



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

February 13, 2024

TO: Rebecca Singer, WTD Operations Manager

FROM: Process Control Staff

SUBJECT: West Point Treatment Plant Performance Report – January 2024

The West Point Treatment Plant (West Point) Outfall 001 met all effluent discharge requirements in January 2024. 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 147.68 million gallons per day (MGD), higher than the average January flow for the previous five years (135.82 MGD).

January was a wet month. Seattle-Tacoma International Airport (SeaTac) reported 6.31 inches of rainfall, higher than the historical average of 5.78 inches for January rainfall at SeaTac.

Primary Treatment

Primary sedimentation operated mostly with twelve sedimentation tanks in service for the month, one tank was taken out of service for two days for corrective maintenance. The primary solids removal for the month was calculated to be 59.72%. The recycle streams continued to be temporarily routed to the headworks.

Secondary Treatment

The secondary process operated mostly with six aeration trains, with one train out of service for a few days throughout the month for testing. There were twelve clarifiers in service for the entire month. The secondary sludge age averaged 3.63 days for the month. Final effluent quality was good in January with a monthly average of 11 mg/L of TSS and 4 MPN/100 mL fecal coliform geomean for the month. There were seven secondary diversion event days at West Point during January.

Key Measures

Volume Treated	4578 Million Gallons
Permit Compliance	0 Exceptions
Biosolids	3279 Wet Tons Hauled
	954 Dry Tons Hauled
	29.08% Cake Total Solids

Permit Compliance Summary – January 2024

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
147.68	7/25	11/30	94/80	93/80	4/200	93/139

West Point's NPDES permit requires 80% removal of cBOD and TSS during the wet season months of November through April. The Permit also sets effluent concentration limits of 25 mg/l for cBOD and 30 mg/l for TSS, or 20% of influent values during the wet season months, whichever is more stringent. For January 2024, the effluent concentration limits were 23 mg/l for cBOD and 30 mg/l for TSS.

Process Control

Total plant flow for the month was 4577.97 million gallons. Influent and effluent cBOD concentrations averaged 116 mg/l and 7 mg/l, respectively (94% removal); influent and effluent TSS averaged 166 mg/l and 11 mg/l, respectively (93% removal).

There were seven Secondary Diversions in January, details are provided in the table below.

Date	Secondary Diversion Volume (MG)	Duration (hr)	Reason for Diversion
1/06/2024	1.07	1.73	Flows > 300 MGD
1/8/2024	0.02	0.17	Flows > 300 MGD
1/9/2024	4.88	2.80	Flows > 300 MGD
1/17/2024	0.59	0.93	Flows > 300 MGD
1/26/2024	0.36	0.87	Flows > 300 MGD
1/27/2024	12.06	7.93	Flows > 300 MGD
1/28/2024	17.60	6.15	Flows > 300 MGD