The mission of Sultan’s Wastewater Treatment Division is to provide uninterrupted wastewater service in a way that is safe and ecologically responsible.

Congratulations are in order...

Sultan’s WWTP acknowledged for outstanding performance!

Thanks to the dedicated work of Sultan Wastewater Treatment Plant (WWTP) operators Brian Funk, Todd Strom and Mike Rains, the city received the 2017 “Wastewater Treatment Plant Outstanding Performance” award from the Washington State Department of Ecology (Ecology).

Each year, Ecology recognizes wastewater treatment plants across the state for achieving exceptional levels of compliance with state and federal regulations. The treatment plants undergo onsite inspections in addition to rigorous analysis of plant monitoring procedures and test reporting. Sultan is one of 111 wastewater treatment plants out of approximately 300 plants statewide that managed to achieve full compliance with National Pollutant Discharge Elimination System permit requirements.

This means that Sultan’s treated wastewater, referred to as effluent, has consistently met the quality standards required for release into the Skykomish River.

“It takes diligent operators and a strong management team, working effectively together, to achieve this high level of compliance,” stated Ecology in a letter to Sultan Mayor John Seehuus. “It is not easy to operate a wastewater treatment plant 24 hours a day, 365 days a year, without violations.”

Visit our website to read this story in its entirety!

“Our wastewater treatment plant is one of the city’s most important assets. The community is always invited to come and tour our facility to learn more about what we do to protect our local waterways.”

- Brian Funk, Wastewater Treatment Plant Supervisor

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The myth of the “flushable” wipe

Disposable wipes have exploded onto the personal hygiene market with bold, chipper packaging proclaiming them safe for septic and sewer systems. The labels frequently tout catchy terminology, including terms like “biodegradable,” “flush friendly,” “flushable,” and “safeflush technology,” all nimble statements meant to sell products and assure consumers that the items can be flushed without negative impacts.

But are they truly flushable?

Can they really be introduced into the city’s wastewater system without ill effects? The answer is a definitive no.

It’s a definitive no that was not derived through statistical analysis, mathematical formulas or hypothetical analogies describing the harm that might be caused by these products. It’s a definitive no from plant operators in Sultan and all around the world, who have to deal with repercussions stemming from the prolific use of products that don’t dissolve or break apart in water.

The idea behind traditional toilet paper is that it starts to disintegrate and break apart once it’s introduced to water. Toilet paper has a dispersibility that disposable wipes and facial tissues lack, making it far safer for septic systems and wastewater flows.

In Sultan, disposable wipes frequently clog the influent lift station pumps, which convey the wastewater across the river to the plant. Treatment plant operators must unclog pumps by hand, a time-consuming effort that must be addressed before harm occurs to the system. A typical clog contains a varied medley of items that should have been thrown in the trash, not flushed down the toilet.

Does it flush?

Just because an item doesn’t cause your toilet to overflow does not mean it should be flushed.

To help demonstrate the point, Sultan communications staff recently teamed up with plant operators to test the “flushability” of products typically labeled as “flushable,” along with several items not so flushable. We specifically sought products frequently extracted from clogged pumps and/or the screening equipment at our WWTP, including baby wipes, toddler wipes, facial tissues, disposable “safeflush technology” wipes, dental floss, Q-tips, tampons, panty liners, toilet paper, toilet seat covers and cat litter.

Each item was placed inside a mason jar filled with water, and agitated briefly with a handheld drill. We then placed the jars on a shelf in our lab and let them sit.

In general, it can take anywhere from 30 minutes to three hours for wastewater to travel from Sultan’s residential areas to the lift station and subsequently our plant. Items that stay intact for longer periods of time can become problematic, leading to clogs and other issues. In the city’s research, it located documentation from a popular manufacturer of pre-moistened wipes stating that its product broke up fully in a three-hour test.

None of the disposable wipes tested in the city’s “Does it flush” experiment broke up at all, let alone fully. We extended the timeframe of our test, letting the products stay submerged for approximately two months rather than just three hours, to no avail. Each type of disposable wipe product that we tested remained fully intact, with little to no signs of disintegration.
Wipes clog pipes!

There are numerous items, in addition to “flushable” wipes, that should never be flushed down the toilet.

Things like feminine products, the packaging from feminine products, baby wipes, diapers, prophylactics, dental floss and other trash should never be flushed. These items cause clogged pipes and pumps, and can drive up energy usage.

Please throw these items in the garbage, not the toilet.

Learn more about the National Association of Clean Water Agencies’ “Toilets are not Trashcans” campaign at https://www.nacwa.org/.

As you can see from the below photos, it’s a lot of work to unclog pipes clogged with what treatment plant operators refer to as “ragballs.”

Help us keep our system healthy!

City’s effluent outfall pipe receives inspection

One of our local anglers got a unique view of the Skykomish River recently, looking on as city staff and members of a Seattle-based dive team viewed live underwater video footage of the city’s outfall pipe.

The outfall inspection took place Wednesday, August 22 in Sportsman Park, and was performed by Global Diving & Salvage, a commercial diving contractor that performs a broad range of underwater work throughout the state of Washington. The outfall pipe carries the city’s treated wastewater, referred to as “effluent,” from the Wastewater Treatment Plant (WWTP) to the Skykomish River. The effluent travels through roughly 233 lineal feet of underground ductile iron pipe, which connects to an additional 30 feet of 6-inch high-density polyethylene (HDPE) pipe located under the water’s surface.

The outfall inspection is mandated by the Washington State Department of Ecology, and meant to ensure the health of the city’s wastewater treatment system as it integrates with this vital waterway.

The city’s effluent is gravity-fed from the WWTP to the river and can be pumped if needed.

During the inspection, diver Chris Schauer worked to assess the condition of the submerged portion of the outfall pipe, including the iron and HDPE portions, the 12-inch to 6-inch reducer fitting, pipeline anchors, connecting flanges and the outfall terminus. The team established a mobile command center at the river’s edge, and were able to maintain contact throughout the duration of the dive.

No structural deficiencies were identified during the inspection. The city is required to perform an outfall inspection every five years.
The myth of the “flushable” wipe

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Facial tissue, Q-tips, cat litter and multi-ply toilet paper offered a similar result.

The verdict

Please help us maintain the health of our wastewater system by remembering that your toilet is not a trashcan! Opt for back-to-the-basics bathroom products—otherwise known as toilet paper—that is single-ply. In addition to being easier on sewer and septic systems, toilet paper is much more economical to purchase.

Did you know?

Homeowners in Sultan are responsible for the care and maintenance of their side sewers, which extend from their homes to the city’s main lines. Local septic professionals confirm that disposable wipes and similar products are extremely harmful to side sewers and septic systems, and they should never be flushed. If your side sewer backs up, YOU, the homeowner, must foot the costly repair bills!

The cost of septic or sewer system repair can range dramatically. It can cost roughly $300 just to get a service call and a diagnosis, plus hundreds of additional dollars to unclog and repair the line. It could easily cost a homeowner over $1,000, according to local professionals.

Inflow and Infiltration

What is it?

Inflow and infiltration, commonly referred to as I & I, is when non-wastewater enters into the city’s wastewater collection system. Inflow is surface water that enters the system, and infiltration is groundwater that seeps into the system beneath the water table.

Sultan experiences high levels of I & I, particularly during notable rain events. This is largely due to aging infrastructure, including cracked and broken sections of pipe and underground root intrusion, where root-balls have literally forced their way inside our pipes. Illicit connections are another significant contributor to I & I, occurring when gutters, roof and foundation drains link directly into our wastewater collection system rather than our stormwater system.

Reducing I & I has been targeted as a priority for the city because of its benefit to rate-payers. During a typical wet season, our plant might receive in between 500,000 and 600,000 gallons of wastewater a day. During a significant storm event, the plant can receive in between 1 and 2 million gallons a day. This means that stormwater is arriving at our plant where it is treated unnecessarily, since stormwater does not require the same level of treatment that wastewater does.

Routing this extraneous water through our wastewater treatment process increases pumping costs, power usage and facility maintenance costs.

In 2017, the city invested in a portable mainline camera system that enables our collections department to visually inspect the inside of our sewer main lines to locate cracked segments, broken sections and root-ball intrusion. This has enabled us to work proactively to identify problem areas so that we can fix them. The city is working hard to address its I & I issue and will have more information in the future!