

Operational performance metrics

The King County Wastewater Treatment Division (WTD) provides relevant information on operational, financial, regulatory and safety performance of the utility. Much of this information is updated monthly.

This information:

- Shares an overview of the system
- Presents operational patterns
- Illustrates system dynamics
- Identifies approaching challenges

Operational metrics

The following metrics represent the performance of the King County Wastewater Treatment Division in four key performance areas:

- Operational performance
- Regulatory performance
- Financial performance
- Safety performance

Operational performance (May 2019)

1. Flow volumes at regional plants and key points in the system

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Contact us

regarding this information, please

contact:

If you have questions

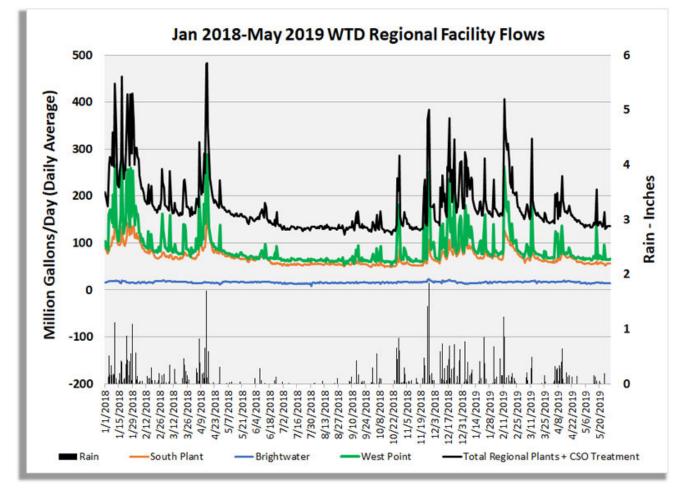
Olivia Robinson at

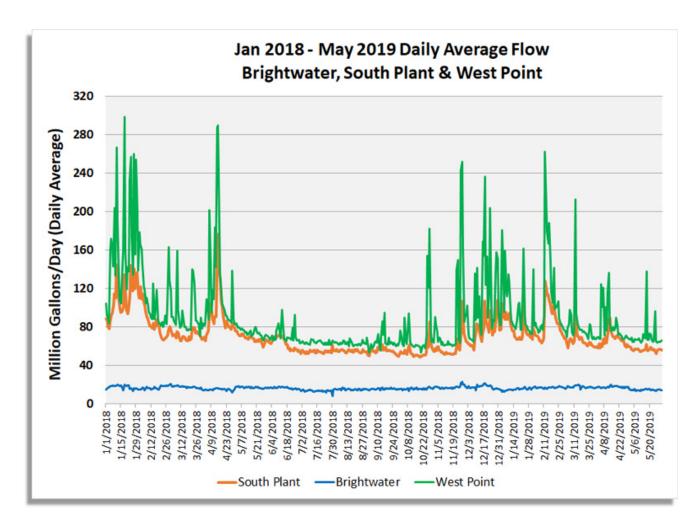
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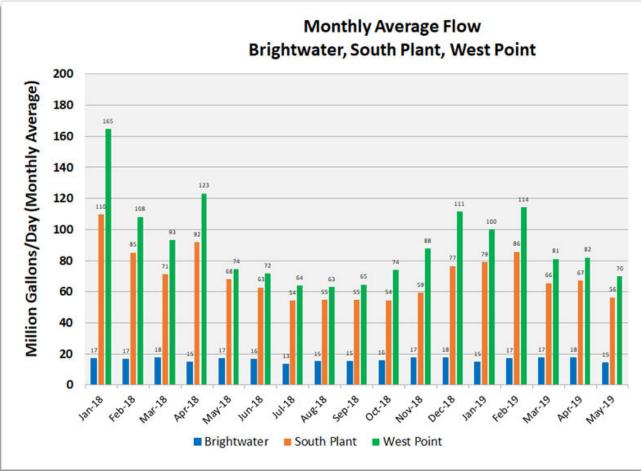
Olivia.Robinson@kingcounty.gov,

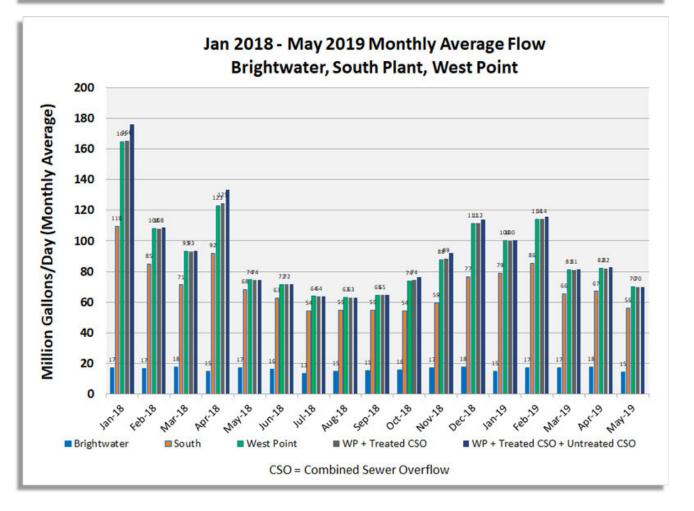
Flow volumes at regional plants and key points in the system

The following graphs illustrate the total amount of flow to each of our regional treatment plants over various periods of time including flows through the Combined Sewer Overflow system. The bars at the bottom of the first graph illustrate the impact that rainfall has on our system.







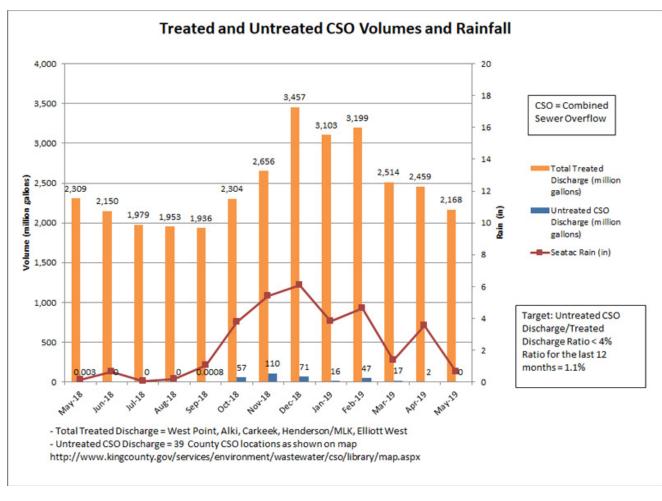


2. Combined Sewer Overflow (CSO) discharge volumes throughout the system

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Combined Sewer Overflow (CSO) discharge volumes throughout the system

The following graph illustrates the total amount of flow that is handled through the regional Combined Sewer Overflow system. Here is the link that shows our CSO locations: https://www.kingcounty.gov/services/environment/wastewater/cso/library/map.aspx



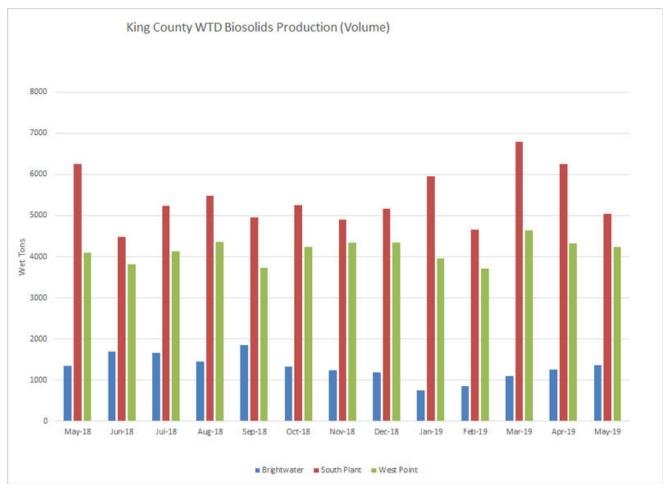
3. Production and distribution of Loop biosolids

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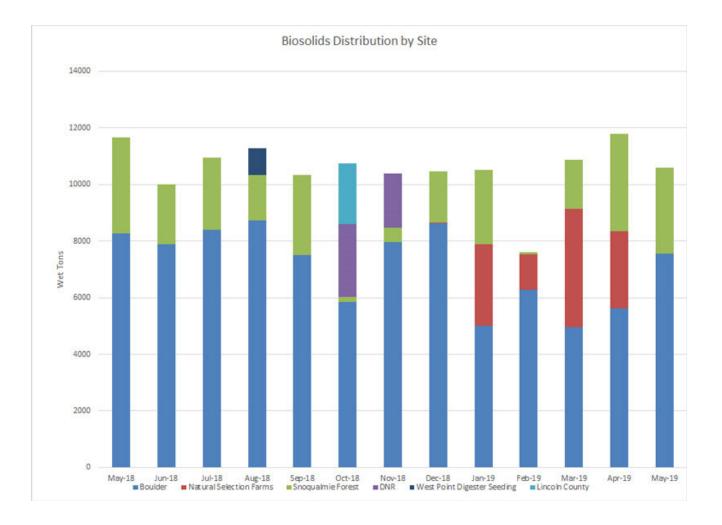
Production and distribution of Loop biosolids

Biosolids are the nutrient-rich product of the wastewater treatment process. Biosolids improve soil fertility and enhance plant growth and crop yield. Loop® is the brand name for biosolids produced by King County. Loop is used as fertilizer and soil amendment for commercial forestry and agriculture, and as an ingredient in compost for landscaping and home gardening.

King County's biosolids program is responsible for managing Loop recycling, including transportation and delivery, permitting and managing Loop applications, research and monitoring, and public outreach. Since 1973, we have worked with local organizations, farm groups, and university scientists to develop an award-winning program that serves as a model for safe, sustainable biosolids recycling.



https://www.kingcounty.gov/depts/dnrp/wtd/system/performance-metrics.aspx?print=1

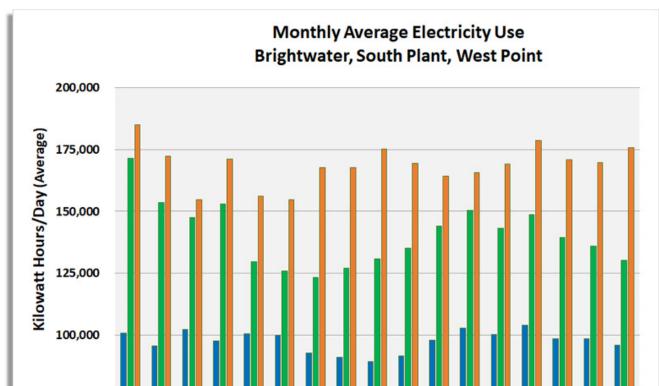


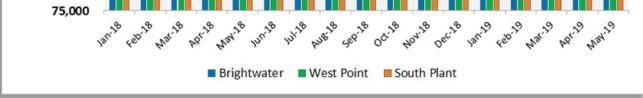
<u>4. Electrical energy usage at each regional treatment plant and conveyance</u> <u>system</u> +

Electrical energy usage at each regional treatment plant and conveyance system

Monthly Average Electricity Use at Brightwater, South Plant and West Point:

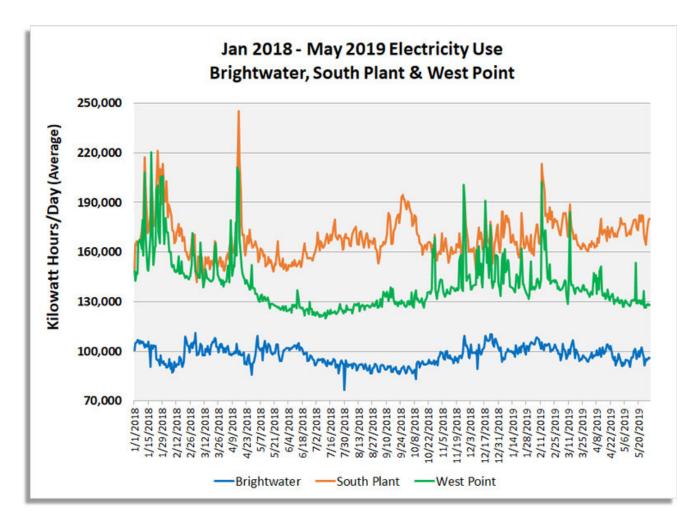
This diagram shows the average daily electricity use for the past 13 months for each of King County's three main treatment plants. West Point's electricity use depends mainly on treated volume. South Plant's electricity use is driven by influent flow and oxygen demand for nitrification. Brightwater's energy use is higher per gallon treated because of its elevated location, which requires more pumping, higher treatment standards, and stringent odor control requirements.

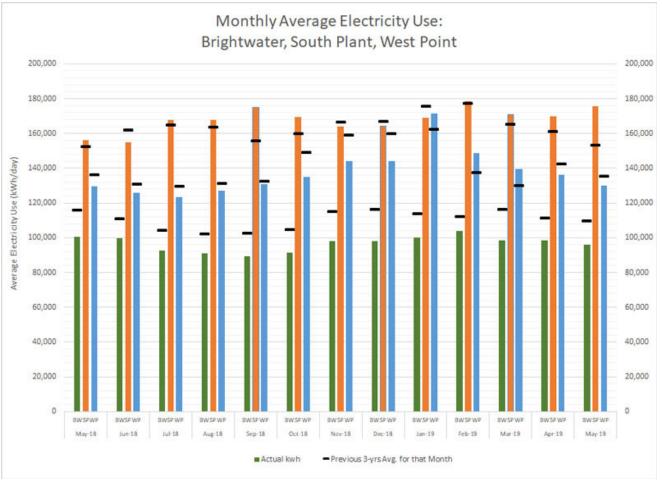




2017 Electricity Use at Brightwater, South Plant and West Point:

This diagram shows daily electricity use for each treatment plant. It highlights how electricity use can double with high flow volumes at West Point.





Total WTD Offsite Energy Use

This diagram shows the combined energy use of WTD's more than one hundred offsite facilities. Energy use at offsite facilities is driven by flow volumes and outside air temperatures.

Please note: This information is updated monthly and will have a three-month lag when all of the data becomes available.

https://www.kingcounty.gov/depts/dnrp/wtd/system/performance-metrics.aspx?print=1

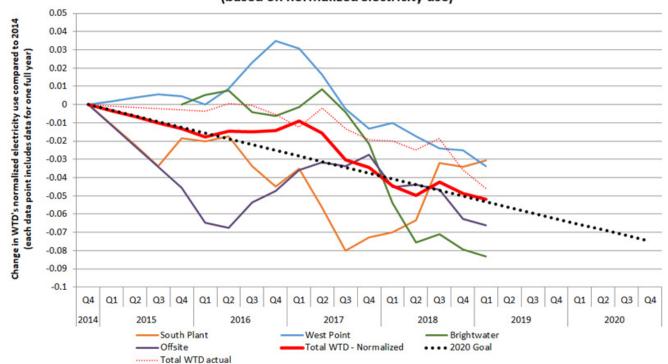
18,000 16,000 mmBtu 14,000 ŝ 12,000 Monthly Energy C 10,000 8,000 6,000 4,000 2,000 0 october 18 March 18 AUBUST-18 November 18 January 19 February 19 April-18 Mayile March 19 June 18 1114-18 30 \$ February December September Current Monthly Energy Use Average Monthly Energy Use (previous 3 years)

Total WTD Offsite Energy Use Total of 106 Facilities, Brightwater IPS not Included

Tracking WTD's progress towards its 7.5% energy reduction goal.

Normalized electricity use describes the amount of electricity a facility would have used if the general conditions had been the same as they were in the baseline year (2014). Normalizing energy use allows us to track changes in energy use independent of factors we do not control such as air temperatures or flow volumes. This diagram shows the change in normalized electricity use for each treatment plant, offsite facilities and WTD in total and how these changes compare to the County wide 2020 energy reduction goal.

Please note: This normalized electricity use information is updated once a quarter with a lag time of about three months.



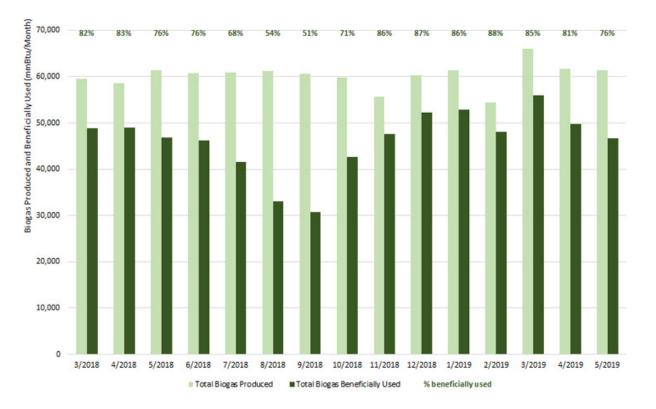
Tracking WTD's progress towards its 7.5% energy reduction goal (based on normalized electricity use)

WTD, Biogas Utilization

Biogas is used differently at each of the three treatment plants.

- At South Plant excess biogas can be fed into PSE's natural gas pipeline.
- At Brightwater and West Point biogas usage is limited to the equipment on site. At both of these plants there is a higher demand for biogas in winter when flows are higher and temperatures lower. The total amount of biogas beneficially used therefore tends to be higher in winter than in summer.

WTD, Biogas Utilization



Regulatory performance (May 2019)

6. Significant power disruption events

Significant power disruption events

Update

Early in the morning of Friday, July 19, a power surge and outage in Seattle, that affected 10,000 Seattle City Light customers, led to a brief emergency bypass at West Point. Workers acted swiftly to prevent flooding in the plant by sending an estimated 2.4 million gallons of stormwater mixed with 0.6 million gallons of wastewater into Puget Sound through an emergency outfall pipe for 27 minutes. Normal operations were quickly restored. King County reported the overflow to health and regulatory agencies, is monitoring water quality, and testing at nearby beaches over the next several days as a precaution. Only north and south beach at Discovery Park will be closed during the testing.

The following table conveys information on the performance of the County's wastewater treatment facilities and conveyance system for any monthly exceedances of permit requirements that are caused by power disruption, or involve events with backups of the conveyance system and need for substantial responsive actions (e.g., cleanup of sanitary sewer overflows).

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https://www.kingcounty.gov/depts/dnrp/wtd/system/performance-metrics.aspx?print=1

	water							•					
Permit Req	uireme	nt Exc	eedanc		olving P	ower [Disrupt	ion or s	Sewer)		
Facility	2018 Jun Jul Aug Sep Oct Nov Dec								2019 Jan Feb Mar Apr Ma				
Wastewater Treatment P										Iviai		Iviay	
West Point		<i>, , , , , ,</i>								a			
South Plant													
Brightwater													
Vashon													
Carnation													
CSO Treatment Facilities	(e.g., eff	luent li	imit exc	eedance	e, disinf	ection f	ailure)						
Henderson/MLK CSO	*	*	*	*						*	*	*	
Alki CSO	*	*	*	*						*	*	*	
Carkeek CSO	*	*	*	*						*	*	*	
Elliott West CSO * *			*	*						*	*	*	
West Section Conveyance	System												
CSO Exacerbated													
Overflow													
CSO Dry Weather													
Overflow													
Sanitary Sewer Overflow							b		Ь				
East Section Conveyance	System												
Sanitary Sewer Overflow													
Notes:													
1 Number of power	disrupti	on/bac	kup eve	nts in a	ny mon	th wher	e excee	edances	occur.				
	 Number of power disruption/backup events in any month where exceedances occur. Represents any month where no events occurred, or if any non-compliance occurred it was unrelated to 												
	power disruption, or backups in the conveyance system.												
Non-compliance of		-		-	-		nveyand	e syste	m backı	ıp; how	/ever,		
repair/solution is								-					
Non-compliance in	nvolving	power	disrupt	ion or c	onveya	nce syst	em bac	kup, an	d evalua	ation ar	nd		
corrective action i	ncludes	substa	ntial effe	ects on	residen	ts and b	usiness	es, leve	l of effo	ort and	time to	()	
and a bar and a second a bar	corrective action includes substantial effects on residents and businesses, level of effort and time to												

resolve, or costs to system operations.

*

Monitoring period characterized by sufficiently low flow conditions that the CSO treatment facility did

not operate with a discharge to the outfall at any time in the month.

- *a* Temporary power disruptions at West Point on 12/20/18 and 3/17/19 resulted in brief secondary diversion events (i.e., blending of primary and secondary treated effluent); however, these diversions receive chlorine disinfection and there are no effluent limitations exceeded.
- b Temporary power disruptions at the Richmond Beach Pump Station on 12/14/18 and 2/4/19 resulted in overflows to Puget Sound of 170,000 and 19,000 gallons, respectively. Repairs are underway to replace electrical equipment for the pumps and backup power supply system to improve the station's electrical reliability.

7. Significant system process disruptions

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Significant system process disruptions

The following table conveys information on the performance of the County's wastewater treatment facilities and conveyance system for any monthly exceedances of permit requirements that are caused by, or involve, process disruption (not power related) such as major equipment or biological treatment process failures, or industrial discharges.

https://www.kingcounty.gov/depts/dnrp/wtd/system/performance-metrics.aspx?print=1

Waste	water	Treatn	nent an	d Conv	eyance	Syster	m Com	plianc	e Even	ts -		
Permit Requirement Exceedances Involving Process Disruption												
En allita a		3		2018			2019		a			
Facility	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May
Wastewater Treatment P	Wastewater Treatment Plants (e.g., effluent limit exceedance, unpermitted discharges)											
West Point												
South Plant												
Brightwater												
Vashon												
Carnation												
CSO Treatment Facilities (e.g., eff	luent li	mit exce	edance	, disinfe	ection f	ailure)					
Henderson/MLK CSO	*	*	*	*					*	*	*	*
Alki CSO	*	*	*	*					*	*	*	*
Carkeek CSO	*	*	*	*					*	*	*	*
Elliott West CSO	*	*	*	*		a	a	*	*	*	*	*
West Section Conveyance System												
Unpermitted Overflows												
East Section Conveyance	East Section Conveyance System											
Sanitary Sewer Overflow												

Notes:

1	Number of process disruption events in any month where exceedances occur.
	Represents any month where no events occurred, or if any non-compliance occurred it was unrelated to process disruption.
	Non-compliance occurred and involved process disruption; however, repair/solution is known and the incident response and correction was immediate.
	Non-compliance involving process disruption, and evaluation and corrective action includes substantial effects on residents and businesses, level of effort and time to resolve, or costs to system operations.
*	Monitoring period characterized by sufficiently low flow conditions that the CSO treatment facility did not operate with a discharge to the outfall at any time in the month.

a Effluent exceedances at Elliott West associated with process control performance; a phased planning and facility improvements process is underway.

8. Regulatory compliance and performance

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Regulatory compliance and performance

The following table conveys information on the performance of King County's wastewater treatment facilities and conveyance system for any monthly exceedances of permit requirements that involve compliance with effluent limitations at the County's five wastewater treatment plants or four CSO treatment facilities, or unpermitted overflow events in the separated sanitary or combined stormwater-sewer conveyance system.

NPDES Pern	nit Exce	edance	s (Rep	ortable	e Event	s Subje	ect to P	otenti	ial Pen	alties)	_	
	Waste	water T	reatme	nt Fac	ilities o	or Conv	eyanc	e Syste	em			
En allita :				2018			2019	<u>,</u>				
Facility	Jun	Jul	Aug	Sep	Oct	Jan	Dec	Jan	Feb	Mar	Apr	May
Effluent Limitations Exce	edances	at Wast	tewater	Treatm	nent Fa	cilities						
West Point												
South Plant												
Brightwater												
Vashon												
Carnation												
Effluent Limitations Exce	edances	at CSO	Treatm	ent Fac	ilities							
Henderson/MLK CSO	*	*	*	*					*	*	*	*
Alki CSO	*	*	*	*			a		*	*	*	*
Carkeek CSO	*	*	*	*					*	*	*	*
Elliott West CSO	*	*	*	*		b	b	b	b	*	*	*
Conveyance System Over	flow Eve	ents in C	ombine	d or Se	parated	Basins	5					
West Section – Dry												
Weather Overflows at												
CSO Outfalls												
West Section – Sanitary									c			
Sewer Overflows									L.			
East Section – Sanitary												
Sewer Overflows												

Notes:

Compliance goal for all events is "zero", and all exceedances have potential to be assessed penalties.

- No ongoing non-compliance; or events with known cause and immediate correction.
 Ongoing compliance issue; but repairs/solution is known and underway for timely correction.
 Substantial ongoing compliance issue with ongoing corrective actions, or response and/or planning for corrective action is underway.
- * Monitoring period characterized by sufficiently low flow conditions that the CSO treatment facility did not operate with a discharge to the outfall at any time in the month.
- *a* The annual average total suspended solids removal limit was exceeded at Alki in 2018. Optimization of recent pumping control upgrades at the pump station is underway, as well evaluation of the cause.
- **b** A phased planning and facility improvements process is underway for Elliott West.
- *c* Two overflows occurred at the Richmond Beach pump station in December; repairs are underway to replace electrical equipment for the pumps and backup power supply system.

9. Water quality monitoring

Water quality monitoring

King County WTD conducts routine effluent water quality monitoring for compliance with the NPDES permit requirements at the County's five wastewater treatment plants, and at the four CSO treatment facilities. Additionally, WTD (in conjunction with scientists in King County Water and Land Resources Division [WLRD]) conducts specific sediment and water quality monitoring studies required for compliance with the NPDES permit as well as the Post Construction Monitoring Program for the County's 2012 Long-term CSO Control Plan Amendment. The following sections further describe these monitoring programs and provide information on the status of currently available monitoring efforts and data reports.

Effluent Monitoring Data

WTD monitors treated wastewater (effluent) at each of the five main treatment plants (West Point, South Plant, Brightwater, Vashon, and Carnation) for a variety of conventional chemical and biological water quality properties which are used to track performance of the physical and biological treatment processes, and to ensure compliance with effluent limitations that are specified in the NPDES permit for the purposes of protecting the aquatic environment where the wastewater is discharged. WTD also conducts required effluent monitoring at the four CSO treatment facilities (Carkeek, Elliott West, Alki, and Henderson/Martin Luther King [H/MLK]) whenever wet weather storm events result in these facilities operating and discharging to their designated CSO outfalls. The majority of the routine effluent data that is collected to comply with applicable NDPES permit requirements is compiled and submitted to Ecology electronically as Discharge Monitoring Reports (DMRs) on a regular monthly basis.

The key parameters that are monitored for NPDES permit compliance with effluent limitations consist of biochemical oxygen demand (BOD), total suspended solids (TSS), settleable solids, pH, chlorine residual, and fecal coliform bacterial. The compliance with the effluent limitations is a primary method used by Ecology and WTD of evaluating routine and ongoing performance of the treatment processes. Accordingly, the reader is directed to review information presented above under "#8 –Regulatory Compliance and Performance" which provides a simplified summary of monthly plant performance that incorporates and interprets the diverse set of effluent monitoring data and information on any significant non-compliance events.

The effluent monitoring data and reports submitted to Ecology in monthly DMRs address many additional parameters that are not necessarily directly attributable to treatment process performance or NPDES regulatory compliance. However, the following attached files are the cover letters submitted for the most recent DMRs for each of the five wastewater treatment plants. The cover letters characterize each facility during the monitoring period including such items as flows, compliance with NPDES permit requirements, and any other important process performance events, news, or significant events. The facility DMR cover letters for the most recent monthly monitoring period follow:

- Brightwater 🖄 (Permit No. WA0032247)
- Carnation 🖄 (Permit No. WA0032182)
- South Plant 🖄 (Permit No. WA0029581)
- Vashon 🖹 (Permit No. WA0022527)
- <u>West Point (Permit No. WA0029181</u>)

Finally, the entire body of effluent monitoring data and reports that are submitted to Ecology as part a DMR package are available on Ecology's "PARIS" database by searching on the Permit No. for each plant (identified above) at the following:

https://fortress.wa.gov/ecy/paris/PermitLookup.aspx 🖸

WTD also conducted additional effluent monitoring during the restoration process for the West Point treatment plant following the February 9, 2017 flooding and damage incident. WTD established a dedicated temporary website to post the collected effluent data, summaries of the data, and other reports and information. With the restoration of the majority of treatment processes and equipment completed in May 2017, and West Point's return to its normal status of routine compliance with permit requirements, the additional monitoring was discontinued and

WTD now intends to maintain the temporary website indefinitely until such time it is determined to no longer be necessary. The dedicated website for the environmental monitoring data is:

https://www.kingcounty.gov/depts/dnrp/wtd/system/west/west-pointrestoration/environmental-monitoring.aspx

Water Quality Monitoring Data

The County's Water, Resources, and Land Division (WRLD) – Science Section, with assistance from the King County Environmental Laboratory (KCEL), conducts a variety of water quality monitoring programs in the Puget Sound, and the regions rivers and lakes that indirectly contribute to an understanding of the effects of County activities on environmental resources. However, with the exception of limited periodic and specific discharge event conditions, the County is not required under the NPDES permits for the wastewater treatment plants to conduct receiving water quality monitoring at our discharge outfall locations. Consequently, the reader is directed to the WLRD Science Section website where available information on the ambient marine water quality monitoring programs in Puget Sound can be found:

https://green2.kingcounty.gov/marine

https://www.kingcounty.gov/depts/dnrp/wtd/system/performance-metrics.aspx?print=1

Additionally, WTD in conjunction with WLRD Science Section staff, temporarily expanded and increased the frequency of the routine marine water quality monitoring in Puget Sound at sites near the West Point outfall while the restoration process for the West Point treatment plant was underway following the February 9, 2017 flooding and damage incident. WTD established a dedicated temporary website to post bi-weekly summary reports of Puget Sound water quality conditions during this period, and with West Point's return to a state of compliance with NPDES permit requirements, the additional monitoring was discontinued in June 2017. Furthermore, WTD and WLRD Science Section are involved in conducting supplemental environmental analyses to characterize conditions in Puget Sound resulting from the West Point incident to determine if any changes in contaminants of concern may have occurred in sediments or marine aquatic organisms. The dedicated website where information from the marine water quality monitoring, and the supplemental sediment and marine organism contaminant investigations, can be found at:

<u>https://www.kingcounty.gov/depts/dnrp/wtd/system/west/west-point-restoration/marine-</u>monitoring.aspx

Sediment Monitoring Data

WTD, with assistance from the WLRD Science Section, conducts extensive sediment quality monitoring and analysis for compliance with the NPDES permits for the West Point, South Plant, and Brightwater treatment plants. A large amount of the County's required sediment analysis work is conducted at CSO outfall locations to implement the Post Construction Monitoring Program for the County's 2012 Long-term CSO Control Plan Amendment under the West Point NPDES permit. The CSO program is focused on ensuring that the CSO outfalls meet Washington's sediment quality standards as hydraulic control of each outfall is achieved (i.e., not more than one overflow event per year on a 20-year average). The West Point NPDES permit also requires the County to prepare an update of the 2009 Sediment Data Report by December 1, 2018 to provide a comprehensive summary of information for each CSO outfall and its status with respect to compliance with sediment quality standards. Finally, the County is implementing, and periodically updates, a Sediment Management Program that provides the overarching direction for all of the CSO discharge locations, summarizes ongoing and previously performed sediment cleanup work, summarizes the results of CSO discharge modeling, provides the status of existing sediment quality, and assigns an appropriate sediment management strategy for each CSO. In general, the sediment investigations and development of sediment management strategies at any given CSO outfall is a complex and lengthy process involving multiple actions and participants, and summary information on the status of each project is not readily summarized. Consequently, the reader is directed to the County's dedicated Sediment Management Plan website where available information, reports, news, and status of the program can be obtained:

https://www.kingcounty.gov/services/environment/wastewater/sedimentmanagement/plan.aspx

Financial performance (May 2019)

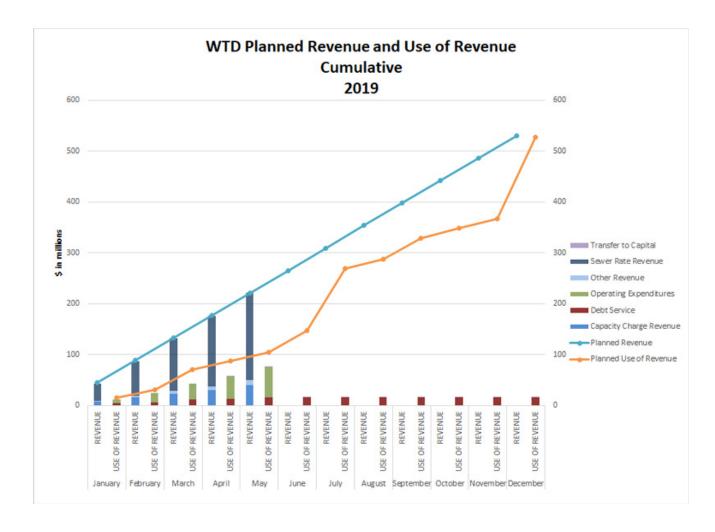
10. Wastewater planned revenue and use of revenue

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Wastewater planned revenue and use of revenue 2018

This chart compares WTD planned revenue and use of revenue with monthly actual revenue and use of the revenue collections. Monthly actuals highlight total revenue collected by the sewer rate, capacity charge and other sources, and total use of the revenue collected by operating expenditures, debt service and transfer to capital.

https://www.kingcounty.gov/depts/dnrp/wtd/system/performance-metrics.aspx?print=1



11. Cost and schedule of baselined major capital projects

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Cost and schedule of baselined major capital projects

This table represents budget and schedule performance of <u>projects with greater than \$1M</u> <u>expected cost</u>. Performance is measured relative to the baseline point which is established at approximately 30% design completion per established King County Project Management Standards.

Project Number	Project Name	Scope Status	Schedule Status	Current Substantial Completion Date	Baseline Duration	Current Duration	Variance at Completion (VAC)	% VAC	Cost Status	Baseline Budget at Completion (BAC)	Current Estimate At Completion (EAC)	Cost Variance At Completion (CVAC)	% CVAC	Report Date
3611 WAT	ER QUALITY CONST-UNRES - Wastewater Treatm	nent												
1038122	WTC SUNSET HEATH PS FM UPGRADE	۲		1/21/2020	1,813	1,743	-70	-3 %		\$69,754,491	\$75,367,239	\$5,612,748	8%	Q1 2019
1038124	WTC WP DIGESTER FLOATING LIDS	۲	٠	8/16/2018	1,503	2,173	670	44 %	۲	\$3,820,277	\$1,588,348	(\$2,231,929)	-58 %	Q1 2019
1048077	WTC ENVIR LAB ENERGY IMPROVMNT	۲	٠	6/21/2019	566	983	417	73 %	٠	\$5,850,874	\$8,314,389	\$2,463,515	42 %	Q1 2019
1113260	WTC PRIMARY SED TNK GATE WPTP	۲	٠	10/1/2018	402	783	381	94%	۲	\$2,450,826	\$1,161,663	(\$1,289,163)	-52 %	Q1 2019
1114368	WTC SOUTH PLANT ETS PEAKING PUMPS VFDs, ASSESS & REPLACE	*	٠	7/2/2018	1,086	1,483	397	36 %	4	\$3,941,503	\$4,512,611	\$571,107	14 %	Q1 2019
1114373	WTC REFURBISH/REPLACE DUTY PUMPS VFDS AT SOUTH PLANT ETS	۰	٠	7/2/2018	1,086	1,483	397	36 %	۰	\$4,138,186	\$3,623,332	(\$514,854)	-12 %	Q1 2019
1114382	WTC NORTH CREEK INTERCEPTOR	۲	٠	2/27/2018	1,604	2,052	448	27 %	٠	\$56,590,659	\$83,969,562	\$27,378,903	48 %	Q1 2019
1116796	WTC SP RECLAIMED H2O FAC MODS	۲	•	4/30/2018	925	930	5	0%		\$3,914,248	\$4,183,141	\$268,893	6 %	Q1 2019
1116800	WTC N MERCER ENATALINT PAR	۲		12/31/2023	2,121	2,392	271	12 %	٠	\$116,035,624	\$162,192,314	\$46,156,690	39 %	Q1 2019
1116801	WTC LK HILLS&NW LK SAM INTCPT		٠	7/18/2024	1,995	2,501	506	25%	۲	\$119,342,432	\$119,342,431	(\$1)	0 %	Q1 2019
1117514	WTC WEST POINT C-1 RESERVOIR ACCESS	۲	٠	2/18/2020	623	889	266	42 %	٠	\$1,926,396	\$4,036,728	\$2,110,332	109 %	Q1 2019
1117748	WTC WP INTERMEDIATE, EPS VFD & DEWATERING ENERGY	•	٠	10/15/2019	1,142	2,618	1,476	129 %	٠	\$33,541,919	\$22,942,804	(\$10,599,115)	-31 %	Q1 2019
1120861	WTC MOBILE OC UNIT REPLACEMENT	۲	٠	10/21/2019	696	1,070	374	53 %	٠	\$3,171,445	\$3,170,886	(\$559)	0 %	Q1 2019
1121402	WTC GEORGETOWN WET WEATHER TREATMENT STATION	•	•	1/8/2022	2,141	2,090	-51	-2 %	۲	\$260,713,113	\$241,495,691	(\$19,217,422)	-7 %	Q1 2019
1121404	WTC SP RSP MEDIUM VOLT SG REPL	۲	۲	12/3/2019	658	658	0	0%	۲	\$8,038,164	\$7,590,480	(\$447,684)	-5 %	Q1 2019
1122412	Eastgate Interceptor Rehabilitation Phase III			12/5/2018	996	1,030	34	3 %		\$7,353,124	\$7,619,764	\$266,641	3 %	Q1 2019
1123517	WTC E FLEET MAINT FAC REPLOMNT	۲	٠	8/31/2020	750	1,420	670	89 %	٠	\$9,999,584	\$12,815,234	\$2,815,650	28 %	Q1 2019
1123625	WTC SP HYPO CAUSTIC CHEM STORE	۲		9/27/2018	786	807	21	2 %	۲	\$6,574,030	\$3,969,862	(\$2,604,168)	-39 %	Q1 2019
1123626	WTC SP BIOGAS HEAT SYS IMPROVE	٨		3/19/2021	1,410	1,438	28	1%	۲	\$59,897,304	\$27,056,652	(\$32,840,652)	-54 %	Q1 2019
1123630	WTC ESI SECT 2 REHAB PHASE II	۲		2/13/2020	521	53.5	14	2 %	۲	\$45,812,381	\$33,670,231	(\$12,142,150)	-26 %	Q1 2019
1123632	WTC KENT AUBURN PHASE B	۲	۲	3/6/2019	1,369	1,275	-94	-6 %	۲	\$40,861,397	\$35,909,707	(\$4,951,690)	-12 %	Q1 2019
1125202	WTC EW RELOCATE SAMPLING SYS	۲	٠	4/18/2018	720	981	261	36 %	٠	\$1,908,206	\$2,719,499	\$811,292	42 %	Q1 2019

Q1 2019 Baseline Report

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Q1 2019 Baseline Report

Project Number	Project Name	Scope Status	Schedule Status	Current Substantial Completion Date	Baseline Duration	Current Duration	Variance at Completion (VAC)	% VAC	Cost Status	Baseline Budget at Completion (BAC)	Current Estimate At Completion (EAC)	Cost Variance At Completion (CVAC)	% CVAC	Report Date
3611 WAT	ER QUALITY CONST-UNRES - Wastewater Tre	atment												
1125460	WTC BW FF LINKING DEVICE UPGRD		٠	8/1/2019	466	619	153	32 %	•	\$1,203,778	\$1,427,968	\$224,189	18 %	Q1 2019
1127059	WTC WP REPLC INCINERATOR FLARE		٠	4/13/2019	559	879	320	57 %		\$4,825,164	\$4,787,062	(\$38,102)	0 %	Q1 2019
1127489	WP PRIMARY SED ROOF STRUCTURE								-					Q1 2019
1128127	WTC WP DRY POLYMER FEEDER REPL		٠	6/27/2019	453	885	432	95%	٠	\$1,100,769	\$1,351,005	\$250,236	22 %	Q1 2019
1129093	WTC HENDERSON/MLK JR WWTS IMPROVEMENTS	•	٠	6/30/2019	391	719	328	83 %	٠	\$1,810,658	\$2,620,953	\$810,296	44 %	Q1 2019
1129531	WTC SP C2/C3 PIPE REPLACEMENT	۲		10/20/2019	659	740	81	12 %	۲	\$5,307,059	\$4,356,678	(\$950,381)	-17 %	Q1 2019
1130458	WTC SP AER BASIN SAFETY ACCESS	-	٠	10/9/2021	753	1,118	365	48 %	•	\$1,710,992	\$1,701,536	(\$9,457)	0 %	Q1 2019
1130459	WTC LK UNION TUNNEL GATE MODS			11/1/2019	564	606	42	7 %		\$1,039,791	\$1,096,747	\$56,956	5 %	Q1 2019
1130502	WTC BEULAH SAND FILTERS COVERS		٠	11/17/2020	766	889	123	16 %	•	\$1,591,921	\$1,544,844	(\$47,077)	-2 %	Q1 2019
1131919	WTC BW MEMBRANE FEED PUMP VFD			11/12/2019	617	617	0	0%	۲	\$1,765,063	\$1,719,043	(\$46,020)	-2 %	Q1 2019
1132584	WTC LK HLS SOUND TRANSIT COORD		٠	7/3/2018	286	197	-89	-31 %		\$2,409,382	\$1,473,780	(\$935,602)	-38 %	Q1 2019
3612 WTD	INTERNALLY FINANCED PROJECTSS - Waster	vater Tre	atme	nt										
1134078	WTC BW MBR LEAP UPGD								=					Q1 2019

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Safety performance (May 2019)

12. WTD accident (claim) summary

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WTD accident (claim) summary

The following summary graphs illustrate employee accident and job injury claim experience (for current month and year to date) for the Wastewater Treatment Division.

WTD Claims Summary 🖄 (May 2019)

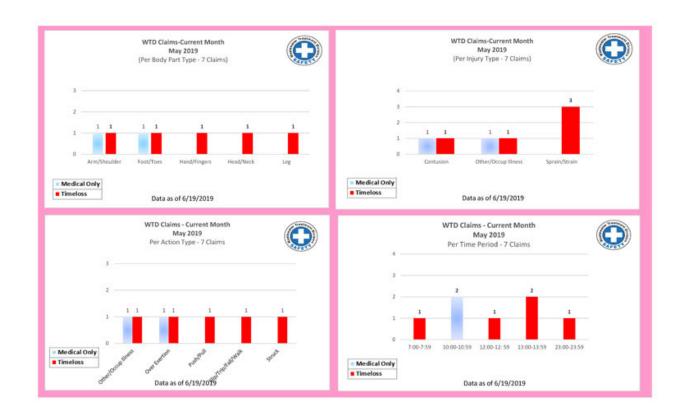


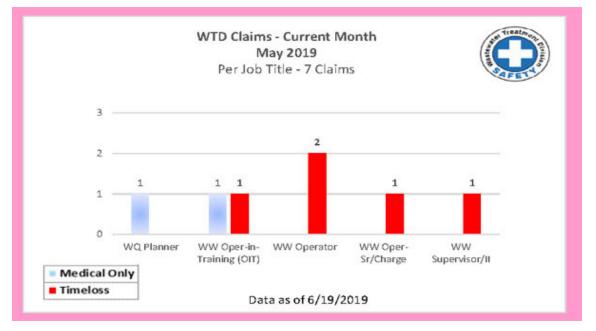
Timeloss Data as of 6/19/2019	Timeloss Data as of 6/19/2019

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- The term **Medical Only Claim** refers to employee accident that requires attention from a healthcare provider. The injured worker may be released completely after treatment or released with work restrictions requiring work accommodation.
- The term **Timeloss Claim** refers to claims that are serious enough to warrant the doctor taking the injured worker off his regular duty for a period of time. The injured worker may be released to modified (light) duty during his recovery period. As long as the employer accommodates the doctor's restrictions on the injured worker's activity during the light duty period, the claim may remain as medical only if the injured worker returns to light duty before the elimination period lapses.

Monthly archives

Past performance metrics are posted by month in portable document format \square .

<u>2019</u>

- January 2019
- February 2019
- <u>March 2019</u>
- <u>April 2019</u>

<u>2018</u>

- December 2018
- November 2018
- <u>October 2018</u>
- September 2018
- <u>August 2018</u>
- <u>July 2018</u>
- June 2018
- <u>May 2018</u>

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- <u>April 2018</u>
- <u>March 2018</u>
- February 2018
- <u>January 2018</u>

December 2017
November 2017
October 2017
September 2017
August 2017
July 2017



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Wastewater Treatment Division

King Street Center 201 S. Jackson St., Suite 500 Seattle, WA 98104

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