

San Francisco Bay Regional Water Quality Control Board

August 12, 2015

Water Board Approves Residential Recycled Water Fill Stations

In response to the current drought, municipal recycled water programs in the San Francisco Bay Region have initiated the use of residential recycled water fill stations. In essence, the stations allow residential customers to drive up, fill up, and take the water home (Figures 2a and 2b).



Figures 2a and 2b. *Examples of recycled water fill stations.*

There are currently eight recycled water programs offering fill station pick-ups in the Region, with several more in development (see table below). The recycled water being distributed is high quality, disinfected tertiary-treated recycled water, and suitable for many uses, including irrigation of landscape plants, parks, playgrounds, food crops, in decorative fountains, and for fire-fighting. The primary use is for landscape plants and trees, in response to mandatory reductions of potable water for such uses.

Water recyclers in the San Francisco Bay Region have been producing and distributing high quality recycled water for more than three decades. Distribution for large-scale projects is through permanent buried pipelines and constructed irrigation systems, often identifiable because of the purple pipe used for such systems. Those projects take a long time to design and build. Distribution by truck-hauling is also used, and is particularly useful for short-term work such as on construction sites or difficult-to-access projects such as watering trees along a busy street.

The current interest in residential recycled water fill stations in this Region started in 2014 with Dublin San Ramon Services District (DSRSD). Permitting of the residential fill stations follows the same pathway as the commercial truck-fill stations: an engineering report describing the project must be approved by the State Board's Division of Drinking Water and the Regional Water Board, then the local recycled water agency trains each user and issues permits. The local water agency tracks water use by volume, date, and location. The residential fill programs, while only active since 2014, have already implemented lessons learned, such as using dual-valved fill-hoses, providing stick-on labels for each recycled water container, establishing a maximum allowed volume per vehicle (water is heavy, 50 gallons is about 400 pounds, plenty for most home cars!), and even traffic control due to the large number of interested customers.

To date, the residential recycled water fill station projects have been tremendously popular. For water recyclers, it is an opportunity to showcase the benefits of recycled water and for homeowners, the opportunity to preserve landscape plants and trees despite serious potable water use restrictions during drought. Still, the volume of recycled water distributed from residential fill stations is small compared to pipeline-projects and commercial truck-hauling. For example, DSRSD reported as of July, their 2,500 residential pick-up customers have hauled 12 million gallons, versus about 1,500 million gallons used by fixed-pipeline projects in the same time. Livermore reported residential customer pick-ups of 2.2 million gallons. But the objective is not to maximize the volume served, but rather to provide recycled water to widely distributed residential property end-uses, in timely manner, now, during the drought. One recycled water agency noted the most satisfying benefit of their residential fill station program is educational outreach, with their customers now well-educated about recycled water, and even active advocates for increased use of this valuable and available resource. Tempering those benefits, another agency noted that some customers are using the water to maintain lawns in near-pre-drought conditions; for those customers, the availability of recycled water may be reducing the perceived need to switch to drought-tolerant, water-efficient landscapes.

Residential Recycled Water Fill Station Projects in SF Bay Region, as of July 2015

LOCATION	ADDRESS	DAYS	TIMES
Central Contra Costa Sanitation District, Martinez	At Household Hazardous Waste Facility, 4797 Imhoff Place, Martinez	M, T, W, Th, F and Saturday	8 am to 6 pm
Delta Diablo Sanitation District, Pittsburg/Antioch	2500 Pittsburg-Antioch Hwy.	S & S	9 am to 3 pm
Dublin San Ramon Services District: Pleasanton:	7399 Johnson Drive, Pleasanton	M, T, W, Th, F S & S	10 am to 7 pm 8 am to 3 pm
Dublin:	Dublin Blvd at Clark Avenue, Dublin	M, W, F	9 am to 4 pm
City of Livermore	At Livermore Water Reclamation Plant, 101 W. Jack London Blvd., Livermore	M, T, W, Th, F T, W & F M & Th	6:30 am to 8:30 am 2:00 pm to 4:00 pm 12 Noon to 7:00 pm
North Coast County Water District, Pacifica	At NCCWD office, 2400 Francisco Blvd. Pacifica		
North Marin Water District, Novato	At NMWD office, 999 Rush Creek Place, Novato	M, T, W, Th, F	8 am to 4 pm
Palo Alto	Palo Alto Regional Water Quality Control Plant, 2501 Embarcadero Way, Palo Alto	M, T, W, Th, F	5:30 am to 5:30 pm
Redwood City	Public Works Corp Yard, 1400 Broadway, Redwood City		

There are also numerous recycled water fill stations in the Region for municipal and commercial truck operators. The Bay Area Clean Water Agencies (BACWAA) compiled a Commercial Truck Fill Guide, most recently updated in June, available on BACWA’s website, www.bacwa.org, under ‘Documents’.

For questions about recycled water uses and permits, please contact Water Board staff engineer Blair Allen, at 510-622-2305, or ballen@waterboards.ca.gov.