

Water Conservation Plan Report

Prepared by:

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For questions on this plan and plumbing fixture inventory, please
contact:

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Mayor's Executive Directive

On January 31, 2014, following one of the driest winters in recorded California history, the San Francisco Public Utilities Commission (SFPUC) asked all customers of the Hetch Hetchy Regional Water System to voluntarily curtail water consumption by at least 10%. On February 7, 2014, Mayor Lee issued Executive Directive 14-01 directing all City Departments to:

- Reduce consumption by 10 percent (based on a FY 2012-13 baseline).
- Develop a Water Conservation Plan, including:
 - A department contact for water conservation efforts.
 - An inventory of all department plumbing fixtures and their flow rates, including toilets, urinals, faucets, and showerheads.
 - A timeline for retrofitting inefficient plumbing fixtures with high-efficiency models.
 - A list of best management practices that departments will implement to achieve water-efficient operations and maintenance of parks, medians and other irrigated landscapes.
- Educate staff and visitors on water conservation practices.
- Explore the use of non-potable water for street cleaning.
- Work with the SFPUC to develop alternative sources of water supply.

The Real Estate Division is a leader in all areas of conservation, including reduced water use across its facilities, and this Water Conservation Plan outlines the steps necessary to achieve a 10% reduction in water use.

Water Conservation Contact

The Real Estate Division has identified a Water Conservation Contact for implementing and tracking water savings measures:

- Contact Name: Gladis Steinway
- Title: Project Manager
- Email: gladis.steinway@sfgov.org
- Telephone: (415) 554-9862
- Summary of water conservation duties: Coordinate with all Real Estate Division Building Managers and contacts regarding the audit, education and resources needed to comply with the Water Conservation Executive Directive. The Directive also requires us to analyze data and report on all disseminated information. In addition, the Real Estate Division, Public Utilities Commission, and Department of the Environment meet and collaborate to discuss water conservation measures.
- Director of Real Estate is a voting member of the Municipal Green Building Task Force.

Department Directives

In response to the Mayor's Executive Directive, the Real Estate Division issued an immediate notice to all of its employees, tenants and the public to be mindful of water use in the workplace. In addition, we took a closer look into issues related to our specific water uses for building operations. An example of this would be, by implementing weekly tests of suppression devices for 10 minutes at 500 gallons per minute, as mandated by the State of California. This test is done in a closed loop to conserve most of the water used in each test. In addition, the Real Estate Division has issued and forwarded the Mayor's Directive to all facilities leased from private owners and their corresponding property managers. The Real Estate Division will continue its outreach and education efforts in water conservation by posting signs in all water areas and sending quarterly emails to all building contacts to remind employees and the public of the importance of water conservation.

Summary of Department Facilities

Real Estate Division's major operations are located in 12 facilities as described below:

Type/Name of Facility	Number of Employees	Number of Visitors*
Alemaný Farmers' Market 100 Alemany Blvd.	6	10000
Animal Care & Control 1200 15 th Street	41	35
City Hall 400 Van Ness Ave.	1100	3000
1650 Mission Street	455	2800
1660 Mission Street	373	750
1 South Van Ness Ave.	1200	550
25 Van Ness Ave	520	240
30 Van Ness Ave.	592	165
Hall of Justice (HOJ) 850 Bryant Street	1500	3300
Public Defender's Office 555 7 th Street	190	50
DEM 1011 Turk St.	180	100
Bill Graham Civic Center Auditorium 99 Grove Street	12	7500

* Visitors are on an estimated basis

Fixture Inventory and Results

Over the past several months, the Real Estate Division has evaluated the plumbing fixtures in its major facilities using the Plumbing Fixture Inventory Tracking Sheet provided by the SFPUC. Based on the Real Estate Division's assessment of plumbing fixture efficiency, the following table is a summary of efficient and inefficient plumbing fixtures. Only completed retrofit projects are reflected in Column B.

PLUMBING	A	B
	Total Inefficient Fixtures	Total Efficient Fixtures*
Tank Toilets	10	2
Flushometer Toilets	340	411
Urinals	111	83
Showerheads	15	17
Faucets/Faucet Aerators	517	320
Other (i.e. laundry, cooling tower, restaurant or medical equipment)	133	

*In compliance with Chapter 7 of the City's Environmental Code.

Proposed Plan for Fixture Improvements

Throughout the plumbing fixture inventory process, the Real Estate Division has identified opportunities to reduce water use by increasing the efficiency of plumbing fixtures. Replacing old, inefficient plumbing fixtures will not only reduce water use in accordance with the Mayor's Executive Directive, but it will also help the department comply with the Water Conservation Requirements of Chapter 7 of the Environmental Code. The Real Estate Division collaborates with PUC staff in implementing retrofit projects.

Landscape Best Practices

The Real Estate maintains landscape and irrigation at 3 facilities. The landscaped areas are:

Type/Name of Facility	Approx. Landscape Area (sq. ft.)
City Hall	40,700 sq. ft.
HOJ	770 sq ft
1 South Van Ness Ave.	9,579 sq. Ft.

Following the Mayor's Executive Directive, the Real Estate implemented the following landscape best management practices to reduce irrigation water use:

- Reduced irrigation run times by 30%. HOJ watering is done just once a week manually.
- Inspected all irrigation systems for leaks and made immediate repairs on a regular basis as schedule and via CMMS (Computerized Maintenance Managed System).
- Adjusted or replaced all broken or misaligned sprinkler heads as a result of regular inspections and CMMS requests.
- Identified areas of unused turf that can be replaced with climate-appropriate plantings; at HOJ plants have been reduced by 30% as a result of less frequent watering, and reduced area to water.

Appendix A: Water Conservation Requirements of Chapter 7 of the Environment Code

In 2011, Chapter 7 of the Environment Code was amended to update the green building requirements for the design, construction and operation of City buildings. Chapter 7, Section 709 requires that on or before January 1, 2017, the department responsible for any City-owned facility's operation and maintenance shall take all steps necessary to bring the facility into compliance with the following water conservation requirements:

SEC. 709. WATER CONSERVATION RETROFIT REQUIREMENTS.

(a) On or before January 1, 2017, the department responsible for any City-owned facility's operation and maintenance shall take all steps necessary to bring the facility into compliance with this Section.

(b) The department shall use San Francisco Public Utilities Commission ("SFPUC") guidelines to determine which of the following provisions applies.

(c) Water Conservation Requirements for Water Closets (Toilets) and Urinals.

(1) This subsection applies to all City-owned facilities.

(2) City leaseholds are subject to the all the requirements of the Commercial Water Conservation Ordinance of Chapter 13A of the San Francisco Building Code, including provisions requiring the replacement of non-compliant water closets and urinals on or before January 1, 2017.

(3) The responsible department shall ensure that all water closets in City-owned facilities with a rated flush volume exceeding 1.6 gallons per flush and all urinals with a rated flush volume exceeding

1.0 gallon per flush are replaced with high-efficiency water closets that use no more than 1.28 gallons per flush and high-efficiency urinals that use no more than 0.5 gallons per flush, respectively.

(4) The responsible department shall replace the bowl and flushometer valve together in all City-owned facilities to meet high-efficiency standards for flushometer type water closets and urinals. The department shall replace the bowl and tank together to meet high-efficiency standards for tank type water closets.

(5) The department shall be responsible for the costs of compliance and for ensuring that all applicable contract documents for the replacement of water closets and urinals contain the above requirement.

(6) Installation of water closets and urinals:

(A) City departments purchasing water closets and urinals may only purchase high-efficiency water closets and urinals listed by the General Manager of the SFPUC.

(B) City departments shall confer with the General Manager and incorporate technical assistance and water conservation audit findings in project plans.

(7) City departments shall comply with inspection findings determined to be necessary by the General Manager of the SFPUC to ensure that all fixtures have been properly installed for buildings subject to the requirements in subsection (c)(3) where four or more high-efficiency water closets or urinals are replaced.

(8) Should the General Manager of the SFPUC determine that water closets and urinals that are more water-efficient than those specified in the foregoing sections exist. City departments shall install fixtures identified on a SFPUC list of other water-efficient water closets and urinals that City departments may use pursuant to Section [703\(b\)](#).

(d) Water Conservation Requirements for Shower Heads.

(1) This subsection applies to all City-owned facilities.

(2) City leaseholds are subject to the Commercial Water Conservation Ordinance of Chapter 13A of the San Francisco Building Code, including provisions requiring the replacement of non-compliant showerheads on or before January 1, 2017.

(3) The department responsible for any City-owned facility's operation and maintenance shall take all necessary steps to ensure that all showerheads in the facility having a maximum flow rate exceeding 2.5 gallons per minute are replaced with shower heads having a maximum flow rate, not to exceed 1.5 gallons per minute.

(4) The department shall be responsible for the costs of compliance and for ensuring that all applicable contract documents for the replacement of showerheads contain the above requirement.

(5) Should the General Manager of the SFPUC determine that shower heads that are more water efficient than those specified in the foregoing section exist, City departments shall install fixtures identified on a San Francisco Public Utilities Commission list of other water-efficient shower heads that City departments may use pursuant to Section [703\(b\)](#).

(e) Water Conservation Requirements for Faucets and Faucet Aerators.

(1) This subsection applies to all City-owned facilities.

(2) City leaseholds are subject to requirements of the Commercial Water Conservation Ordinance of Chapter 13A of the San Francisco Building Code, including provisions requiring the replacement of non-compliant faucets and faucet aerators on or before January 1, 2017.

(3) The department responsible for any City-owned facility's operation and maintenance shall take all necessary steps to ensure that all faucets and faucet aerators in the facility with a maximum flow rate exceeding 2.2 gallons per minute are replaced with fixtures having a maximum flow rate not to exceed 0.5 gallons per minute per appropriate site conditions.

(4) The department shall be responsible for the costs of compliance and for ensuring that all applicable contract documents for the replacement of faucet or faucet aerators containing the above requirement.

(5) Should the General Manager of the SFPUC determine that faucet aerators that are more water efficient than those specified in the foregoing section exist, City departments shall install fixtures identified on a SFPUC list of other water-efficient faucets or faucet aerators that City departments may use pursuant to Section [703\(b\)](#).

For the complete requirements of Chapter 7 of the Environment Code, please see [http://www.amlegal.com/nxt/gateway.dll/California/environment/chapter7resourceefficiencyrequirements?f=templates\\$fn=default.htm\\$3.0](http://www.amlegal.com/nxt/gateway.dll/California/environment/chapter7resourceefficiencyrequirements?f=templates$fn=default.htm$3.0)

Appendix B: Plumbing Fixture Inventory Tracking Sheet

Summary for Plumbing Fixture Inventory.