

## **LEGISLATIVE DIGEST**

[Health Code, Business and Tax Regulations Code - On-site Water Reuse for Commercial, Multi-Family, and Mixed-Use Developments]

**Ordinance amending the San Francisco Health Code by adding Article 12C and amending the Business and Tax Regulations Code by adding Section 249.24 to: 1) establish permitting requirements for the use of alternate water sources for nonpotable applications; 2) setting permit and annual fees; and 3) making environmental findings.**

### Existing Law

Under section 4.110 of the Charter, the Health Commission and the Department of Public Health ("Department") are generally authorized to provide for the preservation, promotion and protection of the physical and mental health of the inhabitants of the City and County. The Charter also provides that the Commission and the Department may also determine the nature and character of public nuisances and provide for their abatement.

### Amendments to Current Law

The proposed ordinance adds Article 12C to the San Francisco Health Code, which contains laws that implement the Commission and the Department's authority to provide for the preservation, promotion and protection of the physical and mental health of the inhabitants of the City and County. The ordinance requires that persons desiring to implement alternative source water systems obtain permission to construct and operate such systems, in accordance with rules and regulations established by the Department that define appropriate water quality standards, monitoring criteria and other requirements for such systems. The ordinance also directs the Department of Building Inspection to review plans and to issue plumbing permits for on-site alternative source water systems.

The ordinance applies to and authorizes the installation and operation of the alternate water source systems at sites containing multi-family and non-residential buildings. The ordinance requirements do not apply to systems at small residential occupancies, graywater systems where graywater is collected solely for subsurface irrigation and does not require disinfection, as determined by the Director, and rainwater systems where rainwater is collected solely for subsurface irrigation, drip irrigation, or non-sprinkled surface applications and does not require disinfection, as determined by the Director.

The ordinance requires a project applicant to submit an engineering report to the Department that describes the design of the proposed alternative source water system and clearly indicates the means for compliance with the Department's rules and regulations. The Department will review the engineering report and issue a permit to operate the system, if the system complies with the applicable rules and regulations.

Under the ordinance, the Department of Building Inspection will provide final inspection and sign-off to ensure that appropriate bypass and cross-connection control elements as part of construction. The ordinance also provides authority to perform water use audits, approve permit transfers on point of sale of the property, suspend or revoke permits, and to abate violations, including the imposition of penalties pursuant to Administrative Code chapter 100.

The ordinance also provides for the payment of fees to cover the Department's costs for administering the program, and, by adding section 249.24 to the Business and Taxation Code, for the payment of an annual license fee to the Tax Collector.

### Background Information

The Department, San Francisco Public Utilities Commission, and the Department of Building Inspection have jointly developed the City's Non-Potable Water Program. The purpose of this program is to create a streamlined process for new large developments in San Francisco to collect, treat, and use non-potable water on-site for toilet flushing, irrigation and other non-potable applications. Non-potable is a term that refers to water that is not of drinking water quality, but can be used for other productive uses such as toilet flushing and irrigation, in compliance with applicable City, State and Federal laws. Currently, the City has no integrated process for reviewing, approving and monitoring such projects.

According to the SFPUC, non-potable water is used across the nation to reduce the pressure on natural water resources. Treated non-potable water can be used for a number of beneficial purposes including irrigation, toilet flushing, decorative fountains, dust control and cooling applications. Capturing and treating rainwater, foundation drainage, and graywater—and then reusing the water for toilet flushing and irrigation—would result in a dramatic reduction in the overall water footprint of a building. Furthermore, using on-site sources may reduce the volume of flows into the sewer. Reducing the volume of stormwater, especially during the rainy season, can prevent combined sewer discharges.

Under this program, several types of alternate water sources generated on-site can be collected and treated, including:

Rainwater – precipitation collected from roof surfaces.

Graywater – wastewater from bathtubs, showers, bathroom, clothes washing machines, and laundry tubs, but does not include wastewater from kitchen sinks, toilets or dishwashers.

Foundation Drainage – nuisance groundwater that is dewatered to maintain a building's structural integrity and would otherwise be discharged to the City's sewer system. Foundation drainage is not the same as non-potable groundwater, which requires a production well and is already regulated by City ordinance.

Stormwater – precipitation that has contacted a surface at grade or below grade and has not been put to beneficial use.

Black water - wastewater from toilets, dishwashers, kitchen sinks and utility sinks.

Non-potable water cannot be used for drinking, washing or bathing, washing of clothing, washing of food, washing of cooking or eating utensils, washing of food preparation or processing premises, or other personal service rooms. However, rainwater is often allowed for clothes washing and recycled water is allowed for commercial laundries. The City's Non-Potable Water Program is designed for new, large scale commercial, mixed-use, and multi-family residential developments installing on-site systems to capture, treat, and reuse water for toilet flushing, irrigation and other non-potable applications. Single-family residential properties are the focus of already existing SFPUC programs, namely the Laundry-to-Landscape Pilot Graywater Program, the Graywater Permit Rebate Program, and the Discounted Rain Barrel and Cistern Program, and are therefore not included in this Non-potable Water Program.

Typical elements of an alternative water source system may include:

- **Collection:** Plumbing used to collect on-site supplies, such as graywater, and convey it to a treatment system.
- **Storage (Collection):** Storage tank used to equalize collection flows prior to treatment.
- **Treatment System:** A system that process untreated water with filtration, disinfection, and/or other processes to achieve acceptable water quality results.
- **Treated water storage:** Storage tank used to store treated graywater, rainwater, or foundation drainage water after treatment and before distribution.
- **Distribution system (pumps and piping):** Distribution pumps convey water from the treated storage tank to designated fixtures in the building via nonpotable distribution plumbing. Distribution system piping is completely separate from other piping in a building and is used to convey the treated nonpotable supplies to specific uses such as toilet flushing.

Under this ordinance, an alternative water source project developer will:

- Inform SFPUC of potable and non-potable demands;
- Submit an engineering report describing in detail the on-site collection and treatment system to the Department;
- Obtain a plumbing permit and all other necessary approvals from the Department of Building Inspection; and
- Obtain a permit to operate the on-site treatment system from the Department.