

General Manager's Monthly Bulletin

August 2019

Ross Valley Sanitary District provides this monthly news bulletin of current notable activity and events to stay connected to the community we serve. We welcome your feedback on any information in the bulletin and if at any time you no longer prefer to receive this information, simply unsubscribe using the link below.

For more information, visit www.RVSD.org.

As summer winds down, we continue work on several [Capital Improvement Program \(CIP\)](#) projects to replace outdated system infrastructure and enhance local wastewater system reliability and efficiency.

In June we celebrated the completion of improvements at [Pump Stations 12 and 13 in Greenbrae and Larkspur](#).

The [Ross Common/Upper Shady Lane](#) and [San Anselmo \(Nokomis and Meadowcroft\)](#) sewer improvements were completed this summer.

[Work on sewer rehabilitation projects in Fairfax, Larkspur and San Anselmo](#) is on schedule to be complete this fall.



[Improvements to the Kentfield Pump Station 15](#) resumed in August and will continue into fall.

Phase one of the [Butterfield/Meadowcroft-Arroyo sewer improvements in San Anselmo](#) is scheduled to be complete this fall as work on phase two of the project begins.

Our [Lower Shady Lane/Poplar Ave sewer improvements](#) began in July with completion anticipated in spring/summer 2020.

[Cleanup at our Larkspur Landing site](#) began in July and is anticipated to be complete by the end of the year.

We look forward to completing each project in a timely and cost-effective manner and APPRECIATE your patience as we fulfill our commitment to making these strategic long-term infrastructure improvements.

Steve Moore, General Manager

Effective Use of New Technology by Line Maintenance Crew

- By Steve Moore and Rafael Zarco

Day in and day out, RVSD's Line Maintenance Crew cleans the public sanitary sewer system to remove and prevent blockages that can cause sanitary sewer overflows (SSOs). Performing this function is vital to maintain the safe and efficient operation of our wastewater collection system. These efforts must be prioritized and focused because it is not possible to routinely clean all 195 miles of gravity sewer in our service area. In addition, about 72 percent of our sewer system lines are made of clay, which is especially vulnerable to deterioration - especially if it is cleaned too often or with too much force.

To identify potential problems and prevent unnecessary wear and tear to our system, we conduct condition assessments using CCTV cameras to refine the cleaning schedules of our pipes. We also actively seek new technologies to be more efficient working in the field. Cleaning a pipe that is already clean introduces unnecessary wear and tear. This can add holes and cracks to clay pipes, and undermine our goals to restrict infiltration and inflow of storm and ground water into our system.



SL-RAT transmitter unit at manhole

In addition to CCTV cameras, we recently began using a Sewer Line Rapid Assessment Tool (SL-RAT). This technology provides a rapid assessment of the need for pipe cleaning, taking much less time than deploying a camera. The SL-RAT system is composed of two basic components: an acoustic signal transmitter (TX) unit (shown in photo) and an acoustic signal receiver (RX) unit.

When deployed at manholes on both ends of a pipe, the SL-RAT measures sound energy (in the airspace between the wastewater flow and the inside pipe wall) between the TX and RX units. Anything that completely obstructs the pipe will not allow the transmission of sound energy between the units. Additionally, obstructions within the pipe (such as roots, grease, debris, high water levels, etc.) will be detected by measured changes in sound energy.

The SL-RAT measures this "energy gap" and develops a blockage assessment, provided in the form of a numeric output value on a scale of 0 (completely obstructed) to 10 (completely unobstructed). We have found SL-RAT to be a cost-effective method for pre-cleaning assessment and post-cleaning quality assurance which helps us to optimize our sewer cleaning efforts.

The Line Maintenance Crew also recently purchased a new "Switcher" nozzle tool by StoneAge for the hydro-jetter hose that uses less pressure and less water flow than traditional cleaning nozzles. The nozzle has a forward jet and 80-degree jets positioned at the sides, which increases our ability to clean roots that grow in pipe joints and remove grease. The operator remotely switches the pattern of jets to use and deploys the sewer cleaning hose down the manhole into the pipe with the forward jets at low pressure.



Switcher nozzle

As the nozzle is pulled back, the operator switches to the 80-degree jet to cut the roots and grease. We can reverse flush more effectively as well by not having to stop to dewater the line as we pull back the hose. In addition, the line can be cleaned in a single pass instead of two or three. This technology has enabled both a lighter touch on the system and less time to clean each pipe.

Large tap roots are common in our service area because of the large trees and the numerous public sewers located in easements across private property. To create a more effective cutting tool for larger tap roots, the Line Maintenance Crew developed and added a "Hybrid nozzle" to our cleaning arsenal by attaching blades from a rodder to a rotating hydro-jetter nozzle. The SL-RAT can identify the blockage, and the Hybrid nozzle can remove the obstruction, in a fraction of the time that would otherwise be required.



RVSD hybrid nozzle



Tap root mass removed from sewer using hybrid nozzle

New technology used by the Line Maintenance Crew has increased our productivity which helps to reduce SSOs and staff overtime costs for service calls. These tools enable the crew to move through the District's system more rapidly while reducing water and fuel use. We also create less wear and tear on the collection system by determining the right cleaning frequency for each specific line. Our maintenance work

is never done, but it can be more efficiently and effectively conducted while also prolonging system life through the use of these and other emerging technologies.

Great work, Line Maintenance Crew!



RVSD Reminders - [Click here](#) to review our Frequently Asked Questions (FAQs) that explain sewer overflows and what to do.

Call the RVSD Emergency Line 24/7 at 415-259-2949 if you have a public sewer emergency, such as a manhole overflow, leaking pipe, smell odors, or see sewage on the ground. Emergency crews are available 365 days of the year, 24 hours a day, 7 days per week!

[Click here](#) to check the California Department of Consumer Affairs Contractors State License Board (CSLB) for information before you hire a plumbing contractor. Make sure any plumber you hire is familiar with district

policies and programs for any private property sewer emergency.

All of this information can be viewed by clicking "EMERGENCY" on our website homepage or [click here](#).

RVSD CIP Construction Updates - RVSD Capital Improvement Program (CIP) construction projects are taking place now to rehabilitate underground sewer pipes and associated structures throughout our service area.

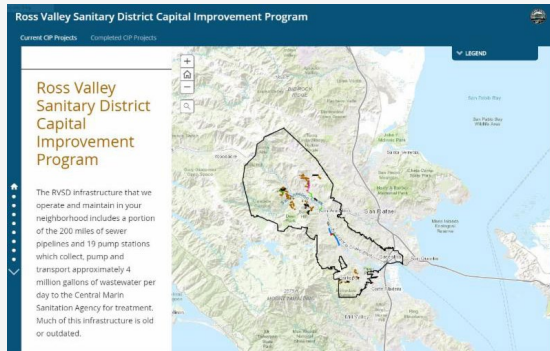
These sewer line repairs and rehabilitation projects are critical to protect public health and the environment by reducing the risk of sewer overflows.

Look for construction projects taking place near you. Click on each of the CIP construction projects listed below for the latest project information and updates.



1. [Fairfax, Larkspur, San Anselmo Sewer Projects](#)
2. [Kentfield PS 15 Improvements](#)

3. [Ross Common / Upper Shady Lane Sewer Improvements](#)
4. [San Anselmo Sewer Improvements - Butterfield](#)
5. [San Anselmo Sewer Improvements - Nokomis](#)



[Click here](#) to see our CIP overview or for direct access to our interactive project map you can [click here](#). A magnifying glass icon is provided with the map to enter your address and see if construction is currently taking place, or will take place in your neighborhood. You can also click on the map area you are interested in and identify the project name, find contact information and more.

[Click here](#) to select and receive timely construction updates or call us at 415-259-2949.

RVSD APPRECIATES your patience during construction as we fulfill our commitment to making strategic long-term infrastructure improvements.



Next Board Meeting - A Special Board Meeting is scheduled for Wednesday, September 4, 2019 at 4pm. This meeting will take place at RVSD Offices, 2960 Kerner Boulevard in San Rafael.

Ross Valley Sanitary District Board Meetings are typically held the third Wednesday of each month at 5pm at the Central Marin Police Authority's Community Room, located at 250 Doherty Drive in Larkspur. **The next Regular Board meeting is scheduled for Wednesday, September 18, 2019 at 5pm in Larkspur.**

[Check the agenda posting here](#) 72 hours before each meeting for open session time.

Want an alert when the next Board meeting agenda is available? Please write to our [Clerk of the Board](#) to request to be included in upcoming agenda alerts.

[Click here to visit RVSD.org](http://RVSD.org)