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

May 14, 2019

TO: Robert Waddle, WTD Operations Manager

FROM: Process Control Staff

SUBJECT: West Point Treatment Plant Performance Report – April 2019

All discharge requirements were met in April at the West Point Wastewater Treatment Plant. Flow was diverted for one day around secondary on April 11, and a total of less than 0.1 million gallons (MG) was diverted. The diversion was the result of the control system causing a shutdown at the Intermediate Pump Station (IPS). 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 81.98 MGD, 14.85 MGD below the average April flow for the previous five years (96.83 MGD). North end flows were sent to South Plant and Brightwater via Woodinville and North Creek pump stations. Seattle had variable precipitation in April. West Point recorded a total of 1.88 inches of precipitation for the month. There was measureable precipitation on 18 days during the month, with the heaviest rainfall falling on April 5 (0.42 inches total). SeaTac recorded 3.53 inches of precipitation, 0.82 inches above the normal April rainfall of 2.71 inches. The National Weather Service Office at Sand Point recorded 2.21 inches of precipitation, 0.56 inches below the normal 2.77 inches.

Primary Treatment

Primary treatment operated with eleven tanks in service to start the month. On April 13, tank 5E was taken out of service for annual maintenance. Tank 5W was also out of service briefly on April 21 and 22 for flight repair. The month ended with 10 tanks in service.

Secondary Treatment

The secondary process operated with all six aeration trains in service except for a brief period on April 3, when trains 5 and 6 were taken offline for load simulation testing. Twelve secondary clarifiers were in service to start the month. , Clarifier 3 was taken out of service on April 6, beginning the annual rotation of tanks taken out for maintenance.

Key Measures

Volume Treated	2459	million gallons
Permit Compliance	0	exceptions
Biosolids	4343	wet tons hauled
	1182	dry tons hauled
	27.21%	cake total solids

Permit Compliance Summary – April 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
81.98	6/25	8/30	97/80	97/80	2/200	112/139

West Point's NPDES Permit requires 80 percent removal of cBOD and TSS during the wet season months of October through April. The permit also sets effluent concentration limits of 25 mg/l for cBOD and 30 mg/l for TSS, or 20 percent of influent values during the wet season months, whichever is more stringent. The effluent concentration limits for April 2019 were 25 mg/l for cBOD and 30 mg/l for TSS.

Process Control

Total plant flow for the month was 2459.26 million gallons. Flow was diverted around secondary treatment for one day on April 11, at approximately 1:30 p.m. The control system caused a shutdown at the Intermediate Pump Station (IPS). Before the back-up IPS pump could be brought online, the IPS wet well level rose high enough to trigger the secondary diversion gates to open. This diversion was reported to the Department of Ecology April 18, and assigned Incident Number 688455. A follow up report was provided May 8. A total of less than 0.1 MG was diverted around secondary treatment during April

Date	Secondary Diversion Volume (MG)	Reason for Diversion
4/11/2019	<0.1	Incorrect pump sequence settings in the control system at IPS

For the month, influent and effluent cBOD concentrations averaged 208 mg/l and 6 mg/l, respectively (97% removal); influent and effluent TSS averaged 248 mg/l and 8 mg/l, respectively (97% removal).