



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

August 5, 2021

TO: Robert Waddle, WTD Operations Manager

FM: Process Control Staff

RE: West Point Treatment Plant Performance Report – July 2021

The West Point Treatment Plant (West Point) Outfall 001 met all effluent discharge requirements in July 2021. 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 62.21 million gallons per day (MGD), 2.85 MGD below the average July flow for the previous five years (65.06 MGD). North end flows were sent to South Plant and Brightwater via Woodinville and North Creek.

Seattle had below average precipitation in July. West Point reported a total of 0 inches of precipitation for the month. There was no measurable precipitation during the month. Seattle-Tacoma Airport (Sea-Tac) recorded only a trace of precipitation, 0.60 inches below the normal July rainfall of 0.60 inches. The National Weather Service Office at Sand Point recorded 0.06 inches of precipitation, 0.72 inches below the normal 0.78 inches.

Primary Treatment

Primary treatment operated with 6 tanks in service throughout the month. The east half of the sed area remained out of service in support of the Z-beam removal project. Primary performance for TSS fell compared to previous months with 24.39% removal, and BOD performance improved to 21.88% removal in July.

Secondary Treatment

The secondary process operated throughout the month with 4 aeration trains and 8 clarifiers in service. All 4 trains operated in plug flow throughout the month. On July 19, the fan for aerator 6-1 failed. The fan from aerator 6-4 was removed from 6-4 and installed on 6-1. Since all the RAS goes into stage 1, it is imperative that stage 1 be well mixed. A new fan has been ordered. The secondary sludge age averaged 2.12 days for the month of July. Final effluent quality was excellent in July.

Key Measures

Volume Treated	1929 Million Gallons
Permit Compliance	0 Exceptions
Biosolids	3621 Wet Tons Hauled
	932 Dry Tons Hauled
	25.74% Cake Total Solids

Permit Compliance Summary – July 2021

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
62.21	6/25	9/30	97/85	97/85	6/200	102/139

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 July 2021, 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 1928.56 million gallons. Influent and effluent cBOD concentrations averaged 235 mg/l and 6 mg/l, respectively (97% removal); influent and effluent TSS averaged 288 mg/l and 9 mg/l, respectively (97% removal).

There were no diversions around secondary treatment.

Date	Secondary Diversion Volume (MG)	Reason for Diversion