



King County

Department of Natural Resources and Parks
Wastewater Treatment Division

South Treatment Plant
1200 Monster Road SW
Renton, WA 98057

July 30, 2024

Sean Wilson, P.E.
Washington Department of Ecology
Northwest Regional Office
PO Box 330316
Shoreline, WA 98133-9716

Re: Update to Bypass of Secondary Treatment, South Treatment Plant, December 5, 2023

Dear Mr. Wilson:

On December 12, 2023, King County Wastewater Treatment Division (WTD) submitted a written report to the Washington State Department of Ecology (Ecology) in association with ERTS #727142. In the original letter, four primary causes were identified:

1. A lack of offsite telemetry, due to vandalism of copper communication lines outside of South Plant.
2. An impressive atmospheric river which delivered 3.97 inches of rain between December 4, 2023, and December 6, 2023.
3. A higher than desired Sludge Volume Index (SVI) associated with remaining in nitrification/denitrification mode through October.
4. Two of 24 secondary clarifiers were out of service.

At the end of that report, WTD informed Ecology that a thorough investigation of the event had been initiated. WTD and Ecology met on June 10, 2024, to review the bypass incident and the investigation in detail. A summary of the updated list of primary causes and corrective actions discussed at the June 10, 2024, meeting is outlined below.

1. The influent level transmitter was dislodged, and South Plant had no reliable influent level measurement data during the event. The lack of this data prevented South Plant from storing wastewater in the conveyance system and shaving the peak flow. [Corrective Action: The level transmitter was replaced.]
2. Two secondary clarifiers were out of service at the same time as an impressive atmospheric river delivered 3.97 inches of rain. [Corrective Action: The sludge monitoring device that fell into and caused the unanticipated outage of tank #7 was no longer in use and was removed from the clarifier collector mechanism. In addition, the old sludge monitoring devices were removed from all other clarifiers.]

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3. Six master shutdowns occurred during the day on December 25, 2023, resulting in influent gates closing and raw sewage pumps slowing down, adding additional challenges and stress during an intense period of operation. [Corrective Action: A loose connection in the master shutdown switch was repaired.]
4. WTD had no defined protocols for balancing NDPES requirements with Nutrient General Permit requirements. [Corrective Action: WTD is reviewing the nutrient optimization protocols and attempting to create and document operational principles.]

If you have any questions about this overflow event, please feel free to contact me at 206-477-5600 or Chapin Brackett at 206-477-3347.

Sincerely,

DocuSigned by:

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Rebecca Singer
Operations Manager

cc: Kamuron Gurol, Director, Wastewater Treatment Division (WTD), Department of Natural Resources and Parks (DNRP)
Bruce Kessler, Deputy Director, WTD, DNRP
Jeff Lafer, Project/Program Manager IV, WTD, DNRP
Mike Wohlfert, South Treatment Plant Manager, WTD, DNRP
Chapin Brackett, Process and Environmental Compliance Manager, WTD, DNRP