



King County

Wet weather readiness

How we prepare for the rainy season

RWQC

November 3, 2021

Crews on the job 24/7

- Crews are on standby & ready to respond around the clock



Work leading up to the rainy season

- Inspected & replaced equipment
- Updated control systems
- Annual wet weather refresher training
- Mechanical & electrical teams have inspected the pumps at offsite stations
- Instrumentation & electrical teams have fine-tuned alarm systems



Work leading up to the rainy season

- Projects underway or starting soon that improve the system's resiliency during wet weather events across the system
- All 47 pump stations in the service area have been inspected
- Back-up power generators have been tested, fueled, and are ready to provide power in case of an outage
- Instrumentation upgrades and pump rebuilds were made at key pump stations to ensure performance and capacity.



Work leading up to the rainy season

- Reliable and accurate measurement of wastewater levels within pump stations is critical to the successful operation of offsite
- Several pump rebuilds at York PS, Wilburton PS, North Creek PS & Interurban PS
- Variable Frequency Drive (VFD) replacements at Medina PS & Pacific PS
- Electrical load bank tests at pump stations to ensure generator readiness
- Mechanical inspections of pumps, including impellers at treatment plants and pump stations



Combined system readiness at West Point

- Within Seattle city limits, the system is a combined one, where stormwater drains carry water to West Point to be processed with wastewater from households and businesses
- That means when it rains, about 80% of the flow passing through the plant is stormwater
- Significant upgrades since 2017, including safety system testing, additional staffing, updating protocols, and regular emergency training



Combined system readiness at West Point

- Work continues on a battery uninterruptible power supply project to provide West Point with more reliable power
- Addresses voltage sags & supports short-term outages
- The team considered multiple variables, including noise level, cost, space needed, time needed, and response time (the time between when the technology senses the sag to the time voltage is fully restored)



Combined system readiness at West Point

- Continue to work with Seattle City Light (SCL) to improve the power quality delivered to West Point
- Interim solution that has proven to reduce the impact of power sags that can cause equipment shutdown
- SCL has isolated a power transformer so it feeds the plant exclusively, protecting the plant from power disturbances that could occur on other portions of the SCL power system



Investments

- Over the next 10 years, King County will invest more than \$660 million at West Point
- King County has made tremendous investments in wet weather infrastructure in recent years and continues to invest in wet weather treatment stations
- Ongoing and newly completed projects will help control the overflow of stormwater and sewage during heavy rains.
- We operate four wet weather treatment stations and is building one in Georgetown that is expected to come online in 2022





Thank You

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Get updates online at:

www.kingcounty.gov/wtd