

Frequently Asked Questions – West Point Incident

What caused the flooding in the plant?

On February 9, 2017, heavy rains and equipment failure at King County's West Point Treatment Plant flooded the plant when it was operating at maximal flow rate, about 440 million gallons per day. This resulted in an overflow of stormwater and wastewater into Puget Sound when plant managers switched into emergency bypass mode to protect the plant and our workers.

Why did the power go out? Don't you back back-up systems for when the power goes out?

The treatment plant has a utility feed as well as emergency power systems that are being looked at as part of the overall investigation. Engineering firm CH2MHill is conducting a forensic analysis of the sequence of events and we expect it to be completed at the end of the week.

Do you think it was an incoming power problem?

We are working with electrical engineering experts to complete a forensic analysis and will have more information later this week.

How much wastewater overflowed?

The power outage resulted in an initial emergency bypass of an estimated 250 million gallons of stormwater and wastewater during the 19 hours that the plant was offline. Subsequent to the initial event, we had three emergency bypasses lasting a total of 20 hours since partial wastewater treatment capabilities resumed late on Feb. 10.

What are the public health and water quality impacts?

While bypass flows are highly diluted, with as much as 90 percent being stormwater, the bacteria and pathogens in raw sewage can make people sick. As a precaution, we are posting beaches as closed to protect human health. When it comes to the environment, the temporary discharge of undisinfected, diluted wastewater from the emergency bypass outfall will not pose long-term harm to wildlife or aquatic health.

What beaches are being monitored and why? What are you looking for? When will they be open to the public again?

Some local beaches are affected and signage has been posted at impacted locations notifying people the beach is closed and to avoid contact with the water. We posted the beaches off West Point and at Golden Gardens Park as closed out of an abundance of caution. Signage will be removed once bacteria levels return to normal as determined by the health department.

When will the plant be operational again?

The plant resumed limited wastewater treatment 19 hours after the flood, first operating at about 125 million gallons per day, and then getting treatment capacity for up to 220 million gallons per day.

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What level of wastewater treatment is occurring at West Point?

We are treating at the primary level, which means incoming wastewater is screened of trash and debris, the organic solids are settled out and removed, and the remaining water is disinfected, dechlorinated and returned to Puget Sound.

Normally at West Point, this water goes through a secondary treatment process where micro-organisms break down microscopic solid matter that wasn't removed during the primary stage. This is a high level of treatment that is required under our state and federal permits, and why we are working so hard to restore our secondary treatment process units.

How much will the repairs cost? Who will pay for it?

Restoring the plant to normal operation is our top priority, and we're committed to investing the resources to get it done as quickly and efficiently as possible. We estimate costs will run in the millions of dollars, and expect insurance to cover a significant amount of costs.

Has this ever happened before? How often does the plant treat such high flows?

The plant has operated in serious storms where power outages, flooding or high tides prompted the use of the emergency outfall to protect facilities from serious damage. But this incident is unprecedented in terms of the amount of flooding and equipment damage.

West Point is designed to handle up to 440 million gallons of stormwater and wastewater each day. It is normal for the plant to reach this capacity during very heavy rains, which is several times a year.

Our operators are highly skilled, licensed professionals who receive ongoing training in all facets of operating complex wastewater treatment facilities, including emergency response. During severe storms or emergencies, redundancies in our system enable us to send flows to other plants to protect workers and equipment.

How will you make sure this does not happen again?

Investigation into the sequence of events that led up to the incident will allow us to take whatever corrective measures might be needed to prevent a similar situation in the future.

Will King County get fined?

We reported the incident to the state Department of Ecology immediately and continue to update the agency about operational conditions and permit compliance. DOE will make the determination about what fines or penalties are appropriate under the circumstances.

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Where does money go when King County pays fines?

Fines and penalties typically go into water quality enforcement programs, but the Department of Ecology can answer that question.

What is the time estimate for full restoration of the treatment plant?

For us, success is the full operation of the treatment plant, which includes restoring the process units where biological treatment takes place. We are working 24/7 to make that happen and are encouraged by the progress we're making. It will take time to recover, but we will do what it takes to step up and complete this work as quickly as possible. In the meantime, we will keep the public and the media apprised of our progress on a daily basis.

We're completing an assessment and working to set a target date to resume discharging treated effluent that meets our permit standards to Puget Sound. This will entail the use of temporary equipment and processes. Longer-term, permanent fixes of some equipment and process units will take more time.

How will the bypasses impact fish and wildlife?

In general, the temporary discharge of undisinfected wastewater from the emergency bypass outfall is not expected to result in significant adverse effects to fish, other aquatic organisms, or wildlife in Puget Sound. The large volume of water and significant tidal exchange and current in the vicinity of the West Point outfall result in rapid dispersion of the wastewater.

While a temporary release of highly diluted wastewater is not expected to have adverse environmental effects, we recognize the bypasses do not meet the stringent requirements of our permits, and we take our commitment to environmental stewardship very seriously.

We are highly regulated by the State Department of Ecology and have a strong reputation of meeting and exceeding permit requirements. Prior to this event, we were on our 14th consecutive year of 100 percent permit compliance at West Point. We will continue to work hard to bring our operations back to normal as quickly as possible. And we are continuing to coordinate closely with the Department of Ecology to address our full response to the West Point incident.

Why is the overflow 85-90% stormwater and 10-15% wastewater?

In Seattle, like many older cities, sewer pipes carry both wastewater (used water and sewage that goes down the drain in homes and businesses) and stormwater (rain or snow that washes off streets and parking lots) to a sewage treatment plant. In many parts of Seattle, the mixed wastewater and stormwater flow together in a single pipe. This "Combined Sewer System" flows to West Point for treatment.

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What triggers a beach closure?

King County notifies health and regulatory agencies and posts warnings to avoid contact with the water at public beaches and access points when an overflow event occurs.

Warning signs stay posted at beaches and docks until [Public Health- Seattle & King County](#) reviews lab results and approves removal. Washington State Department of Ecology establishes [swimming beach water quality standards](#). WTD posts [incident updates](#) to give people choices about recreating in waters where an overflow occurred. According to Public Health Seattle & King County, bacteria levels at sample sites must be below 100 colony forming units (cfu) per litre of water three days in a row in order for a beach to be reopened.

Information on how King County works to protect people during wastewater overflows on our blog: <https://kingcountywtd.com/2017/02/13/when-the-unexpected-unfolds-protecting-people-after-wastewater-overflows/>

Can I enter the water?

Beach closure signs are posted at public access points and beaches where water quality may be affected by the overflow. When closure signs are posted, it is recommend people stay out of the water.

Signs are taken down when water quality data returns to background levels. Please visit our incident response page for the latest water quality data: <http://www.kingcounty.gov/depts/dnrp/wtd/response/incident-response.aspx>

What happens if it rains again?

We have restored treatment capacity to about 250 million gallons per day, which is more than twice the capacity needed to treat flows into the plant at this time of year, and don't expect to exceed this capacity.

Additional bypasses to Puget Sound may occur during heavy rains to protect the safety of employees and the treatment plant. We will notify the public if conditions change and a bypass may occur.

Are you monitoring water quality?

Yes. In the normal course of our business, we do routine water quality monitoring in Puget Sound. If a bypass occurs, we will do additional monitoring.

When an overflow happens, King County's Environmental Lab samples affected waters and tests for bacterial contamination. The bacteria and other pathogens that go into marine waters after an overflow event do not thrive well in a cold, salty marine environment and die off within about 48 hours.

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King County's Environmental Lab has been sampling affected waters near our treatment plant and testing for bacterial contamination since Feb. 9 and will continue to do so until all beaches are open.

Where are you monitoring water quality?

Understanding currents helps the Environmental Lab to determine the right sampling sites. The emergency bypass overflow for West Point Treatment Plant extends off North Beach at Discovery Park. When the tide is receding, currents in Puget Sound travel north toward Golden Gardens Park. When the tide is coming in, currents reverse. After the large bypass event, we monitored water quality at Discovery, Golden Gardens and Carkeek parks. Our environmental scientists will determine what level of monitoring is needed to protect public health if future bypasses occur.

How are you keeping everyone up-to-date on this issue?

We are striving to be as open and transparent as possible with our regulators, the public, the media, and employees. We are reporting facts when we know them and informing agencies or groups that may be affected as soon as possible – including tribal nations, local agency health and parks departments, beach-goers and others.

Where can I get the most recent information about West Point?

- Visit our [incident response page](#)
- Sign up for email updates on our [incident response page](#)
- Follow us on social media:
 - Twitter: <https://mobile.twitter.com/kingcountyWTD>
 - Facebook: <https://m.facebook.com/kingcountywtd>
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