




MEMORANDUM

DATE: February 14, 2020
(Updated from December 2, 2014)

TITLE: Standards and Procedures for the Implementation of the City and County of San Francisco’s Recycled Water Use Regulations

ISSUED BY: Harlan L. Kelly, Jr., General Manager 

REFERENCES: San Francisco Public Works Code, Article 22: Reclaimed Water Use
 California Code of Regulations, Title 22, Division 4, Chapter 3

PURPOSE AND BACKGROUND:

The purpose of this memorandum is to detail standards and procedures for the implementation of the Reclaimed (otherwise known as Recycled) Water Ordinance, Article 22 of the San Francisco Code of Public Works.

There has been some uncertainty and variations regarding the requirements and compliance with Article 22 for recycled water use. This memo clarifies the requirements for project sponsors complying with this article.

In 1991, the City and County of San Francisco (City) enacted recycled water use ordinances 390-91 and 391-91 (amended in 1994), codified collectively as Article 22 of the San Francisco Public Works Code (Article 22). The ordinance governs the situations in which recycled water systems must be incorporated into new structure(s) construction, modification, or alterations. The goal of Article 22 is to require recycled water use for non-drinking purposes within the Designated Recycled Water Use Areas (use areas).

Please note: Future local, state or other regulations may change the scope and implementation of recycled water use requirements. Project sponsors should verify that they are meeting all applicable code requirements, which may modify the standards and procedures addressed in this memo.

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IMPLEMENTATION:

San Francisco Recycled Water

San Francisco's Recycled Water Program includes planning for and implementing projects primarily on the westside and eastside of San Francisco to produce and distribute recycled water for non-potable uses.

Current projects include Harding Park Recycled Water Project, Pacifica Recycled Water Project, and the Westside Enhanced Recycled Water Project:

- SFPUC partnered with Daly City on the Harding Park Recycled Water Project to construct infrastructure to produce and deliver recycled water to irrigate Harding Park and Fleming Golf Courses. Since 2012, recycled water produced by the North San Mateo County Sanitation District has been used to irrigate the golf courses.
- The Pacifica Recycled Water Project was developed and implemented through a partnership between SFPUC and North Coast County Water District NCCWD. Deliveries began in 2014 to irrigate the eastside of Sharp Park Golf Course in Pacifica (a retail water customer of SFPUC), and other nearby areas.
- Construction began in early 2017 on the Westside Enhanced Water Recycling Project infrastructure. The project is scheduled to be completed and delivering recycled water in 2021. The system will bring recycled water from the new treatment facility located at the SFPUC's Oceanside Wastewater Treatment Plant to Golden Gate Park, Lincoln Park Golf Course, the Presidio Golf Course, and other landscaped areas, for irrigation and lake fill.

In addition, work is currently underway to evaluate the feasibility of additional recycled water projects including the San Francisco Recycled Water Satellite Facility Project.

Recycled Water Use Requirements

The requirements of Article 22 apply to the following projects and/or properties within the use areas:

- New construction of any structure, structures, or portion of any structure that is 40,000 square feet or more

- Certain major modifications, conversions, or alterations of any structure, structures, or portion of any structure that is 40,000 square feet or more
- All subdivisions
- New irrigation systems serving landscaped areas that are 10,000 square feet or more
- Existing irrigation systems serving landscaped areas that are 10,000 square feet or more

If the project is outside of the use areas, project sponsors are not subject to the Recycled Water Ordinance requirements.

Uses of Recycled Water

Recycled water systems can be used for applicable projects as defined above for the following major uses:

- Irrigation
- Flushing toilets and urinals

In addition, recycled water may be authorized for additional non-potable applications in a manner and to the extent consistent with all applicable local, State and Federal Laws. The full list of allowable uses is available in the California Code of Regulations, Title 22, Sections 60303 through 60307.

Major Alterations or Modifications to Existing Buildings

The application of Article 22 to Major Alterations or Modifications of Existing Buildings is based on the determination as to whether a “significant upgrade” is proposed in an area of 40,000 square feet or more measured cumulatively. For compliance with Article 22, a significant upgrade is determined to take place when interior finishes are removed, and the plumbing systems are exposed. Recycled water systems must be installed in the specific area(s) of alteration or modification. This requirement applies regardless of the date of original construction of the building.

Applicability of Recycled Water Use Regulations Based on Date of Building Permit Issuance

The Recycled Water Use regulations (Article 22) went into effect on November 7, 1991. Application of these regulations is based on the date of *issuance* of a building permit by the Department of Building Inspection (DBI). In the case of

Site Permits, the effective date is the date that the Site Permit was *issued* by DBI.

There has been some confusion about the use of recycled water in residential occupancies. While the California Plumbing Code did not include the use of recycled water in residential occupancies prior to 2010, the Water Code §13553 included recycled water for use in commercial, retail, and office buildings, theaters, auditoriums, schools, hotels, apartments, barracks, dormitories, jails, prisons, and reformatories, and other structures as determined by the State Department of Public Health. Effective January 1, 2008, AB1046, et seq., expanded the allowable use of recycled water to include condominium projects.

Article 22 is applicable to individually-owned condominium projects that were issued a building or site permit after January 1, 2008, and most other residential occupancies that were issued a building or site permit after November 7, 1991. Where there are discrepancies between the Water Code and the Plumbing Code (November 7, 1991 to January 1, 2011), **the Water Code shall prevail.** If a project sponsor was issued a site permit prior to January 1, 2008, for apartments or other types of residential occupancy, and subsequently changed the project to condominiums, the project is not exempt.

Table 1: Compliance Based on Occupancy and Date of Permit Issuance by DBI

Date of Permit Issuance	Occupancy – Buildings 40,000 SF or more					
	Non-Residential		Residential – Rented, Leased, etc.		Residential – Individually Owned Condominiums	
	Toilets/urinals	Irrigation	Toilets/urinals	Irrigation	Toilets/urinals	Irrigation
Before Jan. 1, 2008	Yes	Yes	Yes	Yes	No	Yes
After Jan. 1, 2008	Yes	Yes	Yes	Yes	Yes	Yes

Note: For R-3 residences & restaurants, see requirements described below.

Recycled Water Use and Restaurants

In any mixed-use building where a recycled water system is installed, any restaurant or other establishment that produces or processes food products cannot be connected to the recycled water system and must be supplied by a separate potable water system.

Recycled Water Use and R-3 Residential Subdivisions

Residences that are designated as R-3 structures by DBI are not required to include recycled water piping for internal use. Irrigation with recycled water is only required for the front yard if the system is operated and maintained by a home owner's or resident's association, or property management company.

PROJECT SUBMITTAL REQUIREMENTS:

Screening of Building Permit Applications for Applicability

Project sponsors are required to complete the SFPUC Checklist and must include the checklist with all building permit applications. DBI and SFPUC staff will screen all building permit applications to determine which recycled water use regulations apply. Permit applications will not be accepted for processing without this checklist.

Compliance Guidelines: New Recycled Water Systems and Recycled Water Irrigation Systems

Project sponsors must submit plumbing and/or irrigation plans to SFPUC detailing the recycled water system(s), and recycled water irrigation system(s) in compliance with the Recycled Water Use regulations.

DBI will not issue a building permit or plumbing permit until SFPUC has verified the project complies with the Recycled Water Use regulations and has approved the plans.

For subdivisions, the Director of Public Works will not approve a tentative subdivision map or parcel map until SFPUC has determined that the project complies with the Recycled Water Use regulations.

Note: *SFPUC's review of plans is limited to compliance with the Recycled Water Use regulations. Project sponsors are responsible for ensuring that the*

proposed design and constructed facilities comply with all applicable codes and permitting authority(s) requirements.

Compliance Guidelines: Existing Recycled Water Irrigation Systems

Irrigation systems using potable water within the use areas must be converted when notified in writing by SPFUC that recycled water is currently available for use. The property owner will have 180 days to make any necessary retrofits and convert the irrigation system to use recycled water. SFPUC will provide technical assistance and plan review to ensure compliance.

Project Completion: Verification that Recycled Water Use Requirements are Met

DBI will verify compliance with the Recycled Water Use regulations as part of the plumbing inspection and/or final inspection. At this time, DBI will verify that any recycled water systems or recycled water irrigation systems were constructed as detailed in the approved plans.

All projects that include the use of recycled water are required to provide adequate backflow protection for any potable water connections. This includes the installation of backflow prevention assemblies as close as possible to the water meter. Additional protection may be required if further hazards are identified in the project. SFPUC can provide consultation on the number and type of backflow prevention assemblies required.

Prior to the initial operation of the recycled water systems or recycled water irrigation systems, SFPUC will work with DBI to ensure that the systems are inspected for potential cross-connections with the potable water system. This includes any backflow prevention assembly tests and a cross-connection control test. The inspections and testing must be performed by authorized individuals in accordance with the City's Cross-Connection Control Program.

The cross-connection control test and backflow assembly test(s) must be successfully completed prior to DBI signing-off on the plumbing or final inspections.

Project sponsors that violate any provisions of the Recycled Water Use regulations are liable to the City and guilty of an infraction punishable by daily fines.

Recycled Water Use: Operating a Recycled Water System or Recycled Water Irrigation System

Once construction and verification has been completed and recycled water is available, SFPUC will issue the property owner a certificate of intention to use recycled water, as well as any additional information or requirements regarding the successful operation of a recycled water system or recycled water irrigation system. For more information on recycled water use and other ordinances related to water and wastewater in San Francisco, please visit: <http://sfwater.org/regs>.

ATTACHMENT A

Items required on recycled water and recycled water irrigation system drawings

1. Indicate all sources of water
2. Identify existing versus new pipelines
3. Show location and size of all water meters on the piping plans
4. Show location and type of all backflow preventions devices
5. Show location and type of all strainers, pressure regulating valves, and master valves.
6. Show location of all water pipelines supplying or crossing the site
7. Show location of all drinking fountains, outdoor eating areas, and other public facilities supplied with recycled or potable water service. Public facilities include, but are not limited to, restrooms, snack bars, swimming pools, fountains, and showers. Show pipelines feeding all of these facilities.
8. Show locations of any wells, lakes, reservoirs, or other water impoundments located on the site or within 100 feet of the site and indicate the type of water source.
9. Indicate that separation between potable and recycled water lines meets minimum requirements. Show sleeving where recycled water lines pass over potable water lines.
10. All sites using recycled water must post clearly visible signs. Show locations on irrigation plans.

The SFPUC can provide additional technical and regulatory guidance on the requirements for the design and implementation of recycled water and recycled water irrigation systems.