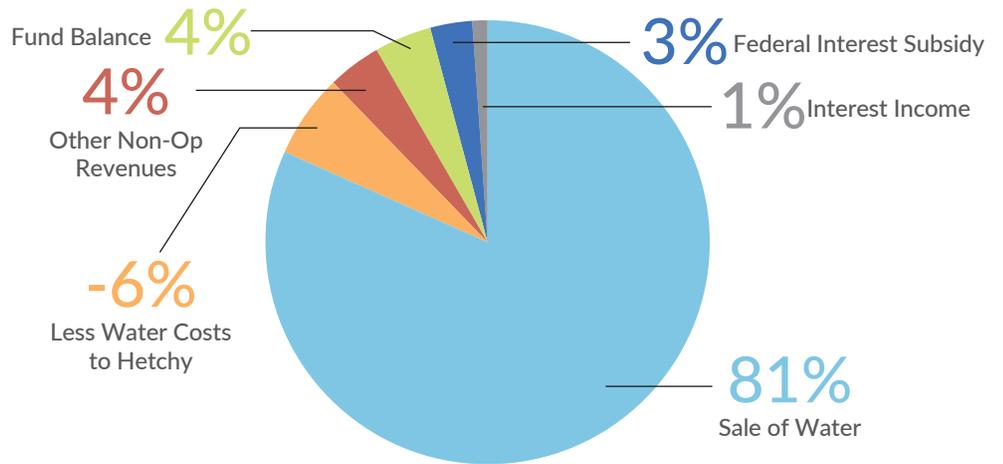
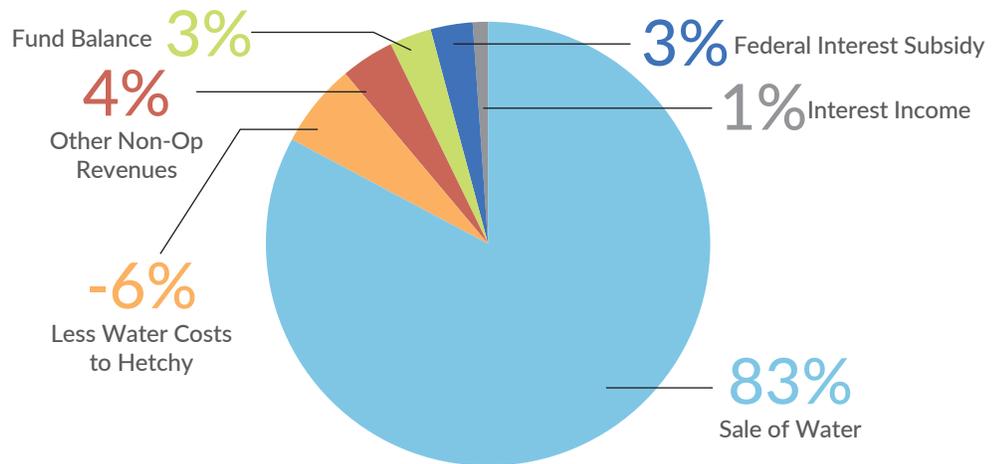


CHART 8.2 >
Water FY 2020-22 Sources.



WATER SOURCES AND USES OF FUNDS

	FY 2019-20 Unaudited Actuals	FY 2019-20 Adopted Budget	FY 2020-21 Adopted Budget	Change From FY 2019-20	FY 2021-22 Adopted Budget	Change From FY 2020-21
SOURCES OF FUNDS						
Sale of Water	562,513,876	564,550,422	569,967,576	5,417,154	597,738,859	27,771,283
Less Water Costs to Hetchy	(34,545,000)	(34,584,999)	(44,148,999)	(9,564,000)	(45,033,999)	(885,000)
Federal Interest Subsidy	23,754,893	23,754,893	21,781,792	(1,973,101)	21,574,916	(206,876)
Other Non-Op Revenues	31,920,836	31,523,811	31,484,387	(39,424)	31,822,627	338,240
Interest Income	8,654,600	2,241,291	5,051,000	2,809,709	4,460,000	(591,000)
Fund Balance	55,779,935	17,181,360	27,785,227	10,603,867	22,763,581	(5,021,646)
Total Sources of Funds	648,079,140	604,666,778	611,920,983	7,254,205	633,325,984	21,405,001
USES OF FUNDS						
Personnel	95,574,692	102,809,094	102,284,413	(524,681)	104,119,982	1,835,569
Non-Personnel Services	16,376,246	18,335,756	21,866,002	3,530,246	22,786,774	920,772
Materials & Supplies	12,878,034	15,091,344	15,283,545	192,201	15,994,604	711,059
Equipment	3,133,647	4,116,116	4,459,339	343,223	2,888,897	(1,570,442)
Overhead	45,533,436	49,320,744	54,382,333	5,061,589	56,210,937	1,828,604
Debt Service	291,142,271	306,282,521	304,244,234	(2,038,287)	317,716,353	13,472,119
Service of Other Departs	22,714,538	23,713,203	24,666,919	953,716	25,303,218	636,299
General Reserve	-	-	-	-	-	-
Revenue-Funded Capital	51,804,000	51,804,000	47,600,000	(4,204,000)	55,657,679	8,057,679
Programmatic Projects	33,194,000	33,194,000	37,134,198	3,940,198	32,647,540	(4,486,658)
Total Uses of Funds	572,350,864	604,666,778	611,920,983	7,254,205	633,325,984	21,405,001

WATER USES OF FUNDS BY SECTION

	FY 2019-20 Adopted Budget	FY 2020-21 Adopted Budget	Change From FY 2019-20	FY 2021-22 Adopted Budget	Change From FY 2020-21
USES OF FUNDS					
Administration	69,062,638	77,048,729	7,986,091	79,587,611	2,538,882
Debt Service	306,282,521	304,244,234	(2,038,287)	317,716,353	13,472,119
City Distribution	45,827,096	45,963,019	135,923	46,180,550	217,531
Water Quality	20,823,217	20,435,443	(387,774)	20,814,478	379,035
Water Supply & Treatment	55,528,616	56,492,172	963,556	58,085,825	1,593,653
Natural Resources	12,999,391	13,880,841	881,450	13,382,779	(498,062)
Water Resources	9,145,299	9,122,347	(22,952)	9,253,169	130,822
Programmatic Projects	33,194,000	37,134,198	3,940,198	32,647,540	(4,486,658)
Revenue-Funded Capital	51,804,000	47,600,000	(4,204,000)	55,657,679	8,057,679
Total Water	604,666,778	611,920,983	7,254,205	633,325,984	21,405,001

How Forecasts Were Developed

Volumetric utility delivery trends were observed through the beginnings of the COVID-19 pandemic and shelter in place order and the adopted budgets reflect re-forecasted volume projections. The bar charts below compare volumetric sales forecasts for FY 2019-20, FY 2020-21 and FY 2021-22 pre-COVID-19 pandemic and volumetric sales actuals for FY 2019-20, re-forecasted volumetric sales FY 2020-21 and FY 2021-22, incorporating COVID-19 pandemic impacts on volumes. Weekly water volumetric indicators were tracked from the start of the pandemic. Weekly retail water deliveries were down 30 percent for commercial customers, and up 5 percent for residential customers, when compared to “normal”, or the three-year average for that same week. Wholesale weekly deliveries were 4 percent down from their prior “normal”, three-year average for the

same week, but have since recovered to a more robust level. These observed delivery trends, representing usage and sales volumes deliveries while the region was operating under shelter in place orders, informed budget volume reforecasts. In total, the re-forecasted volumes assumed continued COVID-impacted delivery trends, similar to what was observed while customers were complying with shelter in place orders for one quarter, and a slow and gradual recovery to a “new normal” of slightly under the three year average of historical volumes in 2024. Given the approach to re-forecasted volumes with COVID pandemic impacts and a return to a “new normal” post recovery, the total water volumes that support the adopted FY 2020-21 and FY 2021-22 are 0.7 percent below and 0.2 percent above pre- pandemic volumetric sales forecasts.

CHART 8.3 >
Impact of COVID-19 on total Water sales projections.

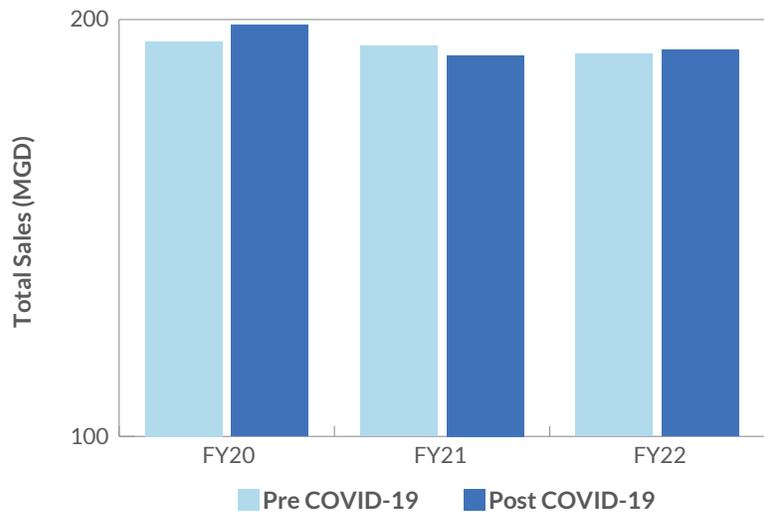
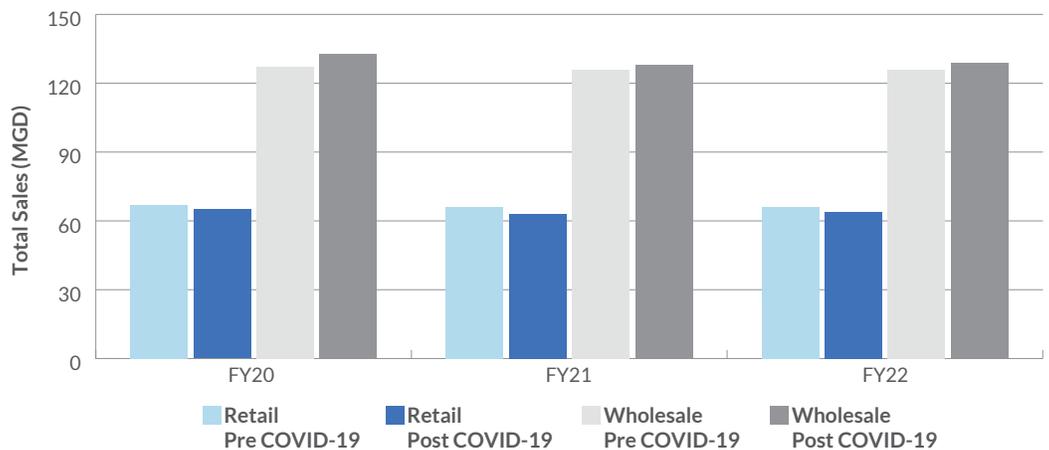


CHART 8.4 >
Impact of COVID-19 on Water sales projections, retail and wholesale broken out.



Water Sales

In the Water Enterprise, the majority of revenues are comprised of utility sales, making up 85.9 percent of total revenues in FY 2020-21 and 87.2 percent of total revenues in FY 2021-22. The water utility sales revenues can be broken up between wholesale sales and retail sales. Wholesale sales revenues are derived from the Enterprise's 27 wholesale water customers. These wholesale sales revenues make up 40 percent of overall Enterprise budgeted revenues in FY 2020-21. A portion of these revenues are guaranteed revenues provided by four wholesale water customers that have contractual minimum purchase requirements, where, regardless of the actual amount of water used by these customers, there is a guaranteed minimum financial obligation that they must meet annually. This provides a minimum guaranteed revenue stream amongst wholesale customer water sales, despite fluctuation in volumetric consumption. Retail water sales revenues, a derivative of volumetric water sales to retail customers, make up 46.5 percent of overall Enterprise budgeted revenues in FY 2020-21.

The main drivers of Water Enterprise revenue budget increases are from utility sales revenue growth and an increase in the budgeted use of fund balance as a revenue source. The drivers of utility sales increases are retail rate increases of 7.8 percent and 7.9 percent in FY 2020-21 and FY 2021-22, respectively.

Federal Interest Subsidy

The Enterprise is budgeted to receive \$21.8 million in federal interest rate subsidy in FY 2020-21, or 3.6 percent of Enterprise revenues in the same year. The Enterprise's FY 2021-22 budget for federal interest rate subsidy is \$21.6 million, or 3.4 percent of total revenues in the same year. The revenues are a federally provided interest rate subsidy provided to cover a portion of the interest rates paid on Water Enterprise Build America Bonds (BABs). The revenues budgeted are based upon the debt service to be paid on BABs and the expected rate of interest rate subsidy received.

Other Non-Operating Revenues

Included in the Water Enterprise's total FY 2020-21 revenues are \$31.5 million in other non-operating revenues, or 5.2 percent of budget. And in FY 2021-22 totaled \$31.8 million in FY 2021-22 or 5.0 percent of total Water Enterprise budgeted revenues. Included in other non-operating revenues are property rentals and water service installation charges. The other non-operating revenue budgets were developed using historical actual performance multiplied by an inflationary growth assumption.

Interest Earnings

In FY 2020-21 the Water Enterprise budgeted \$5.1 million in interest earnings, making up 0.8 percent of total revenues. In FY 2021-22 interest earnings are budgeted at \$4.5 million, or 0.7 percent of total revenues. Interest earnings are budgeted assuming a 2 percent interest rate earned on unaudited and projected cash balances at the time of budget development.

Budgeted Fund Balance

Fund Balance is used on a one-time, planned basis to balance budgeted sources and uses in line with the SFPUC's Fund Balance Policy. In FY 2020-21 use of Fund Balance as a source totals \$27.8 million or 4.5 percent of total sources. In FY 2021-22, use of fund balance decreases to \$22.8 million or 3.6 percent of sources.

This planned use of fund balance is associated with the SFPUC Fund Balance Policy and customer rate-setting. Retail rates are approved and locked in through FY 2021-22, and wholesale rates are being kept flat because there is a high balancing account due to wholesale customers, so there is no impetus to raise wholesale water rates to increase revenues.

In addition to COVID-19 related volumetric impacts, a conservative planning approach was taken in the 10-Year Financial Plan, by projecting a 0.5 percent annual volumetric decline to reflect long term declining volumetric trends and increased conservation. These volumetric projections negatively impacted budgeted revenues.

The combination of the rate constraints and volumetric assumptions, along with the fact that the Fund Balance is well above the minimum target of 25 percent of Operations & Maintenance Expenses, leads the Water Enterprise to use this level of fund balance as a source in the budget and avoid wholesale rate increases.

Change in Fund Balance

FY 2019-20 year-end fund balance is \$258.4 million. Taking into account budgeted use of fund balance in FY 21-22 of \$27.8 million, as well as \$9 million in planned de-obligations from currently appropriated revenue funded capital and programmatic project budgets that were done to offset COVID-19 impacts, FY 2020-21 ending fund balance is projected to be \$239.9 million. FY 2021-22 ending fund balance is projected to be \$218.0 million after taking into account budgeted use of fund balance of \$22.8 million.

WATER EXPENDITURES

The Water Enterprise’s annual operating budget includes debt service on revenue bonds used to finance capital improvements, operation and maintenance costs, and repair and replacement costs funded from current revenues. Operation and maintenance expenses include personnel costs, material and supplies, power and energy, and services of the other City Departments including SFPUC Bureaus. The annual operating budget for the Water Enterprise is \$611.9 million in FY 2020-21 and \$633.3 million in FY 2021-22. The budget has increased by \$7.3 million (1.2 percent) in FY 2020-21 and \$21.4 million (3.5 percent) in FY 2021-22. The net increase from FY 2019-20 through FY 2020-21 are mainly due to increases to revenue-funded capital and overhead spending. The net increase from FY 2020-21 through FY 2021-22 are mainly due to increases to debt service and revenue-funded capital spending.

Debt Service

Debt Service is based on the principal and interest scheduled payments on revenue bonds to finance the

Water System Improvement Program (WSIP) and other Water Enterprise capital programs, as well as the lease payment of the SFPUC’s headquarters (partially offset by Infrastructure’s expense recovery).

The FY 2020-21 Debt Service is budgeted at \$304.2 million and reflects a decrease of approximately \$2.0 million (-0.7 percent). The decrease is primarily due to debt service savings from the issuance of the 2019 Water Revenue Bonds, Series ABC, Taxable advance refunding offset by increased principal amortization on the Series 2016A, and increased interest expense for 2017A, 2017B, and 2017C, revenue bonds.

The FY 2021-22 Debt Service is budgeted at \$317.7 million and reflects an increase of approximately \$13.5 million (4.3 percent). The increase is primarily due to increased principal amortization on the Series 2016A, principal amortization for the 2020EFGH Water Revenue Bonds, taxable advance refunding and initial repayment of the Westside Recycled Water Project, Clean Water State Revolving Fund (SRF) Loan.

CHART 8.5 >
Water Enterprise
Total Uses of
Funds by Division.

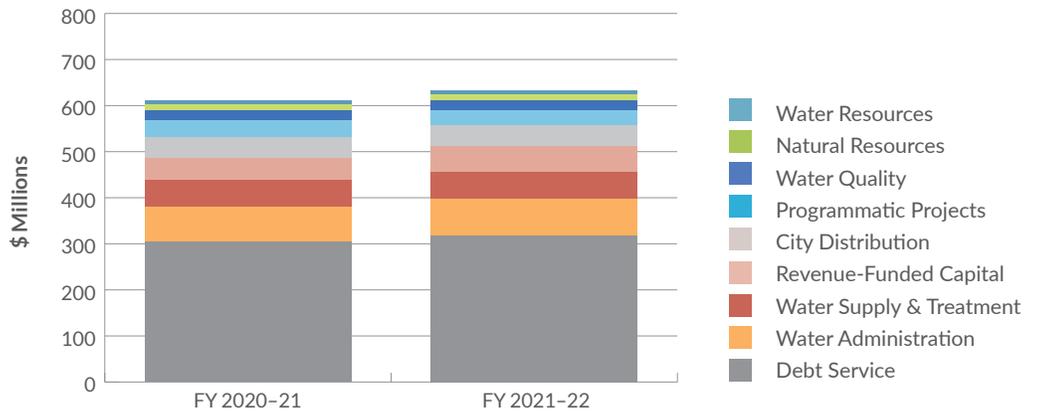
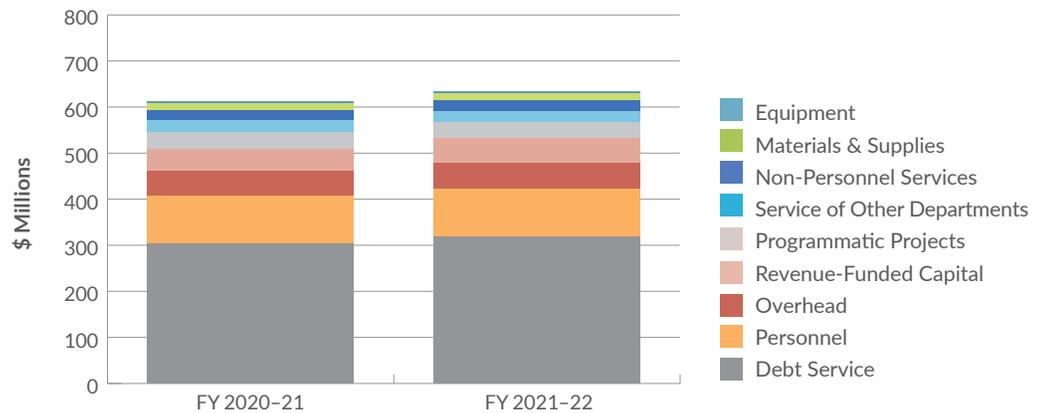


CHART 8.6 >
Water Enterprise
Total Uses.



Actual annual debt service has increased approximately 8.7 percent per year on average from FY 2015-16 to FY 2019-20 and is currently expected to increase by an average of 5.3 percent per year from FY 2022-23 through FY 2026-27, primarily due to issuance of additional revenue bonds to fund capital improvement projects. These increases may be offset by debt service decreases from future refunding opportunities and lower than projected new debt service subject to favorable market conditions.

Personnel

The Personnel budget includes salaries and mandatory fringe benefits for full-time and temporary staff. The budget has decreased by \$0.5 million (-0.5 percent) in FY 2020-21 and increased by \$1.8 million (1.8 percent) in FY 2021-22. The FY 2020-21 decrease is largely driven by expenditure cuts needed to rebalance the budget due to COVID-19 related revenue reductions. Adjustments to attrition savings were made to reflect slower hiring and long-term vacant positions were eliminated. These reductions were offset by the addition of new operating staff to support Wildfire Mitigation and New Facilities in the Regional Water System, as well as increases in retirement and health benefit costs.

The FY 2021-22 increase is primarily driven by the addition of new operating staff to support the New Facilities in the Regional Water System as well as cost of living adjustments required by various labor agreements, retirement and health benefit costs.

Authorized and Funded Full-Time Equivalents (FTEs)

The Water Enterprise's total authorized and funded full-time equivalents (FTEs) in FY 2020-21 is 736.7, a decrease of 2.0. The decrease represents the enterprise's effort to adapt to the COVID-19 pandemic by making an adjustment to attrition savings and the

elimination of long-term vacant positions, offset by the addition of new operating and project funded staff to support CIP Construction; Wildfire Mitigation; New Facilities; GIS and the Auxiliary Water Supply System.

The Water Enterprise's total authorized and funded full-time equivalents (FTEs) in FY 2021-22 is 752.5, an increase of 15.9. The increase is driven by new operating and project funded staff to support CIP Construction; New Facilities; and the Auxiliary Water Supply System.

Overhead

The Overhead budget funds the Water Enterprise's share of support services provided by the SFPUC Bureaus, including the General Manager, Business Services, and External Affairs. The FY 2020-21 Overhead budget is \$54.4 million, an increase of \$5.0 million (10.3 percent) and the FY 2021-22 Overhead budget is \$56.2 million, an increase of \$1.8 million (3.4 percent). The overhead rate is based on SFPUC's 2018 Indirect Cost Study and the increase reflects adjustments to the SFPUC Bureaus FY 2020-21 and FY 2021-22 budget.

Services of Other Departments

The Services of Other Departments budget include interdepartmental services provided by other City and County of San Francisco departments to aid in the operation of the Water Enterprise. These services include City-wide ITS, City Attorney services, sewer and street cleaning, facilities maintenance, and fleet maintenance among others. The FY 2020-21 budget is \$24.7 million, an increase of \$1.0 million (4.0 percent) and the FY 2021-22 budget is \$25.3 million, an increase of \$0.6 million (2.6 percent). The increase is mainly driven by the cost for legal services provided by the City Attorney's Office.

WATER AUTHORIZED AND FUNDED FULL-TIME EQUIVALENTS (FTES)

Position Type	FY 2019-20 Adopted Budget	FY 2020-21 Adopted Budget	Change From FY 2019-20	FY 2021-22 Adopted Budget	Change From FY 2020-21
Permanent Positions	570.26	551.2	(19.06)	553.89	2.69
Temporary Positions	7.89	9.63	1.74	10.95	1.32
Subtotal Operating-Funded	578.15	560.83	(17.32)	564.84	4.01
Project-Funded	160.54	175.86	15.32	187.7	11.84
Total Funded Positions	738.69	736.69	(2.00)	752.54	15.85
Unfunded Positions (Attrition)	71.24	88.15	16.91	88.15	-
Total Water	809.93	824.84	14.91	840.69	15.85

Revenue-Funded Capital

Revenue-funded capital expenditures may include minor construction projects, major maintenance and rehabilitation projects, planning studies, and preliminary engineering analysis for major capital improvements. The FY 2020-21 Revenue-Funded Capital budget, which funds the revenue or cash portion of the capital program, is \$47.6 million, a reduction of \$4.2 million (-8.1 percent), and the Revenue-Funded Capital FY 2021-22 budget is \$55.7 million, an increase of \$8.1 million (16.9 percent). The net increase represents projected spending for the local water conveyance and regional long-term monitoring programs offset by the closeout of projects.

Programmatic Projects

Programmatic Projects are annually appropriated projects that are revenue funded in support of routine maintenance, most of which were initiated in support of the capital program. These projects include monitoring, mitigation, watershed protection, community benefits, and the Water Enterprise's share of the lease payment and operation of the SFPUC headquarters at 525 Golden Gate Avenue. The FY 2020-21 Programmatic Project budget is \$37.1 million, an increase of \$3.9 million (12 percent) and the FY 2021-22 budget is \$32.6 million, a decrease of \$4.5 million (-12 percent). The FY 2020-21 increase supports facilities improvements needed at 525 Golden Gate, support for the Auxiliary Water Supply System and watersheds.

The FY 2021-22 decrease reflects reductions to the Long-term Monitoring Program, the Landscape Conservation Program, and a one-time spending reduction at 525 Golden Gate.

Non-Personnel Services

The Non-Personnel Services budget for the Enterprise includes maintenance for equipment and facilities, travel & training, memberships, utilities, professional services, and rent among others. The FY 2020-21 Non-Personnel Services budget is \$21.8 million, an increase of \$3.5 million (19.3 percent) and the FY 2021-22 budget is \$22.8 million, an increase of \$1.0 million (4.2 percent). The net increase reflects support of new initiatives related to Hydrological Monitoring, Real Estate Services, improvements to SCADA and Radio Communications, and costs related to New Facilities in the Regional Water System.

Material and Supplies

This budget funds materials & supplies for equipment maintenance, water treatment chemicals, office and safety supplies, fuel and software licenses. The FY 2020-21 Materials and Supplies budget is \$15.3 million, an increase of \$0.2 million (1.3 percent) and the FY 2021-22 budget is \$16.0 million, an increase of \$0.7 million (4.7 percent). The net increase

reflects maintenance and miscellaneous supplies needed in support of new initiatives related to Radio Communications, Construction Support, Safety Improvements and costs related to New Facilities in the Regional Water System.

Equipment

This budget funds equipment required to support the Enterprise's operations. The FY 2020-21 Equipment budget is \$4.5 million, an increase of \$0.3 million (8.3 percent) and the FY 2021-22 budget is \$2.9 million, a decrease of \$1.5 million (-35.2 percent). The increase in FY 2020-21 represents the Enterprises effort to modernize its fleet of vehicles as well as support its new initiatives in Wildfire Mitigation and Technology Modernization. The decrease in FY 2021-22 represents one-time equipment funding from the previous fiscal year.

New Initiatives

Wildfire Mitigation – The SFPUC owns and manages approximately 60,000 acres of watershed lands and 200 miles of right-of-way outside of San Francisco including overhead electrical distribution lines, distribution poles, and high-voltage substations in Alameda and San Mateo counties. The Peninsula Watershed is designated as a Hazardous Fire Area, and the Alameda Watershed is classified by CalFire as a moderate/high fire hazard severity risk. The new Wildfire Mitigation Plan includes additional vegetation management and mitigation activities including homeless camp cleanups and removal of garbage on SFPUC property. This initiative includes the addition of staff to support WST's current crews to perform mitigation maintenance on right of ways, watersheds, dams, facility grounds, diversion dams and maintenance yards in FY2020-21 (\$255,000). This initiative also includes the addition of project-funded staff and equipment to expand Natural Resource and Land Management Division's tree management crew in FY 2020-21 (\$577,000).

Support of New Facilities – This initiative supports the operations and maintenance of new facilities coming online and entering service.

In FY 2020-21, \$270,315 was adopted, including the addition of staff for the Regional Groundwater Storage and Recovery (GSR) Well Operations. The GSR project is part of the Water Supply Improvement Program to enhance the reliability of the SFPUC water supply. Nine GSR wells that connect to seven well stations are undergoing startup testing and will be operational in FY 2020-21. These new facilities will be operated continuously and provide water during dry years. In wet years, the wells will incur about half of the operations and maintenance activities.

In FY 2020-21, \$1.0 million and in FY 2021-22, \$263,000 was adopted, including the addition of staff and equipment for the New Facilities Regional Water System (RWS). As part of the Water Supply Improvement Program to improve redundancy and reliability, and to improve new/alternative water supplies, uninterrupted operations, automation, water quality and monitoring, new assets were added to the RWS. These assets include the New Irvington Tunnel, Bay Tunnel, UV treatment and Power Supply (UPS) upgrades at the Tesla Treatment Facility, and major improvements to Thomas Shaft, Harry Tracy Water Treatment Plant and Sunol Valley Water Treatment Plant.

In FY 2021-22, \$300,000 was adopted for the Westside Recycled Water Treatment Facility. The new facility will generate and deliver 2 MGD of recycled water for irrigation use in the western side of San Francisco, consisting of membrane filtration, reverse osmosis, and ultraviolet light disinfection; a 1.1-million-gallon storage reservoir; distribution pumping facilities; and 5 to 6 miles of new pipelines.

Technology Modernization & Upgrades – The Water Enterprise utilizes an array of software and monitoring systems in its routine operations to deliver quality drinking water to the San Francisco Bay Area. This initiative will provide funding in an effort to modernize and upgrade existing assets.

In FY 2020-21, \$570,748 and in FY 2021-22, \$100,000 has been adopted to support The San Francisco Water System Supervisory Control and Data Acquisition (SCADA) system which is an automated system-wide monitoring and control system for the SFPUC's wholesale and retail water system. It provides coverage of over 100 SFPUC water transmission, treatment and distribution facilities from Tesla Portal through the East Bay and the Peninsula all the way to San Francisco.

In FY 2020-21, \$150,000 has been adopted to support the Hydrological Monitoring Network in the East Bay and Peninsula watersheds. This monitoring network provides data for reservoir system operation, planning and water right reporting. The Enterprise must install more hydrologic monitoring equipment to fully comply with water rights and for the expansion and modernization of existing equipment.

In FY 2020-21, \$524,584 and FY 2021-22, \$236,000 has been adopted in support of the Radio Communications Project. This project aims to replace SFPUC's antiquated radio communication system for the SFPUC; to support the existing radio infrastructure to preserve the SFPUC watershed and facilities and protect the City's water and power sources from trespassers, fire and other natural disasters; and to support new Infrastructure Projects.

WATER ENTERPRISE CAPITAL BUDGET

In addition to the operating budget, the Water enterprise also prepares a two-year Capital budget and Ten-Year Capital Plan.

In FY 2020-21, the Water Enterprise's capital budget is \$272.7 million, of which \$223.5 million or 82.0 percent is funded by debt and \$49.2 million or 18.0 percent is revenue funded. In FY 2021-22, the capital budget is \$189.4 million of which \$132.2 million or 69.8 percent is supported by debt and \$57.2 million or 30.2 percent in revenue funding. Of the Debt funding, the majority is ESER GO bonds, with the remainder met by local and regional bonds. The majority of the revenue funding is from local and regional water sales revenues.

The Water Enterprise's annual programmatic project budget, which is funded in the operating budget but forms part of the capital program, is \$37.1 million in FY 2020-21 and \$32.6 million in FY 2021-22, with the majority being revenue funded and the remainder coming from Federal bond interest subsidies and recovery capital.

Overview

The Water Enterprise of the San Francisco Public Utilities Commission is responsible for the distribution of high quality water to San Francisco and its Bay Area Wholesale Customers.

The Regional Water Distribution System consists of three regional water sub-systems: the Hetch Hetchy System; the Regional Water East Bay sub-system); and the Regional Water System Peninsula/West Bay sub-system) plus the In-City Distribution System.

Hetch Hetchy System: Water is diverted from Hetch Hetchy Reservoir into a series of tunnels and power generation facilities from the Sierra Nevada to the San Joaquin Pipelines that cross the San Joaquin Valley to the Coast Range Tunnel which connects to the Regional Water East Bay sub-system at the Alameda East Portal.

Regional Water East Bay sub-system: This includes two reservoirs, San Antonio Reservoir and Calaveras Reservoir, which collect water from the San Antonio Creek upper Alameda watersheds in Alameda and Santa Clara Counties plus conveyance facilities connecting the Hetch Hetchy System and the East Bay water sources to the Peninsula System as well as to East and South Bay Wholesale Customers. These conveyance facilities include pipelines known as the Alameda Siphons that connect the Coast Range Tunnel to the Irvington Tunnel.

Regional Water Peninsula/West Bay sub-system: This includes conveyance facilities connecting the

Bay Division Pipelines to other SFPUC Wholesale Customers on the Peninsula and the In-City Distribution System. Three reservoirs, Crystal Springs, San Andreas, and Pilarcitos collect runoff from the San Mateo Creek and Pilarcitos Creek watersheds. Water from these reservoirs serves San Francisco and Peninsula Wholesale Customers, including the Coastside County Water District.

In-City Distribution System: The City's retail water supply is delivered to the City in several major pipelines from the Peninsula/West Bay sub-system. Two pipelines provide water to the eastside of the In-City Distribution System and three pipelines serve the west side of the In-City Distribution System. The In-City Distribution System delivers water to homes and businesses in the City.

WATER ENTERPRISE TEN-YEAR CAPITAL PLAN

The adopted capital project costs for the Water Enterprise total approximately \$2.2 billion over the next ten years. Identified capital needs will be financed with a combination of water revenue bonds and Water Enterprise revenues along with general obligation bonds for the Auxiliary Water Supply System. Project timelines may be adjusted to match available funding.

Regional spending will increase over the next several years from \$54.5 million in FY 2020-21 to an average of \$60.8 million per fiscal year in the final five years of the Ten-Year Plan. Local Water improvement costs over the same five-year period, FY 2026-30, average \$67 million per year.

The SFPUC's Water Enterprise uses the annual updates to the Ten-Year Capital Plan to ensure projects and investments are in place to ensure adopted levels of service are maintained. To update the Ten-Year Capital Plan, the Water Enterprise relies on the latest information including condition assessments (performance and remaining useful life of existing assets), master plan updates, review of levels of service objectives, and financial data (revenue requirement, project expenditures and cash flow).

Regional Water

The Regional Water Ten-Year Capital Plan is \$1,023.1 million and funds the following projects:

Regional Water Treatment Program, \$280.5 million

This program includes major upgrades to the Sunol Valley and Harry Tracy Water Treatment Plants. Projects are identified through condition assessments, operations staff review, level of service and feasibility studies, and alternative analysis at each plant. Projects include upgrades of chemical dosage, flow monitoring, valve and pump replacement, and chemical handling upgrades. New projects include improvements to the polymer feed facility and Chloramination facility at the Sunol Valley Plant.

Regional Water Transmission Program, \$142.5 million

This program will provide upgrades to the Transmission System including pipeline inspection and repairs, valve replacements, metering upgrades, corrosion protection, and pump station and vault upgrades. As part of the pipeline improvement program, funding is included to monitor, strengthen, and replace older pipeline to achieve higher level performance and reliability

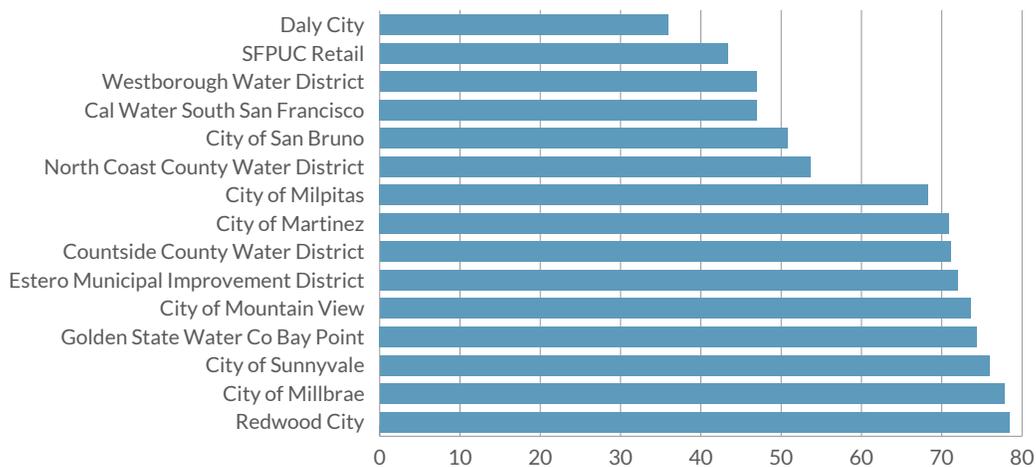


CHART 8.7 9-County Bay Area Lowest Residential Per Capita Consumption August 2020 (R-GPCD).

WATER ENTERPRISE TEN-YEAR CAPITAL PLAN

\$ Thousands Program/Project	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25	FY 2026-30	PLAN TOTAL
SPENDING PLAN							
Regional Costs							
Water Treatment Program	9,225	12,546	136,614	89,891	16,079	16,100	280,455
Water Transmission Program	0	0	15,629	26,955	23,379	76,543	142,506
Water Supply & Storage Program	0	29,842	35,280	35,710	56,371	176,328	333,532
Watersheds & Land Management	37,720	14,861	2,812	2,350	2,350	11,785	71,878
Communication and Monitoring Program	500	482	500	725	1,515	3,860	7,582
Long Term Monitoring & Permit Program	4,043	4,000	3,457	3,374	1,782	8,130	24,786
Buildings and Grounds Program	3,000	2,000	11,967	74,930	59,462	11,040	162,399
Regional Total	54,488	63,731	206,259	233,936	160,938	303,786	1,023,138
Local Costs							
Water Supply Projects	2,702	6,700	500	500	0	0	10,402
Water Conveyance /Distribution System	34,575	71,351	57,405	82,116	77,875	269,391	592,714
Local Tanks/ Reservoir Improvements	3,475	5,265	350	350	350	12,475	22,265
Pump Station Improvements	0	200	0	500	1,500	450	2,650
Recycled Water Projects	5,057	4,665	0	0	0	0	9,722
Automated Meter Reading System	4,240	2,970	3,222	3,012	3,162	15,213	31,819
Buildings & Grounds Improvements	15,150	34,500	17,724	119,465	134,818	37,403	359,060
Local Total	65,199	125,651	79,202	205,943	217,705	334,932	1,028,632
Auxiliary Water System	153,000	0	0	0	0	0	153,000
Total Regional & Local	272,687	189,382	285,460	439,879	378,643	638,718	2,204,770
Sources							
Water Revenue	47,600	55,658	67,100	72,100	77,100	332,973	652,531
Water Bonds	70,533	132,204	216,840	366,259	300,023	297,723	1,383,583
General Obligation Bonds	153,000	0	0	0	0	0	153,000
Capacity Fee	1,554	1,520	1,520	1,520	1,520	8,022	15,656
Total	272,687	189,382	285,460	439,879	378,643	638,718	2,204,770

Regional Water Supply & Storage Program, \$333.5 million

This program includes upgrades to structures to meet State Division of Safety of Dams requirements including geotechnical work, installation of monitoring systems, and a regional desalination project. The automated data acquisition system in the monitoring system will provide timely, accurate data related to inspections at various dams. The program also includes funding for projects that increase regional water supply diversification and explore alternative methods for expanding water sources including purified water, recycled water and desalination projects.

The program also includes the Daly City Recycled Water Expansion Project to provide 3.4 MGD of recycled water to customers of the Regional Water System and help offset groundwater pumping in the Westside Basin.

Regional Watersheds & Land Management, \$71.9 million

This program supports projects that improve and/or protect the water quality and/or ecological resources impacted by the siting and operation of SFPUC facilities. Projects include the repair, replacement, maintenance, or construction of roads, fences, or trails, the acquisition of easements and/or fee title of properties, and other ecosystem restoration or public access, recreation, and education projects.

Regional Communications & Monitoring Program, \$7.6 million

This project will provide much needed redundant emergency communications capability and increased bandwidth for security data transfer. Specifically, it will build a microwave backbone to link the entire SFPUC regional water system from the O'Shaughnessy Dam site in Yosemite to the rest of the SFPUC sites (San Francisco, San Mateo, Santa Clara, and Alameda counties).

Long Term Monitoring and Permit Program \$24.8 million

The purpose of this program is to meet the long-term monitoring and permit requirements associated with capital projects and the operation and maintenance of the SFPUC water supply system and watershed/right-of-way lands within the Bay Area. Projects with long-term monitoring required by environmental permits include WSIP-related environmental mitigation and permit requirements (i.e., Bioregional Habitat Mitigation Program) and non-WSIP capital projects.

Regional Buildings & Grounds Programs, \$162.4 million

This program provides funding for major improvements to the Sunol and Millbrae Yards. Sunol Yard improvements include LEED replacement facilities for maintenance shops and equipment storage, a new fueling center and

administration building, re-surfacing of the yard, and demolition of six dilapidated structures. The project includes funding for the Alameda Creek Watershed Center that includes exhibits, classrooms, event space, outdoor picnic and play areas, trails, and gardens representing the watershed. Millbrae Yard improvements include a new laboratory and office building to update the lab facilities and consolidate staff from the Rollins Road facility, maintenance shop, and equipment storage, demolition of a large unused abandoned building, a new parking lot, and a new vehicle wash site. The upgrades address occupational safety, reliability, and functional regulatory compliance.

Local Water

As shown in the table, the Local Water Ten-Year Capital Plan is \$1,028.6 million and funds the following projects:

Water Supply Projects, \$10.4 million

This program includes planning for local water diversification to explore alternative methods for expanding local water sources. Such sources include the Eastside Water Purification Project and Innovations for San Francisco ratepayers that highlight innovative water supplies and technologies.

Local Water Conveyance/Distribution System, \$592.7 million

Includes funding to install, replace and renew distribution system pipelines and service connections for the 1,230 miles of drinking water mains in San Francisco and meet customer level of service goals for uninterrupted service. The increased investment is needed to improve annual replacement rate to 15 miles per year to minimize main breaks. Improvements include replacement, rehabilitation, re-lining, and cathodic protection of all pipe categories to extend or renew pipeline useful life.

The Renew Services Program provides funding to renew assets between the water main and the customer's service connection, identify lead service lines still in use and the Water Loss Reduction Program to implement of cost-effective and comprehensive strategies to reduce water loss.

Additional projects include the Sunset Pipeline/Potable AWSS, Automated Water Meter Program, New Services Connection Program and Town of Sunol Pipeline projects.

Local Tanks/Reservoir Improvements \$22.3 million

Provides long-term funding for renewal and rehabilitation of water storage reservoirs and tanks, within the San Francisco Distribution System. Projects included improvements to the Sunset South and University Mound reservoirs and roof repairs at multiple locations to extend the useful service life of the reservoir.

Local Pump Station Improvements, \$2.7 million

The SFPUC's 12 major water pump stations and seven hydropneumatics tanks that boost pressure within the San Francisco distribution system need ongoing renewal and rehabilitation. This program provides long term funding for renewal and rehabilitation of the water pump stations and hydro-pneumatic tanks that boost water pressure within the distribution system including the automation of the five pump suction valves at Lake Merced Pump Station.

San Francisco Westside Recycled Water Project, \$9.7 million

Projects in this program include the San Francisco Westside Enhanced Recycled Water Project, funding new facilities to generate and deliver 2 MGD of recycled water for irrigation use in the western end of San Francisco. The project includes a new recycled water treatment facility consisting of membrane filtration, reverse osmosis, and ultraviolet light disinfection; a 1.1-million-gallon storage reservoir; distribution pumping facilities; and five to six miles of new pipelines.

Automated Meter Reading System (AWMP)- \$31.8 million.

This program will provide funding to complete the Automated Water Meter Program (AWMP) during FY22 and for replacement planning of the AWMP System by the end of useful life. This project provides funding for AWMP Renewals needed through the 20-year system life (ending in 2031) and metering equipment (including automation) for all renewals and new services through 2031.

Local Buildings & Grounds Improvements, \$359.1 million

This provides funding for capital improvements at CDD facilities and structures. Projects include a new fueling station, yard improvements to address health and safety issues and security, a comprehensive arc flash and electrical hazard study and construction of a seismically reliable building for CDD's communications and control systems.

Additional funding is included for a new CDD Headquarters at 2000 Marin to address life safety standards for seismic events, building code requirements and facilities that are past useful life. The 2017 Condition Assessment found all buildings aged, water-damaged, and deficient in meeting seismic, ADA, electrical and other building code standards. Existing facilities include administrative offices, warehouse, shops, materials and equipment storage and vehicle fleet.

Auxiliary Water Supply System (AWSS)

The AWSS is primarily a water supply to fight fires. The water that is stored and supplied is not intended for consumptive use and so a user fee is not possible. The

funding for this system is from the CCSF General Fund. The 2010 Earthquake Safety and Emergency Response (ESER) bond provided funding for repairs to the AWSS to increase the earthquake safety response capacity of the Fire Department following a major earthquake and during multiple-alarm fires from other causes.

In June 2020, San Francisco voters approved the Earthquake Safety and Emergency Response Bond 2020 (ESER 2020) for \$628.5 million. ESER 2020 includes \$153 million for the retrofit, improvements or replacement of existing firefighting pipes and tunnels, construct new or retrofit existing cisterns, and improve and seismically upgrade two pump stations, two storage tanks, and the primary reservoir. The project will be funded through the issuance of City of San Francisco General Obligation Bonds.

FY 2020-21 AND FY 2021-22 CAPITAL PROJECT BUDGET

The Water Enterprise FY 2020-21 budget shows a decrease of about \$100 million from the FY 2019-20 budget. A baseline review of all existing project appropriations was completed for potential closeout or repurposing to new capital budget needs resulting in a reduction to the amount of funding request in FY 2020-21 in the 2-Year Capital budget.

The table shows the Water Enterprise's capital budget for FY 2019-20, FY 2020-21 and FY 2021-22 by major programs. The capital budget includes continuing Renewal and Replacement Projects for the Regional and Local Water Enterprise along with nonrecurring major capital upgrades such as the New CDD Headquarters and Millbrae Yard Projects.

The capital budget is funded by a combination of Water Enterprise revenues, water revenue bonds and capacity fees. Revenue Bonds account for 73 percent of budget sources. The capital budget for FY 2020-21 and FY 2021-22 totals \$212.7 million.

FY 2020-21

As shown in the table, the FY 2020-21 Water Enterprise CIP is \$132.1 million, which includes financing costs, and decreased \$100.9 million from the FY 2019-20 approved CIP of \$233.0 million.

Major projects in the Water Enterprise FY 2020-21 CIP include:

Regional Water Costs

\$9.2 million for Water Treatment Program including and major improvements to the Sunol Valley Water Treatment Plant (SVWTP) and Harry Tracy Water Treatment Plant (HTWTP) to achieve a higher level of performance and reliability and the SVWTP Ozone and Polymer Feed Facility Projects.

\$37.7 million for Watersheds & Land Management which supports capital projects that improve and/or protect the water quality and/or ecological resources impacted by the operations of the SFPUC water system. Projects include the repair, replacement and maintenance of roads, fences, or trails and the acquisition of easements or properties to meet these purposes.

\$0.5 million for Communication & Monitoring Program including developing a microwave radio communication system to link the SFPUC Regional water system from the Hetch Hetchy Dam in Yosemite to other SPUC sites (San Francisco, San Mateo, Santa Clara and Alameda counties) and ongoing upgrades to the water supply security infrastructure.

\$4.0 million for the Long-Term Monitoring and Permit Program to meet the long-term monitoring and permit requirements associated with capital projects and the operation and maintenance of the SFPUC water supply system and watershed/right-of-way lands within the Bay Area

\$3.0 million for the Buildings & Grounds Programs Rollins Road Building Renovation Project for upgrades to the roof, security, HVAC and electrical system

Local Water Costs

\$2.7 million for Water Supply Projects for local water diversification to explore alternative methods for expanding local water sources including planning work for recycled water projects on Sunset Boulevard, the San Francisco Zoo and the Eastside Satellite Project to meet water supply demands on the eastside of San Francisco.

\$34.6 million for the Local Water Conveyance and Distribution program to fund the management of all linear assets in the local water distribution system. Projects to install, replace, and renew pipelines and service connections for the 1,230-mile drinking water distribution system in San Francisco with the goal of replacing 15 miles per year to minimize main breaks and meet customer level of service goals for uninterrupted service.

Additional projects include the Renew Services Program to renew assets between the water main and the customer's service connection and the Better Market Street and Joint Transit projects that coordinate water main replacement with other City Departments.

\$3.5 million for Local Tanks/Reservoir to provides long-term funding for renewal and rehabilitation of water storage reservoirs and tanks including funds to rebuild College Hill Reservoir.

\$5.1 million San Francisco Westside Recycled Water Project which includes all facilities to generate and deliver 2 MGD of recycled water for irrigation use in the western end of San Francisco. The project includes a new recycled

water treatment facility consisting of membrane filtration, reverse osmosis, and ultraviolet light disinfection; a 1.1-million-gallon storage reservoir; distribution pumping facilities; and 5 to 6 miles of new pipelines.

\$4.2 million for Automated Meter Reading System to facilities that control and monitor San Francisco's water distribution system. Facilities include enhancements to the System Control and Data Acquisition (SCADA) for remote monitoring of pressure, flow, and valve position status at key locations throughout the distribution system.

\$15.2 million for Local Buildings & Grounds Improvements to fund the New CDD Headquarters Project to address life safety standards for seismic events, building code requirements and facilities that are past useful life Existing facilities needed to be replaced include administrative offices, warehouse, shops, materials and equipment storage and vehicle fleet.

Included in the FY 2020-21 budget is \$12.4 million of financing costs.

FY 2021-22

As shown in the table, the Water Enterprise FY 2021-22 Capital Budget for Regional Water totals \$63.7 million: \$12.5 million for Regional Water Treatment, \$29.8 million for Supply & Storage Program projects, \$14.9 million for Watershed/Rights-of-Way Management, \$0.5 million for the Communication and Monitoring Program, \$2.0 million for Buildings and Grounds Programs and \$4.0 million for the Long Term Monitoring and Permit.

The Local Water budget includes \$71.4 million for water conveyance/distribution, \$6.7 million for water supply project, \$5.3 million for local tanks/Reservoir Improvement, \$0.2 million for pump station improvements and \$4.7 million for San Francisco Westside Recycled Water Project, \$3.0 million for Automated Meter Reading System, and \$34.5 million for buildings and grounds improvements.

Included in the FY 2021-22 budget is \$23.3 million of financing costs.

Water Programmatic Projects

The table shows the Water Enterprise Programmatic Projects, for FY 2019-20, FY 2020-21, and FY 2021-2022, by major programs. Programmatic projects are annually appropriated projects in support of routine maintenance of programs most of which were initiated in support of the capital program. These programmatic projects include monitoring, mitigation, watershed protection, community benefits, and the Water Enterprise share of lease payment and operation of the SFPUC headquarters at 525 Golden Gate Avenue.

FY 2020-21

The Water Enterprise Programmatic Project budget is \$36.1 million in FY 2020-21 to \$31.4 million in FY 2021-22. This increase is a largely a result of the increase to the operations and maintenance costs of 525 Golden Gate Administration Building.

FY 2021-22

The Water Enterprise Programmatic Project budget decreased in FY 2021-22 to adjust for a one time increase to the 525 Golden Gate Operations and Maintenance project in FY 2020-21.

WATER ENTERPRISE TWO-YEAR CAPITAL BUDGET

\$ Millions	FY 2019-20 Adopted Budget	FY 2020-21 Adopted Budget	FY 2021-22 Adopted Budget
Program/Project			
REGIONAL COSTS			
Water Treatment Program	14.5	9.2	12.5
Water Transmission Program	45.1	0.0	0.0
Water Supply & Storage Program	25.1	0.0	29.8
Watersheds & Land Management	12.5	37.7	14.9
Communication and Monitoring Program	0.0	0.5	0.5
Long Term Monitoring & Permit Program	0.5	4.0	4.0
Buildings and Grounds Program	33.5	3.0	2.0
Regional Total	131.2	54.5	63.7
LOCAL COSTS			
Water Supply Project	5.5	2.7	6.7
Local Water Conveyance /Distribution System	68.2	34.6	71.4
Local tanks/Reservoir Improvements	3.2	3.5	5.3
Pump Station Improvements	2.3	0.0	0.2
Westside Recycled Water Projects/Other	0.5	5.1	4.7
Automated Meter Reading System	0.0	4.2	3.0
Buildings & Grounds Improvements	0.2	15.2	34.5
Systems Monitoring & Control	0.2	0.0	0.0
Local Total	80.0	65.2	125.7
Financing Cost	21.8	12.4	23.3
Total Regional & Local	233.0	132.1	212.7
SOURCES			
Water Revenue	57.3	47.6	55.7
Water Bonds	174.2	83.0	155.5
Capacity Fee	1.5	1.6	1.5
Total Sources	233.0	132.1	212.7

WATER ENTERPRISE PROGRAMMATIC PROJECTS

\$ Millions	FY 2019-20 Adopted Budget	FY 2020-21 Adopted Budget	FY 2021-22 Adopted Budget
Program/Project			
REGIONAL COSTS			
Watershed Protection	0.5	1.1	1.0
WSIP-Related Mitigation & Monitoring	11.2	9.2	7.8
Watershed Structures	1.2	3.5	3.5
Water Resource Planning and Development	0.3	0.5	0.5
Total Regional	13.2	14.3	12.7
LOCAL COSTS			
Landscape Conservation Program	2.0	1.0	0.0
AWSS Maintenance	0.5	1.5	1.5
Treasure Island Facilities Maintenance	1.3	1.4	1.4
Youth Employment Program	1.3	1.3	1.3
Retrofit Grant Program	0.6	0.7	0.5
525 Golden Gate - Operations and Maintenance	4.1	6.9	4.2
525 Golden Gate - Lease Payment	9.2	9.2	9.8
Total Local	19.0	21.9	18.6
Total Regional & Local	32.2	36.1	31.4
SOURCES			
Infrastructure - Recovery Capital	3.8	3.8	3.8
Federal Bond Interest Subsidy	2.0	2.0	2.0
Water Enterprise Revenue	26.4	30.4	25.6
Total Sources	32.2	36.1	31.4

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WASTEWATER ENTERPRISE

MISSION. The Mission of the Wastewater Enterprise (WWE) is to operate and maintain San Francisco’s combined sewer system to protect public health and the environment. These services extend across eight urban watersheds, over 1,900 miles of pipe, and benefit every resident and visitor of San Francisco. WWE operates three all-weather wastewater treatment plants, one wet-weather facility, 27 pump stations, eight transport/storage facilities, and 36 combined sewer discharge structures to treat an estimated 34.5 billion gallons of wastewater in a typical year¹. Of that 34.5 billion gallons, approximately 24 billion gallons per year receive full secondary treatment, 9 billion gallons per year receive primary or decant treatment and are discharged to deep-water outfalls, and 1.5 billion gallons per year receive the equivalent to wet weather primary treatment and are discharged through nearshore outfalls.

Continued on next page...

¹ As simulated by the SFPUC’s Hydrologic and Hydraulic Model, version CCSF19.

WASTEWATER ENTERPRISE BUDGET SUMMARY

	FY 2019-20 Adopted Budget	FY 2020-21 Adopted Budget	Change From FY 2019-20	FY 2021-22 Adopted Budget	Change From FY 2020-21
Total Budget	363,666,181	385,844,898	22,178,717	404,467,113	18,622,215
Total FTE	488.7	481.6	(7.1)	489.3	7.7

SOUTHEAST WASTEWATER TREATMENT PLANT: BIOSOLIDS FACILITIES PROJECT



San Francisco is the only major coastal city in California that operates a combined sewer system that collects and treats both sewage and stormwater.

Wastewater Enterprise is committed to the principles of quality service and environmental stewardship, as outlined in the WWE mission statement:

- Ensure reliability and optimize the lifecycle of physical assets
- Comply with all applicable laws, regulations, permits and policies relating to wastewater and stormwater
- Protect, recover, conserve and reuse resources
- Advance business practices through optimization, coordination, communication and accountability
- Forecast, communicate and manage funding for Enterprise operational and capital needs
- Recruit develop and retain a motivated, diverse and highly qualified and supported workforce to ensure effective services
- Ensure the safety and security of personnel and facilities, and maintain emergency response capabilities
- Promote strong customer service and ethic
- Foster constructive relationships with neighborhoods contribute to the community and promote local employment, training and business opportunities.

The Wastewater Enterprise serves residential, commercial and industrial users, making up a daytime “population equivalent” of over 1 million (in 2018) The service area of the Wastewater Enterprise encompasses – the 49 square miles of San Francisco (City) and a portion of northern San Mateo County through long-term contracts with three municipal sewer service providers: North San Mateo County Sanitation District, the Bayshore Sanitary District and the City of Brisbane (collectively, the “Municipal Customers”). The SFPUC also currently provides waste treatment service on Treasure Island pursuant to contract, and after redevelopment expects to expand its service area to include Treasure Island.

SERVICES AND DIVISIONS

The Wastewater Enterprise is comprised of seven Divisions: Regulatory Compliance, Business Strategy & Performance, Maintenance, Operations, Engineering, Collection System, and Urban Watershed Planning.

Regulatory Compliance

Discharges from and operations of the City's combined collection system, separate storm sewer system, and four treatment plants are comprehensively regulated by the State and federal Clean Water Acts to protect the health of humans, the Bay, and the Pacific Ocean. The Regulatory Division takes the lead in coordinating WWE National Pollutant Discharge Elimination System (NPDES) permit compliance. Our activities include coordination of the activities of other Divisions to improve compliance, leading the agency in permit and other negotiations, ensuring timely and complete submittal of Clean Water reports, and informing the agency of critical policy and regulatory developments.

Business Strategy & Performance

The Business Strategy & Performance group is responsible for workforce planning, employee performance and planning, communications and stakeholder engagement, external partnerships, emergency planning and preparedness, business policy and strategy, administration and financial management, and the SFPUC's Southeast Community Center. Ongoing activities and initiatives overseen by this group include financial and capital planning, hiring, payroll, budget and contract management, development and execution of the WWE Business Plan, resource recovery, workforce development and racial equity, individual and organizational performance tracking, as well as business continuity and facilities planning.

Maintenance

The Maintenance Division is responsible for repairs and improvements to Wastewater's process equipment and facilities, ensuring Wastewater meets permit standards safely, efficiently and effectively.

Conveyance and pumping require maintaining a network of 27 pump stations designed to move combined sewage/runoff flows to treatment plants, transport/storage boxes, and outfalls. During wet-weather, pumping facilities transport up to 660 MGD. The Division also maintains 29 minor pump stations on Treasure Island. The entire system consists of more than 900 pumps and related supporting assets including motors, valves, tanks and pipes.

Treatment and conveyance maintenance activities focus on preventative maintenance, repairs, and overhaul work.

Operations

The Operations Division is responsible for the 24/7 operation of the Wastewater Enterprise's treatment facilities, pump stations and effluent outfalls. The Operations Division's primary mission is to protect public health and the environment by treating an average daily flow of 80 million gallons. The Operations Division treats all combined sewage, 660 MGD during peak wet weather while meeting all the regulatory standards and discharge requirements.

Wastewater treatment is performed at four different locations: Southeast Treatment Plant, Treasure Island Treatment Plant, Oceanside Treatment Plant, and North Point Wet-Weather Facility. Wastewater treatment includes pre-treatment, primary treatment, secondary treatment, disinfection, solids treatment, and odor control.

Wastewater Engineering

The Wastewater Engineering Division is responsible for providing engineering services to the Wastewater Enterprise in four core service areas: wastewater process support, mechanical engineering, planning, design, and construction coordination of capital projects and master planning. These services allow Wastewater to maintain and improve the efficiency and reliability of wastewater collection and treatment to ensure the public's safety and welfare, including its own employees, environmental protection, and regulatory compliance.

Wastewater Engineering support services include process and treatment R&R design, design review of all wastewater capital projects including redevelopment projects, design/construction coordination, research and pilot testing, process performance optimization and troubleshooting, Distributed Control System (DCS) development and support, and regulatory support services.

The Engineering Design Section includes design support services that consist of planning, design, construction management/support and contract preparation for small to medium-size projects (approximately \$5M), updating as-built records, document management and archiving, facility start-up services, asset management support, and other drafting, documentation and technical services. This Section consists of mechanical and electrical engineers

including DCS programmers and technical services such as drafters.

The Capital Program Delivery and Planning Section includes planning and compliance support services that consist of development support and implementation of WWE Capital Programs, and compliance with special studies, reports and analyses as required by NPDES permits. In addition, the Environmental Engineering Section as part of this section provides support for all regulatory permits, and performs odor control support, analysis and evaluation of the wastewater system.

The Process Engineering Section performs evaluation of plant performance and conducts pilot studies and research to improve plant processes.

Collection System

The Collection System Division is responsible for collecting and transporting an average daily flow of 80 MGD and up to 660 MGD during peak wet weather of wastewater to treatment plants that support one million residents, business and visitors. Sewage reaches the treatment plants through a conveyance system that starts with side sewers that connect public or private property to local public sewers in the streets.

Proper operation and regular maintenance of the sewer system is a result of the Sewer Collection Systems' preventive maintenance program. Preventive maintenance occurs year-round and includes

cleaning and condition assessment. The program keeps all sewers on a regular maintenance cycle to ensure that lines are in good working order and free of debris, this minimizing their potential to clog and malfunction. In addition to the pipelines, the collection system contains 19,500 catch basins and 25,000 manholes. Activities within this program include cleaning, inspection, and repair of sewers; responding to public service requests; control of odors in the sewers system; and hydraulic analysis and modeling. To support regulatory compliance in the wastewater system, both pretreatment and pollution prevention (P2) programs are implemented to focus on contaminant reduction activities for residential, commercial, and industrial dischargers. The major P2 programs include: street sweeping, control discharge of fats, oils and grease (FOG) into the sewers, mercury reduction, pesticides/integrated pest management, and stormwater P2 program to control construction runoff which carries pollutant to surface waters.

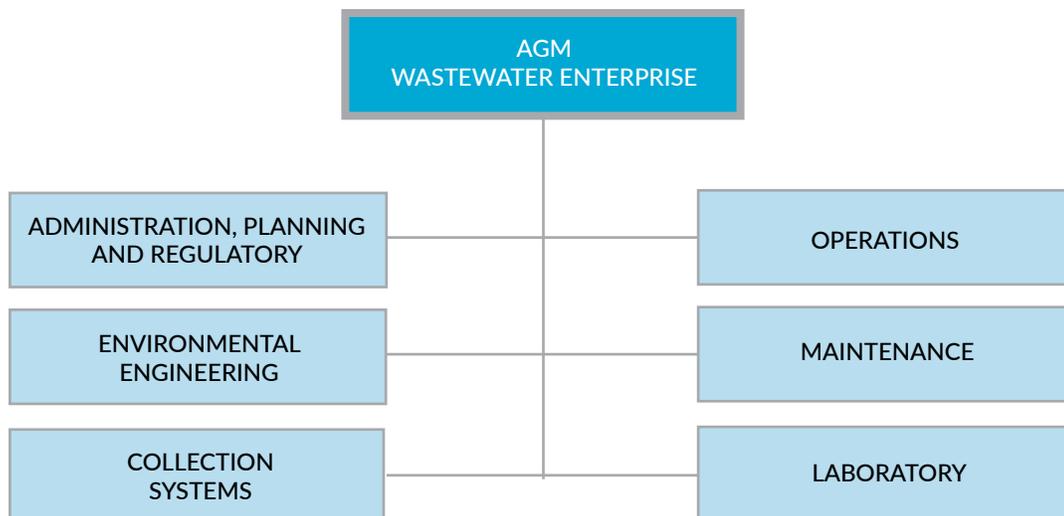
Urban Watershed Planning

The Urban Watershed Planning Division develops green infrastructure plans, policies, regulations, watershed assessment and monitoring, and project design and delivery processes to protect water quality and improve the performance of San Francisco's collection system; provides Stormwater Management Ordinance (SMO) oversight and enforcement; and develops and maintains citywide strategic partnerships to scale the City's green infrastructure.

MAP OF COMBINED SEWER SYSTEM



WASTEWATER ENTERPRISE ORGANIZATION CHART



GOALS AND OBJECTIVES

As noted in the Financial Planning and Policies section, the SFPUC previously adopted a strategic plan to identify key priorities for the organization and serve as a roadmap through 2020 to ensure that the SFPUC meets the challenges ahead and continues to deliver reliable water, power, and sewer services. The five year cycle would dictate a new strategic plan to begin in 2021, but given the current climate, the SFPUC is moving forward with revising its current plan to meet the needs of today and align with new priorities outlined as a result of challenges in 2020.

The 2020 strategic plan goals include:

- Reliable Service and Assets

- Organizational Excellence
- Stakeholder and Community Interests
- Environmental Stewardship
- Effective Workforce
- Financial Sustainability

As part of the strategic plan goals, each Enterprise is responsible for meeting specific objectives and performance targets. Each year progress on those performance measures are reported to the Controller and Mayor. Reported performance for FY 2019-20 for the Wastewater Enterprise and agency-wide goals are as follows:

Goal Area	Performance Measure	Target	FY2019-20 Actuals
Organizational Excellence	Percent of actual/planned goals from the IT Strategic Plan, as taken at the end of the fiscal year	Greater than or equal to 80%	89%
Organizational Excellence	Single rating for SFPUC as a whole on meeting attendance of Health and Safety (H&S) committees agency-wide	Meeting target at 80%. If less than 80% then not meeting target	98%
Effective Workforce	Average Number of Learners in Instructor-led Trainings	8	11.17
Effective Workforce	Diversity & Inclusion Function Maturity	0.7	0.7
Effective Workforce	Number of Completed Online Trainings	2734	6672
Effective Workforce	Number of Instructor-led Trainings held	7336	433
Effective Workforce	Number of Offboarding Events	373	281
Effective Workforce	Number of Onboarding Events	611	499
Effective Workforce	Number of Promotions	251	184
Effective Workforce	Number of Recruitments	80	60
Effective Workforce	Number of Unique Users of Recognition Tools	400	313
Effective Workforce	Percent of Completed Occupational Competency Models	26%	23%
Effective Workforce	Staff Turnover	9.4%	8.6%
Effective Workforce	Time to Hire	150 average days to hire	178
Effective Workforce	Workforce Planning Function Maturity	0.9	0.8
Financial Sustainability	Average residential Wastewater bill as a percent of median income in San Francisco	0.75%	0.77%
Financial Sustainability	Compliance with Fund Balance Reserve Policy - Wastewater	Greater than or equal to 25%	130.5%

Goal Area	Performance Measure	Target	FY2019-20 Actuals
Financial Sustainability	Operating cost coverage (total operational revenues/ total operating costs) for Wastewater	1.98	1.97
Financial Sustainability	Percent of Wastewater volumetric sales at rates that reflect cost of services - including funding capital, investment, O&M and contribution to reserve	100%	100%
Financial Sustainability	Wastewater credit rating	AA or better	Moody's Investor Services: Aa2; S&P: AA
Stakeholder and Community Interest	Number of adults and children who have participated in transformative engagement through SFPUC sponsored education programs	Greater than or equal to 4000	3381
Stakeholder and Community Interest	Percent of eligible households enrolled in Community Assistance Program (CAP)	1) Greater than or equal to 4.62% OR 2) Greater than or equal to 1,200	4.32%
Stakeholder and Community Interest	Percent of employees who participated in the Employee Engagement Survey	Greater than or equal to 70%	55.6%
Stakeholder and Community Interest	Percent of managers who completed at least one engagement action	Greater than or equal to 80%	28.1% (130/462)
Stakeholder and Community Interest	Percent of managers who created at least one engagement action plan	Greater than or equal to 80%	39.8% (184/462)
Environmental Stewardship	Gallons of stormwater removed annually from the combined sewer system by green infrastructure	Greater than or equal to 67,000,000 gallons	79 million gallons
Environmental Stewardship	Number of Clean Water Act permit violations - Wastewater	Meeting target at 0, if greater than 0 then not meeting target	7
Environmental Stewardship	Percent of biogas going to beneficial uses - Oceanside Plant	Greater than or equal to 75%	0%
Environmental Stewardship	Percent of biogas going to beneficial uses - Southeast Plant	Greater than or equal to 75%	36%
Environmental Stewardship	Percent of biosolids going to beneficial use	Meeting target at 100%. If less than 100% then not meeting target	99.98

WASTEWATER REVENUES

In FY 2020-21 Wastewater Enterprise budgeted revenues total \$385.8 million, an increase of 6.1 percent from FY 2019-20. In FY 2021-22 Wastewater Enterprise budgeted revenues total \$404.5 million, an

increase of 4.9 percent from the 2020-21 budget. The charts below show the Wastewater Enterprise's total revenue budgets broken out amongst major revenue categories in FY 2020-21 and FY 2021-22.

CHART 9.1 Wastewater >
FY 2020-21 Sources.

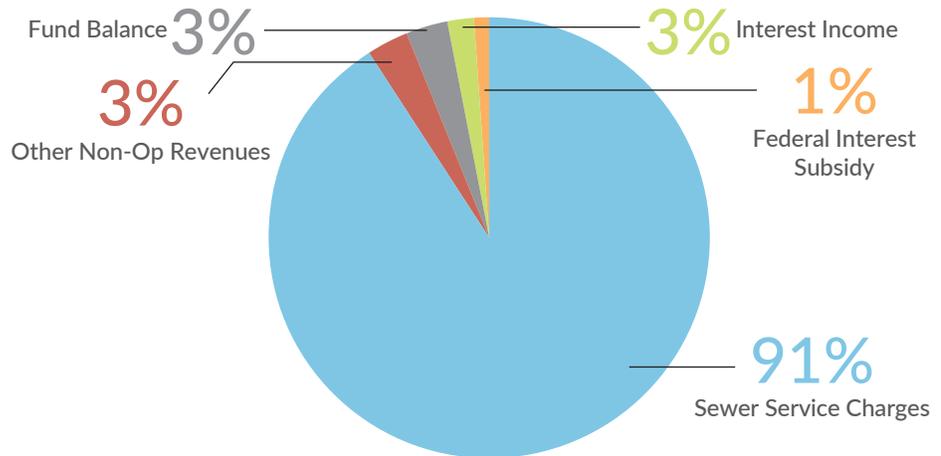
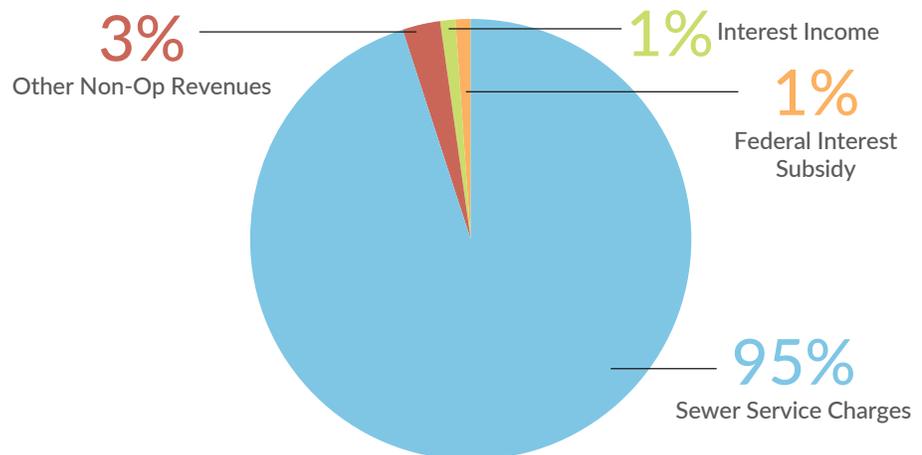


CHART 9.2 Wastewater >
FY 2021-22 Sources.



WASTEWATER SOURCES AND USES OF FUNDS

	FY 2019-20 Unaudited Actuals	FY 2019-20 Adopted Budget	FY 2020-21 Adopted Budget	Change From FY 2019-20	FY 2021-22 Adopted Budget	Change From FY 2020-21
SOURCES OF FUNDS						
Less Water Costs to Hetchy	338,372,579	349,169,385	351,918,674	2,749,289	382,766,759	30,848,085
Federal Interest Subsidy	4,008,923	4,008,923	3,519,245	(489,678)	3,519,245	-
Other Non-Op Revenues	4,384,071	5,002,252	12,465,679	7,463,427	12,379,109	(86,570)
Interest Income	7,974,080	1,988,300	5,873,000	3,884,700	5,802,000	(71,000)
Fund Balance	18,045,634	3,497,321	12,068,300	8,570,979	-	(12,068,300)
Total Sources of Funds	372,785,287	363,666,181	385,844,898	22,178,717	404,467,113	18,622,215
USES OF FUNDS						
Personnel	70,854,676	75,816,162	76,251,135	434,973	77,506,706	1,255,571
Non-Personnel Services	20,706,768	18,490,821	23,392,819	4,901,998	25,686,948	2,294,129
City Grants Program	-	250,000	250,000	-	250,000	-
Materials & Supplies	8,428,506	11,165,340	11,188,300	22,960	11,686,122	497,822
Equipment	1,258,753	1,832,925	1,825,015	(7,910)	2,060,747	235,732
Overhead	27,896,875	29,937,223	32,951,812	3,014,589	34,143,686	1,191,874
Debt Service	70,690,359	70,690,359	85,047,135	14,356,776	95,151,797	10,104,662
Service of Other Departs	35,368,538	35,215,591	37,945,780	2,730,189	38,306,643	360,863
General Reserve	-	-	405,294	405,294	1,756,730	1,351,436
Revenue-Funded Capital	131,209,303	112,979,000	107,894,500	(5,084,500)	110,252,390	2,357,890
Programmatic Projects	6,371,509	7,288,760	8,693,108	1,404,348	7,665,344	(1,027,764)
Total Uses of Funds	372,785,287	363,666,181	385,844,898	22,178,717	404,467,113	18,622,215

WASTEWATER USES OF FUNDS BY SECTION

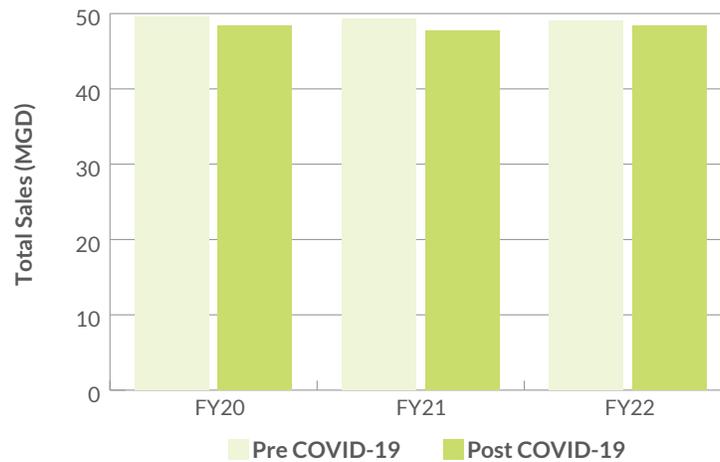
	FY 2019-20 Adopted Budget	FY 2020-21 Adopted Budget	Change From FY 2019-20	FY 2021-22 Adopted Budget	Change From FY 2020-21
USES OF FUNDS					
Regulatory, Business Strategy and Performance	52,340,944	56,701,298	4,360,354	59,296,443	2,595,145
Maintenance	30,407,612	33,699,310	3,291,698	34,258,637	559,327
Bayside Operations	44,676,085	47,578,542	2,902,457	48,989,549	1,411,007
Environmental Engineering	6,284,179	6,583,451	299,272	6,627,926	44,475
Collection System	33,812,663	34,002,344	189,681	35,174,797	1,172,453
Laboratory	5,186,579	5,239,916	53,337	5,293,500	53,584
Debt Service	70,690,359	85,047,135	14,356,776	95,151,797	10,104,662
General Reserve	-	405,294	-	1,756,730	1,351,436
Revenue-Funded Capital	112,979,000	107,894,500	(5,084,500)	110,252,390	2,357,890
Programmatic Projects	7,288,760	8,693,108	1,404,348	7,665,344	(1,027,764)
Total Wastewater	363,666,181	385,844,898	21,773,423	404,467,113	18,622,215

How Forecasts Were Developed

Water volumetric utility delivery trends were observed through the beginnings of the COVID-19 pandemic and shelter in place order, and used as a proxy for the wastewater re-forecasted volume projections. Below are bar charts which compare volumetric sales forecasts for FY 2019-20, FY 2020-21 and FY 2021-22 pre-COVID-19 pandemic, and volumetric sales actuals for FY 2019-20, re-forecasted volumetric sales FY 2020-21 and FY 2021-22, incorporating COVID-19 pandemic impacts on volumes. Weekly water volumetric indicators were tracked from the start of the pandemic. Weekly retail water deliveries were down 30 percent for commercial customers, and up 5 percent for residential customers, when compared to “normal”, or the three-year average for that same

week. These observed delivery trends representing usage and sales volumes deliveries while the region was operating under shelter in place orders informed budget volume re-forecasts. The re-forecasted volumes assumed continued COVID- impacted delivery trends, similar to what was observed while customers were complying with shelter in place orders for one quarter, and a slow and gradual recovery to a “new normal” of slightly under the three year average of historical volumes in 2024. Given the approach to re-forecasted volumes with COVID pandemic impacts and a return to a “new normal” post recovery, the total water volumes that support the adopted FY 2020-21 and FY 2021-22 are 3.3 percent and 1.4 percent below pre-pandemic volumetric sales forecasts.

CHART 9.3 >
Impact of COVID-19
on total Wastewater
sales projections.



Sewer Service Charges

The majority of Wastewater Enterprise revenues are from sewer service charges, which make up 91.2 percent of total revenues in FY 2020-21 and 94.6 percent of revenues in FY 2021-22. Sewer service charges are the charges customers pay for their use of the Sewer System. For all customers sewer service charges are comprised of a fixed monthly service charge paid by customers, and a volumetric charge calculated based on the volume of water discharged, determined by the actual water consumed which is measured by the Water Enterprise's water meters. For non-residential customers an additional component of the sewer service charge is based upon the pounds of pollutants contained in that discharge, determined by sampled discharges or based on the standard waste characteristics for their respective business' activity.

The main drivers of Wastewater's revenue budget increases are from utility sales revenue growth and an increase in the budgeted use of fund balance as a revenue source in FY 2021-22. The main driver behind sewer charges revenue increases are retail rate increases of 8 percent in FY 2020-21 and FY 2021-22.

Federal Interest Subsidy

The Wastewater Enterprise is budgeted to receive \$3.5 million in federal interest rate subsidy in FY 2020-21, or 0.9 percent of Enterprise revenues, staying the same in FY 2021-22. The revenues are a federally provided interest rate subsidy intended to cover a portion of the interest rates paid on Wastewater Enterprise Build America Bonds (BABs). The revenues budgeted are based upon the debt service to be paid on BABs and the expected rate of interest rate subsidy received.

Other Non-Operating Revenues

Included in the Wastewater Enterprise's total FY 2020-21 revenues are \$12.5 million in other non-operating revenues, or 3.2 percent of the budget. Other non-operating revenues total \$12.4 million in FY 2021-22 or 3.1 percent of total Enterprise budgeted revenues. Included in non-operating

revenues are rental income and capacity fees. These projections were developed using historical actual performance multiplied by an inflationary growth assumption.

Interest Income

In FY 2020-21 the Wastewater Enterprise budgeted \$5.9 million in interest earnings, making up 1.5 percent of total revenues. In FY 2021-22 interest earnings are budgeted at \$5.8 million, or 1.4 percent of total revenues. Interest earnings are budgeted assuming a 2 percent interest rate earned on unaudited and projected cash balances at the time of budget development.

Budgeted Fund Balance

Fund Balance is used on a one-time, planned basis to balance budgeted sources and uses in line with the SFPUC's Fund Balance Policy. In FY 2020-21 use of Fund Balance as a source totals \$11.7 million. This use of Fund Balance driven by funding needs for Revenue-Funded Capital as well as to cover the drop in revenues caused by the COVID-19 pandemic. These uses, combined with the fact that Fund Balance is well above the minimum target of 25 percent of operations & maintenance Expenses, are aligned with the Fund Balance Policy.

In FY 2021-22, fund balance was not required to balance as budgeted revenues exceed budgeted expenses, and instead the enterprise will contribute \$1.8 million into fund balance reserves.

Change in Fund Balance

FY 2019-20 year-end fund balance is \$211.7. Taking into account budgeted use of fund balance in FY 2020-21 of \$11.7 million, as well as \$10.2 million in planned de-obligations from currently appropriated revenue funded capital and programmatic project budgets that were done to offset COVID-19 impacts, FY 2020-21 ending fund balance is projected to be \$210.4. FY 2021-22 ending fund balance is projected to be \$212.7 after taking into account budgeted contribution to fund balance of \$1.8 million.

WASTEWATER EXPENDITURES

The Wastewater Enterprise annual operating budget is \$385.8 million in FY 2020-21 and \$404.5 million in FY 2021-22. The budget increased by \$22.2 million or 6.1 percent in FY 2020-21 and \$18.6 million or 4.8 percent in FY 2021-22. The net increase from FY 2019-20 to FY 2020-21 mainly reflects increases to debt service and overhead spending, offset by a decrease in revenue funded capital. The net increase from FY 2020-21 to FY 2021-22 mainly reflects increases to debt service and revenue funded capital, offset by a decrease in programmatic projects.

Debt Service

The FY 2020-21 Debt Service budget is \$85.0 million based on principal and interest payments on outstanding senior-lien revenue bonds issued to fund the Sewer System Improvement Program (SSIP), other Wastewater Capital Improvement Projects, and the lease payment of the SFPUC's headquarters (partially offset by Infrastructure expense recovery). This amount reflects a \$14.4 million increase or 20.3 percent from FY 2019-20 adopted budget of \$71.0 million primarily due to interest payments for the 2018 Series ABC revenue bonds and repayment of the SEP 521/522 and Disinfection Upgrades Project Clean Water State Revolving Fund (SRF).

The FY 2021-22 Debt Service budget is \$95.2 million and reflects an increase of \$10.1 million from FY 2020-21. This increase is primarily due to interest payments for the 2018 Series ABC revenue bonds and planned interest for the Wastewater Revenue notes to be issued in FY 2021-22.

Personnel

The FY 2020-21 Personnel budget is \$76.3 million, a \$0.4 million increase or 0.6 percent increase from FY 2019-20. The increase primarily reflects a \$1.0 million adjustment in fringe benefits, reflecting an increase in cost of living and health benefit cost increases. The increase in fringe benefits is offset by a \$0.6 million decrease in salaries, mainly due to the elimination of several long-term positions and adjustments to the department's attrition savings to reflect slower hiring in order to reduce costs and rebalance the budget due to COVID-19 related revenue reductions.

The FY 2021-22 Personnel budget is \$77.5 million, a \$1.3 million or 1.6 percent increase from FY 2020-21, mainly due to adjustments in fringe benefits (healthcare and retirement costs).

Authorized and Funded

Full-Time Equivalents (FTEs)

The Wastewater Enterprise total authorized and funded full-time equivalents (FTEs) operating budget, project-funded and temporary positions for FY 2020-21 is 481.55 FTEs, a decrease of 7.13 FTEs from FY 2019-20. The net decrease reflects adjustments to attrition savings and the elimination of long-term vacant positions, offset by staff increases supporting the Sewer System Improvement Program (SSIP), Stormwater Management and the Lateral Assessment Program.

The Wastewater Enterprise total FTEs for FY 2021-22 is 489.25 FTEs, an increase of 7.7 FTEs from the prior year mainly reflecting new positions supporting the Stormwater Program and the Sewer System Improvement Program (SSIP).

WASTEWATER AUTHORIZED AND FUNDED FULL-TIME EQUIVALENTS (FTEs)

Position Type	FY 2019-20 Adopted Budget	FY 2020-21 Adopted Budget	Change From FY 2019-20	FY 2021-22 Adopted Budget	Change From FY 2020-21
Permanent Positions	427.01	414.56	(12.45)	416.16	1.60
Temporary Positions	4.17	4.1	(0.07)	5.51	1.41
Subtotal Operating-Funded	431.18	418.66	(12.52)	421.67	3.01
Project-Funded	57.5	62.89	5.39	67.58	4.69
Total Funded Positions	488.68	481.55	(7.13)	489.25	7.70
Unfunded Positions (Attrition)	59.49	71.88	12.39	71.48	(0.40)
Total Wastewater	548.17	553.43	5.26	560.73	7.30

Revenue-Funded Capital

The FY 2020-21 Revenue-Funded capital budget, which funds the revenue or cash portion of the capital budget, is \$107.9 million, a \$5.1 million, or 4.5 percent decrease from FY 2019-20. The decrease is mainly due to changes in project scheduling and delivery feasibility.

The FY 2021-22 Revenue-Funded capital budget is \$110.3 million, a \$2.4 million or 2.2 percent increase from FY 2020-21, mainly due to an increase in funding for the renewal and replacement collection system based on delivery feasibility.

Programmatic Projects

Programmatic Projects are annually appropriated projects that are revenue funded in support of routine maintenance, most of which were initiated in support of the capital program. These projects include facilities maintenance, community benefits, and the Wastewater Enterprise's share of the lease payment and operation of the SFPUC headquarters at 525 Golden Gate Avenue.

FY 2020-21 Programmatic Projects are budgeted at \$8.7 million to support facilities maintenance programs. The \$1.4 million increase or 19.2 percent from FY 2019-20 reflects increased funding for the 525 Golden Gate maintenance program.

FY 2021-22 Programmatic Projects are budgeted at \$7.7 million, a decrease of \$1.0 million or 11.8 percent from FY 2020-21 mainly due to a one time spending reduction in the 525 Golden Gate maintenance program.

Equipment

FY 2020-21 Equipment is budgeted at \$1.8 million to support the Enterprise's daily operations. There is no increase from the prior year.

FY 2021-22 Equipment is budgeted at \$2.1 million, an increase of \$0.2 million or 12.9 percent from FY 2020-21 reflecting additional equipment to support operations.

CHART 9.4 >
Wastewater Enterprise Total Uses.

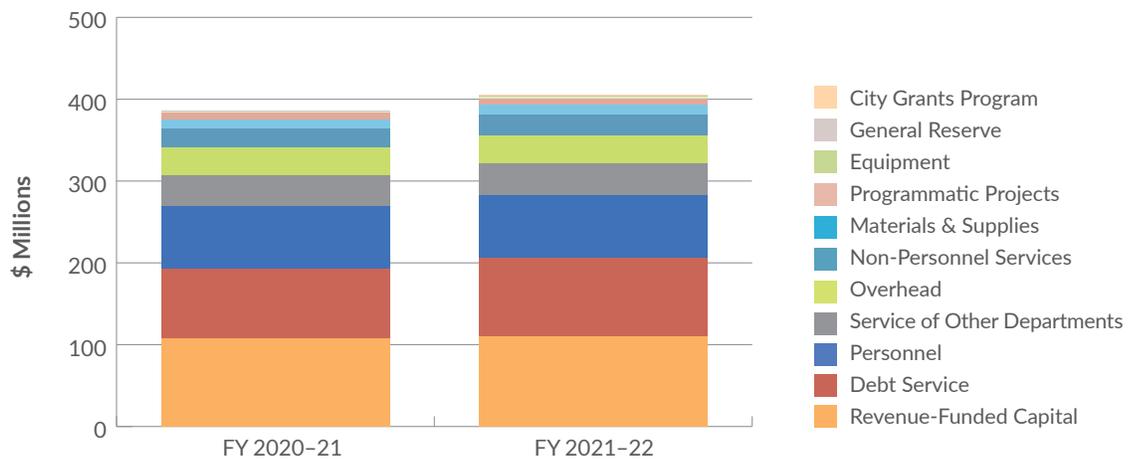
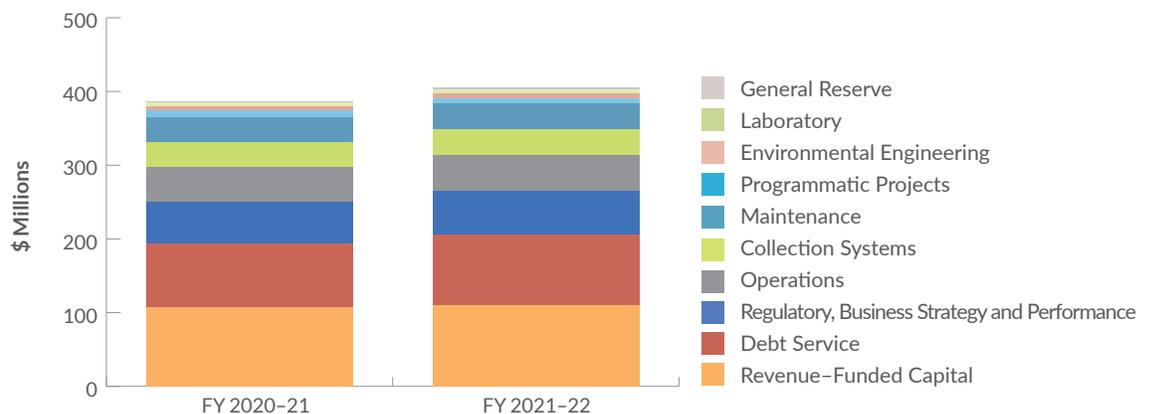


CHART 9.5 >
Wastewater Enterprise Total Uses of Funds by Division.



Services of Other Departments

FY 2020-21 Services of Other Departments are budgeted at \$37.9 million to support services provided by other City Departments to the Wastewater Enterprise. These services include City-wide dispatch, City Attorney services, telephone and technology services, facilities maintenance, and fleet maintenance among other services. The net \$2.7 million or 8.5 percent increase reflects additional custodial services, increased insurance and risk management costs and increased street repair services.

FY 2021-22 Services of Other Departments are budgeted at \$38.3 million, an increase of \$0.4 million or 0.9 percent from FY 2020-21 mainly reflecting an increase in power utility costs.

Overhead

The Overhead budget funds the Wastewater Enterprise's share of support services provided by the SFPUC Bureaus, including the General Manager, Business Services, and External Affairs. The FY 2020-21 Overhead budget is \$33.0 million, an increase of \$3.0 million, or 10.0 percent, from FY 2019-20. The overhead rate is based on SFPUC's 2018 Indirect Cost Study.

The FY 2021-22 Overhead budget is \$34.1 million, a \$1.2 million, or 3.6 percent increase from FY 2020-21. The increase reflects adjustments to the SFPUC Bureaus FY 2021-22 budget.

Non-Personnel Services

The FY 2020-21 Non-Personnel Services budget is \$23.4 million and funds services for the Enterprise including travel, training, memberships, professional services, and rent. The increase of \$4.9 million, or 26.5 percent from the FY 2019-20 budget is to support legal counsel costs and contractual cost increases to bio solids management and hauling.

The FY 2021-22 Non-Personnel Services budget is \$25.7 million, a \$2.3 million, or 9.8 percent increase from FY 2020-21. The increase reflects a cost increase for hauling and disposal of biosolids and grit, as well as increases in support services to assess sewer laterals proactively to reduce premature failure and reduce overflows.

The FY 2021-22 Non-Personnel Services budget is \$11.7 million, a \$0.5 million change from FY 2020-21. The increase reflects an increase for process instrumentation equipment used throughout Wastewater facilities and for chemicals needed for disinfection of treated sewage.

Materials and Supplies

The FY 2020-21 Materials and Supplies budget is \$11.2 million and funds materials and supplies, including equipment maintenance supplies, sewage treatment supplies, fuel and office and safety supplies. There is no change from the FY 2019-20 budget.

New Initiatives

Stormwater Flow Cost Allocation – This funding reflects a change in the structure of Wastewater rates to bill properties properly for stormwater runoff that is generated. In FY 2020-21, \$0.2 million was adopted and an additional \$0.7 million was adopted in FY 2021-22 to execute the rate modification. An implementation plan has been devised for modifications to the customer service billing system, new customer service staff to handle increased call volume and administer updates to the new billing system, and having a dedicated staff to manage grant and credit programs designed to complement the new charge and reduce its impact on customers. In addition, this budget will fund as-needed professional service consultants that will provide assistance with annual updates and process improvements to all green infrastructure inspection materials, programs, and processes.

Community Improvements - This \$0.9 million budget in FY 2020-21 will support funding for an Odor Control and Gas Handling Media service contract for all Wastewater Treatment facilities and for the lateral condition assessment and grant program, potentially identifying new, critical spot sewer repairs. In addition, focus will be directed on revised Sewer Use Ordinance, interagency coordination, sewer connection permitting and lateral construction quality assurance. An additional \$0.3 million in funding in FY 2021-22 reflects better management of stormwater runoff using green infrastructure.

Health & Safety Initiatives - This \$0.6 million budget in FY 2020-21 will fund service contracts providing personal gas detection meters for all Wastewater staff and another contract for regularly scheduled service and repair to all WWE facilities requiring security and process cameras/card readers.

SEP Digester Cleaning - Current WWE anaerobic digesters are expected to be replaced by the Biosolids Digester Facilities Project (BDFP) so therefore, the anaerobic digesters will require cleaning to ensure compliance while the BDFP is delivered. This \$1.0M million funding will clean approximately one digester per year depending on market conditions and the quantity of solids in each respective digester.

WASTEWATER ENTERPRISE CAPITAL BUDGET

In addition to the operating budget, the Wastewater enterprise also prepares a two-year Capital budget and Ten-Year Capital Plan.

The Wastewater Capital Plan is a collection of capital improvement programs that will help the WWE meet the levels of service goals for regulatory compliance, seismic safety, system reliability, functionality and sustainability of the City's combined sewer system. The Wastewater Capital Plan focuses on full-lifecycle asset management and builds on utility industry best practices, includes planning for a 20-year horizon, and adopts a rolling 10-year capital plan, which is re-budgeted every two years. The delivery of the Wastewater Capital Plan is a partnership between the Wastewater Enterprise and Infrastructure Bureau and consists of the following five categories:

- Sewer System Improvement Program (SSIP)
- Repair and Replace – Treatment (R&R)
- Repair and Replace – Collection System (R&R)
- Facilities and Infrastructure
- Treasure Island

Together, these programs will address the following challenges:

- Aging infrastructure and poor conditions of existing facilities
- Seismic deficiencies and lack of structural integrity
- Limited operating flexibility and lack of redundancy
- Optimizing system performance and efficiency
- Maintaining ratepayer affordability
- Asset protection against climate change-induced sea-level rise, and
- Protecting public health, the environment, and conservation goals to safeguard natural and human environments.

In FY 2020-21, the Wastewater Enterprise's capital budget is \$162.3 million, of which \$48.6 million or 29.9% is funded by debt and \$113.7 million or 70.1% is revenue funded. In FY 2021-22, the capital budget is \$364.4 million of which \$248.8 million or 68.3% is supported by debt and \$115.6 million or 31.7% in revenue funding. Debt funding consists of revenue bonds. The majority of the revenue funding is from sewer service charges, with the remainder being from capacity fees. The Wastewater Enterprise's annual programmatic project budget, which is funded in the operating budget but forms part of the capital program, is \$8.7 million in FY 2020-21 and \$7.6 million in FY 2021-22, with the majority being revenue funded and the remainder coming from Federal bond interest subsidies and recovery capital.

The Wastewater Enterprise is responsible for the operations, maintenance, capital improvements and repair/replacement of the following wastewater facilities and assets:

- Four Treatment Facilities including: Southeast Treatment Plant, Oceanside Treatment Plant, North Point Wet Weather Facility, and Treasure Island Treatment Plant;
- Twenty-nine Pump Stations, including those in Mission Bay, in San Francisco; twenty-eight sanitary pump stations on Treasure and Yerba Buena Islands and six stormwater pump stations on Treasure Island;
- Nine Transport/Storage Facilities with 199 million gallons of capacity for combined sewage;
- Three Bay and one Ocean Outfalls off of San Francisco;
- One Bay Outfall off of Treasure Island;
- Thirty-six Combined Sewer Discharge Structures in San Francisco;
- Fifty stormwater outfalls on Treasure and Yerba Buena Islands;
- Nine hundred and ninety-three miles of Sewers, Tunnels, Force Mains and Transport/Storage facilities;
- Two chemical feed stations for odor control in San Francisco;
- Six continuous deflective separation units for stormwater management in San Francisco; and
- One Southeast Community Facility in San Francisco.

San Francisco dry-weather wastewater is treated by two main treatment plants, Southeast and Oceanside, with a combined dry-weather design capacity of 107 MGD. During wet-weather, three plants, Southeast, Oceanside and North Point Facility, with a peak design capacity of 465 MGD, treat the combined sanitary and stormwater flows which are called "combined sewage". Wastewater generated at Treasure Island is treated at the Treasure Island facility with a dry-weather capacity of 2 MGD. The treatment plants are:

North Point Wet Weather Facility: The North Point Wet Weather Facility has been in operation since 1951. The facility provides primary-level treatment and disinfection of combined sewage collected in the north part of the City during rainstorms. The facility has a treatment capacity of 150 MGD. Treated combined sewage is discharged approximately 800 feet into the San Francisco Bay. In a typical year, the North Point Wet-Weather Facility treats about 1.3 billion gallons of combined sewage.

Southeast Treatment Plant: The Southeast Treatment Plant was built in 1952 and has been expanded several times since. The Plant treats an average dry-weather flow of approximately 58 MGD and discharges into the San Francisco Bay through an 810 foot-long pipe. The Plant

has a peak wet-weather capacity of 250 MGD which is discharged through both the 810 foot-long pipe into the Bay and an auxiliary wet-weather-only outfall into Islais Creek. In a typical year, the Southeast Treatment Plant treats about 25 billion gallons of combined sewage.

Oceanside Treatment Plant: Completed in 1993, the Oceanside Treatment Plant treats an average dry-weather flow of approximately 16 mgd and has a total capacity of 65 MGD during wet-weather. It treats wastewater from the west side of the City. Treated wastewater is discharged from the plant to the Pacific Ocean through the Southwest Ocean Outfall 4.5 miles offshore. In a typical year, the Oceanside Treatment Plant treats approximately 6.6 billion gallons of combined sewage.

In 2004, the Oceanside Plant was awarded the U.S. Environmental Protection Agency's "Plant of the Year" Award over similar-sized treatment plants around the nation and in 2014 the Plant received the National Association of Clean Water Agencies Platinum Award for 18 consecutive years of compliance.

Treasure Island Treatment Plant: The San Francisco Public Utilities Commission, under a 1997 Cooperative Agreement between the U.S. Navy, agreed to operate and maintain the utility systems at Treasure Island, including the Treasure Island Plant, while the Navy retains ownership of all the utility systems. The Plant provides secondary treatment of wastewater from facilities on Treasure Island and Yerba Buena Island. It serves a

WASTEWATER ENTERPRISE TEN-YEAR CAPITAL PLAN

\$ Thousands	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25	FY 2026-30	PLAN TOTAL
SPENDING PLAN							
Sewer System Improvement Program							
Program Wide Management	0	0	7,000	10,000	9,143	63,000	89,143
Treatment Facilities	6,892	119,352	169,132	248,142	291,222	598,823	1,433,564
Sewer/Collection System	1,790	15,048	33,494	44,959	73,723	631,146	800,159
Stormwater Management/Flood Control	772	46,544	87,263	106,984	127,207	242,198	610,968
Total SSIP	9,454	180,944	296,888	410,086	501,296	1,535,167	2,933,834
Renewal and Replacement							
Collection System - Condition Assessment	5,712	7,999	9,574	11,688	11,496	47,113	93,581
Collection System - Sewer Improvements	101,423	107,704	102,608	106,715	98,217	553,639	1,070,306
Collection System - Large Diameter Sewer	0	0	2,550	29,402	31,959	258,396	322,307
Treatment Plant Improvements	25,358	26,625	27,957	29,354	30,822	178,828	318,944
Total R&R	132,493	142,328	142,689	177,159	172,494	1,037,975	1,805,138
Treasure Island - New Wastewater Treatment Facility	0	35,000	60,000	52,810	0	0	147,810
Wastewater Facilities & Infrastructure							
Ocean Beach Protection	0	2,417	45,000	47,000	33,523	14,838	142,778
Islais Creek Crossing	15,847	3,715	5,761	3,890	2,878	509	32,600
Southeast Outfall Condition Assessment & Rehab	0	0	0	0	1,459	29,141	30,600
Swoo Condition Assessment & Rehab	0	0	0	0	1,313	28,294	29,608
Southeast Community Center Improvements	4,500	0	0	0	0	0	4,500
Total Wastewater Facilities & Infrastructure	20,347	6,132	50,761	50,890	39,174	72,782	240,086
Total Wastewater	162,293	364,404	550,338	690,945	712,964	2,645,924	5,126,868
Sources							
Revenue	107,895	110,252	122,657	125,111	127,613	677,384	1,270,912
Revenue Bonds	48,598	248,833	421,986	560,139	579,656	1,940,065	3,799,277
Capacity Fee	5,800	5,319	5,695	5,695	5,695	28,475	56,679
Total	162,293	364,404	550,338	690,945	712,964	2,645,924	5,126,868

population of approximately 2,400 and has a design capacity of 2 MGD; daily influent flows measured between December 2005 and June 2009 ranged between 0.35 and 0.50 MGD.

WASTEWATER ENTERPRISE TEN-YEAR CAPITAL PLAN

The Ten-Year Plan for FY 2020-21 through FY2029-30 increased \$63.2 million (11%) from the prior years approved plan. The SSIP decreased \$875 million. This reduction is largely a result of projects in the SSIP using prior year appropriations and a significant effort to smooth project spending within the Ten-Year plan window and moving budgets outside of the Ten -Year plan horizon.

The Plan also includes increases in the R&R program, \$807 million (62%) due to moving large diameter sewer projects from SSIP to R&R and the Treatment Plant Facilities Projects increasing \$82 million (28%) to maintain the capacity and reliability of wastewater treatment facilities operated by the Enterprise.

The Treasure island Project increased \$139.5 million to fund a new Wastewater Treatment facility on the Island to replace the aging existing facility.

The table below shows total projected costs over 10 year period.

The 10-Year Capital Plan shown shows the Renewal and Replacement (R&R) program, which is mostly revenue-financed, increasing approximately 3 percent annually. The Capital Program includes the SSIP, Treasure Island and other Wastewater Facilities show an increase in FY 2023-24 & FY 2024 -25 to fund the Biosolids Project construction.

Capital Program

The Ten-Year Capital Plan shows total project costs for the Wastewater Enterprise of approximately \$5.1 billion of which \$2.9 billion is for the SSIP, \$1.8 billion is for R&R and \$240.1 million is for other Wastewater Facilities & Infrastructure and \$147.8 million is for Treasure Island. Capital investments during the 10-year period are in the following areas:

- Program Management, \$89.1 million;
- Treatment Facilities, \$1.4 billion;
- Collection System \$800.2 million;
- Stormwater Management/Flood Control, \$611.0 million;
- Renewal and Replacement, \$1.8 billion;
- Treasure Island, \$147.8 million;
- Wastewater facilities & Infrastructure, \$240.1 million;

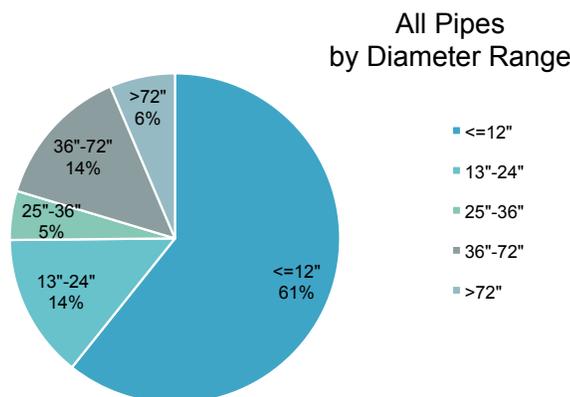
Sewer System Improvement Program (SSIP), \$2.9 billion

The San Francisco Public Utilities Commission endorsed a \$6.9 billion Sewer System Improvement Program (SSIP) to help the Wastewater Enterprise meet the SFPUC goals and levels of service for operational reliability, regulatory compliance, effective stormwater management, community benefits, climate change adaptation, economic and environmental sustainability and ratepayer affordability.

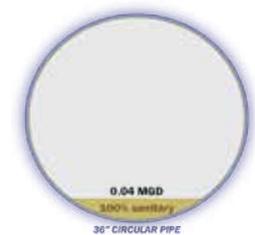
The Ten-Year Capital Plan as adopted anticipates approximately \$4.0 billion of investments in the SSIP, focusing on projects in the following categories:

- **Program-Wide Efforts:** \$89.1 million – the SSIP is a series of capital improvement projects focused

CHART 9.6 >
A combined sewer is designed to simultaneously collect storm water and sewage water in a shared system.



- 40% are larger than 12"
- 20% are larger than 36"



36" Gravity Main in Dry Weather



36" Gravity Main at Peak of Five-Year Storm

on improving the wastewater system to meet the present and future needs of the City. The Program-Wide Management Project will support the SSIP implementation, providing condition assessments (facility inspections), project definition and prioritization, public outreach and education, analysis of the impacts of climate change, sustainability evaluation, and general program management (program controls, change control, constructability).

- **Treatment Facilities:** \$1.4 billion - projects include the Bayside Biosolids (Digester) Project in southeast San Francisco; improvements to the combined sewer transport storage and near shore combined sewer discharge structures; and improvements to the liquid treatment at the Southeast Water Pollution Control Plant, the North Point Wet Weather Facility, the North Shore Pump Station and associated outfalls; and improvements to the Oceanside Water Pollution Control Plant, Westside Pump Station, and Westside Force Main.
- **Sewer/Collection System:** \$800.1 million – includes the proposed Central Bayside System Improvement Project to provide system enhancements to the Channel Drainage Basin, and needed redundancy for the existing 66-inch Channel Force Main, hydraulic improvements to sewers/pump stations, and improvements to stormwater management through elements of both grey and green infrastructure. Also provides funding for replacement of existing sewers to increase hydraulic capacity, transportation/storage and combined sewer discharge structures, pump stations and force mains.
- **Stormwater Management/Flood Control:** \$611.0 million program includes work on drainage basins, green infrastructure, flood resilience, and the Green Infrastructure Stormwater Management Grant Program. For drainage basins, the SFPUC will build, monitor, and evaluate the effectiveness of eight green infrastructure projects to minimize stormwater impacts throughout San Francisco's eight urban watersheds. Flood resilience projects will address combined sewer flooding caused by heavy rain through capital improvements, financial incentives, Building Code amendments, options for affordable flood insurance, and enhanced coordinated storm response. Green infrastructure construction of permeable surfaces and engineers' subsurface systems will sustainably augment the collection system for the management of stormwater flows. Finally, the Green Infrastructure Stormwater Management Grant Program will incentivize property owners to construct and maintain green infrastructure on large parcels. These projects will support the levels of service goals to minimize flooding, provide benefits to impacted communities, and achieve economic and environmental

sustainability. Ancillary benefits may include reduced energy use (reduced pumping and treatment), potable water conservation, groundwater recharge, and improved community aesthetics.

Renewal and Replacement (R&R) Program

The Wastewater R&R program includes two major categories: sewer replacements and treatment facilities. Increase in Collection System R&R is due to moving large diameter sewer projects from SSIP to R&R to better align with the perpetual nature of the need for sewer reinvestments.

Collection System, \$1.5 billion

- **Condition Assessment Project** – There are more than 80 miles of major sewers that have been in service for 100 years or more and are at the end of their useful life. This project includes cleaning and inspection of large diameter sewers, transport/storage boxes and collection system discharge/overflow structures. The results of the inspection program will inform the R&R Spot Repair and Collection System Sewer Improvements Programs, as well as the SSIP regarding needed sewer repairs. This project will assist with the on-going gathering of data necessary for the Wastewater Enterprise Collection Systems Asset Management Program.
- **Sewer Replacement/Improvement Program** – This program maintains the existing functionality of the sewage collection system and includes planned and emergency repairs and replacement of structurally inadequate sewers. Failure of the collection system will reduce the City's ability to handle and dispose of wastewater and stormwater which can lead to public health, safety and environmental risks and non-compliance with State discharge permit. Projects are identified utilizing an asset management approach which factors in physical condition, age, location, risk, public safety, paving schedule and other factors. This program allows for the renewal and replacement of approximately 15 miles of sewer per year.
- **Large Diameter Sewer** - This is a collection of large sewer improvement projects that will rehabilitate and/or replace Large Sewers (sewers greater than 36-inches in diameter or equivalent diameter) that have the highest risk for failure. The collection of projects (or subprojects) were identified from the efforts of SSIP Phase 1 projects.

Treatment Plants, \$318.9 million

The Treatment Plant Improvement program helps maintain the capacity and reliable performance of the Wastewater treatment facilities owned and operated by the Wastewater Enterprise. This is a continuing annual program to extend the useful life of Wastewater treatment assets including Transport Boxes, Discharge Structures, Pump Stations, Force Mains, Tunnels and Treatment Plants.

The projects are prioritized based upon regulatory compliance, condition assessments, operation staff recommendations and Level of Service goals which were formally adopted as part of the SSIP. The completion of projects under the Treatment Plant Improvement program will increase reliability and efficiency of Wastewater Enterprise facilities and will ensure that the performance of the treatment facilities meets the established levels of service.

Treasure Islands Capital Improvement, \$147.8 million

On October 1, 1997, concurrent with the operational closure of the Treasure Island Naval Station, the City entered into a Cooperative Agreement with the U.S. Navy in which the City agreed to take responsibility for caretaker services on Treasure Island and Yerba Buena Island. As a result of this agreement, the SFPUC provides utility operations and maintenance services for the wastewater and stormwater systems.

This project provides continued funding for a new tertiary three-million gallon per day wastewater treatment facility for the Treasure Island/Yerba Buena Island service area to replace the existing, aged facility. The new treatment facility will include influent screening, a combined primary/secondary treatment process, anaerobic sludge digestion, sludge dewatering and truck load-out, disinfection, odor control, and tertiary treatment.

Wastewater Facilities and Infrastructure, \$240.1 million

- **Ocean Beach Protection Process:** \$142.8 million - This project is to develop comprehensive shoreline management and protection plan in partnership with relevant stakeholders and regulatory agencies and to establish a long-term solution to the erosion issues along Ocean Beach. This long-term solution is necessary to protect the integrity of critical wastewater assets that were planned, built, permitted and constructed to protect public health and the environment. These assets include the Lake Merced Transport/Storage facility, the Westside Pump Station and the Oceanside Treatment Plant which are threatened by sea level rise, and erosion at Ocean Beach.
- **Islais Creek Crossing:** \$32.6 million - This project includes improvements to Islais Creek crossing of the effluent pipelines and modifications to the Booster Pump Station at Islais Creek. The project primarily addresses the compromised section of the effluent discharge outfall into the San Francisco Bay.
- **Southwest Outfall Condition Assessment:** \$30.6 million - This project includes the condition assessment of the outfall and needed repairs. The facilities provided all-weather collection and treatment of flows from the westside of the City. The

facilities must be monitored and maintained to ensure reliable and safe operation during all weather conditions.

- **Southeast Ocean Outfall Condition Assessment:** \$29.6 million - The Southeast Outfall pipeline conveys treated effluent from the Southeast Plant to the San Francisco Bay. The condition assessment will determine if the pipeline from the onshore force main to offshore outfall can provide reliable service until the offshore outfall is replaced. Funding for rehabilitation is include in the project if determined necessary by the assessment.
- **Southeast Community Center Improvements:** \$4.5 million - This project funds the building of a new community center at 1550 Evans. The project will include a childcare center, café, multipurpose space for meetings, events, and workshops, and co-working office and classroom space for community-based organizations providing workforce development services. It will also include parking and over two acres of landscaped open space, with play areas, an amphitheater, picnic areas and gardens.

FY 2020-21 AND 2021-22 CAPITAL BUDGET

The table on the following page shows the Wastewater Enterprise's capital budget for FY 2019-20, FY 2020-21, and FY 2021-22, by major program.

The Wastewater FY 2020-21 and FY 2021-22 Capital Budget is \$579.2 million. The capital budget includes continuing Renewal and Replacement (R&R) Projects for the Collection System Sewer R&R and Treatment Plant Facilities Improvements and significant non-recurring capital expenditures for the Sewer System Improvement Program (SSIP), Treasure Island and other Wastewater Facilities and Infrastructure. The budget is funded by a combination of Wastewater Enterprise revenues, Wastewater revenue bonds and capacity fees.

As a preliminary step to two-year Capital budget development, a baseline review of all existing project appropriations was completed for potential closeout or repurposing to new capital budget needs. This important step reduced the amount of funding request in FY 2020-21 in the two-year Capital budget and a more efficient use of existing project appropriations, commercial paper and bond funding issuances.

FY 2020-21

The Wastewater Enterprise's capital budget for FY 2020-21 is \$170.9 million and includes \$162.3 million for Wastewater Capital Projects and \$8.6 million for financing cost. The FY 2020-21 Wastewater Enterprise capital budget, including financing costs, is \$340.2 million less than the FY 2019-20 approved budget. The decrease is the result of the SSIP being able to

repurpose unspent prior year project appropriations to cover budgetary needs in FY 2020-21.

Major projects include:

Capital Enhancements included in the SSIP

\$6.9 million for SSIP Treatment Facilities on-going improvements at the Southeast Plant including Oxygen Generation and Building Health and Safety projects,

upgrades to the North Point Facility Administration Building and the Oceanside Plant Solids Thickening Process Upgrade.

\$1.8 million for Sewer/Collection System including the Seacliff Pump Station and Force Main upgrade and Sunnydale Safety Improvement Projects.

\$0.8 million for Stormwater Management/Flood Control Green Infrastructure Projects to provided sustainable alternatives to the collection system management of stormwater flows.

WASTEWATER TWO-YEAR CAPITAL BUDGET

\$ Millions	FY 2019-20 Adopted Budget	FY 2020-21 Adopted Budget	FY 2021-22 Adopted Budget
SEWER SYSTEM IMPROVEMENT PROGRAM			
Program Wide Management	16.6	0.0	0.0
Treatment Facilities	169.1	6.9	119.4
Sewer/Collection System	69.3	1.8	15.0
Stormwater Management/Flood Control	40.5	0.8	46.5
Total SSIP	295.4	9.5	180.9
RENEWAL AND REPLACEMENT			
Collection System - Condition Assessment	3.6	5.7	8.0
Collection System - Sewer Improvements	89.8	101.4	107.7
Treatment Plant Improvements	24.2	25.4	26.6
Total R&R	117.5	132.5	142.3
Treasure Island - Wastewater Treatment Facility	24.0	0.0	35.0
WASTEWATER FACILITIES & INFRASTRUCTURE			
Ocean Beach Protection	5.4	0.0	2.4
Islais Creek Crossing	15.0	15.8	3.7
Southeast Outfall Condition Assessment & Rehab	1.1	0.0	0.0
Southeast Community Center Improvements	3.5	4.5	0.0
Total Wastewater Facilities & Infrastructure	25.0	20.3	6.1
Financing Cost	49.2	8.6	43.9
Total Cost	511.1	170.9	408.3
SOURCES			
Revenue	113.0	107.9	110.3
Revenue Bonds	393.6	57.2	292.7
Capacity Fee	4.5	5.8	5.3
Total Sources	511.1	170.9	408.3

Renewal and Replacement Projects (Recurring)

\$107.1 million for Collection System R&R projects including sewer condition assessments which support the Collection System Asset Management program, spot sewer repairs (repair that cover less than one block) and planned/emergency projects to repair/replace 15 miles of structurally inadequate sewers to maintain the existing functionality of the collection system.

\$25.4 million for Treatment Plant R&R program to maintain the capacity and reliable performance of the wastewater treatment facilities. Includes repairs to Transport Boxes, Pump Stations, Force Mains, Tunnels and Treatment Plants prioritized by condition assessments, regulatory compliance, staff recommendations and level of service goals.

Capital Enhancements Non-SSIP

\$15.8 million for Islais Creek Crossing, which will rehabilitate pipelines and modify the effluent pump station at Islais Creek to ensure compliance with regulatory requirements and increase reliability.

\$4.5 million for Southeast Community Center Improvements for a new community center located at 1550 Evans. The project will include a childcare center, café, multipurpose space for meetings, events, and workshops, and co-working office and classroom space for community-based organizations providing workforce development services.

FY 2021-22

The capital budget total for FY 2021-22 is \$408.3 million. It includes funding for: SSIP Treatment Facilities, \$119.4 million; SSIP Sewer/Collection System, \$15.0 million; SSIP Flood Control Program, \$46.5 million; Collection System R&R, \$115.7 million; Treatment Plant Improvement R&R, \$26.6 million; Ocean Beach Protection Project, \$2.4 million; and Islais Creek Crossing, \$3.7 million.

WASTEWATER PROGRAMMATIC PROJECTS

The table shows The Wastewater Enterprise Programmatic Projects, for FY 2019-20, FY 2020-21, and FY 2021-22, by major programs. Programmatic projects are annually appropriated projects in support of routine maintenance of programs most of which were initiated in support of the capital program.

FY 2020-21

Wastewater Enterprise Programmatic Projects budget for FY 2020-21 is \$2.4 million to fund facilities maintenance activities at Treasure Island, Low Impact Development, Youth Employment Programs, and the SFPUC 525 Golden Gate Headquarters Building.

FY 2021-22

The Wastewater Enterprise Programmatic Project budget for FY 2021-22 is \$6.6 million, and fund projects similar to those in FY 2020-21.

WASTEWATER ENTERPRISE PROGRAMMATIC PROJECTS

\$ Millions Program/Project	FY 2019-20 Adopted Budget	FY 2020-21 Adopted Budget	FY 2021-22 Adopted Budget
Treasure Island Facilities Maintenance	1.4	1.4	1.5
Low Impact Development	0.7	0.7	0.7
Youth Employment Project	0.7	0.7	0.7
Community Benefits - Wastewater	0.8	0.0	0.0
525 Golden Gate - Operations & Maintenance	1.3	2.1	1.3
525 Golden Gate - Lease Payments	2.4	2.4	2.4
Total Cost	7.2	7.4	6.6
SOURCES			
Infrastructure - Recovery Capital (O&M)	0.3	0.2	0.3
Infrastructure - Recovery Capital (Lease)	1.9	1.9	1.9
Federal Bond Interest Subsidy	0.5	0.5	0.5
Revenue	4.6	4.7	3.9
Total Sources	7.2	7.4	6.6

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HETCH HETCHY WATER AND POWER ENTERPRISE

MISSION. Hetch Hetchy Water and Power is comprised of two components: Hetchy Water, which operates and maintains the Hetch Hetchy Water and Power Project, and Hetch Hetchy Power (known and referred to as the Power Enterprise), which is responsible for all SFPUC power utility commercial transactions and in-City power operations.

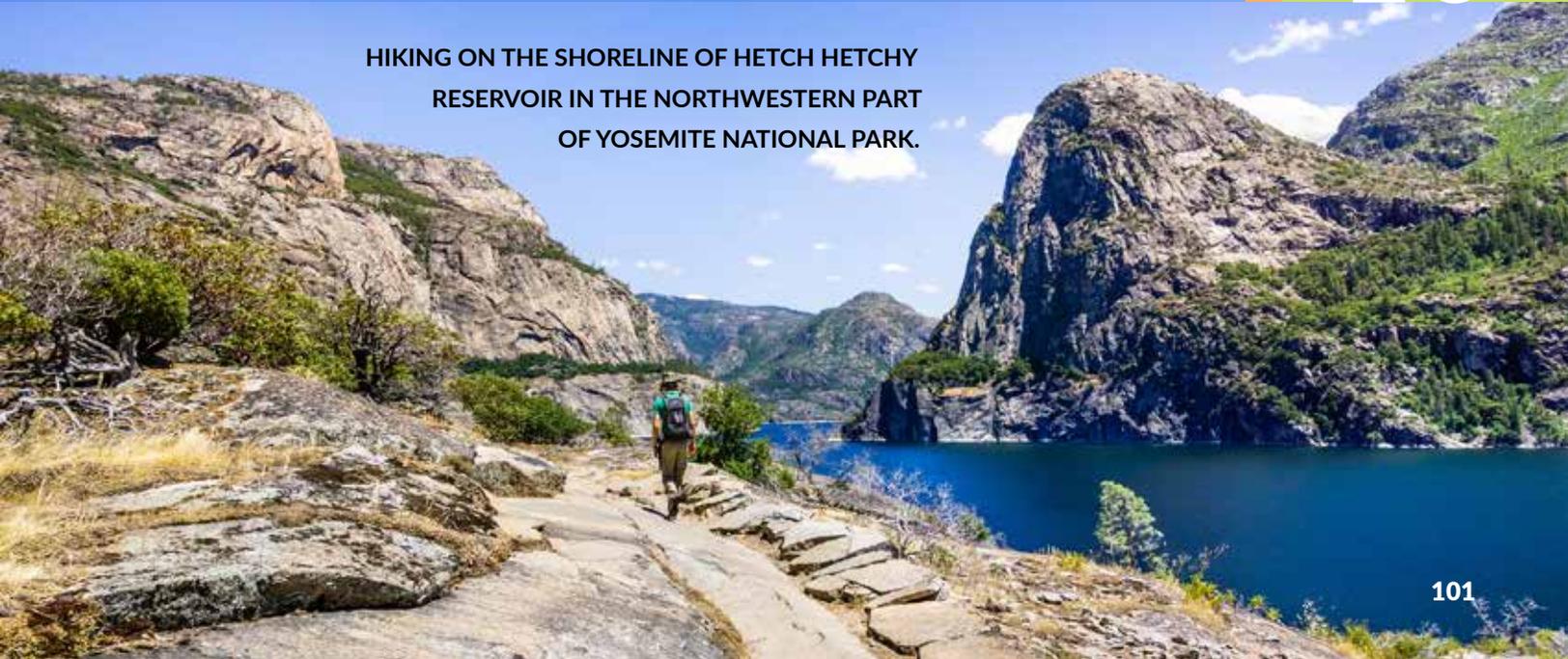
The Hetch Hetchy Project provides both water for distribution through the Water Enterprise and hydroelectric power to municipal and other customers through the Power Enterprise. A number of facilities in the Hetch Hetchy Project are joint assets used for both water conveyance and power generation and transmission, benefiting both Hetch Hetchy Water and the Power Enterprise. All power sale revenues are allocated to the Power Enterprise. Operating and capital costs benefitting Power and 55 percent of operating and capital costs that jointly benefit Hetch

Continued on next page...

HETCHY HETCHY WATER AND POWER ENTERPRISE BUDGET SUMMARY

	FY 2019-20 Adopted Budget	FY 2020-21 Adopted Budget	Change From FY 2019-20	FY 2021-22 Adopted Budget	Change From FY 2020-21
Total Budget	230,158,274	209,138,691	(21,019,583)	218,830,940	9,692,249
Total FTE	331.6	339.3	7.7	342.8	3.5

HIKING ON THE SHORELINE OF HETCH HETCHY
RESERVOIR IN THE NORTHWESTERN PART
OF YOSEMITE NATIONAL PARK.



Hetchy Water and Power are allocated to the Power Enterprise. Operating and capital costs benefitting Hetch Hetchy Water and 45 percent of operating and capital costs jointly benefitting Hetch Hetchy Water and the Power Enterprise are allocated Hetchy Water. Thus, all assets are classified as water only, power only, or joint funding.

Through the Hetch Hetchy Project, the Water Enterprise impounds and delivers water for approximately 2.7 million Bay Area residents and, in an average year, generates more than 1,600,000 MWh of clean, renewable electricity which the Power Enterprise uses to serve its customers.

HETCHY WATER. Hetchy Water's mission is to operate as an efficient, reliable water and power supplier, in a manner that values environmental and community interests and sustains the resources entrusted to our care. Hetchy Water delivers high quality water through the San Francisco Regional Water System to SFPUC customers while optimizing the generation of clean hydropower as water is transported through the system. Hetchy Water is responsible for the operation, maintenance and improvement of water, power and joint facilities to ensure safe and reliable operations and service delivery while meeting regulatory requirements. Hetchy Water also maintains land and properties consistent with public health, watershed values and neighborhood concerns, and promotes diversity, health, safety and professional development of its employees.

POWER ENTERPRISE. The core business of the Power Enterprise is to provide reliable supplies of electric power to meet the electricity needs of the City and County of San Francisco's municipal and retail customers, and to satisfy the municipal loads consistent with Federal law.

The Power Enterprise's portfolio consists of hydroelectric generation, on-site solar at SFPUC and other City facilities, generation using bio-methane produced at SFPUC Wastewater's treatment facilities, and third-party purchases.

For over 100 years this system—which utilizes the gravity flow of the City's water from source to tap—has operated without producing any carbon emissions nor any radioactive byproducts. Hetch Hetchy Power energizes vital San Francisco services as well as a growing number of residential and commercial customers. In all, we provide nearly 20% of San Francisco's total electricity.

Consistent with its commitment to the development of cleaner and greener power, and to address environmental concerns and community objectives, Power Enterprise 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, Power provides reliable energy services at reasonable cost to customers, with attention to environmental effects and community concern. CleanPowerSF, San Francisco's Community Choice Aggregation Program, is a part of the Power Enterprise, but is described separately in the next section of this book.

HETCHY WATER

Hetchy Water is responsible for managing, operating and maintaining three up-country reservoirs including the main source of water for San Francisco and other Bay Area communities. The operation, maintenance, and improvements of dams and smaller reservoirs within the Hetch Hetchy system, and the water conveyance systems, power generation facilities and power transmission systems, are also managed by Hetchy Water. The assets making up these systems start at Hetch Hetchy Reservoir located in Yosemite National Park and span all the way to Alameda East Portal located in Sunol and Newark in Alameda County. Additionally, Hetchy Water manages and maintains almost 50 miles of paved roads, 11 bridges, and hundreds of square miles of watershed lands and right-of-way easements.

The activities of these multifunctional systems are balanced based on priorities identified within the mission statement. With many Hetchy Water assets serving multiple purposes, a funding system has been established that is based on the function or benefit individual assets provide. An asset may be classified as “water only”, “power only” or “joint”. Funding to improve or rehabilitate an asset comes from Water funds, Power funds or a combination of the two for those assets classified as Joint.

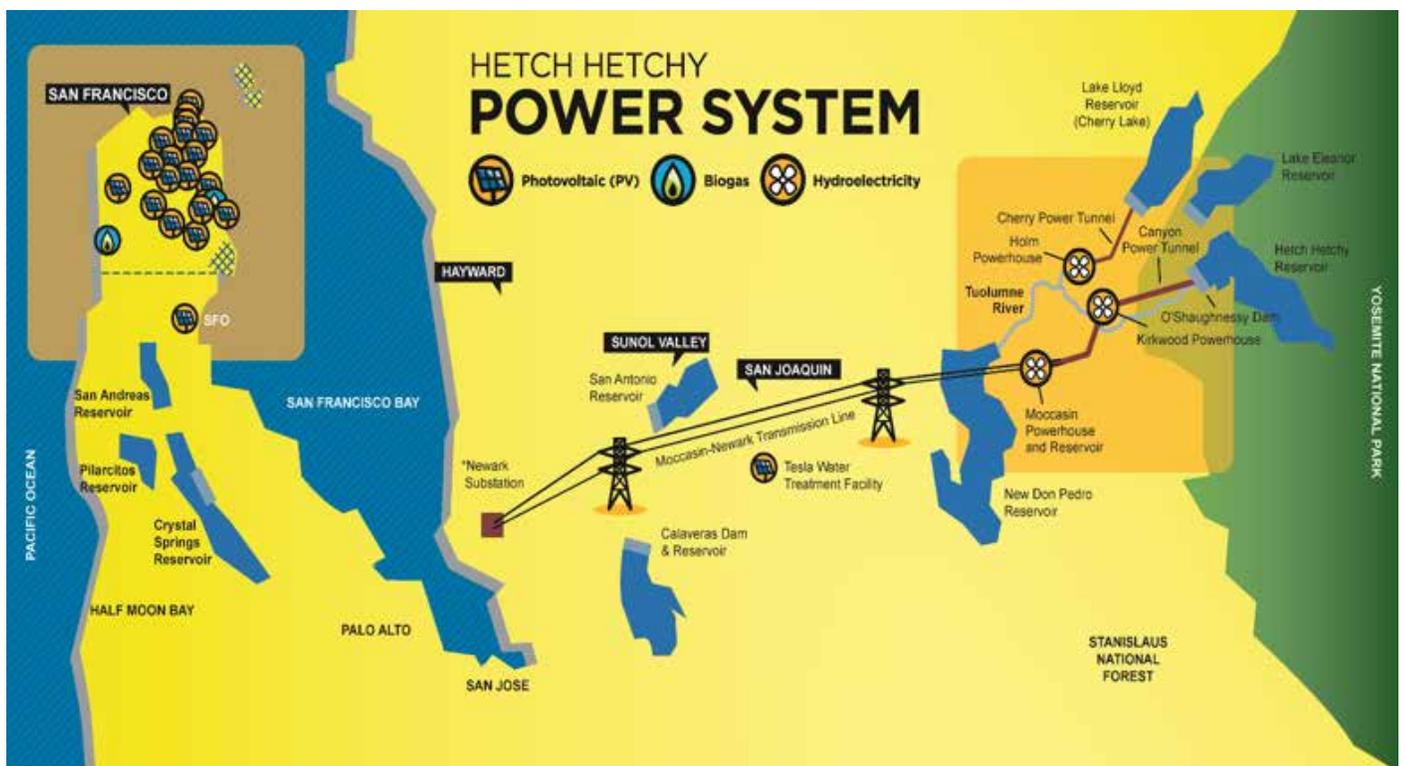
POWER ENTERPRISE

The Power Enterprise maintains over 25,509 SFPUC-owned streetlights in the City and County of San Francisco,

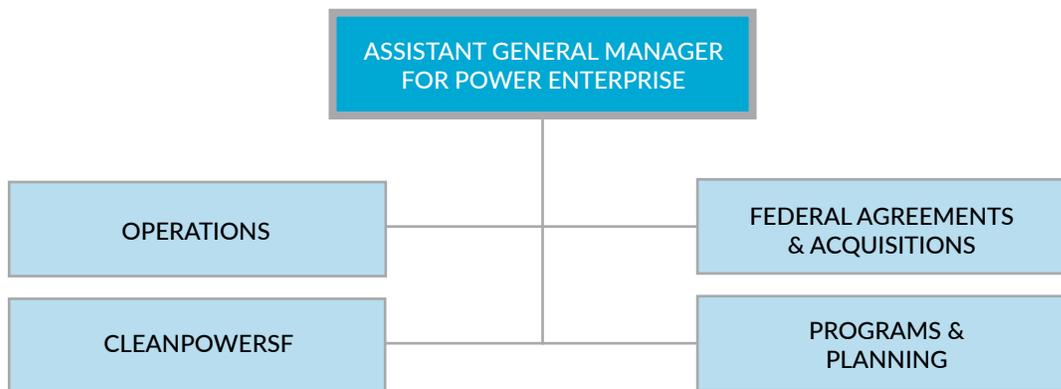
as well as other City-owned, or other agency-owned power transmission and distribution systems, including substations, meters, backup generators, overhead and underground power lines, transformers, and switchgears. New installation work is also performed including the installation of new overhead service and underground connections up to 12 kilovolts (kV), meters, streetlights, switchgear, transformers, etc. Since FY 2015-16, Power Enterprise interconnects its customers through a federally-approved Wholesale Distribution Tariff, which dictates the terms and conditions under which PG&E provides distribution interconnection services. The new requirements for facilities to interconnect customers continues to impose cost increases on the Power budget. However, Power continues to leverage investments in distribution and transmission interconnections to serve additional customers. Power is expanding the number of customers it serves to include new retail customers at redevelopment projects, like Hunters Point and Transbay Center.

Power is additionally responsible for planning, developing and implementing energy efficiency programs and projects including GoSolarSF, the City’s solar incentive program and Electric Vehicle Infrastructure strategy coordination. Power further manages and directs power purchasing and scheduling activities, as well as transmission planning. CleanPowerSF, San Francisco’s Community Choice Aggregation Program, is a part of the Power Enterprise, but is described separately in the next section of this book

MAP OF HETCH HETCHY POWER SYSTEM



HETCH HETCHY POWER ORGANIZATION CHART



HETCH HETCHY WATER ORGANIZATION CHART



GOALS AND OBJECTIVES

As noted in the Financial Planning and Policies section, the SFPUC previously adopted a strategic plan to identify key priorities for the organization and serve as a roadmap through 2020 to ensure that the SFPUC meets the challenges ahead and continues to deliver reliable water, power, and sewer services. The five year cycle would dictate a new strategic plan to begin in 2021, but given the current climate, the SFPUC is moving forward with revising its current plan to meet the needs of today and align with new priorities outlined as a result of challenges in 2020.

The 2020 strategic plan goals include:

- Reliable Service and Assets
- Organizational Excellence
- Stakeholder and Community Interests
- Environmental Stewardship
- Effective Workforce
- Financial Sustainability
- As part of the strategic plan goals, each Enterprise is responsible for meeting specific objectives and performance targets. Each year progress on those performance measures are reported to the Controller and Mayor. Reported performance for FY 2019-20 for the Hetch Hetchy Enterprise and agency-wide goals are as follows on the next page:

Goal Area	Performance Measure	Target	FY2019-20 Actuals
Reliable Service and Assets	Percent of street light outages complying with 48-hour SFPUC response goal; complex street lights evaluated	Meeting target at 100%. If less than 100% then not meeting target	61
Reliable Service and Assets	Percent of street light outages complying with 48-hour SFPUC response goal; simple street light repaired	Meeting target at 100%. If less than 100% then not meeting target	61
Organizational Excellence	Percent of actual/planned goals from the IT Strategic Plan, as taken at the end of the fiscal year	Greater than or equal to 80%	89%
Organizational Excellence	Single rating for SFPUC as a whole on meeting attendance of Health and Safety (H&S) committees agency-wide	Meeting target at 80%. If less than 80% then not meeting target	98%
Effective Workforce	Average Number of Learners in Instructor-led Trainings	8	11.17
Effective Workforce	Diversity & Inclusion Function Maturity	.7	.7
Effective Workforce	Number of Completed Online Trainings	2734	6672
Effective Workforce	Number of Instructor-led Trainings held	7336	433
Effective Workforce	Number of Offboarding Events	373	281
Effective Workforce	Number of Onboarding Events	611	499
Effective Workforce	Number of Promotions	251	184
Effective Workforce	Number of Recruitments	80	60
Effective Workforce	Number of Unique Users of Recognition Tools	400	313
Effective Workforce	Percent of Completed Occupational Competency Models	26%	23%
Effective Workforce	Staff Turnover	9.4%	8.6%
Effective Workforce	Time to Hire.	150 average days to hire	178
Effective Workforce	Workforce Planning Function Maturity.	0.9	0.8
Financial Sustainability	Average residential Power bill as a percent of median income in San Francisco.	.54%	0.55%
Financial Sustainability	Compliance with Fund Balance Reserve Policy - Power	Greater than or equal to 25%	47.4%
Financial Sustainability	Operating cost coverage (total operational revenues/total operating costs) for Power	1.14	1.14
Financial Sustainability	Percent of Power volumetric sales at rates that reflect cost of services - including funding capital, investment, O&M and contribution to reserve	63%	63.5%
Financial Sustainability	Power credit rating	AA or better	Fitch Ratings:AA-; S&P: AA
Stakeholder and Community Interest	Number of adults and children who have participated in transformative engagement through SFPUC sponsored education programs	Greater than or equal to 4000	3381
Stakeholder and Community Interest	Percent of Eligible electric customers receiving low-income discount rate	99%	99%
Stakeholder and Community Interest	Percent of eligible households enrolled in Community Assistance Program (CAP)	1) Greater than or equal to 4.62% OR 2) Greater than or equal to 1,200	4.32%
Stakeholder and Community Interest	Percent of employees who participated in the Employee Engagement Survey	Greater than or equal to 70%	55.6%
Stakeholder and Community Interest	Percent of managers who completed at least one engagement action	Greater than or equal to 80%	28.1% (130/462)
Stakeholder and Community Interest	Percent of managers who created at least one engagement action plan	Greater than or equal to 80%	39.8% (184/462)
Environmental Stewardship	Pounds of Co2 emitted per MWh - Hetch Hetchy Power	Meeting target at 0, if greater than 0 then not meeting target	0

HETCH HETCHY WATER AND POWER REVENUES

In FY 2020-21 Hetch Hetchy Water and Power revenues total \$209.1 million, a decrease of 9.1 percent from FY 2019-20. In FY 2021-22 Hetch Hetchy Water and Power revenues total \$218.8 million, an increase of 4.6 percent from the FY 2020-21 budget. The charts below show the Hetch Hetchy Water and Power’s total revenue budgets broken out amongst major revenue categories in FY 2020-21 and FY 2021-22.

How Forecasts Were Developed

Volumetric electric utility delivery load trends were observed through the beginnings of the COVID-19 pandemic and shelter in place order and the adopted budgets reflect re-forecasted volume projections. Below are bar charts which compare total volumetric sales forecasts for FY 2019-20, FY 2020-21 and FY 2021-22.

2021-22 pre-COVID-19 pandemic and volumetric sales actuals for FY 2019-20, re-forecasted volumetric sales FY 2020-21 and FY 2021-22, incorporating COVID-19 pandemic impacts on volumes. Weekly electric utility delivery trends to significant large customers were tracked from the start of the pandemic where total weekly deliveries were down approximately 20 percent in comparison to “normal” or average weekly deliveries pre-pandemic. In looking at weekly specific customer delivery impacts and COVID-19 pandemic effects, electric deliveries were down as much as 60 percent for MTA deliveries and 20 percent for Airport deliveries, when compared to normal weekly deliveries pre-pandemic. These observed delivery trends representing COVID-19 impacted usage and volumetric electric sales while the region was operating

CHART 10.1 >
Hetch Hetchy
FY 2020-21 Sources.

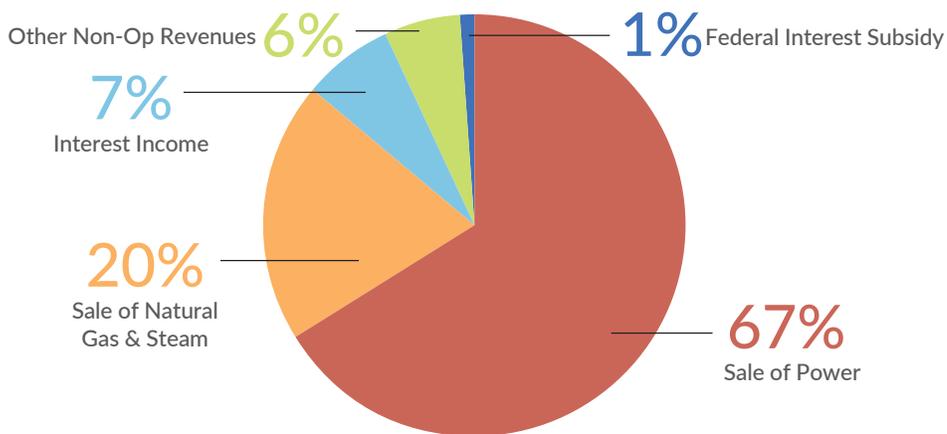
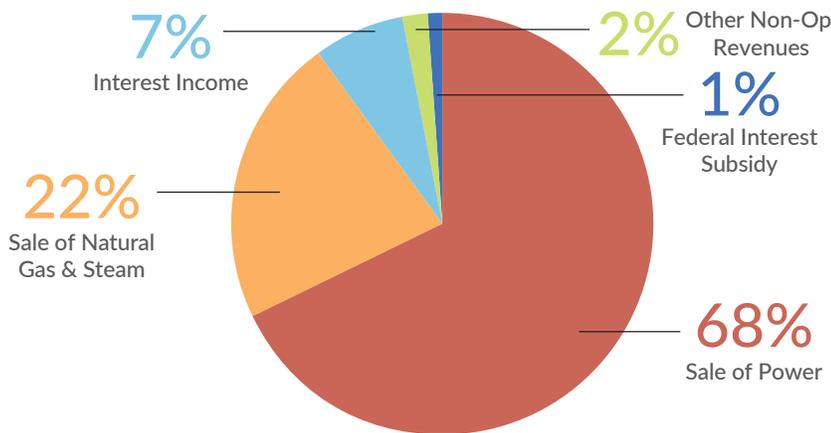


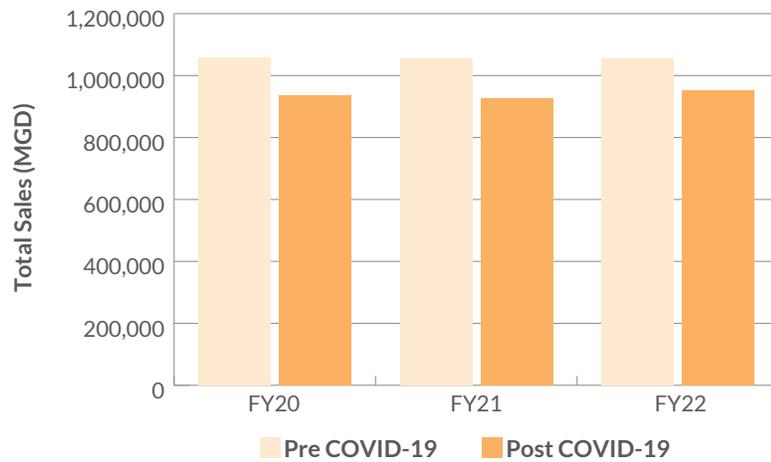
CHART 10.2 >
Hetch Hetchy
FY 2021-22 Sources.



under shelter in place orders informed budget volume re-forecasts. In total – the re-forecasted volumes assumed continued COVID-19 impacted delivery trends for one quarter in 2021 and a gradual recovery to just under historical electric utility volumes in 2023 for most customers, and recovery in 2024 for Airport, MTA, Moscone Convention Center and Port customers.

Given the approach to re-forecasted volumes with COVID-19 pandemic impacts and a return to normal volume projections post recovery, the total electric utility sales volumes that support the adopted FY 2020-21 and FY 2021-22 are 12 percent below and 10 percent below pre-COVID-19 pandemic volumetric sales volume forecasts.

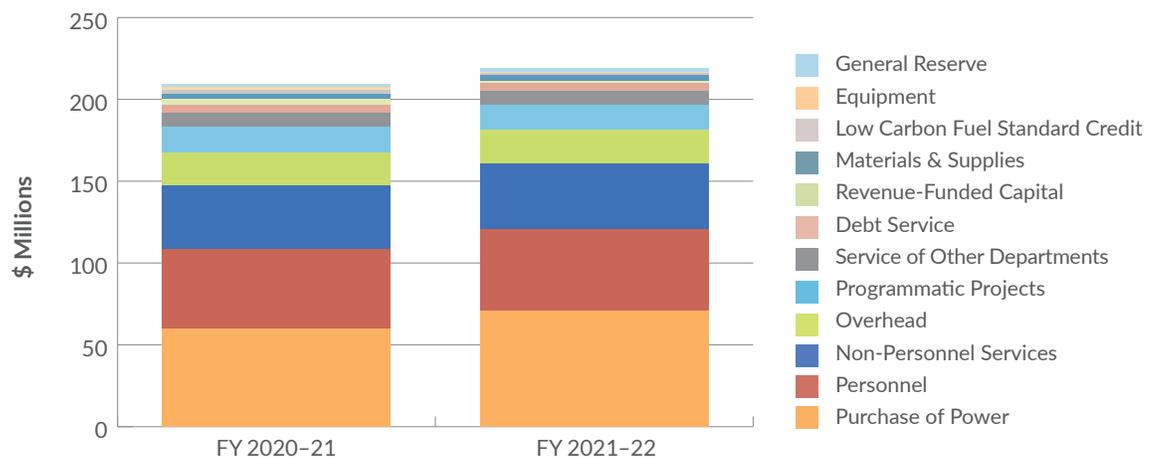
CHART 10.3 >
Impact of COVID-19
on total Power Sales
projections.



HETCH HETCHY WATER SOURCES AND USES OF FUNDS

	FY 2019-20 Unaudited Actuals	FY 2019-20 Adopted Budget	FY 2020-21 Adopted Budget	Change From FY 2019-20	FY 2021-22 Adopted Budget	Change From FY 2020-21
SOURCES OF FUNDS						
Sale of Water	40,635,841	37,527,700	44,343,000	6,815,300	45,242,000	899,000
Sale of Electricity	144,462,151	169,361,693	142,563,790	(26,797,903)	152,506,731	9,942,941
Sale of Natural Gas & Steam	9,661,475	10,896,704	13,033,095	2,136,391	14,652,501	1,619,406
Other Non-Op Revenues	3,100,101	3,514,200	4,245,800	731,600	1,165,800	(3,080,000)
Interest Income	5,425,947	603,400	4,468,000	3,864,600	4,805,000	337,000
Federal Interest Subsidy	537,849	537,849	485,006	(52,843)	458,908	(26,098)
Fund Balance	23,800,000	7,716,728	-	(7,716,728)	-	-
Total Sources of Funds	227,623,364	230,158,274	209,138,691	(21,019,583)	218,830,940	9,692,249

USES OF FUNDS						
Personnel	44,928,773	48,313,158	49,016,888	703,730	49,551,816	534,928
Non-Personnel Services	33,932,490	27,328,817	38,607,801	11,278,984	40,270,490	1,662,689
Purchase of Power	49,023,851	65,676,542	59,796,039	(5,880,503)	70,948,058	11,152,019
Materials & Supplies	3,285,981	3,151,815	3,361,083	209,268	3,498,442	137,359
Equipment	624,978	1,335,619	1,771,824	436,205	1,219,510	(552,314)
Overhead	16,947,264	17,831,413	19,747,446	1,916,033	20,463,811	716,365
Debt Service	5,990,366	4,748,407	4,443,407	(305,000)	4,273,407	(170,000)
Low Carbon Fuel Standard (LCFS) Credit	116,435	-	2,507,000	2,507,000	735,000	(1,772,000)
Service of Other Departs	6,329,169	8,250,271	8,511,134	260,863	8,509,529	(1,605)
General Reserve	-	-	1,510,382	1,510,382	2,123,103	612,721
Revenue-Funded Capital (incl. TransBay)	28,485,029	40,521,397	3,669,000	(36,852,397)	1,686,000	(1,983,000)
Programmatic Projects	11,964,210	13,000,835	16,196,687	3,195,852	15,551,774	(644,913)
Total Uses of Funds	201,628,546	230,158,274	209,138,691	(21,019,583)	218,830,940	9,692,249



^ CHART 10.4 Hetch Hetchy Total Uses.

HETCH HETCHY WATER AND POWER USES OF FUNDS BY SECTION

\$ millions	FY 2019-20 Adopted Budget	FY 2020-21 Adopted Budget	Change From FY 2019-20	FY 2021-22 Adopted Budget	Change From FY 2020-21
USES OF FUNDS					
Power Administration	16,325,279	252,625	(16,072,654)	266,687	14,062
Energy Services	11,782,323	-	(11,782,323)	-	-
Long Range Planning	56,980,974	3	(56,980,971)	3	-
Light, Heat and Power	19,206,465	105,409,161	86,202,696	115,585,003	10,175,842
Water Operations	67,592,594	77,657,426	10,064,832	79,344,963	1,687,537
Debt Service	4,748,407	4,443,407	(305,000)	4,273,407	(170,000)
General Reserve	-	1,510,382	1,510,382	2,123,103	612,721
Revenue-Funded Capital	40,521,397	3,669,000	(36,852,397)	1,686,000	(1,983,000)
Programmatic Projects	13,000,835	16,196,687	3,195,852	15,551,774	(644,913)
Total Hetch Hetchy	230,158,274	209,138,691	(21,019,583)	218,830,940	9,692,249

Sale of Water

The sale of water by Hetch Hetchy Water and Power is budgeted at \$44.3 million in FY 2020-21, consisting primarily of the sale of water to the SFPUC Water Enterprise and the balance of water sales to the City of Groveland. The budgeted sale of water increased to \$45.2 million in FY 2021-22, and was driven by an increase in the sale of water to the Water Enterprise (also referred to as the Hetchy Transfer).

Sale of Electricity

Sales of Electricity are budgeted at \$142.5 million in FY 2020-21, a 15.8 percent decline from the \$169.3 million budgeted in the prior year as COVID-19 volumetric impacts were factored into the reforecast of electricity loads in FY 2020-21 and 2021-22. The budgeted sales of electricity in FY 2021-22 increases to \$152.5 million, or 7.0 percent. The growth in overall revenues from FY 2020-21 to 2021-22 is primarily driven by rate increases and slight increases in load growth.

Sales of electricity to municipal departments and governmental agencies are budgeted at \$108.3 million and \$121.2 million in FY 2020-21 and FY 2021-22, respectively. Sales of electricity to retail customers, are budgeted at \$12.1 million in FY 2020-21 and grow to \$12.8 million in FY 2021-22. Wholesale sales of electricity are budgeted at \$20.8 million in FY 2021-21, an increase from the prior year as the enterprise expects to sell excess load into the wholesale market. Budgeted wholesale sales of electricity declines in FY 2021-22 to \$18.2 million as current customer load growth grows slightly and less electricity is anticipated to be sold into the wholesale market.

Sale of Natural Gas & Steam

FY 2020-21 Sale of Gas and Steam is budgeted at \$13.0 million, and increases to \$14.7 million in FY 2021-22. The budget is based on PG&E and the California Department of General Services (DGS) retail rates and projected usage. Power is responsible for processing and billing City departments for natural gas and steam. The revenue generated from natural gas and steam is a pass-through and ultimately has no net impact on Hetch Hetchy's operating budget.

Interest Income

In FY 2020-21 the Hetch Hetchy Water and Power budgeted \$4.5 million in interest earnings, making up 2.1 percent of total revenues. In FY 2021-22 interest earnings are budgeted at \$4.8 million, or 2.2 percent of total revenues. Interest earnings are budgeted assuming a 2 percent interest rate earned on unaudited and projected cash balances at the time of budget development.

Budgeted Fund Balance

Fund Balance is used on a one-time, planned basis to balance budgeted sources and uses in line with the SFPUC's Fund Balance Policy. In both years of the budget, Hetch Hetchy's revenues exceed expenditures so the enterprise will contribute to Fund Balance as a balancing expenditure. Contributions to Fund Balance are budgeted at \$1.5 million and \$2.1 million in FY 2020-21 and FY 2021-22 respectively. These contributions were budgeted to shore up the enterprise's reserves which are close to the minimum target of 25 percent of operations & maintenance expenses, per the Fund Balance Policy.

Change in Fund Balance

FY 2019-20 year-end fund balance is \$38.6 million. Taking into account budgeted contribution to fund balance in FY 2020-21 of \$1.5 million, as well as \$27.3 million in one-time planned de-obligations from currently appropriated revenue funded capital and programmatic project budgets that were done to offset COVID-19 impacts, FY 2020-21 ending fund balance is projected to be \$67.5. FY 2021-22 ending fund balance is projected to be \$69.9 after taking into account budgeted contribution to fund balance of \$2.1 million.

HETCHY HETCHY WATER AND POWER EXPENDITURES

Hetch Hetchy Water & Power total budgeted expenditures decreased from prior year budgeted amounts of \$230.2 million to \$209.1 million in FY 2020-21, a decrease of \$21.1 million or 9.2 percent. The budget increased from \$209.1 million in FY 2020-21 to \$218.8 million in FY 2021-22, an increase of \$9.7 million, or 4.6 percent. Due to the negative revenue impacts of COVID-19, the enterprise reduced their budget requests specifically in two significant areas: power purchases and revenue-funded capital.

Purchase of Power

Purchase of Power budget decreased from \$65.6 million in FY 2019-20 to \$59.8 million in FY 2020-21, a decrease of \$5.9 million or 9.0 percent. As the Hetch Hetchy enterprise major customers include SF MTA and San Francisco International Airport (SFO), both of which have experienced significant downward

trends in travel related to the pandemic, power purchase estimates were similarly adjusted downward to reflect a lower demand for power. As the economy is expected to recover in future years, the expected demand for power is expected to recover as well. That is reflected in the increase in the Purchase of Power budget from \$59.8 million in FY 2020-21 to \$70.9 million in FY 2021-22, an increase of \$11.2 million or 18.7 percent.

Revenue Funded Capital

Revenue-funded capital was also adjusted downward from the previous year's budget, partially to reflect lower revenue projections and partially due to project deliverability concerns. The budget decreased from \$40.5 million in FY 2019-20 to \$3.7 million in FY 2020-21, a decrease of \$36.9 million or (90.9 percent). As the entity expects to continue to carryforward unspent funds from previous years, the budget will continue to decrease from \$3.7 million in FY 2020-21 to \$1.7 million in FY 2021-22, a decrease of \$2.0 million or (54.0 percent).

Personnel

Personnel costs are budgeted to be relatively flat over the period, with a slight increase from \$48.3 million in FY 2019-20 to \$49.0 million in FY 2020-21, an increase of \$0.7 million or 1.5 percent. The increase is mainly due to additional pension and retirement benefits costs offset by an increase in attrition savings. Personnel costs will further increase slightly from \$49.0 million in FY 2020-21 to \$49.6 million in FY 2021-22, an increase of \$0.5 million or 1.1 percent. The increase in the second year is mainly due to additional pension and retirement benefits costs.

CHART 10.5 >
FY 2019-20 Sales by Customer Type (\$)

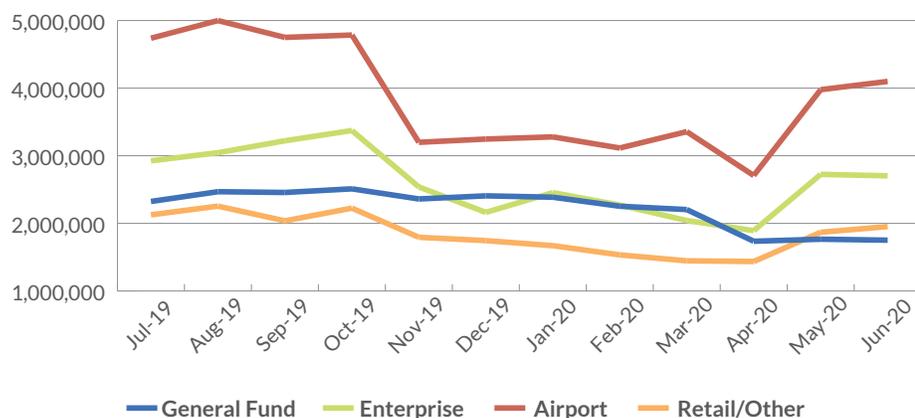


CHART 10.6 >
 FY 2019-20 Sales by
 Customer Type (KWh)

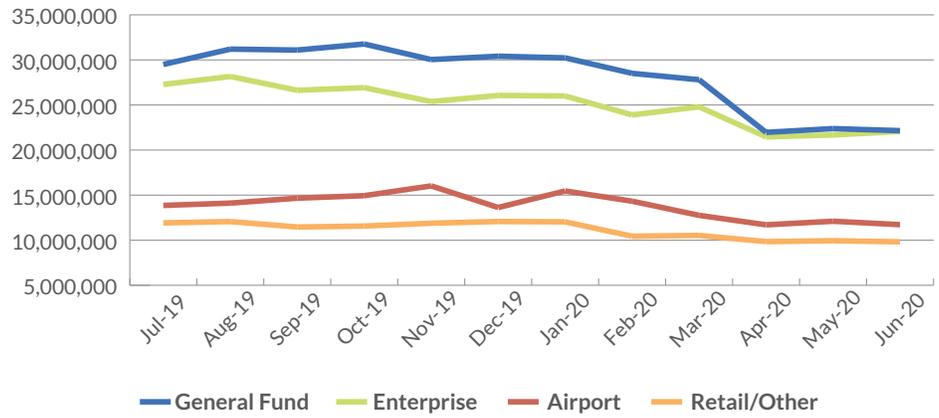
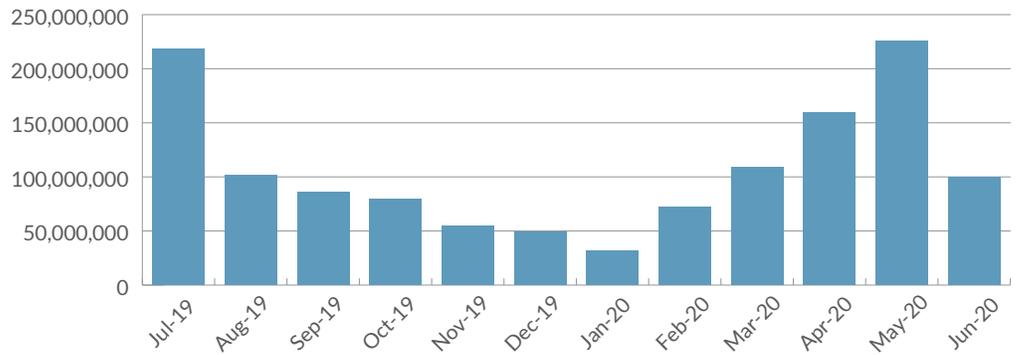


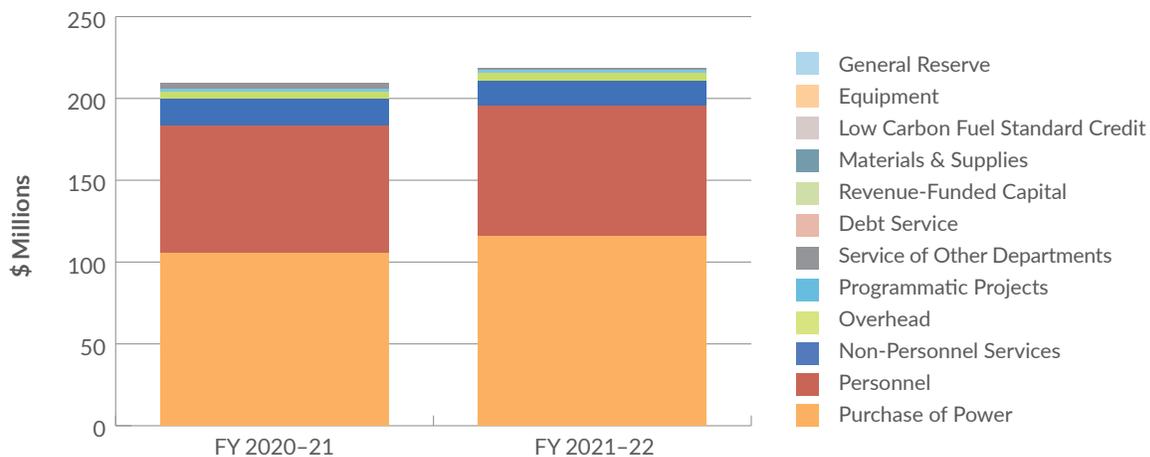
CHART 10.7 >
 Net Hetch Hetchy
 Generation (kWh)



HETCH HETCHY WATER AND POWER USES OF FUNDS BY DIVISION

	FY 2019-20 Adopted Budget	FY 2020-21 Adopted Budget	Change From FY 2019-20	FY 2021-22 Adopted Budget	Change From FY 2020-21
Hetch Hetchy Power Uses of Funds					
Personnel	16,250,122	16,503,333	253,211	16,706,664	203,331
Non-Personnel Services	7,640,251	11,119,595	3,479,344	11,419,929	300,334
Purchase of Power	65,676,542	59,796,039	(5,880,503)	70,948,058	11,152,019
Materials & Supplies	783,712	806,639	22,927	830,639	24,000
Equipment	260,000	-	(260,000)	-	-
Overhead	8,156,979	8,822,769	665,790	9,097,884	275,115
Debt Service	4,748,407	4,443,407	(305,000)	4,273,407	(170,000)
Low Carbon Fuel Standard (LCFS) Credit	-	2,507,000	2,507,000	735,000	(1,772,000)
Service of Other Departs	5,527,435	6,106,414	578,979	6,113,519	7,105
General Reserve	-	1,510,382	1,510,382	2,123,103	612,721
Revenue-Funded Capital (incl. TransBay)	2,000,000	3,100,000	1,100,000	-	(3,100,000)
Programmatic Projects	6,071,835	6,517,285	445,450	6,483,217	(34,068)
Total Power Uses of Funds	117,115,283	121,232,863	4,117,580	128,731,420	7,498,557

HETCH HETCHY WATER AND POWER USES OF FUNDS					
Personnel	32,063,036	32,513,555	450,519	32,845,152	331,597
Non-Personnel Services	19,688,566	27,488,206	7,799,640	28,850,561	1,362,355
Materials & Supplies	2,368,103	2,554,444	22,927	2,667,803	24,000
Equipment	1,075,619	1,771,824	(260,000)	1,219,510	-
Overhead	9,674,434	10,924,677	1,250,243	11,365,927	441,250
Debt Service	-	-	-	-	-
Low Carbon Fuel Standard (LCFS) Credit	-	-	-	-	-
Service of Other Departs	2,722,836	2,404,720	(318,116)	2,396,010	(8,710)
General Reserve	-	-	-	-	-
Revenue-Funded Capital (incl. TransBay)	38,521,397	569,000	(37,952,397)	1,686,000	1,117,000
Programmatic Projects	6,929,000	9,679,402	2,750,402	9,068,557	(610,845)
Total Water Uses of Funds	113,042,991	87,905,828	(25,137,163)	90,099,520	2,193,692
Total	230,158,274	209,138,691	(21,019,583)	218,830,940	9,692,249



^ CHART 10.8 Hetchy Enterprise Total Uses of Funds by Division.

Authorized and Funded Full-Time Equivalents (FTEs)

The Hetch Hetchy Enterprise's total authorized and funded full-time equivalents (FTEs) in FY 2020-21 is 339.27, an increase of 7.66. The increase mainly represents the addition of new project funded staff to support utility field services as well as an operating safety analyst. The new positions are offset by an increase to attrition of 2.8 FTE.

The Hetch Hetchy Enterprise's total authorized and funded full-time equivalents (FTEs) in FY 2021-22 is 342.79, an increase of 3.52. The increase is driven by new project funded staff for utility, engineering, and field services.

Non-Personnel Services

Non-Personnel Services costs are budgeted to increase from \$27.3 million in FY 2019-20 to \$38.6 million in FY

2020-21, an increase of \$11.3 million or 41.3 percent. Increases are mainly due to the increase in payments to other governments, specifically to the National Park Service and the Don Pedro Recreation Association, increases related to wildfire mitigation contracts, and increases due to the Hetchy Power field services division moving to Pier 23. Rent to the Port of San Francisco is estimated at \$2.7M in FY 2020-21 and \$2.8M in FY 2021-22.

Non-Personnel Services costs are budgeted to increase from \$38.6 million in FY 2020-21 to \$40.3 million in FY 2021-22, an increase of \$1.7 million or 4.3 percent. Increases are mainly due to additional funding requests for wildfire mitigation contracts and payments to other governments.

HETCH HETCHY WATER AND POWER AUTHORIZED AND FUNDED FULL-TIME EQUIVALENTS (FTES)

Position Type	FY 2019-20 Adopted Budget	FY 2020-21 Adopted Budget	Change From FY 2019-20	FY 2021-22 Adopted Budget	Change From FY 2020-21
HETCH HETCHY WATER & POWER					
Permanent Positions	247.66	247.17	(0.49)	247.86	0.69
Temporary Positions	12.64	13.94	1.3	11.85	(2.09)
Subtotal Operating-Funded	260.30	261.11	0.81	259.71	(1.40)
Project-Funded	71.31	78.16	6.85	83.08	4.92
Total Funded Positions	331.61	339.27	7.66	342.79	3.52
Unfunded Positions (Attrition)	24.34	27.14	2.8	27.14	-
Total Hetch Hetchy Water & Power	355.95	366.41	10.46	369.93	3.52
HETCHY POWER					
Permanent Positions	67.94	68.21	0.27	68.9	0.69
Temporary Positions	3.89	3.82	(0.07)	1.73	(2.09)
Subtotal Operating-Funded	71.83	72.03	0.20	70.63	(1.40)
Project-Funded	35.00	40.39	5.39	43.54	3.15
Total Funded Positions	106.83	112.42	5.59	114.17	1.75
Unfunded Positions (Attrition)	7.06	9.1	2.04	9.1	-
Total Hetch Hetchy Power	113.89	121.52	7.63	123.27	1.75
HETCHY WATER					
Permanent Positions	179.72	178.96	(0.76)	178.96	-
Temporary Positions	8.75	10.12	1.37	10.12	-
Subtotal Operating-Funded	188.47	189.08	0.61	189.08	-
Project-Funded	36.31	37.77	1.46	39.54	1.77
Total Funded Positions	224.78	226.85	2.07	228.62	1.77
Unfunded Positions (Attrition)	17.28	18.04	0.76	18.04	-
Total Hetch Hetchy Water	242.06	244.89	2.83	246.66	1.77

Materials & Supplies

Materials & Supplies are budgeted to increase from \$3.2 million in FY 2019-20 to FY \$3.4 million in FY 2020-21, an increase of \$0.2 million or 6.6 percent. The increase is mainly due to additional funds requested for fuel. As Hetchy Water is in a remote location, the on-site fleet is responsible for obtaining its own fuel and increases will fund fuel for additional vehicles and equipment added for wildfire mitigation.

Materials & supplies are budgeted to increase from \$3.4 million in FY 2020-21 to \$3.5 million in FY 2021-22, an increase of \$0.1 million or 4.1 percent. Increases are mainly inflationary in nature.

Equipment

Equipment costs are budgeted to increase from \$1.3 million in FY 2019-20 to \$1.8 million in FY 2020-21, an increase of \$0.5 million or 32.7 percent. New equipment requests in FY 2020-21 are mainly related to Hetchy Water replacement vehicles as well as additional wildfire mitigation equipment.

Equipment costs are budgeted to decrease from \$1.8 million in FY 2020-21 to \$1.2 million in FY 2021-22, a decrease of \$0.6 million or (31.2 percent). New equipment requests in FY 2021-22 are mainly for Hetchy Water replacement vehicles.

Overhead

The overhead budget funds Hetch Hetchy Water and Power's share of support services provided by the SFPUC Bureaus, including the General Manager, Business Services, and External Affairs. The overhead budget is increasing from \$17.8 million in FY 2019-20 to \$19.7 million in FY 2020-21, an increase of \$1.9 million or 10.7 percent. The overhead budget will increase from \$19.7 million in FY 2020-21 to \$20.5 million in FY 2021-22, an increase of \$0.7 million or 3.6 percent. Increases are both years are due to increasing costs within the SFPUC Bureaus.

Debt Service

Debt service is budgeted to decrease from \$4.7 million in FY 2019-20 to \$4.4 million in FY 2020-21, a decrease of \$0.3 million or (6.4 percent). The budget is projected to further decrease from \$4.4 million in FY 2020-21 to \$4.3 million in FY 2021-22, a decrease of \$0.2 million or (3.8 percent). The debt service budget is based on principal and interest payment schedules for outstanding debt and debt expected to be issued over the period.

Low-Carbon Fuel Standard Credit

The Low-Carbon Fuel Standard Credit (LCFS) is a program created by the California Air Resource Board

designed to decrease the carbon intensity of California's transportation fuel pool and provide a range of low-carbon and renewable alternatives. In FY 2019-20, the San Francisco Board of Supervisors passed Ord. 199-19 to create the Low Carbon Fuel Standard Credit Sales fund, which is self-appropriating. Revenues from LCFS Credit sales are booked by the SFPUC but are meant to be split equally between SFPUC and the San Francisco Municipal Transportation Agency (SFMTA), and as such the SFPUC transfers 50 percent of revenues to the SFMTA on a regular basis.

As the fund is self-appropriating, expenditures for low-carbon and renewable energy projects are not budgeted as part of the regular budget process. However, to ensure appropriate accounting processes for the transfer between SFPUC and SFMTA, the amount expected to be transferred over the budget cycle is included as both an Other Revenue and a budgeted Expenditure. The budget increased from \$0 in FY 2019-20 to \$2.5 million in FY 2020-21, an increase of 100 percent due to the program beginning in FY 2019-20 and will decrease from \$2.5 million in FY 2020-21 to \$0.7 million in FY 2021-22 due to a projected decrease in LCFS credit sales.

Services of Other Departments

The Services of Other Departments budget increased from \$8.2 million in FY 2019-20 to \$8.5 million in FY 2020-21, an increase of \$0.3 million or 3.2 percent. The increase is mainly due to an increase in insurance premiums paid under city-wide risk management services, as well as an increase in services of the City Attorney.

The overall Services of Other Departments budget remained flat from FY 2020-21 to FY 2021-22 but includes an additional \$0.3 million in insurance premiums paid to risk management which is offset by decreases in Department of Technology infrastructure services as well as a decrease in services provided by the Department of the Environment.

Programmatic Projects

Programmatic projects are mainly comprised of annual programs including facilities maintenance; the programs are funded through operating revenues but are not considered part of regular recurring operations. The Programmatic Projects budget increased from \$13.0 million in FY 2019-20 to \$16.2 million in FY 2020-21, an increase of \$3.2 million or 24.6 percent. The increase is mainly due to additional funding requests for facilities maintenance at Hetchy Water upcountry locations as well as additional funding for the shared operations and maintenance of 525 Golden Gate.

The Programmatic Projects budget decreased from \$16.2 million in FY 2020-21 to \$15.6 million in FY 2021-22, a decrease of \$0.6 million or (4.0 percent).

The decrease is mainly due to the WECC/NERC compliance program winding down as well as a decrease in funding for shared operations and maintenance at 525 Golden Gate. The decreases are offset by additional increases in upcountry facilities maintenance.

General Reserve

In years where projected revenues are expected to outpace budgeted expenditures, the budget is balanced with a general reserve that is meant to project the amount that the entity will contribute to Fund Balance by the end of the fiscal year. In FY 2019-20, no general reserve was budgeted as expenditures were projected to be greater than revenues, however in FY 2020-21, a general reserve of \$1.5 million was included in the budget. In FY 2021-22, the general reserve budget increased to \$2.1 million, an increase of \$0.6 million or 40.6 percent.

New Initiatives

Increases to the Hetch Hetchy Water and Power Enterprise budget are mainly related to activity in Hetchy Water, specifically related to the following:

Wildfire Mitigation – In January 2019, the SFPUC approved the Wildfire Mitigation Plan to establish methods and procedures to construct, maintain, and operate SFPUC electrical lines to minimize the risk of catastrophic wildfire and ensure SFPUC compliance with California State Senate Bill 1028. This key budget initiative consisted of new positions, professional services and equipment. The enterprise added one project-based Utility Analyst (Job Class 5601) in FY 2020-21 and an Operating Engineer (Job Class 7328) and Water & Power Maintenance Supervisor (Job Class 7259) in FY 2021-22.

A continuing \$1.45M and additional \$550K was approved for professional service contracts mainly related to tree felling and vegetation removal, but also including right-of-way delineation services, LiDAR for distribution lines and GIS mapping of threat trees, and program development services.

Equipment approved as part of the final budget included water trailers and pumps, an excavator, and a lowbed equipment trailer used to transport heavy fire equipment.

Payments to Other Governments – Due to the heavily regulated nature of water and power services, as well as the locations of several SFPUC dams and watersheds, Hetch Hetchy budgeted an additional \$5.8 million in FY 2020-21 and \$250K in FY 2021-22 for payments to other governments. The key initiative includes amounts for payments to the National Park Service for watershed protections, environmental stewardship and security. Additional planned payments include: Don Pedro

Recreation Association under the terms of the Federal Electric Regulatory Commission (FERC) for licensing of the Don Pedro dam, California Department of Water Resources for annual dam fees, and the US Forest Service for water quality protection projects.

HETCH HETCHY WATER AND POWER CAPITAL BUDGET

In addition to the operating budget, the Hetch Hetchy Water and Power enterprise also prepares a two-year Capital budget and Ten-Year Capital Plan.

In FY 2020-21, the Hetch Hetchy Water and Power capital budget is \$80.8 million, of which \$76.8 million or 95.0 percent is funded by debt and \$4.1 million or 5.0 percent is revenue funded. In FY 2021-22, the capital budget is \$141.8 million of which \$137.1 million or 96.7 percent is supported by debt and \$4.7 million or 3.3 percent in revenue funding. Of the Debt funding, the majority is from power bonds, with the remainder met by water bonds. The majority of the revenue funding is from the Distributed Antenna System and Low Carbon Fuel Standards with the remainder being from power cap and trade revenue. The Hetch Hetchy Enterprise's annual programmatic project budget, which is funded in the operating budget but forms part of the capital program, is \$19.3 million in FY 2020-21 and \$15.6 million in FY 2021-22, with the majority being funded by revenues, Treasure Island and the Trans Cable Payment, and the remainder coming from Federal bond interest subsidies and recovery capital.

The Hetch Hetchy Water and Power Enterprise is responsible for providing reliable, high quality water and electric energy to the City and other customers, operates and maintains facilities to a high standard of safety and reliability, and maximizes revenue opportunities within approved levels of risk.

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.

Power 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.

HETCH HETCHY WATER AND POWER TEN-YEAR CAPITAL PLAN

The SFPUC is required to develop a Ten-Year Capital Plan. Reliability and delivery of high quality water and renewable sources of power are the most critical objectives of Hetch Hetchy Water and Power. The

purpose of the capital investment is to extend the useful life of the infrastructure and provide continued reliable operation of the system components. Therefore, understanding the long-term capital needs of the system and determining how to finance these capital needs are essential to the mission of the SFPUC.

The table shows the Hetch Hetchy Water and Power Ten-Year Capital Plan by program and project. The table also shows the different sources of revenue that are expected to finance the plan over these ten-years.

The \$1.6 billion Ten-Year Capital Plan represents a consistent and growing investment over ten years with funds allocated to the Hetchy-Power totaling \$542.0 million and Hetchy-Water totaling \$1.0 billion.

There are two sections to the Ten-Year Capital Plan:

Power Enterprise Capital Program - The program undertakes projects both within San Francisco and up-

country and is financed by operating revenues, Cap and Trade Carbon auction revenues, Low Carbon Fuel Standard and Power revenue bonds. Power includes the renewable generation and energy efficiency projects critical to attain greenhouse gas reductions and begin climate change mitigation and transmission and distribution projects consistent with the City's goal of establishing the SFPUC role as the exclusive electric service provider to existing and new City facilities, redevelopment and development projects.

The Hetchy Water Renewal and Replacement Program

- This program is financed by Water revenue bonds, Power revenue bonds and Power revenue; the Hetchy Water Renewal and Replacement budget includes Water Infrastructure, Power Infrastructure and Joint, Water (45 percent)/Power (55 percent) projects that are located up-country and managed by Hetchy Water.

HETCH HETCHY WATER AND POWER TEN-YEAR CAPITAL PLAN

\$ Thousands	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25	FY 2026-30	PLAN TOTAL
SPENDING PLAN							
Hetch Hetchy Power							
Streetlights	0	0	3,815	3,815	3,815	19,075	30,520
Renewable/Generation	1,000	1,000	1,000	1,000	1,000	5,000	10,000
Energy Efficiency	1,000	1,000	1,000	1,000	1,000	5,000	10,000
Redevelopment	4,583	4,333	1,483	2,733	1,483	6,299	20,911
Distribution Services for Retail Customers	35,749	23,972	45,852	39,852	53,802	271,792	471,019
Total Hetchy Power	42,332	30,304	53,150	48,400	61,100	307,165	542,451
Hetchy Water							
Water Infrastructure	20,077	33,733	65,850	46,373	43,457	68,388	277,878
Power Infrastructure	0	10,560	49,425	23,836	18,535	49,905	152,261
Joint Projects - Water Infrastructure 45%	8,291	30,232	34,252	35,353	33,235	126,043	267,406
Joint Projects - Power Infrastructure 55%	10,134	36,950	41,864	43,209	40,621	154,053	326,830
Total Hetchy Water	38,502	111,474	191,391	148,771	135,848	398,390	1,024,375
Total Hetchy Power & Water	80,834	141,779	244,541	197,171	196,947	705,555	1,566,826
Sources							
Revenue	1,074	2,151	18,737	18,693	18,649	92,399	151,704
Power Bonds	48,397	73,128	123,423	94,430	99,240	406,049	844,667
Water Bonds	28,368	63,965	100,102	81,726	76,692	194,432	545,284
Low Carbon Fuel Standard	2,500	2,000	1,700	1,700	1,700	8,500	18,100
Cap and Trade Auction Revenue	495	535	578	622	666	4,176	7,071
Total Sources	80,834	141,779	244,541	197,171	196,947	705,555	1,566,826

Power Capital Program

The \$542.4 million per year capital program is comprised of the following:

Distribution Services Retail, \$471.0 million

These projects are consistent with San Francisco Administrative Code Section 99.3 establishing the SFPUC's role as the exclusive electric service provider for existing and new City facilities, and redevelopment and development projects.

SFO Substation Improvements - Provides for the SFPUC to serve SFO's anticipated load increase. The project will plan, design, and construct needed upgrades at the substations to provide reliable and redundant service to the airport.

Distribution Interface Redevelopment Projects - This project provides for the design and construction of new electric distribution systems and facilities for the SFPUC to provide electric services to various new developments within San Francisco. The project will consider the use and implementation of proven, as well as, new and emerging technologies. Beneficial technologies will be identified, researched, and analyzed, prior to making a proposal for any implementation on the project, where ratepayer benefit is demonstrated.

Alice Griffith/Candlestick Point - This project provides for the second phase of development at Hunters Point Shipyard, Candlestick Point, and the Alice Griffith Housing Complex. The Development Team comprised of the Office of Community Investment and Infrastructure and Developer will pay for the installation of the infrastructure and substructure required for the new 12-kV underground electrical distribution system. The SFPUC as the electric utility provider will install the conductors in the conduits, transformers, switches, and metering equipment required for the electric distribution system.

Streetlights, \$30.5 million

Hetchy provides power to all of San Francisco's 44,528 streetlights, maintains the 25,509 streetlights owned by the City, and funds the maintenance of the 19,019 streetlights owned by Pacific Gas & Electric Company (PG&E). Street lighting area improvements, the conversion of high voltage series loop circuits into multiple standard voltage service and Lighting Emitting Diode (LED) lighting, holiday and festivity pole use, assessments to determine the severity of pole deterioration, streetlight pole rehabilitation, and replacement of poles are all funded through this program.

Treasure Island \$20.9 million

The Cooperative Agreement discussed in the Wastewater Enterprise's Renewal Program also requires the SFPUC to provide utility operations and maintenance services at Treasure Island and Yerba Buena Island for the electrical and natural gas utility systems. The SFPUC has developed a work plan for creating a public power utility on each of the islands.

The SFPUC has developed a work plan for creating a public power utility serving both of the islands. The capital projects identified are required to support the future developments' electric load. Current planning shows that the existing electrical overhead poles, lines, and substation are adequate to serve the first phase of development. When the load approaches the design limit of the lines at approximately 10 megawatts, the lines will have to be upgraded and installed underground.

Renewable/Generation Power, \$10.0 million

In accordance with City policies and directives to increase renewable energy and reduce greenhouse gases, Hetchy Power is continuously developing and implementing new renewable generation resources. A series is planned to include small municipal and energy development projects including solar photovoltaic, solar thermal, biogas fuel cells, wind projects, and other renewable energy projects. The power generated from the Renewable/Generation Power projects will offset on-site power need at each project location.

Energy Efficiency, \$10.0 million

Energy efficiency improvements reduce facility operating costs and electric bills for customers, improve system functionality, and reduce the environmental impact of energy use. This program funds energy efficiency investments in City facilities covering the planning, design, and construction of "direct install" projects, as well as technical assistance and project assistance for departments utilizing their own capital funds. Energy retrofits include lighting, heating and ventilation, retro-commissioning, and energy management systems projects. The SFPUC performs eight to 10 energy efficiency projects each year. The budget funds efficiency projects in municipal facilities for departments such as Police, Real Estate, Recreation and Parks, SFMTA, Yerba Buena Center, and Fine Arts. Planned funding for lighting and mechanical system efficiency upgrades is consistent with state policies that place emphasis on energy efficiency and that support greenhouse gas reduction.

Hetchy Water Renewal and Replacement (R&R) Program

The \$1.0 billion Hetchy Water Renewal and Replacement Program is comprised of several programs. The proposed program costs will be financed with a combination of revenue bonds and power revenues.

Many Hetch Hetchy Water and Power facilities and system components are aging and/or have reached/exceeded their useful life. The condition of these facilities and equipment must be or has been assessed and proposed projects evaluated and prioritized based on risk (financial/criticality, safety and regulatory), efficiency of operations, and to provide a safe working environment for employees working in remote areas.

Water Infrastructure, \$277.9 million

The Water Infrastructure Renewal and Replacement program will include concept, development, design, and upgrades for operating, managing, and maintaining the Hetchy Water Infrastructure. In general, this includes water facilities from Hetch Hetchy Reservoir to Alameda East. The new and upgraded systems will have increased coverage, capacity or reliability, or improve employee safety and/or operating efficiency. The Hetchy water renewal program includes continued rehabilitation to the San Joaquin Pipeline (SJPL) including evaluation and assessment of structural integrity, structural upgrade of the pipeline and other projects including pipeline cathodic protection, coating and lining. New projects in the plan include the SJPL Valve and Safety Improvement Project to extend the useful life and safety of Hetchy Water assets.

Mountain Tunnel Improvement Project includes funding the tunnel portion of the project for improvements to enhance SFPUC's ability to provide reliable, high-quality water to its customers. This portion of the project was reclassified from Joint to a Water only asset for this capital plan.

Power Infrastructure – \$152.3 million

Many Hetchy Power systems, facilities, and equipment have reached their end of their life expectancy. Power generation will become less reliable if upgrades are not performed.

The Capital Plan provides funding for improvements at the Hetchy Powerhouses. Projects include upgrades to the Moccasin and Kirkwood powerhouses including protection, control and monitoring systems and equipment replacement and upgrades. The plan includes the Moccasin Powerhouse Generator Rewind and GSU Rehabilitation to fund assets at the powerhouse (breakers, generators, switchgears, valves, etc.) that have exceeded their useful life to avoid unplanned outages and increase operational efficiency.

The Capital Plan also includes rehabilitation of transmission lines and distribution systems. Transmission improvements consist of reliability projects to address regulatory requirements. Typical projects include replacement of insulators, switches, tower infrastructure, grounding and protection. Also included are regulatory projects to achieve clearance mitigation and resolve clearance discrepancies and meet regulatory requirements along with the power system impact mitigation project to mitigate impacts on the City's electric system caused by interconnections with private developments.

The plan also includes funding for Power Infrastructure Project Development

Joint Projects – Water & Power Infrastructure, \$594.2 million

These projects included assets that are jointly funded by the Water (45 percent) and Power (55 percent) Enterprises.

Communications - Projects provide upgrades of the communication systems elements to maintain pace with the changes in technology, and to maintain overall system reliability. The project will help to increase communications within the Moccasin compound.

Dams and Reservoirs - Projects to upgrade the Dams and Reservoirs to meet the Water Enterprise Levels of Service and Power Operational Objectives. Funding is included for O'Shaughnessy Dam to address deficiencies of the existing outlet works system, including the drum gates and release system through to Canyon Tunnel and the Tuolumne River and Moccasin Dam to evaluate, design and construct long term solutions for Moccasin Dam and associated appurtenance so that the facilities can handle the updated design flood.

Mountain Tunnel – Improvements to enhance SFPUC's ability to provide reliable, high-quality water to its customers will be carried out through three projects, the Mountain Tunnel Adits & Access Improvements Project to provide access to the tunnel, Inspection and Repair Project to provide for tunnel inspection and updated condition assessment and the Improvement Project to implement the needed improvements to assure reliability of water delivery. The first two projects are already completed, and the construction contract has been awarded for the third, and largest, project.

Roads and Bridges – Project to replace bridges as recommended in the condition assessment reports and the road improvements program for upkeep of access to numerous Hetch Hetchy Water and Power facilities.

Utilities - Projects to maintain the power distribution system in a state of good repair consistent with utility best practices to ensure 24/7 power. This project will rehabilitate the HHWP power distribution system consistent with utility best practices to provide reliable electrical necessary to operations at Moccasin Camp and remote sites.

FY 2020-21 AND 2021-22 CAPITAL BUDGET

The FY 2020-21 and FY 2021-22 SFPUC Capital Budget is \$260.4 million for projects and financing costs for Hetchy Water and Power. As a preliminary step to the Two-Year Capital budget development, a baseline review of all existing project appropriations was completed for potential closeout or repurposing to new capital needs. This important step reduced the amount of funding requested in the Two-Year Capital Budget resulting in a more efficient use of existing project appropriations, commercial paper and bond funding issuances.

The table below shows the Hetch Hetchy Water and Power capital budget for FY 2019-20, FY 2020-21 and FY 2021-22 by major programs.

FY 2020-21 Summary

The Hetchy Water and Power Capital budget for FY 2020-21 is \$94.4 million and includes: \$42.3 million for In-City Power projects \$38.5 million for up-country Hetchy Water projects and \$13.5 million for financing cost. The FY 2020-21 CIP is funded by \$1.1 million in Hetch Hetchy Water and Power revenue, \$56.9 million from the issuance of Power Enterprise revenue bonds for projects considered Power or 55 percent of joint assets, \$33.4 million from the issuance of Water Enterprise revenue bonds for projects considered Water or 45 percent of joint Water's assets, and \$2.5 million from Low Carbon Fuel Standard and \$0.5 million from Cap and Trade Auction revenue.

The budget represents continued investment in upgrading and improving infrastructure to ensure reliability of power generation and water delivery. The budget grows the Power portfolio with continued investment in renewable sources and efficiency.

Power

Projects in the FY 2020-21 capital budget include:

\$35.7 million for Transmission /Distribution Improvements to provide for the design and construction of transmission and distribution facilities to serve new retail customers, installation of Intervening Facilities required under the new Wholesale Distribution Tariff and the development, administration, and incentive payments to new retail customers. Funding is also included for Distribution Interface - Redevelopment projects include Pier 70, Mission Rock, Candlestick

Point, and India Basin which the electrical infrastructure being built to serve these projects will reduce the City's reliance on PG&E.

\$1.0 million for Renewable/Generation projects such as small renewable (solar photovoltaic, solar thermal, wind, geothermal, fuel cells), small hydro (in-line turbines, turbines in existing pipelines, incremental hydro). Power generated from the Renewable/Generation projects will offset on-site power need at each project location.

\$1.0 million for Energy Efficiency Projects for General Fund departments. This project involves retrofitting the City buildings and other facilities to significantly improve operation and energy efficiency and enhance indoor air quality and occupant/public experience.

\$4.6 million for Redevelopment at Treasure Island - Install a new underground 12 kilovolt (kV) distribution system at Treasure and Yerba Buena Island. The developer will pay for the installation of the new underground 12-kV electric distribution system while the SFPUC, as the electric utility provider, will be responsible for installing the conduit wires, transformers, switches, and metering equipment and connecting the existing electrical distribution system with the new system.

Hetchy Water

Projects in the FY 2020-21 capital budget include:

\$20.1 million for Water Infrastructure projects including \$19.8 million to begin funding construction of the Mountain Tunnel Improvement Project (tunnel portion).

\$18.4 million for Hetchy Water's joint funded projects, 45 percent Water, 55 percent Power, to fund the Mountain Tunnel and Moccasin Dam Improvement Projects.

FY 2021-22 Summary

Power

The Power FY 2021-22 capital budget is \$30.3 million and includes \$24.0 million for Transmission/Distribution enhancements and upgrades, \$1.0 million for investments in renewable generation projects, \$1.0 million for energy efficiency projects for General Fund and departments and \$4.3 million in redevelopment for the Treasure Island.

Hetchy Water

The Hetchy Water FY 2019-20 capital budget is \$111.5 million and includes \$8.9 million for improvements to the San Joaquin Pipelines and \$22.2 million for Mountain Tunnel Project, \$10.6 million for Power Infrastructure projects including powerhouse projects and transmission line clearance mitigation, \$67.2 million for rehabilitation of joint (power/water) infrastructure projects including road improvements, dams and reservoirs, bridge replacements and beginning construction on the Mountain Tunnel Improvement Project.

HETCH HETCHY TWO-YEAR CAPITAL BUDGET

\$ Millions	FY 2019-20 Adopted Budget	FY 2020-21 Adopted Budget	FY 2021-22 Adopted Budget
HETCHY POWER COSTS			
Streetlights	6.0	0.0	0.0
Transmission/Distribution	65.5	35.7	24.0
Renewable/Generation	1.0	1.0	1.0
Energy Efficiency	1.0	1.0	1.0
Redevelopment	9.5	4.6	4.3
Total Hetchy Power	83.0	42.3	30.3
HETCHY WATER COSTS			
Water Infrastructure	49.3	20.1	33.7
Power Infrastructure	11.8	0.0	10.6
Joint Projects - Water Infrastructure 45%	23.5	8.3	30.2
Joint Projects - Power Infrastructure 55%	28.7	10.1	36.9
Total Hetchy Water	113.3	38.5	111.5
Financing Cost - Hetchy Water	10.8	5.0	11.3
Financing Cost - Hetchy Power	20.4	8.5	12.9
Total Financing Costs	31.2	13.5	24.2
Total Hetchy Power & Water	227.5	94.4	166.0
SOURCES			
Revenue	17.0	1.1	2.2
Power Bonds	126.0	56.9	86.0
Water Bonds	83.6	33.4	75.3
Low Carbon Fuel Standard	0.0	2.5	2.0
Cap and Trade Auction Revenue	1.0	0.5	0.5
Total Sources	227.5	94.4	166.0

HETCH HETCHY WATER AND POWER PROGRAMMATIC PROJECTS

The table below shows Hetch Hetchy Water and Power Programmatic Projects, for FY 2020-21 to FY 2021-22, by major programs.

The Hetch Hetchy Water and Power Programmatic Projects budget increase \$3.6 million from FY 2019-20 to FY 2020-21 mostly due to a one-time increase in the funding for Trans Bay Cable project and facilities maintenance. The FY 2020-21 budget is funding for the Facilities Maintenance project, WECC project, Treasure Island, Youth Employment Project, and 525 Golden Gate.

HETCH HETCHY WATER AND POWER PROGRAMMATIC PROJECTS

\$ Millions	FY 2019-20 Adopted Budget	FY 2020-21 Adopted Budget	FY 2021-22 Adopted Budget
HETCHY COSTS			
SF Electric Reliability - Trans Bay Cable Funding	2.0	3.1	0.0
Facilities Maintenance	2.6	6.0	6.3
WECC/NERC Compliance	3.7	3.1	2.5
WECC/NERC Transmission Line Clearance	0.2	0.0	0.0
Treasure Island Facilities Maintenance	3.6	3.8	4.0
Community Benefits - Water	0.3	0.0	0.0
Community Benefits - Power	0.4	0.0	0.0
Youth Employment Project	0.2	0.2	0.2
525 Golden Gate - Operations & Maintenance	0.8	1.3	0.8
525 Golden Gate - Lease Payments	1.2	1.2	1.2
Total Cost	15.0	18.6	15.0
SOURCES			
Infrastructure - Recovery Capital (O&M)	0.1	0.1	0.1
Infrastructure - Recovery Capital (Lease)	0.2	0.2	0.2
Federal Bond Interest Subsidy	0.3	0.3	0.3
Trans Bay Cable Payment	2.0	3.1	292.7
Revenue	12.4	14.9	14.4
Total Sources	15.0	18.6	15.0

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CLEANPOWERSF

MISSION. Empowering businesses and residents to choose a more sustainable future, CleanPowerSF is San Francisco’s Community Choice Aggregation program. CleanPowerSF was created pursuant to state legislation that authorizes local governments to partner with their investor-owned utility (PG&E in San Francisco) to deliver cleaner energy to residents and businesses.

CleanPowerSF began serving customers in May 2016, giving residential and commercial electricity consumers in San Francisco the option to have more of their electricity supplied from clean, renewable sources—such as solar and wind—at competitive rates. When customers join CleanPowerSF’s service, they reduce the carbon footprint associated with their electricity service, support the growth of local renewable energy projects, and combat global climate change. CleanPowerSF is a part of the SFPUC Power Enterprise.

CleanPowerSF supplies a cleaner electricity supply to customers, while PG&E continues to deliver that energy using its existing infrastructure. Currently, about 39% of the electricity delivered by PG&E is Renewable; the other 61% is from nuclear, natural gas, large hydroelectric, and other non-Renewable sources. CleanPowerSF offers two services with a higher percentage

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CLEANPOWERSF BUDGET SUMMARY

	FY 2019-20 Adopted Budget	FY 2020-21 Adopted Budget	Change From FY 2019-20	FY 2021-22 Adopted Budget	Change From FY 2020-21
Total Budget	212,909,309	226,493,735	13,584,426	226,471,096	-22,639
Total FTE	46.0	45.5	(0.6)	47.8	2.3

STARR KING ELEMENTARY SCHOOL, SOLAR PANEL INSTALLATION. ELECTRICIANS PREPARE TO CONNECT THE SOLAR STRING TO THE INVERTER. ELECTRICIAN, IAN ANONUEVO.



of the energy from cleaner sources, such as solar and wind: Green, which contains 48% Renewable energy, and SuperGreen, which contains 100% Renewable energy.

Customers are automatically enrolled in the Green service and may elect to opt up to receive the SuperGreen service at any time after enrollment. By law, CleanPowerSF is an opt-out program, meaning eligible customers are automatically enrolled in the program.

The SFPUC intends for CleanPowerSF to be a financially independent program, separate from Hetchy Power, with sufficient revenues to support its own operating and capital costs.

The May 2019 CleanPowerSF enrollment met the Commission’s adopted goal of citywide implementation as of July 2019. As a result, more than 376,000 residents and businesses now receive renewable energy and high-quality service through CleanPowerSF.

SERVICES

CleanPowerSF is a Community Choice Aggregation (CCA) program offered by the SFPUC to San Francisco residents and businesses, with direct administrative oversight by the Commission. CCAs enable local governments to purchase and/or develop power on behalf of the local community. CleanPowerSF buys electricity from sources such as wind and solar and that electricity is delivered to residents and businesses through PG&E’s existing infrastructure. Through City ordinance, the San Francisco Local Agency Formation Commission monitors and advises the SFPUC and the Board of Supervisors on the expansion, implementation, operation and management of CleanPowerSF. Additionally, the Rate Fairness Board advises the Commission regarding rate setting.

The CleanPowerSF program is managed by the Assistant General Manager for Power with day-to-day operations managed by the Director of CleanPowerSF. CleanPowerSF is responsible for the development and operations of the program and for expanding the program through a phased approach. Team duties include but are not limited to forecasting customer demand; planning for and procuring resources to match customer demand; managing energy and related professional service contracts; overseeing meter data management, billing and customer service provision; regulatory and legislative advocacy and compliance; and managing communications outreach. CleanPowerSF is a part of the Power Enterprise.

GOALS AND OBJECTIVES

As noted in the Financial Planning and Policies section, the SFPUC previously adopted a strategic plan to identify key priorities for the organization and serve as a roadmap through 2020 to ensure that the SFPUC meets the challenges ahead and continues to deliver reliable water, power, and sewer services. The five year cycle would dictate a new strategic plan to begin in 2021, but given the current climate, the SFPUC is moving forward with revising its current plan to meet the needs of today and align with new priorities outlined as a result of challenges in 2020.

The 2020 strategic plan goals include:

- Reliable Service and Assets

- Organizational Excellence
- Stakeholder and Community Interests
- Environmental Stewardship
- Effective Workforce
- Financial Sustainability

As part of the strategic plan goals, each Enterprise is responsible for meeting specific objectives and performance targets. Each year progress on those performance measures are reported to the Controller and Mayor. Reported performance for FY 2019-20 for CleanPowerSF and agency-wide goals are as follows:

Goal Area	Performance Measure	Target	FY2019-20 Actuals
Organizational Excellence	Percent of actual/planned goals from the IT Strategic Plan, as taken at the end of the fiscal year	Greater than or equal to 80%	89%
Organizational Excellence	Single rating for SFPUC as a whole on meeting attendance of Health and Safety (H&S) committees agency-wide	Meeting target at 80%. If less than 80% then not meeting target	98%
Effective Workforce	Average Number of Learners in Instructor-led Trainings	8	11.17

Goal Area	Performance Measure	Target	FY2019-20 Actuals
Effective Workforce	Diversity & Inclusion Function Maturity	.7	.7
Effective Workforce	Number of Completed Online Trainings.	2734	6672
Effective Workforce	Number of Instructor-led Trainings held	7336	433
Effective Workforce	Number of Offboarding Events	373	281
Effective Workforce	Number of Onboarding Events	611	499
Effective Workforce	Number of Promotions	251	184
Effective Workforce	Number of Recruitments	80	60
Effective Workforce	Number of Unique Users of Recognition Tools	400	313
Effective Workforce	Percent of Completed Occupational Competency Models	26%	23%
Effective Workforce	Staff Turnover	9.4%	8.6%
Effective Workforce	Time to Hire	150 average days to hire	178
Effective Workforce	Workforce Planning Function Maturity	0.9	0.8
Financial Sustainability	Average residential Power bill as a percent of median income in San Francisco	.54%	0.55%
Stakeholder and Community Interest	Number of adults and children who have participated in transformative engagement through SFPUC sponsored education programs	Greater than or equal to 4000	3381
Stakeholder and Community Interest	Percent of eligible customers enrolled in California Alternate Rates for Energy (CARE) for CleanPowerSF Customers	Greater than or equal to 90%	86
Stakeholder and Community Interest	Percent of Eligible electric customers receiving low-income discount rate.	99%	99%
Stakeholder and Community Interest	Percent of eligible households enrolled in Community Assistance Program (CAP)	Greater than or equal to 4.62%	4.32%
Stakeholder and Community Interest	Percent of employees who participated in the Employee Engagement Survey	Greater than or equal to 70%	55.6%
Stakeholder and Community Interest	Percent of managers who completed at least one engagement action	Greater than or equal to 80%	28.1% (130/462)
Stakeholder and Community Interest	Percent of managers who created at least one engagement action plan	Greater than or equal to 80%	39.8% (184/462)
Stakeholder and Community Interest	Percentage of customer inquiry calls received via CleanPowerSF Call Center answered within 20 seconds	80% of all calls will be answered within 20 seconds.	92%
Stakeholder and Community Interest	Percentage of customer inquiry emails received via CleanPowerSF Call Center responded to within 2 business days	95% of emails receive a customized response within 2 business days of receipt	96%
Environmental Stewardship	Percent of CleanPowerSF customer account retention rate.	Greater than or equal to 90%	96.1
Environmental Stewardship	Pounds of Co2 emitted per MWh - CleanPowerSF	Less than or equal to 50lbs	44

CLEANPOWERSF ORGANIZATION CHART



CLEANPOWERSF REVENUES

In FY 2020-21 CleanPowerSF program revenues total \$226.5 million, a 6.4 percent increase from FY 2019-20. In FY 2021-22 revenues total \$226.5 million, essentially flat from the 2020-21 budget. The charts below show the CleanPowerSF program’s total revenue budgets broken out by major revenue categories in FY 2020-21 and FY 2021-22.

How Forecasts Were Developed

Volumetric electric utility delivery load trends were observed through the beginnings of the COVID-19 pandemic and shelter in place order and the adopted budgets reflect re-forecasted volume projections. Weekly electric utility delivery trends to residential and commercial customers were tracked from the start of the pandemic where total weekly deliveries were down as much as 20 percent for commercial and up 14 percent for residential customers when compared against pre-pandemic formulated projections, or baseline projections. These observed delivery trends informed budget volume re-forecasts. In total, the re-forecasted volumes assumed a bottoming out of shelter in place volumetric impact at the end of FY 2019-20 to 89 percent of baseline totals, and then gradual total load increases. Incorporated into

the re-forecasted FY 2020-21 electric load increases is 3 months of shelter in place volumetric electric utility delivery load trends observed post-COVID-19 pandemic and continued electric volumetric recovery. Given the approach to re-forecasted volumes with COVID-19 pandemic impacts and a return to normal volume projections post recovery, the total electric utility sales volumes that support the adopted FY 2020-21 and FY 2021-22 are 3.3 percent and 2.1 percent above pre-COVID-19 pandemic volumetric sales volume forecasts.

Sale of Electricity

FY 2020-21 budgeted revenues from electricity sales are \$225.6 million which grew 6.4 percent over the budget for FY 2019-20. Revenues are projected to stay flat in FY 2021-22. Sale of electricity-CCA revenues are derived from selling electricity supplied from clean, renewable sources such as solar, wind, bioenergy, geothermal, and hydroelectric at competitive rates to San Francisco residents and businesses enrolled in the CleanPowerSF program. CleanPowerSF offers two service options for customers: Green and SuperGreen. The SuperGreen product provides 100.0 percent California-certified renewable energy and is billed at a premium over the basic Green service.

CHART 11.1 >
CleanPowerSF
FY 2020-21 Sources

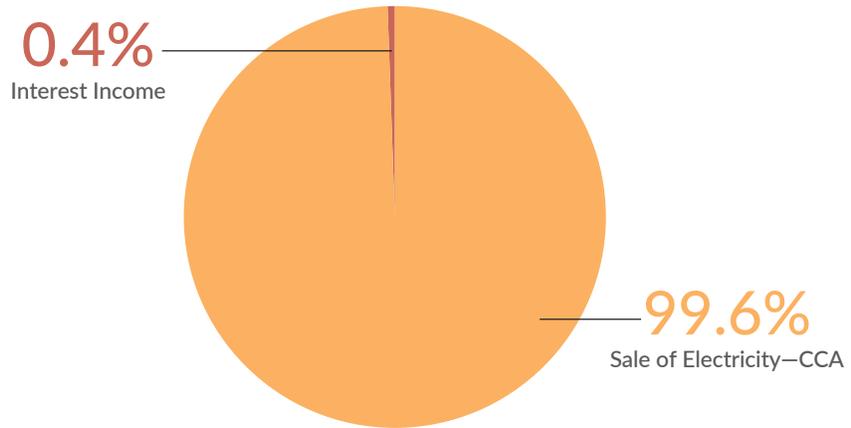
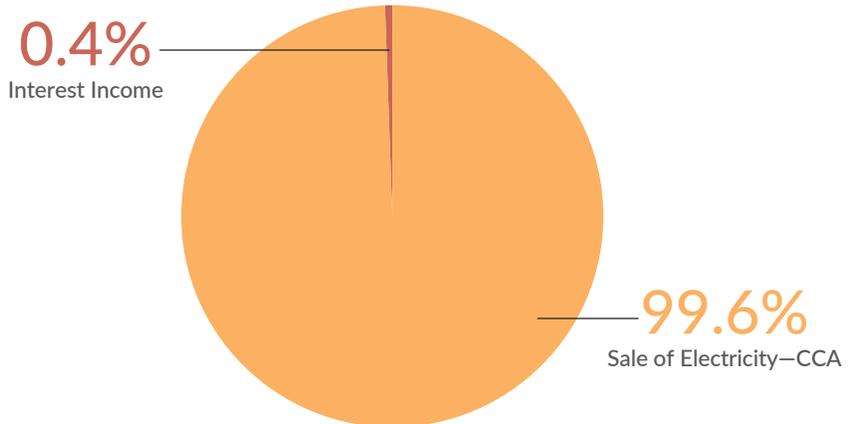


CHART 11.2 >
CleanPowerSF
FY 2021-22 Sources



Interest Income

In FY 2020-21 and FY 2021-22 the CleanPowerSF program budgeted \$0.9 million in interest earnings, making up 0.4 percent of total revenues. Interest earnings are budgeted assuming a 2 percent interest rate earned on unaudited and projected cash balances at the time of budget development.

Budgeted Fund Balance

Fund Balance is used on a one-time, planned basis to balance budgeted sources and uses in line with the SFPUC's Fund Balance Policy. In both years of the budget, CleanPowerSF's revenues exceed expenditures

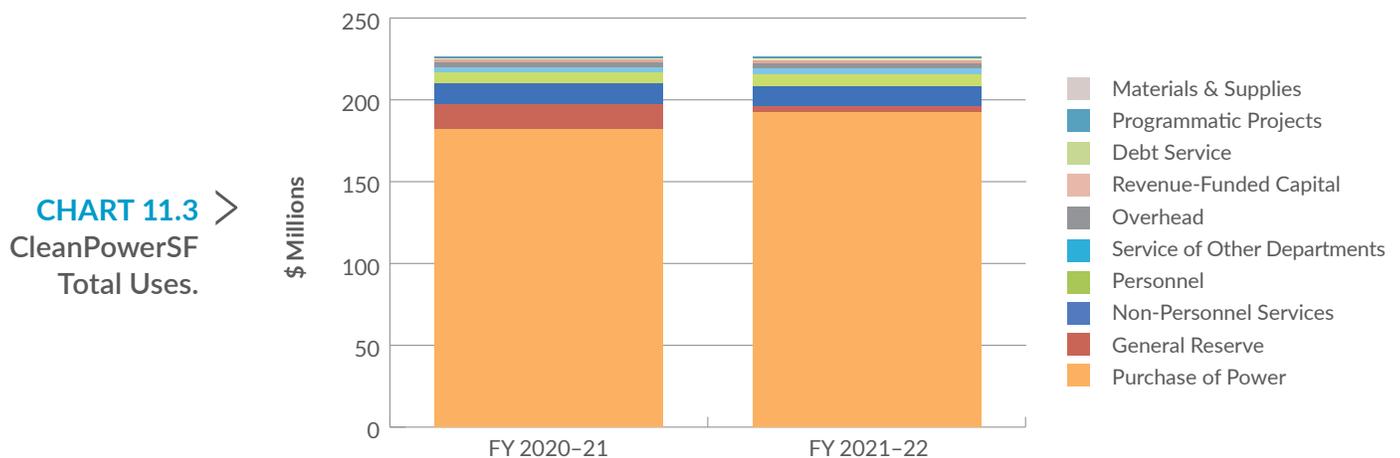
so the enterprise will contribute to Fund Balance as a balancing expenditure. Contributions to Fund Balance are budgeted at \$15.6 million and \$3.4 million in FY 2020-21 and FY 2021-22, respectively. These contributions were budgeted to shore up the enterprise's reserves.

Change in Fund Balance

FY 2019-20 year-end fund balance is \$52.6 million. Taking into account budgeted contribution to fund balance in FY 2020-21 of \$15.6 million, FY 2020-21 ending fund balance is projected to be \$68.2 million. FY 2021-22 ending fund balance is projected to be \$71.6 million after taking into account budgeted contribution to fund balance of \$3.4 million.

CLEANPOWERSF SOURCES AND USES OF FUNDS

	FY 2019-20 Unaudited Actuals	FY 2019-20 Adopted Budget	FY 2020-21 Adopted Budget	Change From FY 2019-20	FY 2021-22 Adopted Budget	Change From FY 2020-21
SOURCES OF FUNDS						
Sale of Electricity - CCA	244,956,489	212,070,541	225,610,735	13,540,194	225,539,096	(71,639)
Interest Income	992,390	838,768	883,000	44,232	932,000	49,000
Total Sources of Funds	245,948,879	212,909,309	226,493,735	13,584,426	226,471,096	(22,639)
USES OF FUNDS						
Personnel	2,967,633	6,605,232	6,787,126	181,894	7,641,805	854,679
Non-Personnel Services	10,439,961	12,527,188	12,261,349	(265,839)	12,053,375	(207,974)
Purchase of Power	175,415,733	164,571,626	181,943,359	17,371,733	192,598,845	10,655,486
Materials & Supplies	20,568	226,937	228,358	1,421	229,358	1,000
Overhead	2,040,851	2,113,833	2,539,970	426,137	2,589,392	49,422
Debt Service	2,000,000	-	1,000,000	1,000,000	1,000,000	-
Service of Other Departs	2,440,645	3,111,773	3,588,696	476,923	3,548,200	(40,496)
General Reserve	-	23,482,720	15,521,380	(7,961,340)	3,362,292	(12,159,088)
Revenue-Funded Capital	-	-	1,898,497	1,898,497	2,432,829	534,332
Programmatic Projects	56,465	270,000	725,000	455,000	1,015,000	290,000
Total Uses of Funds	195,381,856	212,909,309	226,493,735	13,584,426	226,471,096	(22,639)



CLEANPOWERSF EXPENDITURES

CleanPowerSF's total budget expenditures increased from prior year budgeted amounts of \$212.9 million to \$226.5 million in FY 2020-21, an increase of \$13.6 million or 6.4 percent. The budget stayed flat at \$226.5 million from FY 2020-21 to FY 2021-22. CleanPowerSF completed its enrollment of San Francisco customers during the previous budget cycle, and as such the most significant increase to the budget is in purchase of power. CleanPowerSF has entered into several long-term power purchase agreements (PPAs) which inform the budget necessary to maintain an appropriate power supply. The purchase of power budget also includes increases for CAISO (California Independent System Operator) charges and resource adequacy fees. Additionally, CleanPowerSF will begin ramping up its capital program in FY 2020-21 and has added \$1.9M in FY 2020-21 and \$2.4M in FY 2021-22 for the revenue-funded portion of capital spending.

Purchase of Power

CleanPowerSF's Purchase of Power budget increased from \$164.6 million in FY 2019-20 to \$181.9 million in FY 2020-21, an increase of \$17.4 million or 10.6 percent. As CleanPowerSF completed its enrollment of San Francisco customers during the previous budget cycle, this increase reflects expected purchases to supply all enrollees in San Francisco with green energy. The increase also includes estimated amounts related to CAISO charges and resources adequacy fees.

CleanPowerSF's Purchase of Power budget increased from \$181.9 million in FY 2020-21 to \$192.6 million in FY 2021-22, an increase of \$10.7 million or 5.9 percent. The increase mainly reflects projected costs under long-term power purchase arrangements, as well as estimated amounts related to CAISO charges and resources adequacy fees.

Revenue Funded Capital

CleanPowerSF's Revenue Funded Capital budget increased from zero in FY 2019-20 to \$1.9 million in FY 2020-21. As CleanPowerSF is now an established entity and has spent the last few years building reserves, the entity will begin to ramp up its capital program during this budget cycle.

CleanPowerSF's Revenue Funded Capital budget increased from \$1.9 million in FY 2020-21 to \$2.4 million in FY 2021-22, an increase of \$0.5 million or 28.2 percent. As the capital program continues to ramp up, the revenue funded portion of the budget is continuing to increase as well.

Personnel

CleanPowerSF's Personnel budget increased from \$6.6 million in FY 2019-20 to \$6.8 million in FY 2020-21, an increase of \$0.2 million or 2.8 percent. The increase is mainly related to an increase in pension and retirement benefit costs. As CleanPowerSF has completed its initial enrollment, the entity has undertaken an effort to move support staff from temporary positions to permanent positions. The increase is offset by an increase in attrition savings.

CleanPowerSF's Personnel budget increased from \$6.8 million in FY 2020-21 to \$7.6 million in FY 2021-22, an increase of \$0.8 million or 12.6 percent. The increase is due to additional increases in pension and retirement benefit costs as well as a decrease to attrition savings.

Authorized and Funded Full-Time Equivalents (FTEs)

CleanPowerSF's total authorized and funded full-time equivalents (FTEs) in FY 2020-21 is 45.47, a decrease of 0.56. The decrease is mainly due to an increase of 3.23

CLEANPOWERSF AUTHORIZED AND FUNDED FULL-TIME EQUIVALENTS (FTEs)

Position Type	FY 2019-20 Adopted Budget	FY 2020-21 Adopted Budget	Change From FY 2019-20	FY 2021-22 Adopted Budget	Change From FY 2020-21
Permanent Positions	19.06	24.37	5.31	33.79	9.42
Temporary Positions	26.97	19.56	(7.41)	11.98	(7.58)
Subtotal Operating-Funded	46.03	43.93	(2.10)	45.77	1.84
Project-Funded	-	1.54	1.54	2.00	0.46
Total Funded Positions	46.03	45.47	(0.56)	47.77	2.30
Unfunded Positions (Attrition)	1.33	4.56	3.23	4.14	(0.42)
Total CleanPowerSF	47.36	50.03	2.67	51.91	1.88

in attrition savings. As CleanPowerSF has completed its initial enrollment, several utility personnel as well as support staff moved from temporary positions to permanent. Additionally, the entity is ramping up its capital program beginning in FY 2020-21 and as such is adding 1.54 project-based FTE. CleanPowerSF's total authorized and funded full-time equivalents (FTEs) in FY 2021-22 is 47.77, an increase of 2.3. The increase is driven by additional staff moving from temporary positions to permanent, as well as a decrease to attrition of 0.42.

Non-Personnel Services

Non-Personnel Services stayed mostly flat over the period, decreasing slightly from \$12.5 million in FY 2019-20 to \$12.3 million in FY 2020-21, a decrease of \$0.2 million or 2.1 percent. The decrease is mainly due to a reduction in the professional and specialized services budget related to marketing contracts. As CleanPowerSF's customer enrollment is complete, fewer marketing contracts and services are expected to be needed over the period.

Non-Personnel Services decreased slightly from \$12.3 million in FY 2020-21 to \$12.1 million in FY 2021-22, a decrease of \$0.2 million or 1.7 percent. The decrease is mainly due to a reduction in the professional and specialized services budget related to marketing contracts and outreach. As CleanPowerSF's customer enrollment is complete, fewer marketing and outreach services are expected to be required over the period.

Materials & Supplies

CleanPowerSF's Materials & Supplies budget is flat over the period at \$0.2 million in FY 2019-20, FY 2020-21, and FY 2021-22. The budget funds telecommunications equipment and office supplies for CleanPowerSF staff.

Overhead

The overhead budget funds CleanPowerSF's share of support services provided by the SFPUC Bureaus, including the General Manager, Business Services, and External Affairs. The overhead budget is increasing from \$2.1 million in FY 2019-20 to \$2.5 million in FY 2020-21, an increase of \$0.4 million or 20.2 percent. The budget will increase from \$2.5 million in FY 2020-21 to \$2.6 million in FY 2021-22, an increase of \$0.1 million or 1.9 percent. Increases are both years are due to increasing costs within the SFPUC Bureaus.

Debt Service

CleanPowerSF's debt service budget increased from zero in FY 2019-20 to \$1.0 million in FY 2020-21, an increase of \$1.0 million or 100.0 percent. At the onset of the CleanPowerSF program, the entity received a

working capital loan from Hetchy Power that it may repay if certain criteria are met. In previous budget cycles, the repayment was not included in the budget given the amount of uncertainty around the success of the CleanPowerSF program. As the entity has repaid part of the loan in each of the prior two fiscal years, a portion of the repayment was budgeted in FY 2020-21.

CleanPowerSF's debt service budget remained flat at \$1.0 million from FY 2020-21 to FY 2021-22, reflecting the intent of the entity to repay a portion of the working capital loan to Hetchy Power.

Services of Other Departments

CleanPowerSF's Services of Other Departments budget increased from \$3.1 million in FY 2019-20 to \$3.6 million in FY 2020-21, an increase of \$0.5 million or 15.3 percent. The increase is mainly due to an increase in the workorder with Hetchy Power. Certain support staff budgeted under Hetchy Power perform work on behalf of CleanPowerSF as well, these services are billed to CleanPowerSF through the services of other departments budget.

CleanPowerSF's Services of Other Departments budget stayed flat at \$3.6 million in FY 2021-22.

Programmatic Projects

Programmatic Projects budgeted in CleanPowerSF represent amounts initially cut by the Board of Supervisors and then added back to the budget for specific annual projects, the programs are funded through operating revenues but are not considered part of regular recurring operations. The budget increased from \$0.3 million in FY 2019-20 to \$0.7 million in FY 2020-21, an increase of \$0.4 million or 168.5 percent. Projects are related to COVID-19 response, racial equity and diversity, employee engagement and community investment. The budget further increased from \$0.7 million in FY 2020-21 to \$1.0 million in FY 2021-22, an increase of \$0.3 million or 40.0 percent.

General Reserve

In years where projected revenues are expected to outpace budgeted expenditures, the budget is balanced with a general reserve that is meant to project the amount that the entity will contribute to Fund Balance by the end of the fiscal year. The General Reserve budget decreased from \$23.5 million in FY 2019-20 to \$15.5 million in FY 2020-21, a decrease of \$8.0 million or (33.9 percent). The budget further decreased from \$15.5 million in FY 2020-21 to \$3.4 million in FY 2021-22, a decrease of \$12.1 million or (78.3 percent). The decrease is due to increasing costs over the budget period.

New Initiatives

Purchase of Power – The FY 2020-21 power for resale budget increased by approximately \$17.4 million or 11.3 percent compared to prior year. The budget will increase by an additional \$10.6 million or 6.2 percent in FY 2021-22. CleanPowerSF expanded to full customer enrollment in the prior year and required an additional mid-year appropriation. The FY 2020-21 and FY 2021-22 budget is based on the actual terms of several long-term PPAs, as well as estimated amounts related to CAISO charges and resources adequacy fees.

Temporary to Permanent Position Conversions – Because CleanPowerSF was a growing program, all positions were initially budgeted as temporary. As the entity has successfully expanded to full enrollment, and continues to operate effectively within the community, the two-year budget includes an effort to move several original positions from temporary to permanent. The conversions include eight positions in FY 2020-21 and nine positions in FY 2021-22. The initiative includes a corresponding decrease to temporary salaries, and as such there is minimal budget impact.

Support from Hetch Hetchy – To support the initial start-up costs for CleanPowerSF, Hetch Hetchy loaned the entity working capital funds. Depending on the amount of reserves at each year-end, CleanPowerSF may repay part of the loan each year. Due to the initial uncertainty surrounding repayments, amounts were not previously included in the budget, however in FY 2020-21 and FY 2021-22, CleanPowerSF has budgeted \$1.0 million for repayment of the loan to Hetchy Power.

Similarly, due to the comparable nature of operations between CleanPowerSF and Hetchy Power, Hetchy Power performs administrative tasks such as certain management functions, budgeting, and procurement on behalf of CleanPowerSF. Those services are paid for through an interdepartmental services agreement. As the entity has expanded to full customer enrollment and is ramping up its capital program, the interdepartmental services agreement amount was also increased by approximately \$356,000 to reflect additional services to be provided.

CLEANPOWERSF CAPITAL BUDGET

In addition to the operating budget, CleanPowerSF also prepares a two-year Capital budget and 10-Year Capital Plan. This is the first capital budget for CleanPowerSF. The capital budget will be focused on owned generation and storage facilities as the program shifts from contracted power procurement. CleanPowerSF's capital budget is \$1.9 million in FY 2020-21 and \$2.4 million in FY 2021-22, and is entirely revenue funded.

A program of the San Francisco Public Utilities Commission, CleanPowerSF is a local solution to the climate crisis, offering renewable, affordable and accessible energy to our community. We empower residents and businesses to choose a more sustainable future. CleanPowerSF buys electricity from sources such as wind and solar, and that electricity is delivered to homes via PG&E's existing poles and wires.

CLEANPOWERSF ENTERPRISE TEN-YEAR CAPITAL PLAN

\$ Thousands	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25	FY 2026-30	PLAN TOTAL
Program/Project							
SPENDING PLAN							
CleanPowerSF Enterprise							
Local Renewable Energy Program	438	509	224	224	489	60,709	62,592
CleanPower SF Customer Program	1,461	1,924	1,249	1,199	1,149	6,245	13,227
Total CleanPowerSF	1,898	2,433	1,473	1,423	1,638	66,954	75,819
Total CleanPowerSF	1,898	2,433	1,473	1,423	1,638	66,954	75,819
SOURCES							
Revenue	1,898	2,433	1,473	1,423	1,638	66,954	75,819
Total Sources	1,898	2,433	1,473	1,423	1,638	66,954	75,819

CLEANPOWERSF TEN-YEAR CAPITAL PLAN

Management of CleanPowerSF’s financial business functions include developing and maintaining long-range capital and financial plans. The Capital Plan will evaluate opportunities for local renewable energy development in San Francisco city-owned and regional sites and other opportunities in and near San Francisco.

The CleanPowerSF Ten-Year Capital Plan for FY 2020-21 through FY 2029-30 is \$75.8 million, all of which is funded by power revenues. CleanPowerSF does not expect to rely on debt to fund its Capital Improvement Program between FY 2020-21 and FY 2029-30. To pay for operations and capital investments, CleanPowerSF expects to increase rates 3 percent annually.

Local Renewable Energy Program - This program will fund the development of new renewable energy (solar photovoltaic) and battery storage projects on select SFPUC sites. The project is structured around six major phases, including: Planning, Request for Proposals, Construction and Commissioning, Power Purchase Agreement, Asset Management, and Project Buyout. The initial renewable energy facilities developed under this program would be structured as power purchase agreements (PPA) with third parties that would develop and operate the projects for an initial period of time. The PPAs would include a buy-out option for the City.

CleanPowerSF Customer Programs - This program funds the development and implementation of programs that incentivize customers to invest in new clean energy technologies that can reduce their energy costs and further San Francisco’s decarbonization goals. Incentives

will be available for residents and businesses investing in new clean and efficient equipment like solar power generating equipment, battery storage, electrical vehicle chargers and electric heat pump water heating.

FY 2020-21 AND 2021-22 CAPITAL PROJECT BUDGET

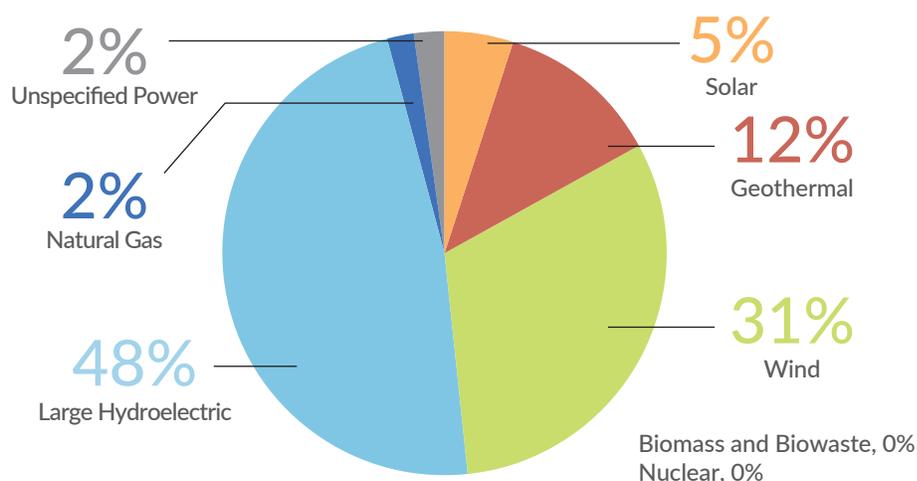
The FY 2020-21 & FY 2021-22 CleanpowerSF budget is \$4.3 million for the Local Renewable Energy and Customer Programs. The Two-Year budget is revenue funded.

Local Renewable Energy Program

This project will fund the development of new renewable energy (solar photovoltaic) and battery storage projects on select SFPUC sites. Funding in FY 2020-21 and FY2021-22 will go towards planning and design. The two-year budget also includes funding for a Capital Master Plan for renewable energy projects component, that will identify/propose the best path forward for structuring the ownership/financing and operation of the facilities.

CleanPowerSF Customer Programs

This project will fund the development and implementation of new customer programs for CleanPowerSF, including programs supporting demand response, electric mobility, local renewable energy generation, and building decarbonization technologies. The two-year budget will fund the planning, development and operations of a select set of new customer programs to be developed during the next fiscal year and support additional program planning to scale and expand customer programs over the ten-year capital planning period.



^ CHART 11.4 Green Product Power Content* 2019

*Chart only includes power resource types representing at least 1% of total

CHART 11.5 >
 SuperGreen Product
 Power Content* 2019

*Chart only includes power resource types representing at least 1% of total

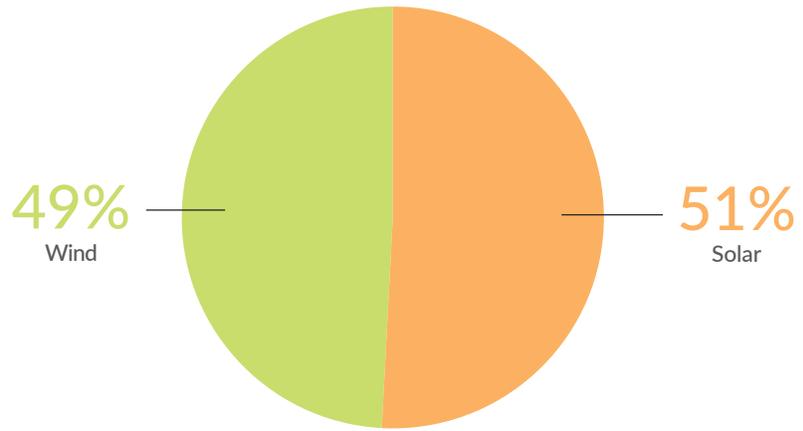


CHART 11.6 >
 CleanPowerSF 2019
 Total Portfolio

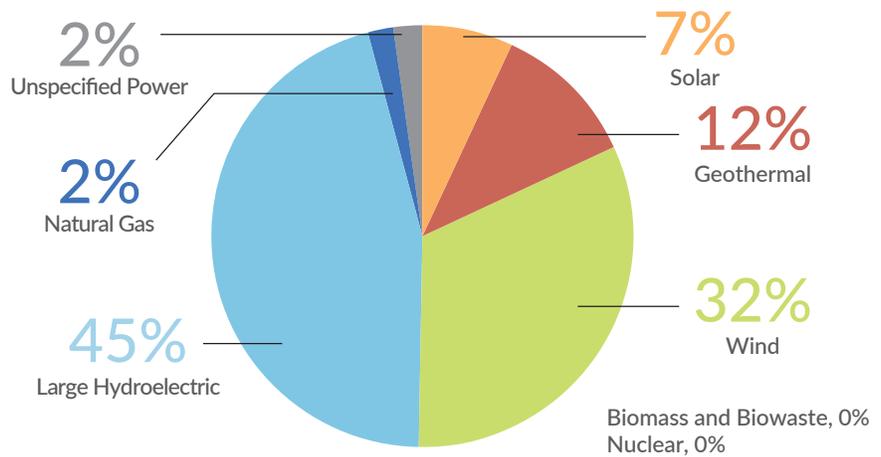
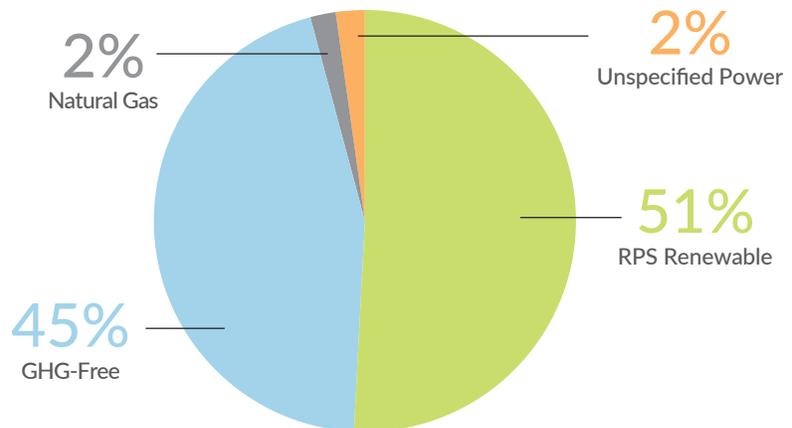


CHART 11.7 >
 CleanPowerSF 2019
 Total Portfolio



CLEANPOWERSF ENTERPRISE CAPITAL BUDGET BY MAJOR PROGRAM

\$ Millions Program/Project	FY 2020-21 Adopted Budget	FY 2021-22 Adopted Budget
CLEANPOWERSF COSTS		
Local Renewable Energy Program	0.4	0.5
CleanPower SF Customer Program	1.5	1.9
Total CleanPowerSF	1.9	2.4
Total CleanPowerSF	1.9	2.4
SOURCES		
Revenue	1.9	2.4
Total Sources	1.9	2.4

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BUREAUS

MISSION. The SFPUC Bureaus provide support services to all three Enterprises, and include the Office of the General Manager, Business Services, External Affairs, and the Infrastructure Division. The Office of the General Manager includes four sections: Emergency Response and Security, The General Manager’s Office, Human Resources, and Real Estate Services. Business Services includes Administration, Strategy, Innovation and Change, Customer Services, Financial Services, and Information Technology Services. External Affairs includes Communications, Community Benefits, and Governmental Affairs. The Bureaus’ budgets are

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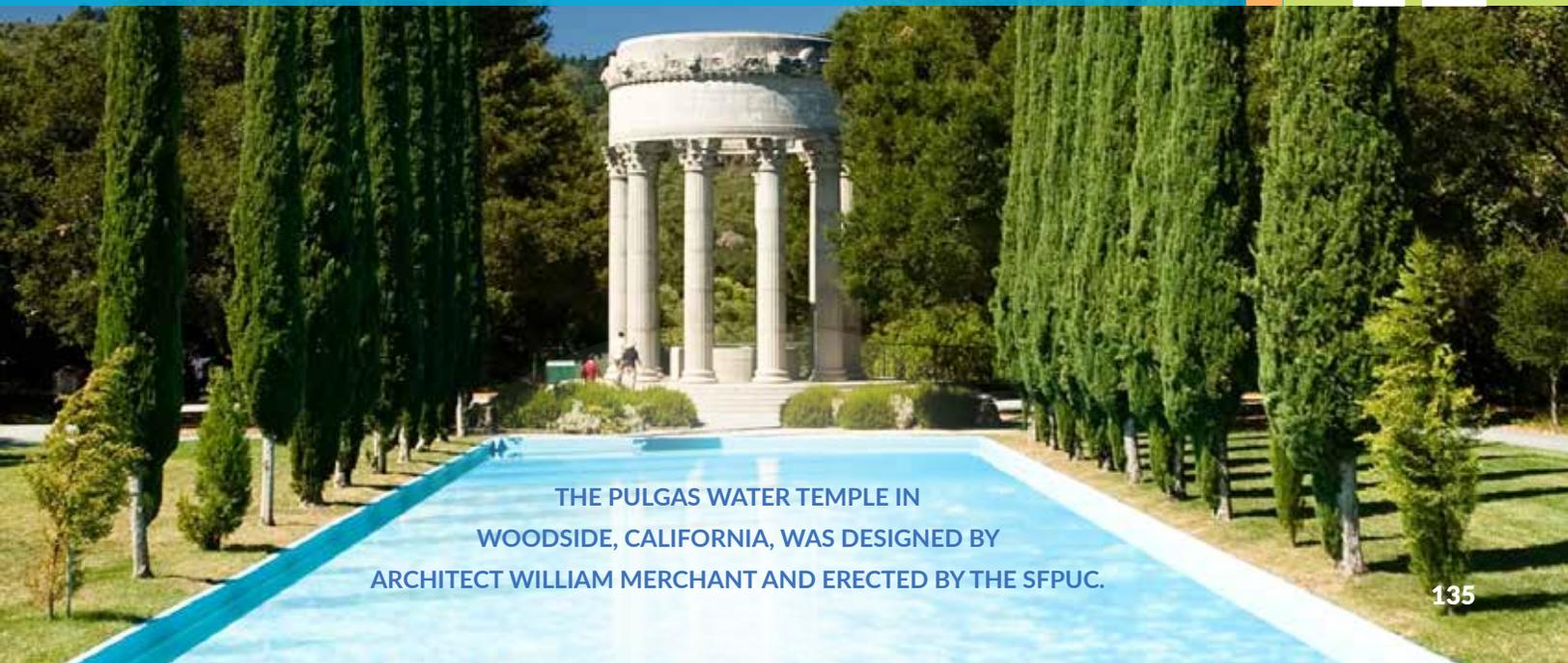
BUREAUS BUDGET SUMMARY (Excluding Infrastructure Division)

	FY 2019-20 Adopted Budget	FY 2020-21 Adopted Budget	Change From FY 2019-20	FY 2021-22 Adopted Budget	Change From FY 2020-21
Total Budget	99,218,451	110,092,780	10,874,329	113,464,950	3,372,170
Total FTE	387.4	399.0	11.6	410.3	11.4

INFRASTRUCTURE BUDGET SUMMARY

	FY 2019-20 Adopted Budget	FY 2020-21 Adopted Budget	Change From FY 2019-20	FY 2021-22 Adopted Budget	Change From FY 2020-21
Total Budget	34,464,534	85,851,055	87,489,479	1,638,424	88,357,374
Total FTE	387.98	384.82	(3.16)	384.82	-

12



THE PULGAS WATER TEMPLE IN WOODSIDE, CALIFORNIA, WAS DESIGNED BY ARCHITECT WILLIAM MERCHANT AND ERECTED BY THE SFPUC.

funded through an allocation model that allocates costs of services to the three Enterprises and CleanPowerSF. In addition, the Infrastructure division manages the planning, design and construction of SFPUC capital programs, as well as the renewal and replacement of the Water, Wastewater and Power Enterprise facilities. The mission of Infrastructure is to provide high quality and cost-effective services in an environmentally sensitive manner, while at the same time meeting or exceeding customer and stakeholder expectations. Infrastructure is funded through the Capital Budget.

SERVICES AND DIVISIONS

Office of the General Manager

The General Manager's Division provides centralized oversight of all the Enterprises and Bureaus, as well as the governing activities of the Commission. The General Manager of the SFPUC oversees the entire agency and the functions of the Office of the General Manager support the General Manager in key oversight areas.

Human Resource Services

Human Resource Services recruits, compensates, supports and retains a diverse and highly qualified workforce, and serves the SFPUC Enterprises and Bureaus in an efficient, responsive, and professional manner. The promotion of health, safety, workforce planning, and professional development for all SFPUC employees is critical to the SFPUC mission and Human Resource Services' functions.

Real Estate Services

Real Estate Division manages the real estate assets of each of the enterprises, which includes negotiating leases and licenses and earning a commercial return on properties where practical; assisting in the development of policies and procedures relating to property use and asset management; and managing the financial and legal obligations of tenants and licensees.

Emergency Planning

The Emergency Planning and Security Division develops plans and manages contracts for securing the various facilities and properties owned and occupied by the SFPUC enterprises and bureaus.

Business Services

Business Services is led by the Assistant General Manager (AGM) for Business Services and Chief Financial Officer. Business Services supports the Water, Power and Wastewater Enterprises to achieve operational efficiency, industry-leading customer service and sound financial performance.

Business Services Administration

Business Services Administration provides overall administrative support and oversight within Business Services, as well as to the three Enterprises and other Bureaus.

Strategy, Innovation and Change (SIC)

Strategy, Innovation and Change (SIC) was created in 2019 to provide support to all Business Services Bureaus in their pursuit of the following goals: 1) deliver excellent customer service, 2) ensure impeccable stewardship of resources, 3) promote long-term financial sustainability, and 4) cultivate a culture of excellence. SIC programs and initiatives include:

- Strategic and business planning
- Performance management
- Project leadership and change management for service improvements
- Identification of opportunities for efficiencies and innovation
- Strategy, Innovation and Change (SIC) also provides leadership and support for initiatives that have a widespread impact on agency operations. This includes:
 - Transformation projects (system, policy or process changes)
 - Risk management
 - Emergency management and cost recovery

Customer Services

Customer Services is responsible for the billing and collection of utility services and is the primary point of contact for water and wastewater customers. Customer Services maintains over 175,000 water and wastewater service accounts, over 3,700 municipal and retail electric service accounts, and approximately 450 land-lease accounts totaling over \$1 billion in annual revenue. Customer Services is also responsible for meter reading and field investigations, as well as responding to over 200,000 customer inquiries, complaints and requests for services annually.

Customer Services is comprised of five units all of which are dependent on one or more of the other units to effectively fulfill their respective roles. The five units are:

- Administration
- Business Center
- Customer Accounts
- Customer Contact Center
- Field Services

Financial Services, including Fleet Management

Financial Services supports the SFPUC Enterprises and Bureaus, ensuring financial stewardship and oversight for ratepayer assets, and includes Fleet Management & Operations which is responsible for the establishment, implementation, and maintenance of policies and procedures governing SFPUC-owned vehicles. Financial Services includes accounting operations, asset management, audit oversight, reconciliation, budget management, debt management, financial reporting and analysis, purchasing support, and rates administration. Financial Services central mission is to accurately communicate the financial position of the SFPUC to rate payers, City departments, rating agencies, investors and other stakeholders.

Information Technology Services (ITS)

Information Technology Services (ITS) partners with the SFPUC Enterprises, Divisions and Bureaus, reliably supports the SFPUC's information technology, and delivers innovative solutions which enable the SFPUC to achieve its mission.

External Affairs

SFPUC External Affairs division is led by the AGM for External Affairs and is comprised of three sections: Communications, Legislative Affairs, and Community Benefits. The divisions within this Bureau track and coordinate legislation, perform public outreach and media relations, educate and communicate, and coordinate SFPUC community benefits activities. These activities support the SFPUC's mission to provide its customers with high quality, efficient, and reliable water, power, and wastewater services in a manner that values environmental and community interests.

Communications

Communications oversees the SFPUC's communications, education, media and outreach functions; provides a full range of communication services to all of the Enterprises and Bureaus of SFPUC and oversees SFPUC publications; develops community understanding and

support for Water, Power and Wastewater Enterprise projects; coordinates community outreach for capital improvement projects, hosts special community and media events, develops background collateral materials for SFPUC projects and programs, handles press and media inquiries, conducts surveys, and serves as the content manager for www.sfwater.org, the SFPUC website; and promotes diversity and the health, safety, and professional development of its employees.

Legislative Affairs

Governmental Affairs oversees the SFPUC's legislative affairs and advocacy functions; manages the SFPUC's relationship with key stakeholders; provides a full range of legislative services to the Enterprises and Bureaus of the SFPUC; directs SFPUC activities associated with local, regional, State and Federal government; secures approvals and community support for all Water, Power and Wastewater Enterprise projects; plans for the continued service of reliable, high quality water to San Francisco and its customers, and for the continued collection, treatment, and discharge and reuse of wastewater for San Francisco in compliance with current and anticipated laws and regulations; and promotes diversity and the health, safety, and professional development of its employees.

Community Benefits

Community Benefits coordinates and implements SFPUC community benefits programs and policies, environmental justice and land use policies, and jobs, workforce, and economic development policies. Community Benefits was created in FY 2011-12 to engage communities where the SFPUC program and facilities are located and be a focal point within the SFPUC for the City and County of San Francisco community programs.

Infrastructure

Infrastructure manages the planning, design and construction of SFPUC capital programs, as well as the renewal and replacement of the Water, Wastewater and Power Enterprise facilities. The mission of Infrastructure is to provide high quality and cost-effective services in an environmentally sensitive manner, while at the same time meeting or exceeding customer and stakeholder expectations.

Infrastructure is led by the AGM of Infrastructure, and is supported by the Capital Program Directors, Project Controls, and Resource Management, and by the Project, Construction, Engineering, Environmental Management and Project Administration bureaus.

SFPUC COMMUNITY BENEFITS PROGRAM

The Community Benefits Program focuses on workforce development, small business opportunities, neighborhood partnerships, environmental justice & land use, education, and art. SFPUC has shared its good neighbor approach with other communities, government agencies, and utilities around the country.

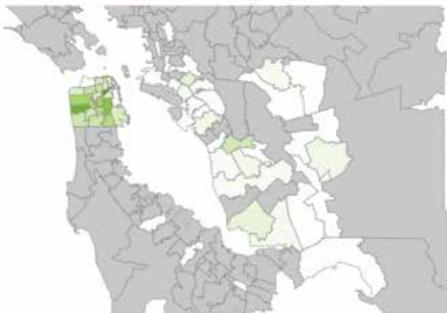
The San Francisco Public Utilities Commission's Community Benefits and Social Impact Partnership teams work hard to ensure that communities near our operations and projects benefit from our presence in their neighborhoods. Major projects funded in this budget include:

- Emergency Bill Relief outreach work targeted to high-risk communities.
- Continuing work on the groundbreaking new community center in Bayview/Hunter's Point which aims to more deeply fulfill SFPUC promises to communities surrounding our Southeast Treatment Plant. As the Southeast Community Facility team gears up for a 2022 grand opening, the agency is hard at work ensuring that the operations and programming for the new center meets community needs.
- The Kinder to Career program (in partnership with SFUSD) which aims to engage with San Francisco youth during their education, from kinder to career, beginning with initial elementary classroom presentations and field trips and culminating in job shadowing and paid internships for high school and college students considering their future careers.
- The Project Learning Partnership Grant Program, which aims to increase career exposure and readiness opportunities for utility careers for young people in San Francisco.
- The Arts and Education Team is producing an educational film about our water system called "Tales from the Tap."
- In partnership with Mayor London N. Breed, Supervisor Shamann Walton and the Office of Economic and Workforce Development (OEWD) a new \$500,000 grant program to support small, locally owned businesses in the Bayview neighborhood. The grant program, called the Phoenix Fund, aims to support entrepreneurs impacted by the coronavirus outbreak.

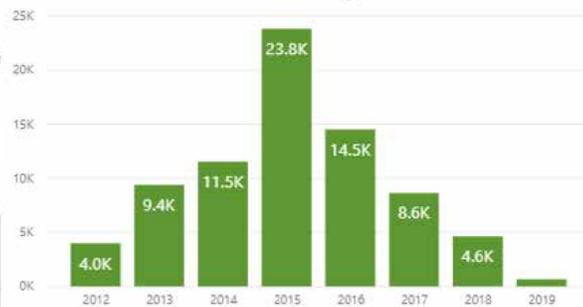


Education Programs

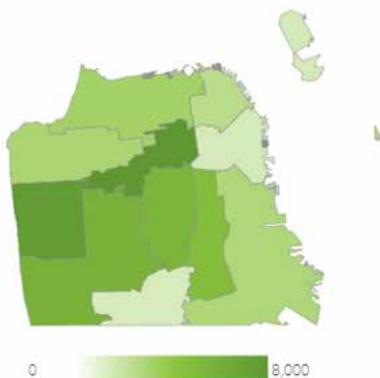
Youth Served by Zipcode



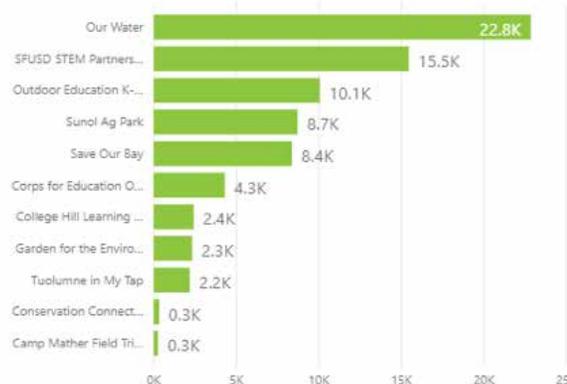
Youth Served by Year



Youth Served by District (SF)

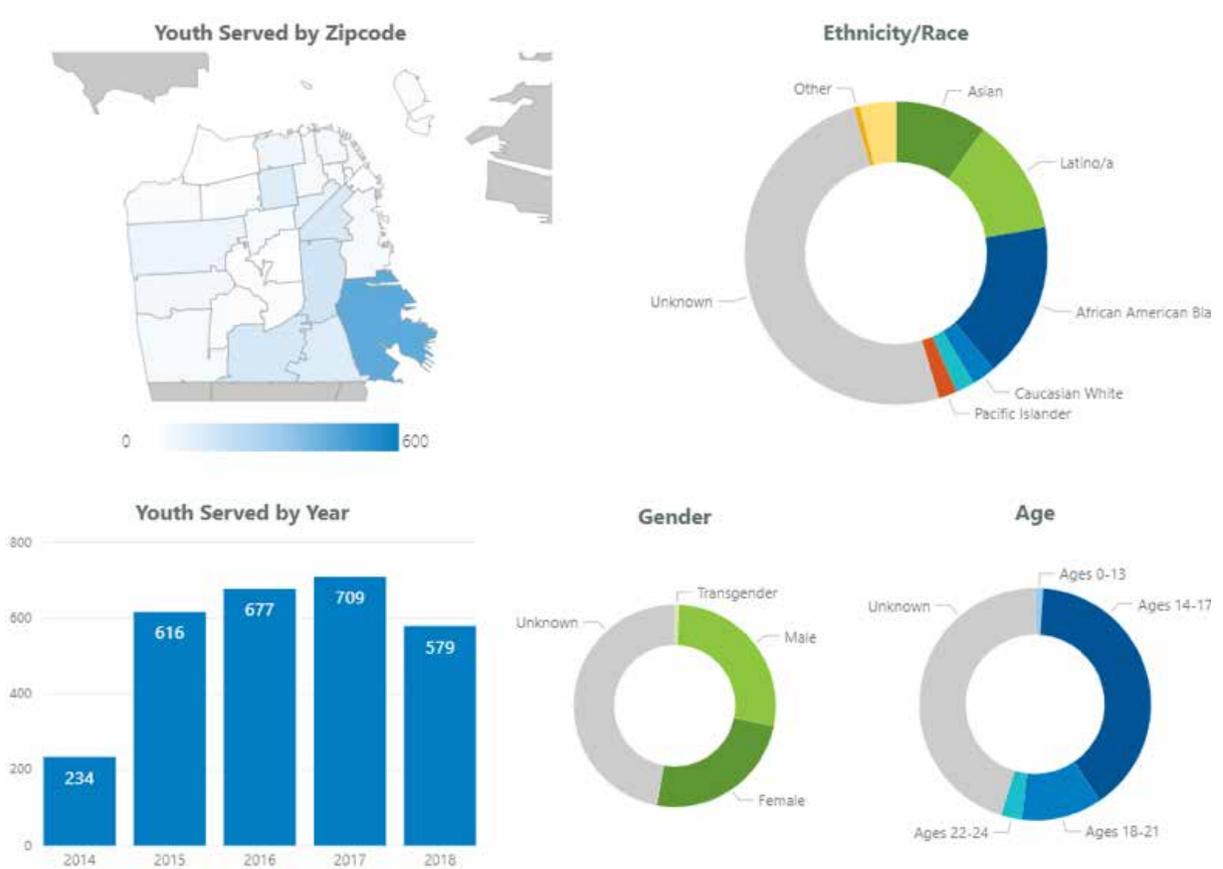


Youth Served by Program





Project Learning Grant Partnership Program



Land Use Programs

Impervious Surface Removed

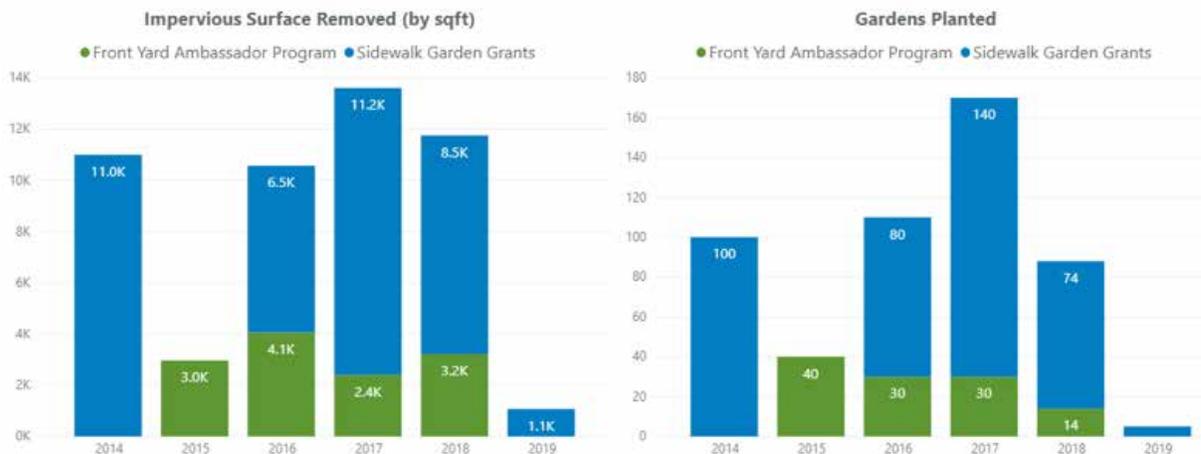
51K
sqft

Gardens Planted

513

Stormwater Diverted

612K
Gallons



GOALS AND OBJECTIVES

As noted in the Financial Planning and Policies section, the SFPUC previously adopted a strategic plan to identify key priorities for the organization and serve as a roadmap through 2020 to ensure that the SFPUC meets the challenges ahead and continues to deliver reliable water, power, and sewer services. The five year cycle would dictate a new strategic plan to begin in 2021, but given the current climate, the SFPUC is moving forward with revising its current plan to meet the needs of today and align with new priorities outlined as a result of challenges in 2020.

The 2020 strategic plan goals include:

- Reliable Service and Assets

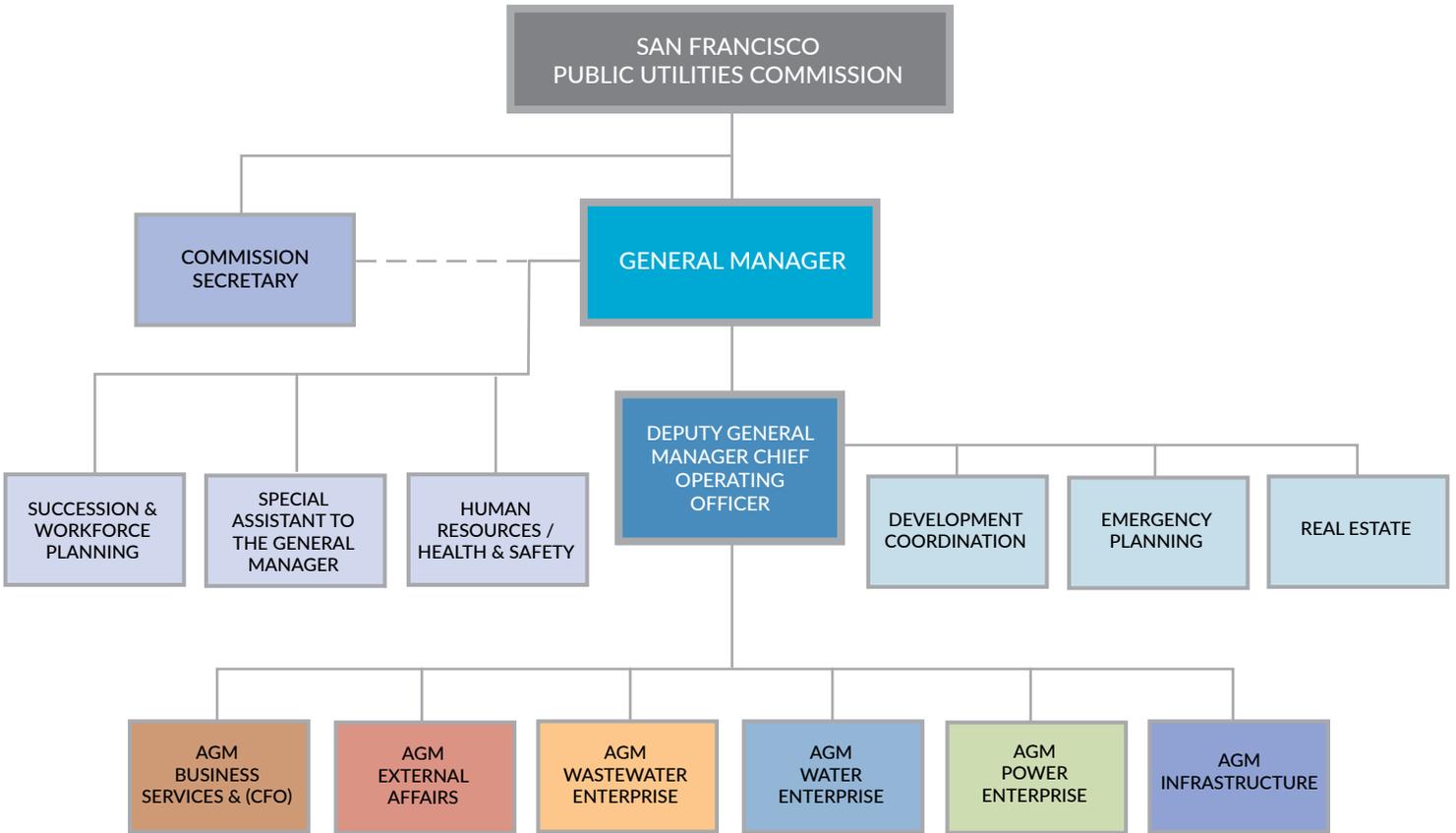
- Organizational Excellence
- Stakeholder and Community Interests
- Environmental Stewardship
- Effective Workforce
- Financial Sustainability

As part of the strategic plan goals, each Enterprise is responsible for meeting specific objectives and performance targets. Each year progress on those performance measures are reported to the Controller and Mayor. Reported performance for FY 2019-20 for the SFPUC Bureaus and agency-wide goals are as follows:

Goal Area	Performance Measure	Target	FY2019-20 Actuals
Organizational Excellence	Percent of actual/planned goals from the IT Strategic Plan, as taken at the end of the fiscal year	Greater than or equal to 80%	89%
Organizational Excellence	Single rating for SFPUC as a whole on meeting attendance of Health and Safety (H&S) committees agency-wide	Meeting target at 80%. If less than 80% then not meeting target	98%
Effective Workforce	Annual Performance Appraisal Compliance	55%	54%
Effective Workforce	Average Number of Learners in Instructor-led Trainings	8	11.17
Effective Workforce	Diversity & Inclusion Function Maturity	.7	.7
Effective Workforce	Number of Completed Online Trainings	2734	6672
Effective Workforce	Number of Instructor-led Trainings held	7336	433
Effective Workforce	Number of John O'Connell Work-based Learning Placements with the SFPUC or Firm Partners	5	5
Effective Workforce	Number of Offboarding Events	373	281
Effective Workforce	Number of Onboarding Events	611	499
Effective Workforce	Number of Promotions	251	184
Effective Workforce	Number of Recruitments	80	60
Effective Workforce	Number of Unique Users of Recognition Tools	400	313
Effective Workforce	People Analytics Function Maturity	.22	0.22
Effective Workforce	Percent of Completed Occupational Competency Models	26%	23%
Effective Workforce	Percent of HRS competency-based recruitments	55%	43%
Effective Workforce	Staff Turnover	9.4%	8.6%
Effective Workforce	Time to Hire	150 average days to hire	178
Effective Workforce	Workforce Planning Function Maturity	0.9	0.8
Stakeholder and Community Interest	Average number of likes and comments generated on each post shared on SFWater Instagram	3,094	29.75
Stakeholder and Community Interest	Average number of likes, retweets, and comments generated on each post shared on CleanPowerSF Twitter	1,400	5
Stakeholder and Community Interest	Average number of likes, retweets, and comments generated on each post shared on SFWater Twitter	9,646	15.29

Goal Area	Performance Measure	Target	FY2019-20 Actuals
Stakeholder and Community Interest	Average number of likes, shares, and comments generated on each post shared on SFWater Facebook	13,098	14.71
Stakeholder and Community Interest	Average number of likes, shares, and comments generated on each post shared on SFWater LinkedIn	4,886	31.79
Stakeholder and Community Interest	Average number of reactions and comments generated on each post shared on SFWater Nextdoor	2,874	15.78
Stakeholder and Community Interest	Number of adults and children who have participated in transformative engagement through SFPUC sponsored education programs.	Greater than or equal to 4000	3381
Stakeholder and Community Interest	Number of errors per 1,000 Hetch Hetchy Power Bills	Less than 10 bills per 10,000 bills OR Less than 1 bill per 1,000 bills	2 bill errors per 1,000 completed Hetch Hetchy Power bills
Stakeholder and Community Interest	Number of errors per 10,000 combined Water and Wastewater Bills	Less than 10 bills per 10,000 bills OR Less than 1 bill per 1,000 bills	15 bill errors per 10,000 completed Water and Wastewater bills
Stakeholder and Community Interest	Percent of eligible households enrolled in Community Assistance Program (CAP).	1) Greater than or equal to 4.62% OR 2) Greater than or equal to 1,200	4.32%
Stakeholder and Community Interest	Percent of employees who participated in the Employee Engagement Survey	Greater than or equal to 70%	55.6%
Stakeholder and Community Interest	Percent of managers who completed at least one engagement action	Greater than or equal to 80%	28.1% (130/462)
Stakeholder and Community Interest	Percent of managers who created at least one engagement action plan	Greater than or equal to 80%	39.8% (184/462)
Stakeholder and Community Interest	Percent of retail customers rating the SFPUC as "good" or better on a customer survey.	Greater than or equal to 90%	89%
Stakeholder and Community Interest	Percentage of customer inquiry calls received via Customer Service Bureau Call Center answered within 20 seconds	80% of all calls will be answered within 20 seconds.	71%
Stakeholder and Community Interest	Percentage of customer inquiry emails received via Customer Service Bureau Call Center responded to within 2 business days	95% of emails receive a customized response within 2 business days of receipt	89%

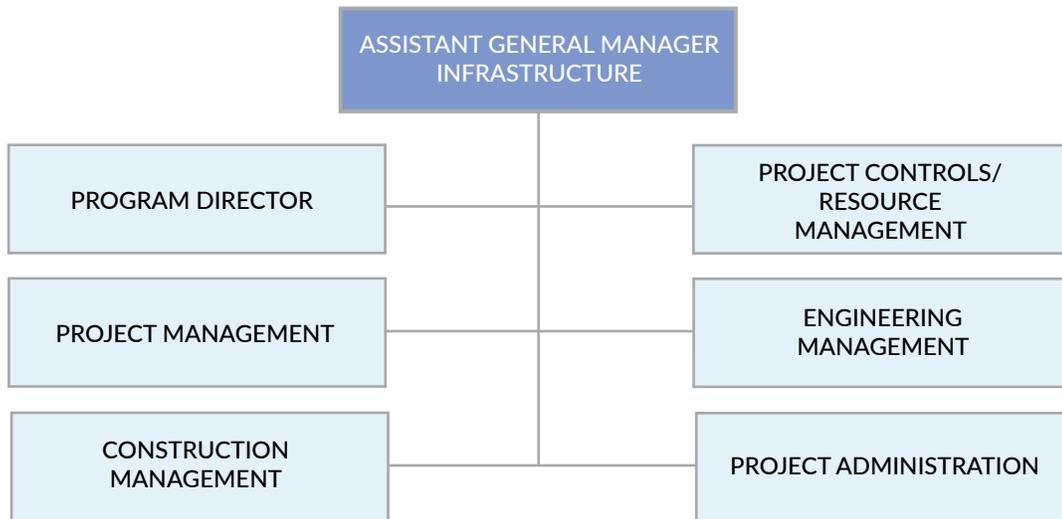
GENERAL MANAGER ORGANIZATION CHART



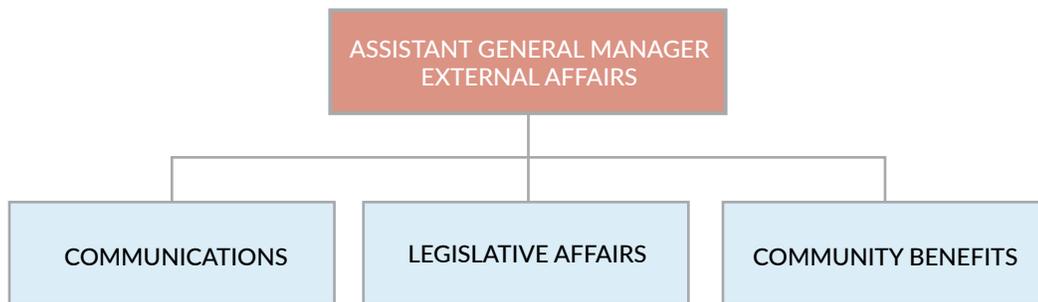
BUSINESS SERVICES ORGANIZATION CHART



INFRASTRUCTURE ORGANIZATION CHART



EXTERNAL AFFAIRS ORGANIZATION CHART



BUREAUS SOURCES

The SFPUC Bureaus are made of up of four divisions, the General Manager, External Affairs, Business Services, and Infrastructure. Due to the nature of Infrastructure operations, that division recovers its cost differently than the remaining three divisions.

The General Manager, External Affairs, and Business Services divisions provide general management, government affairs, customer service and accounting and finance services to the SFPUC agency, as a whole. Each quarter, the costs incurred by the three divisions are allocated out to Water, Wastewater, Hetch Hetchy Water & Power, and CleanPowerSF based on the bureau allocation model.

As the budgeted expenditures for the General Manager, External Affairs, and Business Services divisions are increasing over the two-year period, the corresponding

overhead allocation budget is increasing as well. The increase is approximately \$5.9 million, or 6.0 percent, from the prior year budget to FY 2020-21 and approximately \$3.8 million, or 3.6 percent, from FY 2020-21 to FY 2021-22.

The Infrastructure division provides project management services to the SFPUC Enterprises and is funded through cost recovery from SFPUC capital projects. As costs are incurred by the division, they are allocated out to capital projects based on the overhead allocation model. Total expenditures budgeted for Infrastructure increased slightly year over year, and as such the overhead recovery increased as well. The increase is approximately \$1.8 million, or 2.1 percent, from the prior year budget to FY 2020-21 and approximately \$0.7 million, or 0.8 percent, from FY 2020-21 to FY 2021-22.

BUREAUS EXPENDITURES

The Bureaus' Budget Summary rolls up the budget by expenditure category for the three Bureaus: Office of General Manager, Business Services and External Affairs. The three bureaus are funded by the Enterprise departments through an overhead allocation model. The Bureaus' budget increased by 10.9 percent from FY 2019-20 to FY 2020-21, and 3.2 percent from FY 2020-21 to FY 2021-22. The key driver of cost increases in FY 2020-21 is Salaries, Fringe Benefits, and Non-Personnel Services, offset by decreases to Services of Other Departments. In FY 2021-22, the driver is an increase to Salaries, and Fringe Benefits spending partially offset by a decrease to Non-Personnel Services. The Infrastructure bureau is funded through capital projects and, as such, is presented separately.

Office of the General Manager

The FY 2020-21 Office of the General Manager budget is \$31.2 million, a \$2.7 million, or 9.6 percent, increase from FY 2019-20. The major change from the FY 2019-20 budget is support for a facilities master plan and realigning Human Resources (HRS) to support internal and external demands for HRS core functions including hiring, while addressing modern workforce and culture needs.

The FY 2021-22 Office of the General Manager budget is \$34.2 million, a 9.6 percent increase from FY 2020-21. The major change from FY 2020-21 mainly reflects additional funding for HRS and support for Emergency Planning and Security.

Authorized and Funded Full-Time Equivalent (FTEs)

The General Manager authorized and funded full-time equivalent (FTE) positions for FY 2020-21 is 98.93 FTEs, an increase of 7.16 FTEs from 2019-20, mainly from staff support for Emergency Planning and Security and HRS. Similarly, for FY 2021-22, there was additional support for Emergency Planning and Security and HRS for a net increase of 9.08 FTEs.

Business Services

The FY 2020-21 Business Services budget is \$71.4 million, a \$7.8 million or 12.2 percent increase from the prior year. Major changes from the FY 2019-20 budget include upgrades to Fiber WAN/Internet to expand bandwidth and increased support for PUC's Cybersecurity team.

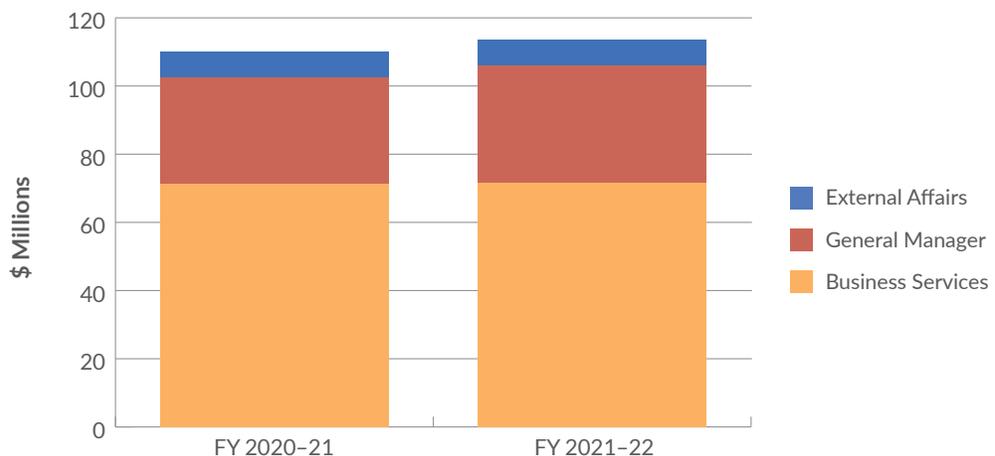
The FY 2021-22 Business Services budget is \$71.7 million, a \$0.3 million, or 0.4 percent, increase from the prior year. The major change from the FY 2020-21 budget is the addition of staff to support the electric billing system, improved Accounting operations and increasing overall bandwidth to support all functions and services within the PUC.

Also shown in the Business Services budget is approximately \$4.5 million in both years relating to COWCAP overhead. This is the City and County of San Francisco's Countywide Cost Allocation Plan. The SFPUC is a department of the City and County of San Francisco. The purpose of the COWCAP is to allocate central City service costs to benefiting departments on a fair and equitable basis. Central service departments provide necessary support services to benefiting departments. Examples of central service departments are Payroll, Health Services, Human Resources, and Purchasing.

Authorized and Funded Full-Time Equivalent (FTEs)

Business Services authorized and funded full-time equivalent (FTE) positions for FY 2020-21 is 258.99 FTEs, an overall decrease of 0.62 FTEs from 2019-20, mainly from staff support for Financial Operations, offset by adjustments to salary savings. For FY 2021-22, there was an increase of 1.75 FTEs, due to staff support for PUC's Electric Billing System and for Financial Operations.

CHART 12.1 >
Bureaus
Expenditure
by Division.



External Affairs

The FY 2020-21 External Affairs budget is \$7.5 million, a \$0.4 million, or 5.2 percent, increase from FY 2019-20. The major change from the FY 2019-20 budget reflects changes in fringe benefits.

The FY 2021-22 External Affairs budget is \$7.6 million,

a 1.1 percent increase from FY 2020-21. The major change from FY 2020-21 changes in fringe benefits.

Community Benefits programs are managed by the External Affairs Team, however, are budgeted in the Enterprises Programmatic Projects. These projects represent an additional \$7.4 million over the two budget years.

BUREAUS AUTHORIZED AND FUNDED FULL-TIME EQUIVALENTS (FTES) (EXCLUDING INFRASTRUCTURE)

Position Type	FY 2019-20 Adopted Budget	FY 2020-21 Adopted Budget	Change From FY 2019-20	FY 2021-22 Adopted Budget	Change From FY 2020-21
Permanent Positions	352.45	360.07	7.62	369.40	9.33
Temporary Positions	17.90	18.34	0.44	19.15	0.81
Subtotal Operating-Funded	370.35	378.41	8.06	388.55	10.14
Project-Funded	17.00	20.54	3.54	21.77	1.23
Total Funded Positions	387.35	398.95	11.60	410.32	11.37
Unfunded Positions (Attrition)	24.55	25.09	0.54	25.30	0.21
Total Bureaus	411.90	424.04	12.14	435.62	11.58
GENERAL MANAGER					
Permanent Positions	77.46	83.19	5.73	91.07	7.88
Temporary Positions	8.31	7.97	(0.34)	8.17	0.20
Subtotal Operating-Funded	85.77	91.16	5.39	99.24	8.08
Project-Funded	6.00	7.77	1.77	8.77	1.00
Total Funded Positions	91.77	98.93	7.16	108.01	9.08
Unfunded Positions (Attrition)	4.54	5.20	0.66	5.09	(0.11)
Total General Manager	96.31	104.13	7.82	113.10	8.97
BUSINESS SERVICES					
Permanent Positions	247.36	247.77	0.41	249.22	1.45
Temporary Positions	5.25	5.22	(0.03)	5.52	0.30
Subtotal Operating-Funded	252.61	252.99	0.38	254.74	1.75
Project-Funded	7.00	6.00	(1.00)	6.00	-
Total Funded Positions	259.61	258.99	(0.62)	260.74	1.75
Unfunded Positions (Attrition)	16.64	18.00	1.36	18.32	0.32
Total Business Services	276.25	276.99	0.74	279.06	2.07
EXTERNAL AFFAIRS					
Permanent Positions	27.63	29.11	1.48	29.11	-
Temporary Positions	4.34	5.15	0.81	5.46	0.31
Subtotal Operating-Funded	31.97	34.26	2.29	34.57	0.31
Project-Funded	4.00	6.77	2.77	7.00	0.23
Total Funded Positions	35.97	41.03	5.06	41.57	0.54
Unfunded Positions (Attrition)	3.37	1.89	(1.48)	1.89	-
Total External Affairs	39.34	42.92	3.58	43.46	0.54

Authorized and Funded Full-Time Equivalents (FTEs)

External Affairs authorized and funded full-time equivalent (FTE) positions for FY 2020-21 is 41.03 FTEs, an overall increase of 5.06 FTEs from 2019-20, reflecting a new position to support process improvements, position reassignments from within SFPUC and adjustments to salary savings. For FY 2021-22, there was an increase of 0.54 FTEs, mainly due to adjustments to salary savings.

Infrastructure

Infrastructure manages the planning, design and construction of SFPUC’s capital programs, as well as the renewal and replacement of the Water, Wastewater and Power Enterprise facilities. The Infrastructure budget is funded by SFPUC’s capital programs. The FY 2020-21 Infrastructure budget is \$87.5 million, an increase of \$1.6 million, or 1.9 percent, and the FY 2021-22 budget is \$88.4 million, an increase of \$0.9 million, or 1.0 percent. The net increase from FY 2019-20 is mainly driven by fringe benefit costs. There were no other major changes to Infrastructure’s FY 2020-21 and FY 2021-22 adopted budget.

Authorized and Funded Full-Time Equivalents (FTEs)

Infrastructure’s authorized and funded full-time equivalent (FTE) positions are funded through SFPUC’s capital programs. The total positions for FY 2020-21 and FY 2021-22 are 380.91 FTEs, a 3.08 FTE decrease from FY 2019-20 or (0.8 percent). The decrease reflects three positions that were reassigned to the other departments within the SFPUC Bureaus, including Human Resource Services and External Affairs.

Bureaus New Initiatives

Facilities Planning: \$0.4 million to develop a facilities master plan, encompassing all SFPUC facilities, while

directing and monitoring all expenditures, managing preventative maintenance programs, determining staffing needs and making final recommendations on policy operations and administrative procedures. In addition, funding is included to provide emergency planning and security services for all SFPUC facilities, such as the development of training exercises for staff, while supporting City response to local disasters and emergencies.

Realigning Human Resource Services: \$0.7

million to improve processes, communications, and transparency, while developing and maintaining strategic partnerships for the future. In addition, HRS will benefit from increased data analytics resulting in a more engaged and resilient workforce. Staff support will better enable HRS to meet basic hiring, employee relations, Equal Employment Opportunity (EEO) programs demand, as well as position PUC to handle modern workforce needs.

Enterprise Workforce Planning (EWP) Expansion

\$0.2 million enables EWP to support the SFPUC 2020 Strategic plan and SFPUC’s ability to have the talent to provide critical services in the future. Its objectives include the implementation of competency models agency-wide, while conducting sensitive analytical work related to diversification, equity and inclusion, workforce planning and other talent management initiatives.

Fiber/WAN Expansion and Cybersecurity: funding of \$1.8 million to expand SFPUC’s LAN/WAN bandwidth enabling departments to fully utilize a cloud deployment strategy for all SFPUC major sites in San Francisco, the Peninsula and Sunol to connect at a very high speed directly between each other and to the internet. Additional funding supports SFPUC’s Cybersecurity team and its core functions related to security assessments, cloud data protection services, cyber attack recovery and data protection in Office 365.

INFRASTRUCTURE AUTHORIZED AND FUNDED FULL-TIME EQUIVALENTS (FTES)

Position Type	FY 2019-20 Adopted Budget	FY 2020-21 Adopted Budget	Change From FY 2019-20	FY 2021-22 Adopted Budget	Change From FY 2020-21
Permanent Positions	380.00	377.00	(3.00)	377.00	-
Temporary Positions	3.99	3.91	(0.08)	3.91	-
Subtotal Operating-Funded	383.99	380.91	(3.08)	380.91	-

CHART 12.2 >
Bureaus Uses
FY 2020-21

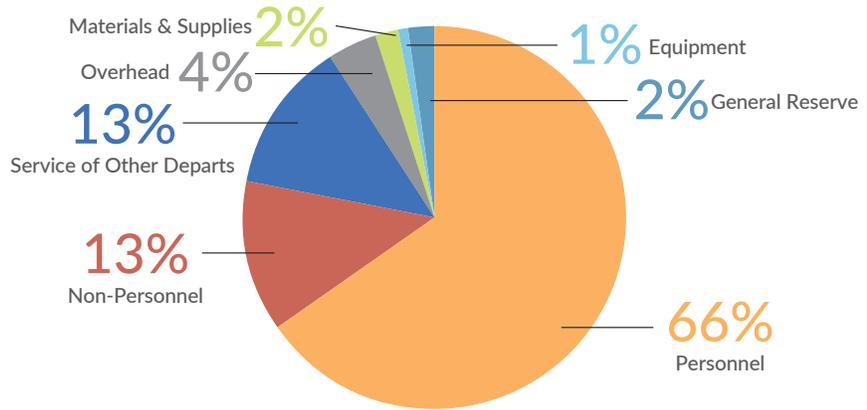


CHART 12.3 >
Bureaus Uses
FY 2021-22

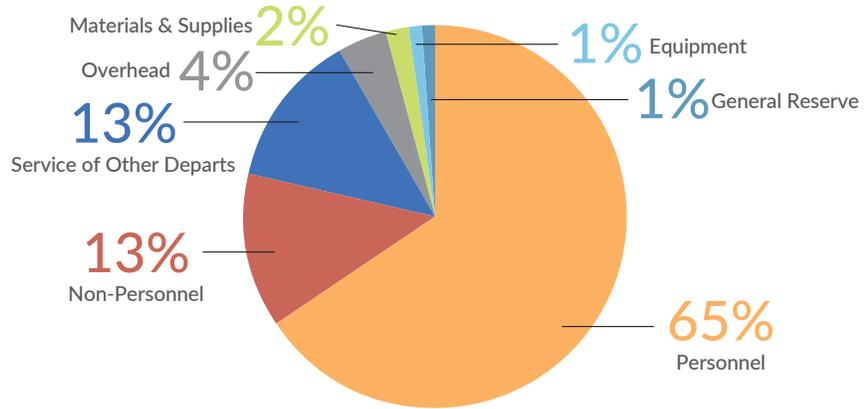


CHART 12.4 >
Infrastructure
Uses FY 2020-21

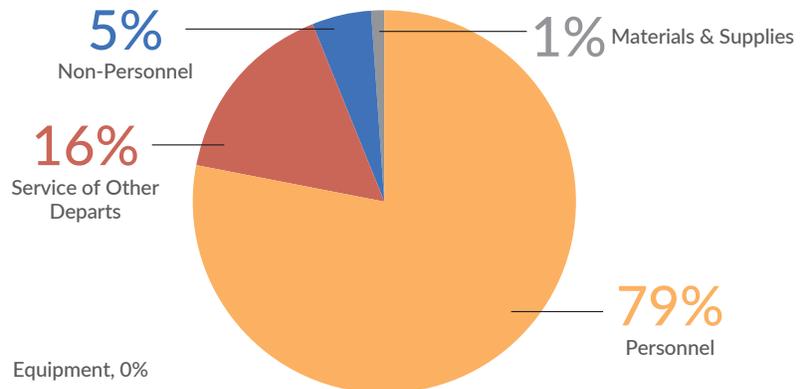
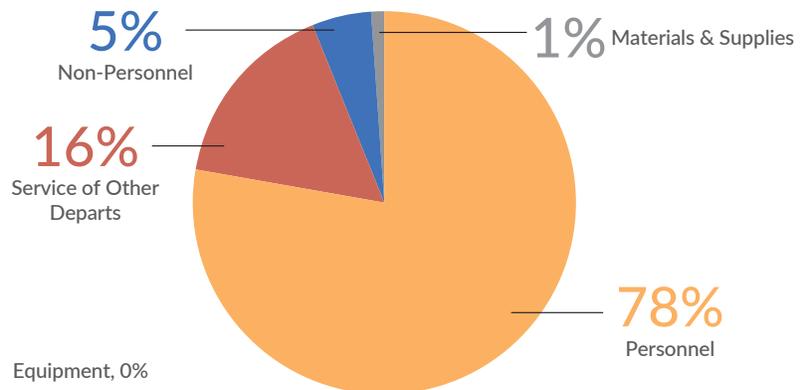


CHART 12.5 >
Infrastructure
Uses FY 2021-22



BUREAUS BUDGET SUMMARY (EXCLUDING INFRASTRUCTURE)

\$ Millions	FY 2019-20 Unaudited Actuals	FY 2019-20 Adopted Budget	FY 2020-21 Adopted Budget	Change From FY 2019-20	FY 2021-22 Adopted Budget	Change From FY 2020-21
USES OF FUNDS						
Personnel	65,412,842	68,729,083	71,990,852	3,261,769	74,530,791	2,539,939
Overhead	-	-	4,506,842	4,506,842	4,506,842	-
Non-Personnel	11,704,810	11,529,646	14,799,943	3,270,297	14,519,587	(280,356)
Materials & Supplies	2,273,558	2,056,628	1,887,222	(169,406)	1,984,199	96,977
Equipment	1,224,775	1,398,570	1,590,621	192,051	1,521,707	(68,914)
Service of Other Departs	11,818,041	15,504,524	14,737,177	(767,347)	14,715,282	(21,895)
General Reserve	-	-	580,123	580,123	1,686,542	1,106,419
Total Uses of Funds	92,434,026	99,218,451	110,092,780	10,874,329	113,464,950	3,372,170

GENERAL MANAGER BUDGET SUMMARY

USES OF FUNDS						
Personnel	-	19,193,335	21,156,164	1,962,829	22,938,767	1,782,603
Non-Personnel	-	1,969,932	2,539,056	569,124	2,578,123	39,067
Materials & Supplies	-	234,574	188,549	(46,025)	223,473	34,924
Equipment	-	-	7,364	7,364	-	(7,364)
Service of Other Departs	-	7,050,793	6,704,221	(346,572)	6,742,355	38,134
General Reserve	-	-	580,123	580,123	1,686,542	1,106,419
Total Uses of Funds	-	28,448,634	31,175,477	2,726,843	34,169,260	2,993,783

BUSINESS SERVICES BUDGET SUMMARY

USES OF FUNDS						
Personnel	-	43,840,349	44,791,199	950,850	45,467,141	675,942
Overhead	-	-	4,506,842	4,506,842	4,506,842	-
Non-Personnel	-	8,249,636	10,951,612	2,701,976	10,633,535	(318,077)
Materials & Supplies	-	1,748,411	1,624,518	(123,893)	1,686,571	62,053
Equipment	-	1,398,570	1,583,257	184,687	1,521,707	(61,550)
Service of Other Departs	-	8,393,731	7,952,956	(440,775)	7,892,927	(60,029)
Total Uses of Funds	-	63,630,697	71,410,384	7,779,687	71,708,723	298,339

EXTERNAL AFFAIRS BUDGET SUMMARY

USES OF FUNDS						
Personnel	-	5,695,399	6,043,489	348,090	6,124,883	81,394
Non-Personnel	-	1,310,078	1,309,275	(803)	1,307,929	(1,346)
Materials & Supplies	-	73,643	74,155	512	74,155	-
Service of Other Departs	-	60,000	80,000	20,000	80,000	-
Total Uses of Funds	-	7,139,120	7,506,919	367,799	7,586,967	80,048

INFRASTRUCTURE BUDGET SUMMARY

\$ Millions	FY 2019-20 Unaudited Actuals	FY 2019-20 Adopted Budget	FY 2020-21 Adopted Budget	Change From FY 2019-20	FY 2021-22 Adopted Budget	Change From FY 2020-21
USES OF FUNDS						
Personnel	20,622,375	67,595,690	68,980,580	1,384,890	69,283,508	302,928
Non-Personnel	3,468,474	4,478,718	4,257,593	(221,125)	4,553,681	296,088
Materials & Supplies	84,960	288,217	548,004	259,787	844,092	296,088
Equipment	-	-	65,515	65,515	-	(65,515)
Service of Other Departs	10,288,725	13,488,430	13,637,787	149,357	13,676,093	38,306
Total Uses of Funds	34,464,534	85,851,055	87,489,479	1,638,424	88,357,374	867,895

**Overhead not included*

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CITY AND COUNTY OF SAN FRANCISCO ECONOMY AND GENERAL INFORMATION

CITY GOVERNANCE AND STRUCTURE. The San Francisco Public Utilities Commission (SFPUC) is a department of the City and County of San Francisco.

The City and County of San Francisco (the City) was established by Charter in 1850 and is a legal subdivision of the State of California. It is the only consolidated city and county in the State, exercising the governmental powers of both a city and a county under California law. The City's governance structure, codified in the City Charter of 1996, is similar in form to the federal government. The Mayor's Office comprises the Executive branch, while the Board of Supervisors and Superior Court act as the Legislative and Judicial branches, respectively.

The Mayor and all 11 members of the Board of Supervisors serve four-year terms. Mayoral elections are held during odd-numbered years, while Board of Supervisors elections are held in even numbered years. Elections for the Board of Supervisors are staggered, with five or six seats being open each election. Supervisors serve four-year terms and any vacancies are filled by mayoral appointment. Both the Mayor and members of the Board of Supervisors are limited to two terms. Each of the City's 11 districts is represented by a member of the Board of Supervisors. Beginning in November 2000, the Board of Supervisors was elected by district for

Continued on next page...

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CIVIC CENTER IN SAN FRANCISCO, CONTAINS MANY OF THE CITY'S GOVERNMENT AND CULTURAL INSTITUTIONS, AND DESIGNATED A NATIONAL HISTORIC LANDMARK IN 1987.

the first time since the 1970s. The Mayor appoints the heads of most city departments. Many departments are also advised by commissions or boards whose members are citizens appointed by the Mayor or, in some cases, by a combination of the Mayor, the Board of Supervisors, and other elected officials. Elected officials include the Assessor-Recorder, City Attorney, District Attorney, Public Defender, Sheriff, Superior Court Judges, and Treasurer.

ELECTED OFFICIALS

Mayor London N. Breed

Board of Supervisors

Supervisor, District 1	Sandra Lee Fewer
Supervisor, District 2	Catherine Stefani
Supervisor, District 3	Aaron Peskin
Supervisor, District 4	Gordon Mar
Supervisor, District 5	Dean Preston
Supervisor, District 6	Matt Haney
President, District 7	Norman Yee
Supervisor, District 8	Rafael Mandelman
Supervisor, District 9	Hillary Ronen
Supervisor, District 10	Shamann Walton
Supervisor, District 11	Ahsha Safai

Assessor-Recorder	Carmen Chu
City Attorney	Dennis J. Herrera
District Attorney	Chesa Boudin
Public Defender	Mano Raju
Sheriff	Paul Miyamoto
Superior Courts Presiding Judge	Garrett L. Wong
Treasurer	José Cisneros

Appointed Officials

City Administrator	Naomi Kelly
Controller	Ben Rosenfield

DEMOGRAPHICS AND STRUCTURE

Incorporated on April 15th, 1850, San Francisco is the fourth largest city in the state of California and geographically the smallest county. Occupying just 49 square miles of land, the City is located on a peninsula bounded by the Pacific Ocean to the west, San Francisco Bay to the east, the entrance to the Bay and the Golden Gate to the north, and San Mateo County to the south.

While government has played a key role in San Francisco's development, the true wealth of the City resides in the creative and entrepreneurial spirit of its pioneering citizens. According to the latest estimates from the U.S. Census Bureau the City's population was

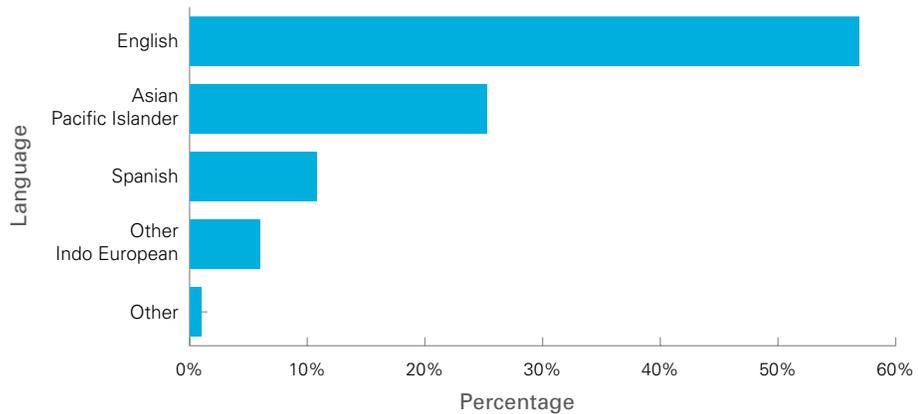
881,549 in 2019, a 0.1 percent increase from 2018. Between 2010 and 2019, the City added 76,044 new residents. San Francisco now has more residents than at any other time in its history.

International immigration has been and continues to be a major driver of San Francisco's cultural diversity. More than 36 percent of the City's population over the age of five was born outside of the United States, and about 43 percent speak a language other than English at home. Immigration and its legacy contribute to a sense of diversity in San Francisco and positions the City's future labor force for success in the global economy.

TOTAL POPULATION. >
Source: U.S. Census Bureau, Estimates of Resident Population.

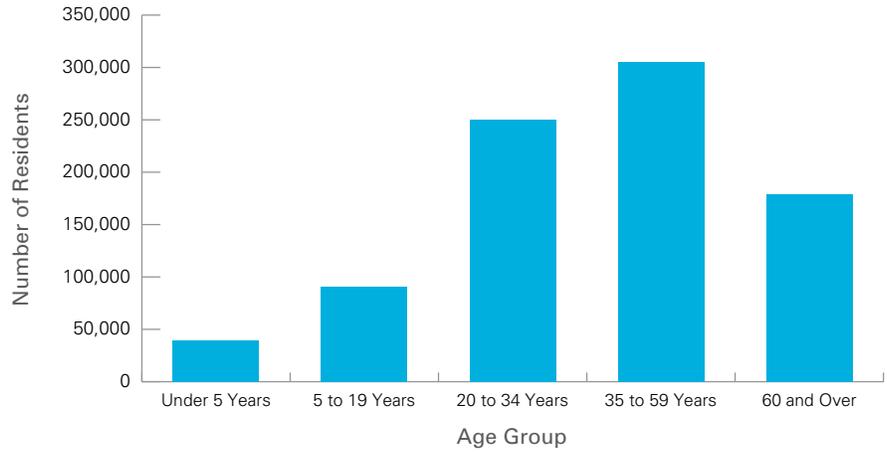


LANGUAGE SPOKEN AT HOME. >
Source: U.S. Census Bureau, 2014-2018 American Community Survey 5-year Estimates



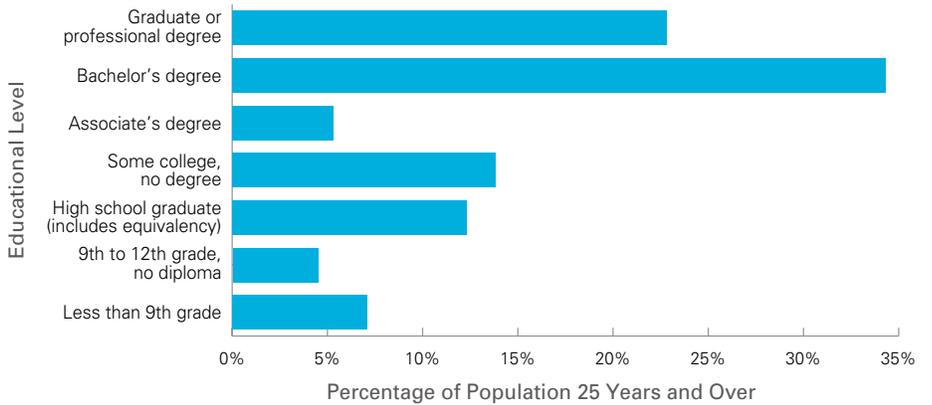
POPULATION BY AGE. >

Source: U.S. Census Bureau, 2014-2018 American Community Survey 5-year Estimates



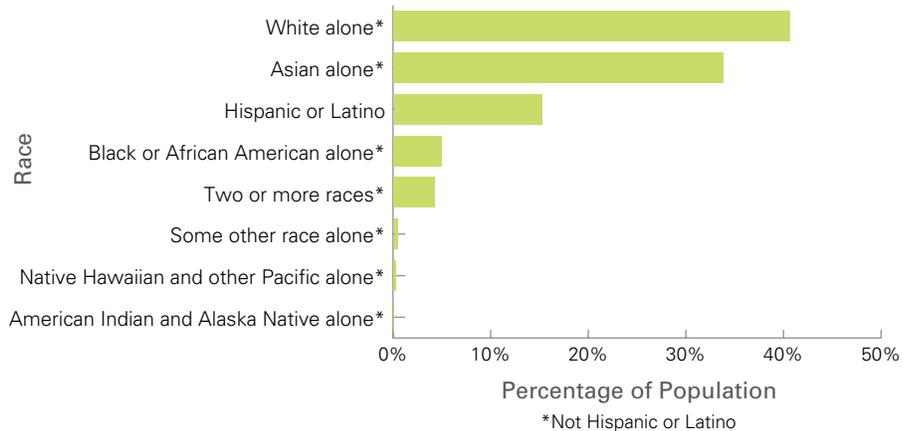
EDUCATIONAL ATTAINMENT. >

Source: U.S. Census Bureau, 2014-2018 American Community Survey 5-year Estimates.



RACE IDENTIFICATION. >

Source: U.S. Census Bureau, 2014-2018 American Community Survey 5-year Estimates.



LOCAL ECONOMY

San Francisco is at the center of a dynamic and innovative region that has a long track record of creating jobs and opportunities, lasting social and cultural impacts, and tools and ideas that are used worldwide. 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 technology, retail, entertainment and the arts, conventions and tourism, service businesses, banking, professional and financial services, corporate headquarters, international and wholesale trade, multimedia and advertising and higher education. While the COVID-19 emergency has led to a severe recession in the city, like elsewhere, San Francisco has fared better than many other places, and the long-term fundamentals of the city's economy remain strong. The strength of San Francisco's economy comes from a diverse portfolio of well-established industries and businesses, as well as emerging and growing sectors. In addition to being an economic center for advanced, knowledge-based services such as professional and financial services, information technology and digital media, and healthcare, San Francisco is pushing to develop new and innovative fields in civic-based and green technologies to help grow its manufacturing sector. In 2019, there were over 762,000 jobs in San Francisco—more than at any point in the City's history.

Though San Francisco has seen historically strong economic growth since the Great Recession, many San Franciscans have not experienced the benefits of the recovery, and some communities have felt left behind by the recent influx of wealth. To support disadvantaged populations and protect the middle class, the City is making significant investments into small business programs, neighborhood economic development, affordable housing, nonprofit sustainability, and workforce development. Each new initiative furthers the

goal of building an inclusive, equitable economy where every San Franciscan has the opportunity to live, work, and thrive in the city.

Leading the Regional and State Economy

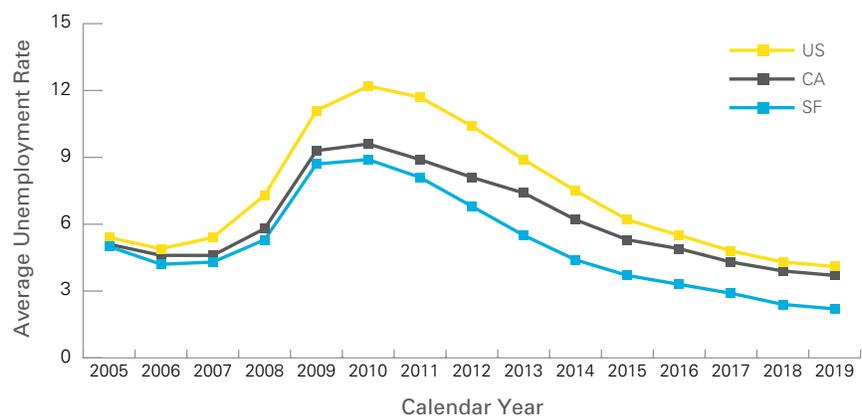
As recently as of March 2020, San Francisco was tied with Marin for the second-lowest unemployment rate (3.1 percent) among California's 58 counties. Since the COVID-19 shutdown, unemployment rate has spiked and reached 12.5 percent by June 2020.

County	June 2020 Unemployment Rate
Alameda County	13.50%
San Francisco County	12.50%
San Mateo County	10.80%
Santa Clara County	10.70%
Marin County	10.10%

Source: Bureau of Labor Statistics.

Tourism, cultural, and entertainment industries have been particularly badly hit. By June, hotel and restaurant employment had dropped by 40 percent in the San Francisco metro division (including San Mateo county) and performing arts had lost more than two-thirds of its employment in the two-county area. Prior to the COVID-19 shutdown, San Francisco had been at virtually full employment for over three years. Growth in San Francisco had exceeded expectations. The Employment Development Department had projected 127,000 new jobs for the Metro Division between 2016 and 2026. San Francisco alone had added more 50,000 jobs within 3 years, before the shutdown.

UNEMPLOYMENT RATE. >
Source: Bureau of Labor Statistics.



Although San Francisco represents only 2.2 percent of the State’s population, it accounted for 9 percent of Gross Domestic Product growth in California from 2010 to 2018. During the same period, nearly 1 in 4 new jobs in the nine-county Bay Area was created in San Francisco.

Per-capita personal income of the City of San Francisco for FY 2019 is estimated to be \$130,696, the same as 2018. Alameda County, Santa Clara County, Marin County and San Mateo County all have diversified economies and median household incomes higher than State and national averages.

Per Capita Personal Income 2018	
Marin County	\$134,275
San Francisco County	\$130,696
San Mateo County	\$126,392
Santa Clara County	\$107,877
Alameda County	\$76,644
State of California	\$63,557

Source: Bureau of Economic Analysis, U.S. Department of Commerce.

Economic Development Initiatives

To support our neighborhoods and small businesses, prepare us for recovery, and mitigate further job losses, the City has launched COVID-19 response programs that have provided over 1,200 businesses with up to \$12.5 million in grants as of July 10, 2020.

The City will continue to make targeted investments in key sectors to catalyze economic recovery and create good, sustainable jobs for all residents with a focus on historically marginalized and vulnerable populations. These sectors include: technology, professional services, manufacturing, nightlife and entertainment, tourism and hospitality, nonprofit, and retail.

Throughout the COVID-19 crisis, the City has remained committed to meeting its regional housing goals and has continued to entitle major, masterplan mixed-use development projects. Since the March 16, 2020 Shelter-In-Place health order, the City has approved over 5,300 units of new housing, including 1,860 units of permanently affordable housing. These units range from very low-income, serving formerly homeless families, to low- and moderate-income, including the first dedicated educator housing units at Balboa Reservoir. Additionally, these projects will generate thousands of near-term construction jobs and eventually permanent jobs in the fields of retail,

hospitality, commercial office, technology, life science and production, distribution and repair.

Workforce Development

San Francisco’s investment in workforce development programs will be critical in supporting working residents and those looking to enter or re-enter the labor force. The City will place special focus on sectors experiencing or expecting job growth as we work to support our newly and long-term unemployed residents.

With record high unemployment, the City will provide programs for those needing minor assistance in securing employment as well as for those needing full retraining and wraparound workforce services, including intensive barrier removal services and community outreach to better connect vulnerable groups to career pathways. New service delivery methods will also be developed to account for public health needs requiring social distancing and allowing for more remote work.

The City funds job-driven training programs in key sectors such as construction, healthcare, hospitality, and technology. These sector-driven academies combine vocational training in growing fields with supportive services, job placement, and post-placement support. Each academy’s curriculum is developed in concert with industry partners to ensure that training is aligned to meet today’s job needs and that program graduates are ready to work immediately. In addition to job training programs, the City invests in 15 community-based Access Points to provide local residents with a seamless array of workforce services designed to assist job seekers with securing employment opportunities that will lead to self-sufficiency.

Access Point services include career planning, job search assistance, interview preparation, training workshops, unemployment information, access to computers, and supportive services such as childcare and transportation. Moving forward, the City will continue to invest in its successful workforce development programming while developing a comprehensive citywide strategy to better align jobseeker education and training resources. San Francisco remains committed to improving outcomes for jobseekers, particularly for those facing multiple barriers to employment.

Positioned for Recovery

Fundamental strength across key sectors, combined with the implementation of long-term development projects and workforce development programs, has prepared San Francisco for a strong recovery after the COVID-19 emergency. Additionally, investments in equity initiatives are making the economy more inclusive, with the goal of ensuring historically underserved communities can share in the City’s success, despite the current recession

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OTHER USEFUL DOCUMENTS

INTRODUCTION. SFPUC produces many documents that complement the budget:

Financial Plan: a rolling 10-year plan, revised annually as a part of the budget process. It serves as a multi-year financial planning tool; the purpose of the plan is to estimate revenue and expenditure data in the form of annual revenue requirements, which are indications of future average rate changes.

- 10-year Financial Plan:
<https://sfwater.org/index.aspx?page=788>

Capital Book: a guide for managers, policy makers, elected officials and the public depicting the proposed long-term program, projects and investment.

- Capital Book:
Book is forthcoming, this link will be updated once it is published.

Quarterly Reports: a budgetary status reports for annual operating budget.

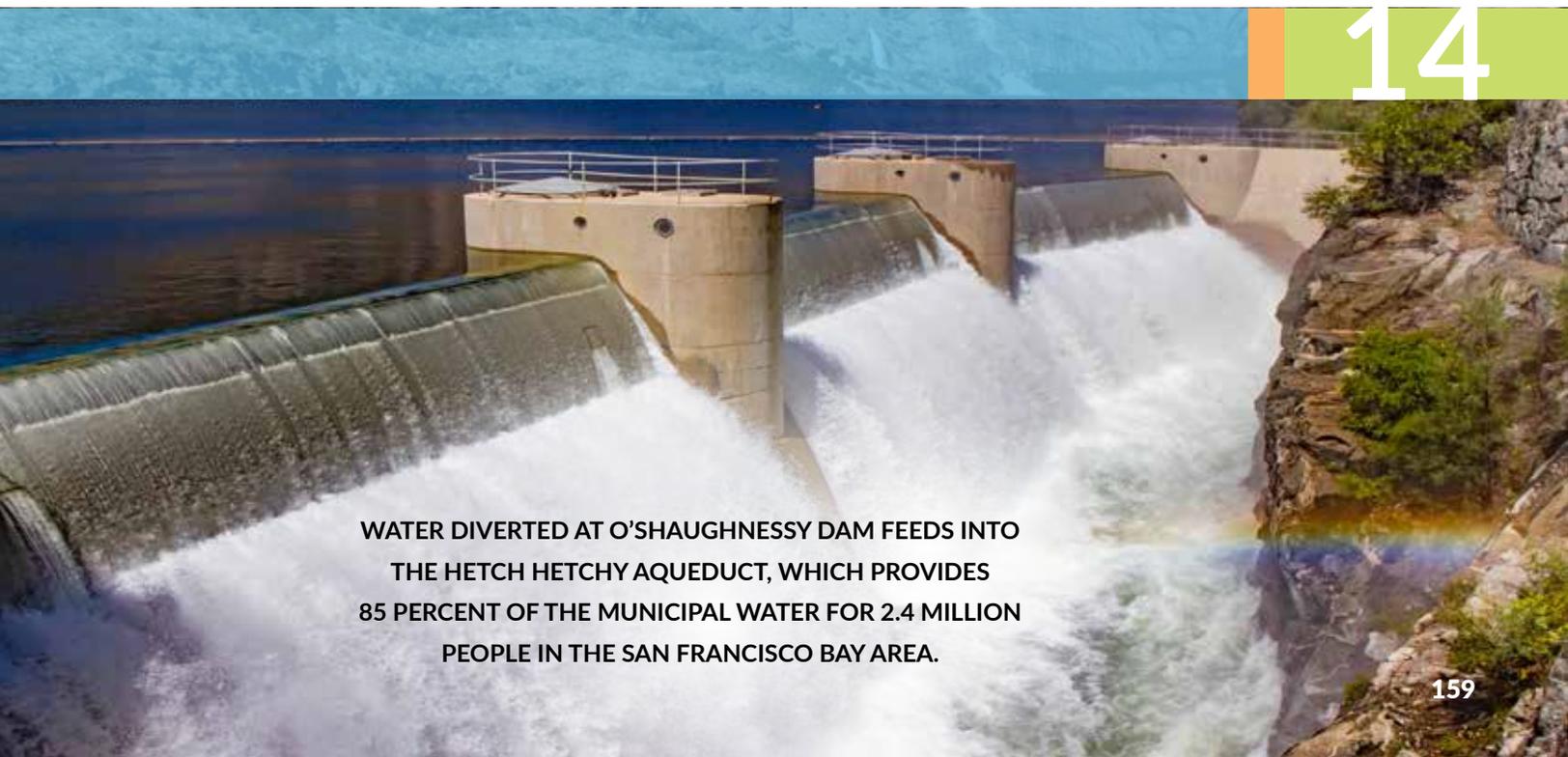
- Quarterly Reports:
<https://sfwater.org/index.aspx?page=349>

Comprehensive Annual Financial Report (CAFR): describes our financial activities, condition and services as a whole, encompassing all Water, Wastewater, and Hetch Hetchy Water & Power & CleanPowerSF results. The CAFR also includes financial and statistical information, all of which is of interest to the public and bond investors.

- CAFR:
<https://www.sfwater.org/index.aspx?page=344>

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**WATER DIVERTED AT O'SHAUGHNESSY DAM FEEDS INTO
THE HETCH HETCHY AQUEDUCT, WHICH PROVIDES
85 PERCENT OF THE MUNICIPAL WATER FOR 2.4 MILLION
PEOPLE IN THE SAN FRANCISCO BAY AREA.**

Popular Annual Financial Report (PAFR): annual report that provides examples of how PUC have continued to build on its strengths—rebuilding water and wastewater infrastructure; advancing green power and environmental initiatives; leading the way in delivering clean, efficient services now and into the future.

- PAFR:
<https://www.sfwater.org/index.aspx?page=703>

Mayor's Budget: a presentation of the proposed balanced budget for the City and County of San Francisco

- Mayor's Budget:
https://sfmayor.org/sites/default/files/CSF_Proposed_Budget_Book_July_2020_LR_Web_REV2.pdf

Annual Appropriation Ordinance (AAO): a document that is the legal authority for the City to spend funds during the fiscal year. AAO contains information on the sources and uses of City funds and selected departments, detailed by department and program.

- AAO:
<https://sfcontroller.org/sites/default/files/Documents/Budget/AAO%20FY2020-21%20%26%20FY2021-22%20-%20FINAL.pdf>

Annual Salary Ordinance (ASO): an ordinance enumerating positions in the annual budget and appropriation ordinance for specific fiscal years.

- ASO:
<https://sfcontroller.org/sites/default/files/Documents/Budget/ASO%20FY2020-21%20%26%20FY2021-22%20-%20Aug%20Mayor%20Proposed.pdf>

SFPUC Commission: The San Francisco Public Utilities Commission consists of five members, nominated by the Mayor and approved by the Board of Supervisors. Their responsibility is to provide operational oversight in areas such as rates and charges for services, approval of contracts, and organizational policy.

- Commission website:
<https://sfwater.org/index.aspx?page=167>

GLOSSARY OF TERMS

Accrual Basis of Accounting

A method of accounting in which all assets and liabilities associated with its operations is included on the statement of net assets; revenues are recorded when earned, and expenses recorded when liabilities are incurred.

American Recovery and Reinvestment Act (ARRA)

The ARRA, or the Stimulus or The Recovery Act, is an economic stimulus package enacted by the United States Congress in February 2009 and signed into law on February 17, 2009, by President Barack Obama. The primary objective for ARRA was to save and create jobs almost immediately; and secondary objectives were to provide temporary relief programs for those most impacted by the recession and invest in infrastructure, education, health, and 'green' energy.

Annual Appropriation Ordinance (AAO)

Upon approval, this document is the legal authority for the City to spend funds during the fiscal year. It contains information on the sources and uses of selected City funds detailed by department and by program. Additional schedules summarize selected City revenues and expenditures by service area, department and fund.

Annualization

New positions for the fiscal year are budgeted at 0.77 FTE, to account for the time it takes to hire a new employee (approximately three months). These new positions are annualized in the following fiscal year at 0.23 FTE, to reflect the annual salary costs.

Assistant General Manager (AGM)

An AGM supports the General Manager of the SFPUC as principal member of the senior management team: Business Services, External Affairs, Infrastructure, Power Enterprise, Water Enterprise, and the Wastewater Enterprise.

Attrition Savings

Attrition savings is the projected amount of permanent salaries that will be saved during a fiscal year due to attrition or employee turnover.

Auxiliary Water Supply System (AWSS)

A system of mains and 1889 High Pressure Fire Hydrants, independent of the domestic water supply built solely for the purpose of firefighting. The system is supplied with fresh water, by gravity, from a reservoir and two tanks located at high elevation in the City.

Balanced Budget

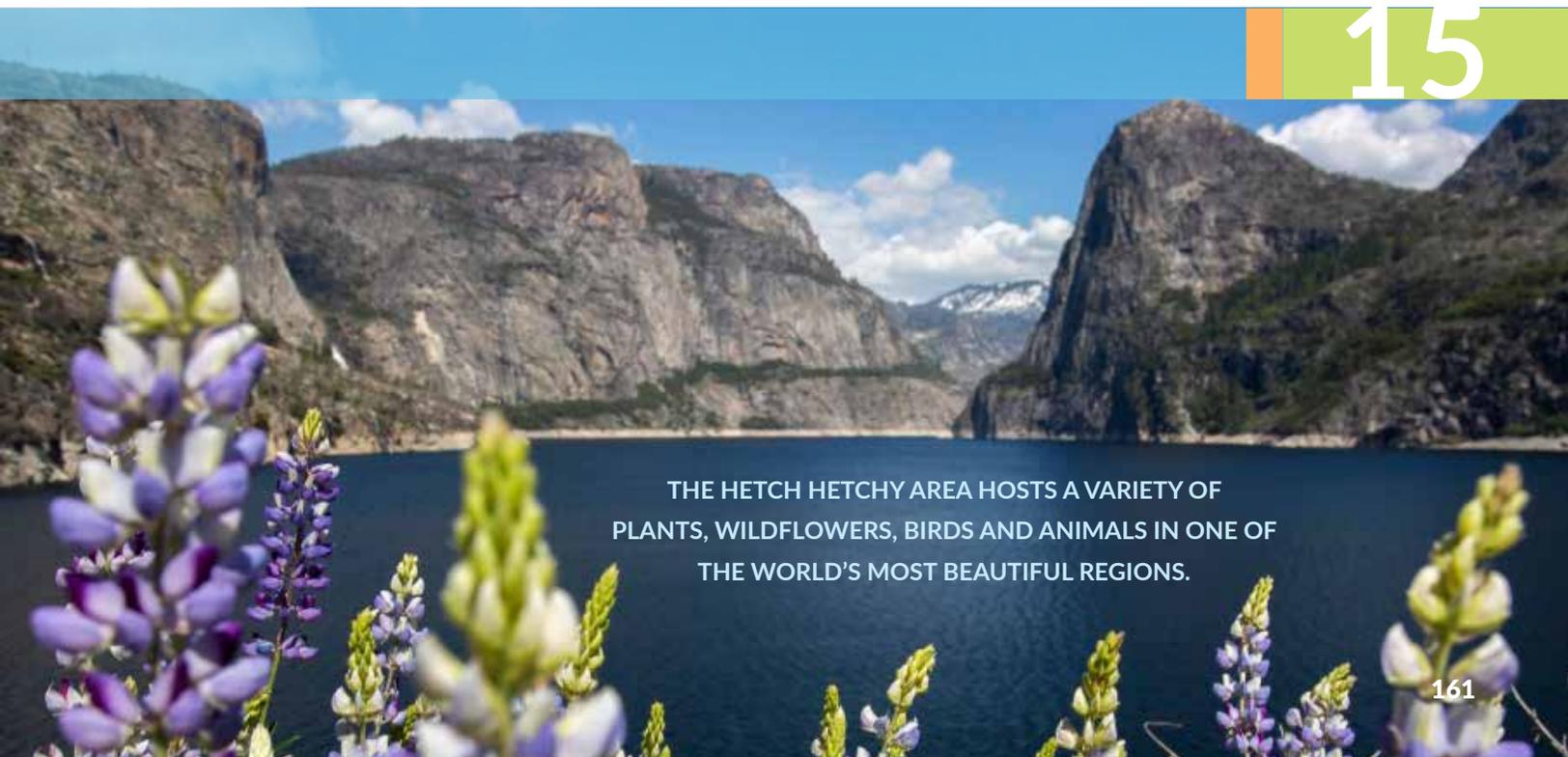
The Constitution of the State of California requires all cities to adopt a balanced budget wherein revenues must match expenditures.

Bay Area Water Supply and Conservation Agency (BAWSCA)

BAWSCA represents the interests of 27 suburban wholesale that purchase water wholesale from the San Francisco regional water system. These entities provide water to 1.7 million people, businesses and community organizations in Alameda, Santa Clara and San Mateo counties.

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THE HETCH HETCHY AREA HOSTS A VARIETY OF
PLANTS, WILDFLOWERS, BIRDS AND ANIMALS IN ONE OF
THE WORLD'S MOST BEAUTIFUL REGIONS.

Board of Supervisors (BOS)

The Board of Supervisors is the legislative branch of the City and County of San Francisco. The Board consists of 11 members. Each member is elected on a non-partisan basis from a district where he or she resides. The Board is responsible for approving and amending the SFPUC's proposed budget. The Board's Budget Analyst also participates in reviews of City spending and financial projections.

British Thermo Units (kBtu)

It is a traditional unit of work equal to about 1055 joules. kBtu measures the energy needed to raise the temperature of one pound of water by one degree Fahrenheit. It is most often used as a measure of power in the electric power, steam generation, heating, and air conditioning industries.

Budget and Finance Committee

The Budget and Finance Committee of the Board of Supervisors oversees appropriation ordinances, and measures concerning bond issues, taxes, fees and other revenue measures, redevelopment, and real estate. The Committee also oversees the annual appropriation and annual salary ordinances, and holds a public hearing on the Mayor's budget instructions to City departments for each annual City budget after the instructions are released.

Build America Bonds (BABs)

This is a tax credit or direct payment subsidy bond for municipal capital projects.

Bureau of Economic Analysis (BEA)

The BEA is an agency of the U.S. Department of Commerce, and along with is part of the Department's Economics and Statistics Administration. It produces economic accounts statistics that allow government and business decision makers, researchers, and the American public, to follow and understand the performance of the nation's economy. The BEA collects source data, conducts research and analysis, develops and implements estimation methodologies, and disseminates statistics to the public.

California Building Code (CBC)

The California Building Standards Code is the building code for California, and title 24 of the California Code of Regulations (CCR). It is maintained by the California Building Standards Commission.

California Cap and Trade

The Cap-and-Trade Program is designed to achieve the goals of Global Warming Solutions Act of 2006. The program involves creating a market where GHG emission allowances can be bought and sold by entities, better facilitating the reduction of GHGs in a way that prevents inflexible limitations on economic activity.

California Department of General Services (DGS)

The Department of General Services (DGS) serves as business manager for the state of California. General Services helps to better serve the public by providing a variety of services to state agencies. DGS is committed to sustainability in its facilities, fleet and purchasing.

California Energy Commission (CEC)

The California Energy Commission has responsibility for activities that include forecasting future energy needs, promoting energy efficiency appliance and building standards, and supporting renewable energy technologies.

California Environmental Quality Act 1970 (CEQA)

The California Environmental Quality Act is a statute that requires state and local agencies to identify the significant environmental impacts of their actions and to avoid or mitigate those impacts, if feasible.

California Independent Systems Operator (CAISO)

CAISO is a non-profit public benefit corporation charged with operating the majority of California's high voltage wholesale power grid.

California Public Utilities Commission (CPUC)

The California Public Utilities Commission is an administrative agency that exercises both legislative and judicial powers. The major duties of the CPUC are to regulate privately owned utilities, securing adequate service to the public at rates that are just and reasonable to both customers and shareholders of the utilities. The CPUC also provides electricity and natural gas forecasting, and analysis and planning of energy supply and resources.

Capital Expenditures

Expenditures that extend the service life on an existing asset or the acquisition and/or construction of a new asset.

Capital Improvement Program (CIP) (Annual CIP)

The Capital Improvement Program is supported by the Ten-Year Capital Plan and Ten-Year Financial Plan. SFPUC's CIP includes renewal and replacement (R&R) and capital improvement programs to improve water efficiency, power infrastructure, and sewage treatment facilities. 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 the SFPUC's capital programs. The repayment of this indebtedness is provided for under the annual rates and revenues of the particular Enterprise that incurs the debt, categorized as debt service in the budget.

Capital Planning Committee (CPC)

The legislation creating San Francisco's (City) Ten-Year Capital Plan created the Capital Planning Committee (CPC). This body is chaired by the City Administrator and consists of the President of the Board of Supervisors, the Mayor's Finance Director, the Controller, the City Planning Director, the Director of Public Works, the Airport Director, the Executive Director of the Municipal Transportation Agency, the General Manager of the Public Utilities System, the General Manager of the Recreation and Parks Department, and the Executive Director of the Port of San Francisco. Through a series of meetings, the Capital Planning Committee reviews proposals, staff recommendations, and documents toward the development of a City-wide capital plan and annual capital budget. Furthermore, the Committee establishes prioritization and assessment criteria to assist the City Administrator and staff in developing the capital plan.

Carryforward

Outstanding budget commitments at the end of the fiscal year funded out of the annual operating budget, that are authorized to be carried over and expended during the following fiscal year.

Certificates of Participation (COP)

An instrument evidencing a pro-rata share in a specific pledged revenue stream, usually lease payments by the issuer. The certificate generally entitles the holder to receive a share, or participation, in the lease payments from a particular project. The lease payments are passed through the lessor to the certificate holders. The lessor typically assigns the lease and lease payments to a trustee, which then distribute the lease payments to the certificate holders.

Chemical Oxygen Demand (COD)

COD refers to the amount of oxygen required to oxidize the organic compound in a water sample.

Citizen's Advisory Committee (CAC)

The purpose of the Citizen's Advisory Committee is to provide policy recommendations to the Mayor, Board of Supervisors, City Administrator and Commissions on prioritization of public benefits.

City and County of San Francisco (CCSF)

CCSF is the City and County of San Francisco and SFPUC is one of departments governed by the Mayor and Board of Supervisors.

CleanPowerSF

CleanPowerSF is San Francisco's Community Choice Aggregation program. Community Choice Aggregation is a State program that allows cities and counties to partner with their investor-owned utility (PG&E in San Francisco) to deliver cleaner energy to residents and businesses.

Clean Renewable Energy Bonds (CREBs)

CREBs are bonds used to fund the solar photovoltaic projects included in the Hetch Hetchy Water and Power budget as debt service. CREBs are a form of tax credit bond in which interest on the bonds is paid in the form of Federal tax credits by the United States government in lieu of interest paid by the issuer. Created under the Energy Tax Incentives Act of 2005, CREBs can be used, among other entities, by local governments, to finance certain renewable energy and clean coal facilities.

Clean Water Act

The Clean Water Act establishes the basic structure for regulating discharges of pollutants into the waters of the United States and regulating quality standards for surface waters.

Commercial Paper (CP)

Used as a financing strategy that utilizes short-term financing to calibrate financing needs with project spending. The CP program facilitates short-term financing typically at lower interest rates than longer-term debt, which minimizes costs.

Committee on Information Technology (COIT)

The Committee on Information Technology (COIT) is the City's technology planning and governance body that is charged with submitting a five-year Information and Communication Technology (ICT) plan on a biannual basis to the Mayor and Board of Supervisors. As required by the City's Administrative Code, this plan seeks to better align City resources with the City's technology goals and objectives. The ICT Plan provides a framework for the City to proactively plan, fund, and implement projects which align with the City's goals of innovation, sustainability, and resilience. As the City's third iteration, the ICT Plan outlines a path to maximize current and future resources to support technology projects. The ICT Plan is updated every other year and covers the next five fiscal years.

Community Choice Aggregation (CCA)

As defined by Assembly Bill 117, CCA permits any city, county or city and county to aggregate the electric loads of residents, businesses and municipal facilities to facilitate the purchase and sale of electrical energy.

County-Wide Cost Allocation Plan (COWCAP)

The County-Wide Cost Allocation Plan is developed annually by the Controller's Office and calculates the overhead rate charged to each department for its share of City-wide overhead costs, such as payroll, accounting, and operations.

Cubic Feet (Ccf)

The billing unit for water and wastewater bills, where 1 Ccf=100 cubic feet=748 gallons. The average single-family residence uses about 51 gallons per person per day versus the California State-wide average of 155 gallons per day per capita.

Debt Service

Debt service is principal and interest payments on revenue bonds, State Revolving Fund loans used to finance system improvements, repayments on loans, and financing for Clean Renewable Energy Bonds.

Department of General Services (DGS)

DGS serves as business manager for the State of California. DGS provides a variety of services to State agencies through innovative procurement and acquisition solutions, creative real estate management and design, state-of-the-art telecommunications, environmentally friendly transportation, and funding for the construction of safe schools.

Earthquake Safety and Emergency Response (ESER)

The San Francisco's Earthquake Safety and Emergency Response Program first approved by voters through a bond measure in 2010. The purpose of the program is to make repairs and improvements to neighborhood firehouses, upgrade the emergency firefighting water system and construct the City's new Public Safety Building that will allow San Francisco to quickly respond to a major earthquake or disaster.

Enterprise Fund

An enterprise fund establishes a separate accounting and financial reporting mechanism for municipal services for which a fee is charged in exchange for goods or services.

Environmental Management System (EMS)

EMS ensures that energy and water are efficiently and productively used in the course of Operations and Maintenance of the sewer system. This program encompasses pollution prevention to prevent harmful pollutants from entering the wastewater system; the biosolids treatment process; public outreach and involvement; exceeding regulatory compliance; and resource recovery in the form of energy recovery and recycling biosolids back to soil or other beneficial use of this resource.

Environmental Protection Agency (EPA)

The EPA is an agency of the United States federal government, created to protect human health and the environment by writing and enforcing regulations based on laws passed by Congress

Equipment

Equipment has a value greater than \$5,000, and a useful life of three years or more, such as vehicles and hardware, or other heavy equipment.

Financial Project System (F\$P)

In June 2015, the City launched the Financial System Project (F\$P) to manage the implementation of a new PeopleSoft Financial and Supply Chain Management system citywide by July 2017. The PeopleSoft system will replace accounting, fixed assets, and procurement systems and introduce new business processes based on best practices. The SFPUC is excited to join this effort to modernize our systems and streamline how the City tracks finances, purchases and contracts for goods and services, and pays invoices.

Fats, Oils, and Grease (FOG)

The SFPUC Water Pollution Prevention Program has materials that can assist businesses in properly managing their fats, oils and grease wastes; FOG can be a major problem for San Francisco's sewers and for the Bay and Ocean that surround San Francisco, because when not disposed of properly FOG forms thick layers inside sewers and constricts flow.

Financial Accounting Standards Board (FASB)

The FASB is the designated organization in the private sector for establishing standards of financial accounting. Those standards govern the preparation of financial statements. They are officially recognized as authoritative by the Securities and Exchange Commission (SEC) (Financial Reporting Release No. 1, Section 101, and reaffirmed in its April 2003 Policy Statement) and the American Institute of Certified Public Accountants (AICPA) (Rule 203, Rules of Professional Conduct, as amended May 1973 and May 1979).

Fiscal Year (FY)

San Francisco's fiscal year is from July 1st to June 30th.

Full-Time Equivalent (FTE)

An FTE is one or more employees who cumulatively work 40 hours per week.

Fund Balance

Fund balance is the difference between assets and liabilities.

Gallons Per Capita Daily (GPCD)

This used to refer to per capita daily water use. GPCD can be used for estimating future water use demand, but it is also an important tool for tracking conservation goals, since it provides a baseline for households and individuals to track & compare their own conservation efforts.

General Fund

The General Fund is a source of discretionary spending and funds many of the basic municipal services in the City and County of San Francisco such as public safety, health and human services and public works. Primary revenue sources include local taxes such as property, sales, payroll and other taxes.

General Reserves

General Reserves are budgeted to balance annual revenue and expenditure amounts. It is budgeted when revenues exceed expenditures.

General Use (GUSE)

Referring to general fund department customers generally pay subsidized rates.

Global Reporting Initiative (GRI)

GRI is an international independent organization that helps businesses, governments and other organizations understand and communicate the impact of business on critical sustainability issues such as climate change, human rights, corruption and many others.

GoSolarSF Program

The GoSolarSF Program was developed by the San Francisco Solar Task Force to encourage the installation of photovoltaic systems on residents and businesses within the City. GoSolarSF solar incentive program was approved by the San Francisco Public Utilities Commission in January 2008. The Board of Supervisors passed ordinances establishing a long-term Solar Energy Incentive Program and a Solar Energy Incentive Pilot Program in June 2008. The program was launched on July 1, 2008.

Governmental Accounting Standards Board (GASB)

The Governmental Accounting Standards Board (GASB) is the independent organization that establishes and improves standards of accounting and financial reporting for U.S. State and local governments.

Green-e Energy

The nation's leading independent consumer protection program for the sale of renewable energy and greenhouse gas reductions in the retail market. Green-e offers certification and verification of renewable energy and greenhouse gas mitigation products.

Greenhouse Gas (GHG)

GHG is a gas in an atmosphere that absorbs and emits radiation within the thermo infrared range. This process is the fundamental cause of the greenhouse effect.

Hetchy System Improvement Program (HSIP)

HSIP is the capital improvement program to upgrade the aging Hetchy Regional Water/Power infrastructure.

Independent System Operator (ISO)

The Independent System Operator is nonprofit public benefit corporation that manages the flow of electricity across the high-voltage, long-distance power lines that make up 80 percent of California's and a small part of Nevada's power grid.

Interconnection Agreement (IA)

The interconnection agreement is a business contract between telecommunications organizations for the purpose of interconnecting their networks and exchanging telecommunications traffic and certain services.

Interest Income

Revenue earned by an Enterprise on its cash investments.

Key Performance Indicators (KPIs)

Financial and non-financial metrics used to quantify objectives to reflect strategic performance of an organization.

Kilovolt (kV)

This is a measure of the potential energy of a unit charge at a given point in a circuit relative to a reference point.

Leadership in Energy and Environmental Design (LEED)

LEED stands for Leadership in Energy and Environmental Design and was developed by the U.S. Green Building Council (USGBC) to set a benchmark for design, construction, and operation of high-performance green buildings.

Light-Emitting Diode (LED)

LED is a new solid-state lighting technology that offers better lighting performance and energy efficiency. Light is emitted from clusters of diodes, which direct light. The fixture lasts for 15 years.

Local Agency Formation Commissions (LAFCO)

LAFCO is responsible for reviewing and approving proposed jurisdictional boundary changes, including annexations and detachments of territory to and/or from cities and special districts, incorporations of new cities, formations of new special districts, and consolidations, mergers and dissolutions of existing districts.

Low-Impact Design (LID)

LID refers to a land planning and engineering design approach to manage stormwater runoff. LID directs runoff to natural vegetated systems, such as landscaped planters, swales and gardens that reduce filter or slow stormwater runoff. Strategic placement of this system can help mitigate the impacts of impervious surfaces and in some cases increase the level of service provided by the traditional sewer pipes.

Materials & Supplies (M&S)

M&S is an expenditure category that includes maintenance, safety, fuel, office supplies, and other miscellaneous materials and supplies for the maintenance and operations of an Enterprise/Bureau.

Megawatt (MW)

Megawatt is a standard unit of power in the international system equal to one million watts, used as a measure of the output of a power station.

Memorandum of Understanding (MOU)

A memorandum of understanding describes a bilateral or multilateral agreement between two or more parties

Million Gallons per Day (MGD)

Million gallons per day is a measurement of water flow frequently used in measurement of water consumption.

Modesto Irrigation District (MID)

One of four irrigation districts in California; its electric service area includes Modesto, Salida, Empire, Waterford, Mountain House and parts of LaGrange, Riverbank, Ripon, Escalon and Oakdale.

Modified Accrual Basis of Accounting

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 not recognized until they are measurable and available; and 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.

National Pollutant Discharge Elimination System (NPDES)

A permit program, authorized by the Clean Water Act, that controls water pollution by regulating point sources that discharge pollutants into waters of the United States.

New Clean Renewable Energy Bonds (NCREBs)

New Clean Renewable Energy Bonds (New CREBs) are one of several types of tax credit bonds authorized under IRC Section 54A, that allow a credit to investors that hold such bond on one or more of the quarterly credit allowance dates.

Non-Personnel Services

Non-personnel services include the maintenance of equipment and facilities, travel, training, memberships, professional services, rent, and other expenses that support maintenance for the operation of an Enterprise.

North American Electric Reliability Corporation (NERC)

The electric reliability organization (ERO) certified by the Federal Energy Regulatory Commission purpose is to establish and enforce reliability standards for the bulk-power system. NERC develops and enforces reliability standards; assesses adequacy annually via a 10-year forecast, and summer and winter forecasts; monitors the bulk power system; and educates, trains and certifies industry personnel.

Office of the General Manager (GM)

Supports the General Manager in his key oversight functions, which are to oversee the regional utility that delivers reliable, high quality drinking water to more than 2.5 million Bay Area customers; that collects and treats wastewater and stormwater for the CCSF; and that provides hydroelectric and other renewable power resources for the San Francisco municipal customers.

Oil and Grease (O/G)

One of the determinants of wastewater rates for nonresidential customers.

Operating Transfers Out

Operating transfers out refers to the revenue transfers between Enterprise funds.

Operations and Maintenance (O&M)

Includes budgets for Personnel, Overhead (or COWCAP), Non-Personnel Services, Materials and Supplies, Equipment, and Services of Other Departments.

Other Non-Operating Revenues

Non-utilities revenues, including rent, permit fees, sale of property, custom work, and reimbursements.

Pacific Gas & Electric (PG&E)

Incorporated in California in 1905, Pacific Gas & Electric is a natural gas and electric utilities company, with a service area from Eureka in the north to Bakersfield in the south, and from the Pacific Ocean in the west to the Sierra Nevada in the east. The company is based in San Francisco.

Pass-through

A pass-through is when the budget and/or expenditures are off-set by a like amount in revenues.

Personnel

Personnel refers to all labor costs including full-time, temporary, and projected-funded employees, overtime, premium and holiday pays and related benefits.

Pretreatment and Pollution Prevention (P2)

Programs to ensure regulatory compliance in wastewater collection systems; they focus on contaminant reduction activities for residential, commercial, and industrial dischargers. The major P2 programs include: Street Sweeping, Fats, Oils & Grease (FOG), Mercury Reduction Program, Pesticides/Integrated Pest Management (IPM), and Storm Water P2 Program/Construction Runoff Control.

Proceeds from Debt

Refers to revenues received through the issuance of bonds, loans, or other borrowings.

Programmatic Projects

Programmatic projects are annual projects that close-out at the end of the fiscal year. These projects are used to capture costs for specific operating or maintenance programs.

Project Labor Agreement (PLA)

A pre-hire collective bargaining agreement with one or more labor organizations that establishes the terms and conditions of employment for a specific construction project.

Proposition 218

Prop 218 amended the California Constitution (Articles XIII C and XIII D) which, as it relates to assessments, requires the local government to have a vote of the affected property owners for any proposed new or increased assessment before it could be levied. The Proposition was passed by California voters on November 5, 1996, and the assessments portion placed in effect on July 1, 1997

Proposition A (2002)

Approved by voters in November 2002, authorizes the SFPUC, subject to Board of Supervisors approval, to issue up to \$1.628 billion in revenue bonds or other forms of indebtedness to finance the acquisition and construction of improvements to the City's water system.

Proposition A (2009)

Approved in November 2009, this Proposition amended the City Charter to require the City to transition to a two-year budget cycle by FY 2012-13.

Proposition E (2002)

Approved by voters in November 2002, authorizes the SFPUC to issue revenue bonds or other forms of indebtedness for the purpose of reconstructing, replacing, expanding, repairing or improving water facilities or clean water facilities when authorized by ordinance approved by a two-thirds vote of the Board of Supervisors.

Qualified Energy Conservation Bonds (QECBs)

QECBs are tax credit bonds specifically targeting energy conservation and green programs.

Rate Fairness Board (RFB)

The RFB was established with the passage of Proposition E, approved by San Francisco voters on November 5, 2002. The RFB advises the SFPUC on water and sewer rate matters. Its specific duties are: Annual review of a five-year rate forecast; hold one or more public hearings on annual rate recommendations before the SFPUC Commission adopts rates; provide a report and recommendations to the SFPUC on the rate proposal and; in connection with periodic rate studies, submit to the SFPUC rate policy recommendations for the Commission's consideration, including recommendations to reallocate costs among various retail utility customer classifications, subject to any outstanding bond requirements.

Renewable Portfolio Standards (RPS)

(RPS) is a regulation that requires the increased production of energy from renewable energy sources, such as wind, solar, biomass, and geothermal.

Renewal and Replacement (R&R)

R&R refers to projects in the Enterprises, including both minor and major construction projects, maintenance and rehabilitation projects, planning studies, and preliminary engineering analysis for major capital improvements.

Request for Proposal (RFP)

The process by which a corporate department or government agency prepares bid documents to acquire equipment or services.

Retail Water Sales

Retail water sales consist of rate schedules that include City and Suburban Retail rates. City Retail Rates include general rates - single-family residential, multiple-family residential, and commercial (industrial). These rates consist of a monthly service charge based on meter size and a two-step commodity charge for single- and multiple-family residential customers, and meter size and a uniform commodity charge for commercial (industrial) customers. Suburban retail rates include rate schedules for use outside of San Francisco.

Revenue-Funded Capital

The Revenue-Funded Capital is the revenue portion of the two-year capital program approved outside the budget process. This revenue reserve is funded in the operating budget.

Sale of Electricity

Sale of electricity refers to charges for electric power to City departments for municipal use, wholesale customers, and other retail customers.

Sale of Gas and Steam

Revenues from gas and steam provided to City departments by Hetch Hetchy Power. These revenues are a pass-through and have no impact on Hetchy Hetchy's fund balance levels.

Sale of Water

The budget category for revenues from sales of water to retail customers in San Francisco and suburban areas and to wholesale customers under the terms of a long-term Water Supply Agreement (WSA).

San Francisco Municipal Transportation Agency (SFMTA)

A public service Enterprise department of the CCSF that provides a surface transportation network for pedestrians, bicyclists, transit and paratransit customers, motorists, and taxis.

San Francisco Public Utilities Commission (SFPUC)

The SFPUC is a department of the City responsible for the maintenance, operation and development of three utility enterprises: the Wastewater Enterprise, the Water Enterprise and the Power Enterprise. The SFPUC provides regional water, local water, wastewater (collection, treatment, and disposal), and power.

Services of Other Departments

Services performed for the SFPUC by other City departments.

Sewer Service Charges

Sewer service charges are the primary funding source for the payment of costs associated with the Wastewater Enterprise's sanitary waste and stormwater collection, treatment and disposal.

Sewer System Improvement Program (SSIP)

A major focus of the Wastewater Enterprise, the SSIP is a long-term capital program that provides strategies and policies for the future. The San Francisco Sewer System Improvement Program objectives are to: develop a long-term vision and strategy for the management of the City's wastewater and stormwater; provide a detailed capital planning roadmap for improvements needed; estimate the funds to implement these improvements; address specific challenges facing the system; and maximize system reliability and flexibility.

SFPUC Commission

Under the Charter, the SFPUC is given exclusive charge of the operation and management of all water, wastewater and municipal customers' energy supplies and utilities of the City as well as the real, personal and financial assets under the SFPUC's jurisdiction. The Commission consists of five Commissioners appointed by the Mayor and subject to confirmation by a majority of the Board of Supervisors serving four-year terms.

State Revolving Fund (SRF)

State revolving funds are available as loans to government entities for the construction of publicly owned water and wastewater treatment facilities. The fund is administered by State Water Resources Control Board.

Strategic Sustainability Plan (SSP)

The SSP provides the SFPUC with a system for planning, managing, and evaluating SFPUC-wide performance that takes into account the long-term economic, environmental, and social impacts of the SFPUC's business activities.

Ten-Year Capital Plan

The City and County of San Francisco Administrative Code requires the annual development of a Ten-Year Capital Plan for City-owned facilities and infrastructure. Under the authority of the City Administrator, the Capital is presented to the Capital Planning Committee (CPC) for their review. The CPC completes its review of the capital plan by March 1 and presents it to the Board of Supervisors (BOS). The BOS must adopt the Capital Plan by May 1.

Ten-Year Financial Plan

The Ten-Year Financial Plan is a planning document as required by the City and County of San Francisco, that includes a ten-year financial summary for each Enterprise, describing projected sources and uses, resulting fund balances and associated financial reserve ratios.

Total Suspended Solids (TSS)

A water quality measurement that serves as one of the determinants of wastewater rates for nonresidential customers.

Treasure Island (TI)

The Water, Wastewater, and Power Enterprises operate and maintain the water, wastewater, and power distribution systems, and the associated revenues, on Treasure Island, on behalf of the Treasure Island Development Authority (TIDA) and in accordance with a water supply and quality permit issued by the California Department of Health Services, and the National Pollutant Discharge Elimination System (NPDES) permit issued by the California Regional Water Quality Control Board.

Treasure Island Development Authority (TIDA)

The Treasure Island Development Authority (TIDA) is a non-profit, public benefit agency dedicated to the economic redevelopment of former Naval Station Treasure Island. The Authority is vested with the powers of a California Redevelopment Agency as well as the rights to administer Tidelands Trust property. TIDA also performs and administers vital municipal services for the residential and daytime population during the interim reuse of the former military base.

Turlock Irrigation District (TID)

This is one of four irrigation districts in California that provides irrigation water as well as electric retail energy directly to homes, farms and businesses.

Up-country

Up-country refers to the water and power facilities located east of Alameda Country to the Sierras.

Water Supply Agreement (WSA)

The City and County of San Francisco and the 27 suburban wholesale customers entered into an agreement to purchase water from San Francisco on a wholesale basis and distribute it to residents, businesses, and thousands of community organizations in Alameda, Santa Clara and San Mateo Counties. The WSA was approved in April 2009 and has a term of 25 years. The Agreement changes the cost basis by which the wholesale rate is determined from a “utility cost basis” to a “cash basis”. Beginning in FY 2009-10, wholesale customers will pay a proportionate share of regional system operating expenses, debt service on bonds sold to finance regional improvements, and other regional system improvements funded from current revenues. The WSA requires the rate be calculated and set annually and include a “true-up” between prior year revenues expenses.

Water System Improvement Program (WSIP)

The SFPUC launched a \$4.6 billion Water System Improvement Program (WSIP) to repair, replace, and seismically upgrade the San Francisco Regional Water System’s aging facilities. Built in the early to mid-1900s, many parts of the San Francisco Regional Water System, often referred to as the Hetch Hetchy System, are nearing the end of their working life, with crucial portions crossing over or near to three of the nation’s most active earthquake faults. The WSIP increases resilience to vulnerable portions of the system to mitigate earthquake risk and enhance water treatment processes to ensure a reliable supply of water for SFPUC customers.

Western Electricity Coordinating Council (WECC)

The Western Electricity Coordinating Council (WECC) is the Regional Entity responsible for coordinating and promoting Bulk Electric System reliability in the Western Interconnection. In addition, WECC provides an environment for coordinating the operating and planning activities of its members as set forth in the WECC Bylaws.

Western Renewable Energy Generation Information System

The Western Renewable Energy Generation Information System (WREGIS) is an independent, renewable energy tracking system for the region covered by the Western Electricity Coordinating Council (WECC). WREGIS tracks renewable energy generation from units that register in the system using verifiable data and creates renewable energy certificates (RECs). WREGIS certificates can be used to verify compliance with state and provincial regulatory requirements (i.e. - Renewable Portfolio Standards) and in voluntary market programs.

Western Systems Power Pool (WSPP)

WSPP is an agreement and an organization that creates power trading opportunities and allows WSPP members to manage power delivery and price risk. The mission of the organization is to provide a catalyst for an efficient and robust wholesale electric power market. WSPP accomplishes this by constantly facilitating refinements to the Agreement, and promoting trading relationships.

Wholesale Water Sales

The Water Enterprise provides wholesale water service to 27 wholesale customers, which consist of 24 municipalities and water districts, one private utility, one private non-profit university and one mutual water association. Wholesale customers are located in Alameda, Santa Clara and San Mateo counties. The SFPUC and the wholesale customers have negotiated a new Water Supply Agreement (WSA) that changes the cost basis by which the wholesale rate is determined from a “utility basis” to a “cash basis”. Beginning in FY 2009-10, wholesale customers will pay a proportionate share of regional system operating expenses, debt service on bonds sold to finance regional improvements, and other regional system improvements funded from current revenues.

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APPENDIX: FINANCIAL AUTHORITY AND POLICIES

CAPITAL FINANCING POLICY

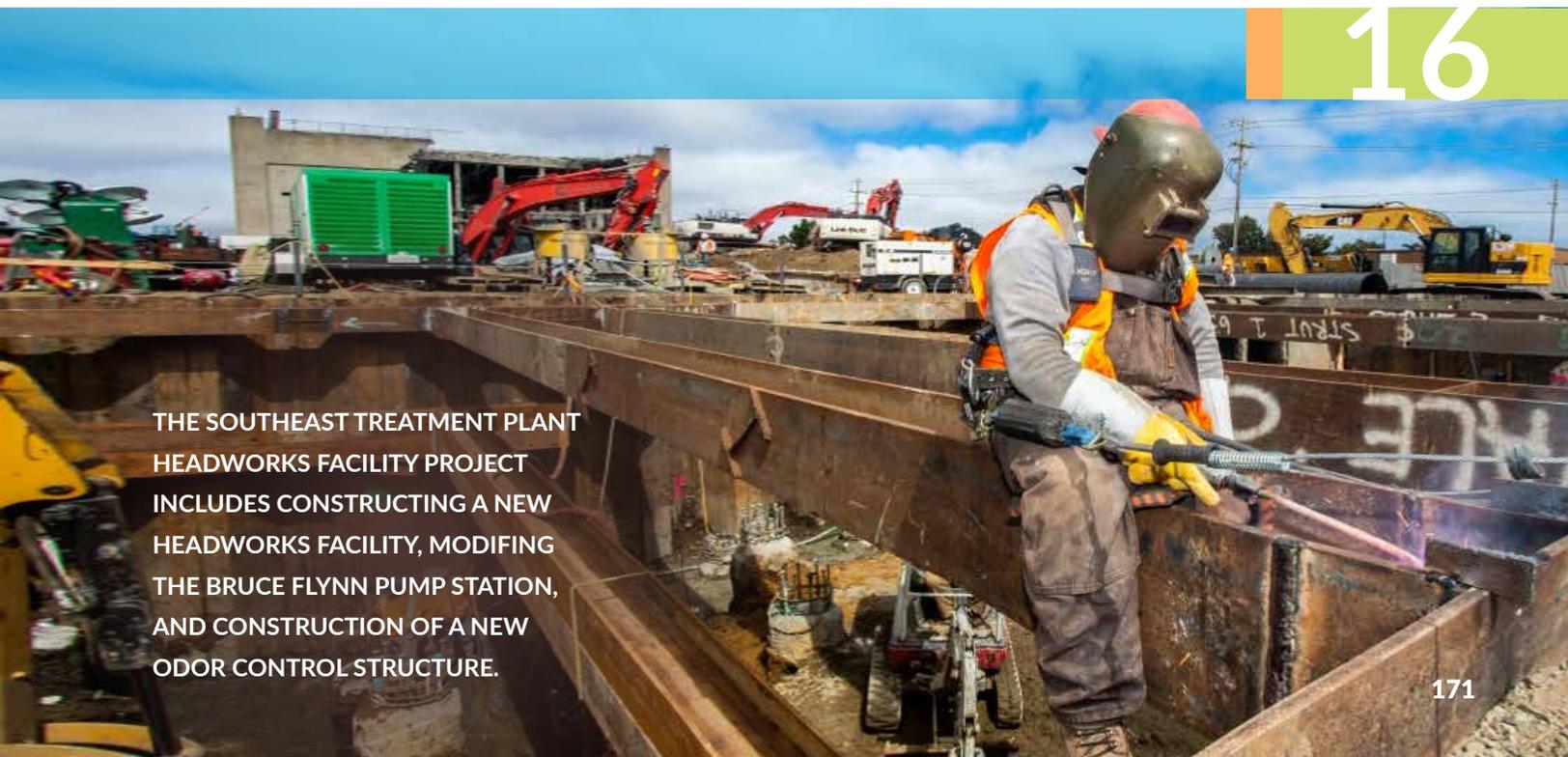
The San Francisco Charter Section 8B.125 requires the SFPUC to exercise prudent financial stewardship of SFPUC assets by establishing “rates, fees and charges at levels sufficient to improve or maintain financial condition and bond ratings at or above levels equivalent to highly rated utilities of each enterprise under its jurisdiction, meet requirements and covenants under all bond resolutions and indentures and provide sufficient resources for the continued financial health (including appropriate reserves), operation, maintenance and repair of each enterprise, consistent with good utility practice.” To most effectively meet these requirements, the SFPUC will utilize financial policies that foster financial stability, support fiscal discipline, and maintain credit ratings at or above levels equivalent to highly rated utilities. Strong financial policies signal to rating agencies and the capital markets that an entity is well managed and committed to sound financial practices.

The SFPUC owns and operates Water, Wastewater and Power Enterprises. These enterprises provide essential services to the residents and businesses of the San Francisco Bay Area. Maintaining enterprise infrastructure in a state of good repair requires ongoing maintenance and capital improvements, which represent a large portion of the SFPUC’s total ongoing expenditures. Balancing the mix of funding sources needed to pay for these improvements is a prudent way to protect both ratepayer affordability and the high-grade credit ratings of the three enterprises.

The SFPUC relies mainly on current revenue and debt financing to pay for capital assets or improvements. The use of current revenue (i.e. pay-as-you-go) to pay for recurring capital investment, such as repair and replacement projects, promotes financial sustainability by minimizing financing costs. Debt financing large, long-lived capital projects helps mitigate short term rate impacts and spreads the cost of the improvement over multiple generations of ratepayers. However, over-reliance on debt financing could limit future financial flexibility by imposing significant debt burdens on future rate payers, and could put downward pressure on future credit ratings. The appropriate mix of current revenue versus debt financing depends, in part, on the capital investment lifecycle of each enterprise.

Continued on next page...

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THE SOUTHEAST TREATMENT PLANT HEADWORKS FACILITY PROJECT INCLUDES CONSTRUCTING A NEW HEADWORKS FACILITY, MODIFYING THE BRUCE FLYNN PUMP STATION, AND CONSTRUCTION OF A NEW ODOR CONTROL STRUCTURE.

In the light of these considerations, it is a policy of this Commission that over the 10-year financial planning horizon, **a minimum ranging between 15% and 30%** of each enterprise's capital budget will be paid for by current revenues.

To monitor compliance with this policy, SFPUC Finance staff will present this information to the Commission as part of the biennial budget process and the annual 10-Year Financial Plan.

Adopted by Resolution 17-0061 on March 28, 2017

CHARTER SECTIONS RELATED TO BUDGETING

PROPOSED BIENNIAL AND MULTI-YEAR BUDGETS
(SF CHARTER SEC. 9.101) (a) The Mayor shall submit to the Board of Supervisors each year a proposed biennial budget, ordinances and resolutions fixing wages and benefits for all classifications and related appropriation ordinances. (b) The proposed biennial budget shall include: (1) Estimated revenues and surpluses from whatever sources, to the extent feasible, for the forthcoming two fiscal years and the allocation of such revenues and surpluses to various departments, functions and programs to support expenditures. Proposed expenditures may include such necessary and prudent reserves as recommended by the Controller; and (2) A summary of the proposed biennial budget with a narrative description of priorities, services to be provided and economic assumptions used in preparing the revenue estimates. (c) The proposed biennial budget and appropriation ordinances shall be balanced for each fiscal year so that the proposed annual expenditures of each fund do not exceed the estimated annual revenues and surpluses of that fund. If the proposed budget contains new revenue or fees, the Mayor shall submit to the Board of Supervisors the relevant implementing ordinances at the same time the biennial budget is submitted. (d) Until the appropriation ordinances are adopted by the Board of Supervisors, the Mayor may submit to the Board of Supervisors revisions to the proposed biennial budget, appropriation ordinances, and ordinances and resolutions fixing wages and benefits. The Mayor may instruct the Controller to prepare the draft appropriation ordinances. (e) The Mayor shall file a copy of the proposed biennial budget at the Main Library and shall give notice of the budget summary, including making copies available to the public. Upon final approval of the budget by both the Board and the Mayor, notice shall be given of the final budget summary. (f) The Board of Supervisors by ordinance may require multi-year budget plans and other budget planning strategies to be performed by the several departments and offices of the City and County. (g) No later than February 1 of any even-numbered fiscal year,

the Mayor and the Board of Supervisors by resolution may determine that the upcoming budgetary cycle or cycles for some or all City departments and offices shall be a fixed budgetary cycle or cycles in which the biennial budget will remain in effect for two fiscal years. With respect to the designated City departments and offices, the Board will not adopt a new budget for the second fiscal year of such fixed budgetary cycle or cycles, except as provided in subsection (h), below. But the City shall adjust the biennial budget for the second year of any fixed budget cycle if certain conditions exist, using the following process: 47 (3) If, during the first year of any fixed budgetary cycle, the Controller projects that the City will experience significant increases or decreases in revenues or expenditures during the second year of such budgetary cycle, the Controller shall submit a report to the Mayor and the Board of Supervisors identifying those increases or decreases. (4) The Mayor shall prepare and submit to the Board of Supervisors a proposed amendment to the biennial budget responding to the Controller's report. The Board may approve or amend the Mayor's proposed budget amendment subject to the limitations that apply to the approval of the budget in Section 9.103. The Mayor's proposed budget amendment shall be deemed approved by operation of law unless the Board finally adopts an amendment to the biennial budget on second reading no later than July 15. (5) The Board's resolution declaring that an upcoming budgetary cycle or cycles shall be fixed, shall include a definition of the term " significant increases or decreases in revenues or expenditures," a deadline for the Controller's submission of a report identifying such increases or decreases, and a deadline for the Mayor to submit to the Board a proposed amendment to the biennial budget in response to the Controller's report. (h) Nothing in this section shall limit the ability of the Mayor or a member of the Board of Supervisors to introduce at his or her discretion an amendment to a biennial budget at any time during the budgetary cycle. (Amended by Proposition A, Approved 11/5/2009)

MISSION-DRIVEN BUDGET (SF CHARTER SEC. 9.114)
Each departmental budget shall describe each proposed activity of that department and the cost of that activity. In addition, each department shall provide the Mayor and the Board of Supervisors with the following details regarding its budget: (a) The overall mission and goals of the department; (b) The specific programs and activities conducted by the department to accomplish its mission and goals; (c) The customer(s) or client(s) served by the department; (d) The service outcome desired by the customer(s) or client(s) of the department's programs and activities; (e) Strategic plans that guide each program or activity; (f) Productivity goals that measure progress toward strategic plans; (g) The total cost of carrying out each program or activity; and (h) The extent to which the department achieved, exceeded or failed to meet its missions, goals, productivity objectives, service objectives, strategic plans and spending constraints identified in subsections (1) through (6) during the prior year. Departmental budget estimates shall be prepared in such form as the Controller, after consulting with the Mayor, directs in writing.

PLANNING AND REPORTING (SF CHARTER SEC. 8B.123. (a) Planning and Reporting The Public Utilities Commission shall annually hold public hearings to review, update and adopt: (1) A long-term capital plan, covering projects during the next 10-year period; including cost estimates and schedules. (2) A long-range financial plan, for a 10-year period, including estimates of operation and maintenance expenses, repair and replacement costs, debt costs and rate increase requirements. (3) A Long-Term Strategic Plan, setting forth strategic goals and objectives and establishing performance standards as appropriate. The long-term capital plan and long-range financial plan shall serve as a basis and supporting documentation for the Commission's capital budget, the issuance of revenue bonds, other forms of indebtedness and execution of governmental loans under this Charter. (b) Citizens' Advisory Committee. The Board of Supervisors, in consultation with the General Manager of the Public Utilities Commission, shall establish by ordinance a Citizens' Advisory Committee to provide recommendations to the General Manager of the Public Utilities Commission, the Public Utilities Commission and the Board of Supervisors. (Added November 2002)

November
2019

SAN FRANCISCO PUBLIC UTILITIES COMMISSION



DEBT MANAGEMENT POLICIES & PROCEDURES

- ^ To review the San Francisco Public Utilities Commission 'Debt Management Policies and Procedures', go to:
<https://sfwater.org/modules/showdocument.aspx?documentid=9819>.

DEBT SERVICE COVERAGE POLICY

The San Francisco Charter Section 8B.125 requires the SFPUC to exercise prudent financial stewardship of SFPUC assets by establishing “rates, fees and charges at levels sufficient to improve or maintain financial condition and bond ratings at or above levels equivalent to highly rated utilities of each enterprise under its jurisdiction, meet requirements and covenants under all bond resolutions and indentures... and provide sufficient resources for the continued financial health (including appropriate reserves), operation, maintenance and repair of each enterprise, consistent with good utility practice.” To most effectively meet these objectives, the SFPUC will adopt financial policies that foster financial stability,

supports fiscal discipline, and maintains credit ratings at or above levels equivalent to highly rated utilities. Strong financial policies signal to rating agencies and the capital markets that an entity is well managed and committed to prudent financial practices.

Debt issuance is a significant funding source for the SFPUC’s capital programs. Pursuant to SFPUC bond covenants entered into with bondholders, enterprise revenues pledged for the repayment of debt service must meet the following financial ratios.

Indenture Coverage: Net Revenues must equal a minimum of 1.25 x annual debt service; calculated as follows:

$$\frac{(\text{Annual Revenues} - \text{Operating Expenses}) + \text{Unappropriated Fund Balance}}{\text{Annual Debt Service}}$$

Current Coverage: Annual Revenues must equal a minimum of 1.00 x annual debt service; calculated as follows:

$$\frac{(\text{Annual Revenues} - \text{Operating Expenses})}{\text{Annual Debt Service}}$$

To ensure that the SFPUC maintains access to low-cost capital and retains financial flexibility for contingencies, it is important to adopt and implement financial policies that impose higher standards than the minimum indenture requirements. Therefore, for each enterprise, the SFPUC will adopt budgets, rates and financial plans that generate revenues such that:

Indenture Coverage shall be at least **1.35x**

Current Coverage shall be at least **1.10x**

To monitor compliance with this policy, SFPUC Finance staff will present this information to the Commission as part of the biennial budget process and the annual 10-Year Financial Plan.

Adopted by Resolution 17-0060 on March 28, 2017

FUND BALANCE RESERVE POLICY

The San Francisco Charter Section 8B.125 requires the SFPUC to be a financial steward by establishing “rates, fees and charges at levels sufficient to improve or maintain financial condition and bond ratings at or above levels equivalent to highly rated utilities of each enterprise under its jurisdiction, meet requirements and covenants under all bond resolutions and indenture and provide sufficient resources for the continued financial health (including appropriate reserves), operation, maintenance and repair of each enterprise, consistent with good utility practice.” To most effectively meet this requirement, the SFPUC will utilize financial policies that foster financial stability, support fiscal discipline, and maintain credit ratings at or above levels equivalent to highly rated utilities. Institutionalized policies signal to rating agencies and the capital markets that an entity

is well managed and committed to prudent financial practices.

The SFPUC faces a number of risks to revenue stability, including multi-year rate packages, drought and weather variability, and highly volumetric rates. To manage these risks and reduce susceptibility to emergency rate increases, the SFPUC will ensure adequate ratepayer protection in the form of a Fund Balance Reserve. For each enterprise, the SFPUC will adopt budgets and establish rates to maintain undesignated fund balances that provide sufficient capacity to bridge shortfalls in cash flow and cover unanticipated expenditures, while also considering ratepayer impact and fairness in compliance with the San Francisco Charter. Specifically, for the time period covered in the SFPUC’s Charter-

mandated 10-Year Financial Plan, operating and capital budgets and rates will be proposed for adoption such that the Fund Balance Reserve totals **a minimum of 90 days or 25% of Operations & Maintenance Expenses** (including programmatic projects, and excluding debt service and revenue-funded capital) throughout the forecast period. Amounts in excess of the minimum will be considered for contingencies and rate stabilization.

In the event that Fund Balance Reserve exceeds 250 days or 68% of Operations & Maintenance Expenses, this fact will be brought to the Commission during the subsequent biannual budget process for consideration for uses, including:

- The reduction of future customer rate increases,
- Management of unanticipated one-time events (such as an earthquake or disaster), or any ongoing impairment to revenues (such as a drought or economic downturn), or
- Revenue-funded capital projects, which will reduce projected future debt issuance.

To monitor compliance with this policy, SFPUC Finance staff will present this metric to the Commission as part of the annual 10-Year Financial Plan and Quarterly Budget Status Report.

Adopted by Resolution 17-0044 on February 28, 2017

RATEPAYER ASSURANCE POLICY

Background

The San Francisco Charter Section 8B.125 requires the SFPUC to exercise prudent financial stewardship of SFPUC assets by establishing “rates, fees and charges at levels sufficient to improve or maintain financial condition and bond ratings at or above levels equivalent to highly rated utilities of each enterprise under its jurisdiction, meet requirements and covenants under all bond resolutions and indentures and provide sufficient resources for the continued financial health (including appropriate reserves), operation, maintenance and repair of each enterprise, consistent with good utility practice.” To most effectively meet these requirements, the SFPUC will utilize financial policies that foster financial stability, support fiscal discipline, and maintain credit ratings at or above levels equivalent to highly rated utilities. Strong financial policies signal to rating agencies and the capital markets that an entity is well managed and committed to sound financial practices.

Purpose

The Commission recognizes that its revenue comes from ratepayers, and takes seriously its commitment to provide affordable and reliable water, power and sewer services. Ratepayers pay for: 1) what we do, i.e. our essential-service water, power and sewer utilities, and 2) how we do it, through a commitment to sustainability and adherence to the Commission’s Environmental Justice and Community Benefits policies.

The Ratepayer Assurance Policy serves as guidance to the SFPUC General Manager and staff of the Commission’s expectations regarding a) prudent use of ratepayer funds, b) establishment of rates and charges, and c) transparency in budgeting and rate-setting processes. SFPUC departments are self-supported enterprises, receiving no tax revenue from San Francisco’s General Fund. The Water, Power, and Sewer Enterprises are funded by service-based rates, fees and charges, as well as non-operating revenues such as interest and rental income.

Accountability to ratepayers is a central tenet that guides the use of ratepayer monies and the stewardship of the utility systems and resources entrusted to the SFPUC’s care.

Prudent Use of Ratepayer Funds

This policy is intended to provide ratepayers with the assurance that management recommendations and Commission decisions are made in the ratepayers’ best interest. It promotes accountability and transparency by

using established budget and planning efforts to report how management will address the following:

Mission Management

The SFPUC shall comply with all San Francisco Charter requirements, including the development of our budget, as well as our long-term capital, financial and strategic plans. This includes mission-driven budgets for SFPUC Enterprises which are considered, adopted and published in a timely manner. Specifically, the Commission shall:

Review any proposed changes to the mission statement early in the budget process and any changes to the mission are adopted by the Commission prior to the cost of such changes being budgeted.

Review an analysis of mission changes along with how the proposed budget ties to the Strategic Plan.

Asset Management

As a utility, a significant portion of the SFPUC budget is allocated for the acquisition, construction, repair, and replacement of critical physical assets. Purchasing contracting and construction are subject to extensive legal and administrative regulation. Asset costs are ultimately driven by the assets acquired and the way in which they are maintained. The Commission shall:

- Plan and fund the acquisition, design, construction, repair, and replacement of assets such that their life cycle cost is minimized.
- Reduce the environmental impact of its assets by using more efficient technologies and seeking out opportunities to practice resource recovery, simultaneously reducing the cost of its activities. Examples include the use of vehicle pools, public transit, and greenhouse gas-free vehicles; developing power generation capacity as a byproduct of other utility functions; capturing and using stormwater runoff and recycled water wherever feasible; and investing in energy efficient and recycled buildings, assets, and materials.
- Review and approve all major asset purchases through the budget process, confirming that they are consistent with City policies and best practices promulgated by the General Manager.
- Ensure that assets (including, but not limited to, vehicles, computers, and other electronic devices) are selected and assigned to individuals in a cost-effective manner, and that they are used for business purposes that benefit the ratepayers.
- Support the development of innovative technologies, including the consideration of prudent demonstration projects, and implement proven technologies that achieve utility reliability, performance effectiveness, cost minimization, and continued environmental impact improvements.

Personnel Management

Personnel costs are driven by how the SFPUC operates and organizes its workforce, including the number and level of staff. Compensation and benefit costs are determined by labor agreements, the Civil Service Commission, the City's Retirement Board, and the City's Health Service System. Position classifications and hiring authorizations include a review process that is governed by the Civil Service Commission and the City's Human Resources Department to ensure our hiring is appropriate for the work assigned. The Commission shall:

- Meet new position needs by reassignment of existing positions or substituting new positions for existing ones wherever possible.
- Review all proposed position changes in every budget in order to assure compliance with the agency's mission and Strategic Plan.
- Structure its workforce to ensure that customer service and utility operations are achieved effectively and efficiently, minimizing unplanned overtime, and maintaining the established level of service.
- Consider strategies to promote employee retention and succession planning by evaluating employee satisfaction with job content, compensation, and personnel processes.

Operating Cost Containment

To the extent that operating costs are determined by SFPUC management choices, the Commission shall limit operating cost increases, exclusive of debt services and pay-go capital investment, to not more than the cost of inflation. Any proposed budget that increases operating costs above this level will be supported by findings of necessity.

Social & Environmental Stewardship

The SFPUC has a stated policy of supporting the triple bottom line (TBL) form of performance measurement, evaluating the impact of projects beyond solely financial performance to include environmental as well as social impacts. Management shall report to the Commission on how the proposed budget and rates support TBL principles.

Establishment of Rates and Charges

Within industry standard ratemaking best practices, the SFPUC has significant flexibility to create rate structures that advance different policy goals. The SFPUC commits to designing rates in a manner that prioritizes the needs of ratepayers and aligns with the mission and values of the agency.

Tradeoffs are inherent in the development of rates and financial planning; it is rarely possible to achieve all goals.

To ensure that decision-makers have properly assessed the impact of their recommendations, the SFPUC has identified the following principles to consider during the development of all proposed rates and charges:

Revenue Sufficiency

The Commission will aim to establish rates sufficient to cover the full cost of all SFPUC activities. Recovering sufficient revenue to fund the programs identified by the long-term plan is necessary to meet established level of service goals and comply with bond covenants, contract commitments, and adopted SFPUC and City policies.

Customer Equity

The Commission will establish rates based on cost of service in compliance with the San Francisco Charter and California Proposition 218. Cost of service based rates are an industry best practice to fairly allocate the cost of providing utility services between customer classes.

Environmental Sustainability

The Commission will aim to establish rates in a manner that values environmental sustainability and preserves the natural resources entrusted to the SFPUC's care. Rate structures that financially incentivize customers to conserve resources or reduce their demand on the SFPUC's system support this principle.

Affordability

The Commission will consider SFPUC service affordability for all its customers. Prudent operating and capital planning ties annual spending to system demand and intergenerational equity, enabling financial engineering and reducing costly emergency expenditures. Rate design should also consider the burden imposed by SFPUC bills on low-income customers.

Predictability

The Commission will aim to establish rates designed to minimize bill fluctuations, enabling ratepayers to plan ahead for their personal finances. Communicating to ratepayers well in advance of pending rate changes is important to prevent rate shock.

Simplicity

The Commission will aim to establish rates that are easy for ratepayers to understand. Simple rate structures also require fewer implementation and administration costs.

Tradeoffs

These principles sometimes compete with each other. For instance, customer equity may impede simplicity, environmental sustainability, or predictability. Rate structures that equitably distribute the cost of service often require more detail and complexity, which can

hinder customers' ease of understanding, discourage measures to promote environmental sustainability, or inhibit the predictability of monthly bills. Some rate methodologies that promote conservation may be more challenged in meeting cost of service objectives, so the SFPUC will consider the principle of environmental sustainability alongside that of revenue sufficiency. Most of the SFPUC's costs (including debt service, operations and maintenance, and repair and replacement of aging infrastructure) do not vary based on consumption. With widespread customer conservation, rates tied solely to volumetric usage will impede revenue sufficiency.

The Commission endeavors to thoughtfully consider these inherent tradeoffs, and to transparently present the reasons for its decision-making.

Transparency

The above principles for prudent use of ratepayer funds and the establishment of rates and charges must be supported by a strong commitment to transparency. None of the Commission's work can be effectively carried out without the trust of its ratepayers. This requires open communication and engagement with the Commission, ratepayers, and other key stakeholders about the tradeoffs that are inevitably present in decision-making.

SFPUC management and staff recognize that it is their obligation to accurately collect and present to the Commission the input of a diverse and representative set of stakeholders in the financial planning, budgeting, and rate-setting processes. This includes the oversight provided by the Citizens' Advisory Committee, the Rate Fairness Board, the Revenue Bond Oversight Committee, the Board of Supervisors, and the Mayor's Office.

Mechanisms to communicate information on key decisions shall include: timely public meetings for budget and rate review; accurate, predictable communication of future rate changes, including average bill impact illustrations; and descriptions of both operating and capital costs to ensure that ratepayers know the component costs of their utility service and related programs. In addition, the SFPUC fosters transparency for ratepayers and the Commission through a range of publications that provide metrics and context regarding asset management, affordability, environmental sustainability, community engagement, cost containment, and levels of service. These include the annual Ten-Year Financial and Capital Plans, as well as independent cost of service studies as required by the city charter. With these metrics and stakeholder input, the Commission can ensure that it makes informed decisions that support the SFPUC's mission and values.

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SAN FRANCISCO PUBLIC UTILITIES COMMISSION
AN ENTERPRISE DEPARTMENT OF THE CITY AND
COUNTY OF SAN FRANCISCO, CALIFORNIA

