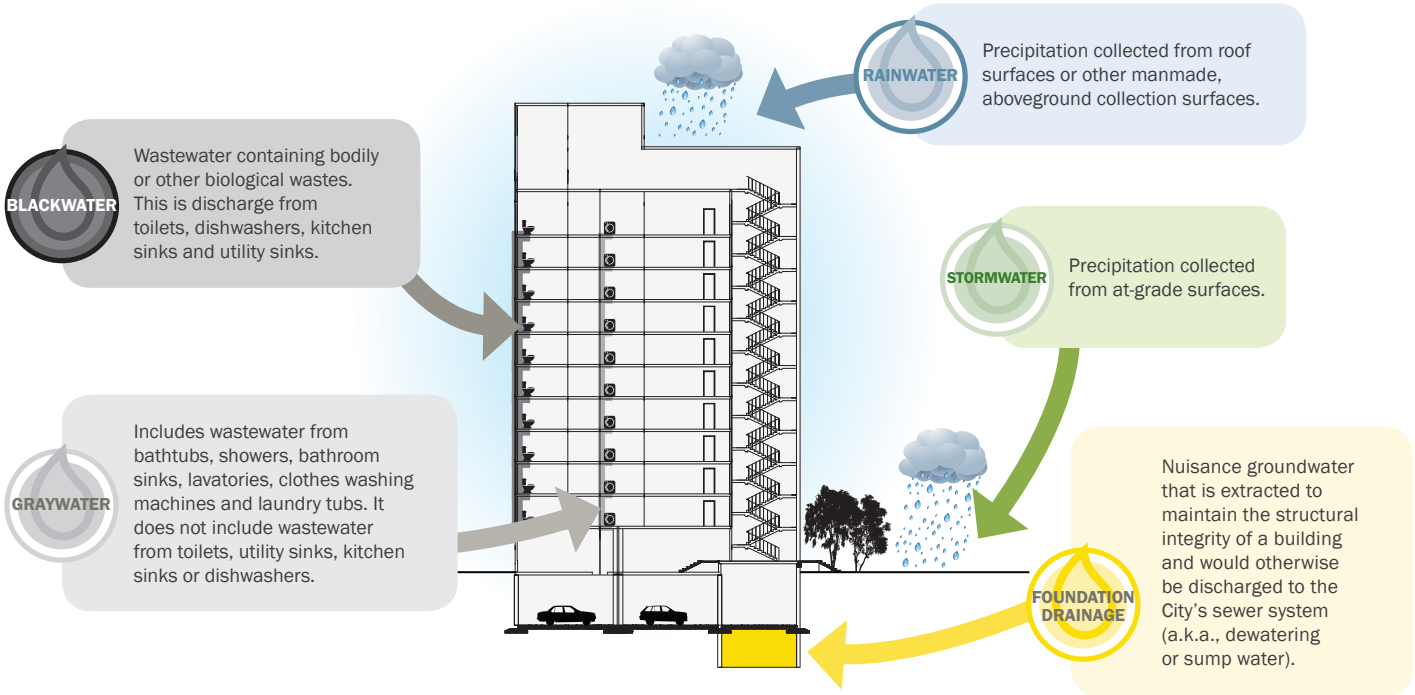
San Francisco's Non-Potable Water Program

San Francisco Water Power Sewer
Services of the San Francisco Public Utilities Commission

The Non-potable Water Program creates a streamlined process for new commercial, multi-family and mixed-use developments in San Francisco to collect, treat, and reuse water for toilet flushing, irrigation and other non-potable uses. The goal of the program is to encourage the reuse of water generated on-site to expand water savings and further diversify our water supply portfolio. Established through an ordinance adopted by the San Francisco Board of Supervisors in September 2012, this voluntary program includes guidelines for installing non-potable water systems and local regulations to ensure appropriate water quality standards are met.



Non-potable Program Tools

WATER USE CALCULATOR. The SFPUC has developed a Water Use Calculator to help project applicants estimate the potential volume of alternate water sources on-site as well as the potable and non-potable water demands. Applicants can input basic information, such as commercial square footage or number of residential units, to generate rough estimates or provide detailed building information to fine tune the calculations.

GRANT PROGRAM. The SFPUC has developed a grant assistance program that will provide up to $250,000 for projects implementing on-site non-potable water use. To be eligible, a project must:

- Be 100,000 square feet or more
- Complete the SFPUC's Water Use Calculator
- Replace all toilet flushing with on-site non-potable water or
- Replace 40% of the project's total water use with on-site non-potable water

The grant program is first come first serve with $500,000 available in FY12-13.

For more information please visit www.sfwater.org/np or email us at nonpotable@sfwater.org.

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Recognizing the environmental benefits and water savings that accrue, the new SFPUC headquarters at 525 Golden Gate Ave. uses on-site treated water for toilet flushing and rainwater for irrigation. For more information, visit www.sfwater.org/HQ.

A Brief Overview of the Process...

DESIGN

Application. The on-site non-potable application provides a basic overview of the proposed non-potable project, including the alternate water source(s) and non-potable application(s) proposed as well as the estimated volumes.

Non-potable Water Engineering Report. The Engineering Report details the design and technical aspects of the non-potable water system and means for compliance with SFDPH water quality standards.

Plumbing Permit. On-site non-potable projects are required to obtain a plumbing permit from SFDBI. During the plumbing plan check, SFDBI will verify the system meets code requirements. Approval of the Engineering Report from SFDPH is required before SFDBI will issue a plumbing permit.

CONSTRUCTION

Construction Requirements. On-site non-potable systems have specific requirements to protect public health and the SFPUC water system. All projects must include appropriate back-flow protection, separation of potable and non-potable piping systems, and the ability to bypass the system and supplement with SFPUC water supplies as needed.

Construction Certification Letter. Post construction, the project applicant must certify that the system was installed in accordance with the approved Engineering Report or detail any changes made during construction in a Construction Certification Letter. SFDPH approval of the letter is required prior to SFDBI issuance of a Certificate of Occupancy or Final Completion.

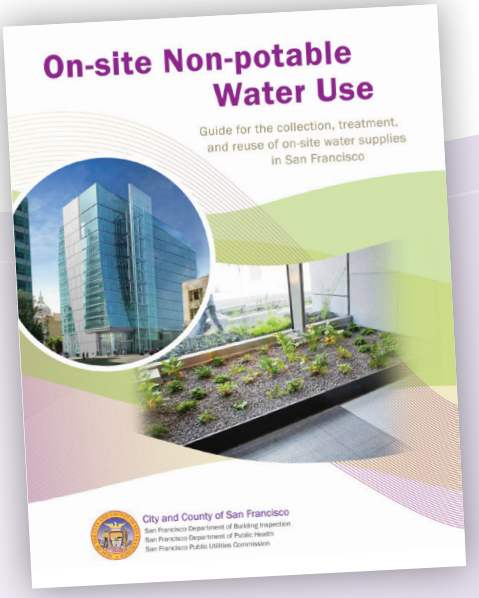
Cross Connection Control. An initial cross connection control test is required prior to the operation of the non-potable water system. Cross connection certification is required prior to SFDBI issuance of a Certificate of Occupancy or Final Completion.

OPERATION

Start Up Mode. During Start Up Mode, the on-site water is treated and discharged to the sewer while potable water is supplied to the non-potable end uses. The system must be operated in Start-Up Mode for at least 90 days to demonstrate compliance with water quality standards and to allow time for troubleshooting and fine-tuning of the system.

Temporary Use Mode. During Temporary Use Mode, the on-site water is treated and supplied to the approved non-potable applications. More frequent monitoring is conducted as the operation of the system is further refined. The system must be operated in Temporary Use Mode for at least 9 months, and if water quality standards are consistently met, a Final Permit will be issued.

Final Permit. After satisfying all temporary use requirements, a Final Permit will be issued by SFDPH. For continued operation, an annual license fee will be required along with continued monitoring, reporting, and system inspection.



Guidebook for On-site Non-potable Water Use

The SFPUC has compiled all of the components of the Non-potable Water Program in a step by step guidebook to help project applicants walk through the process. The guide includes more in depth information on the construction, treatment, water quality and ongoing monitoring and maintenance.

Please visit www.sfwater.org/np to access all of the information for the Non-potable Program.

To request copies of the guidebook, or for additional imformation, please email nonpotable@sfwater.org.