

LEGISLATIVE DIGEST

(Substituted 6/29/21)

[Health, Public Works, Business and Tax Regulations Codes - Alternate Water Sources for Non-Potable Applications]

Ordinance amending the Health Code to 1) lower the threshold, from 250,000 to 100,000 square feet of gross floor area, for requiring that new buildings be constructed, operated, and maintained using specified alternate water sources for required non-potable uses; 2) exempt certain affordable housing projects and property uses from that requirement; 3) require that certain categories of new buildings use specific sources of nonpotable water for specific purposes; 4) modify certain administrative review fees; 5) require the payment of excess use charges and penalties for failure to properly use and maintain alternate water source systems; and 6) the completion of reports on purified water, recycled water, and Non-potable District Systems; amending the Business and Tax Regulations Code to update certain annual license fee amounts for operating alternate water source systems; and affirming the Planning Department's determination under the California Environmental Quality Act.

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.

Article 12C to the San Francisco Health Code contains laws that implement the Health 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 Article requires that persons desiring or required to implement alternative source water systems obtain permission to construct and operate such systems, in accordance with the rules and regulations established by the Department that define appropriate water quality standards, monitoring criteria and other requirements for such systems. The Article also directs the Department of Building Inspection to review plans and to issue plumbing permits for on-site alternative water source systems.

Article 12C applies to and authorizes the installation and operation of the alternate water source systems at sites containing multi-family and non-residential buildings. New development projects of 250,000 square feet or more of gross floor area that did not receive a site permit prior to November 1, 2016 are required to construct, operate, and maintain an onsite non-potable water system to treat and reuse available sources of rainwater, graywater, blackwater and foundation drainage for toilet and urinal flushing and irrigation.

The amounts and types of water sources available for such new development projects will be assessed by using the San Francisco Public Utilities Commission's (SFPUC) Water Budget Calculator. If the Water Budget Calculator assessment shows that the available supply from onsite sources exceeds the demands for toilet and urinal flushing and irrigation, 100% of those demands must be met by using the available onsite sources. If the Water Budget Calculator assessment shows that the available supply from onsite sources is less than the demands for toilet and urinal flushing and irrigation, 100% of the available onsite supply must be used to meet the demands for toilet and urinal flushing and irrigation.

New development projects of 40,000 square feet or more of gross floor area are not required to construct, operate, and maintain an onsite non-potable water system, but are required to use the Water Budget Calculator to prepare a water budget assessing the amount of available rainwater, graywater, and foundation drainage produced on site, and the planned demands for toilet and urinal flushing and irrigation.

Article 12C 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.

Article 12C 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 Article 12C, the Department of Building Inspection (DBI) will provide final inspection and sign-off to ensure that appropriate bypass and cross-connection control elements as part of construction. The Article 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.

Article 12C 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.

Amendments to Current Law

The draft ordinance proposes the following changes:

- Lowers the threshold for applicability of Article 12C to large development projects from a total gross floor area for the single building or the multiple buildings of 250,000 square feet or more, to a total gross floor area for the single building or the multiple buildings of 100,000 square feet or more.
- Exempts from applicability the following development projects: 100% affordable housing projects; 100% permanent supportive housing projects; hospital buildings; health service buildings; institutional healthcare use buildings; industrial use buildings; and production, distribution, and repair use buildings.
- Requires commercial building development projects to reuse blackwater for indoor uses.
- Requires multi-family and mixed-use residential building development projects to provide graywater for clothes washing as an end use.
- Removes enforcement of rainwater collection and reuse as a required alternate water source.
- Increases Department fees to cover the administrative costs of performing inspections and approval and oversight functions.
- Modifies Department enforcement tools to create consistency with current Department procedures and increases potential penalties for non-compliance.
- Requires the San Francisco Public Utilities Commission to complete reports regarding recycled water use and development, sustainable water heating systems, and the potential uses of renewable natural gas.
- Clarifies that development projects are subject to excess use charges for failure to comply with obligations under Article 12C to use alternate water sources.

Background Information

The City's Non-Potable Water Program is administered through an inter-agency partnership among the Department, SFPUC, DBI, and SFPW. 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.

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 – could 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 rainwater and wastewater flowing into the combined sewer system, especially during the rainy season, can help reduce the risk of 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 roofs and above-grade surfaces.

Graywater – wastewater collected from bathtubs, showers, bathroom sinks, 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 collected at or below grade surfaces.

Blackwater – wastewater collected 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. Rainwater, however, 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 multifamily 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 other programs developed by the SFPUC, namely the Laundry-to-Landscape Pilot Graywater Program, the Graywater Permit Rebate Program, and the Discounted Rain Barrel and Cistern Program, and therefore are 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 processes 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 to convey water from the treated storage tank to designated fixtures in the building via non-potable distribution plumbing. Distribution system piping is completely separate from other piping in a building and is used to convey the treated non-potable supplies to specific uses such as toilet flushing.