

Water Wise Cities: The San Francisco Perspective

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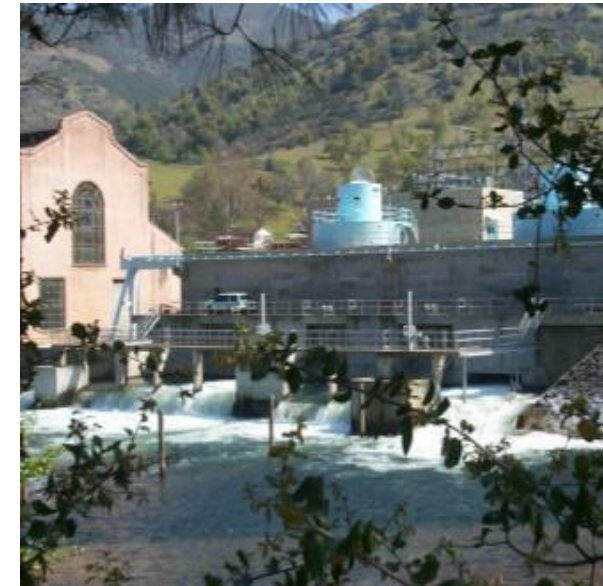
San Francisco Public Utilities Commission



Water: delivering high quality water every day to 2.7 million people



Wastewater: protecting public health and the environment



Power: generating clean energy for vital City services

Challenges to Reliable Water Delivery & Sanitation Services



Moving Away from a Linear Approach to Integrated Planning and Implementation

Traditional Resource Management

Traditional water and energy resource management utilizes a linear approach: resources in, waste out.

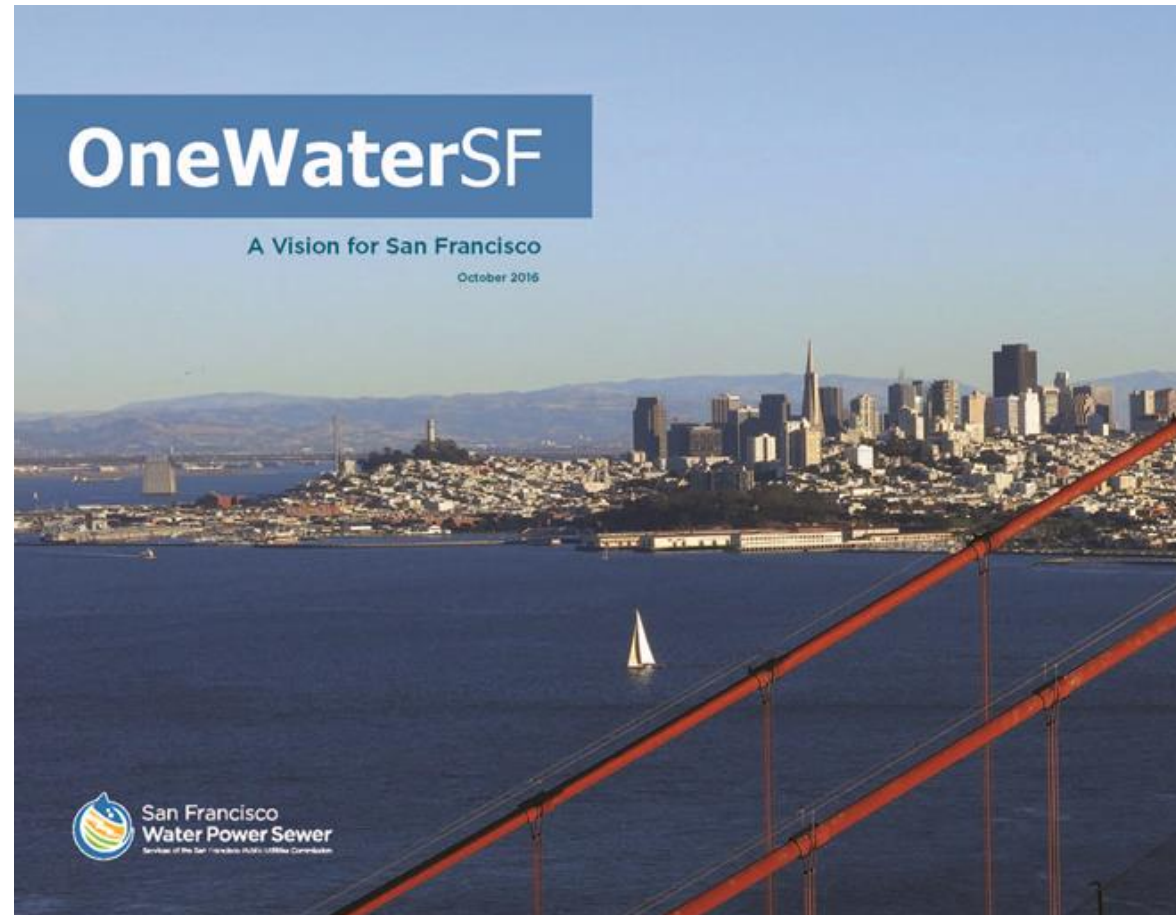


OneWaterSF

With OneWaterSF, the SFPUC has made a shift in how we recognize the value of and utilize our finite water and energy resources.



SFPUC Taking a One Water Vision to Sustainable Urban Water



Integrated Water Management

Envisioning OneWaterSF through Guiding Principles

1. Match the **right resource** to the **right use**.
2. **Look holistically** at our water, wastewater, and power systems to develop programs, policies, and projects that provide **multiple benefits**.
3. Plan for **variable outcomes** and build in **flexibility** to **adapt** to future changes.
4. Develop projects and programs that **conserve resources** and **promote ecosystem health**.

Envisioning OneWaterSF through Guiding Principles

5. Work **across traditional boundaries** within our organization to foster collaboration that results in the efficient use of water, wastewater, energy, and financial resources.
6. **Engage our communities** to foster awareness and collaboration around OneWaterSF.
7. **Pursue partnerships** with other agencies, the private sector, and other stakeholders to generate new and creative ideas.
8. **Pilot state-of-the-art technologies**, and test new approaches to develop **new business practices**.

Matching the Right Water for the Right Use

- Groundwater historically used for irrigation and wastewater treated and discharged to bay and ocean
- Groundwater is of drinking water quality
- Produce recycled water for irrigation of large parks and golf courses from an underutilized resource and stretch drinking water supplies



Collaborating on Biosolids Product Development



- Currently half of biosolids sent to landfills for soil cover
- Expand opportunities by partnering to assess feasibility of producing high quality soil replenishment



Promoting Efficient Use of All of our Resources, Including Financial Resources

- Green and impact investors value work to reduce climate risk and social impacts
- Issuing Green Bonds to address infrastructure needs and upgrades, lowers cost for ratepayers



Piloting State-of-the-Art Technologies and Creating New Utility Business Practices

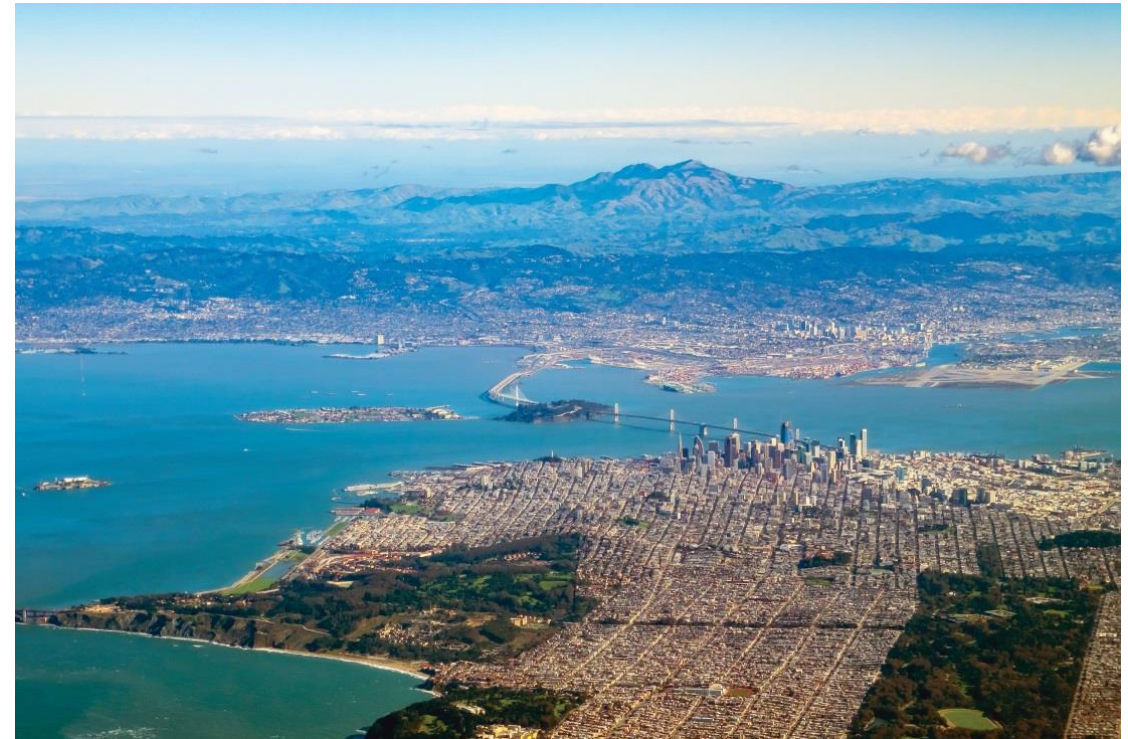


- Onsite water reuse
- Innovations program
 - Breweries
 - Atmospheric water generation
 - PureWaterSF
 - Leak Detection Technologies



Working Across Traditional Boundaries on a Regional Scale

- SFPUC works to leverage existing interconnections with neighboring water providers
- Explore options for additional interconnections and new water supplies for droughts and future demand
- Strengthen water supply reliability and resiliency for over 7 million residents



Benefits of a Water Wise Cities Approach

- Addresses climate change, water shortages, water quality protection, and aging infrastructure challenges
- Opportunities to optimize water and wastewater infrastructure with small and large scale projects
- Encourages programs and projects that provide multiple benefits
- Partner and engage the community



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