



City of Palo Alto

(ID # 11293)

Utilities Advisory Commission Staff Report

Report Type: Agenda Items**Meeting Date: 5/20/2020****Summary Title: FY 2021 Proposed Utilities Operating and CIP Budgets****Title: Staff Recommendation That the Utilities Advisory Commission Recommend the City Council Adopt the Proposed Operating and Capital Budgets for the Utilities Department for Fiscal Year 2021****From: City Manager****Lead Department: Utilities**

On April 15, 2020, the Utility Advisory Commission (UAC) approved staff recommendation of electric rate increases of 2% and gas rate increases of 3% for the fiscal year (FY) 2021.

In the interest of providing options to help the community keep its utility bills low during the economic crisis created by the COVID-19 pandemic, the Utilities Department presented an alternative rate plan to the Finance Committee on May 5, 2020 involving no rate increases for two years and no more than 5% rate increases in the subsequent three years. The Finance Committee deliberated the proposed fiscal year (FY) 2021 electric (2%) and gas (3%) rate increases and recommended zero rate change for Electric and 3% increase for Gas.

While the Department normally presents only five year projections, the projections below rely on a full ten-year forecast. Utilities staff normally recommends rate plans that balance costs and revenues and bring reserves to their target level by the end of the five-year forecast period, since forecasts become more uncertain six to ten years into the future. To achieve two years of 0% rate increases without large rate increases in FY 2023 through FY 2025 or major long-term service reductions, staff recommends relaxing this standard and using a ten year forecast period. By doing this staff can better maintain the City's priorities for its utilities (safety, reliability, cost-effectiveness, and sustainability) over the forecast period.

The rate projections for each utility would be as follows:

Table 1: Ten-Year Rate Projections by Utility

	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030
Electric	0%	0%	5%	5%	3%	2%	2%	2%	3%	3%
Gas	0%	0%	5%	5%	5%	5%	3%	0%	1%	0%
Water	0%	0%	5%	5%	5%	7%	6%	6%	3%	3%
Sewer	0%	0%	5%	5%	5%	6%	5%	2%	2%	2%

In order to achieve these rates, some one-time cost reductions would be required in the next few years.

Table 2: Cost Reductions Required By Utility, FY 2021 – FY 2025

Electric	\$1.5 million
Gas	\$13.8 million
Water	No reductions needed
Sewer	\$5.5 million

The savings for different types of customers as compared to the proposals presented to the UAC is shown in Table 3.

Table 3: Example Customer Savings Compared to Staff Proposal

	As of July 1, 2020	As of July 1, 2021
Median Residential Customer	\$0.31 per month	\$8.80 per month
Small business	\$54 per month	\$ 81 per month
Restaurant	\$54 per month	\$108 per month
Hotel	\$156 per month	\$271 per month

Cost reductions (preliminary estimates) would need to be implemented in each utility. Examples of the types of actions that could be taken by the Electric Utility to reduce costs without impacting safety, reliability, and infrastructure investment include:

- Postpone non-critical capital investment like utility undergrounding rebuilds (\$2.2 million for FY 2021)
- Release funds from the Electric Special Projects Reserve to offset economic impacts or to internally finance certain types of expenses. (Reserve balance is currently \$41.6 million, of which \$5.0 million for FY 2021 and \$7.0 million for FY 2022) is tentatively designated for the City’s Advanced Metering Infrastructure (AMI) project.)

- Temporarily reduce utility efforts in energy efficiency in the sectors with longer payback periods for efficiency investments (residential and small and medium business customers). (Exact amount subject to internal review of various programs to review payback periods. Total annual electric efficiency spending is approximately \$3.5 million per year.)
- Postpone Utilities Department support for building electrification for two to three years. Electric vehicle programs could be continued due to the availability of a segregated state funding source (Low Carbon Fuel Standard program). (~\$1 million for FY 2021 and FY 2022)
- Reduce the amount of renewable energy purchased by the utility below 100% Carbon Neutral. (~\$3 million to \$6 million per year for FY 2021 and FY 2022, depending on market prices and the amount sold.)
- Two year postponement of installation of advanced metering infrastructure (\$12 million) and phase 2 construction of the fiber network expansion to support AMI and SCADA. (~\$2 million)

The gas utility would need to make the most significant reductions, \$13.8 million. To make reductions this large, temporarily bond financing capital expenditures would typically be a reasonable option. But given the City's ambitious building electrification goals, long-term bond financing may not be prudent. This means that staff may need to temporarily make significant reductions in capital investment for this utility. Examples of the types of actions that might need to be taken by the Gas Utility include:

- Ending the City's Carbon Neutral Gas carbon offset program (~\$1 million to \$1.5 million per year, depending on market prices)
- Temporarily reduce utility efforts in energy efficiency in the sectors with longer payback periods for efficiency investments (residential and small and medium business customers). (Exact amount subject to internal review of various programs to review payback periods. Total annual gas efficiency spending is approximately \$600,000 per year.)
- Postponing or eliminating cross-bore inspections (~\$1 million in FY 2021 and FY 2022)
- Postpone installation of advanced metering infrastructure and gas meter replacement (~\$3 million in FY 2022)
- Cutting back on capital investment by postponing or reducing project scope of work of gas main PVC pipe replacement (up to \$10 million)
- The impacts of the above cost reductions would impede sustainability efforts, leave the City at some level of risk from cross-bores, delay customer availability of hourly usage data for several years, and slow down the rate of replacement of PVC gas mains, which have glued joints that are at higher risk of leakage during an earthquake. To mitigate the safety risk of these cost reductions, Utilities would increase the frequency of citywide gas surveying (mobile and walking) for gas leaks (\$100,000).

The Water Utility does not require any cost reductions to hold rates flat for two years due to delays in CIP projects and no projected supply rate increases from SFPUC until FY 2023. Staff's preliminary recommendation to the UAC this year was to hold rates flat for two years because costs looked to be relatively flat. In later years costs were expected to increase by 5%, as would rates. Based on UAC feedback and internal staff discussion, staff later decided that it was preferable to have some smaller, earlier rate increases to enable later year rate increases to be 3% to 4% rather than 5%. For the City to hold rates flat for two years, staff would simply need to reinstate its original recommendation.

The Wastewater Utility is particularly limited in the types of service reductions it can make. However, bond financing some infrastructure investment may be a viable alternative for this utility. Examples of the types of actions that could be taken by the Wastewater Collection Utility include:

- Cutting back on capital investment by postponing or reducing scope of work of sewer main replacement, or bond financing several years of capital investment. (~\$5.3 million)
- Determining whether Regional Water Quality Control Plant investments can be delayed to reduce projected wastewater treatment charges. (Savings depend on which investments are delayed)
- Staff would not recommend cuts to sewer cleaning, maintenance, and inspection activities. If capital investment were postponed staff would need to focus additional maintenance efforts on areas of the system in poorer condition that are currently scheduled for replacement.

These projections do assume impacts from an economic downturn over the next five years. These assumed impacts include:

- Modest FY 2020 impacts due to shelter in place. The electric utility is seeing a 10% decrease in sales, which is assumed to continue through the end of the fiscal year. The revenue loss for the electric utility is roughly \$3.75 million, which is offset by roughly \$2.25 million in supply cost savings for a net loss of \$1.5 million. Other utilities have not seen any decrease in sales, so no sales decreases are assumed. Significant utility bill defaults by restaurants, retail, and hotels are also assumed for FY 2020 (\$2.4 million for the electric utility, \$540,000 for the gas utility, \$257,000 for the water utility, and \$229,000 for the wastewater utility)

- For the electric utility, sales are assumed to be reduced by 10% compared to pre-COVID forecasts in FY 2021, 5% in FY 2022, and 3% in FY 2023. Note that during the Great Recession, the electric utility experienced no more than 3% reductions in sales over the entire course of the recession, and sales reductions were typically 1% to 2%.

- Water and gas sales are assumed to drop by twice as much as they did during the Great Recession. During that recession sales dropped by 1% to 3% after accounting for other impacts (e.g. drought and weather), so this forecast assumes post-COVID impacts on sales of 2% to 6% for several years.
- No projection is included for utility bill defaults beyond FY 2020 because staff does not have adequate information to make a projection. Utility bill defaults were not significant during the Great Recession (only a few hundred thousand dollars per utility over the course of the entire recession), so if staff based its projections on the Great Recession, the impact of utility bill defaults would be negligible. This is the greatest source of uncertainty in the forecast, since defaults are likely to be much more significant in the coming years than they were in the Great Recession. Staff will work to improve these forecasts as it tracks delinquent payments over the next few months.

Attached are the FY 2021 Proposed Operating and Capital budgets for the Utilities Department. Due to the size of the CIP budget, staff only printed the summary pages of each utility for FY 2020– FY 2024.

The entire Utilities CIP budget for FY 2021 – FY 2025 with the individual project pages can be downloaded and viewed in its entirety from the link:

[Utilities Proposed Capital Budget FY 2021 - FY 2025](#)

Attachments:

- Attachment A: FY 2021 Proposed Operating Budget for Utilities
- Attachment B: FY 2021 Proposed Capital Budget Summary for Utilities

UTILITIES

Mission Statement



in sound financial condition.

The City of Palo Alto Utilities' mission is to provide safe, reliable, environmentally sustainable, and cost-effective services.

Purpose

The purpose of the City of Palo Alto Utilities is to provide high quality, cost-effective electric, gas, fiber optics, water and wastewater collection services; promote effective energy and water efficiency programs; proactively manage infrastructure needs and replace deteriorated or aging facilities with new technologies to ensure safe and reliable delivery of services; and ensure the City's utilities are

UTILITIES DIRECTOR

Dean Batchelor

ELECTRIC ENGINEERING & OPERATIONS

2.00 Administrative Associate II
 1.00 Assistant Director Utilities Operations
 1.00 Business Analyst
 1.00 Coordinator Utilities Projects
 3.00 Electrician Assistant I
 1.00 Electric Equipment Technician
 2.00 Electric Heavy Equipment Operator
 4.00 Electric Project Engineer
 2.00 Electric Underground Inspectors
 1.00 Electric Underground Inspector-Lead
 1.00 Engineering Manager – Electric
 2.00 Engineer Technician III
 10.00 Lineperson / Cable Splicer
 4.00 Lineperson / Cable Splicer-Lead
 1.00 Manager Electric Operations
 3.00 Metering Technician
 1.00 Metering Technician- Lead
 2.00 Overhead/Underground Troubleshooter
 1.00 Power Engineer
 2.00 SCADA Technologist
 4.00 Senior Electrical Engineer
 5.00 Street Light, Traffic Signal & Fiber Technician
 2.00 Street Light, Traffic Signal & Fiber Technician-Lead
 6.00 Substation Electrician
 2.00 Substation Electrician-Lead
 1.00 Supervisor, Electric Project Engineer
 3.00 Utilities Comp Tech
 1.00 Utilities Comp Tech-Lead
 3.00 Utilities Engineer Estimator
 1.00 Utilities Engineer Estimator-Lead
 3.00 Utilities Locator
 6.00 Utilities Supervisor
 5.00 Utilities System Operator

UTILITIES ADMINISTRATION

1.00 Administrative Assistant
 1.00 Administrative Associate II
 2.00 Business Analyst
 1.00 Chief Operating Officer
 1.00 Compliance Manager
 1.00 Coordinator, Utilities Projects
 1.00 Manager Communications
 1.00 Manager Utilities Telecom
 1.00 Principal Business Analyst
 0.50 Program Assistant
 1.00 Safety Officer
 3.00 Senior Business Analyst
 1.00 Senior Resource Planner
 1.00 Strategic Business Manager

CUSTOMER SUPPORT SERVICES

1.00 Assistant Director Utilities Customer Support Services
 2.00 Credit and Collections Specialist
 2.00 Customer Service Specialist-Lead
 7.00 Customer Service Representative
 2.00 Customer Service Specialist
 1.00 Manager Customer Service
 1.00 Manager, Utilities Credit and Collections
 6.00 Meter Reader
 1.00 Meter Reader-Lead

RESOURCE MANAGEMENT

1.00 Assistant Director, Resource Management
 1.00 Administrative Associate II
 1.00 Business Analyst
 3.00 Key Account Representative
 1.00 Manager, Utility Program Services
 4.00 Marketing Program Administrator
 1.00 Program Assistant II
 5.00 Resource Planner
 5.5 Senior Resource Planner

FY 2021 POSITION TOTALS

245.0 - Full-time
 9.46 - Hourly

This organizational chart represents citywide Full-Time Equivalents (FTEs) for this department. The Department Summary tables summarize FTEs by position allocation.

WGW ENGINEERING & OPERATIONS

2.00 Administrative Associate II
 1.00 Assistant Director Utilities Engineering
 2.00 Business Analyst
 1.00 Cathodic Protection Tech-Asst
 1.00 Cathodic Technician
 2.00 Cement Finisher
 4.00 Coordinator Utilities Projects
 4.00 Engineer
 1.00 Engineering Manager – WGW
 1.00 Engineering Technician III
 1.00 Gas & Water Meter Measurement and Control Technician - Lead
 4.00 Gas & Water Meter Measurement and Control Technician
 4.00 Heavy Equipment Operator / Installer Repairer
 5.00 Inspector, Field Services
 2.00 Maintenance Mechanic Welding
 1.00 Manager WGW Operations
 1.00 Program Assistant
 5.00 Project Engineer
 1.00 Restoration Lead
 5.00 Senior Project Engineer
 1.00 Senior Mechanic
 1.00 Senior Utilities Field Service Rep
 2.00 Senior Water System Operator
 2.00 Utilities Engineer Estimator
 5.00 Utilities Field Service Rep
 10.00 Utilities Installer/Repairer
 1.00 Utilities Installer/Repairer Assistant
 5.00 Utilities Install/Rep-Lead
 3.00 Utilities Install/Rep-Welding
 2.00 Utilities Install/Rep-Welding-Lead
 6.00 Utilities Supervisor
 4.00 Water Systems Operator II
 5.00 WGW Heavy Equipment Operator

Description

Palo Alto is the only city in California that offers a full array of utility services to its citizens and businesses. Because of this, the City has a unique opportunity to partner with the Palo Alto community to enjoy the benefits and achievements of reliable, home-grown, and environmentally-focused utilities. Palo Alto has a tradition of over 100 years of successful public utility operations. It is a tradition that continues to provide the Palo Alto community with safe and reliable utilities service, local decision-making over policies, utility rate-making, environmental programs, and customized services.

The City of Palo Alto Utilities (CPAU) continues to focus on customer service, infrastructure reliability, regulatory compliance, and cost containment. CPAU also supports the City's sustainability goals by building a low-carbon energy supply through the use of renewable energy and offsets and by promoting programs to help customers use energy and water more efficiently, reduce their carbon footprint, and help them integrate new technologies.

At CPAU, our people empower tomorrow's ambitions while caring for today's needs. We make this possible with our outstanding professional workforce, leading through collaboration, and optimizing resources to ensure a sustainable and resilient Palo Alto.

ADMINISTRATION

Utilities Administration is responsible for the overall management of the CPAU including communication, regulatory compliance, strategic planning, budget coordination, legislation and regulatory policy analysis, and personnel and administrative support to the entire Department.

CUSTOMER SUPPORT SERVICES

Customer Support Services annually bills \$250 million for the City's electric, natural gas, water, commercial fiber optic, wastewater collection (operated by CPAU), storm drain, and refuse (operated by Public Works) services; operates the Customer Service Call Center with 75,000 annual customer interactions; reads 90,000 utility meters per month; and implements Credit and Collection policies and financial assistance programs.

UTILITIES

ENGINEERING

Engineering is responsible for managing all phases of CPAU's capital improvement projects which include providing new or upgrading existing service to customers and replacing and rehabilitating the City's electric, fiber, gas, water, and wastewater distribution systems.

OPERATIONS

Utilities Operations is responsible for the operations, maintenance, and emergency response for the electric, fiber, gas, water, and wastewater distribution systems.

RESOURCE MANAGEMENT

Resource Management is responsible for the long-term resource acquisition plan for, electricity, natural gas, and water; contract negotiations to acquire renewable resources; financial planning; rate development; energy efficiency and water conservation programs; and management of key accounts.

Budget Summary

	FY 2018 Actuals	FY 2019 Actuals	FY 2020 Adopted Budget	FY 2021 Proposed Budget	FY 2021 Change \$	FY 2021 Change %
Dollars by Fund						
Electric Fund - Operating	51,443,024	56,136,690	76,606,602	79,254,105	2,647,503	3.5%
Electric Supply	108,624,454	102,141,767	110,086,193	112,382,196	2,296,003	2.1%
Fiber Optics	3,377,476	2,885,744	4,325,932	3,589,532	(736,400)	(17.0)%
Gas Fund - Operating	23,120,579	26,255,608	26,707,978	36,489,947	9,781,969	36.6%
Gas Supply	14,110,302	17,293,927	17,866,764	17,109,788	(756,976)	(4.2)%
Wastewater Collection - Operating	17,880,581	18,415,551	27,310,057	23,818,873	(3,491,184)	(12.8)%
Water Fund - Operating	46,737,022	43,711,111	60,843,556	53,359,316	(7,484,240)	(12.3)%
Total	265,293,438	266,840,398	323,747,082	326,003,756	2,256,675	0.7%
Revenues						
Charges for Services	459,431	509,624	420,000	260,000	(160,000)	(38.1)%
Charges to Other Funds	841,410	470,943	354,717	375,311	20,594	5.8%
From Other Agencies	500,773	488,052	576,632	576,632	—	—%
Net Sales	248,735,959	264,444,785	264,139,740	276,120,189	11,980,448	4.5%
Operating Transfers-In	3,977,536	3,873,979	3,163,724	3,202,109	38,385	1.2%
Other Revenue	9,785,634	11,348,937	11,719,065	11,045,946	(673,119)	(5.7)%
Rental Income	5,000	10,000	—	—	—	—%
Return on Investments	4,131,918	4,908,650	5,160,700	4,565,900	(594,800)	(11.5)%
Total Revenues	268,437,661	286,054,971	285,534,578	296,146,086	10,611,508	3.7%
Positions by Fund						
Electric Fund	111.23	111.33	110.95	111.34	0.39	0.35%
Fiber Optics Fund	7.60	7.60	7.50	7.10	(0.40)	(5.33)%
Gas Fund	53.11	53.83	53.83	53.83	—	—%
Utilities Administration	19.21	19.21	19.46	19.46	—	—%
Wastewater Collection Fund	29.00	29.16	29.16	28.50	(0.66)	(2.26)%
Water Fund	47.90	46.92	46.94	47.61	0.67	1.43%
Total	268.05	268.05	267.84	267.84	—	—%

ELECTRIC FUND

Description

On January 16, 1900, the City of Palo Alto began operation of its own electric system. A steam engine was the initial source of the City's electricity and was replaced by a diesel engine in 1914. As demand for electricity and the population continued to grow, the City of Palo Alto Utilities (CPAU) connected to the Pacific Gas and Electric distribution system and purchased power from additional sources.

The integrity of the infrastructure required for achieving a high level of reliability and value for customers is of paramount importance to CPAU. The Electric Fund strives to enhance the customer service connection experience, increase energy efficiency participation, and increase the percentage of electric supply obtained from renewable energy supplies. The City has entered into a number of contracts with producers of wind, landfill gas, and solar energy for more than 15-year terms.

Budget Summary

	FY 2018 Actuals	FY 2019 Actuals	FY 2020 Adopted Budget	FY 2021 Proposed Budget	FY 2021 Change \$	FY 2021 Change %
Dollars by Division						
CIP Electric Fund	10,315,316	15,615,817	23,765,466	25,675,767	1,910,301	8.0%
Electric Administration	24,586,157	23,218,636	27,176,349	27,202,118	25,768	0.1%
Electric Customer Service	2,292,027	2,306,400	2,665,595	2,702,805	37,211	1.4%
Electric Demand Side Management	3,958,743	3,716,457	6,991,511	7,060,480	68,969	1.0%
Electric Engineering (Operating)	1,790,943	1,843,389	2,415,964	2,538,266	122,302	5.1%
Electric Operations and Maintenance	11,664,339	11,606,585	16,103,804	17,465,526	1,361,722	8.5%
Electric Resource Management	105,459,953	99,971,173	107,574,106	108,991,339	1,417,233	1.3%
Total	160,067,478	158,278,458	186,692,795	191,636,301	4,943,506	2.6%
Dollars by Category						
Salary & Benefits						
Healthcare	1,949,617	1,820,670	2,475,451	2,378,757	(96,694)	(3.9)%
Other Benefits	304,713	318,143	373,996	462,288	88,292	23.6%
Overtime	929,360	1,017,707	517,920	531,386	13,466	2.6%
Pension	3,103,244	3,214,302	5,290,653	5,332,020	41,367	0.8%
Retiree Medical	1,617,277	1,555,185	1,601,840	1,626,258	24,418	1.5%
Salary	10,816,735	10,846,696	13,384,300	15,147,711	1,763,411	13.2%
Workers' Compensation	123,558	292,351	441,673	459,563	17,889	4.1%
Total Salary & Benefits	18,844,505	19,065,053	24,085,834	25,937,983	1,852,149	7.7%
Allocated Charges	5,506,903	4,253,400	10,434,079	9,655,240	(778,839)	(7.5)%
Contract Services	3,096,678	2,786,957	7,615,180	6,677,366	(937,814)	(12.3)%
Debt Service	8,770,695	8,368,513	8,476,576	8,442,678	(33,898)	(0.4)%
Equity Transfer	12,887,000	12,973,000	13,129,000	13,479,000	350,000	2.7%
Facilities & Equipment	2,174	18,379	64,155	27,300	(36,855)	(57.4)%
General Expense	2,135,223	2,258,230	3,441,967	3,441,967	—	—%
Operating Transfers-Out	560,572	297,973	—	50,000	50,000	—%
Rents & Leases	5,612,918	5,784,139	6,276,636	6,389,015	112,379	1.8%
Supplies & Material	474,977	533,907	924,207	924,207	—	—%
Transfer to Infrastructure	—	199,167	—	—	—	—%
Utility Purchase	94,659,116	89,680,963	95,678,373	97,084,000	1,405,627	1.5%

Budget Summary

	FY 2018 Actuals	FY 2019 Actuals	FY 2020 Adopted Budget	FY 2021 Proposed Budget	FY 2021 Change \$	FY 2021 Change %
Capital Improvement Program	7,516,715	12,058,775	16,566,787	19,527,544	2,960,758	17.9%
Total Dollars by Expense Category	160,067,478	158,278,458	186,692,795	191,636,301	4,943,506	2.6%

Revenues						
Charges for Services	310,863	375,880	380,000	220,000	(160,000)	(42.1)%
Charges to Other Funds	460,890	193,480	139,712	145,401	5,689	4.1%
Net Sales	145,962,397	154,155,483	154,329,190	164,199,920	9,870,730	6.4%
Operating Transfers-In	3,465,100	3,334,701	2,615,588	2,644,849	29,261	1.1%
Other Revenue	7,508,222	8,797,973	8,928,000	8,918,000	(10,000)	(0.1)%
Rental Income	5,000	10,000	—	—	—	—%
Return on Investments	1,941,997	2,431,950	2,158,000	2,063,800	(94,200)	(4.4)%
Total Revenues	159,654,470	169,299,467	168,550,490	178,191,970	9,641,480	5.7%

Positions by Division						
CIP Electric Fund	31.90	31.90	31.90	24.35	(7.55)	(23.67)%
Electric Customer Service	11.70	12.00	11.90	11.90	—	—%
Electric Demand Side Management	6.17	6.17	5.59	5.59	—	—%
Electric Engineering (Operating)	4.98	4.98	4.98	6.67	1.69	33.94%
Electric Operations and Maintenance	48.10	48.10	48.10	54.35	6.25	12.99%
Electric Resource Management	8.38	8.18	8.48	8.48	—	—%
Total	111.23	111.33	110.95	111.34	0.39	0.35%

Staffing

Job Classification	FY 2018 Actuals	FY 2019 Actuals	FY 2020 Adopted Budget	FY 2021 Proposed Budget	FY 2021 Change FTE	FY 2021 Salary
Account Specialist	0.31	0.31	0.31	0.31	—	24,264
Administrative Associate II	3.90	3.90	3.30	3.30	—	258,704
Assistant Director Administrative Services	0.20	0.20	0.20	0.20	—	36,462
Assistant Director Utilities Customer Support Services	0.40	0.40	0.40	0.40	—	81,178

Staffing

Job Classification	FY 2018 Actuals	FY 2019 Actuals	FY 2020 Adopted Budget	FY 2021 Proposed Budget	FY 2021 Change FTE	FY 2021 Salary
Assistant Director Utilities Engineering	0.40	0.40	0.40	0.40	—	86,969
Assistant Director Utilities Operations	0.60	0.60	0.60	0.60	—	136,307
Assistant Director Utilities/Resource Management	0.50	0.50	0.50	0.50	—	104,447
Business Analyst	1.94	1.60	1.60	1.60	—	248,535
Contracts Administrator	0.10	0.10	0.10	0.10	—	10,113
Coordinator Utilities Projects	1.55	1.55	1.55	1.55	—	148,385
Customer Service Representative	1.87	1.87	1.87	1.87	—	145,277
Customer Service Specialist	0.66	0.66	0.66	0.66	—	56,381
Customer Service Specialist-Lead	0.58	0.58	0.58	0.58	—	52,985
Electric Heavy Equipment Operator	—	—	—	2.00	2.00	217,318
Electric Project Engineer	1.95	1.95	3.25	3.65	0.40	580,788
Electric Underground Inspector	2.00	2.00	2.00	2.00	—	228,883
Electric Underground Inspector-Lead	1.00	1.00	1.00	1.00	—	122,387
Electrical Equipment Technician	1.00	1.00	1.00	1.00	—	116,958
Electrician Assistant I	3.00	3.00	3.00	3.00	—	272,563
Engineering Manager - Electric	0.55	0.55	0.55	0.55	—	118,244
Engineering Technician III	1.40	1.40	1.40	1.40	—	137,971
Heavy Equipment Operator	2.00	2.00	2.00	—	(2.00)	—
Inspector, Field Services	0.25	0.25	0.25	0.25	—	26,577
Lineperson/Cable Specialist	11.00	11.00	11.00	10.00	(1.00)	1,574,352
Lineperson/Cable Specialist-Lead	4.00	4.00	4.00	4.00	—	673,837
Manager Customer Service	0.33	0.33	0.33	0.33	—	52,070
Manager Electric Operations	1.00	1.00	1.00	1.00	—	192,546
Manager Treasury, Debt & Investments	0.30	0.30	0.30	0.30	—	46,513
Manager Utilities Compliance	0.15	0.15	0.15	0.15	—	29,531
Manager Utilities Credit & Collection	0.15	0.15	0.15	0.15	—	23,902
Manager Utilities Program Services	0.40	0.40	0.40	0.40	—	61,718
Meter Reader	1.99	1.99	1.99	1.99	—	145,286
Meter Reader-Lead	0.33	0.33	0.33	0.33	—	25,781

UTILITIES

Staffing

Job Classification	FY 2018 Actuals	FY 2019 Actuals	FY 2020 Adopted Budget	FY 2021 Proposed Budget	FY 2021 Change FTE	FY 2021 Salary
Metering Technician	3.00	3.00	3.00	3.00	—	409,157
Metering Technician-Lead	1.00	1.00	1.00	1.00	—	145,974
Offset Equipment Operator	0.48	0.48	0.48	0.48	—	33,426
Overhead Underground Troublemaker	2.00	2.00	2.00	2.00	—	330,720
Power Engineer	2.30	2.30	1.00	1.00	—	150,030
Principal Business Analyst	0.34	0.34	0.34	0.34	—	62,064
Program Assistant II	—	—	0.60	0.60	—	51,293
Project Manager	0.75	0.75	0.75	0.75	—	81,806
Resource Planner	3.85	3.65	2.85	2.85	—	409,091
SCADA Technologist	1.00	1.00	1.00	1.01	0.01	154,031
Senior Business Analyst	0.68	1.02	1.02	1.02	—	161,921
Senior Electrical Engineer	3.95	3.95	3.95	3.95	—	766,016
Senior Management Analyst	0.10	0.10	0.10	0.10	—	12,881
Senior Resource Planner	3.06	3.06	3.36	3.36	—	600,182
Senior Utilities Field Service Representative	0.10	0.10	0.10	0.10	—	11,588
Street Light, Traffic Signal & Fiber Technician	3.00	3.00	3.00	3.00	—	391,310
Street Light, Traffic Signal & Fiber-Lead	1.00	1.00	1.00	1.00	—	139,610
Substation Electrician	5.50	5.50	5.50	5.50	—	782,839
Substation Electrician-Lead	2.00	2.00	2.00	2.00	—	304,595
Supervising Electric Project Engineer	1.00	1.00	1.00	1.00	—	162,968
Tree Maintenance Person	1.00	1.00	1.00	1.00	—	88,150
Utilities Compliance Technician	2.00	2.00	2.00	3.00	1.00	472,306
Utilities Compliance Technician-Lead	1.00	1.00	1.00	1.00	—	168,459
Utilities Credit/Collection Specialist	2.00	2.00	2.00	2.00	—	201,469
Utilities Engineer Estimator	3.25	3.25	3.25	3.23	(0.02)	422,605
Utilities Field Services Representative	0.50	0.50	0.50	0.50	—	54,184
Utilities Key Account Representative	1.35	1.35	1.35	1.35	—	162,106
Utilities Locator	1.95	1.95	1.95	1.95	—	203,652

Staffing

Job Classification	FY 2018 Actuals	FY 2019 Actuals	FY 2020 Adopted Budget	FY 2021 Proposed Budget	FY 2021 Change FTE	FY 2021 Salary
Utilities Marketing Program Administrator	1.60	1.90	2.70	2.70	—	307,981
Utilities Safety Officer	0.55	0.55	0.55	0.55	—	72,781
Utilities Supervisor	5.00	5.00	5.00	5.00	—	851,822
Utilities System Operator	5.00	5.00	5.00	5.00	—	881,400
Utility Engineering Estimator - Lead	1.00	1.00	1.00	1.00	—	141,336
Sub-total: Full-Time Equivalent Positions	107.12	107.22	107.52	107.91	0.39	15,226,987
Temporary/Hourly	4.11	4.11	3.43	3.43	—	290,926
Total Positions	111.23	111.33	110.95	111.34	0.39	15,517,913

Budget Reconciliation

	Positions	Expenditures	Revenues	Net Electric Fund
Prior Year Budget	110.95	186,692,795	168,550,490	18,142,305
One-time Prior Year Budget Adjustments				
Elwell Court Improvements	—	(170,791)	—	170,791
Administrative Services Staffing Vacancies	—	19,968	—	19,968
One-time Prior Year Budget Adjustments	—	(150,823)	—	190,759
Adjustments to Costs of Ongoing Activities				
Salary and Benefits Adjustments	—	1,739,961	—	1,739,961
Electric Commodity Revenue Adjustments	—	—	5,969,877	(5,969,877)
Electric Customer Sales Revenue (3% Rate Increase)	—	—	4,150,377	(4,150,377)
Realignment of Contract Services	—	(937,814)	—	(937,814)
Transfer from the General Fund (Traffic Signal and Streetlight Electric Costs)	—	—	62,471	(62,471)
Radio Subscription Fees	—	(36,855)	—	(36,855)
Utility Payment Processing	—	—	5,689	(5,689)
Transfer from the General Fund (Canopy Contract CMR 10959)	—	—	(33,210)	33,210
Utilities Capital Staffing Alignment	0.39	92,220	—	92,220
Return on Investments	—	—	(94,200)	94,200
Surplus Energy Revenue	—	—	(249,524)	249,524
Rents & Leases Expenditure Alignment	—	283,170	—	283,170
Equity Transfer to the General Fund	—	350,000	—	350,000
Electric Commodity Purchases Expenditure	—	1,371,729	—	1,371,729
Capital Improvement Program	—	2,960,758	(170,000)	3,130,758
General Fund Cost Allocation Plan	—	218,681	—	218,681
General Liability Insurance Allocated Charges	—	26,634	—	26,634
Grounds Maintenance Allocated Charges	—	627	—	627
Print & Mail Allocated Charges	—	14,182	—	14,182
Public Works Engineering & Inspection Allocated Charges	—	(4,812)	—	(4,812)
Refuse Sales Allocated Charges	—	(333)	—	(333)
Stormwater Management Allocated Charges	—	856	—	856
Utilities Administration Allocated Charges Adjustment	—	(826,083)	—	(826,083)
Utilities Allocated Charges	—	(215,318)	—	(215,318)

Budget Reconciliation

	Positions	Expenditures	Revenues	Net Electric Fund
Utilities Allocated Charges Adjustment	—	(2,280)	—	(2,280)
Vehicle Replacement & Maintenance Charges	—	9,006	—	9,006
Adjustments to Costs of Ongoing Activities	0.39	5,044,329	9,641,480	(4,597,151)
Total FY 2021 Base Budget	111.34	191,586,301	178,191,970	13,735,913
1 Compliance Group Staffing Realignment	—	0	—	—
2 Study of Electric Vehicle Chargers/Locations	—	50,000	—	50,000
Total FY 2021 Proposed Budget	111.34	191,636,301	178,191,970	13,785,913



Budget Adjustments

Budget Adjustments	Positions	Expenditures	Revenues	Net Electric Fund
1 Compliance Group Staffing Realignment	0.00	0	0	0

This ongoing action will add one vacant 1.0 FTE Compliance Technician and drop one vacant 1.0 FTE Linerperson Cablesplicer position to reallocate resources from the Linerperson group to the Compliance group. The Compliance group is responsible for inspecting and coordinating electrical line construction, including construction by contractors. Reallocating resources to the Compliance group aligns with the current business operational needs to meet the growing amount of inspections being conducted and will have minimal impact to the Linerperson group, which receives additional support through a third party contractor.

Performance Results



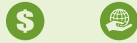
Reallocating resources from the Linerperson group to the Compliance group will help meet the current business operational needs with minimal to no impact to costs and service delivery.

Budget Adjustments

Budget Adjustments	Positions	Expenditures	Revenues	Net Electric Fund
2 Study of Electric Vehicle Chargers/Locations	0.00	50,000	0	50,000

This one-time action adds funding to conduct a study assessing current and potential future locations of electric vehicle chargers at City facility sites. The study will also explore the standardization of chargers to support fueling for existing and new City vehicles. With the expansion of electric vehicles in the City's fleet, the number of chargers must also expand. Funding for this study is supported by the Vehicle Replacement and Maintenance Fund Reserve (\$50,000) and the Utilities Department (\$50,000) through a transfer from the Electric Fund. A corresponding action is proposed in the Vehicle Replacement and Maintenance Fund. (Ongoing Costs: \$0)

Performance Results



This action supports the Sustainability and Climate Action Plan goal of expanding the electric vehicle deployment of the City's fleet.

FIBER OPTICS FUND

Description

In 1996, the City built a dark fiber ring around Palo Alto capable of supporting multiple network developers and service providers with significant growth potential. The fiber backbone network was routed to pass by and provide access to key City facilities and the Palo Alto business community, including research centers and commercial properties.

Dark fiber optics service consists of providing the fiber optics cabling, splice points, service connections, and other infrastructure providing high-capacity bandwidth needed to transport large quantities of data. This service excludes the transmitters, receivers, and data itself, which are owned and operated by each customer.

Budget Summary

	FY 2018 Actuals	FY 2019 Actuals	FY 2020 Adopted Budget	FY 2021 Proposed Budget	FY 2021 Change \$	FY 2021 Change %
Dollars by Division						
CIP Fiber Optics Fund	1,047,968	791,530	1,525,441	749,961	(775,481)	(50.8)%
Fiber Optics Administration	188,357	205,681	919,370	897,311	(22,060)	(2.4)%
Fiber Optics Customer Service	678,580	633,076	1,241,621	1,234,507	(7,114)	(0.6)%
Fiber Optics Operations and Maintenance	1,462,572	1,255,457	639,500	707,753	68,254	10.7%
Total	3,377,476	2,885,744	4,325,932	3,589,532	(736,400)	(17.0)%
Dollars by Category						
Salary & Benefits						
Healthcare	163,825	152,237	171,660	139,597	(32,063)	(18.7)%
Other Benefits	24,736	23,681	29,786	33,953	4,168	14.0%
Overtime	21,055	20,229	25,521	26,184	664	2.6%
Pension	242,846	247,607	358,230	329,389	(28,841)	(8.1)%
Salary	1,007,041	884,605	967,733	995,746	28,014	2.9%
Workers' Compensation	666	19,047	30,967	32,221	1,254	4.1%
Total Salary & Benefits	1,460,169	1,347,406	1,583,895	1,557,091	(26,804)	(1.7)%
Allocated Charges	542,597	412,690	747,422	756,600	9,178	1.2%
Contract Services	161,241	173,912	454,646	454,646	—	—%
Facilities & Equipment	—	1,224	2,457	—	(2,457)	(100.0)%
General Expense	2,430	2,125	12,000	12,000	—	—%
Operating Transfers-Out	129,531	123,557	102,176	102,176	—	—%
Rents & Leases	75,375	77,787	82,360	53,531	(28,829)	(35.0)%
Supplies & Material	8,738	1,661	9,000	9,000	—	—%
Transfer to Infrastructure	5,700	15,218	—	—	—	—%
Capital Improvement Program	991,695	730,163	1,331,975	644,488	(687,488)	(51.6)%
Total Dollars by Expense Category	3,377,476	2,885,744	4,325,932	3,589,532	(736,400)	(17.0)%
Revenues						
Charges for Services	37,224	26,712	—	—	—	—%
Charges to Other Funds	135,895	—	—	—	—	—%
Net Sales	4,356,872	4,566,484	4,594,824	4,716,421	121,597	2.6%

Budget Summary

	FY 2018 Actuals	FY 2019 Actuals	FY 2020 Adopted Budget	FY 2021 Proposed Budget	FY 2021 Change \$	FY 2021 Change %
Other Revenue	66,032	163	200,000	200,000	—	—%
Return on Investments	582,095	683,895	749,500	646,700	(102,800)	(13.7)%
Total Revenues	5,178,117	5,277,254	5,544,324	5,563,121	18,797	0.3%
Positions by Division						
CIP Fiber Optics Fund	0.79	0.79	0.79	0.39	(0.40)	(50.63)%
Fiber Optics Customer Service	3.68	3.68	3.58	3.58	—	—%
Fiber Optics Operations and Maintenance	3.13	3.13	3.13	3.13	—	—%
Total	7.60	7.60	7.50	7.10	(0.40)	(5.33)%

Staffing

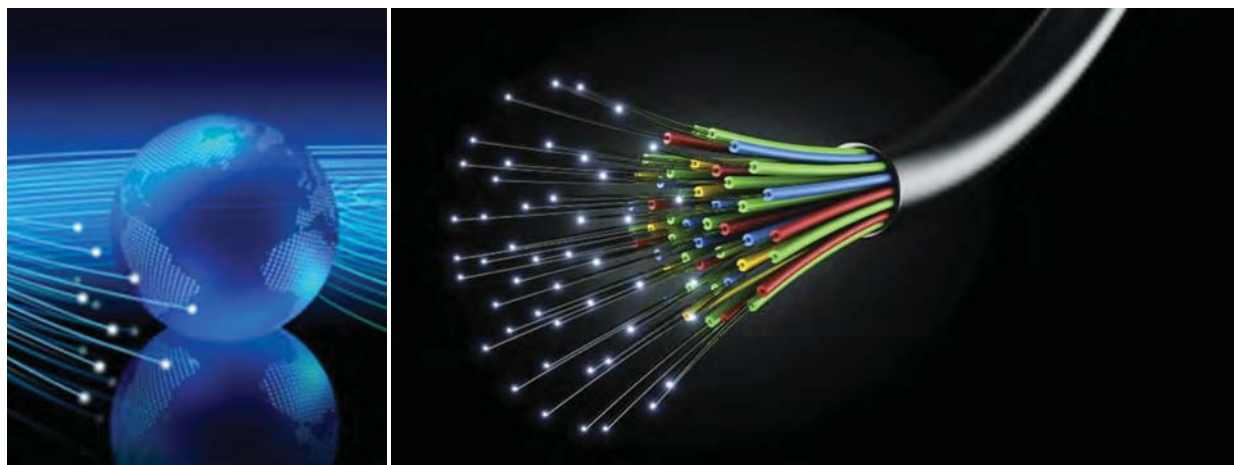
Job Classification	FY 2018 Actuals	FY 2019 Actuals	FY 2020 Adopted Budget	FY 2021 Proposed Budget	FY 2021 Change FTE	FY 2021 Salary
Administrative Associate II	0.20	0.20	0.20	0.20	—	15,679
Assistant Director Utilities Customer Support Services	0.20	0.20	0.20	0.20	—	40,589
Assistant Director Utilities Engineering	0.05	0.05	0.05	0.05	—	10,871
Business Analyst	0.30	0.30	0.30	0.30	—	46,600
Electric Project Engineer	0.05	0.05	0.45	0.05	(0.40)	7,956
Manager Utilities Compliance	0.10	0.10	0.10	0.10	—	19,687
Manager Utilities Credit & Collection	0.40	0.40	0.40	0.40	—	63,740
Manager Utilities Program Services	0.20	0.20	0.20	0.20	—	30,859
Manager Utilities Telecommunications	1.00	1.00	1.00	1.00	—	154,586
Power Engineer	0.40	0.40	—	—	—	—
Senior Electrical Engineer	0.05	0.05	0.05	0.05	—	9,637
Street Light, Traffic Signal & Fiber Technician	2.00	2.00	2.00	2.00	—	260,874
Street Light, Traffic Signal & Fiber- Lead	1.00	1.00	1.00	1.00	—	139,610
Utilities Key Account Representative	0.80	0.80	0.80	0.80	—	96,063

Staffing

Job Classification	FY 2018 Actuals	FY 2019 Actuals	FY 2020 Adopted Budget	FY 2021 Proposed Budget	FY 2021 Change FTE	FY 2021 Salary
Utilities Locator	0.03	0.03	0.03	0.03	—	3,133
Sub-total: Full-Time Equivalent Positions	6.78	6.78	6.78	6.38	(0.40)	899,882
Temporary/Hourly	0.82	0.82	0.72	0.72	—	74,506
Total Positions	7.60	7.60	7.50	7.10	(0.40)	974,388

Budget Reconciliation

	Positions	Expenditures	Revenues	Net Fiber Optics Fund
Prior Year Budget	7.50	4,325,932	5,544,324	(1,390,428)
One-time Prior Year Budget Adjustments				
None				
One-time Prior Year Budget Adjustments				
Adjustments to Costs of Ongoing Activities				
Salary and Benefits Adjustments	—	66,822	—	66,822
Utilities Capital Staffing Alignment	(0.40)	(93,626)	—	(93,626)
Fiber Optics Revenue (Rate Increase of 2.5% CPI for EDF-1)	—	—	121,597	(121,597)
Rents & Leases Expenditure Alignment	—	(28,829)	—	(28,829)
Radio Subscription Fees	—	(2,457)	—	(2,457)
Return on Investments	—	—	(102,800)	102,800
Capital Improvement Program	—	(687,488)	—	(687,488)
General Fund Cost Allocation Plan	—	31,697	—	31,697
Liability Insurance Allocated Charges	—	2,409	—	2,409
Utilities Administration Allocated Charges	—	(24,928)	—	(24,928)
Adjustments to Costs of Ongoing Activities	(0.40)	(736,400)	18,797	(755,197)
Total FY 2021 Proposed Budget	7.10	3,589,532	5,563,121	(2,145,625)



GAS FUND

Description

The municipal natural gas system began operations in 1917 when Palo Alto acquired a privately-owned gas business. During the early years, gas was manufactured from coal tar. This was replaced in the 1920s by natural gas from Pacific Gas and Electric. Today, gas is purchased from several sources. The Gas Utility services include Crossbore Safety, Gas Main Replacements, and Home Energy Audits. The Gas utility infrastructure and its crews maintain an excellent safety record. The gas fund is responsible for planning, designing, budgeting, and constructing major capital improvements to the City's gas distribution system.

Budget Summary

	FY 2018 Actuals	FY 2019 Actuals	FY 2020 Adopted Budget	FY 2021 Proposed Budget	FY 2021 Change \$	FY 2021 Change %
Dollars by Division						
CIP Gas Fund	5,504,869	9,145,930	3,342,737	13,153,717	9,810,980	293.5%
Gas Administration	11,065,620	10,587,695	13,182,008	12,930,773	(251,235)	(1.9)%
Gas Customer Service	1,529,936	1,564,025	1,911,680	1,942,647	30,968	1.6%
Gas Demand Side Management	828,561	536,424	1,567,605	1,580,301	12,696	0.8%
Gas Engineering (Operating)	350,902	400,087	670,487	720,445	49,958	7.5%
Gas Operations and Maintenance	4,673,257	4,957,368	7,101,687	7,853,574	751,887	10.6%
Gas Resource Management	13,277,736	16,358,006	16,798,537	15,418,277	(1,380,260)	(8.2)%
Total	37,230,881	43,549,535	44,574,742	53,599,734	9,024,993	20.2%
Dollars by Category						
Salary & Benefits						
Healthcare	883,093	911,670	1,143,407	1,098,276	(45,130)	(3.9)%
Other Benefits	120,687	134,145	176,172	205,324	29,152	16.5%
Overtime	200,797	192,593	198,165	203,318	5,152	2.6%
Pension	1,333,372	1,428,625	2,310,105	2,149,058	(161,047)	(7.0)%
Retiree Medical	625,662	667,617	687,645	704,333	16,688	2.4%
Salary	4,151,790	4,384,864	5,432,855	6,098,587	665,733	12.3%
Workers' Compensation	90,119	124,864	186,916	194,487	7,571	4.1%
Total Salary & Benefits	7,405,521	7,844,377	10,135,265	10,653,383	518,118	5.1%
Allocated Charges	2,690,914	2,527,804	5,033,119	4,969,057	(64,063)	(1.3)%
Contract Services	617,044	542,232	2,463,313	2,441,313	(22,000)	(0.9)%
Debt Service	203,683	179,933	802,615	802,615	—	—%
Equity Transfer	6,699,000	6,601,000	7,106,000	7,114,000	8,000	0.1%
Facilities & Equipment	2,027	8,570	19,039	1,840	(17,199)	(90.3)%
General Expense	421,873	358,847	762,991	778,491	15,500	2.0%
Operating Transfers-Out	972,491	713,892	410,403	414,965	4,562	1.1%
Rents & Leases	735,359	757,276	851,539	610,121	(241,418)	(28.4)%
Supplies & Material	344,184	355,647	488,816	495,316	6,500	1.3%
Transfer to Infrastructure	5,700	84,833	—	—	—	—%
Utility Purchase	12,921,050	15,957,533	16,012,329	14,625,296	(1,387,033)	(8.7)%

Budget Summary

	FY 2018 Actuals	FY 2019 Actuals	FY 2020 Adopted Budget	FY 2021 Proposed Budget	FY 2021 Change \$	FY 2021 Change %
Capital Improvement Program	4,212,033	7,617,592	489,312	10,693,338	10,204,026	2,085.4%
Total Dollars by Expense Category	37,230,881	43,549,535	44,574,742	53,599,734	9,024,993	20.2%

Revenues

Charges for Services	28,560	34,269	20,000	20,000	—	—%
Charges to Other Funds	115,229	111,459	100,622	105,529	4,907	4.9%
Net Sales	35,794,564	40,955,173	37,278,530	39,334,842	2,056,312	5.5%
Other Revenue	1,109,304	1,023,183	1,124,303	913,000	(211,303)	(18.8)%
Return on Investments	568,475	596,995	802,300	621,800	(180,500)	(22.5)%
Total Revenues	37,616,132	42,721,079	39,325,755	40,995,171	1,669,416	4.2%

Positions by Division

CIP Gas Fund	15.80	15.80	15.80	11.73	(4.07)	(25.76)%
Gas Customer Service	9.03	9.13	9.03	9.03	—	—%
Gas Demand Side Management	1.94	1.54	1.54	1.54	—	—%
Gas Engineering (Operating)	1.40	1.40	1.40	1.85	0.45	32.14%
Gas Operations and Maintenance	23.98	24.30	24.30	27.92	3.62	14.90%
Gas Resource Management	0.96	1.66	1.76	1.76	—	—%
Total	53.11	53.83	53.83	53.83	—	—%

Staffing

Job Classification	FY 2018 Actuals	FY 2019 Actuals	FY 2020 Adopted Budget	FY 2021 Proposed Budget	FY 2021 Change FTE	FY 2021 Salary
Account Specialist	0.23	0.23	0.23	0.23	—	18,002
Administrative Associate II	0.85	0.85	0.60	0.60	—	47,037
Assistant Director Administrative Services	0.05	0.05	0.05	0.05	—	9,116
Assistant Director Utilities Customer Support Services	0.20	0.20	0.20	0.20	—	40,589
Assistant Director Utilities Engineering	0.20	0.20	0.20	0.20	—	43,484
Assistant Director Utilities Operations	0.15	0.15	0.15	0.15	—	34,077

Staffing

Job Classification	FY 2018 Actuals	FY 2019 Actuals	FY 2020 Adopted Budget	FY 2021 Proposed Budget	FY 2021 Change FTE	FY 2021 Salary
Assistant Director Utilities/Resource Management	0.25	0.25	0.25	0.25	—	52,224
Business Analyst	1.48	1.15	1.15	1.15	—	178,635
Cathodic Protection Technician Assistant	1.00	1.00	1.00	1.00	—	106,621
Cathodic Technician	1.00	1.00	1.00	1.00	—	130,853
Cement Finisher	0.68	0.68	0.68	0.68	—	64,652
Contracts Administrator	0.10	0.10	0.10	0.10	—	10,113
Coordinator Utilities Projects	1.26	1.26	1.26	1.26	—	144,092
Customer Service Representative	1.87	1.87	1.87	1.87	—	145,277
Customer Service Specialist	0.68	0.68	0.68	0.68	—	58,089
Customer Service Specialist-Lead	0.58	0.58	0.58	0.58	—	52,985
Engineer	2.00	2.00	2.00	2.00	—	281,008
Engineering Manager - Electric	0.15	0.15	0.15	0.15	—	32,248
Engineering Manager - WGW	0.33	0.33	0.33	0.33	—	66,540
Engineering Technician III	0.70	0.70	0.70	0.70	—	68,985
Gas and Water Meter Measurement and Control Technician	3.20	3.20	3.20	3.40	0.20	345,326
Gas and Water Meter Measurement and Control Technician - Lead	0.80	0.80	0.80	0.80	—	86,944
Heavy Equipment Operator	2.52	2.52	2.52	—	(2.52)	—
Heavy Equipment Operator - Install/Repair	0.65	0.65	0.65	0.65	—	68,635
Inspector, Field Services	1.42	1.42	1.42	2.05	0.63	217,933
Maintenance Mechanic-Welding	1.00	1.00	1.00	1.00	—	106,538
Manager Customer Service	0.33	0.33	0.33	0.33	—	52,070
Manager Treasury, Debt & Investments	0.10	0.10	0.10	0.10	—	15,504
Manager Utilities Compliance	0.25	0.25	0.25	0.25	—	49,218
Manager Utilities Credit & Collection	0.15	0.15	0.15	0.15	—	23,902
Manager Utilities Operations WGW	0.20	0.20	0.20	0.20	—	37,041
Manager Utilities Program Services	0.20	0.20	0.20	0.20	—	30,859
Meter Reader	1.98	1.98	1.98	1.98	—	144,556
Meter Reader-Lead	0.33	0.33	0.33	0.33	—	25,781
Principal Business Analyst	0.33	0.33	0.33	0.33	—	60,238

UTILITIES

Staffing

Job Classification	FY 2018 Actuals	FY 2019 Actuals	FY 2020 Adopted Budget	FY 2021 Proposed Budget	FY 2021 Change FTE	FY 2021 Salary
Program Assistant I	0.33	0.33	0.33	0.33	—	26,255
Program Assistant II	—	—	0.25	0.25	—	21,372
Project Engineer	1.00	1.00	1.00	1.00	—	151,216
Resource Planner	(0.05)	0.65	0.45	0.45	—	64,593
Restoration Lead	0.43	0.43	0.43	0.43	—	48,530
SCADA Technologist	0.20	0.20	0.20	0.10	(0.10)	15,251
Senior Business Analyst	0.66	0.99	0.99	0.99	—	157,158
Senior Engineer	2.70	2.70	2.70	2.35	(0.35)	400,449
Senior Mechanic	0.33	0.33	0.33	0.33	—	37,388
Senior Resource Planner	0.46	0.46	0.56	0.56	—	97,650
Senior Utilities Field Service Representative	0.41	0.41	0.41	0.41	—	47,509
Substation Electrician	0.10	0.10	0.10	0.25	0.15	35,584
Utilities Engineer Estimator	0.85	0.85	0.85	0.73	(0.12)	91,288
Utilities Field Services Representative	1.75	1.75	1.75	1.75	—	189,644
Utilities Install Repair-Lead-Welding Certified	1.30	1.30	1.30	0.77	(0.53)	90,859
Utilities Install Repair-Welding Certified	1.95	1.95	1.95	1.43	(0.52)	141,077
Utilities Install/Repair	3.85	3.85	3.85	4.56	0.71	481,828
Utilities Install/Repair Assistant	0.65	0.65	0.65	0.65	—	58,244
Utilities Install/Repair-Lead	1.98	1.98	1.98	1.93	(0.05)	205,564
Utilities Key Account Representative	0.50	0.50	0.50	0.50	—	60,039
Utilities Locator	0.29	0.29	0.29	0.29	—	30,287
Utilities Marketing Program Administrator	1.00	0.70	0.90	0.90	—	102,660
Utilities Safety Officer	0.20	0.20	0.20	0.20	—	26,466
Utilities Supervisor	2.37	2.37	2.37	2.37	—	363,019
Water System Operator II	0.66	0.66	0.66	0.66	—	65,345
WGW Heavy Equipment Operator	—	—	—	2.50	2.50	263,484
Sub-total: Full-Time Equivalent Positions	51.14	51.54	51.64	51.64	—	6,121,931
Temporary/Hourly	1.97	2.29	2.19	2.19	—	121,205
Total Positions	53.11	53.83	53.83	53.83	—	6,243,137

Budget Reconciliation

	Positions	Expenditures	Revenues	Net Gas Fund
Prior Year Budget	53.83	44,574,742	39,325,755	5,248,987
One-time Prior Year Budget Adjustments				
Elwell Court Improvements	—	(67,452)	—	(67,452)
One-time Prior Year Budget Adjustments	—	(67,452)	—	(67,452)
Adjustments to Costs of Ongoing Activities				
Salary and Benefits Adjustments	—	565,917	—	565,917
Gas Customer Sales Revenue (5% Rate Increase)	—	—	2,061,219	(2,061,219)
Rents & Leases Expenditure Alignment	—	(173,966)	—	(173,966)
Utilities Capital Staffing Alignment	—	(47,798)	—	(47,798)
Contract Services	—	(22,000)	—	(22,000)
Radio Subscription Fees	—	(17,199)	—	(17,199)
Transfer to the Water Fund	—	4,562	—	4,562
Supplies & Material	—	6,500	—	6,500
Equity Transfer to the General Fund	—	8,000	—	8,000
General Expense	—	15,500	—	15,500
Return on Investments	—	—	(180,500)	180,500
Capital Improvement Program	—	10,204,025	(211,303)	10,415,328
General Fund Cost Allocation Plan	—	205,498	—	205,498
General Liability Insurance Allocated Charges	—	11,070	—	11,070
Landscape Maintenance Contract	—	116	—	116
Printing & Mailing Allocated Charges	—	4,472	—	4,472
Public Works Engineering & Inspection Allocated Charges	—	(4,811)	—	(4,811)
Stormwater Management Allocated Charges	—	2	—	2
Utilities Administration Allocated Charges Adjustment	—	(290,345)	—	(290,345)
Utilities Allocated Charges Adjustment	—	(1,387,033)	—	(1,387,033)
Vehicle Replacement & Maintenance Charges	—	9,936	—	9,936
Adjustments to Costs of Ongoing Activities	—	9,092,444	1,669,416	7,423,028
Total FY 2021 Proposed Budget	53.83	53,599,734	40,995,171	12,604,563

UTILITIES



WASTEWATER COLLECTION FUND

Description

In 1898, Palo Alto approved \$28,000 in bond money to fund construction of the City's first sewer network, which was completed in 1899. Private cesspools and privies were banned, and the City Health Officer had residents connected to the sewer system within a few years.

Wastewater Collection's staff is responsible for design, construction, operation, and maintenance of approximately 216 miles of sewer mains and over 18,000 City-owned laterals. Staff continues overlapping the design and construction elements of rehabilitation and augmentation projects. Wastewater Collection's priorities are maintaining infrastructure reliability, identifying problems in mains and service laterals through expanded use of video technology, complying with all regulatory requirements, and maintaining its excellent safety record.

Budget Summary

	FY 2018 Actuals	FY 2019 Actuals	FY 2020 Adopted Budget	FY 2021 Proposed Budget	FY 2021 Change \$	FY 2021 Change %
Dollars by Division						
CIP Wastewater Collection Fund	2,948,288	3,328,061	8,257,990	4,539,588	(3,718,402)	(45.0)%
Wastewater Collection Administration	2,024,750	1,755,355	3,038,712	2,914,040	(124,671)	(4.1)%
Wastewater Collection Customer Service	283,291	306,092	355,693	370,071	14,378	4.0%
Wastewater Collection Engineering (Operating)	345,136	328,587	560,183	517,053	(43,130)	(7.7)%
Wastewater Collection Operations and Maintenance	12,279,116	12,697,456	15,097,480	15,478,122	380,642	2.5%
Total	17,880,581	18,415,551	27,310,057	23,818,873	(3,491,184)	(12.8)%
Dollars by Category						
Salary & Benefits						
Healthcare	530,834	521,663	659,170	602,798	(56,372)	(8.6)%
Other Benefits	65,624	66,144	88,978	103,544	14,566	16.4%
Overtime	204,273	200,097	154,911	158,939	4,028	2.6%
Pension	748,942	777,467	1,271,815	1,154,251	(117,564)	(9.2)%
Retiree Medical	143,626	259,629	267,418	271,771	4,354	1.6%
Salary	2,238,681	2,307,005	3,192,081	3,262,834	70,753	2.2%
Workers' Compensation	19,139	68,779	104,473	108,705	4,232	4.1%
Total Salary & Benefits	3,951,119	4,200,783	5,738,846	5,662,842	(76,004)	(1.3)%
Allocated Charges	1,173,511	925,975	3,043,020	2,981,634	(61,385)	(2.0)%
Contract Services	95,622	142,314	248,986	248,986	—	—%
Debt Service	38,190	33,560	129,001	129,001	—	—%
Facilities & Equipment	—	4,897	12,828	3,000	(9,828)	(76.6)%
General Expense	67,985	91,013	122,900	122,900	—	—%
Operating Transfers-Out	442,062	340,672	274,068	278,630	4,562	1.7%
Rents & Leases	432,531	420,220	480,121	351,729	(128,391)	(26.7)%
Supplies & Material	270,575	236,250	380,618	380,618	—	—%
Transfer to Infrastructure	—	47,444	—	—	—	—%
Utility Purchase	9,559,183	9,842,738	11,233,922	11,255,702	21,780	0.2%

Budget Summary

	FY 2018 Actuals	FY 2019 Actuals	FY 2020 Adopted Budget	FY 2021 Proposed Budget	FY 2021 Change \$	FY 2021 Change %
Capital Improvement Program	1,849,801	2,129,686	5,645,748	2,403,831	(3,241,918)	(57.4)%
Total Dollars by Expense Category	17,880,581	18,415,551	27,310,057	23,818,873	(3,491,184)	(12.8)%
Revenues						
Charges for Services	22,450	21,253	10,000	10,000	—	—%
Charges to Other Funds	30,107	30,890	31,693	33,238	1,545	4.9%
Net Sales	18,026,146	20,129,208	21,106,047	21,843,118	737,071	3.5%
Other Revenue	229,212	313,720	1,082,534	302,000	(780,534)	(72.1)%
Return on Investments	169,663	201,076	297,700	244,400	(53,300)	(17.9)%
Total Revenues	18,477,578	20,696,146	22,527,974	22,432,756	(95,217)	(0.4)%
Positions by Division						
CIP Wastewater Collection Fund	12.52	12.52	12.52	9.82	(2.70)	(21.57)%
Wastewater Collection Customer Service	2.22	2.22	2.22	2.22	—	—%
Wastewater Collection Engineering (Operating)	1.40	1.40	1.40	1.40	—	—%
Wastewater Collection Operations and Maintenance	12.86	13.02	13.02	15.06	2.04	15.66%
Total	29.00	29.16	29.16	28.50	(0.66)	(2.26)%

Staffing

Job Classification	FY 2018 Actuals	FY 2019 Actuals	FY 2020 Adopted Budget	FY 2021 Proposed Budget	FY 2021 Change FTE	FY 2021 Salary
Account Specialist	0.23	0.23	0.23	0.23	—	18,002
Administrative Associate II	0.40	0.40	0.40	0.40	—	31,358
Assistant Director Utilities Engineering	0.15	0.15	0.15	0.15	—	32,613
Assistant Director Utilities Operations	0.10	0.10	0.10	0.10	—	22,718
Business Analyst	0.75	0.75	0.75	0.75	—	116,501
Cement Finisher	0.76	0.76	0.76	0.76	—	72,258
Contracts Administrator	0.05	0.05	0.05	0.05	—	5,056

UTILITIES

Staffing

Job Classification	FY 2018 Actuals	FY 2019 Actuals	FY 2020 Adopted Budget	FY 2021 Proposed Budget	FY 2021 Change FTE	FY 2021 Salary
Coordinator Utilities Projects	1.10	1.10	1.10	1.10	—	125,794
Customer Service Representative	1.45	1.45	1.45	1.45	—	112,648
Customer Service Specialist-Lead	0.25	0.25	0.25	0.25	—	22,838
Engineer	1.00	1.00	1.00	1.00	—	140,504
Engineering Manager - Electric	0.15	0.15	0.15	0.15	—	32,248
Engineering Manager - GWG	0.34	0.34	0.34	0.34	—	68,556
Engineering Technician III	0.45	0.45	0.45	0.45	—	44,348
Heavy Equipment Operator	0.23	0.23	0.23	—	(0.23)	—
Heavy Equipment Operator - Install/Repair	3.15	3.15	3.15	3.15	—	315,006
Industrial Waste Investigator	0.50	0.50	0.50	0.50	—	54,704
Inspector, Field Services	1.68	1.68	1.68	0.96	(0.72)	102,056
Maintenance Mechanic-Welding	0.20	0.20	0.20	0.20	—	21,308
Manager Utilities Credit & Collection	0.15	0.15	0.15	0.15	—	23,902
Manager Utilities Operations WGW	0.30	0.30	0.30	0.30	—	55,561
Program Assistant I	0.34	0.34	0.34	0.34	—	27,050
Project Engineer	2.00	2.00	2.00	2.00	—	302,432
Restoration Lead	0.26	0.26	0.26	0.26	—	29,344
Senior Engineer	1.30	1.30	1.30	0.91	(0.39)	148,083
Senior Mechanic	0.33	0.33	0.33	0.33	—	37,388
Utilities Engineer Estimator	0.47	0.47	0.47	0.56	0.09	68,831
Utilities Field Services Representative	1.25	1.25	1.25	1.25	—	135,460
Utilities Install Repair-Lead-Welding Certified	0.24	0.24	0.24	0.58	0.34	68,439
Utilities Install Repair-Welding Certified	0.36	0.36	0.36	0.63	0.27	67,816
Utilities Install/Repair	4.25	4.25	4.25	4.00	(0.25)	422,656
Utilities Install/Repair-Lead	2.00	2.00	2.00	2.00	—	230,589
Utilities Locator	0.39	0.39	0.39	0.39	—	40,730
Utilities Safety Officer	0.10	0.10	0.10	0.10	—	13,233
Utilities Supervisor	1.72	1.72	1.72	1.72	—	253,660

Staffing

Job Classification	FY 2018 Actuals	FY 2019 Actuals	FY 2020 Adopted Budget	FY 2021 Proposed Budget	FY 2021 Change FTE	FY 2021 Salary
WGW Heavy Equipment Operator	—	—	—	0.23	0.23	24,241
Sub-total: Full-Time Equivalent Positions	28.40	28.40	28.40	27.74	(0.66)	3,287,933
Temporary/Hourly	0.60	0.76	0.76	0.76	—	50,339
Total Positions	29.00	29.16	29.16	28.50	(0.66)	3,338,272

Budget Reconciliation

	Positions	Expenditures	Revenues	Net Wastewater Collection Fund
Prior Year Budget	29.16	27,310,057	22,527,974	2,662,015
One-time Prior Year Budget Adjustments				
Elwell Court Improvements	—	(48,087)	—	(48,087)
One-time Prior Year Budget Adjustments	—	(48,087)	—	(48,087)
Adjustments to Costs of Ongoing Activities				
Salary and Benefits Adjustments	—	61,038	—	61,038
Wastewater Collection Customer Sales Revenue (6% Rate Increase)	—	—	1,238,616	(1,238,616)
Utilities Capital Staffing Alignment	(0.66)	(141,273)	—	(141,273)
Rents & Leases Expenditure Alignment	—	(80,304)	—	(80,304)
Facilities and Equipment Alignment	—	(9,828)	—	(9,828)
Transfer to Water Fund (WS-02014 Water, Gas, Wastewater Utility GIS Data)	—	4,562	—	4,562
Wastewater Treatment Expenses	—	21,780	—	21,780
Return on Investments	—	—	(53,300)	53,300
Capital Improvement Program	—	(3,245,816)	(1,280,534)	(1,965,282)
General Fund Cost Allocation Plan	—	136,368	—	136,368
Liability Insurance Allocated Charges	—	8,843	—	8,843
Printing & Mailing Allocated Charges	—	(79)	—	(79)
Public Works Services Allocated Charges	—	(27,721)	—	(27,721)
Utilities Administration Allocated Charges	—	(175,357)	—	(175,357)
Vehicle Replacement & Maintenance Allocated Charges	—	458	—	458
Workers' Compensation Allocated Charges	—	4,232	—	4,232
Adjustments to Costs of Ongoing Activities	(0.66)	(3,443,097)	(95,218)	(3,352,111)
Total FY 2021 Proposed Budget	28.50	23,818,873	22,432,756	(738,184)

WATER FUND

Description

From 1895 until 1928, the City's water supply came from deep wells. When the groundwater supply started to decline, water was purchased from the San Francisco Regional Water System to supplement the local water system. Since 1962, when Palo Alto's wells were discontinued as the primary water system, 100 percent of the water has come from the Regional Water System: 85 percent derived from snow melt flowing into the Hetch Hetchy Reservoir and the balance from runoff stored in San Francisco Bay Area reservoirs. The Water Fund focuses on increasing infrastructure reliability and responsiveness to meet the City's water supply needs during an emergency; maintaining high-quality and reliable sources of water; updating water efficiency goals; and implementing water efficiency programs and services. Additionally, the engineering division is implementing a seismic upgrade to the existing reservoirs, wells and receiving stations to increase supply reliability during catastrophic emergencies.

Budget Summary

	FY 2018 Actuals	FY 2019 Actuals	FY 2020 Adopted Budget	FY 2021 Proposed Budget	FY 2021 Change \$	FY 2021 Change %
Dollars by Division						
CIP Water Fund	8,504,410	6,039,680	16,973,334	9,424,670	(7,548,664)	(44.5)%
Water Administration	7,639,414	7,482,882	9,042,889	9,154,922	112,033	1.2%
Water Customer Service	1,625,334	1,628,726	2,443,155	2,491,312	48,157	2.0%
Water Engineering (Operating)	354,598	384,551	641,946	796,149	154,202	24.0%
Water Operations and Maintenance	5,732,995	5,999,504	8,371,072	8,916,073	545,000	6.5%
Water Resource Management	22,880,271	22,175,768	23,371,160	22,576,191	(794,968)	(3.4)%
Total	46,737,022	43,711,111	60,843,556	53,359,316	(7,484,240)	(12.3)%
Dollars by Category						
Salary & Benefits						
Healthcare	821,267	822,482	1,021,133	967,427	(53,706)	(5.3)%
Other Benefits	119,660	125,716	164,802	198,776	33,974	20.6%
Overtime	199,089	196,939	282,078	289,412	7,334	2.6%
Pension	1,246,740	1,306,588	2,091,774	2,019,119	(72,656)	(3.5)%
Retiree Medical	300,042	427,827	440,662	444,796	4,134	0.9%
Salary	4,959,173	5,266,306	5,372,634	5,814,292	441,658	8.2%
Workers' Compensation	92,187	118,581	181,202	188,541	7,339	4.1%
Total Salary & Benefits	7,738,159	8,264,439	9,554,284	9,922,363	368,078	3.9%
Allocated Charges	3,702,043	3,404,874	5,220,481	5,030,475	(190,006)	(3.6)%
Contract Services	190,454	386,318	819,002	799,502	(19,500)	(2.4)%
Debt Service	1,697,010	1,632,435	3,222,606	3,222,606	—	—%
Facilities & Equipment	—	—	16,711	1,150	(15,561)	(93.1)%
General Expense	511,796	480,190	658,077	670,077	12,000	1.8%
Operating Transfers-Out	698,113	551,820	136,335	136,335	—	—%
Rents & Leases	1,906,700	1,983,270	3,144,502	3,396,161	251,660	8.0%
Supplies & Material	451,691	390,121	610,982	618,482	7,500	1.2%
Transfer to Infrastructure	5,700	93,339	—	—	—	—%
Utility Purchase	21,957,711	21,210,399	22,177,643	21,371,296	(806,347)	(3.6)%
Capital Improvement Program	7,877,646	5,313,905	15,282,934	8,190,870	(7,092,064)	(46.4)%
Total Dollars by Expense Category	46,737,022	43,711,111	60,843,556	53,359,316	(7,484,240)	(12.3)%

Budget Summary

	FY 2018 Actuals	FY 2019 Actuals	FY 2020 Adopted Budget	FY 2021 Proposed Budget	FY 2021 Change \$	FY 2021 Change %
Revenues						
Charges for Services	60,334	51,511	10,000	10,000	—	—%
Charges to Other Funds	99,288	135,114	82,690	91,143	8,453	10.2%
From Other Agencies	500,773	488,052	576,632	576,632	—	—%
Net Sales	44,595,981	44,638,437	46,831,149	46,025,887	(805,263)	(1.7)%
Operating Transfers-In	512,436	539,278	548,136	557,260	9,124	1.7%
Other Revenue	872,864	1,213,898	384,228	712,946	328,718	85.6%
Return on Investments	869,689	994,735	1,153,200	989,200	(164,000)	(14.2)%
Total Revenues	47,511,365	48,061,024	49,586,035	48,963,068	(622,967)	(1.3)%
Positions by Division						
CIP Water Fund	8.03	8.03	8.03	5.34	(2.69)	(33.49)%
Water Customer Service	9.66	9.66	9.58	9.58	—	—%
Water Engineering (Operating)	1.35	1.35	1.35	2.33	0.98	72.59%
Water Operations and Maintenance	25.34	24.85	24.85	27.23	2.38	9.58%
Water Resource Management	3.52	3.02	3.12	3.12	—	—%
Total	47.90	46.92	46.94	47.61	0.67	1.43%

Staffing

Job Classification	FY 2018 Actuals	FY 2019 Actuals	FY 2020 Adopted Budget	FY 2021 Proposed Budget	FY 2021 Change FTE	FY 2021 Salary
Account Specialist	0.23	0.23	0.23	0.23	—	18,002
Administrative Associate II	0.65	0.65	0.50	0.50	—	39,198
Assistant Director Utilities Customer Support Services	0.20	0.20	0.20	0.20	—	40,589
Assistant Director Utilities Engineering	0.20	0.20	0.20	0.20	—	43,484
Assistant Director Utilities Operations	0.15	0.15	0.15	0.15	—	34,077
Assistant Director Utilities/Resource Management	0.25	0.25	0.25	0.25	—	52,224
Business Analyst	1.53	1.20	1.20	1.20	—	186,401
Cement Finisher	0.56	0.56	0.56	0.56	—	53,243
Contracts Administrator	0.10	0.10	0.10	0.10	—	10,113

Staffing

Job Classification	FY 2018 Actuals	FY 2019 Actuals	FY 2020 Adopted Budget	FY 2021 Proposed Budget	FY 2021 Change FTE	FY 2021 Salary
Coordinator Utilities Projects	1.09	1.09	1.09	1.09	—	124,651
Customer Service Representative	1.81	1.81	1.81	1.81	—	140,615
Customer Service Specialist	0.66	0.66	0.66	0.66	—	56,381
Customer Service Specialist-Lead	0.59	0.59	0.59	0.59	—	53,899
Electric Project Engineer	—	—	0.30	0.30	—	47,736
Engineer	1.00	1.00	1.00	1.00	—	140,504
Engineering Manager - Electric	0.15	0.15	0.15	0.15	—	32,248
Engineering Manager - WGW	0.33	0.33	0.33	0.33	—	66,540
Engineering Technician III	0.45	0.45	0.45	0.45	—	44,348
Gas and Water Meter Measurement and Control Technician	0.80	0.80	0.80	0.60	(0.20)	60,940
Gas and Water Meter Measurement and Control Technician - Lead	0.20	0.20	0.20	0.20	—	21,736
Heavy Equipment Operator	1.95	1.95	1.95	—	(1.95)	—
Heavy Equipment Operator - Install/Repair	0.20	0.20	0.20	0.20	—	21,086
Inspector, Field Services	1.65	1.65	1.65	1.74	0.09	184,977
Maintenance Mechanic-Welding	0.80	0.80	0.80	0.80	—	85,230
Manager Customer Service	0.34	0.34	0.34	0.34	—	53,648
Manager Utilities Compliance	0.50	0.50	0.50	0.50	—	98,436
Manager Utilities Credit & Collection	0.15	0.15	0.15	0.15	—	23,902
Manager Utilities Operations WGW	0.50	0.50	0.50	0.50	—	92,602
Manager Utilities Program Services	0.20	0.20	0.20	0.20	—	30,859
Meter Reader	2.03	2.03	2.03	2.03	—	148,206
Meter Reader-Lead	0.34	0.34	0.34	0.34	—	26,562
Power Engineer	0.30	0.30	—	—	—	—
Principal Business Analyst	0.33	0.33	0.33	0.33	—	60,238
Program Assistant I	0.33	0.33	0.33	0.33	—	26,255
Program Assistant II	—	—	0.15	0.15	—	12,823
Project Engineer	2.00	2.00	2.00	2.00	—	302,432
Resource Planner	1.20	0.70	0.70	0.70	—	100,479
Restoration Lead	0.31	0.31	0.31	0.31	—	34,987
SCADA Technologist	0.80	0.80	0.80	0.89	0.09	135,730

Staffing

Job Classification	FY 2018 Actuals	FY 2019 Actuals	FY 2020 Adopted Budget	FY 2021 Proposed Budget	FY 2021 Change FTE	FY 2021 Salary
Senior Business Analyst	0.66	0.99	0.99	0.99	—	157,158
Senior Engineer	1.00	1.00	1.00	1.74	0.74	285,652
Senior Mechanic	0.34	0.34	0.34	0.34	—	38,521
Senior Resource Planner	1.68	1.68	1.78	1.78	—	322,997
Senior Utilities Field Service Representative	0.49	0.49	0.49	0.49	—	56,780
Senior Water Systems Operator	2.00	2.00	2.00	2.00	—	224,640
Substation Electrician	0.40	0.40	0.40	0.25	(0.15)	35,584
Utilities Engineer Estimator	0.43	0.43	0.43	0.48	0.05	60,037
Utilities Field Services Representative	1.50	1.50	1.50	1.50	—	162,552
Utilities Install Repair-Lead-Welding Certified	0.46	0.46	0.46	0.65	0.19	76,699
Utilities Install Repair-Welding Certified	0.69	0.69	0.69	0.94	0.25	96,201
Utilities Install/Repair	1.90	1.90	1.90	1.44	(0.46)	152,156
Utilities Install/Repair Assistant	0.35	0.35	0.35	0.35	—	31,362
Utilities Install/Repair-Lead	1.02	1.02	1.02	1.07	0.05	114,631
Utilities Key Account Representative	0.35	0.35	0.35	0.35	—	42,027
Utilities Locator	0.34	0.34	0.34	0.34	—	35,509
Utilities Marketing Program Administrator	0.40	0.40	0.40	0.40	—	45,627
Utilities Safety Officer	0.15	0.15	0.15	0.15	—	19,849
Utilities Supervisor	2.91	2.91	2.91	2.91	—	459,430
Water System Operator II	3.34	3.34	3.34	3.34	—	330,687
WGW Heavy Equipment Operator	—	—	—	1.97	1.97	207,625
Sub-total: Full-Time Equivalent Positions	45.29	44.79	44.89	45.56	0.67	5,661,105
Temporary/Hourly	2.61	2.13	2.05	2.05	—	171,414
Total Positions	47.90	46.92	46.94	47.61	0.67	5,832,519

Budget Reconciliation

	Positions	Expenditures	Revenues	Net Water Fund
Prior Year Budget	46.94	60,843,556	49,586,035	13,756,527
One-time Prior Year Budget Adjustments				
Elwell Court Improvements	—	(69,643)	—	(69,643)
One-time Prior Year Budget Adjustments	—	(69,643)	—	(69,643)
Adjustments to Costs of Ongoing Activities				
Salary and Benefits Adjustments	—	170,291	—	170,291
Water Commodity Purchases Expenditure	—	(806,347)	—	(806,347)
Revenue from Water System Customer Connections	—	—	328,718	(328,718)
Transfer From Wastewater and Gas Fund (WS-02014 Water, Gas, Wastewater Utility GIS Data)	—	—	9,124	(9,124)
Radio Subscription Fees	—	(15,561)	—	(15,561)
Return on Investment	—	—	(164,000)	164,000
Utilities Capital Staffing Alignment	0.67	190,447	—	190,447
Rents & Leases Expenditure Alignment	—	321,303	—	321,303
Water Customer Sales Revenue (0% Rate Increase)	—	—	(796,809)	796,809
Capital Improvement Program	—	(7,092,064)	—	(7,092,064)
General Fund Cost Allocation Plan	—	78,472	—	78,472
Liability Insurance Allocated Charges	—	12,704	—	12,704
Printing & Mailing Services Allocated Charges	—	5,158	—	5,158
Public Works Services Allocated Charges	—	(4,671)	—	(4,671)
Stormwater Management Allocated Charges	—	9	—	9
Utilities Administration Allocated Charges	—	(267,368)	—	(267,368)
Utilities Allocated Charges	—	(30,881)	—	(30,881)
Vehicle Replacement & Maintenance Allocated Charges	—	16,572	—	16,572
Workers' Compensation Allocated Charges	—	7,339	—	7,339
Adjustments to Costs of Ongoing Activities	0.67	(7,414,597)	(622,967)	(6,791,630)
Total FY 2021 Proposed Budget	47.61	53,359,316	48,963,068	6,895,254

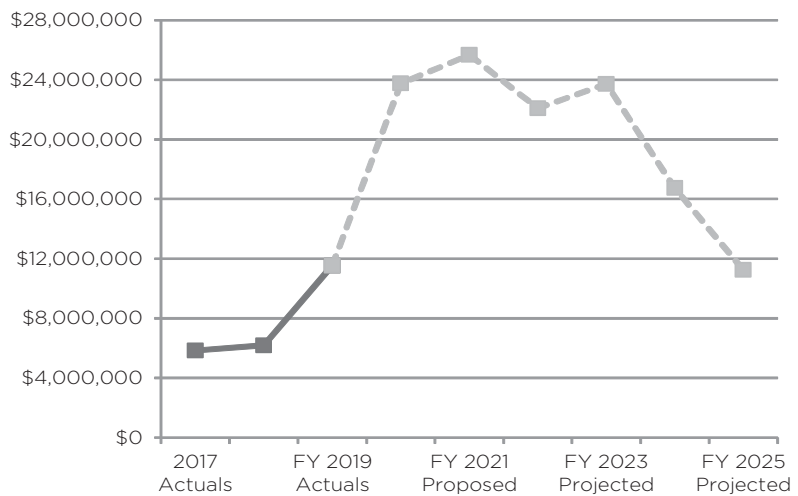
ELECTRIC FUND

Overview

The City of Palo Alto is the only municipality in California that operates a full suite of City-owned utility services. The municipal electric power system began operation in 1900 and continues to provide safe, reliable, and cost effective electric service to residents and customers of Palo Alto. For the 2021-2025 Capital Improvement Program (CIP), approximately \$99.5 million in expenses is projected, with \$25.7 million budgeted in Fiscal Year 2021, of which \$3.7 million is recommended to be reappropriated from Fiscal Year 2020. Overall, a total of 28 projects are planned over the 5-year CIP.

Major projects funded in the 2021-2025 CIP include Foothills System Rebuild (\$4.0 million), Substation 60kV Breaker Replacements (\$3.0 million), Smart Grid Technology Installation (\$19.0 million), Electric Customer Connections (\$13.5 million), total 4/12kV conversion projects (\$5.2 million), Wood Pole Replacement (\$7.5 million), Electric System Improvements (\$12.5 million), various underground system rebuild projects (\$7.8 million), and Overhead to Underground Conversion (\$4.1 million). The budget for the Electric Fund CIP is categorized into three types of projects: Customer Connections, System Improvements, and Undergrounding Projects.

Electric Fund Capital Expenditures



Infrastructure Inventory

CLASSIFICATION	QUANTITY
Miles of 60kV sub transmission lines	18 miles
Substations (w/300 MVA total capacity)	9
Traffic Signals (intersections) maintained	101
Streetlights maintained	6,600
Overhead Primary Distribution	116 miles
Underground Primary Distribution	188 miles
Overhead Secondary Distribution	93 miles
Underground Secondary Distribution	75 miles

Customer Connections

As customers' electric power needs continually change due to equipment additions, new construction, building expansions, building remodels, teardowns and rebuilds, and new building occupancy types, the electric system must evolve to meet these needs. The Electric Customer Connections Project, which is one of the largest projects within the Electric Fund (\$2.7 million in Fiscal Year 2021, \$13.5 million over the 2021-2025 CIP), is accounted for within this category. Projects can range from new buildings associated with the Veterans Administration Hospital to residential electric panel upgrades. These projects allow for the completion of work required to meet the needs of customers who have applied for new or upgraded electric service, need temporary power for construction, or require other services. The Electric Fund pays for a portion of these projects, while remaining costs are supported by reimbursements from customers for project work performed by the City.

Recent Accomplishments

In Fiscal Year 2019 the Utilities Electric Division completed over 400 customer service projects with a total cost of \$2.4 million and revenue of \$1.7 million. Many projects in are progress with no major completions to report yet.

2021-2025 Capital Improvement Program

Recurring Projects

The Electric Customer Connections project discussed above is the only recurring project in this category. Actual costs vary year-over-year depending on activity levels.

Non-Recurring Projects

VA Hospital - Customer Load Requirements Project. This project has been reduced in scope and folded into the Electric Customer Connections project. Utilities is working with the VA on their plans and awaits a decision from VA on the interim electric feeder enhancement solution until the new 60kV VA substation is built.

Electric Engineering has received close to 200 applications for small cell attachments to Electric utility streetlight and wood poles. The Electric Utility has about 6,500 wood poles and 6,500 streetlight poles citywide, which are of interest to mobile phone companies. This trend of small cell applications is anticipated to rapidly increase in the next few years, which would increase both the workload and associated revenue in the Electric Customer Connections project. As these projects and associated costs solidify, they will be brought forward for consideration in future Capital Improvement Plans.

System Improvements

Key elements for ensuring reliable electric service to City of Palo Alto residents and customers include replacing electric system components before they reach their end of life; ensuring there is adequate capacity for the projected electric load; and installing protective equipment to minimize the impact of system problems. Projects in the System Improvements category allow for a

ELECTRIC FUND

variety of improvements, including the replacement/upgrade of old cables and equipment and bringing designs up to current standards, installation of protective equipment and switches, conversion of the electric system from 4,160 Volts (4kV) to 12,470 Volts (12kV), and installation of capacitors to improve efficiency.

The 2021-2025 CIP includes total funding of \$81.9 million in this category, with \$23.0 million allocated in FY 2021. Significant projects in this category include Smart Grid Technology Installation (\$19.0 million), 4/12kV conversion projects (\$5.2 million), Electric System Improvements (\$12.6 million), Wood Pole Replacements (\$7.5 million), 60kV Circuit Breaker Replacements (\$3.0 million), and various projects to rebuild underground districts and substation components.

Recent Accomplishments

- Completed replacement of one of twenty-four 60kV circuit breaker.
- Physical installation of new line relays and relay cabinets for protection of Colorado Bank #2. Commissioning to occur in FY 2020.
- Completed other miscellaneous system improvement projects dealing with replacement of deteriorated facilities or to improve system operation and reliability.
- Completed phase II of Supervisory Control and Data Acquisition (SCADA) cybersecurity upgrade.
- Engineered replacement of 85 wood utility poles.
- Facility Relocation for Caltrain Modernization Project engineering is scheduled to be completed in end of 2020.

2021-2025 Capital Improvement Program

Recurring Projects

A total of \$28.5 million is programmed for System Improvements recurring projects in the 2021-2025 CIP, with \$6.2 million allocated in Fiscal Year 2021. Recurring projects in this category include the following:

- Communication System Improvements (Fiscal Year 2021: \$0.02 million; 5-Year CIP: \$0.6 million)
- Electric Distribution System Improvements (Fiscal Year 2021: \$2.5 million; 5-Year CIP: \$12.5 million)
- Electric Utility Geographic Information System (Fiscal Year 2021: \$0.2 million; 5-Year CIP: \$0.8 million)
- SCADA System Upgrades (Fiscal Year 2021: \$0.1 million; 5-Year CIP: \$1.0 million)
- Substation Facility Improvements (Fiscal Year 2021: \$0.7 million; 5-Year CIP: \$2.0 million)
- Substation Protection Improvements (Fiscal Year 2021: \$0.6 million; 5-Year CIP: \$2.0 million)
- Underground System Rebuild (Fiscal Year 2021: \$0.4 million; 5-Year CIP: \$1.8 million)
- Wood Pole Replacements (Fiscal Year 2021: \$1.5 million; 5-Year CIP: \$7.5 million)

Non-Recurring Projects

A total of \$53.4 million is allocated in the 2021-2025 CIP for non-recurring System Improvement projects. Significant projects include:

- Rebuild Underground Districts: (Fiscal Year 2021: \$03.9 million; 5-Year CIP: \$7.8 million)
- Colorado/Hopkins System Improvement: (5-Year CIP: \$3.0 million)
- Smart Grid Technology Installation: (Fiscal Year 2021: \$5.0 million; 5-Year CIP: \$19.0 million)
- Foothills Distribution System Rebuild (Fiscal Year 2021: \$2.0 million; 5-year CIP: \$4.0 million)

Undergrounding Projects

The City of Palo Alto began a program to underground overhead electric, telephone, and cable TV facilities in 1965 with a project along Oregon Expressway. Since that time, 47 Underground Districts have been formed. The undergrounding of electrical lines is a joint process between the City and AT&T, due to joint ownership of the poles, and Comcast, which leases pole space from AT&T. All three entities share in the cost of the installation of underground conduit and boxes necessary to enclose and protect wires and equipment. The City typically takes the lead in the design, bidding, and construction processes with AT&T and Comcast reimbursing the City for construction and administrative costs.

Recent Accomplishments

- Underground District 46 - Design of the substructure installation is complete and installation of underground cables is in progress to facilitate conversion of the overhead lines portion near the intersection of El Camino Real and Arastradero Road / West Charleston Road.
- Underground District 47 - ninety-nine percent of customers have completed the service conversions and connections to the underground system bound by Middlefield Road / Addison Avenue / Cowper Street / Homer Avenue.

2021-2025 Capital Improvement Program

Non-Recurring Projects

A total of \$4.1 million is allocated in the 2021-2025 CIP for non-recurring Undergrounding projects, with projects starting in FY 2022. Significant projects in this category include the following:

- Underground District 42 (\$2.0 million), which will underground overhead utility facilities in the area near Embarcadero Road/Emerson Street/Middlefield Road.
- Underground District 43 (\$2.1 million), which will underground overhead utility facilities in the area along Alma Street and Embarcadero Road.

ELECTRIC FUND

Summary of Capital Activity

ELECTRIC FUND

Project Number	Project Title	FY 2019 Actuals	FY 2020 Estimate	FY 2021 Proposed	FY 2022	FY 2023	FY 2024	FY 2025	5-Year Total
Source of Funds									
Transfers from Other Funds									
Gas Fund									
EL-11014	Smart Grid Technology Installation	180,000	0	0	0	0	0	800,000	800,000
	Total Gas Fund Transfers	180,000	0	0	0	0	0	800,000	800,000
Water Fund									
EL-11014	Smart Grid Technology Installation	290,000	0	0	0	0	0	1,300,000	1,300,000
	Total Water Fund Transfers	290,000	0	0	0	0	0	1,300,000	1,300,000
	Total Transfers from Other Funds	470,000	0	0	0	0	0	2,100,000	2,100,000
Reimbursement from Customers, Telephone, and Cable Television Companies									
EL-89028	Electric Customer Connections	3,149,534	1,700,000	1,700,000	1,700,000	1,700,000	1,700,000	1,700,000	8,500,000
EL-08001	Underground District 42 - Embarcadero Road, Emerson, Middlefield	0	0	0	0	0	300,000	0	300,000
EL-11009	Underground District 43 - Alma/Embarcadero	0	0	0	0	300,000	0	0	300,000
EL-12001	Underground District 46 - Charleston/El Camino Real	319,257	0	0	0	0	0	0	0
EL-19004	Wood Pole Replacement	0	0	150,000	150,000	150,000	150,000	150,000	750,000
	Reimbursement from Customers, Telephone, and Cable Television Companies Total	3,468,791	1,700,000	1,850,000	1,850,000	2,150,000	2,150,000	1,850,000	9,850,000
	Total Sources	3,938,791	1,700,000	1,850,000	1,850,000	2,150,000	2,150,000	3,950,000	11,950,000
Use of Funds									
Customer Connections									
EL-89028	Electric Customer Connections	2,691,341	2,400,000	2,700,000	2,700,000	2,700,000	2,700,000	2,700,000	13,500,000
EL-17003	VA Hospital Customer Load Requirements	4,825	0	0	0	0	0	0	0
	Customer Connections Total	2,696,166	2,400,000	2,700,000	2,700,000	2,700,000	2,700,000	2,700,000	13,500,000
System Improvements									
EL-06001	230 kV Electric Intertie	0	0	177,481	0	0	0	0	177,481
EL-16002	Capacitor Bank Installation	179,545	0	300,000	0	0	0	0	300,000
EL-14000	Coleridge/Cowper/Tennyson 4/12Kv Conversion	29,827	0	880,000	0	0	0	0	880,000
EL-19001	Colorado Power Station Equipment Upgrade	922,316	3,200,000	900,000	2,800,000	1,700,000	900,000	400,000	6,700,000

ELECTRIC FUND

Project Number	Project Title	FY 2019 Actuals	FY 2020 Estimate	FY 2021 Proposed	FY 2022	FY 2023	FY 2024	FY 2025	5-Year Total
EL-19002	Colorado Substation Improvements	16,360	50,000	340,000	340,000	240,000	0	0	920,000
EL-15000	Colorado/Hopkins System Improvement	0	0	0	0	2,000,000	1,000,000	0	3,000,000
EL-89031	Communications System Improvements	800,766	100,000	170,000	170,000	100,000	100,000	103,000	643,000
EL-17001	East Meadow Circles 4/12kV Conversion	37,709	0	166,000	0	0	0	0	166,000
EL-98003	Electric System Improvements	2,407,460	1,320,645	2,504,700	2,597,000	2,406,000	2,505,000	2,549,700	12,562,400
EL-02011	Electric Utility Geographic Information System	68,904	327,700	165,000	165,000	165,000	165,000	169,950	829,950
EL-17007	Facility Relocation for Caltrain Modernization Project	83,487	300,000	0	0	0	0	0	0
EL-21001	Foothills Rebuild (Fire Mitigation)	0	0	2,000,000	2,000,000	0	0	0	4,000,000
EL-20000	Hopkins Substation 4/12kV Conversion	0	0	50,000	50,000	120,000	2,120,000	1,820,000	4,160,000
EL-17005	Inter-Substation Line Protection Relay	94,563	124,101	230,000	150,000	0	0	0	380,000
EL-14004	Maybell 1&2 4/12kV Conversion	52,417	0	0	0	0	0	0	0
EL-11003	Rebuild Underground District 15	6,844	0	1,169,609	0	0	0	0	1,169,609
EL-13003	Rebuild Underground District 16	3,270	0	699,667	0	0	0	0	699,667
EL-14002	Rebuild Underground District 20	0	50,000	0	0	0	1,400,000	100,000	1,500,000
EL-17000	Rebuild Underground District 23	0	0	214,000	0	0	1,100,000	0	1,314,000
EL-10006	Rebuild Underground District 24	156,277	579,651	0	0	0	0	0	0
EL-19000	Rebuild Underground District 25	9,266	0	0	0	0	0	0	0
EL-16000	Rebuild Underground District 26	3,469	0	1,845,500	0	0	0	0	1,845,500
EL-19003	Rebuild Underground District 30	0	0	0	0	50,000	1,200,000	0	1,250,000
EL-14005	Reconfigure Quarry Feeders	101,121	0	0	0	0	0	0	0
EL-02010	SCADA System Upgrades	63,805	180,000	135,000	380,000	140,000	175,000	178,900	1,008,900
EL-11014	Smart Grid Technology Installation	97,288	0	5,000,000	7,000,000	7,000,000	0	0	19,000,000
EL-17002	Substation 60kV Breaker Replacement	79,472	720,000	600,000	600,000	600,000	600,000	618,000	3,018,000
EL-89044	Substation Facility Improvements	375,144	348,332	740,000	450,000	400,000	200,000	206,000	1,996,000
EL-16003	Substation Physical Security	88,039	0	2,168,852	300,000	200,000	165,000	165,000	2,998,852
EL-89038	Substation Protection Improvements	690,592	80,000	620,000	480,000	300,000	300,000	309,000	2,009,000
EL-16001	Underground System Rebuild	22,478	350,000	400,000	350,000	350,000	350,000	360,500	1,810,500
EL-13008	Upgrade Estimating Software	23,148	0	0	0	0	0	0	0
EL-17008	Utility Control Center Upgrades	437,831	0	0	0	0	0	0	0
EL-04012	Utility Site Security Improvements	42,758	50,000	0	0	0	0	0	0
EL-19004	Wood Pole Replacement	26,395	1,500,000	1,500,000	1,500,000	1,500,000	1,500,000	1,545,000	7,545,000
	System Improvements Total	6,920,551	9,280,429	22,975,809	19,332,000	17,271,000	13,780,000	8,525,050	81,883,859
Undergrounding Projects									
EL-08001	Underground District 42 - Embarcadero Road, Emerson, Middlefield	0	0	0	0	1,750,000	250,000	0	2,000,000
EL-11009	Underground District 43 - Alma/Embarcadero	0	0	0	56,000	2,000,000	0	0	2,056,000

ELECTRIC FUND

Project Number	Project Title	FY 2019 Actuals	FY 2020 Estimate	FY 2021 Proposed	FY 2022	FY 2023	FY 2024	FY 2025	5-Year Total
EL-12001	Underground District 46 - Charleston/El Camino Real	1,894,650	0	0	0	0	0	0	0
EL-11010	Underground District 47 - Middlefield/Homer/Webster/Addison	25,365	0	0	0	0	0	0	0
	Undergrounding Projects Total	1,920,015	0	0	56,000	3,750,000	250,000	0	4,056,000
	Total Uses	11,536,732	11,680,429	25,675,809	22,088,000	23,721,000	16,730,000	11,225,050	99,439,859

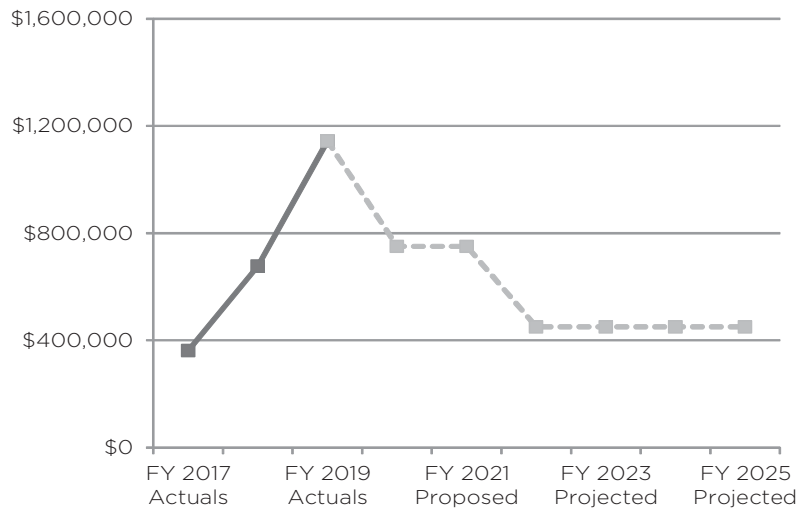
FIBER OPTICS FUND

Overview

The City of Palo Alto is the only municipality in the State of California that operates a full suite of City-owned utility services. The most recent addition to this list of services provided to City of Palo Alto residents and commercial customers is the licensing of dark fiber service connections on a dark optical fiber backbone network (fiber network), originally designed and built by the City in the mid to late 1990s.

For the 2021-2025 Capital Improvement Program (CIP), expenditures of \$2.6 million are programmed, with \$0.8 million allocated in Fiscal Year 2021. Major projects funded in the 2021-2025 CIP include Fiber Optics Customer Connections (\$1.3 million), Fiber Network System Improvements (\$1.0 million) and Fiber Network System Rebuild (\$0.3 million). The budget for the Fiber Optics CIP can be categorized into two types of projects: Capacity Improvements and Customer Connections.

Fiber Optics Fund Capital Expenditures



Infrastructure Inventory

CLASSIFICATION	QUANTITY
Route Miles of Underground Backbone Fiber Optic Cable	33
Route Miles of Overhead Backbone Fiber Optic Cable	16
Total Route Miles of Backbone Fiber Cable	49

Capacity Improvements

With advances in various technologies dependent on high-bandwidth broadband connectivity, increases in online services and applications, and significant increases in data transmission over fiber optic networks, access to fiber optic cables is increasingly in demand. To ensure reliable fiber optic service to City of Palo Alto residents and commercial customers, network components such as fiber optic cables and splice cabinets need to be upgraded or added to increase capacity; replaced or protected from damage by animals; and rerouted away from hazardous conditions.

Recent Accomplishments

- Added new fiber conduit on University Avenue as part of the Upgrade Downtown project.
- Completed field investigation and design of new fiber backbone cables from Park Boulevard Substation to Stanford Research Park area.

2021-2025 Capital Improvement Program

Recurring Projects

There is one recurring project in the Capacity Improvements category in the 2021-2025 CIP:

- Fiber Network System Improvements (Fiscal Year 2021: \$0.2 million; 2021-2025 CIP: \$1.0 million)

Non-Recurring Projects

There is one non-recurring project in the Capacity Improvements category in the 2021-2025 CIP:

- Fiber Network System Rebuild (Fiscal Year 2021: \$0.3 million; 2021-2025 CIP: \$0.3 million)

The Fiber Network System Rebuild project is expected to extend through Fiscal Year 2021 and will rebuild portions of the network that have reached capacity, which limits the City's ability to provide dark fiber optic service connections to all potential customers. Rebuilding portions of the fiber network includes installation of additional fiber optic cables in the Stanford Research Park area and replacement of several below ground splice closures with pad-mounted pedestals. Rebuild work scheduled for Fiscal Year 2021 includes installing substructure and dark fiber for a new fiber path from Park Boulevard Substation to the Stanford Research Park area.

Customer Connections

As customers continually change their fiber optic needs due to equipment additions, new construction, building expansions, building remodels, teardowns and rebuilds, and new building occupancy types, the fiber network must evolve to meet these needs. Projects in this category include work required to meet the needs of customers who have applied for new or upgraded dark fiber optic service connections. The connection costs associated with new or upgraded connections are offset by non-recurring charges (NRC) to establish the connections and monthly recurring charges (MRC) or dark fiber license fees.

Recent Accomplishments

- Installed public Wi-Fi to unserved City facilities, including community areas in Cubberley Community Center, Lucie Stern Community Center, and Baylands Golf Links.

2021-2025 Capital Improvement Program

Recurring Projects

In the Customer Connections category there is one recurring project: Fiber Optics Customer Connections. In the 2021-2025 Capital Improvement Program, recurring funding in this project

FIBER OPTICS FUND

remains at \$0.25 million annually. This project provides funding for the installation of fiber optic infrastructure for new service connections.

Non-Recurring Projects

There are no non-recurring projects in this category.

Summary of Capital Activity

FIBER OPTICS FUND

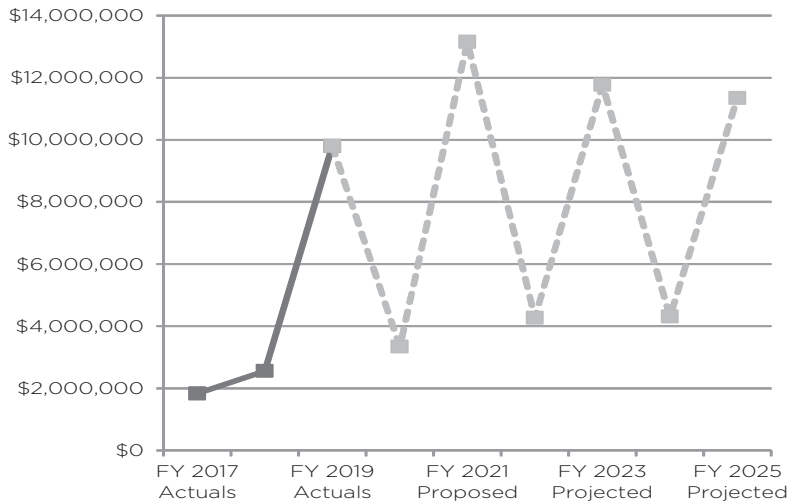
Project Number	Project Title	FY 2019 Actuals	FY 2020 Estimate	FY 2021 Proposed	FY 2022	FY 2023	FY 2024	FY 2025	5-Year Total
Source of Funds									
Other Revenues									
FO-10000	Fiber Optics Customer Connections: Connection Charges	42,396	35,000	200,000	200,000	200,000	200,000	200,000	1,000,000
	Other Revenues Total	42,396	35,000	200,000	200,000	200,000	200,000	200,000	1,000,000
	Total Sources	42,396	35,000	200,000	200,000	200,000	200,000	200,000	1,000,000
Use of Funds									
Capacity Improvements									
FO-10001	Fiber Optics Network System Improvements	1,009,942	125,000	200,000	200,000	200,000	200,000	200,000	1,000,000
FO-16000	Fiber Optics System Rebuild	0	150,000	300,000	0	0	0	0	300,000
	Capacity Improvements Total	1,009,942	275,000	500,000	200,000	200,000	200,000	200,000	1,300,000
Customer Connections									
FO-10000	Fiber Optics Customer Connections	133,326	77,000	250,000	250,000	250,000	250,000	250,000	1,250,000
	Customer Connections Total	133,326	77,000	250,000	250,000	250,000	250,000	250,000	1,250,000
	Total Uses	1,143,268	352,000	750,000	450,000	450,000	450,000	450,000	2,550,000

GAS FUND

Overview

The City of Palo Alto is the only municipality in California that operates a full suite of City-owned utility services. The municipal natural gas distribution system began operation in 1917 and provides safe, reliable, and cost effective gas service to residents and customers of Palo Alto. For the 2021-2025 Capital Improvement Program (CIP), approximately \$45.3 million is projected, with \$13.2 million allocated in Fiscal Year 2021. Overall, a total of seven projects are planned for the 5-year CIP.

Gas Fund Capital Expenditures



Major projects funded in the 2021-2025 CIP include Gas Main Replacements (cumulative total of \$32.6 million), Gas System, Customer Connections (\$5.8 million), and Gas Meters and Regulators (\$3.9 million). The budget for the Gas Fund CIP can be categorized into three separate types of projects: Customer Connections, Gas Main Replacements, and System Improvements.

Infrastructure Inventory

CLASSIFICATION	QUANTITY
Total miles of gas main distribution system	211
Total miles of gas service extension to residents and businesses	205
Number of gas receiving stations	4

Natural Gas System

MATERIAL TYPE	MILES OF MAINS IN SYSTEM	NUMBER OF SERVICES IN SYSTEM	MILES OF SERVICES IN SYSTEM (AVG 62' / SERVICE)
Steel	62.68	1,735	20.37
Plastic, PVC	33.70	691	8.11
Plastic, PE	114.02	14,129	165.94
Plastic, ABS	0.11	50	0.59
Plastic, Other	0.01	35	0.41
Other	0	766	8.99
TOTAL	210.52	17,406	204.41

Customer Connections

As customers continually change their gas needs due to equipment additions, building expansions, building remodels, and new building occupancy types, the gas system must evolve to meet these needs. The Gas System Customer Connections project, which is one of the largest recurring projects within the Gas Fund (\$1.1 million in Fiscal Year 2021, \$5.8 million over the 2021-2025 CIP), is accounted for within this category. This project allows for the completion of work required to meet the needs of customers who have applied for new or upgraded gas service. The Gas Fund pays for a portion of this project, while remaining costs are supported by reimbursements from customers for connection work performed by the City. The only project in the FY 2021 - FY 2025 CIP in this category is a recurring project.

Recent Accomplishments

- In Fiscal Year 2019, the Utilities Gas Division completed approximately 153 customer service projects, at a cost of \$0.9 million.

2021-2025 Capital Improvement Program

Recurring Projects

A total of \$5.8 million is programmed for Customer Connections recurring projects in the 2021-2025 CIP, with \$1.1 million allocated in Fiscal Year 2021. Recurring projects in this category include the following:

- Gas System, Customer Connections (Fiscal Year 2021: \$1.1 million; 5-Year CIP: \$5.8 million)

Gas Main Replacements

The Gas Main Replacements (GMR) category accounts for the replacement of inadequately-sized and structurally deficient gas mains and services that are subject to corrosion or reaching the end of their expected life. The Utilities Department coordinates with the Public Works Department's street maintenance projects to minimize damage to the City's pavement and maximize cost efficiency. In the next five years, it is anticipated that approximately 90,000 linear feet of gas mains, or eight percent of the entire system, will be replaced. The 2021-2025 CIP includes \$32.6 million in funding for projects within this category, which are each non-recurring.

Recent Accomplishments

- Finalizing designs of the Gas Main Replacement 23 project within business districts to replace approximately 27,000 linear feet of natural gas mains and 350 natural gas service pipelines made of Polyvinyl Chloride (PVC) and Steel Black Wrap Pipe (BWP).

2021-2025 Capital Improvement Program

Non-Recurring Projects

Three GMR projects are included in the 2021-2025 CIP (Fiscal Year 2021: \$10.6 million; 5-Year CIP: \$32.6 million).

System Improvements

To ensure reliable gas services for the City of Palo Alto residents and customers, gas infrastructure must be replaced upon reaching the end of its expected life. The System Improvements category includes three projects during the 2021-2025 CIP at a total cost of \$6.9 million, with \$1.5 million allocated in Fiscal Year 2021. There are three projects in this category in the FY 2021 - FY 2025 CIP; each is recurring.

Recent Accomplishments

- Addressed 102 Grade 1, 2, and 3 Leaks throughout the City.
- Established an outreach program to address gas meter abnormal operating conditions (AOC) through the notification of property owners, initiating a coordinated effort to relocate the gas meter classified as an AOC. These notifications resulted in a 50% response rate.
- Completed replacement of approximately 85 of the 103 natural gas services with pipeline material of Acrylonitrile Butadiene Styrene (ABS) or Tenite, at various locations within the City.
- Completed inspection of 360 of the 1250 sanitary sewer laterals to be inspected in year one under the Phase II Crossbore Gas Safety Program. The Crossbore Gas Safety Program is to inspect existing sanitary sewer laterals for damages caused during the installation of natural gas main and service pipelines.
- Purchased new 6" and 8" Mueller tapping and stopping equipment for City Staff operations and maintenance work on 6" and 8" steel pipelines. Acquisition of this equipment is crucial to safely perform maintenance or complete improvements on the City's larger steel mains which transport gas from the distribution stations to the smaller distribution mains throughout the City.

2021-2025 Capital Improvement Program

Recurring Projects

There are three funded recurring projects in the System Improvements category in the 2021-2025 CIP:

- Gas Distribution System Improvements (Fiscal Year 2021: \$0.5 million; 5-Year CIP: \$2.5 million)
- Gas Equipment and Tools (Fiscal Year 2021: \$0.1 million; 5-Year CIP: \$0.5 million)
- Gas Meters and Regulators (Fiscal Year 2021: \$0.9 million; 5-Year CIP: \$3.9 million)

Please refer to the City of Palo Alto Utilities webpage to confirm project details:

<http://www.cityofpaloalto.org/gov/depts/utl/projects/default.asp>

Summary of Capital Activity

GAS FUND

Project Number	Project Title	FY 2019 Actuals	FY 2020 Estimate	FY 2021 Proposed	FY 2022	FY 2023	FY 2024	FY 2025	5-Year Total
Source of Funds									
Other Revenues									
GS-12001	Gas Main Replacement - Project 22	8,548	0	0	0	0	0	0	0
GS-80017	Gas System, Customer Connections	1,001,785	1,110,303	900,000	900,000	900,000	900,000	900,000	4,500,000
	Other Revenue Total	1,010,333	1,110,303	900,000	900,000	900,000	900,000	900,000	4,500,000
	Total Sources	1,010,333	1,110,303	900,000	900,000	900,000	900,000	900,000	4,500,000
Use of Funds									
Customer Connections									
GS-80017	Gas System, Customer Connections	1,039,110	1,403,926	1,082,688	1,124,169	1,166,894	1,210,901	1,247,228	5,831,880
GS-03009	System Extensions - Unreimbursed	38,679	40,000	0	0	0	0	0	0
	Customer Connections Total	1,077,789	1,443,926	1,082,688	1,124,169	1,166,894	1,210,901	1,247,228	5,831,880
Gas Main Replacements									
GS-12001	Gas Main Replacement - Project 22	8,400,336	968,137	0	0	0	0	0	0
GS-13001	Gas Main Replacement - Project 23	90,291	289,655	10,620,046	0	0	0	0	10,620,046
GS-14003	Gas Main Replacement - Project 24	0	0	0	2,000,000	9,000,000	0	0	11,000,000
GS-15000	Gas Main Replacement - Project 25	0	0	0	0	0	2,000,000	9,000,000	11,000,000
	Gas Main Replacements Total	8,490,627	1,257,792	10,620,046	2,000,000	9,000,000	2,000,000	9,000,000	32,620,046
System Improvements									
GS-18000	Gas ABS/Tenite Replacement Project	31,015	1,500,000	0	0	0	0	0	0
GS-11002	Gas Distribution System Improvements	9,600	500,000	500,000	500,000	500,000	500,000	500,000	2,500,000
GS-14004	Gas Distribution System Model	2,157	0	0	0	0	0	0	0
GS-13002	Gas Equipment and Tools	117,005	273,576	100,000	100,000	100,000	100,000	100,000	500,000
GS-80019	Gas Meters and Regulators	45,551	171,000	850,001	1,000,000	1,000,000	500,000	500,000	3,850,001
GS-15001	Security at City's Gas Receiving Stations	31,134	0	0	0	0	0	0	0
	System Improvements Total	236,462	2,444,576	1,450,001	1,600,000	1,600,000	1,100,000	1,100,000	6,850,001
	Total Uses	9,804,878	5,146,294	13,152,735	4,724,169	11,766,894	4,310,901	11,347,228	45,301,927

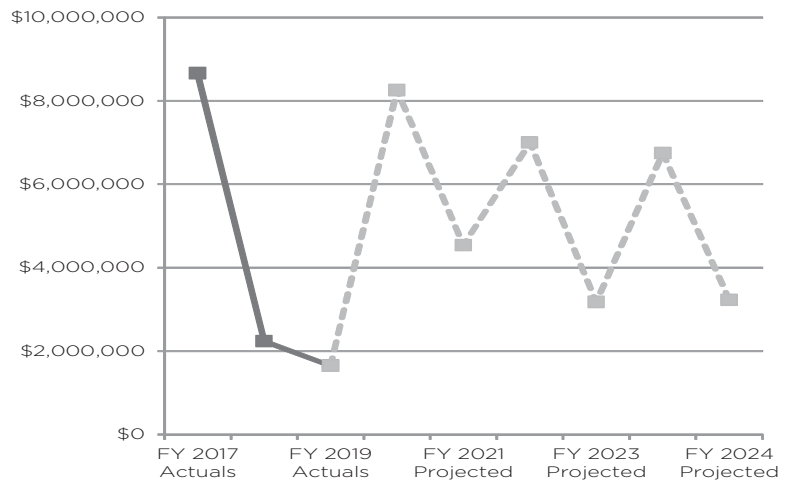
WASTEWATER COLLECTION FUND

Overview

The City of Palo Alto is the only municipality in California that operates a full suite of City-owned utility services. The municipal Wastewater Collection System began operation in 1898 and continues to provide safe, reliable, and cost effective services to residents and customers of Palo Alto. For the 2021-2025 Capital Improvement Program (CIP), approximately \$24.7 million in expenses is projected, with \$4.5 million allocated in Fiscal Year 2021. Overall, a total of 8 projects are programmed for the 5-year CIP.

Major projects funded in the 2021-2025 CIP include Wastewater Collection System Rehabilitation/Augmentation projects (cumulative total of \$16.9 million), Sewer Lateral/Manhole Rehabilitation and Replacement (\$4.3 million), and Sewer System, Customer Connections (\$2.2 million). The budget for the Wastewater Collection Fund CIP is categorized into two separate types of projects: Customer Connections and System Improvements.

Wastewater Collection Fund Capital Expenditures



Infrastructure Inventory

CLASSIFICATION	QUANTITY
Total miles of sanitary sewer lines	216.3
Total number of sanitary laterals	18,028

Customer Connections

As customers continually change their wastewater needs due to equipment additions, new construction, building expansions, building remodels, teardowns and rebuilds, and new building occupancy types, the Wastewater Collection System must evolve to meet these needs. The Sewer System Customer Connections project is the only project within this category and includes work required to meet the needs of customers who have applied for new sewer laterals. The Wastewater Collection Fund pays for a portion of this project while remaining costs are supported by reimbursements from customers for project work performed by the City.

Recent Accomplishments

- In Fiscal Year 2019, the Utilities Wastewater Division completed over 56 customer service projects with a total cost of \$0.7 million.

2021-2025 Capital Improvement Program

Recurring Projects

There is one project within this category, the Sewer System, Customer Connections project, with funding of \$2.2 million over the 5 year CIP. This project funds changes to customer connections and costs are partially offset by reimbursements from customers requesting the service.

System Improvement

To ensure reliable wastewater services for the City of Palo Alto residents and customers, infrastructure must be replaced upon reaching the end of its useful life. The infrastructure replacement program includes projects that will rehabilitate or replace deteriorated pipelines. In the next five years, it is estimated that approximately 40,000 linear feet of wastewater mains will be replaced.

Recent Accomplishments

- Completed construction of Sanitary Sewer Replacement Project (SSR 28) Part B to replace approximately 7,655 feet of sewer pipes, 77 service laterals, and 12 manholes on Oregon Expressway and rehabilitate 2,000 linear feet of sewer main pipelines on lower Page Mill Road and Colorado Avenue.
- Completed design and solicitation package of Sanitary Sewer Replacement Project (SSR 29) to replace approximately 8,952 linear feet of sanitary sewer mains, as well as replacement and rehabilitation of 41 sewer manholes in the Charleston Meadows neighborhood. The existing clay pipe mains will be replaced with High Density Polyethylene pipe. In addition, 154 existing City-owned sewer service laterals and cleanouts will be replaced with new 4" and 6" service laterals and cleanouts.

2021-2025 Capital Improvement Program

Recurring Projects

A total of \$5.6 million is programmed for System Improvement recurring projects in the 2021-2025 CIP, with \$1.3 million allocated in Fiscal Year 2021. Recurring projects in this category include the following:

- Wastewater System Improvements (Fiscal Year 2021: \$0.2 million; 5-Year CIP: \$1.0 million)
- Wastewater General Equipment and Tools (Fiscal Year 2021: \$0.2 million; 5-Year CIP: \$0.4 million)
- Sewer Lateral/Manhole Rehabilitation and Replacement (Fiscal Year 2021: \$0.9 million; 5-Year CIP: \$4.3 million)

Non-Recurring Projects

The majority of funding within this category is allocated towards Wastewater Collection System Rehabilitation/Augmentation Projects (cumulative total of \$16.9 million). These projects implement high-priority rehabilitation, augmentation, and lateral replacement work which reduces inflow of rainfall and groundwater into the collection system. The Utilities Department coordi-

WASTEWATER COLLECTION FUND

nates with the Public Works Department's street maintenance projects to minimize damage to the City's pavement and maximize cost efficiencies.

Linear footage and locations are subject to change, please refer to the City of Palo Alto Utilities webpage to confirm project details: www.cityofpaloalto.org/gov/depts/utl/projects/default.asp.

Summary of Capital Activity

WASTEWATER COLLECTION FUND

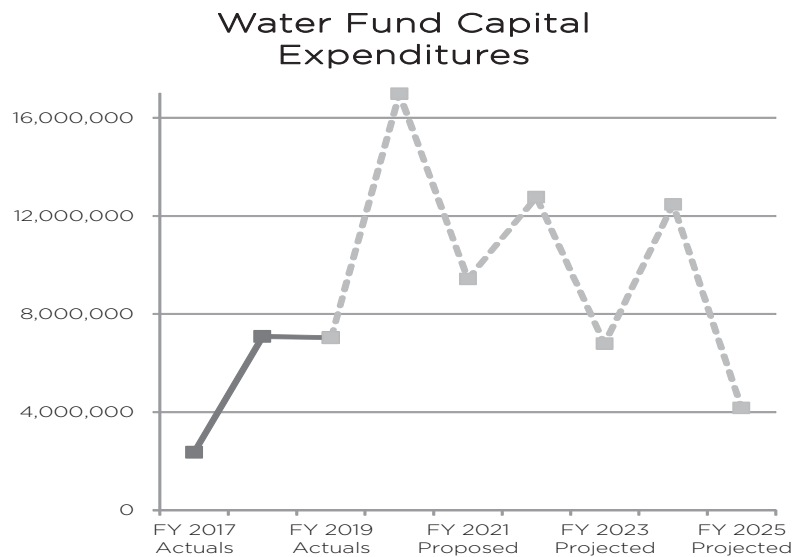
Project Number	Project Title	FY 2019 Actuals	FY 2020 Estimate	FY 2021 Proposed	FY 2022	FY 2023	FY 2024	FY 2025	5-Year Total
Source of Funds									
Other Revenues									
WC-80020	Sewer System, Customer Connections	597,315	430,534	300,000	300,000	300,000	300,000	300,000	1,500,000
	Other Revenue Total	597,315	430,534	300,000	300,000	300,000	300,000	300,000	1,500,000
	Total Sources	597,315	430,534	300,000	300,000	300,000	300,000	300,000	1,500,000
Use of Funds									
Customer Connections									
WC-80020	Sewer System, Customer Connections	301,755	445,000	420,000	450,000	450,000	450,000	450,000	2,220,000
	Customer Connections Total	301,755	445,000	420,000	450,000	450,000	450,000	450,000	2,220,000
System Improvements									
WC-99013	Sewer Lateral/Manhole Rehabilitation and Replacement	802,497	944,728	876,000	800,000	825,000	850,000	875,500	4,226,500
WC-15001	Wastewater Collection System Rehabilitation/ Augmentation Project 28	430,621	0	0	0	0	0	0	0
WC-16001	Wastewater Collection System Rehabilitation/ Augmentation Project 29	113,466	300,000	1,638,000	0	0	0	0	1,638,000
WC-17001	Wastewater Collection System Rehabilitation/ Augmentation Project 30	0	200,000	1,221,000	5,500,000	0	0	0	6,721,000
WC-19001	Wastewater Collection System Rehabilitation/ Augmentation Project 31	0	0	0	0	1,650,000	5,200,000	0	6,850,000
WC-20000	Wastewater Collection System Rehabilitation/ Augmentation Project 32	0	0	0	0	0	0	1,650,000	1,650,000
WC-13002	Wastewater General Equipment and Tools	0	30,000	185,000	50,000	50,000	50,000	50,000	385,000
WC-15002	Wastewater System Improvements	0	260,000	200,000	200,000	200,000	200,000	200,000	1,000,000
	System Improvements Total	1,346,584	1,734,728	4,120,000	6,550,000	2,725,000	6,300,000	2,775,500	22,470,500
	Total Uses	1,648,339	2,179,728	4,540,000	7,000,000	3,175,000	6,750,000	3,225,500	24,690,500

WATER FUND

Overview

The City of Palo Alto is the only municipality in California that operates a full suite of City-owned utility services. The municipal Water Distribution System began operation in 1896 and continues to provide safe, reliable, and cost-effective water service to residents and customers of Palo Alto. For the 2021-2025 Capital Improvement Program (CIP), approximately \$45.6 million in expenses are projected, with \$9.4 million allocated in Fiscal Year 2021. Overall, a total of 14 projects are planned for the 5-year CIP.

Major projects funded in the 2021-2025 CIP include Water Main Replacements (cumulative total of \$21.7 million), Water System Customer Connections (\$4.5 million), Water Meters (\$3.8 million) and Water, Gas, and Wastewater Utility GIS Data (\$2.5 million). The budget for the Water Fund CIP is categorized into three types of projects: Customer Connections, System Improvements, and Water Main Replacements.



Infrastructure Inventory

Classification	Quantity
Miles of water main	233.16
Number of wells	1 active standby and 7 emergency standby
Number of reservoirs	4 steel and 3 reinforced concrete

Water Distribution System Main Materials

MATERIAL TYPE	TOTAL LENGTH	PERCENT
Asbestos Cement Pipe	132.57 mi	56.86%
Concrete Cylinder Pipe	16.81 mi	7.21%
Cast Iron Pipe	21.22 mi	9.10%
Ductile Iron Pipe	4.59 mi	1.97%
Polyethylene	14.73 mi	6.32%
Polyvinyl Chloride	42.54 mi	18.24%
Steel	0.7 mi	0.3%
Total:	233.16 mi	

Customer Connections

As customers continually change their water needs due to equipment additions, new construction, building expansions, building remodels, teardowns and rebuilds, and new building occupancy types, the water system must evolve to meet these needs. The Water System Customer Connections is the only project in this category and includes work required to meet the needs of customers who have applied for new or upgraded water service. The Water Fund pays for a portion of this project, while remaining costs are supported by reimbursements from customers for project work performed by the City.

Recent Accomplishments

In Fiscal Year 2019 the Water Utility completed over 100 water service projects with a total cost of \$1.3 million.

2021-2025 Capital Improvement Program

Recurring Projects

The Water System Customer Connections is the only project within this category. Over the course of the 2021-2025 CIP, \$4.5 million is forecasted, with \$0.85 million allocated in Fiscal Year 2021.

System Improvements

To ensure reliable water services for the City of Palo Alto's residents and customers, infrastructure must be replaced at the end of its expected life. The System Improvements category includes 9 projects as part of the 2021-2025 CIP at a total cost of \$19.4 million, with \$5.6 million allocated in Fiscal Year 2021.

Recent Accomplishments

- Repaired water main transmission pipeline on Old Page Mill Road and installed associated hydrants and valves.

- Completed the design of the Mayfield Reservoir Vent and Crack Repair project.
- Completed the El Camino Real Pump Station and Mayfield Pump Station modifications to the system and control programs to improve operational flexibility and system resiliency.
- Completed the steady state and extended period simulation water models that will assist in storage and operational recommendations.
- Started development of the Water Infrastructure Risk and Resilience Assessment document as required by America's Water Infrastructure Act of 2018 (AWIA '18). AWIA '18 requires community water systems serving 3,300 or more persons to conduct a risk and resilience assessment and develop an emergency response plan that must be actively updated every five years.
- Developed the test procedure for collecting data to evaluate the condition of our aging Asbestos Cement Pipe (ACP). The test result is a tool to help determine the life expectancy of ACPs.

2021-2025 Capital Improvement Program

Recurring Projects

A total of \$12.4 million is programmed for System Improvement recurring projects during the 2021-2025 CIP, with \$3.4 million allocated in Fiscal Year 2021. Recurring projects in this category include the following:

- Water Distribution System Improvements (Fiscal Year 2021: \$0.3 million; 5-Year CIP: \$1.4 million)
- Water General Equipment/Tools (Fiscal Year 2021: \$0.05 million; 5-Year CIP: \$0.25 million)
- Water, Gas, Wastewater Utility GIS Data (Fiscal Year 2021: \$0.5 million; 5-Year CIP: \$2.5 million)
- Water Meters (Fiscal Year 2021: \$1.5 million; 5-Year CIP: \$3.8 million)
- Water Service Hydrant Replacement (Fiscal Year 2021: \$0.4 million; 5-Year CIP: \$2.0 million)
- Water System Supply Improvements (Fiscal Year 2021: \$0.7 million; 5-Year CIP: \$2.4 million)

Non-Recurring Projects

A total of \$6.3 million is programmed for non-recurring projects during the 2021-2025 CIP, with \$1.4 million allocated in Fiscal Year 2021. Non-recurring projects in this category include the following:

- Water Recycling Facilities (Fiscal Year 2021: \$0.4 million)
- Water Tank Seismic Upgrade and Rehabilitation (Fiscal Year 2021: \$1.0 million; 5-year CIP: \$5.9 million)

Water Main Replacements

The Water Main Replacements category accounts for the replacement of inadequately sized and structurally deficient water mains. In the next five years, it is estimated that approximately 50,000 linear feet of water mains will be replaced. The annual linear feet replacement totals were reduced by approximately 23% due to significant increases in labor and material

costs. City staff has proposed a new replacement schedule of water & wastewater construction every even year and gas construction every odd year to reduce the amount of construction when prices are high and allow staff to focus on other priorities such as ABS/Tenite gas services replacement, water tank replacement and cross-bore inspections.

In 2019 the annual replacement footage was reduced to compensate for some of the market changes that forced a rebid and a single bid in the past. Rebids and the reduction of total footage completed annually will extend the overall time it will take to complete the entire system replacement; however, a recent study indicated that the City has already replaced many of the most leak-prone and deteriorated pipes from the past water main replacement projects 1 through 26. This study recommended replacing 13.5 miles of mains within the next decade, and confirmed that the every-other-year construction program will allow staff to replace these 13.5 miles of water mains within the next 10 years.

Recent Accomplishments

- Started construction of Water Main Replacement project (WMR 27) to replace approximately 5,000 linear feet of water main pipelines in the Sand Hill Road and Fulton Street areas. Started design of the remaining 3800 linear feet in an easement off of Sand Hill Road.

2021-2025 Capital Improvement Program

Non-Recurring Projects

The 2021-2025 CIP includes \$21.7 million in funding for 4 non-recurring projects within this category, with \$3.0 million appropriated for Fiscal Year 2021. The Utilities Department coordinates with the Public Works Department's street maintenance projects to minimize damage to the City's pavement and maximize cost efficiencies when replacing water mains.

Summary of Capital Activity

WATER FUND

Project Number	Project Title	FY 2019 Actuals	FY 2020 Estimate	FY 2021 Proposed	FY 2022	FY 2023	FY 2024	FY 2025	5-Year Total
Source of Funds									
Transfer from Other Funds									
Gas Fund									
WS-02014	Water Gas Wastewater GIS Data	147,630	152,059	156,621	161,320	166,160	166,160	176,266	826,527
	Total Gas Fund Transfers	147,630	152,059	156,621	161,320	166,160	166,160	176,266	826,527
Wastewater Collection Fund									
WS-02014	Water Gas Wastewater GIS Data	147,630	152,059	156,621	161,320	166,160	166,160	176,266	826,527
	Total Wastewater Collection Fund	147,630	152,059	156,621	161,320	166,160	166,160	176,266	826,527
	Total Transfer from Other Funds	295,260	304,118	313,242	322,640	332,320	342,286	352,532	1,653,054

WATER FUND

Project Number	Project Title	FY 2019 Actuals	FY 2020 Estimate	FY 2021 Proposed	FY 2022	FY 2023	FY 2024	FY 2025	5-Year Total
Other Revenues									
WS-80013	Water System, Customer Connections	1,766,050	957,228	1,285,946	1,315,524	1,345,990	1,495,819	1,539,875	6,983,154
	Other Revenue Total	1,766,050	957,228	1,285,946	1,315,524	1,345,990	1,495,819	1,539,875	6,983,154
	Total Sources	2,061,310	1,261,346	1,599,188	1,638,164	1,678,310	1,838,105	1,892,407	8,646,174
Use of Funds									
Customer Connections									
WS-80013	Water System, Customer Connections	851,385	761,424	850,000	877,250	904,595	931,955	960,500	4,524,300
	Customer Connections Total	851,385	761,424	850,000	877,250	904,595	931,955	960,500	4,524,300
System Improvements									
WS-19000	Mayfield Reservoir Subgrade and Venting Repair	0	200,000	0	0	0	0	0	0
WS-11003	Water Distribution System Improvements	148,016	495,741	269,469	277,553	285,880	294,456	305,000	1,432,358
WS-13002	Water General Equipment/Tools	0	50,000	50,000	50,000	50,000	50,000	50,000	250,000
WS-02014	Water, Gas, Wastewater Utility GIS Data	178,991	1,066,277	469,862	483,958	498,477	513,431	528,800	2,494,528
WS-80015	Water Meters	122,265	300,000	1,530,450	546,364	562,755	579,638	600,000	3,819,207
WS-07001	Water Recycling Facilities	0	0	395,649	0	0	0	0	395,649
WS-07000	Water Regulation Station Improvements	74,430	0	759,000	0	0	0	0	759,000
WS-08001	Water Reservoir Coating Improvements	90,707	0	0	0	0	0	0	0
WS-80014	Water Service Hydrant Replacement	72,158	449,673	400,000	400,000	400,000	400,000	412,000	2,012,000
WS-11004	Water System Supply Improvements	61,673	263,327	749,469	277,553	285,880	345,131	715,000	2,373,033
WS-09000	Water Tank Seismic Upgrade and Rehabilitation	752,256	5,252,188	951,000	500,000	3,800,000	0	600,000	5,851,000
	System Improvements Total	1,500,496	8,077,206	5,574,899	2,535,428	5,882,992	2,182,656	3,210,800	19,386,775
Water Main Replacements									
WS-12001	Water Main Replacement - Project 26	4,574,968	746,315	0	0	0	0	0	0
WS-13001	Water Main Replacement - Project 27	105,524	4,568,639	2,500,000	0	0	0	0	2,500,000
WS-14001	Water Main Replacement - Project 28	0	80,000	500,000	8,500,000	0	0	0	9,000,000
WS-15002	Water Main Replacement - Project 29	0	0	0	850,000	0	8,500,000	0	9,350,000
WS-16001	Water Main Replacement - Project 30	0	0	0	0	0	850,000	0	850,000
	Water Main Replacements Total	4,680,492	5,394,954	3,000,000	9,350,000	0	9,350,000	0	21,700,000
	Total Uses	7,032,373	14,233,584	9,424,899	12,762,678	6,787,587	12,464,611	4,171,300	45,611,075