

NEWSLETTER

Spring 2021



Kitsap County Public Works | Sewer Utility



Pump Station 19 near Nels Nelson and Bucklin Hill Road will be upgraded this summer



Brownsville Hwy will remain closed through July for sewer and road repairs



Find information on Public Works projects in your neighborhood at kitsapgov.com/pw

OLD TOWN SILVERDALE SEWER UPGRADES

Construction continues in Old Town Silverdale as part of the Bay Shore, Washington, and Byron Improvement Project. Once complete, this area will have upgraded sewer capacity and more reliable and environmentally friendly sewer and stormwater systems, in addition to an upgraded streetscape and improved pedestrian access.

Old Town Silverdale is an important asset to Kitsap County for businesses, residents, and visitors alike, largely due to its location along the waterfront. Excavating for a major utility project near a waterfront presents its own technical challenges. After considering several alternatives, Kitsap County Public Works decided on a micro tunneling installation of a new tunnel that will house the new sewer main.

The micro tunneling machine began its underground journey of 1,030 linear feet from Silverdale Waterfront Park to the intersection at Washington Avenue and Bay Shore Drive in mid-January. Along the way, a new steel casing was installed to house the new sewer main to replace the old sewer installed in 1976. It took about a month for the drill head to successfully punch through to the receiving pit on Saturday, February 20, 2021. Visit kcowa.us/baywash to view a short video of the operation.

This \$22 million project is a combined project of the Roads, Sewer Utility and Stormwater Divisions in Kitsap County Public Works. The project limits extend from Silverdale Waterfront Park to Bucklin Hill Road on Washington Avenue and Bay Shore Drive, and from Pacific Avenue to Washington Avenue on Byron Street. Construction is expected to continue through December 2022. Learn more and sign up for electronic updates at kcowa.us/baywash.



Drill head of the micro tunneling machine entering the receiving pit



A worker inspects a portion of the new sewer main casing before installation

The Sewer Utility Division will continue to replace outdated infrastructure in the Silverdale area this summer. This includes upgrades to Pump Station 19 near Nels Nelson and Bucklin Hill Road intersection and replacing Pump Station 31 on Clover Blossom Lane. There should be minimal impact on traffic for these upgrades. Find out about Public Works projects in your neighborhood at kitsapgov.com/pw.

1,030 LINEAR FEET

The distance traveled underground by the micro tunneling machine in Old Town Silverdale. Along the way, new sewer main casings were installed to replace sewer lines that were installed in 1976.

See the micro tunneling machine in action at kcowa.us/baywash.

BROWNSVILLE HIGHWAY FORCEMAIN REPAIRS

Heavy rains in late December 2020 caused flooding and sewer overflows throughout the Puget Sound area, including several locations in Kitsap County. December 21 was the rainiest day of the year, with 2.72 inches of rain. That day, Kitsap County sewer crews responded to 16 power outages throughout the county and leaks in the forcemain that pumps directly to Central Kitsap Treatment Plant.

Crews responded quickly; however, downed trees and traffic hindered response time. A portion of Brownsville Highway remains closed until 4,000 feet of the failed portion of the forcemain is permanently replaced. Kitsap County Commissioners executed an Emergency Declaration under Resolution 197-2020 for repair of both the sewer forcemain and roadway within the closed portion of Brownsville Highway.

An above ground temporary bypass was installed in mid-March to allow replacement of the failed forcemain section while maintaining sewer service. Sewer crews worked overnight from 11 p.m. to 4:30 a.m. holding sewer flows at two pump stations in Brownsville and Keyport to allow for the bypass installation. This task took 30 county employees and 10 tanker trucks to haul 190,125 gallons of sewage from the two pump stations to Central Kitsap Treatment Plant.

Once the pipeline replacement is completed, crews will repeat the overnight process while flows are transferred to the new permanent forcemain. After the temporary bypass is removed, a contractor will begin necessary road repairs and restoration to allow reopening of the roadway to through traffic. Both resident and emergency vehicle access have been maintained during the current road closure. It is estimated Brownsville Highway will be reopened by the end of July 2021.

SEWER GAS: WHAT YOU SHOULD KNOW

Sewer gas is a mixture of inorganic gases created by the action of anaerobic (needing no oxygen) bacteria in sewage and sludge. This gas can contain hydrogen sulfide, ammonia, carbon dioxide, methane, nitrogen, and hydrogen. Sewer gas can be produced in our sewer systems, during the sewage treatment process, and can also occur in homes where there are plumbing issues.

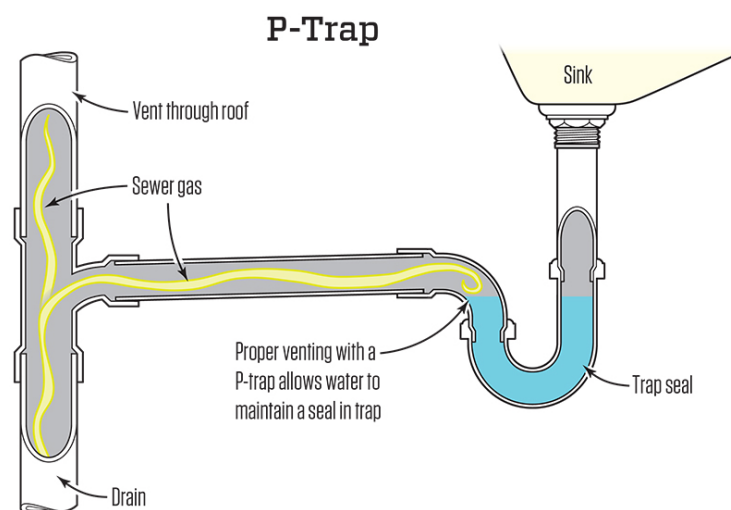
The primary part of sewer gas, and the smelliest part, is hydrogen sulfide. This is what gives the gas the “rotten egg” smell that is also used to detect gas leaks. This smell is actually added to natural gas by utility companies to warn customers of a potential leak. However, if you smell this around your drains, it is likely from sewer gas trapped somewhere in your plumbing system.

One common cause of sewer gas in the home is a dried P-trap in a sink that has not been used in a while. Water sits in the P-trap and blocks sewer gas from entering up through the drain. If the P-trap runs dry then it allows the gas to escape through the drain. In this case, the solution can be as simple as running water down the sink. Other causes may be a clogged vent line or a problem in the main sewer line. In this case, a professional plumber can pinpoint the issue.

Hydrogen sulfide is also produced in sewers when there is no oxygen in the environment. This commonly occurs when sewage is sitting stagnant for a while. For example, in a gravity sewer main, gases may form when there is little or no flow going through the pipe. When hydrogen sulfide is released, it combines with bacteria to form sulfuric acid, causing pipes to corrode. Corrosion in the pipe combined with heavy winter rains caused the forcemain failure on Brownsville Highway.

All sewage systems produce sewer gas at some point, and there are various ways of dealing with the smells and damage it can cause. One way is with additives – using a calcium nitrate solution can help eliminate odor and corrosion at sewage pump stations. Another way is to use better materials. The old ductile iron forcemain under Brownsville Highway will be replaced with 30-inch high density polyethylene (HDPE) pipe that will not corrode.

If your plumbing system is working properly, you should not smell any sewer gas in your home. If you do have odors, the best thing to do is find the problem and have it repaired. Run water down your drains, even in sinks you may not use often, as part of routine maintenance.



A dry P-trap is a common reason why you may smell sewer gas in your home

UTILITY BILL ASSISTANCE

The Kitsap County Board of Commissioners passed Resolution 080-2020 on April 27, 2020, to suspend temporarily penalties for customers unable to pay monthly sewer bills. The Resolution does not relieve a utility customer from the obligation to pay for sewer services. If you're worried about paying your utility bills, the Washington Utilities and Transportation Commission may be able to help. Call them at 1-888-333-WUTC (9882) or visit their website at utc.wa.gov.

