SAN FRANCISCO PUBLIC UTILITIES COMMISSION

Capital Planning Improvements

ABOUT THE COMMISSION

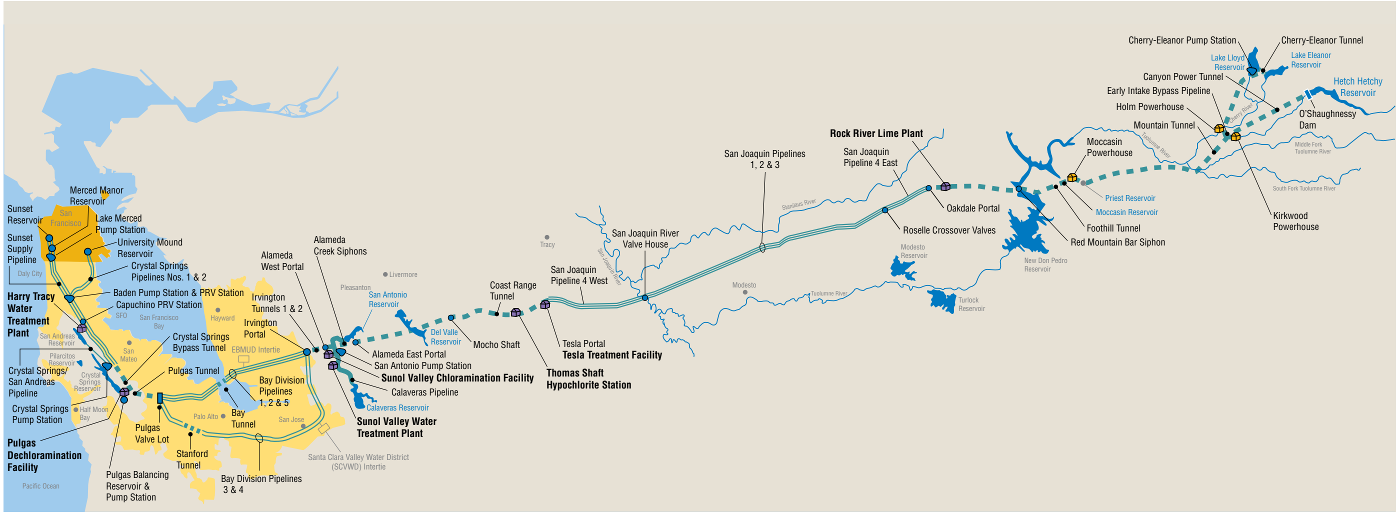
The San Francisco Public Utilities Commission (SFPUC) is an enterprise department of the City and County of San Francisco, California, responsible for operation, maintenance, and development of three utility enterprises. It provides drinking water and wastewater services to the City of San Francisco, wholesale water to portions of Alameda, Santa Clara, and San Mateo counties, and hydroelectric and solar power to municipal and retail customers within the City and County of San Francisco. The commission serves approximately 2.7 million people, and it has more than 2,300 employees and an annual operating budget of $2.1 billion. The organization's ten-year capital plan includes projects totaling almost $12 billion.

Summary

The SFPUC launched its Capital Planning Improvement Initiative to improve its approach to capital project planning, prioritization, and execution. This comprehensive program addresses the complex challenges of managing a growing capital improvement plan (CIP) while ensuring financial sustainability and improving the commission's ability to deliver projects. The SFPUC's emphasis on cross-enterprise collaboration was key to the improvement, along with adaptive governance and change management. This approach also focused on assessing project deliverability inclusive of staff resource planning and contract capacity, to enable more realistic planning and scheduling, in an attempt to reduce the risk of project delays and cost overruns. The integration of asset management principles into capital planning has also promoted a more strategic, long-term approach to infrastructure investment. Overall, the SFPUC is working to provide a transformative model for public-sector infrastructure management.

Complex challenges in managing infrastructure

The SFPUC faces many challenges in managing its expanding capital improvement program while also working to ensure financial sustainability, project deliverability, and keeping utility rates as affordable as possible. Misalignment between plans and execution capacity could often lead to project delays and cost overruns, putting upward pressure on rates. For example, inconsistent governance and decision-making processes existed across the organization's three utility enterprises—water, wastewater and power—along with varying standards for project prioritization and budget management. There was an opportunity to improve capital planning by unifying governance and standards across the



SFPUC owns and operates the Hetch Hetchy Regional Water System, which serves 2.7 million residents and thousands of businesses. The system provides water directly to residents and businesses in San Francisco and wholesale through 27 cities and public water agencies in Alameda, Santa Clara, and San Mateo counties.

organization. Laura Busch, deputy chief financial officer, commented, "We needed to align our capital plans with a realistic capability to deliver and needed to make sure we were responsible stewards of not only our systems but also our customers' resources." Furthermore, the concurrent supply chain constraints and staffing shortages particularly following the pandemic affected SFPUC's ability to deliver on project timelines. It was critical to reassess past assumptions for projecting deliverability across the full SFPUC capital investment portfolio.

In addition to improving the tactical elements of capital planning, the SFPUC also concluded that it needed to increase its overall capacity to execute projects matching its growing CIP. Over the past 12 years, the size of the capital plan has more than doubled. In many ways, the organization was already doing the work to meet the expanding need and had implemented best practices, but not throughout the organization. The potential was there, but proactive facilitation was needed to bring these innovative practices across the agency. Luke Fuller, manager for strategy, innovation, and change, commented, "We were fragmented and working in silos. We realized that the project needed to serve as a clearinghouse to vet ideas and bring people together." This realization led to the development of a comprehensive, multi-year initiative to reform the capital planning and delivery practices.

Creating a realistic and transformative plan

From the beginning of the project, SFPUC had goals of creating a unified approach for the capital program, improving its ability to assess deliverability for project planning, and increasing its capacity to put projects into action. From a more practical standpoint, this meant that the organization would develop a FY23-24 capital budget and ten-year capital plan that would align execution with capacity; clearly define roles, responsibilities, and expectations; and promote transparency in decision making. SFPUC also streamlined tools and templates for data collection to increase the efficiency of the process and improve user-friendliness.

Unlike many technical solutions the organization had tried in the past, which had focused on isolated aspects of capital planning, the SFPUC's initiative takes a holistic, enterprise-wide approach. It aims to address systemic and interconnected issues across 12 workstreams, ranging from governance and financial sustainability to resource planning and environmental compliance. "We have over 170 people involved in capital planning, and our team was able to identify leads for separate but connected workstreams, and coordinate dependencies," Tricia Yang, director of strategy, innovation, and change, said. The comprehensive scope allows for systemic improvements that are more likely to yield lasting, transformative results. "There was an opportunity to see what each division was doing well and learn from each other," Yang explained. "We wanted to have a unified approach."

Building capacity

This enterprise-wide approach focused on building capacity within the organization. The initiative worked to promote cross-training and skill development across different disciplines for capital planning to enable more consistent use of tools and criteria across the three SFPUC enterprises. The project also helped educate staff about the impact of our capital plan on rate payer affordability. Staff were educated to work with an awareness of customer and community impacts, in addition to system resilience, climate change, regulatory requirements and overall demand for service while developing

IMAGE COURTESY OF SFPUC (SFPUC.GOV)

> "There was an opportunity for us here to see what each division was doing well and learn from each other. We wanted to have a unified approach."
>
> **TRICIA YANG**, DIRECTOR OF STRATEGY, INNOVATION, AND CHANGE

their capital plans. The initiative also defined opportunities to enhance data analytics capabilities, to enable more data-driven decision making in capital planning long term. This has resulted in a separate multi-year project to investigate the organization's program management systems.

While this project heavily involved the Finance Department, it was led by the organization's Strategy, Innovation and Change Team, which partnered with Finance on the project. Busch, said, "It was actually really important that this effort was not led by Finance because it encompasses so much more than finance." By taking a broader approach focused on balancing capital investment needs with financial sustainability, the team was able to help break down silos and work on connecting people. "In 2022, about two years after the pandemic started, people had gotten used to working remotely," Fuller said. "We had a meeting where we invited everyone to one room. I think there were 30 to 40 people in there, most of whom hadn't seen each other in years, and some who had never met in person."

Community impact

The initiative's emphasis on financial sustainability and keeping rates as low as possible directly benefits ratepayers, but benefits go beyond financial considerations. The improvements in capital planning and delivery contribute to San Francisco's infrastructure resilience. Enhanced environmental compliance processes help ensure that SFPUC projects align with the city's sustainability goals, and improved infrastructure reliability supports San Francisco's economy by providing dependable utility services to businesses and residents.

As a major regional utility provider, the SFPUC's efforts towards improved capital planning and delivery capabilities have broader impacts. More reliable water and power systems benefit communities throughout the Bay Area that rely on SFPUC services. Improved wastewater management contributes to better environmental outcomes for the entire San Francisco Bay ecosystem. The initiative's focus on financial sustainability helps ensure that the SFPUC can continue to meet its regional service commitments without imposing undue financial burdens on partner wholesale communities.

Lessons learned for other governments

With any large change project, the most difficult part of the change is often not technical but is instead based on people and organizational culture. Based on SFPUC's experience, dedicating a program management team and steering committee that encourage collaboration is critical. Organizations need to focus on interactions among teams, especially where there may not be existing relationships or formal structures to develop improvements organically.

From there, clear roles and responsibilities among business owners, subject matter experts, and other stakeholders establish proper expectations for everyone. "Establishing clear roles was key," Yang said. "We found that the areas that were the most challenging to improve were those that lacked ownership." Many enterprise applications are used at SFPUC and there are many processes that govern capital planning and delivery. However, this project revealed that technology and process improvements are only one part – it is just as important to define and fill staff and capability gaps to own and lead substantive areas of work that others with separate full-time responsibilities struggle to focus on year-round.

Lastly, SFPUC took an agile approach and considered the effort a work in progress throughout its implementation. There should always be room to improve and build on prior success. Yang emphasized, "It's really a journey. When we started, we set expectations that this was going to take five years and deliberately broke down the project to sort out smaller improvements that can be implemented right away from efforts that would need a longer runway. It has been great to see that our teams have been committed to staying the course with us and working together." Nancy Hom, SFPUC's assistant general manager of business services and chief financial officer states, "The most recent 10-Year Capital Planning process was by far one of the most transparent and collaborative. I look forward to the continued improvements to our internal processes in the coming years."

Contacts

- ***Trey Hunter**, capital planning and budgeting program manager*
- ***Tricia Yang**, director, strategy, innovation and change*
- ***Luke Fuller**, manager, strategy, innovation and change*
- ***Laura Busch**, deputy chief financial officer*