



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

September 10, 2019

TO: Robert Waddle, WTD Operations Manager

FROM: Process Control Staff

SUBJECT: West Point Treatment Plant Performance Report – August 2019

All discharge requirements were met for Outfall 001 in August at the West Point Wastewater Treatment Plant. Effluent cBOD averaged < 25 mg/L and TSS averaged < 30 mg/L. Effluent pH was maintained between 6.0 and 9.0.

Total Plant flow at West Point averaged 64.88 MGD, 0.51 MGD below the average August flow for the previous five years (65.39 MGD). North end flows were sent to South Plant and Brightwater via Woodinville and North Creek.

Seattle had above average precipitation in August. West Point recorded a total of 0.98 inches of precipitation for the month. There was measureable precipitation on four days during the month, with most of the rainfall occurring August 10 (0.39 inches total). Seattle-Tacoma Airport (Sea-Tac) recorded 1.20 inches of precipitation, 0.32 inches above the normal August rainfall of 0.88 inches. The National Weather Service Office at Sand Point recorded 1.33 inches of precipitation, 0.36 inches above the normal 0.97 inches.

Primary Treatment

Primary treatment operated with 9 tanks in service to start the month. On August 20, tanks 2E and 3E were returned to service. Tank 1E was returned to service on August 22. Tank 6E was taken out of service August 27 and tank 5E was taken out of service August 31. The month ended with 10 tanks in service.

Secondary Treatment

The secondary process operated with 4 aeration trains in service to start the month. Train 3 was returned to service on August 11 due to high flows. Train 3 was taken back out of service on August 17 as flows diminished. Nine secondary clarifiers were in service to start the month. Clarifier 9 was returned to service due to elevated flows on August 11 and remained in service for the rest of the month.

Key Measures

Volume Treated	2011	million gallons
Permit Compliance	0	exceptions
Biosolids	3877	wet tons hauled
	1054	dry tons hauled
	27.18%	cake total solids

Permit Compliance Summary – August 2019

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
64.88	7/25	8/30	97/85	97/85	3/200	85/139

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 August 2019, 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 2011.29 million gallons. For the month, influent and effluent cBOD concentrations averaged 235 mg/l and 7 mg/l, respectively (97% removal); influent and effluent TSS averaged 280 mg/l and 8 mg/l, respectively (97% removal).

There was one diversion around secondary treatment due to high flows.

Date	Secondary Diversion Volume (MG)	Reason for Diversion
8/10/19	2.5	Flow > 300 MGD