

# UNION SANITARY DISTRICT

PROTECTING THE TRI-CITIES AND  
SAN FRANCISCO BAY



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SPRING 2016 – NEWSLETTER

## USD CONSIDERS THE FUTURE OF RECYCLED WATER

California's continuing drought has increased public awareness of recycled water as a long-term alternative to traditional water sources and a solution to future droughts.

Most wastewater treatment plants, including USD's, treat wastewater to a level that meets water quality standards that ensure their discharges are safe for the environment. Recycled (or reclaimed) water is wastewater treated to a very high level of quality using methods such as microfiltration, sand filtration, or reverse osmosis. The recycled water is then distributed through special pipes, which are colored purple to distinguish them from other infrastructure. Recycled water can safely be used for landscape irrigation, groundwater recharge, and industrial processes. Some Bay Area agencies already have facilities to treat a portion of their wastewater at these higher levels. A few have developed fill



Photo courtesy of the National Water Research Institute

### Reverse osmosis array

stations where individuals can bring their own containers to fill with reclaimed water for irrigation or other outdoor uses.

Providing higher levels of treatment would require new infrastructure and expansion of USD's treatment plant. The costs of these facilities are estimated to be nearly \$100 million to treat approximately 50% of the wastewater received each day at USD's plant. This would equal a one-time charge of over \$1,000 for each property owner in our service area, not including ongoing operations and maintenance costs. Although

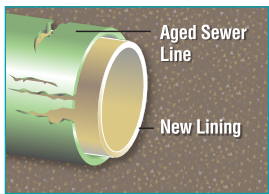
the District values the benefits of recycled water, the costs to provide this service and their impact to our rate payers must be considered. One or more partners that could use recycled water on a large scale would be necessary to make investment in the infrastructure a viable economic decision.

USD is always looking for opportunities to beneficially reuse this resource. The District is currently partnering with Alameda County Water District to evaluate the feasibility of using recycled water for groundwater recharge, which would require the highest level of treatment. The possibility of implementing a smaller scale, more cost-effective treatment option to offer customers reclaimed water during the dry season is also under consideration. USD continues to search for avenues to help our community save water in cost-effective ways.

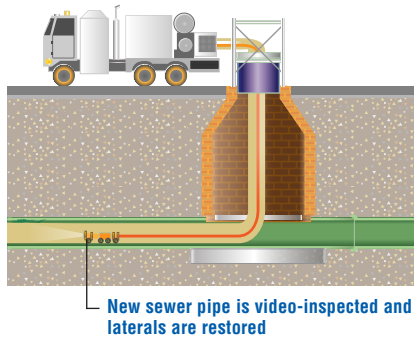
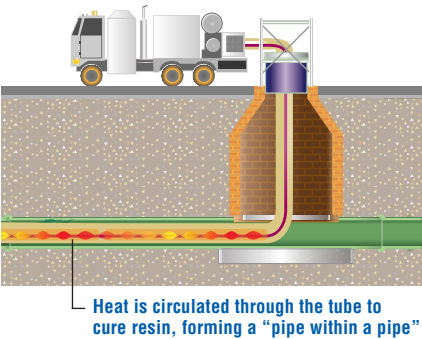
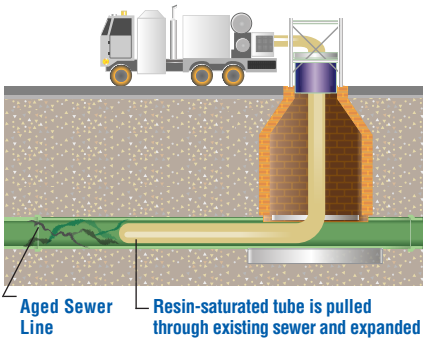
## TRENCHLESS TECHNOLOGY REDUCES IMPACTS TO CUSTOMERS

USD uses trenchless technology to reduce impacts to customers and commuters when we rehabilitate sewer lines under city streets. The District is currently using a trenchless method to rehabilitate 9,200 feet of large-diameter pipelines under Alvarado-Niles Road in Union City and Fremont. Instead of closing the street for months to excavate for a traditional "dig and replace" pipe repair, cured-in-place pipe technology (CIPP) allows the street to remain open with minor traffic control during the project.

CIPP rehabilitation uses very strong, fabric-like material saturated with thermally reactive polyester resin. Temporary piping and pumps bypass sewage between manholes. The material is inserted into a manhole and pulled through the existing sewer. It is then expanded to take the shape of the older pipe. Very hot water or



steam is used to cure the resin and form a tight-fitting, jointless and corrosion-resistant replacement pipe, adding many decades of useful life to the sewer. Laterals are restored using robotically-controlled cutting devices, and the sewer is inspected before it is returned to service. The District has been using this technology for more than 20 years to cost-effectively rehabilitate its pipelines. The project is expected to be completed in November 2016.

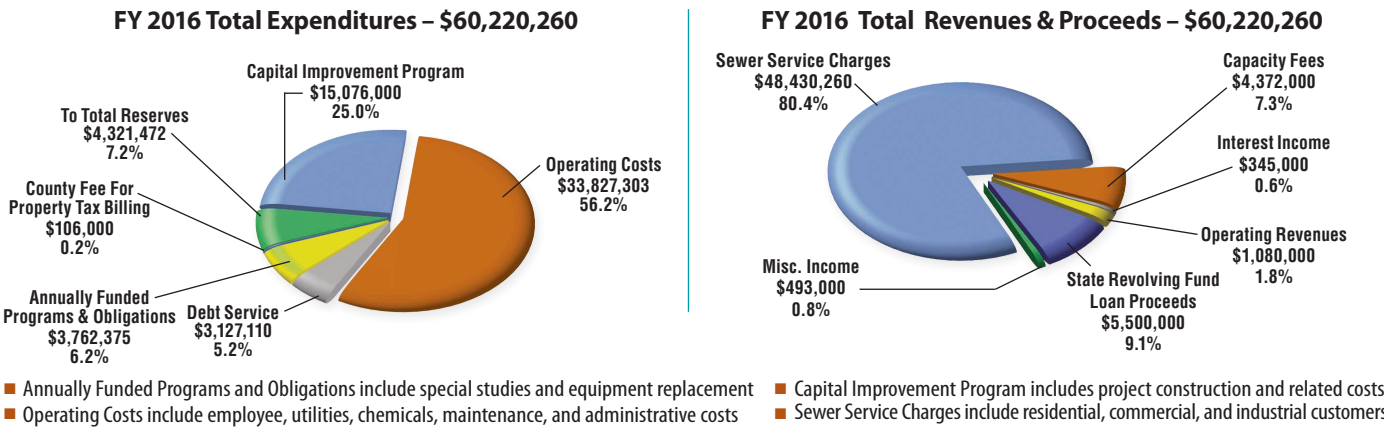


Not to scale – manholes enlarged to show detail

## BUDGET IN BRIEF

Union Sanitary District manages a large collection of facilities that includes over 800 miles of sewer lines, seven pump stations, and the buildings and equipment at the Union City Wastewater Treatment Plant. In total, the District is responsible for operating, maintaining, and replacing over \$650.9 million in assets.

Through careful fiscal planning, USD safeguards these public assets and efficiently uses its resources to provide award-winning service at low rates to all residents and businesses in the Tri-Cities. Currently, our rates are in the lowest 11.5% of the 26 Bay Area agencies surveyed.



## KEEP YOUR SEWER LATERAL HEALTHY AND SAVE MONEY

Your sewer lateral is a pipe that connects the plumbing system in your residence or business to USD's main sewer line. Property owners are responsible for maintenance, repair, or replacement of their entire sewer lateral up to its connection to USD's main line. This includes portions located under sidewalks and streets (see exhibit at right). Proper upkeep of your sewer lateral can help you avoid costly, messy backups, as well as sewer lateral repair or replacement. Some tips for a healthy lateral:

- Only human waste, soaps, toilet paper, and food ground in a garbage disposal should go into your sewer line.
- Cotton swabs, bandages, wipes (even those labeled “flushable”), grease, and other items can clog pipes and cause backups. Dispose of these in your trash.
- Cracks or loose joints in your sewer may attract roots that can enter and clog your lateral. Periodic video inspection and cleaning by a licensed plumber can help you find roots and other problems that, left unattended, could require costly repairs.



For more tips about keeping your lateral healthy, check our website at [www.unionsanitary.ca.gov](http://www.unionsanitary.ca.gov) or call us at (510) 477-7500.

### DID YOU KNOW?

You can help protect the environment by following a few simple steps. You'll help maintain clear sewer lines, a healthy treatment plant, and a cleaner Bay:

- Don't flush medications!** Treatment doesn't remove 100% of all substances in wastewater. Pharmaceuticals flushed into the sewer system could flow to the Bay, where they could harm wildlife. USD sponsors FREE medicine drop-off locations at Haller's Pharmacies in Fremont and Newark and in Washington Hospital Healthcare System's Hospital Main Lobby, Library, and Medical Group offices in the Tri-Cities.
- Keep Fats, Oils, and Grease (FOG) out of your drains.** They can solidify and cause messy backups into your home, onto streets, and down storm drains, where they can reach local creeks and the Bay. FOG causes problems in property owner laterals more often than in USD's main lines.
- Take your vehicle to a commercial car wash instead of washing it in your driveway.** Automotive fluids, oils, metal particles, and soaps can run off into storm drains, which flow untreated to creeks and the Bay. Commercial car washes release used water to the sanitary sewer, which flows to USD's treatment plant.

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