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Water Resources Division
Visit: sfwater.org/localwater
Introduction

The San Francisco Public Utilities Commission (SFPUC) is pleased to issue this annual report on water conservation and local water supply program achievements for Fiscal Year 2014-2015 (FY 2014-15). For nearly a century, SFPUC customers have enjoyed some of the nation’s highest quality drinking water from the Hetch Hetchy, Alameda, and Peninsula watersheds, which collectively supply the Hetch Hetchy Regional Water System (Regional Water System).

Today, the SFPUC is working harder than ever to ensure a resilient and reliable water supply for future generations. While the water use of San Francisco residents and businesses is already among the lowest in the State, the SFPUC remains committed to protecting its watersheds and to using water wisely.

The SFPUC’s Water Resources Division is responsible for the implementation of a robust water conservation program, as well as the development of local water supplies such as groundwater, recycled water, and non-potable water. Together, these programs supplement and diversify the SFPUC’s portfolio of water resources, and can assist in the event that regional water deliveries are disrupted due to an emergency, natural disaster, or drought.

These efforts continue to be guided by the goal established by the SFPUC’s $4.8 billion Water System Improvement Program (WSIP) to reduce demand on the Regional Water System by 10 million gallons per day (mgd) by 2018 through water conservation and the expansion of local water supplies.

Additionally, in FY 2014-15, the SFPUC continued to actively respond to California’s historic drought and unprecedented statewide water restrictions by expanding public outreach and maintaining a comprehensive suite of conservation services.
Water Resources Division Accomplishments: FY 2014-15

AVERAGE RESIDENTIAL WATER USE

Per Person / Per Day

- CALIFORNIA: 94 gallons
- SAN FRANCISCO: 44 gallons

San Francisco Population: 845,602

Water Delivered to San Francisco Residential Customers: 37 million gallons per day

WATER CONSERVATION

- 2,960 Toilets Installed
- 2,720 Washers Installed
- 99 Urinals Installed
- 27,420 Devices Distributed
- 5,246 Water-Wise Evaluations Conducted

Estimated Lifetime Water Savings: 773 million gallons

OR

Annual water supply for 7,730 San Francisco Homes

LOCAL WATER SUPPLY

- 13 New Non-potable Projects Proposed
- 2 Large Groundwater Projects Under Construction
- 200,000 Gallons per Day of Recycled Water Delivered to San Francisco Golf Courses

LOCATIONS OF WATER SUPPLY PROJECTS

- Proposed Non-potable Project
- Golf Course Irrigated with Recycled Water
- Groundwater Well Site: San Francisco Groundwater Supply Project
- Groundwater Well Site: Regional Groundwater Storage and Recovery Project (Phase 1)

AWARDS

- SPUR Good Government Award
- 2015 Sustainia100 Solution for Non-potable Water Program
- Assisted San Francisco City Hall to become the oldest building in the U.S. to receive LEED Platinum Certification

San Francisco Population: 845,602

Water Delivered to San Francisco Residential Customers: 37 million gallons per day

Annual water supply for 7,730 San Francisco Homes

- Harding Park
- Sharp Park Eastside
- Annual water supply for 7,730 San Francisco Homes
- Large Groundwater Projects Under Construction
- Proposed Non-potable Project
- Golf Course Irrigated with Recycled Water
- Groundwater Well Site: San Francisco Groundwater Supply Project
- Groundwater Well Site: Regional Groundwater Storage and Recovery Project (Phase 1)

San Francisco County

San Mateo County
The Regional Water System is a public asset that plays a key role in delivering high-quality drinking water to 2.6 million residents and businesses in the Bay Area. The system collects water from the Tuolumne River in the Sierra Nevada and from protected local watersheds in the East Bay and Peninsula. With the Regional Water System, the SFPUC delivers water to 27 wholesale customers in Alameda, Santa Clara, and San Mateo counties (wholesale customers) and provides direct retail water service to customers in San Francisco and a small number of customers outside of San Francisco who are located along the Regional Water System (retail customers). The Bay Area Water Supply & Conservation Agency (BAWSCA) represents the interests of 26 of the 27 wholesale customers and also coordinates their water conservation programming. The SFPUC provides regional conservation assistance and meets the water needs of its retail customers through projects and programs planned by the Water Resources Division.

The current drought underscores the need to continue developing local water supplies and water conservation programs, both in the wholesale and retail service areas. While local supplies such as recycled water, groundwater, and non-potable water often require a significant amount of time to plan and implement, the SFPUC is more committed than ever to developing a comprehensive water portfolio that balances future needs. Additionally, the SFPUC continues to work with other Bay Area water agencies to explore regional water supply opportunities such as transfers, desalination, and potable reuse that can be jointly developed.
Drought Response

STATE MANDATES AND SFPUC ACTIONS

During this reporting period, California entered the fourth year of a severe drought, a period that is said to be the driest in the state’s hydrologic record. The drought State of Emergency issued by Governor Jerry Brown in January 2014 remained in effect, and the State Water Resources Control Board enacted additional emergency conservation regulations to promote even more conservation throughout the state. These included mandatory restrictions on outdoor water use, as well as prohibitions on water use by businesses. Also, a mandatory statewide water use reduction of 25%, compared to 2013, took effect starting June 2015. This mandatory statewide reduction remains in place until February 2016 and may be extended or modified if the drought continues.

To help achieve the statewide conservation goal of 25%, the State Water Resources Control Board assigned the SFPUC a conservation standard of 8% in recognition of its low residential per capita water use. The SFPUC, however, continued to call upon its retail customers to reduce water use by at least 10%, as it has done since January 2014. In February 2014, Mayor Ed Lee issued an executive directive requiring all City departments to develop individual water conservation plans and take immediate steps to achieve a mandatory 10% reduction in their water consumption. To curb outdoor water use in line with state emergency regulations, the SFPUC imposed a mandatory 10% reduction on outdoor irrigation along with water use allocations and excess use charges for all irrigation customers starting in August 2014. In July 2015, the SFPUC increased the mandatory reduction on outdoor irrigation from 10% to 25%.

To help customers reduce and maintain efficient water use, the SFPUC continued to provide an extensive array of water conservation services and informational materials, and launched an updated multi-media drought outreach campaign.

WATER USE RESTRICTIONS

As a result of the ongoing drought, the SFPUC expanded its efforts to educate the public about wasteful water use activities restricted by the state, including runoff from irrigation and hardscape washing. SFPUC field inspectors continued to keep an eye out for water waste during daily rounds, and conservation staff responded to more than 1,200 reports of water waste submitted through San Francisco’s 3-1-1 online and telephone response center.

For more information, visit: sfwater.org/waterwaste.

The SFPUC updated and continued to provide a variety of materials and tools to educate customers about the drought and responsible water conservation practices. Materials included posters, checklists, lawn signage, stickers, and fact sheets. Available online at sfwater.org/conservation

The SFPUC issued 735 postcards and warning letters, and called and visited over 250 sites where water waste was reported.
DROUGHT EDUCATION CAMPAIGN

In June 2014, the SFPUC launched a multilingual “Water Conservation is Smart and Sexy” Citywide public education campaign to capture public attention and present everyday water conservation tips and information about the drought. This year, the campaign continued with new artwork and messages communicated through a combination of television, newspaper, billboard, bus, commuter transit station, and social media advertisements. The campaign encouraged individuals to adjust their water use practices and pursue water-efficient plumbing fixture upgrades. It also advised individuals to visit sfwater.org/conservation to learn more about conservation services that are offered. Shortly after launching the campaign, SFPUC water conservation web traffic increased by close to 25%. The campaign was also extended to the wholesale service area in partnership with BAWSCA.
During FY 2014-15, the SFPUC delivered approximately 196 mgd on average to its wholesale and retail customers. Wholesale customers received 128 mgd, San Francisco retail customers received approximately 64 mgd, and retail customers outside of San Francisco received 5 mgd.

San Francisco retail customers’ water conservation efforts – supported in part by incentives and assistance from the SFPUC – has helped San Francisco reduce total water demand over the last 15 years despite population growth. In FY 2014-15, San Francisco retail customers’ gross per capita use was approximately 77 gallons per day and the residential per capita water use was about 44 gallons per day. While this water use was among the lowest in the state, the SFPUC remains committed to comprehensive water efficiency efforts that will help sustain a continued reduction in water use.

**FY 2014-15 Regional Water System Deliveries and San Francisco Retail Water Use**

**San Francisco Retail Per Capita Demands**

1 Following the 2010 Census, population data between 2000 and 2010 were re-calibrated by the U.S. Census Bureau. Consequently, the per capita demands in this report may not be consistent with those reported in the SFPUC 2010 Urban Water Management Plan.
Water Conservation Programs

During FY 2014-15, the SFPUC continued to provide a comprehensive water conservation program open to residents, municipal facilities, parks, hotels, universities, and all other retail customers. Core services included indoor and outdoor Water-Wise Evaluations, incentives for replacement of old plumbing fixtures, free water-efficient plumbing devices, landscape efficiency programs, tools to monitor water use, and public outreach such as free gardening classes and presentations to schools and stakeholder organizations. For more information, visit: sfwater.org/conservation

HET DIRECT INSTALL PROGRAM

The High-Efficiency Toilet (HET) Direct Install Program provided Water-Wise Evaluations and free replacement of 503 inefficient toilets with new high-efficiency models to non-profit multi-family affordable housing providers and households participating in the SFPUC’s low-income rate discount program. The HET Direct Install Program is intended to help reduce water usage and utility costs for customers that may be unable to participate in traditional rebate programs due to a lack of financial resources, and is made possible in part by more than $1.2 million in state and federal grant funds. In FY 2014-15, the SFPUC was also awarded an additional $535,000 in emergency drought relief state grant funds to continue implementing the HET Direct Install Program. Next year, the SFPUC plans to expand the program to reach more residential and non-residential retail customers.

COMMERCIAL EQUIPMENT RETROFIT GRANT PROGRAM

The Commercial Equipment Retrofit Grant program provides businesses funding to implement onsite equipment efficiency upgrades. In FY 2014-15, the program approved applications for cold room, steam sterilizer, and laundry process water efficiency projects.

TOILET AND URINAL REBATES

2,370 rebates were provided to customers who replaced old, inefficient toilets that used 3.5 gallons per flush (gpf) or more with new HETs that have a maximum flush volume of 1.28 gpf. Toilet rebates ranged from $125 for tank toilet models to up to $500 for flushometer toilet models. 88 urinal rebates provided customers up to $500 for the replacement of 1.5 or more gpf urinals with qualifying high-efficiency urinals that use 0.5 gpf or less.

CLOTHES WASHER REBATES

The SFPUC continued to partner with Bay Area water agencies and Pacific Gas and Electric Company (PG&E) to provide 2,554 combined water and energy rebates of $150 for Energy Star Most Efficient high-efficiency clothes washers. 166 rebates of up to $500 were also provided to customers installing qualifying coin-operated, high-efficiency, common area, commercial-style clothes washers.

Starting in July 2014, the SFPUC increased rebates to up to $500 for flushometer toilets, urinals, and commercial-style clothes washers.
FREE HIGH-EFFICIENCY PLUMBING DEVICES

The SFPUC provided a total of 27,420 water-efficient showerheads, faucet aerators, garden spray hose nozzles, and toilet leak repair parts to help residential and commercial properties achieve immediate water savings. All retail customers are eligible to receive free plumbing devices during a Water-Wise Evaluation. Single family and under 10-unit multi-family customers can also pick up select devices from SFPUC’s headquarters at 525 Golden Gate Avenue.

COMMUNITY GARDEN GRANTS

During FY 2014-15, the SFPUC awarded four new community and urban agriculture gardens with funding to install dedicated irrigation water meters. Irrigation meters help garden sites monitor and efficiently manage water use.

LAUNDRY-TO-LANDSCAPE PROGRAM

The Laundry-to-Landscape Program provided 21 discounted graywater kits, workshops, and onsite technical assistance to residents who were designing, installing, and maintaining graywater systems that direct water from clothes washing machines into gardens.

LANDSCAPE AUDITS

The Landscape Technical Assistance Program (LTAP) provided surveys for more than 77 acres of landscape and identified irrigation improvements for 11 of the SFPUC’s largest San Francisco retail customers. LTAP services are available to customers with over a half-acre of landscape. With a mandatory 10% reduction program in place for irrigation customers, the SFPUC also implemented focused outreach efforts to customers who were struggling to meet their irrigation allocations. Programs like LTAP and My Account were offered to help customers evaluate the efficiency of their irrigation systems and monitor daily water use.
CUSTOMER WATER USE TOOLS

SFPUC’s My Account web portal, which allows customers to view their daily water use and other water use information, was launched in May 2014. Since then, customer use of the tool has increased steadily with over 13,000 users, or 8% of the retail customer base, signed up by June 2015. **Account holders can register at: myaccount.sfwater.org.**

Also drawing on automated meter data, the SFPUC launched a leak detection program to notify single-family residential customers with three days of continuous water use. Between April and June 2015, postcards were sent to approximately 1,200 single-family customers indicating that they may have a leak and should inspect their indoor plumbing fixtures and irrigation systems. Close to 80% of those notified during this period stopped continuous usage within a few weeks.

### DEMONSTRATION GARDENS AND GARDENING CLASSES

The SFPUC is an ongoing sponsor of the Water-Wise and Natural Plant Care demonstration garden in partnership with Garden for the Environment. Open to the public year-round, this site showcases small-scale urban organic food production, climate-appropriate landscaping, and water-efficient irrigation systems. The SFPUC also hosted 20 free workshops at the garden to help San Francisco residents create and maintain beautiful, water-efficient landscapes, and learn about non-potable water supply alternatives, such as graywater and rainwater harvesting.
FY 2014-15 activities implemented through the SFPUC water conservation program are estimated to have a potential lifetime water savings of 773 million gallons².

FY 2014-15 San Francisco Retail Water Conservation Program Performance and Savings

773 Million Gallons
TOTAL ESTIMATED LIFETIME WATER SAVINGS

LIFETIME WATER SAVINGS BY CUSTOMER SECTOR

- Single Family: 29%
- Multi-Family: 29%
- Non-Residential: 42%

OUTREACH & EDUCATION
- Class Presentations: 65
- Media Articles/Interviews: 59
- School Field Trips: 30
- Stakeholder Presentations: 19
- Community Garden Grants: 4

LANDSCAPE PROGRAMS
- Audited Landscape Acres: 77
- Graywater Kits: 19
- Gardening Workshops: 20

Five-Year Summary: Water Conservation Program Activity

- FY 2009-10 through FY 2013-14
- FY 2014-15

Device Distribution

- Aerators: 15,041
- Showerheads: 7,105
- Other: 5,274

Fixture Rebates & Direct Install

- Toilets: 2,960
- Urinals: 99
- Washers: 2,720

WATER-WISE EVALUATIONS

- Single Family: 385
- Multi-Family: 4,560
- Non-Residential: 301

Five-Year Summary: Water Conservation Program Activity

Device Distribution

- Aerators
- Showerheads
- Other*

Fixture Installation (rebates and direct install)

- Toilets
- Urinals
- Clothes Washers
- Water-Wise Evaluations

* Other devices include toilet leak repair flappers and fill valves, garden spray hose nozzles, and restaurant pre-rinse spray hose nozzles.

Water conservation savings estimated using the SFPUC Water Conservation Tracking Model. Savings are estimated lifetime cumulative water savings, up to 30 years. 773 million gallons roughly equals 2,372 acre feet of water. Acre foot is the standard metric used by many water agencies to report lifetime water savings. One acre foot is roughly equivalent to a football field filled with one foot of water.
Local Water Supplies

In addition to its robust conservation efforts, the SFPUC continues to develop an array of projects to meet its policy goal of developing 10 mgd of locally-available water resources by 2018. In FY 2014-15, the SFPUC made significant advancements toward this goal, including an increase in recycled water use and planning, initiation of construction for two groundwater projects, and a major expansion of the Non-potable Water Program to require mandatory onsite water reuse in new development projects meeting specific criteria. Together, these programs supplement San Francisco’s existing water supplies from the Regional Water System and help ensure water supply reliability and resiliency. As these supply projects typically have a long lead time for planning and construction, the SFPUC takes a long-term view to prepare for the future.

RECYCLED WATER PROGRAM

Water is too precious a resource to use just once. Using recycled water for non-drinking uses such as landscape irrigation, toilet flushing, street cleaning, and cooling, helps preserve drinking water from the Regional Water System.

HARDING PARK RECYCLED WATER PROJECT

The Harding Park Recycled Water Project was completed in October 2012 and continues to provide recycled water produced by Daly City to irrigate the 163 acres of public greens at Harding Park and Fleming Golf Courses. Recycled water has allowed the San Francisco Recreation and Parks Department to dramatically reduce the amount of fertilizers used at the facility. In addition, the drought-resistant supply has allowed the greens to thrive during the ongoing drought, drawing additional PGA tournaments to the course. Recycled water at Harding Park saved approximately 200,000 gallons per day of drinking water in FY 2014-15.

RECYCLED WATER TRUCK-FILL STATION

An automated recycled water truck-fill station is operated by the SFPUC at the Southeast Water Pollution Control Plant (SEP). Permitted trucks may use this water for irrigation of roadway and freeway landscaping, soil compaction, dust control, street cleaning, and sewer flushing. In FY 2014-15, over 739,000 gallons of recycled water were distributed from the SEP truck-fill station, including 505,000 gallons that were used for municipal street cleaning and street tree irrigation.

PACIFICA RECYCLED WATER PROJECT

The Pacifica Recycled Water Project is a partnership between the North Coast County Water District and the SFPUC to replace drinking water with recycled water to meet the irrigation needs of Sharp Park Golf Course and other landscaped areas in the City of Pacifica. When completed, approximately 38 million gallons of recycled water will be delivered annually, of which, 30 million gallons per year will be delivered to Sharp Park Golf Course, a retail customer of the SFPUC that is managed by the San Francisco Recreation and Parks Department. To date, the SFPUC has completed construction of a new pump station, approximately 17,000 feet of distribution pipelines, and a 400,000 gallon above-ground recycled water storage tank. A new automated irrigation system for the east side of Sharp Park Golf Course was designed and constructed in the summer of 2014, and recycled water delivery began in October 2014.
Local Water Supplies (continued)

GROUNDWATER PROGRAM

While San Francisco residents are not currently drinking groundwater, 80% of Californians depend on it for all or part of their drinking water supply, and have been doing so safely for generations. The SFPUC’s groundwater projects will increase local and regional water supply reliability, diversify the water supply portfolio, and reduce dependence on a single source, making water supply less vulnerable to disrupted service from drought and natural disasters such as earthquakes.

SAN FRANCISCO GROUNDWATER SUPPLY PROJECT

The San Francisco Groundwater Supply Project is being developed in San Francisco by the SFPUC to provide up to 4 mgd of drinking water. The local groundwater supply will supplement and diversify the portfolio of water supplies for San Francisco residents and can also be used in emergencies. The SFPUC is building six deep well pumping stations to extract water from the Westside Groundwater Basin, as well as over five miles of pipelines to distribute the groundwater to local reservoirs for blending. Two wells will also serve as emergency drinking water supplies following an earthquake or other natural disaster, and will include a distribution system to fill emergency water tankers.

Construction of the first phase of the project (four wells and pipelines) began in August 2014 and is expected to be completed in early 2017. Construction of the second phase of the project (two wells and pipelines) is expected to begin in late 2016 and coincide with the Westside Recycled Water Project.

REGIONAL GROUNDWATER STORAGE AND RECOVERY PROJECT

The Regional Groundwater Storage and Recovery Project is a partnership between the SFPUC and three San Mateo County wholesale customers in San Mateo County: the California Water Service Company (serving South San Francisco and Colma), the City of Daly City, and the City of San Bruno. During years of normal or heavy rainfall, the project will provide additional surface water from the Regional Water System to the partner agencies in San Mateo County in order to reduce the amount of groundwater pumped from the South Westside Groundwater Basin. Over time, the reduced pumping will result in a water savings account of up to 20 billion gallons. Construction started in April 2015 and will be completed in 2018.

The Project Operating Agreement for the Regional Groundwater Storage and Recovery Project was signed by all parties in a joint ceremony in December 2014.
NON-POTABLE WATER PROGRAM

The capture and reuse of water generated onsite for non-potable purposes, such as toilet flushing and irrigation, is a key strategy for expanding water savings and diversifying water supplies in dense, urban areas. Onsite water reuse can help reduce potable water consumption by up to 50% in new multi-family residential developments and up to 95% in new commercial developments. Primary sources of water include graywater, rainwater, stormwater, blackwater, and foundation drainage. The Non-potable Water Program has developed water quality rules, regulations, and a streamlined process for new commercial, multi-family, and mixed-use developments in San Francisco to collect, treat, and reuse water treated onsite.

NON-POTABLE PROJECT APPLICATIONS

Thirteen water budget applications were received by the Non-potable Water Program in FY 2014-15 to install onsite water systems. Twelve of the projects are individual building-scale projects, and one is a district-scale project. The 13 new projects propose to offset approximately 16 million gallons per year of potable water. Combining the 20 projects from FY 2013-14 with the 13 projects from FY 2012-13, the estimated total offset is 24 million gallons of potable water each year.

NON-POTABLE WATER GRANT PROGRAM

The Non-potable Water Program offers grants of up to $250,000 for building-scale projects and up to $500,000 for district-scale projects that meet specific requirements. In FY 2014-15, SFPUC staff approved a grant for a building proposing to collect and treat graywater and rainwater for toilet flushing and irrigation offsetting approximately 1.4 million gallons per year.

PUBLIC HEALTH STANDARDS INITIATIVE

The SFPUC is leading the research project Technical Guidance for Public Health Standards for Onsite Water Systems. Working with the National Water Research Institute (NWRI), the SFPUC is developing recommendations for public health standards for treated alternate water sources for non-potable applications, including water quality criteria, monitoring regimes, and permitting strategies for onsite water systems. The project is sponsored by the Water Research Foundation (WRF), WaterReuse Research Foundation, and Water Environment Research Foundation (WERF). As this initiative moves forward, all documents and information will be publically available at sfwater.org/np/luws.
COMMUNITY OUTREACH AND MEDIA RELATIONS

The SFPUC continued to promote water conservation through regular messaging in customer bill inserts, social media outlets, and local media and trade publications. The SFPUC also continued to partner with local stakeholder organizations, such as the San Francisco Apartment Association and Hotel Council, to bring water conservation awareness to their members.

March 2015 marked the fourth consecutive year of participation in the EPA’s national ‘Fix a Leak’ week to promote awareness of wasteful household and irrigation system leaks. The SFPUC recognized this national effort by encouraging San Francisco residents to identify and repair wasteful household plumbing leaks. The continued drought also helped to sustain high media and public interest in water conservation. The SFPUC regularly updated the press on Regional Water System supplies and customer response to water conservation requests. SFPUC media relations experts participated in more than 50 television, radio, and newspaper media stories, helping to keep water conservation at the forefront of breaking news. SFPUC water conservation specialists also participated in close to 40 local community events and stakeholder meetings to raise awareness about the drought and conservation programs and fielded over 4,000 calls from the public.

WATER CONSERVATION IN SAN FRANCISCO SCHOOLS

In FY 2014-15, the SFPUC continued to offer a variety of free teacher resources, including curriculum, illustration contests, 60 classroom presentations, and 30 field trips to local watersheds and a Water-Wise demonstration garden.
Developing local water supplies and reducing customer water use remain a high priority with dry conditions likely to continue through 2015. On the supply side, this coming year will bring significant progress in the development of major recycled water and groundwater projects, as well as non-potable water programs. On the conservation front, the SFPUC will be continuing all of its programs, expanding efforts to encourage customers to replace inefficient toilets and urinals, and using automated meter data to help customers manage their water use. Should statewide mandates be increased or extended in response to the drought, the SFPUC will implement additional conservation actions as necessary. The coming year will also mark a major planning milestone as the SFPUC updates both its comprehensive water conservation plan to guide programs over the next five years and beyond, and its Urban Water Management Plan to assess how existing and future water demands will be met.

**PROPOSED WESTSIDE RECYCLED WATER PROJECT**

The SFPUC is concluding the design phase for a project on the west side of San Francisco to deliver recycled water to irrigate Golden Gate Park, Lincoln Park Golf Course, and the Presidio Golf Course, and other irrigated areas within the Presidio. This project will supply and deliver up to 2 mgd of recycled water on average. Design is expected to be completed in the winter of 2015, with construction scheduled to begin in the fall of 2016. The project EIR was certified by the Planning Commission and approved by the SFPUC’s Commission in September 2015. The project team is continuing field assessments of the proposed customer irrigation systems to identify necessary modifications to bring the systems into compliance with regulations related to the distribution and application of recycled water.

**MANDATING NON-POTABLE WATER USE**

In the spring of 2015, San Francisco Supervisor Scott Weiner proposed legislation requiring all new buildings over 250,000 square feet to install an onsite water reuse system. The proposed mandates would apply to projects in San Francisco’s designated recycled water use area beginning November 1, 2015, and expand Citywide November 1, 2016. The proposal was approved unanimously by the Board of Supervisors and was subsequently signed into law by Mayor Ed Lee in July 2015. Amendments to the Non-potable Water Ordinance and updates to the Non-potable Water Program will be implemented in the upcoming year.
POTABLE REUSE PROGRAM

The SFPUC is participating in direct potable reuse research efforts with the Water Research Foundation to advance the science and regulation around the potential of using recycled water for drinking water purposes. Whereas indirect potable reuse is the process of treating wastewater for drinking water purposes with the aid of an environmental buffer (such as a groundwater aquifer or surface water), direct potable reuse involves distributing highly-treated water into the drinking water supply without an environmental buffer. The SFPUC is also working with Bay Area water and wastewater agencies toward a potential partnership to explore direct and indirect potable reuse projects to serve customers in the future.

RESOURCE MANAGEMENT AT LAKE MERCED

Located in the southwest corner of San Francisco, Lake Merced is made up of four interconnected lakes and provides a vital link for wildlife, particularly for migrating birds. In an emergency, Lake Merced water can be used for firefighting or sanitation purposes if no other sources of water are available. The SFPUC and the City of Daly City are working together to improve the Vista Grande stormwater system, which drains the northwestern portion of Daly City and an unincorporated portion of San Mateo County – areas originally within the watershed of Lake Merced. Project goals include improving stormwater drainage, minimizing flooding risk, and providing a water source for Lake Merced management. The project is currently undergoing environmental review, which is anticipated to be completed next year.

The SFPUC is also conducting remediation at the southwest side of Lake Merced, the former site of the Pacific Rod and Gun Club (PRGC), to address contaminated soils resulting from historical activities by the PRGC. The objectives of the remediation project include minimizing human exposure to contaminated soils, allowing unrestricted use of the site, avoiding additional ongoing monitoring and maintenance requirements, and reducing the potential for leaching contaminants into Lake Merced. Construction commenced in May 2015 and is expected to be completed in spring 2016.

By improving the Vista Grande stormwater system, lake levels will be maintained so that Lake Merced can continue to serve as an important resource for the community.

Historical use of lead shot and clay pigeons containing poly aromatic hydrocarbons (PAHs) have impacted soils and sediment along the southwest shoreline of Lake Merced.
BAY AREA REGIONAL RELIABILITY PARTNERSHIP

The SFPUC is working closely with its neighbors in the Bay Area in an effort to maintain a holistic view of water supply and secure alternate drinking water supplies well into the future. The SFPUC is working with a growing number of water providers throughout the Bay Area to consider desalination and other supply sharing opportunities.

BRACKISH WATER DESALINATION

The SFPUC is continuing to work with the Contra Costa Water District (CCWD), East Bay Municipal Utility District (EBMUD), Santa Clara Valley Water District (SCVWD), and the Alameda County Flood Control and Water Conservation District – Zone 7 (Zone 7) to investigate a regional water supply project using brackish water desalination and transfers to help serve the needs of over 5.6 million residents and businesses in the region. The concept of the Bay Area Brackish Water Treatment (Regional Desalination) Project is a 20 mgd capacity treatment facility in eastern Contra Costa County. The water would be shared among the partner agencies, relying on available space in an extensive network of existing pipelines and interties that largely already connect the agencies’ distribution systems.

RAINWATER HARVESTING PROGRAM

In October 2015, the SFPUC launched a residential program to provide free rain barrels to one- and two-unit residential homes in San Francisco. The program will be expanded in early 2016 to include cisterns.

EXPANDED DIRECT INSTALL PROGRAM

In 2015, the SFPUC expanded its program to replace old, water-wasting toilets and urinals in municipal facilities, and anticipates extending the program to more residential and commercial sites in 2016.

CUSTOMER WATER USE ALERTS AND TOOLS

The SFPUC will be expanding its leak detection program to potentially include alerts via e-mail, text, and phone messages, and alerts to small multi-family sites. The SFPUC will also be exploring potential high usage alerts for non-residential customers and inclusion of hourly data on the My Account portal.

Public interest in the rain barrel program has increased over the last year as water restrictions and calls for conservation continue even with potential for winter rains. Discounted rain barrels will be available for San Francisco residents. For more information, visit: sfwater.org/rainwater.