



Community Learns Details of Proposed Eastside Recycled Water Project

First workshop provided details on where water may be used, potential customers, and how water will be treated.

The first of four public workshops on the proposed Eastside Recycled Water Project was held January 19, 2012 and featured presentations and discussion about the need for the project, where the water might be used, how the planning process will unfold, and how the public can stay involved and help shape the project. More than 15 members of the public attended the workshop held at the San Francisco Public Utilities Commission's (SFPUC) offices on Market Street.

Why Recycled Water is Needed

Eastside Recycled Water Project Manager Barbara Palacios presented an overview of SFPUC's current Water Supply Portfolio, during the January 19 workshop, explaining that the Water System Improvement Program has a goal of reducing the City's drinking water demand by 10 million gallons per day (mgd). That goal includes saving approximately 4 mgd through developing conservation, 2 mgd of new groundwater supplies, and producing and delivering 4 mgd of recycled water. Diversifying SFPUC's water supplies will decrease the demand for water from the Hetch Hetchy Regional Water System, prepare the system for drought, climate change, and seismic activity and allow the City to sustainably manage its water resources.

Recycled water will help San Francisco make more efficient use of its precious drinking water and decreases the amount of treated wastewater released to the bay.

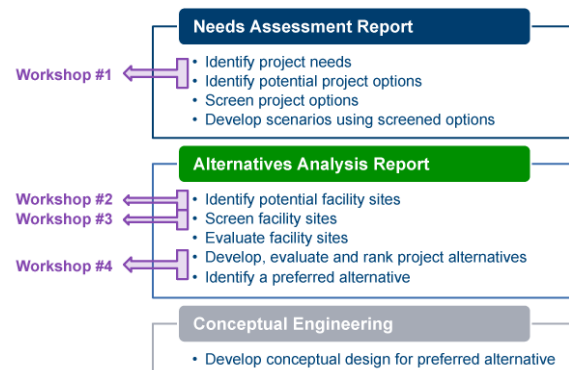
Planning Process for the Eastside Recycled Water Project

The proposed Eastside Recycled Water Project will help achieve the goal of reducing our demand by saving about 2 mgd of drinking water that would otherwise be used for non-drinking purposes, such as toilet flushing, irrigation and industrial uses. The goal of the Project is to deliver about 2 mgd of recycled water to a variety of customers in the east side of San Francisco.

The proposed project is currently in the Planning Phase. Dawn Taffler, an engineer with Kennedy/Jenks, a firm consulting on the project, made a presentation at the January 19 workshop on the various elements involved in the planning of the project. She described a market assessment used to identify potential customers and their uses, water quality objectives, treatment technologies, the components of a recycled water project, and the planning, screening and evaluation process that will

be used to ultimately develop preferred alternatives.

Taffler described that the planning process for the Eastside Recycled Water Project will be carried out in three phases: Needs Assessment, Alternatives Analysis, and Conceptual Engineering.



During Workshop #1, the elements of a Needs Assessment Report were presented, so community members could understand potential water sources, production and distribution options. The various options will be screened using engineering criteria such as the reliability

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Recycled Water

A sustainable supply for our changing neighborhoods

Market Assessment Identifies Customers and Demands

A Market Assessment has been prepared that identifies potential customers and uses for recycled water, prioritizes those uses and estimates their potential demands. Recycled water could serve a variety of irrigation, commercial, and industrial uses on the eastern side of the City through a system of treatment, storage, pumping and pipeline facilities.

Potential Uses —

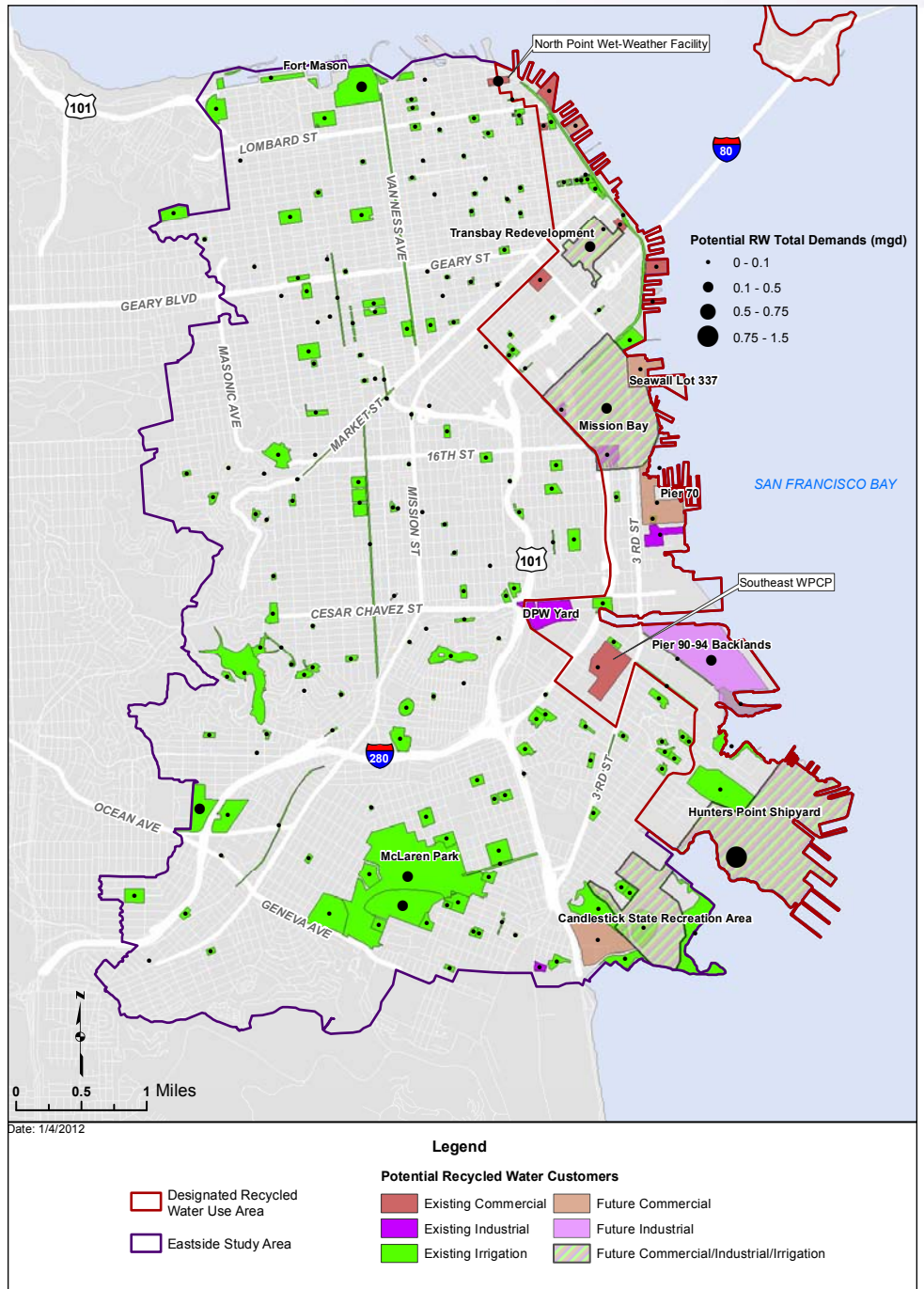
Opportunities for recycled water use could include irrigation, toilet flushing and other non-drinking applications. It could be used to irrigate parks, ornamental landscapes and other open spaces. Other uses include industrial water cooling features.

Demand Estimates —

The study identified potential annual demands for all potential customers that could use recycled water in the Eastside Study Area; the existing potential demand is 1.9 mgd, while the existing and future potential demand was estimated to be 3.3 mgd. It would not be cost-effective to reach all customers due to the high cost for a distribution system of pipelines and pumping.

Priorities —

Priority 1 customers were identified as the large-demand customers in the recycled water ordinance area. Eighty percent are new developments that are planned or in construction. Priority 2 customers are small-demand, primarily irrigation customers, also in the ordinance area. Priority 2 customers may be relatively easy to serve if they are located near a recycled water pipeline, but may not be cost-effective enough



The map illustrates demand estimates for the proposed Eastside Recycled Water Project.

to warrant an independent extension. Priority 3 customers consist of 30 large-demand customers outside the ordinance area, located relatively long distances from one another. Approximately half are located at higher elevations, which also require more infrastructure and higher energy costs. Priority 4 customers include

120 small-demand irrigation customers outside the ordinance area, with nearly half at higher elevations, requiring more infrastructure and higher energy costs.

Recycled Water Quality and Treatment Technologies

State and local agencies strictly regulate the treatment and use of recycled water to protect public health. Tests are routinely conducted on all sites where both recycled water and drinking water piping systems are present. Recycled water pipes and fixtures are distinctly colored purple and are also designated by signage and markings. Title 22 of the California Code of Regulations specifies recycled water quality and related treatment requirements for various uses. At a minimum, disinfected tertiary treated recycled water will be used for all applications associated with the Eastside Project. Advanced treatment may be used to remove salts.



Recycled Water

Recycled water is highly treated municipal wastewater that has been purified through multiple treatment steps, including disinfection and filtration, to make it safe and suitable for irrigation and other non-potable uses. SFPUC has a combined sewer-stormwater system in which stormwater and wastewater comeingle, particularly in the winter months.

Water quality objectives for the project will meet widely accepted standards for recycled water used for irrigation and

residential, commercial, and industrial uses. A number of technologies are available to meet water quality goals and Title 22 recycled water quality requirements.

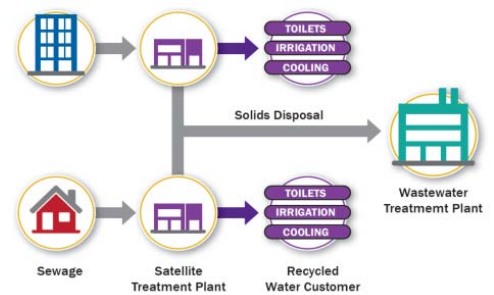
Graywater

It is important to note that graywater and recycled water are not the same. Graywater generated from washing machines, bathroom sinks, or bathtubs contains some soap but is clean enough to water plants. Individual homeowners or residents can install a graywater system for on-site subsurface irrigation.

Components of a Recycled Water Project

The components of a Recycled Water Project include treatment facilities, pump stations, storage, and pipelines. The potential sources of wastewater for the Eastside Recycled Water Project are the Southeast Water Pollution Control Plant, the North Point Wet Weather Facility, the Oceanside Water Pollution Control Plant, and/or sewer water taken directly from sewer lines.

Several options will be considered for the Eastside Project, including centralized and decentralized treatment scenarios. A centralized scenario would distribute recycled water, produced at a treatment facility, to all customers over a large area. A decentralized treatment scenario (see graphic) would be more than one treatment facility located close to major customers and would distribute recycled water in a localized area. Recycled water would be distributed to customers via new recycled water pipelines located in city streets and medians, or possibly through an existing non-potable pipeline system.



“Planning Process” continued from page 1

of water quality and quantity, cost for treatment and pipeline construction, operational complexity, and the relative carbon footprint (energy) requirements for treatment.

Workshop #2 will include round-table discussions about potential facility sites, screening of sites using criteria such

as the facility’s physical footprint, its proximity to customers, and the existing use and ownership of the site.

During Workshop #3, a short list of potential sites will be presented, and participants will hear a report on the screening analysis. Potential treatment, pump station and storage sites that will be identified for further evaluation will

also be presented.

At the last workshop in the series, Workshop #4, the project team will present the project alternatives and explain how they were ranked using engineering, environmental, social and community criteria. Workshop participants will learn about the next steps for planning and environmental review.

Learn about Recycled Water

We invite you to join us in planning and developing a recycled water program for the eastern neighborhoods of the City. Help us plan a project that will serve your community and meet the needs we all have for safe, reliable, sustainable water supplies.

Recycled Water Workshops: March – July 2012

March 29, 2012	Workshop #2 1155 Market St.	This Workshop will include Group Discussion and Participation in Roundtable Discussions to identify Potential Facility Sites.
May 31, 2012	Workshop #3	Review and Discuss Feedback Report on Short List of Potential Facility Sites
July 26, 2012	Workshop #4	Final Round Includes the Identification of Preferred Projects

Other locations to be announced.

Observations from Workshop #1



Recycled Water Project. Participants at the workshop had a number of questions

Interested members of the community expressed a keen interest in the planning process for the proposed Eastside

for the project team about allowed uses, water quality and the treatment process for the recycled water that will be produced for the project.

Project consultant Dawn Taffler explained that water produced by the recycled water project is safe for such uses as irrigating parks and open spaces and will be in strict compliance with the

state of California's Department of Public Health regulations.

Workshop participants asked questions about the process for making a decision on the proposed project and about the allowed uses for recycled water and who would be eligible for using it. These and other related issues will be addressed in Workshops 2, 3 and 4.

SFPUC Mission

The San Francisco Public Utilities Commission's mission is to provide our customers with high-quality, efficient and reliable water, power, and sewer services in a manner that is inclusive of environmental and community interests, and that sustains the resources entrusted to our care.



Contact Information

For more information about the Eastside Recycled Water Project visit our website: www.sfwater.org/recycledwater. To submit questions or comments, email eastsiderecycledwater@sfwater.org, or call Suzanne Gautier, (415)554-3204.



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