

WEST POINT TREATMENT PLANT

Capital Improvement Projects Update **OCTOBER, 2021**

Working toward resilience at King County's West Point Treatment Plant

Capital improvement projects at the King County Wastewater Treatment Division's West Point Treatment Plant focus on protecting ratepayer investments through improving system reliability, protecting worker and public safety and the environment, and increasing efficiency. This newsletter includes some plant improvement project highlights featuring innovative approaches, with other information you may find helpful and interesting.

West Point Power Quality Improvement Project

Preparing to install a battery power system at West Point Treatment Plant

Power disruptions at the County's West Point Treatment Plant can cause equipment and system shutdowns. When this happens during heavy rain, to prevent the plant from flooding, flow is diverted to Puget Sound through an emergency bypass. The treatment plant requires a more reliable power source. That's why our team behind the **West Point Treatment Plant Power Quality Improvement Project** has been working diligently to identify an innovative, sustainable supplemental power solution — and forging ahead to install it safely and effectively on an expedited timeline.

Our project team examined five feasible technologies to improve power reliability. The battery option, uninterruptible power supply (known as UPS), stood out clearly as the best solution for us. In addition to being the most effective to address voltage sags that affect the plant's power reliability, the battery option is also the quickest to install. **Read our August 2021 blog post to learn more about how the technical team arrived at this solution and how the battery system works.**

Working with treatment plant staff, our team identified a mostly unused building as the place to locate the battery system. However, because the existing



Above rendering reflects current planning, still in progress, for a new building (outlined in turquoise) to house the new battery system at the treatment plant.

building can't accommodate the size and weight of the new battery system, the existing structure will be removed to make space for a new building. Constructing a new building gives us the opportunity to design for the future, incorporating sustainability features and energy-efficient design. The new building will comply with current codes and be seismically sound.

King County is thinking creatively to expedite this project without sacrificing quality. Working nimbly to compress design and construction task coordination has allowed the County to significantly shrink the project timeline.

It is expected that the new system can be installed and started up by 2024, with construction taking place inside the plant boundaries. When we have more details about the construction schedule, we will share them. We're committed to notifying the community before construction begins.

Visit the [Water Quality Improvement Project Web page](#).

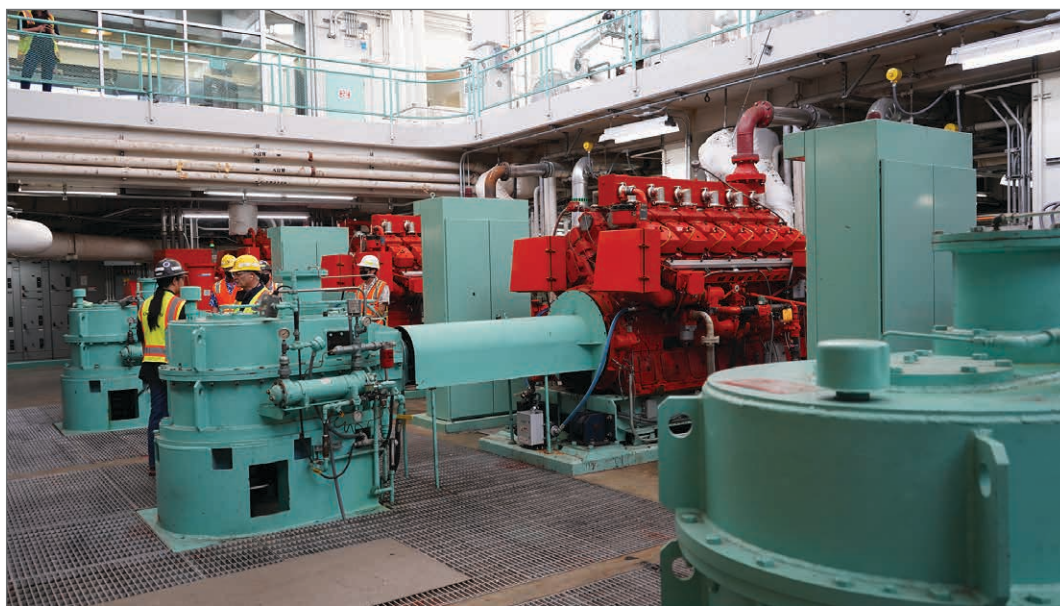
West Point Treatment Plant Raw Sewage Pump Replacement Project

An innovative approach to replacing massive West Point raw sewage pumps. Construction is expected to begin as soon as 2024.

A Wastewater Treatment Division project team is working to replace the treatment plant's raw sewage pump system, built in 1966. The new system, when completed, will have the advantage of requiring only three of the four new pumps to handle maximum stormwater and sewage flows coming into the treatment plant during peak storms. This allows the treatment plant to function at maximum capacity even if one pump were turned off for maintenance, for instance. This helps prevent potential overflows of wastewater into Puget Sound. The project will also make structural improvements to the pump facility, including bringing it up to current seismic requirements.

Construction is expected to begin as soon as 2024 and to last five years. We anticipate that impacts to the nearby community during construction, such as noise, will be minimal as construction will take place inside the treatment plant walls.

Visit the [project Web page that includes Frequently Asked Questions](#).



**West Point raw sewage
pumps to be replaced**

West Point Passive Weir for Emergency Bypass Project

Innovative modification of an existing structure to strengthen our system that prevents treatment plant flooding.

Planning is underway for a project to provide an effective means of preventing potential treatment plant flooding by increasing the plant's emergency bypass capacity. (West Point suffered severe equipment failure and flooding in 2017, while operating at maximum capacity during a storm. [**Learn about the treatment plant restoration.**](#))

A review process following this event identified the operation of an emergency bypass gate as a critical potential risk to plant flooding, and therefore staff safety, if inbound flows of wastewater and stormwater cannot be effectively bypassed at the treatment plant in an emergency.

We are able to take advantage of an existing channel constructed to handle tidal surges to contain a new bypass system that will enable the emergency bypass gate to operate safely. We will modify a “weir” system within the channel; with a weir being a special kind of wall set up at a certain elevation to allow water to back up behind it.

Construction is expected to take place 2024-25.

Improving Interbay sewer system odor control

Construction to install an improved odor control system beginning as early as 2022.

King County will begin work to upgrade a mile of aging sewer pipe in Seattle's Interbay neighborhood as early as next year (2022). In addition to repairing the sewer line (pipes), King County will install an improved odor control system.

King County's project team evaluated different methods for controlling odor, as not every method is right for every neighborhood. Part of the sewer being upgraded consists of two parallel pipes. These pipes converge to become one larger pipe in a partially underground building, called a discharge structure, at the west end of the West Wheeler Street right-of-way. Where the pipes converge, smells can be released into the air. To improve odor control, the County will install a pair of scrubbers (filters) at the discharge structure. Scrubbers work by forcing the foul air through a layer of activated carbon granules that absorb the odor. A small brick building will be constructed adjacent to the scrubbers to house supporting equipment.

King County expects to hire a contractor and start construction in 2022. More information will be shared in the coming months about what you can expect during construction.

For more information and to sign up for project updates:

- Visit the [**project Website**](#)
- Text **KING INTERBAYSEWER** to **468-311**
- Call or email Kelly Foley Kruse at **206-477-8621** or **Kelly.FoleyKruse@kingcounty.gov**



Carbon scrubber at Interbay Pump Station



Example of a building that houses equipment to support the carbon scrubbers.

Read our blog!

Read the wastewater Treatment Division blog where we recently highlighted [how we prepare for the rainy season](#) – to explain all we do to treat wastewater 24/7, particularly during stormy weather.



Be in touch!

Our goal is always to be a good neighbor as we conduct our work. We provide ongoing updates about these and other projects on our [West Point Current Projects Web page](#), and you can sign up there for periodic email or text updates. For more information contact:

Dana West at **Dana.West@kingcounty.gov** or call **206-477-5536** or TTY: 711.

Due to COVID-19, King County's Wastewater Treatment Division is not currently hosting in-person meeting or events. However, we are committed to sharing information in alternative ways.

Our staff remain available to answer questions via email and phone. We can also:

- Join your virtual meeting
- Provide virtual briefings for community group

King County is committed to odor control.

However, we cannot guarantee that there will be no odors in our existing system. Occasionally, equipment will need to be shut down for maintenance, or repairs. Please call the odor hotline if you experience odors and we will do everything we can to restore our high level of odor control.

Our West Point Treatment Plant 24-hour odor control hotline is 206-263-3801.

Visit our [Odor Control Web page](#).

Alternative formats available
206-477-5536 or TTY relay: 711

