# IMPLEMENTINGDecember 2018OneWaterSFONSITE REUSE

## **OneWaterSF Vision**

With our OneWaterSF approach, San Francisco will optimize the use of our finite water and energy resources to balance community and ecosystem needs, creating a more resilient and reliable future.

San Francisco is recognized for our water and clean power stewardship and innovation. Our city already features one of the lowest per capita rates of water consumption in the United States. Now we are advancing a new approach to manage our water and energy resources known as OneWaterSF. OneWaterSF embraces the development of local water supplies to complement and stretch the Regional Water System supplies from Hetch Hetchy and other Bay Area Watersheds.

OneWaterSF represents an approach to resource management - one that recognizes our world is not static, that conditions are continually changing, and that we are strongest when we can quickly adapt to these changes. By creating pathways for technology and innovation, OneWaterSF encourages outcomes that apply the right resource to the right use, engage our communities, and provide a long-term reliable and resilient water supply for current and future generations.

### Accomplishing the OneWaterSF Vision through Onsite Reuse

There are many ways we can implement OneWaterSF. Matching the right resource to the right use is a critical OneWaterSF Guiding Principle that promotes treating water to the appropriate level that is needed for its end use. Onsite non-potable water systems conserve resources by reducing potable water consumption for non-potable uses and reducing stormwater flows to the sewer.

The SFPUC's programs embody OneWaterSF principles by encouraging onsite reuse through two legislative ordinances: <u>Non-potable Water Ordinance (NPO)</u> and the <u>Stormwater Management Ordinance (SMO)</u>. The goal of the NPO is for new development and redevelopment projects to capture and treat available onsite water sources to reduce the amount of potable water used to meet non-potable demands. The goal of the SMO is to manage stormwater runoff and protect the water quality of the Bay and Ocean and, at the same time, increase urban greening, contribute to a healthy and beautiful built environment, and use stormwater as a resource. Together these ordinances support OneWaterSF by advancing water reuse and green infrastructure across the city.



# dits: UBER Office Building - SHop Chase

**Innovation in San Francisco** 

The City and County of San Francisco is setting up a policy and regulatory context that drives innovation and encourages OneWater applications. One project at a time, our city is moving towards a new paradigm where decentralized infrastructure helps us manage and use local alternate water supplies.

These projects are including integrated design strategies to reduce the use of potable water and manage stormwater in a way that delivers multiple benefits to the community. By doing so, they are complying with both the NPO and SMO and making our city more sustainable.

UBER's new office buildings will feature 2 separate onsite nonpotable water systems, collecting and treating graywater and rainwater separately to meet the building's toilet flushing and irrigation demands. UBER is demonstrating a common approach to meeting onsite reuse and stormwater management goals. The project will offset about 700,000 gallons of potable water each year.



Chase Center, the sports and entertainment complex to be built in San Francisco's Mission Bay neighborhood, is being designed and constructed to collect and treat rainwater, stormwater, graywater, and condensate to supply toilet flushing demands in the arena and two accompanying office buildings. The project is applying an integrated approach by combining the infrastructure needed for both onsite reuse and stormwater management, and will offset about 3.7 million gallons of potable water annually.



The Moscone Convention Center is

operating with an innovative onsite non-

potable water system that collects and

treats foundation drainage, rainwater,

and condensate to meet demands for

toilet flushing, irrigation, and a truck

fill station for San Francisco Public

Works street cleaning trucks. The

project also applied an integrated

infrastructure approach to meet the dual

goals of onsite reuse and stormwater

# Which Ordinances Apply to My Project?

To determine if the NPO or SMO apply to your project, please use the below diagram. If your project needs to comply with either or both ordinances, the following page provides several helpful resources depending on the specifications of your project and which ordinances apply to your project.



# **NPO/SMO Synergies**

If you answered "Yes" to Question 1 on the prior page, your project must meet the requirements of both the NPO and SMO – which provides an opportunity to implement OneWaterSF. To determine how best to meet the requirements of each ordinance with OneWaterSF strategies, start with a water budget analysis.

IS YOUR PROJECT'S			
VOLUME OF	GREATER	YOUR	
ALTERNATE	OR LESS	NON-POTABLE	
WATER SUPPLIES*	THAN	DEMANDS	
The strategies you can use	for complyin	ng with the NPC	D and SMO
depends on v	which volum	e is greater.	

\* Alternate water supplies include greywater, rainwater, stormwater, and foundation drainage. Non-potable demands include landscape irrigation and toilet and urinal flushing.

To support you in selecting the appropriate design strategies, the SFPUC has developed the **Synergies for Compliance with the NPO and SMO Brochure**. Guidance from the Synergies Brochure is summarized below.

- Rainwater harvesting is optimal in commercial/office buildings and can be used in both combined and separated sewer areas.
- Graywater reuse is optimal in residential and mixed-use buildings.
- Combining all alternate water supplies into a single cistern can help simplify the infrastructure needed.
- In combined sewer areas, projects that divert wastewater flows away from the sewer during storm events may meet both ordinances.

For developers and designers implementing district-scale non-potable systems, there are additional considerations to achieve sustainable and complimentary water reuse and stormwater management strategies. Each district-scale project is unique. Get in touch with us early to review your project's design for compliance with the NPO and SMO.



## **More Information**

Stormwater Management Requirements (SMR) sfwater.org/smr

Non-potable Water Program sfwater.org/np

Questions nonpotable@sfwater.org stormwaterreview@sfwater.org

