



UTILITIES DEPARTMENT

MONTHLY ACTIVITY REPORT

NOVEMBER 2022

BCWWTP	
10/10/2022	-Integrity Industrial Contracting installed a new brake on the EPS pump station monorail, the unit was sealed to prevent moisture from entering.
10/17/2022	-Plant staff installed a roof over the EPS monorail to protect it from weather.
10/24/2022	-Troubleshoot tripped belt press filtrate pump. The starter relay was suspected to be the issue.
10/24/2022	-Operators replaced ATAD 1B foam cutter #4.
10/24/2022	-Staff sealed inside of rotary drum thickener sumps. The sumps are made of concrete. Filtrate was leaking out of the sumps and dripping onto caustic feed skid located in basement below the thickeners.
11/05/2022	-Penn Power Systems performed annual inspection and maintenance on plant and lift station generators.
11/07/2022	-Plant staff removed belt press filtrate pump for inspection and repair.
Franklin Acres Pump Station	-No operational issues.
Briar Creek Pump Station	-No operational issues.
Wolfe Run Pump Station	-No operational issues.
Laurel Point Lift Station	-No operational issues.
Water Supply	-West View Water Authority switched disinfection chemical to free chlorine for the winter months.
**Commonly Used Acronyms	IPS: Influent Pump Station, EPS: Effluent Pump Station, RD: Rotating Drum Thickener, ATAD: Autothermal Thermophilic Aerobic Digestion, FOG: Fats, Oils and Grease, OCV: Automatic Control Valve, NASSC: National Association of Sewer Service Companies, BOD: Biochemical Oxygen Demand, RAS: Return Activated Sludge, MBR: Membrane Bioreactors, UPS: Uninterruptible Power Supply, FAPS: Franklin Acres Pump Station, WRPS: Wolfe Run Pump Station, BCTP: Brush Creek Treatment Plant POTW: Publicly owned treatment works.
PRETREATMENT	
Industrial Users	-No operational issues. -Annual inspections scheduled to take place in November and December.
Incoming FOG Users	-Sunbelt Rentals. -Henry's Meat Market. -Sankalp Restaurant. -Condado Taco. -Sheetz – 1665 Rt. 228. -Maxine's Coffee. -Capriotti's Sandwich Shop.
Existing FOG Maintenance	-Performing FOG permit renewal inspections. -Site visits for "Non-compliant" and "No Pump Outs" FOG user. -12 users are non-compliant with their pump out schedule.
Flow Metering	-16 SmartCover Flow Monitors are installed on the interceptors. -4 SmartCover units are installed in the Fox Run Plan. -2 additional units are on order.
Manhole Assessment Program	-Phase 2 (sub-basin manholes) -Inspection of Interceptor 14 sub-basins completed. -Inspection of Interceptor 13 sub-basins 86% complete. -Inspection of Interceptor 3 sub-basins 39% complete. -Inspection of Interceptor 15 sub-basins 14% complete. -Inspection of Interceptor 4 sub-basins 18% complete. -Inspection of Interceptor 5 sub-basins 54% complete. -Collection system 32% complete.

PRETREATMENT CONT...		
Sewer Repair & Maint.	- Lateral sewer line cleaned and CCTV on Freedom Road from a manhole towards Ferguson (plumbing supply) due to a clogged line.	
Force Main	-No operational issues.	
Inflow & Infiltration (I&I)	-Fox Run Dr. is being investigated for I&I.	
WATER DISTRIBUTION		
10/20/2022	-Excavated and repaired a leaking 3/4" water service at 207 Heston Dr. in the Valleybrook plan of homes. This leak was detected during the annual water distribution system leak detection program.	
10/24/2022	-Personnel excavated and repaired a leak on a six-inch main near 149 McDonald Dr. in the Cranberry Estates plan of homes.	
10/25/2022	-Crew excavated and repaired two leaks along Peters Rd. One on the ten-inch water main in front of 8640 Peters Rd. and the other on the eight-inch water main in front of 8676 Peters Rd.	
10/27/2022	-Excavated and repaired a leak on the eight-inch water main at the intersection of Haldeman Dr. and Pin Oak Ct. in the Clearbrook plan of homes.	
11/1/2022	-Personnel excavated and replaced two malfunctioning curb stop valves in the Old Towne apartment complex. One at 208 Lexington Dr. and the other at 210 Lexington Dr.	
Flushing Program	-No operational issues.	
Curb Box Maintenance	-No operational issues.	
Hydrant Maintenance	-11/3-Personnel performed maintenance on a hydrant along Promenade St. in the Meeder Development. -11/7-Repaired a leaking hydrant at 21145 Route 19 (former Mashuda Corporation).	
Valve Maintenance	-On hold, equipment issues.	
Monthly Utility Counts: October 2022	Meter Replacements: 8	Inspections (Water, Sewer & Development): 17
	TAPS: 2	Meter Installs: 11

BRUSH CREEK SEWAGE TREATMENT PLANT

Flow History

** Flow is in millions of gallons multiply x 1,000,000

Brush Creek Capacity 8.7 mgd

Marshall Allocation .135 mg

Purchased Water (West View)

Annual allocation 4.150 MGD

NOTE: As of 7/9/2020 all flow data is based on Marshall Twp billing cycle and NOT monthly averages since billing is not based on a calendar month.

2022	12/9-1/6/22	1/6/22-2/7/22	2/7/22-3/7/22	3/7/22-4/8/22	4/8/22-5/5/22	5/5/22-6/8/22	6/8/22-7/7/22	7/7/22-8/8/22	8/8/22-9/8/22	9/8/22-10/6/22	10/6/22-11/7/22	TO DATE
B.C.T.P. FLOW	122.499	126.136	138.835	134.762	115.835	140.809	107.708	109.676	110.422	96.1810	100.178	1303.038
DAILY AVG.	4.3740	3.9420	4.958	4.2110	4.2900	4.1440	3.7140	3.4270	3.5620	3.4350	3.1304	43.1874
MARSHALL FLOW	24.089	25.748	28.338	23.582	19.576	22.307	18.288	19.118	19.592	16.750	18.304	235.692
DAILY AVG.	0.8603	0.8046	1.0207	0.7369	0.7250	0.6561	0.6306	0.5974	0.6320	0.5982	0.5720	7.8338
NEW SEWICKLEY	0.310	0.326	0.241	0.294	0.251	0.293	0.290	0.316	0.328	0.280	0.339	3.268
DAILY AVG.	0.0111	0.0102	0.0086	0.0092	0.0093	0.0086	0.0100	0.0099	0.0110	0.0100	0.0106	0.1085
RAIN FALL	4.47	3.75	4.56	3.62	4.01	7.33	4.65	5.84	5.04	2.72	2.04	48.03
PURCHASED WATER	62.339	77.364	67.024	76.310	65.179	92.296	89.578	97.305	84.574	73.673	78.617	864.259
DAILY AVG.	2.226	2.417	2.394	2.385	2.414	2.7146	3.0889	3.0401	2.728	2.631	2.457	2.591

2021	12/10-1/11/21	1/11/21-2/8/21	2/8/21-3/8-21	3/8/21-4/8/21	4/8/21-5/12/21	5/12/21-6/9/21	6/9/21-7/8/21	7/8/21-8/9/21	8/9/21-9/9/21	9/9/21-10/11/21	10/11/21-11/8/21	11/8/21-12/9/21
B.C.T.P. FLOW	140.664	99.09	117.027	122.558	137.075	99	105.227	108.496	134.625	100.5940	98.271	103.574
DAILY AVG.	4.3960	3.5390	4.179	3.9470	4.0316	3.4310	3.6281	3.3905	4.3430	3.1440	3.5100	3.3410
MARSHALL FLOW	27.620	19.812	23.451	23.821	25.6	19.237	19.062	20.871	26.806	20.579	18.959	32.86
DAILY AVG.	0.8631	0.7076	0.8375	0.7684	0.7528	0.6870	0.6573	0.6522	0.8650	0.6431	0.5309	1.0600
NEW SEWICKLEY	0.263	0.207	0.214	0.250	0.298	0.243	0.162	0.191	0.187	0.180	0.296	0.335
DAILY AVG.	0.0082	0.0074	0.0076	0.0081	0.0087	0.0087	0.0056	0.0060	0.0060	0.0056	0.1057	0.1080
RAIN FALL	3.85	1.24	0.95	2.78	5	2.89	5.48	4.4	7.77	2.63	3.16	1.7
PURCHASED WATER	74.578	70.844	68.448	73.484	87.059	78.983	87.134	89.703	82.502	81.843	64.65	65.65
DAILY AVG.	2.330	2.285	2.444	2.37	2.561	2.723	2.904	2.718	2.661	2.558	2.309	2.117

NPDES Compliance History Report 2022

Brush Creek Water Pollution Control Facility

Parameter

Limit mg/L	CBOD 10/20*	Total Suspended solids 30	Ammonia Nitrogen 2/5*	Dissolved Oxygen 5 min	Phosphorus 2.0	Chlorine Residual 0.18	p H** standard units 6.0	9.0	Flow MG/D 8.73	Fecal Coliform 200/100* 2100/100*	Total Nitrogen M&R	Regulatory Compliance Y/N
January	< 2.0	<2.0	0.49	6.84	1.12	0	6.9	7.3	3.747	<1.0	14.5	Y
February	< 2.0	<2.0	0.45	6.3	0.41	0	6.9	7.3	5.023	<1.0	10.9	Y
March	< 2.0	<2.0	0.62	6.57	0.68	0	7	7.2	3.987	<1.0	16.1	Y
April	< 2.0	<2.0	0.48	5.55	0.83	0	6.8	7.2	4.068	<1.0	15.8	Y
May	< 2.0	<2.0	0.15	7.54	0.84	0	6.7	7.4	4.171	<1.0	16.9	Y
June	< 2.0	<2.0	0.03	7.45	1.64	0	6.8	7.5	3.581	<1.0	20.2	Y
July	< 2.0	< 2.0	0.03	7.73	1.57	0	7.0	7.6	3.308	<3.0	20.9	Y
August	< 2.0	< 2.0	0.03	5.58	1.31	0	6.9	7.6	3.323	<1.0	24	Y
September	< 2.0	< 2.0	0.03	5.64	1.37	0	6.9	7.4	3.526	<1.0	18.4	Y
October	< 2.0	< 2.0	0.03	7.5	1.49	0	6.9	7.4	3.047	<1.0	23.5	Y
November												
December												
Yearly Avg.	0.0	0.0	0.2	6.7	1.1	0.000	6.9	7.4	3.8	0.0	18.1	

* different limits during the summer and winter months (seasonal limits)

** Between 6.0 and 9.0 standard units

M&R - Monitor and Report only

NOTE: ALL DATA (INCLUDING FLOW) VALUES ARE MONTHLY AVERAGES AS REQUIRED BY PERMIT

Definitions:

Ammonia Nitrogen	Ammonia nitrogen (NH ₃ -N) is a measure for the amount of ammonia, a toxic pollutant often found in sewage. It can also be used as a measure of the health of water in natural bodies such as rivers or lakes and creeks.
Chlorine Residual	Chlorine is added to kill harmful bacteria, residual chlorine even at low concentrations, can be toxic to aquatic life and must be removed.
Dissolved Oxygen	The dissolved oxygen (DO) is oxygen that is dissolved in water. It is essential for the survival of fish & other aquatic organisms.
Fecal Coliform	Coliform bacteria generally originate in the intestines of warm-blooded animals. Large quantities of fecal coliform bacteria in water may indicate a higher risk of pathogens being present in the water.
Flow	Average Daily Flow is the average of 24-hour volumes to be received by the wastewater system for a continuous 12-month period. Treatment plants are designed to operate at a certain hydraulic capacity
pH	pH is measured by a logarithmic scale from 0-14. If the pH of water is too high or too low, the aquatic organisms living within it will die the majority of aquatic life prefer a pH range of 6.5-9.0.
Phosphorus	Phosphorus removal is vital to ensuring public safety and protecting the environment. Removal of this nutrient from waste streams is key to preventing eutrophication – a natural process inciting algae blooms.
Seasonal Limits	Recreational water quality criteria that provides an appropriate level of protection or those recreating in Pennsylvania's surface waters.
Total Suspended solids	Total suspended solids are any particles that floats or "suspends" in water, including sand, sediment, or organic matter. High solids entering a receiving water may decrease water's natural dissolved oxygen levels and increase water temperature.
Total Nitrogen	Nitrogen is found in human waste, foods, cleaning detergents and discharges from industrial and commercial sources. Urea/urine is the largest source of nitrogen in residential wastewater. Nitrogen is a nutrient and can cause algae blooms.



UTILITIES AT A GLANCE

NOVEMBER 2022

Backflow Program

Program Start Date: 2/7/2022

Compliance Percentage: 5.55%



Total # of Devices
1427



Total Tests Performed
257



Total Tests Passed
250

Water/Sewer/Storm (CA1) One Call Utility Locates

Last 30 Days

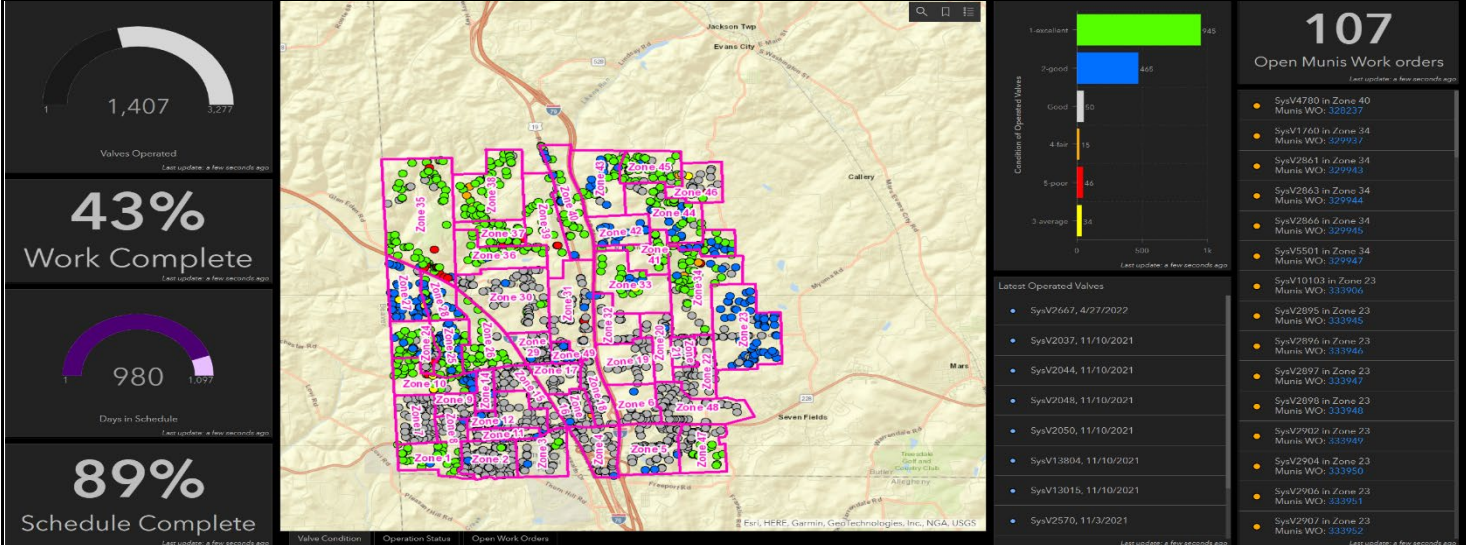
Tickets Closed: 285

Design: 23

Emergency: 27

Locate CA1: 126

Isolation Valve Operation Status



Sanitary Manhole Inspection

