

San Francisco Groundwater Supply Project

May 2017

5/24/2017
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P04156



**HETCH HETCHY
+ LOCAL WATER**
Better together.

Today's presentation:

Our Regional Water System.

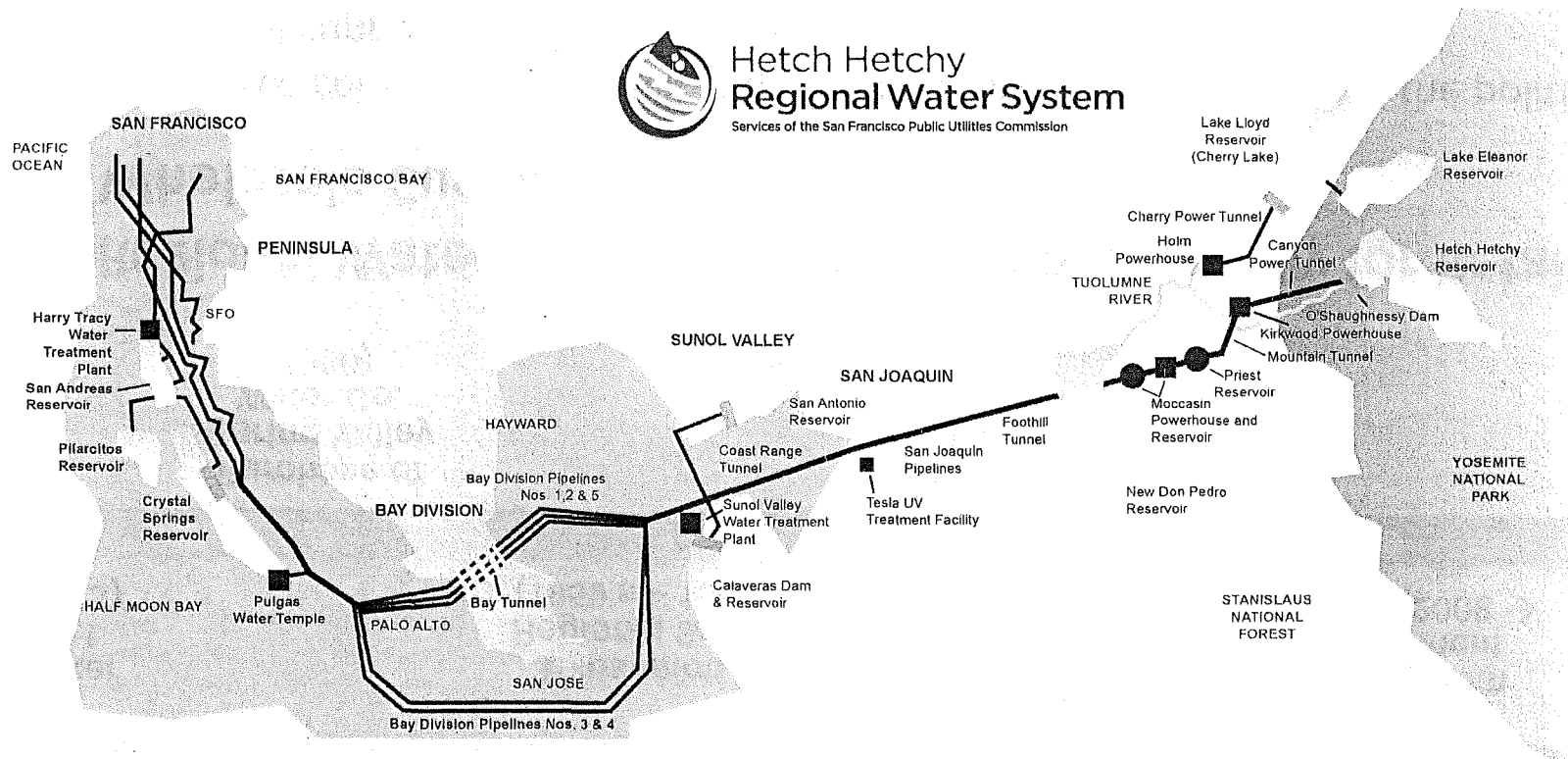
**Why we are developing San Francisco
Groundwater.**

**How we are ensuring that delivered water
is safe and healthful.**

**Clarify any misunderstandings and correct
any misinformation.**

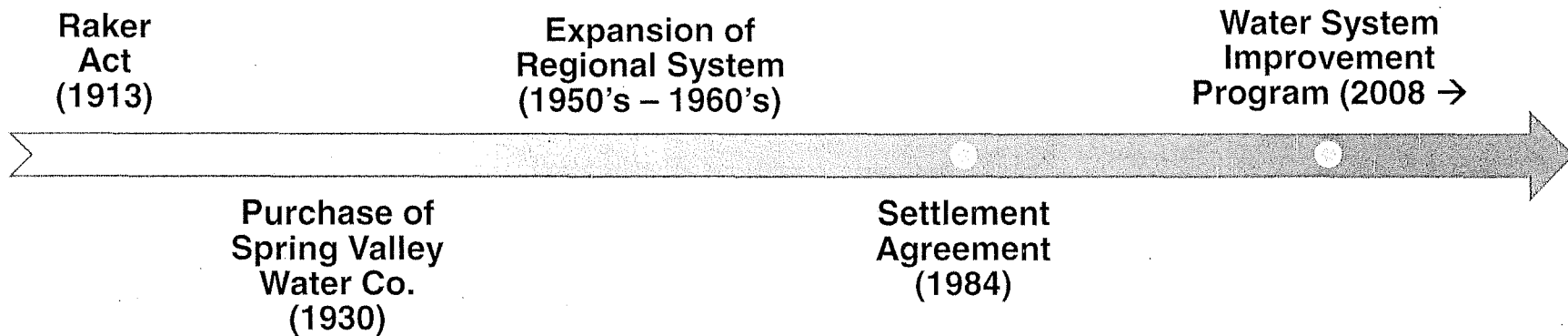
Our Regional Water System

The Regional Water System delivers water from Hetch Hetchy and five Bay Area reservoirs to 2.6 million customers.



All Regional Water System customers drink a **blend of this supply**, and have been for decades.

A Shared Water Supply



The Regional Water System is a shared water supply for Retail and Wholesale Customers

- San Francisco could not have built, expanded, or maintained it without the political and financial support of Wholesale Customers
- San Francisco has a contractual obligation to serve up to 184 mgd to its 26 Wholesale Customers in perpetuity
- Costs for the Regional Water System are shared by Wholesale Customers (2/3) and Retail Customers (1/3)

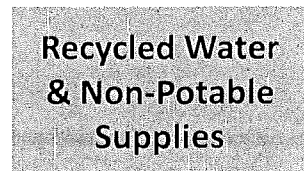
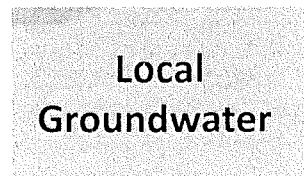
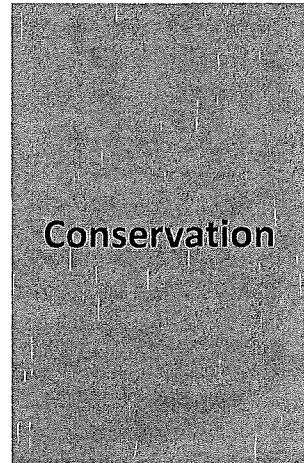
Why Local Supplies?

We are diversifying our water supply to:

- **Mitigate risks** associated with earthquakes, climate change, drought, and other interruptions to system deliveries;
- **Match** local water supply sources to their highest & best use;
- Keep up with **growing demands** over time; and
- Have more **control** over our water resources.

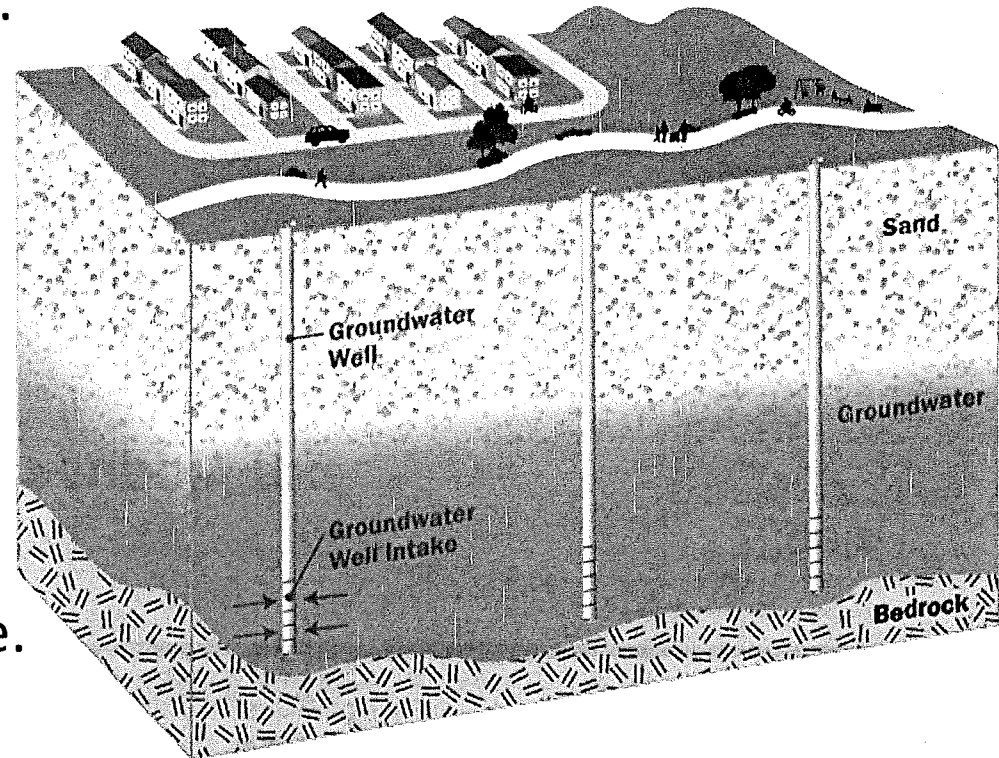
Local water supplies reduce San Francisco's vulnerability

Tools

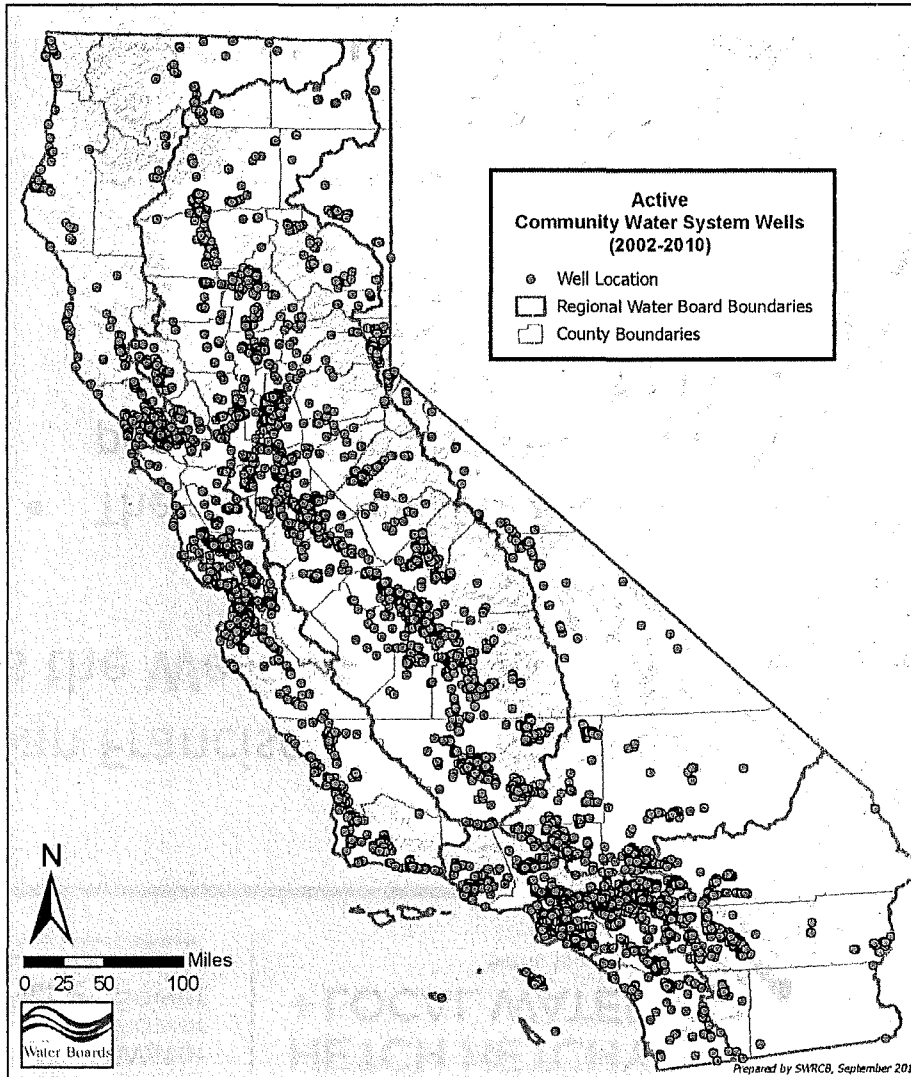


What is Groundwater?

- Groundwater is water that comes from the ground (also known as *well water*).
- Groundwater is stored in underground reservoirs (*aquifers*).
- Groundwater is an important natural resource.



Groundwater in California



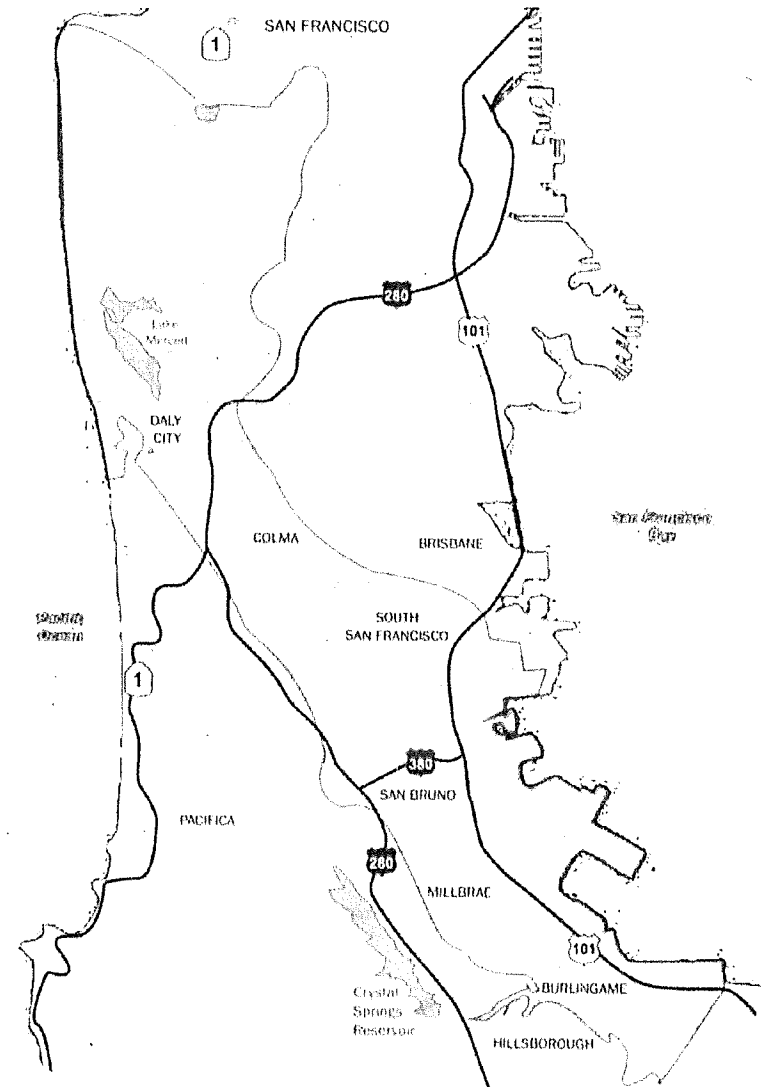
Groundwater is a proven and reliable drinking water supply.

- Over 80% of Californians rely on groundwater as part of their drinking water supply.

San Francisco Groundwater

San Francisco's groundwater source is the **Westside Basin**

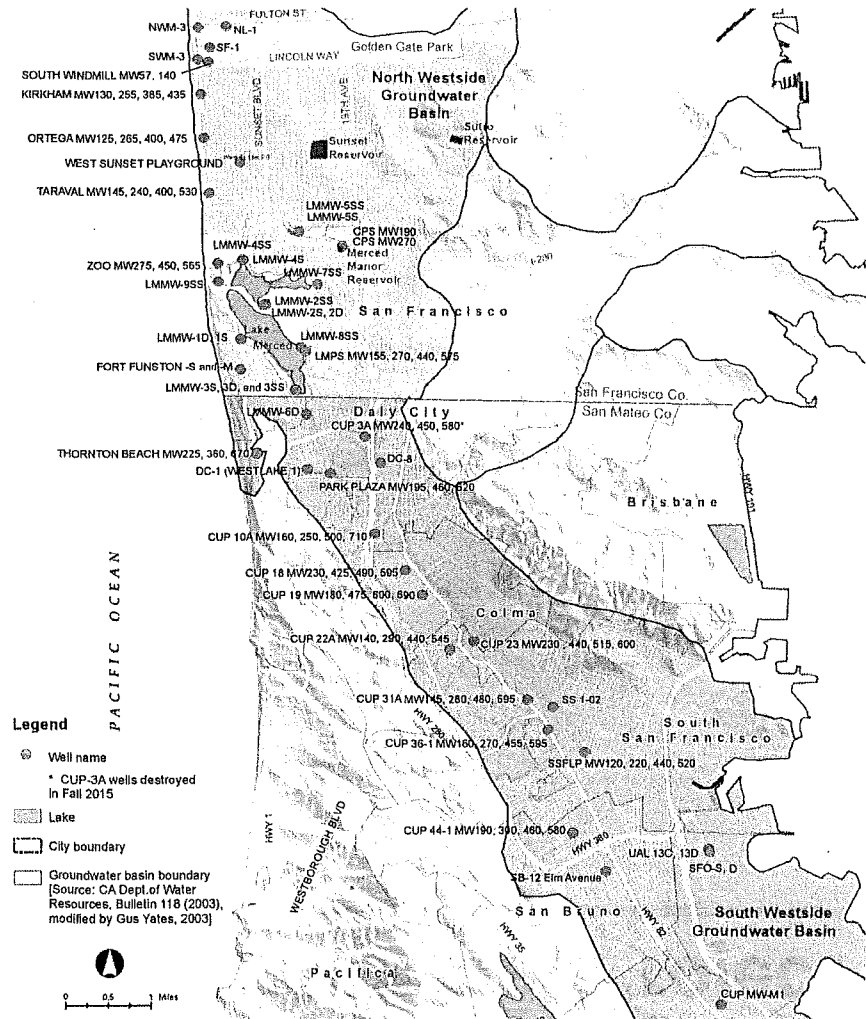
- The south Westside Basin has been providing drinking water to Daly City, South San Francisco and San Bruno for over 60 years
- In San Francisco, groundwater from the "Sunset Well Field" was used for drinking from 1930-1935 (before the Regional Water System was completed)



Groundwater Monitoring

We have a strong, technical understanding of the Westside Basin as a result of:

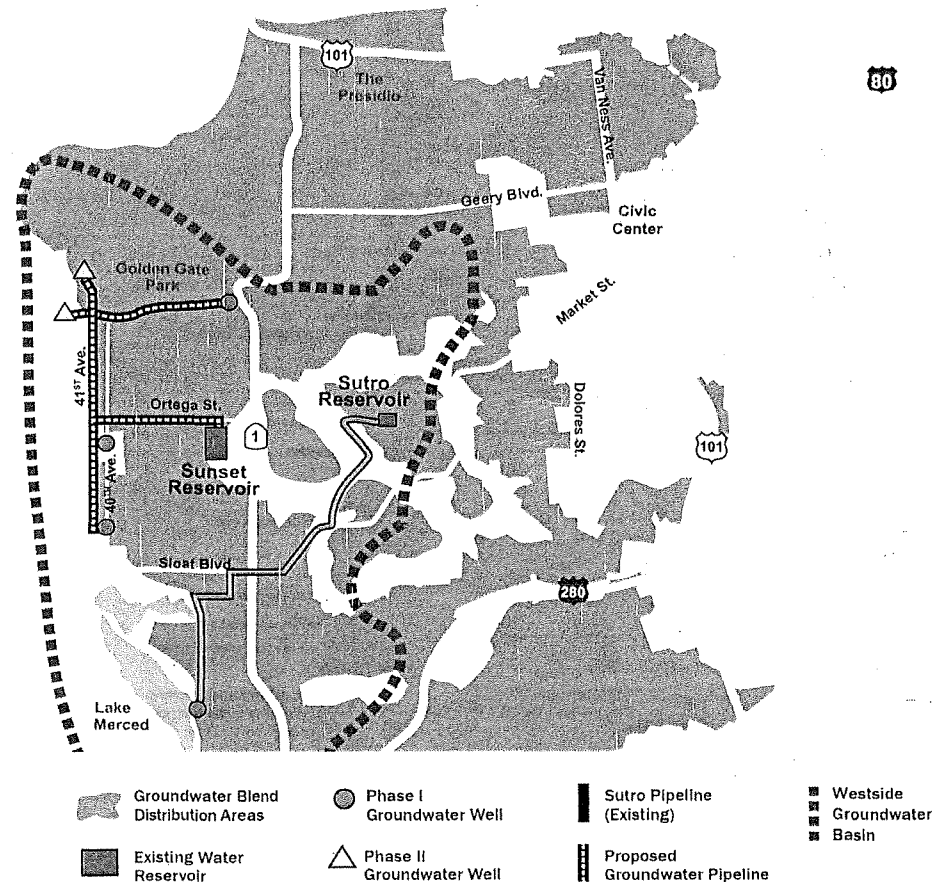
- A robust groundwater monitoring program with 45 wells at 19 locations in San Francisco:
 - Daily water level measurements
 - Semi-annual water quality sampling and analysis
 - Annual reporting of groundwater conditions since 2004
- Over 10 years of groundwater monitoring and study



The San Francisco Groundwater Project

Project Features:

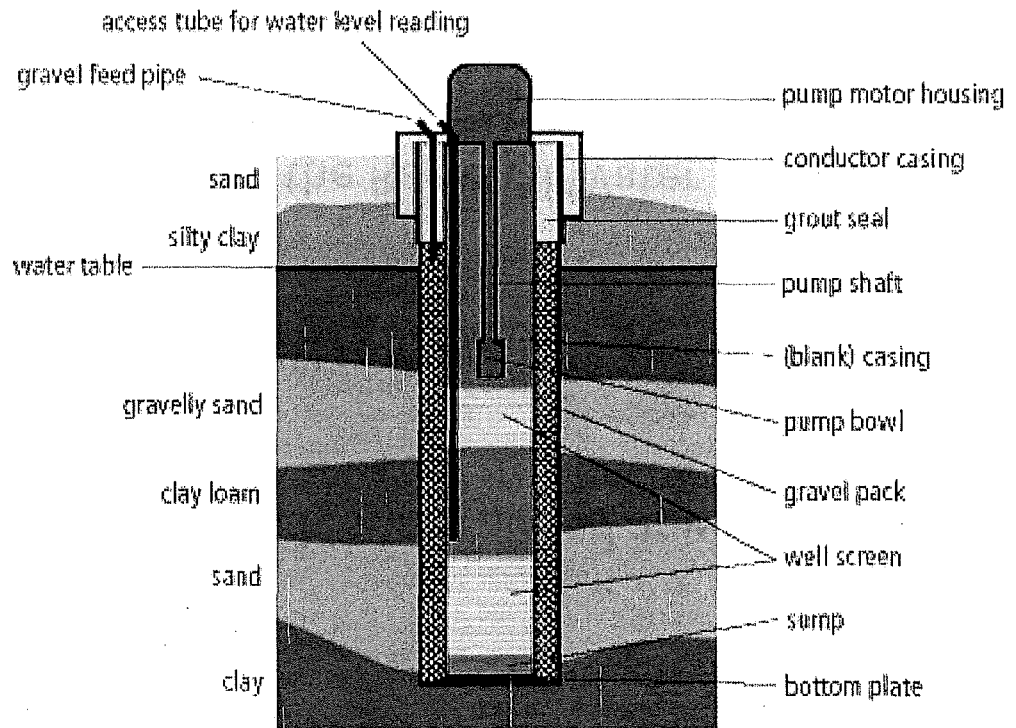
- 6 wells over two phases
- 5 miles of dedicated groundwater pipeline
- Groundwater pumping is starting with 1 mgd in 2017, increasing to 4 mgd by 2020 (est.)



Well Siting & Design

Well Siting & Design Features

- Well sites selected to avoid potential contamination
- Grout seals in wells are twice as deep as State well construction requirements
- Well screens are up to 450 feet deep



These wells are designed to maintain the quality of the groundwater, free of pathogens and low in turbidity.

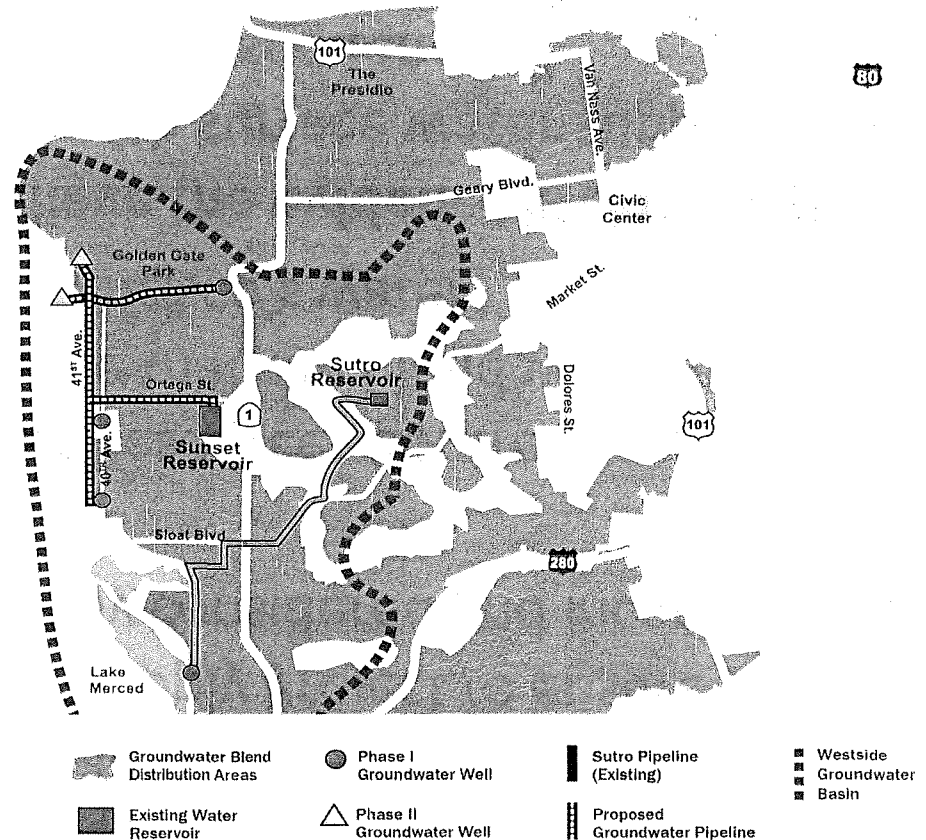
Our treatment and blending strategy, approved and permitted by the State, includes:

- Disinfection with sodium hypochlorite (chlorine) added at well stations
- Sodium hydroxide added to adjust the pH to match water from the Regional Water System
- Blending groundwater with water from the Regional Water System at the Sunset and Sutro Reservoirs before distribution to our customers

Blended water quality will meet or surpass State and Federal drinking water standards.

Groundwater Distribution

Groundwater will be blended with the Regional Water System supply at Sunset and Sutro Reservoirs, and the smaller reservoirs and tanks that they feed.



About half of San Francisco will receive a blend that includes local groundwater.

SFDPH - Project Oversight

- We have been collaborating actively with SFDPH on many aspects of the Groundwater Supply Project to ensure that health issues are appropriately considered and incorporated at every opportunity.
- Approval by the State Water Resources Control Board Division of Drinking Water is assurance that the blend will in no way diminish the safety of San Francisco's water.
- **SFDPH has stated, "We believe the evidence is clear that the plan to blend groundwater with surface water supplies will not create any adverse health consequences."**
- SFDPH and SFPUC staff will continue to review emerging scientific, medical, and public health literature relevant to drinking water standard development and applicability.

Outreach Since 2007

Over 10 Years of Outreach

- Various community events with over 700 participants
- Sampling of groundwater blend
- Focus groups

Media Coverage

(print/TV/radio stories)

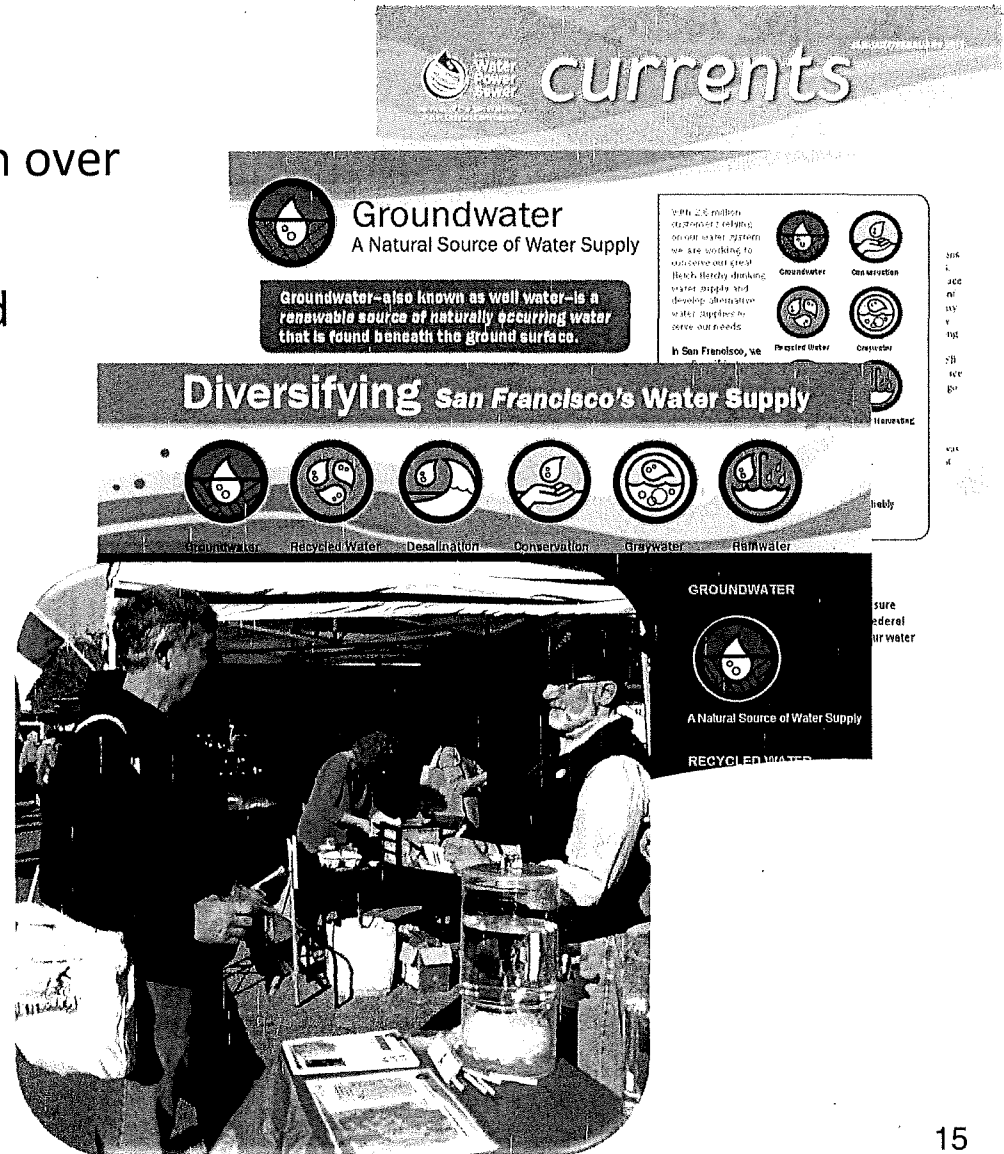
Currents / Digital Currents

(utility bill inserts/newsletter)

Planning Dept. mailings

Fact Sheets

Digital Wall



Outreach to coincide with start-up of well stations:

- Media coverage – *SF Chronicle* and *SF Examiner* articles & resulting coverage in neighborhood papers
- Muni / BART ad campaign
- Social Media
- Large posters placed in windows of SFPUC headquarters, along Golden Gate Ave.
- Groundwater updates on www.sfwater.org
- Fact Sheet updates





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Contact Us

For more information:

- **Visit** our website: www.sfwater.org/localwater
- **Email** us at: Groundwater@sfwater.org
- **Call** us at: (415) 554-3289

You can also:

- **Subscribe** to our digital newsletter/Currents - http://www.sfwater.org/cfapps/newsletter/signup_new.cfm
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Questions?