



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

October 8, 2018

TO: Robert Waddle, WTD Operations Manager

FROM: Process Control Staff

SUBJECT: West Point Treatment Plant Performance Report – September 2018

All discharge requirements were met in September at the West Point Wastewater Treatment Plant. All wastewater received secondary treatment. There were no days when flow was diverted around secondary. 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 64.55 MGD, 5.87 MGD below the average September flow for the previous five years (70.42 MGD). North end flows were sent to South Plant and Brightwater via Woodinville and North Creek.

Seattle had a drier-than-normal September. West Point recorded a total of 0.92 inches of precipitation for the month. There was measureable precipitation on thirteen days during the month, with the heaviest rainfall falling on September 14, 15 and 16 (0.49 inches total). SeaTac recorded 1.04 inches of precipitation, 0.46 inches below the normal September rainfall of 1.50 inches. Boeing Field recorded 1.42 inches of precipitation, 0.08 inches below the normal 1.50 inches. The National Weather Service Office at Sand Point recorded 1.41 inches of precipitation, 0.11 inches below the normal 1.52 inches.

From September 4 through September 27, and apparent issue with one of the BOD bottle dishwashers and the use of Cidehol 70 for area cleaning in the BOD analysis area caused artificially high BOD test results. These results are not reportable.

Primary Treatment

Six primary sedimentation tanks were in service until September 22, when the West side became available and three more tanks were added, bringing the total in service to nine. A tenth tank was put on line on September 28.

Secondary Treatment

The secondary process operated with four aeration trains in service. On September 18, aeration trains 1 and 2 were put in service for testing of the new aerators. Trains 5 and 6 were taken out of service to accommodate the testing. Eight clarifiers were in service until a ninth was added on September 12. On September 18, a tenth clarifier was put in service.

Key Measures

Volume Treated	1936	million gallons
Permit Compliance	0	exceptions
Biosolids	3727	wet tons hauled
	982	dry tons hauled
	26.34%	cake total solids

Permit Compliance Summary – September 2018

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
64.55	7/25	9/30	98/85	97/85	6/200	109/139

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 September 2018, 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 1936.40 million gallons. There were no days when flow was diverted around secondary treatment.

For the month, influent and effluent cBOD concentrations averaged 318 mg/l and 7 mg/l, respectively (98% removal); influent and effluent TSS averaged 302 mg/l and 9 mg/l, respectively (97% removal).