



King County

Department of Natural Resources and Parks
Wastewater Treatment Division

West Point Treatment Plant, WTP-NR-0100
1400 Discovery Park Blvd
Seattle, WA 98199-1044

November 2, 2022

TO: Robert Waddle, WTD Operations Manager

FM: Process Control Staff

RE: West Point Treatment Plant Performance Report – October 2022

The West Point Treatment Plant (West Point) Outfall 001 met all effluent discharge requirements in October 2022. Effluent cBOD averaged < 25 mg/L and TSS averaged < 30 mg/L. Effluent pH was maintained between 6.0 and 9.0.

West Point's total flow averaged 73.84 million gallons per day (MGD), slightly lower than the average October flow for the previous five years (78.29 MGD).

October 2022 was a relatively dry month compared to other years. The Seattle-Tacoma International Airport (SeaTac) reported 2.51 inches of rainfall for the month, 0.64 inches fell on October 31; the historical average for October rainfall at SeaTac is 3.91 inches.

Primary Treatment

Primary sedimentation operated at half capacity at the beginning of the month, then gradually increased until all 12 tanks were in service by the end of the month. The primary solids removal for the month was calculated to be 42.75%. The removal is calculated using the Secondary Influent values which include solids returned in the recycle streams.

Secondary Treatment

The secondary process had five aeration trains in service for most of the month until Aeration Train 1 was placed in service on October 24; all 6 were in service for the remainder of the month. Aeration operated in plug flow mode the entire month. There were nine clarifiers in service until October 20, then additional clarifiers were gradually returned to service until 12 clarifiers were in service by the end of the month. Clarifier 11 remained out of service due to a leak in the gearbox. The secondary sludge age averaged close to 2.4 days for the month. Final effluent quality was good with a monthly average of 11 mg/L TSS and a monthly geometric mean of 8 MPN/100 mL for fecal coliform.

Key Measures

Volume Treated	2289 Million Gallons
Permit Compliance	0 Exceptions
Biosolids	3693 Wet Tons Hauled
	996 Dry Tons Hauled
	26.98% Cake Total Solids

Permit Compliance Summary – October 2022

Flow (mgd)	cBOD (mg/l)	TSS (mg/l)	cBOD (% Removal)	TSS (% Removal)	Fecal Coliforms (counts/100 ml)	Chlorine Residual (µg/l)
	Plant/Permit	Plant/Permit	Plant/Permit	Plant/Permit	Plant/Permit	Plant/Permit
73.84	9/25	11/30	96/85	96/85	8/200	79/139

West Point's NPDES permit requires 85% removal of cBOD and TSS during the dry season months of May through October. The Permit also sets effluent concentration limits of 25 mg/l for cBOD and 30 mg/l for TSS, or 15% of influent values during the dry season months, whichever is more stringent. For October 2022, the effluent concentration limits were 25 mg/l for cBOD and 30 mg/l for TSS.

Process Control

Total plant flow for the month was 2289.02 million gallons. Influent and effluent cBOD concentrations averaged 205 mg/l and 9 mg/l, respectively (96% removal); influent and effluent TSS averaged 280 mg/l and 11 mg/l, respectively (96% removal).

There was one Secondary Diversion in October, details are in the table below.

Date	Secondary Diversion Volume (MG)	Duration (hr)	Reason for Diversion
10/31/2022	5.36	3.52	Flows > 300 MGD