San Francisco Groundwater Supply Project

Strengthening San Francisco’s Water Supply

San Franciscans enjoy great drinking water from the Regional Water System. Water served from the Regional Water System includes a blend of surface water from Hetch Hetchy Reservoir in Yosemite National Park, and five Bay Area reservoirs located in Alameda and San Mateo counties. The Regional Water System has served us well for nearly 100 years and will continue to serve our community as the cornerstone of our water supply. However, we face increasing risks and challenges to our current water supply due to a variety of concerns: climate variability and its impact on snowpack, the potential for earthquakes to disrupt our water delivery system, droughts, regulatory changes, and population growth. Since the 1980s, we have recognized that our ability to deliver water reliably is at risk if we don’t plan for our water future, and instead only rely on the approach we’ve used in the past century.

To address these challenges, the SFPUC is implementing a Local Water Program. The Local Water program 1) provides conservation programs to help customers save water 2) promotes the use of recycled water and other non-potable supplies to meet many of the City’s irrigation and toilet flushing demands and 3) is developing a local groundwater supply to enhance the sustainability of the City’s drinking water supply now and into the future. The San Francisco Groundwater Supply Project is a forward-looking project under the Local Water Program that allows us to strengthen our drinking water sources by blending local, high quality groundwater with water from the Regional Water System.

How the San Francisco Groundwater Supply Project Works

The project includes six wells that pump groundwater from aquifers 120 to 460 feet below ground in the Westside Groundwater Basin aquifer. The pumped groundwater is treated and then blended in small quantities with water supplied by the Regional Water System in the Sunset and Sutro Reservoirs before entering the distribution system.

Water from these reservoirs is distributed to over half the City, based on the elevations and pressure zones of the reservoirs.

Once the Westside Enhanced Recycled Water Project is completed and the project’s wells in Golden Gate Park are no longer used for irrigation, the project will add an average of up to 1 million gallons per day (mgd) of groundwater to our existing water supplies for one year. Over the next several years, with continued monitoring and testing, we will step up to supplying an average of 4 mgd of groundwater.
**Water Quality You Can Count On**
San Francisco’s drinking water supplies are tested daily throughout the Regional Water System. For the past decade, we have also collected water quality and groundwater level data from the Westside Basin aquifer. With this extensive data, we know that after adding groundwater to our regional water supplies, we will continue to provide our customers with high quality drinking water that surpasses all drinking water standards set by the California State Water Resources Control Board, Division of Drinking Water (State Water Board), and the United States Environmental Protection Agency. As wells are put into service, we will sample and analyze the individual production wells and the blended water at the reservoir outlets according to a water quality compliance monitoring plan that has been reviewed and approved by the State Water Board.

**Protecting Our City’s Local Water Resource**
The Westside Basin aquifer is located beneath the Sunset District in San Francisco and extends southward to San Mateo County. Groundwater in the aquifer is filtered naturally through hundreds of feet of sand, silt and clay layers, resulting in a high quality source of drinking water. With over 10 years of data in hand, we have selected optimum locations for the 6 production wells for the San Francisco Groundwater Supply Project. We have designed the system to protect our water quality at standards even higher than the California Department of Water Resources’ groundwater well standards.

With an excellent source of drinking water right here in the City, it’s important that we manage it sustainably into the future. As the project is put into service, we will continue to monitor the water quality and groundwater level regularly through a network of 45 monitoring wells.

**Creating a Reliable Water Supply Future**
The San Francisco Groundwater Supply Project allows us to strengthen our water supplies by including local groundwater with supplies from the Regional Water System. By diversifying in this way, we will safeguard our water supply, making it less vulnerable to risks such as earthquakes and drought, while helping to meet the long-term water supply needs of the City.

It takes several years to evaluate, fund, and develop new water supply projects. We have a responsibility to plan and implement projects now to be ready in advance of the need so we can maintain a reliable water supply for our customers. Diversifying our sources of water through the conservation, recycled water, and groundwater projects included in our Local Water Program is one of the most important steps we are taking to prepare for the risks we face, and ensure a sustainable water supply for generations to come.