JULY 2017

King County

Operational performance metrics

The King County Wastewater Treatment Division (WTD) provides relevant information on operational, financial and regulatory 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

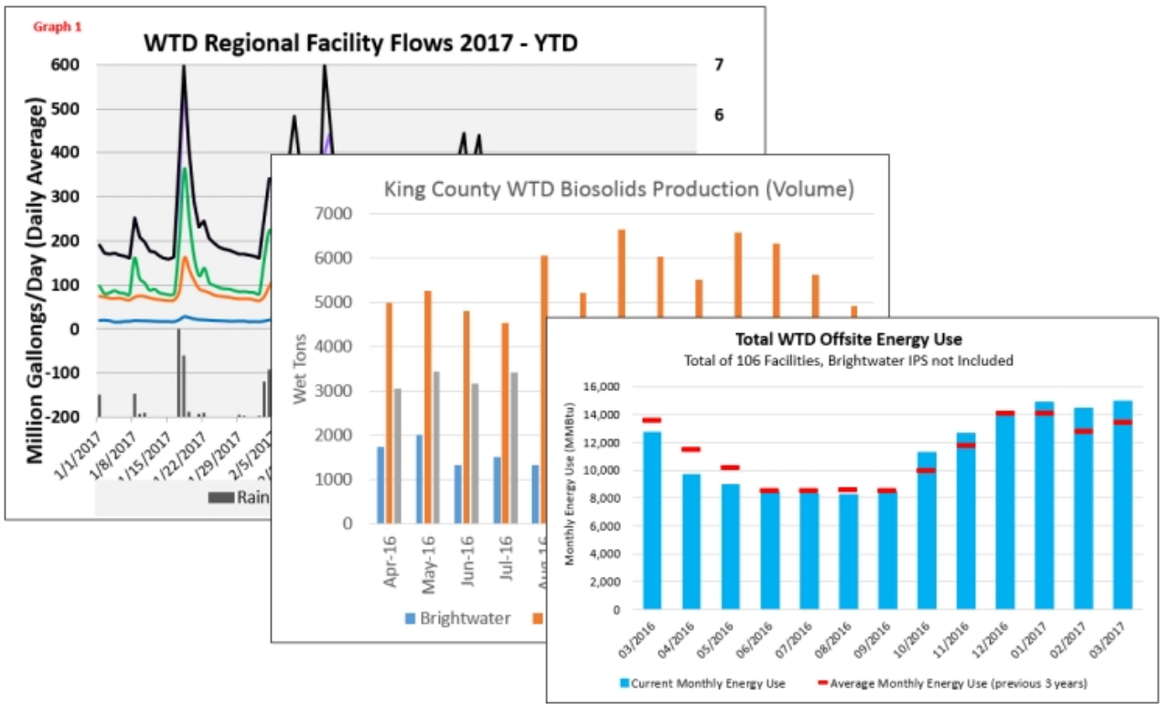
The following metrics represent the performance of the King County Wastewater Treatment Division in three key performance areas:

- Operational performance
- Regulatory performance
- Financial performance

Contact us

If you have questions regarding this information, please contact:

Robert Tovar at robert.tovar@kingcounty.gov, 206-477-5374



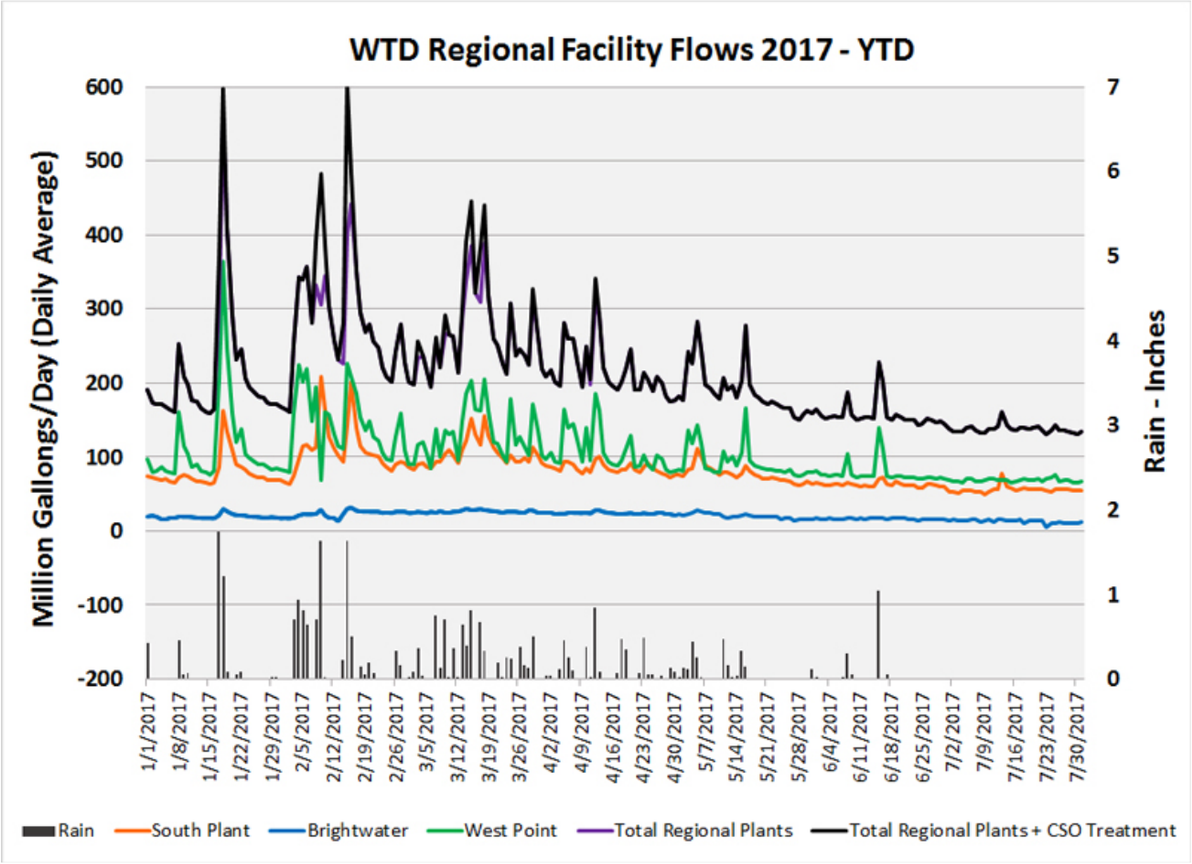
Operational performance (July 2017)

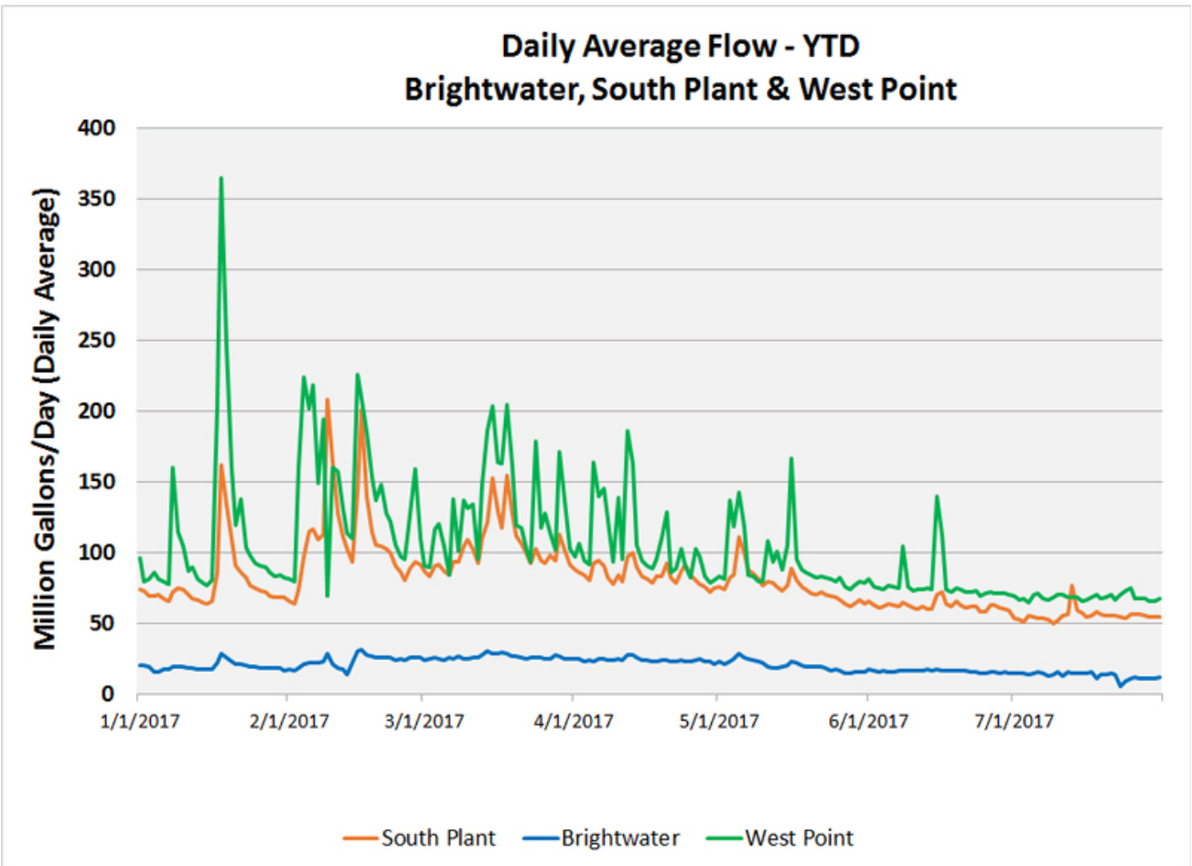
1. Flow volumes at regional plants and key points in the system +

JULY 2017

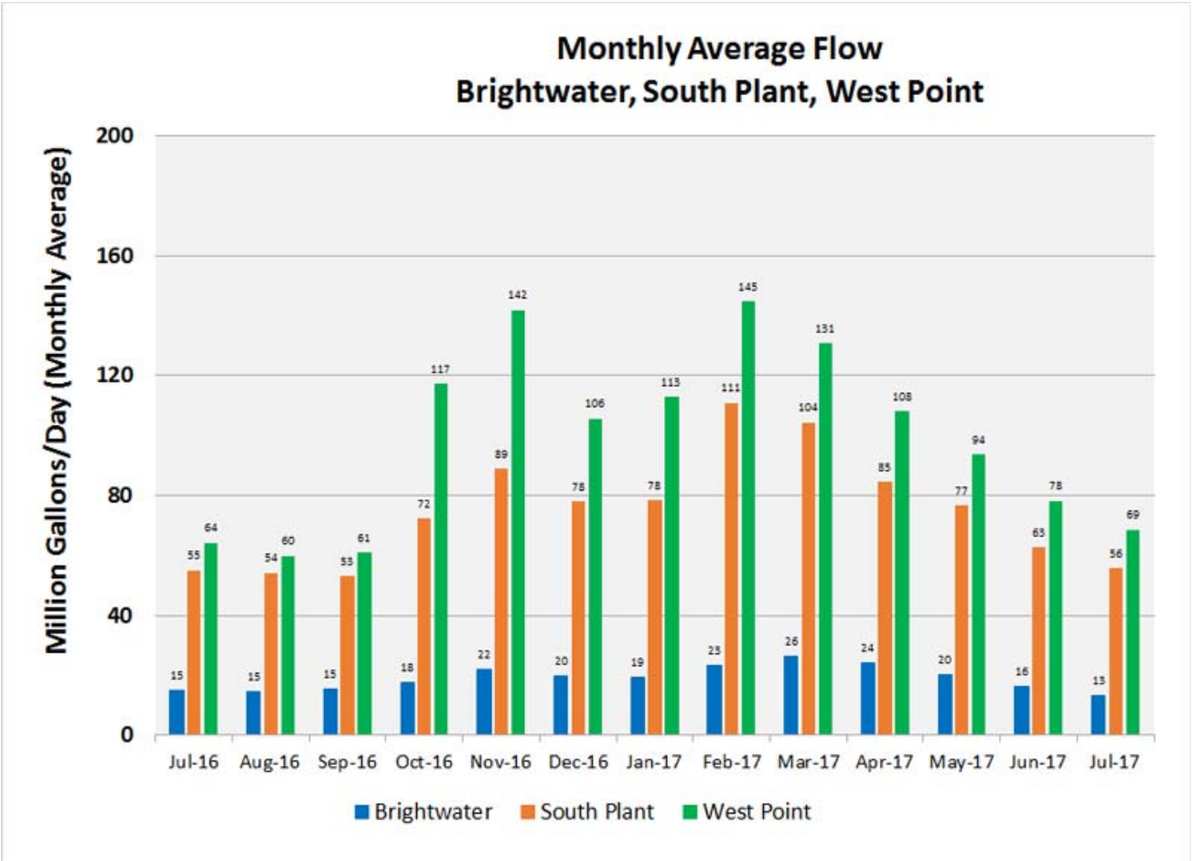
Flow volumes at regional plants and key points in the system

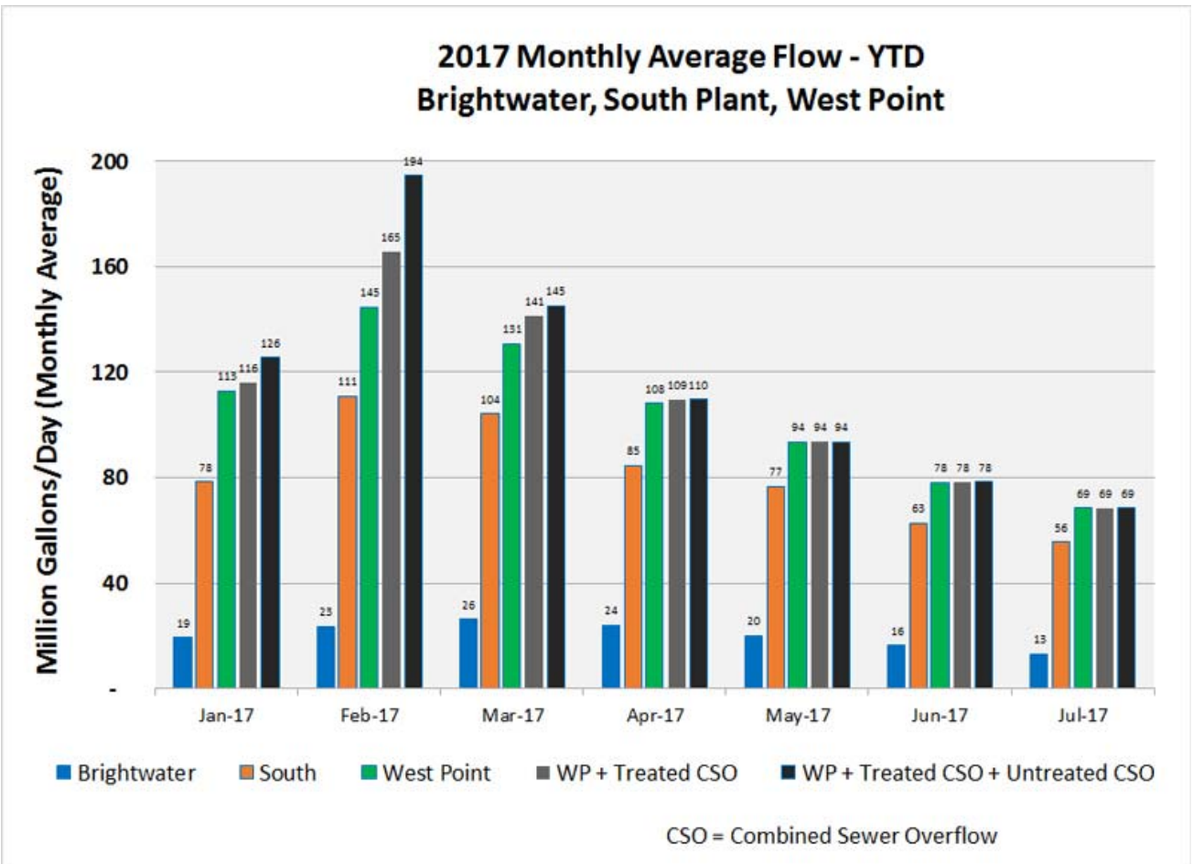
The following graphs illustrate the total amount of flow to each of our regional treatment plants over various periods of time including flows through the Combined Sewer Overflow system. The bars at the bottom of the first graph illustrate the impact that rainfall has on our system.





JULY 2017



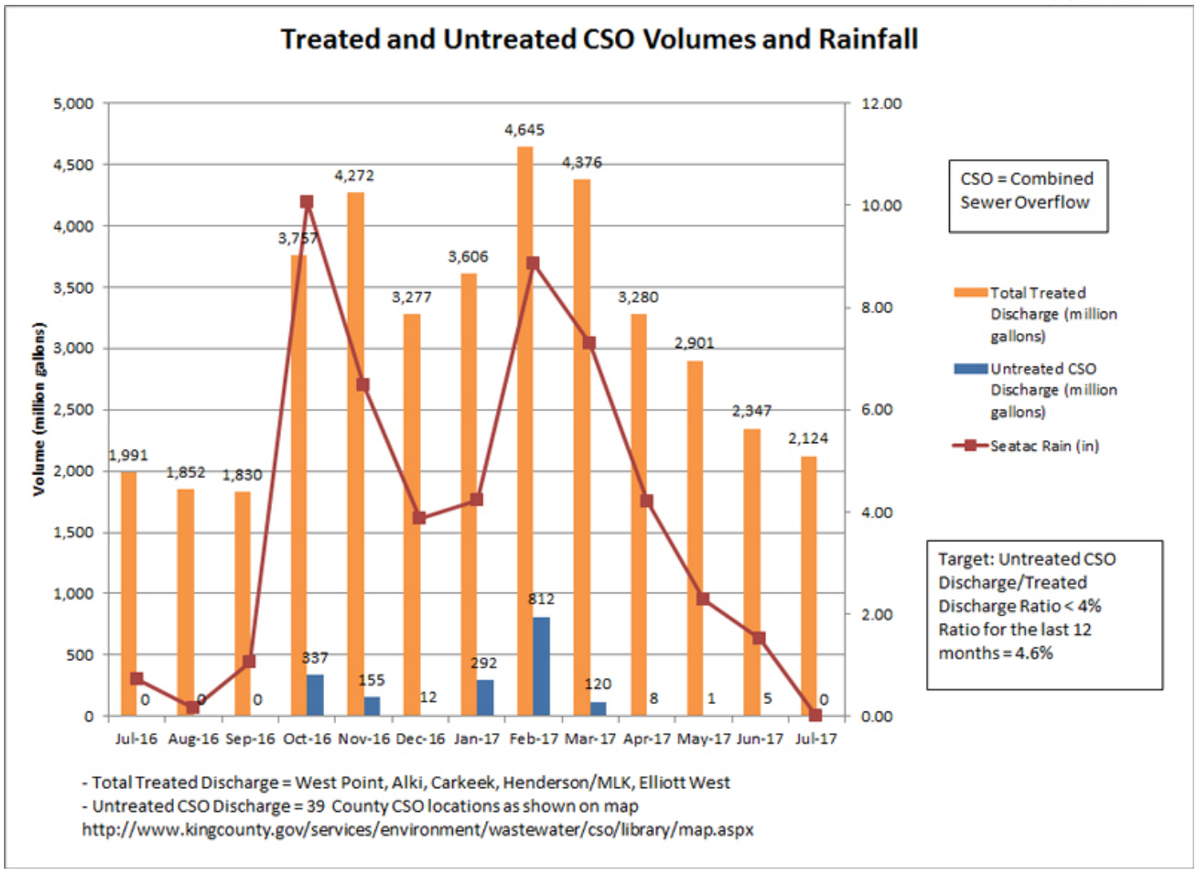


2. Combined Sewer Overflow (CSO) discharge volumes throughout the system +

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: http://www.kingcounty.gov/services/environment/wastewater/cso/library/map.aspx

JULY 2017



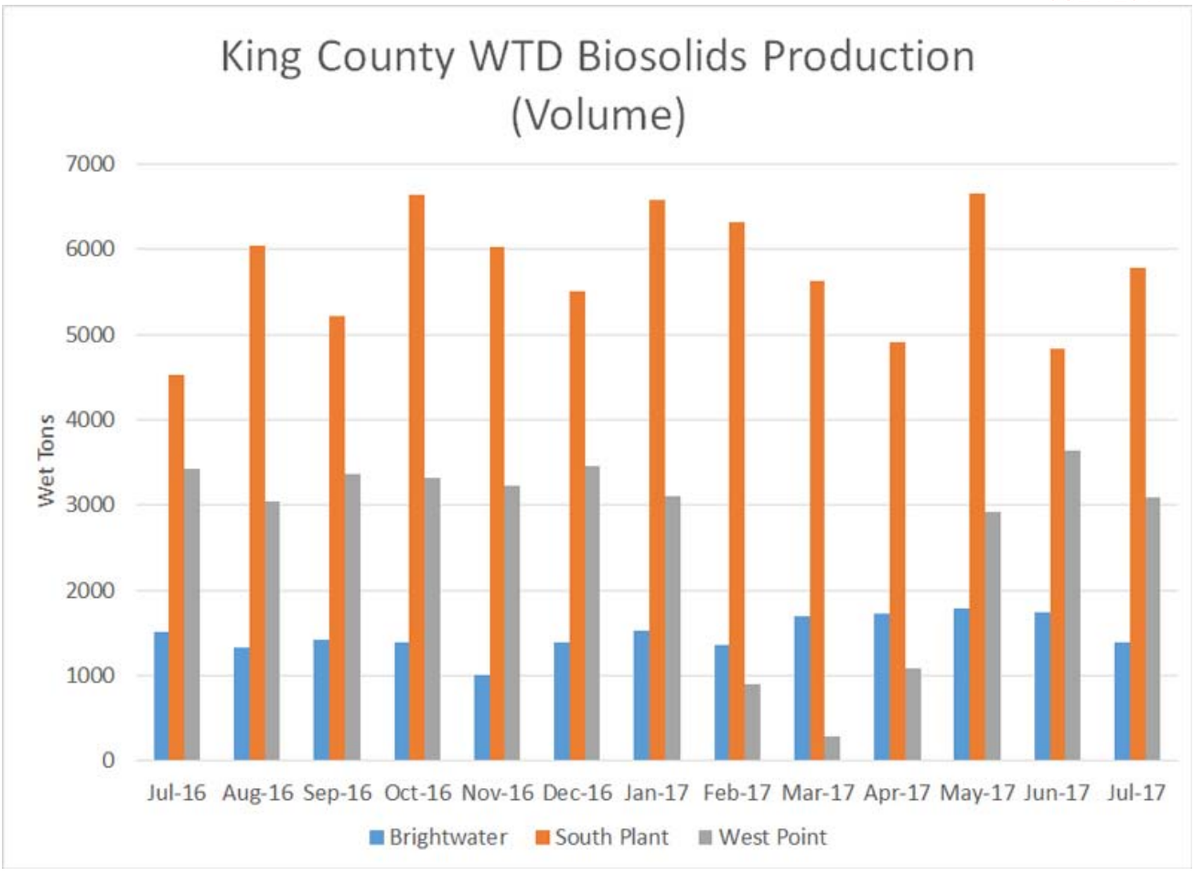
3. Production and distribution of LOOP Biosolids +

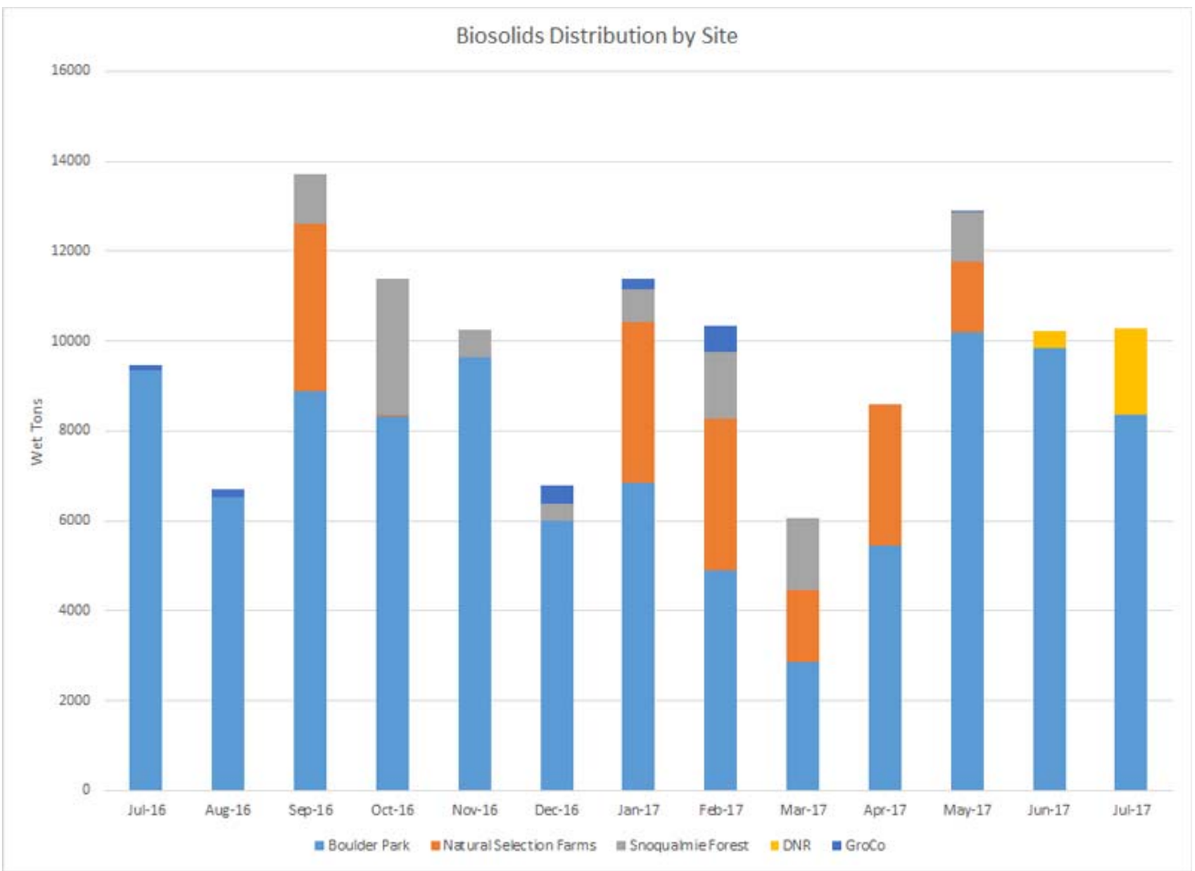
Production and distribution of LOOP Biosolids

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.

JULY 2017





4. Electrical energy usage at each regional treatment plant and conveyance system +

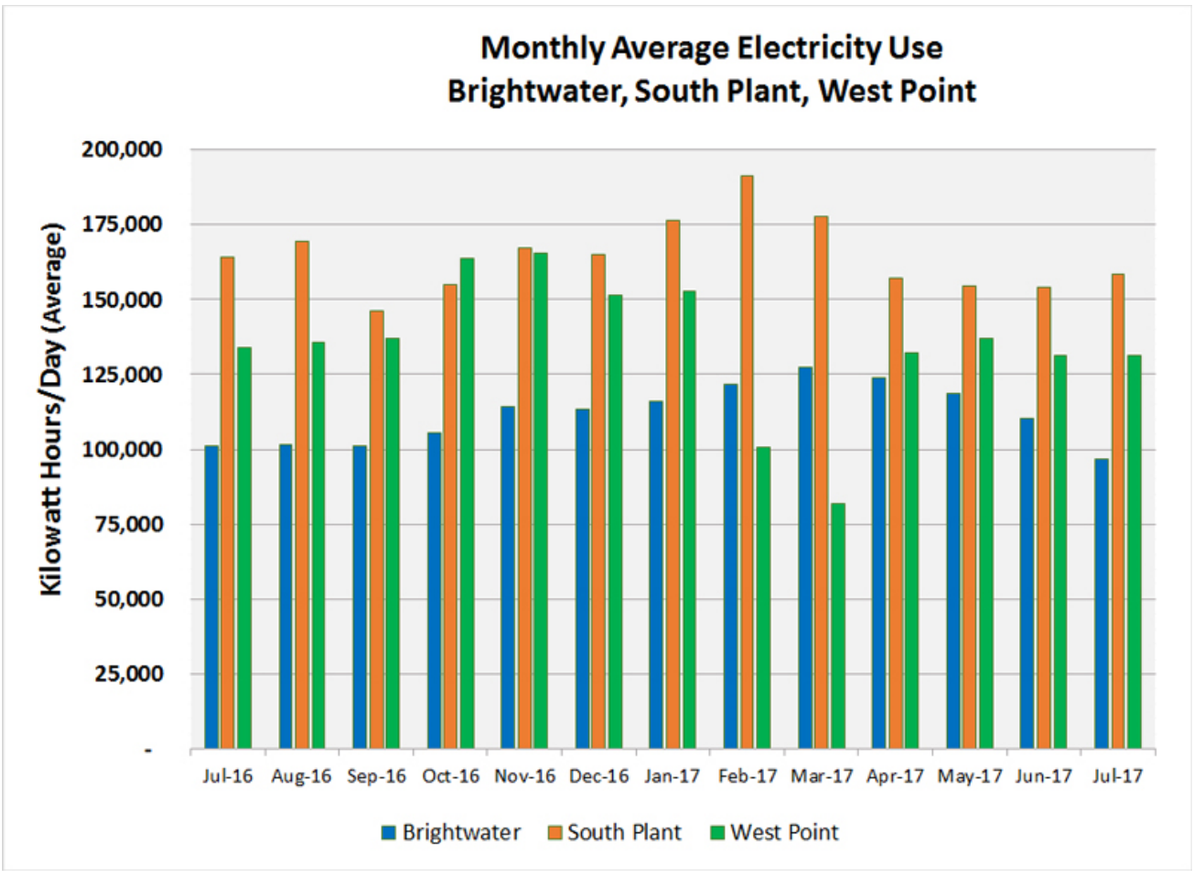
Electrical energy usage at each regional treatment plant and conveyance system

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

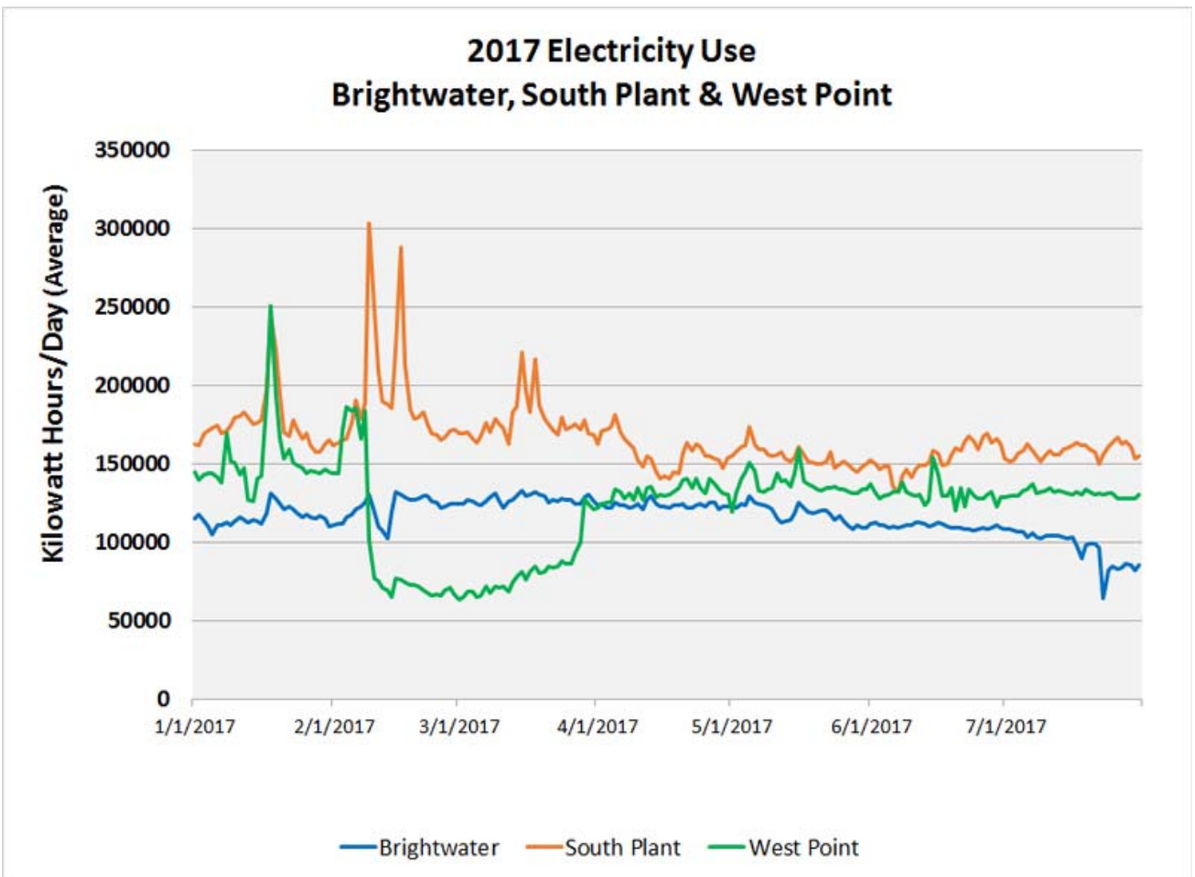
JULY 2017

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.

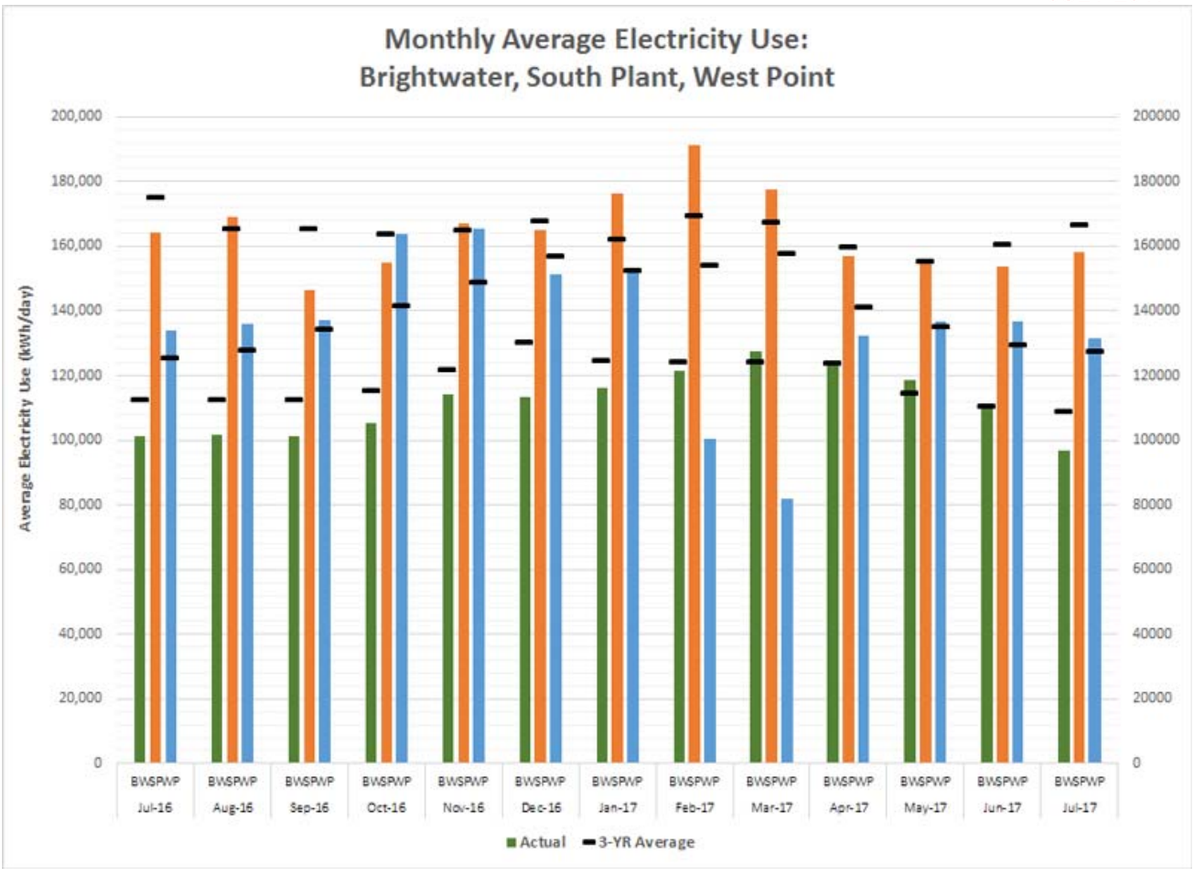


2016 Electricity Use at Brightwater, South Plant and West Point:

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



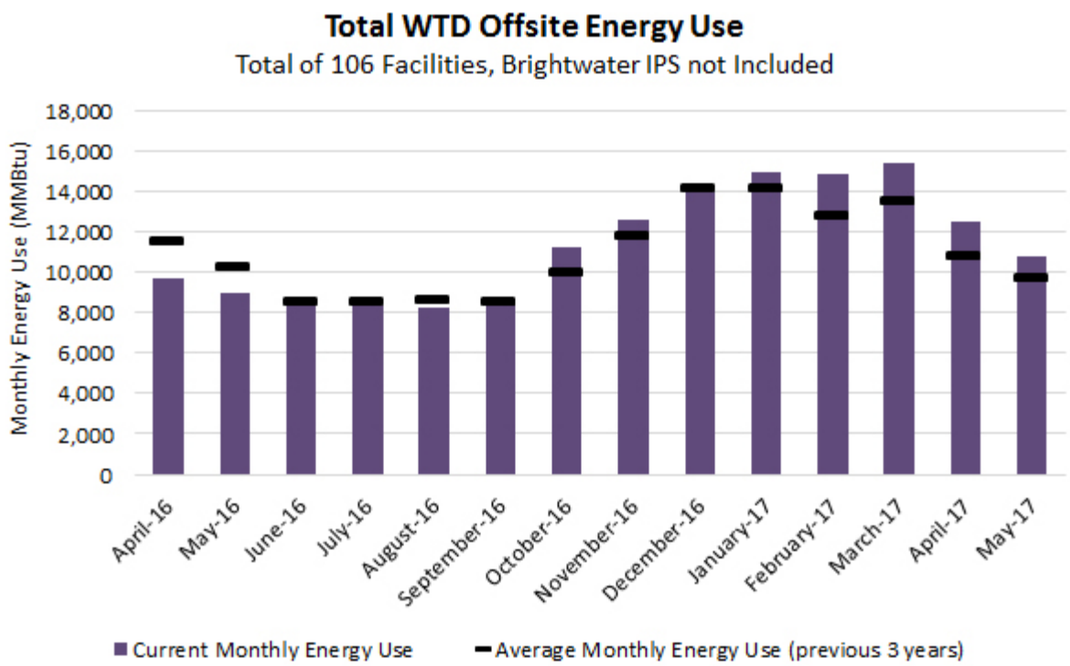
JULY 2017



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.

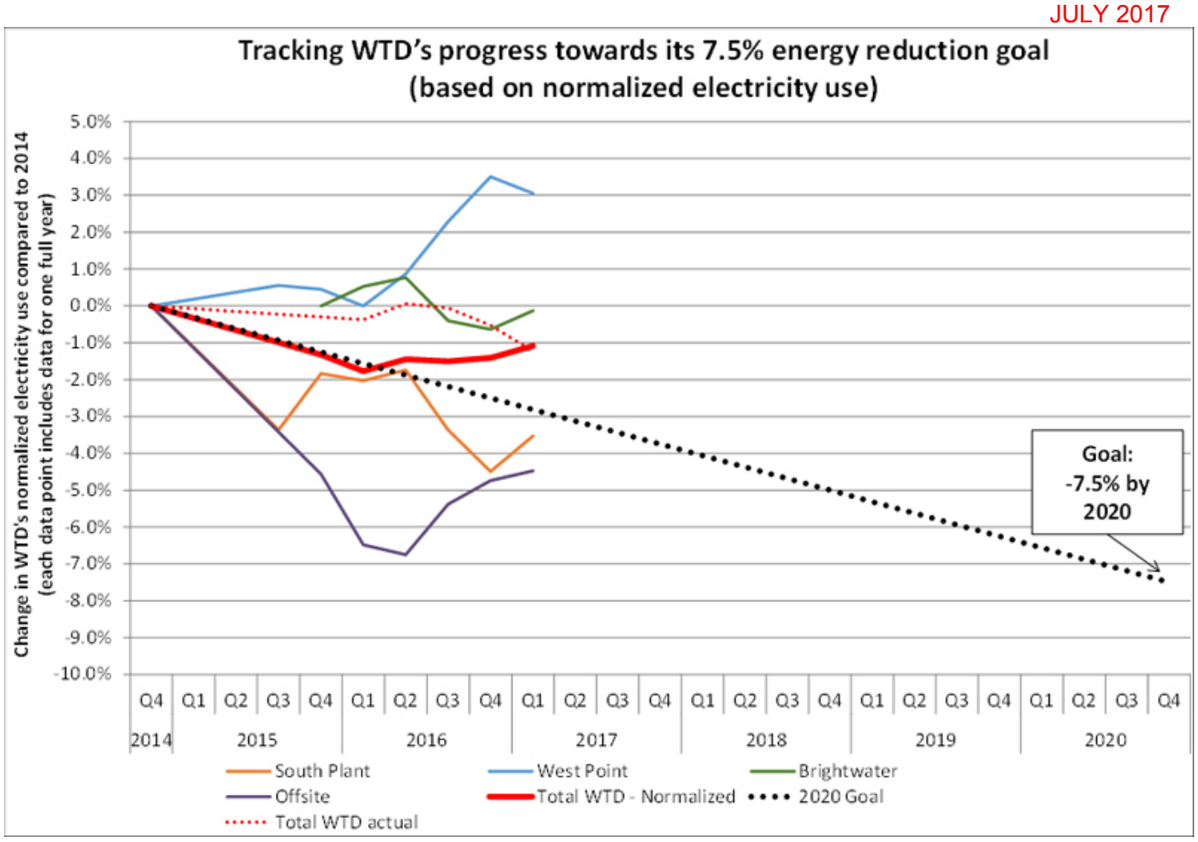


Tracking WTD's progress towards its 7.5% energy reduction goal.

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.

JULY 2017



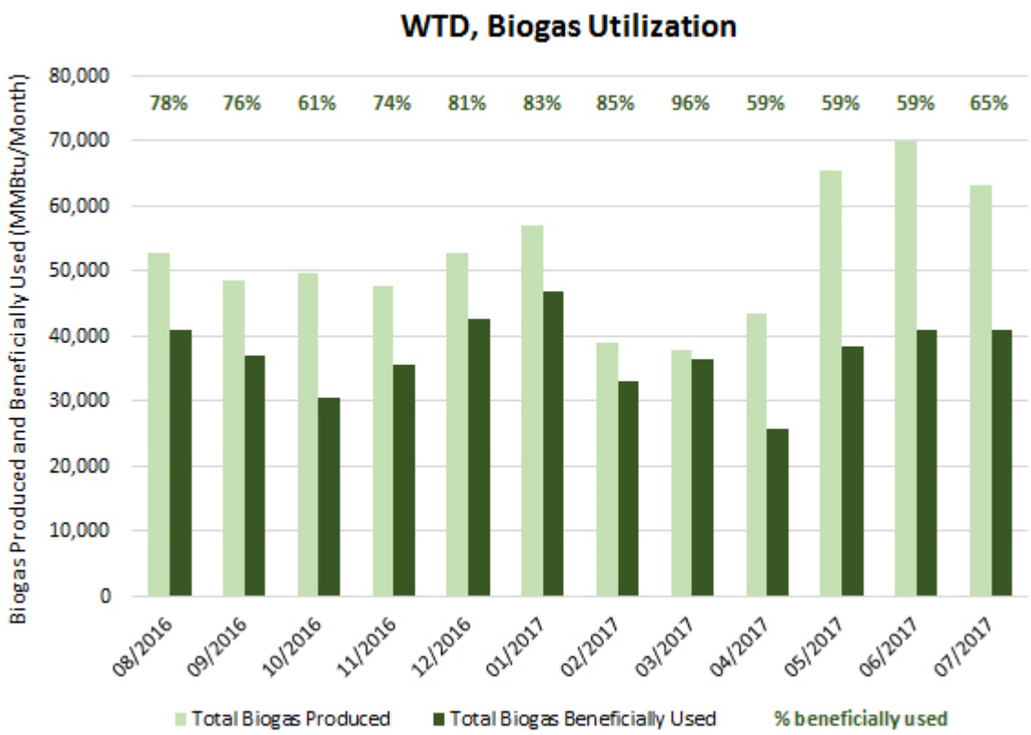
5. Production and usage of biogas +

Production and usage of biogas

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.



JULY 2017

Regulatory performance (July 2017)

6. Significant power disruption events +

Significant power disruption events

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).

Wastewater Treatment and Conveyance System Compliance Events - Permit Requirement Exceedances Involving Power Disruption or Sewer Backup												
Facility	2017											
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Wastewater Treatment Plants (e.g., effluent limit exceedance, unpermitted discharges)												
West Point		*a*			*b*							
South Plant												
Brightwater												
Vashon												
Carnation												
CSO Treatment Facilities (e.g., effluent limit exceedance, disinfection failure)												
Henderson/MLK CSO				*	*	*	*					
Alki CSO						*	*					
Carkeek CSO						*	*					
Elliott West CSO							*					
West Section Conveyance System												
CSO Exacerbated Overflow		1										
CSO Dry Weather Overflow												
Sanitary Sewer Overflow												
East Section Conveyance System												
Sanitary Sewer Overflow	1						1					

Notes:

1	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 occurred and involved power disruption or conveyance system backup; however, repair/solution is known and the incident response and correction was immediate.
	Non-compliance involving power disruption or conveyance system backup, 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 The West Point flooding incident on February 9th began as a result of power interruption to the effluent pump station.

b West Point secondary treatment processes were restored by the end of April, and other processes at West Point and the ability to comply with all effluent limitations resumed on May 10th.

7. Significant system process disruptions +

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.

JULY 2017

Wastewater Treatment and Conveyance System Compliance Events - Permit Requirement Exceedances Involving Process Disruption												
Facility	2017											
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Wastewater Treatment Plants (e.g., effluent limit exceedance, unpermitted discharges)												
West Point		*a*	*a*	*a*	*b*							
South Plant												
Brightwater												
Vashon												
Carnation												
CSO Treatment Facilities (e.g., effluent limit exceedance, disinfection failure)												
Henderson/MLK CSO				*	*	*	*					
Alki CSO						*	*					
Carkeek CSO						*	*					
Elliott West CSO	*c*	*c*	*c*	*c*			*					
West Section Conveyance System												
Unpermitted Overflows												
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 Following the West Point flooding incident on February 9th, exceedances of effluent limitations continued primarily as a result of ongoing process disruption.

b West Point secondary treatment processes were restored by the end of April, and other processes at West Point and the ability to comply with all effluent limitations resumed on May 10th.

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

8. Regulatory compliance and performance +

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.

JULY 2017

NPDES Permit Exceedances (Reportable Events Subject to Potential Penalties) – Wastewater Treatment Facilities or Conveyance System												
Facility	2017											
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Effluent Limitations Exceedances at Wastewater Treatment Facilities												
West Point		*a*	*a*	*a*	*b*							
South Plant												
Brightwater												
Vashon												
Carnation												
Effluent Limitations Exceedances at CSO Treatment Facilities												
Henderson/MLK CSO				*	*	*	*					
Alki CSO						*	*					
Carkeek CSO						*	*					
Elliott West CSO	*c*	*c*	*c*	*c*			*					
Conveyance System Overflow Events in Combined or Separated Basins												
West Section – Dry Weather Overflows at CSO Outfalls												
West Section – Sanitary Sewer Overflows												
East Section – Sanitary Sewer Overflows	*d*	*d*	*d*									

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 All West Point exceedances of effluent limitations as a result of the West Point flooding incident.
b West Point secondary treatment processes were restored by the end of April, and other processes at West Point and the ability to comply with all effluent limitations resumed on May 10th.
c Phased planning and facility improvements process is underway for Elliott West.
d Wet weather sanitary sewer overflows associated with North Creek Interceptor capacity limitations; a conveyance capacity improvement project is underway.

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

JULY 2017

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 July 2017 monitoring period follow:

- Brightwater (Permit No. WA0032247)
- Carnation (Permit No. WA0032182)
- South Plant (Permit No. WA0029581)
- Vashon (Permit No. WA0022527)
- West Point (Permit No. WA0029181)

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/wqreports/public/f?p=110:810:1646200049934484::NO:RP,810::

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:

http://www.kingcounty.gov/depts/dnrp/wtd/system/west/west-point-restoration/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:

http://green2.kingcounty.gov/marine

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:

http://www.kingcounty.gov/depts/dnrp/wtd/system/west/west-point-restoration/marine-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:

http://www.kingcounty.gov/services/environment/wastewater/sediment-management/plan.aspx

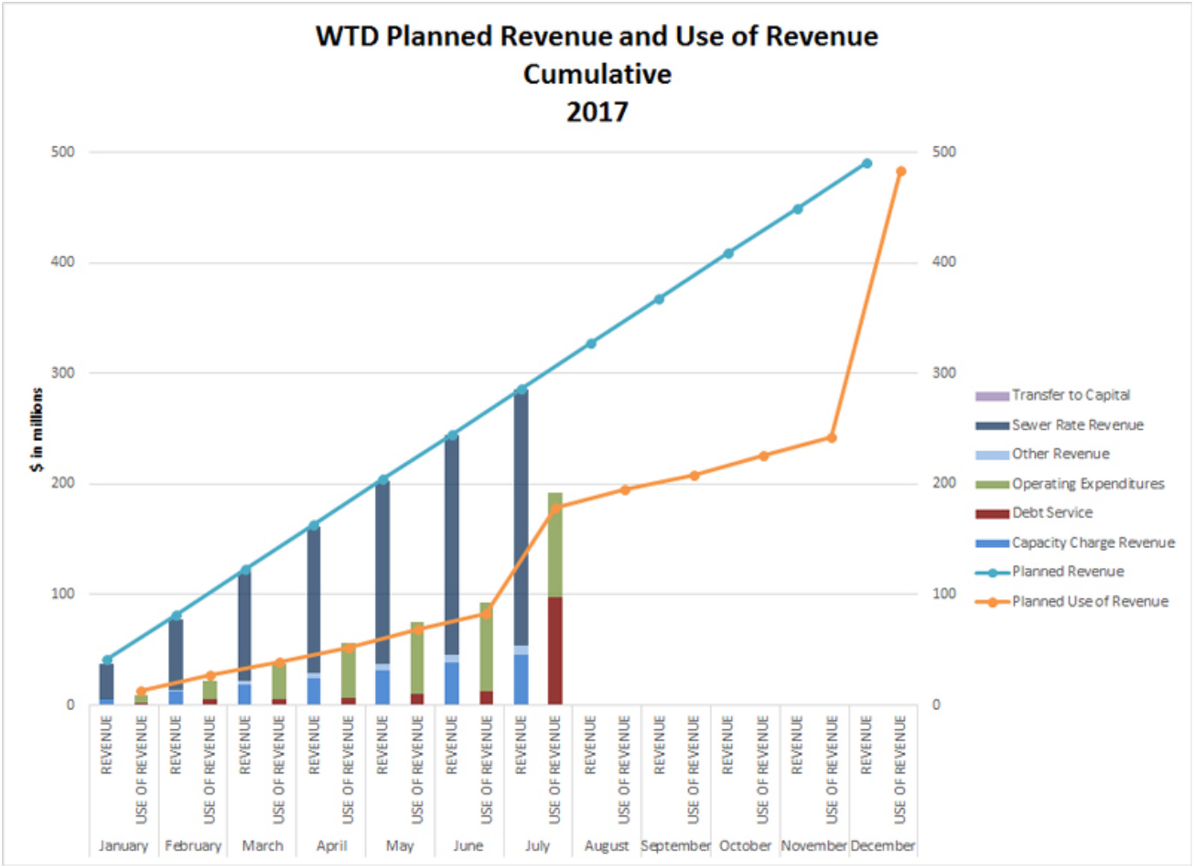
Financial performance (July 2017)

10. Wastewater Planned Revenue and Use of Revenue 2017 +

Wastewater Planned Revenue and Use of Revenue 2017

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.

JULY 2017



11. Cost and schedule of baselined major capital projects +

Cost and schedule of baselined major capital projects

This table represents budget and schedule performance of projects with greater than $1M expected cost. 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 (Days)	Current Duration (Days)	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
1037515	WTC MURRAY PS UPGRADE			11/14/2016	1,422	1,497	75	5%		$6,517,203	$5,669,134	($848,069)	-13%	Q2 2017
1038122	WTC SUNSET HEATH PS FM UPGRADE			3/31/2020	1,813	1,813	0	0%		$69,754,491	$75,250,444	$5,495,953	7%	Q2 2017
1038124	WTC WP DIGESTER FLOATING LIDS			10/31/2018	1,503	2,249	746	49%		$3,820,277	$1,681,399	($2,138,878)	-55%	Q2 2017
1038126	WTC MURRAY CSO			11/14/2016	1,576	1,651	75	4%		$50,394,779	$47,280,456	($3,114,323)	-6%	Q2 2017
1047697	WTC FREMONT SIPHON			5/24/2017	1,618	1,807	189	11%		$45,877,737	$45,873,069	($4,669)	0%	Q2 2017
1048077	WTC ENVIR LAB ENERGY IMPROVMNT			7/31/2018	566	658	92	16%		$5,850,874	$5,786,649	($64,225)	-1%	Q2 2017
1113260	WTC PRIMARY SED TNK GATE WPTP			9/15/2018	402	767	365	90%		$2,450,826	$1,465,172	($985,655)	-40%	Q2 2017
1114367	WTC SP ASSESS & REPLACE RAW SEWAGE PUMPS, MOTORS AND DRIVES			3/3/2017	1,413	1,386	-27	-1%		$12,118,097	$15,748,725	$3,630,628	29%	Q2 2017
1114368	WTC SOUTH PLANT ETS PEAKING PUMPS VFDs, ASSESS & REPLACE			11/13/2017	1,086	1,252	166	15%		$3,941,503	$4,639,566	$698,063	17%	Q2 2017
1114373	WTC REFURBISH/REPLACE DUTY PUMPS VFDS AT SOUTH PLANT ETS			11/13/2017	1,086	1,252	166	15%		$4,138,186	$4,372,863	$234,677	5%	Q2 2017
1114374	WTC WEST POINT SOLIDS CONTROL SYSTEM REPLACEMENT			11/29/2016	1,880	1,940	60	3%		$14,493,970	$13,624,428	($869,542)	-5%	Q2 2017
1114376	WTC WEST POINT LIQUIDS CONTROL SYSTEM REPLACEMENT			11/28/2016	1,880	1,939	59	3%		$17,918,329	$15,867,806	($2,050,523)	-11%	Q2 2017
1114382	WTC NORTH CREEK INTERCEPTOR			10/29/2018	1,604	2,296	692	43%		$56,590,659	$84,513,644	$27,922,985	49%	Q2 2017
1116796	WTC SP RECLAIMED H2O FAC MODS			4/26/2018	925	926	1	0%		$3,914,248	$3,914,144	($104)	0%	Q2 2017
1116798	WTC WP OGADS REPLACEMENT			6/18/2021	1,802	1,802	0	0%		$51,734,135	$50,890,013	($844,122)	-1%	Q2 2017
1116800	WTC N MERCER ENATAI INT PAR			4/4/2023	2,121	2,121	0	0%		$116,035,624	$116,035,624	$0	0%	Q2 2017
1116802	WTC HANFD AT RAINIER & BVIEW N			2/10/2018	1,287	1,369	82	6%		$33,107,404	$34,077,518	$970,114	2%	Q2 2017
1117516	WTC BEULAH COVE DRIP FIELD			11/24/2017	333	1,166	833	250%		$744,575	$1,133,799	$389,223	52%	Q2 2017
1117748	WTC WP INTERMEDIATE, EPS VFD & DEWATERING ENERGY			10/15/2019	1,142	2,618	1,476	129%		$33,541,919	$24,819,917	($8,722,003)	-26%	Q2 2017
1120143	WTC EWCSO ASSESS HVAC CORROSN			12/13/2016	514	553	39	7%		$2,473,122	$2,604,622	$131,500	5%	Q2 2017
1120144	WTC 63RD PS VFDS			11/16/2016	750	919	169	22%		$2,997,039	$3,527,615	$530,576	17%	Q2 2017
1120149	WTC VASHON TP DISINFECTION			10/6/2016	718	766	48	6%		$1,452,949	$2,036,635	$583,687	40%	Q2 2017
1120861	WTC MOBILE OC UNIT REPLACEMENT			2/4/2019	696	811	115	16%		$3,171,445	$3,171,407	($38)	0%	Q2 2017
1121402	WTC GEORGETOWN WET WEATHER TREATMENT STATION			12/3/2021	2,141	2,054	-87	-4%		$260,713,113	$261,735,633	$1,022,519	0%	Q2 2017
1121403	WTC SP DIGESTER ROOF EQ REPL			10/31/2017	897	1,386	489	54%		$5,752,015	$4,611,619	($1,140,397)	-19%	Q2 2017
1122412	Eastgate Interceptor Rehabilitation Phase III			11/20/2018	996	1,015	19	1%		$7,353,124	$7,283,441	($69,683)	0%	Q2 2017
1122515	WTC WP CAPACITOR BANK			9/30/2017	481	481	0	0%		$1,171,980	$1,091,525	($80,455)	-6%	Q2 2017
1123517	WTC E FLEET MAINT FAC REPLCMNT			3/4/2019	750	874	124	16%		$9,999,584	$9,998,853	($731)	0%	Q2 2017
1123625	WTC SP HYPO CAUSTIC CHEM STORE			9/6/2018	786	786	0	0%		$6,574,030	$5,520,332	($1,053,699)	-16%	Q2 2017
1123626	WTC SP BIOGAS HEAT SYS IMPROVE			3/29/2021	1,410	1,448	38	2%		$59,897,304	$59,897,304	$0	0%	Q2 2017
1123632	WTC KENT AUBURN PHASE B			6/8/2019	1,369	1,369	0	0%		$40,861,397	$37,724,415	($3,136,982)	-7%	Q2 2017
1123983	WTC ESI 13 REHAB PHASE 1			1/13/2017	350	791	441	126%		$4,410,856	$7,257,499	$2,846,643	64%	Q2 2017
1124339	WTC BW SECONDARY FOAM MGMT			11/30/2017	345	801	456	132%		$724,621	$1,314,264	$589,643	81%	Q2 2017
1125202	WTC EW RELOCATE SAMPLING SYS			9/27/2017	720	778	58	8%		$1,908,206	$2,601,930	$693,723	36%	Q2 2017
1125316	WTC VASHON LIFT STATION UPGRAD			1/26/2018	694	689	-5	0%		$3,385,078	$3,782,580	$397,502	11%	Q2 2017
1126030	WTC BW IPS AIR BALANCING&HVAC			7/31/2017	324	657	333	102%		$1,333,132	$1,492,623	$159,491	11%	Q2 2017
1126048	WTC BW IPS WETWELL CORR REPAIR			7/31/2017	324	657	333	102%		$1,485,985	$1,708,892	$222,906	15%	Q2 2017
1127059	WTC WP REPLC INCINERATOR FLARE			8/30/2018	559	653	94	16%		$4,825,164	$4,801,658	($23,506)	0%	Q2 2017

0% or less over schedule or budget. Scope is consistent with baseline.

Up to 15% over schedule or budget. Scope changes may be necessary.

Over 15% over schedule or budget. Scope requires significant changes.

JULY 2017

Wastewater Treatment Division

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Get directions

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