



UTILITIES DEPARTMENT

MONTHLY ACTIVITY REPORT

JULY 2023

BCWWTP	
7/12/2023	-Plant staff repaired leak in in maintenance garage utility room piping.
7/17/2023	-Troubleshoot and repaired a faulted ATAD circular aerator.
7/18/2023	-Operators repaired frozen chain sprocket on primary #3 collector flights.
7/23/2023	-Staff performed annual membrane cassette inspections and drained train #3 to spot check tank for grit deposits, no deficiencies were noted.
8/5/2023	-Plant staff replaced rotor and stator for feed pump #2.
8/9/2023	-Operators replaced coupling on post ATAD tank sludge mixer.
Franklin Acres Pump Station	-7/31-Plant staff removed pump #2 because it had a bad bearing. It was sent to the pump vendor for a new bearing install, which was a warranty item. -8/3-Pump #2 was reinstalled and returned to normal duty.
Briar Creek Pump Station	-No operational issues.
Wolfe Run Pump Station	-8/7-Staff removed and inspected the channel grinder, since it has some vibration. Upon further investigation several spacer bushings between the grinding teeth were worn off. A replacement cartridge has been ordered.
Laurel Point Lift Station	-No operational issues.
Water Supply	-7/17-At 20:30 the auto dialer alerted staff of a faulted OCV valve. The valve was reset. At 22:45, the pump station experienced a brief power outage causing all OCV valves to fail. -7/18-Collected third quarter TTHM samples. -8/4-Plant staff core drilled hole in Pennwood motor control room and ran conduit and wiring to prepare for the installation of an air conditioner. Staff were assisted by Facilities personnel to complete the installation. -8/1-Completed third round of UCMR 5 sampling (EPA requirement).
**Commonly Used Acronyms	IPS: Influent Pump Station, EPS: Effluent Pump Station, RD: Rotating Drum Thickener, ATAD: Autothermal Thermophilic Aerobic Digestion, MCC: Motor Control Center 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, OTP: One time programmable, ORP: Oxidation Reduction Potential, PLC: Programmable Logic Controller, UPS: Uninterruptable Power Supply.
PRETREATMENT	
Industrial Users	-Fresenius-Kabi is sampling for 3 consecutive months to establish an analytical baseline.
Incoming FOG Users	-Sheetz – 1665 Rt. 228-Grease Interceptor Installed. -Cenci's Pizza (New Building)- Grease Interceptor Installed. - Pizza IQ –Replacing the Flame BBQ.
Existing FOG Maintenance	-Performing FOG permit renewal inspections. -Site visits for “Non-compliant” and “No Pump Outs” FOG user. -9 Establishments are non-compliant with their pump out schedule. -A follow-up Magistrate hearing is schedule on August 22nd for Naturoll Creamery for non-compliance.
Flow Metering	-46 SmartCover Flow Monitors are installed on the interceptors and sub-basins. -Monitoring shows high inflow and infiltration in Cranberry Village.

PRETREATMENT CONT...

Manhole Assessment Program	-Phase 2 (sub-basin manholes). -Inspection of Interceptor 3 sub-basins 51% complete. -Inspection of Interceptor 4 sub-basins 54% complete. -Inspection of Interceptor 5 sub-basins 63% complete. -Inspection of Interceptor 13 sub-basins 86% complete. -Inspection of Interceptor 14 sub-basins completed. -Inspection of Interceptor 15 sub-basins 46% complete. -Collection system 52% complete.
Sewer Repair & Maint.	-1 manhole raised 6 inches.
Force Main	-No operational issues.
Inflow & Infiltration (I&I)	-No operational issues.
Miscellaneous	-Interviews are taking place to fill two vacant laborer positions in the Sewer & Water Utility.

WATER DISTRIBUTION

7/7/2023	-Personnel excavated and replaced a leaking 3/4" water service line at 137 Village Dr. in the Highland Village plan of homes.	
7/8-7/9/2023	-Assisted Township Engineering inspectors with shutting down the water main along North Boundary Rd. to allow for installation of an in-line valve and supply valve for the Boundary Lofts complex.	
7/20/2023	-Crew excavated and replaced a leaking 3/4" water service line at 307 Orchard Dr. in the Timberline plan of homes.	
7/20/2023	-Personnel excavated and repaired a leak on the six-inch water main near 220 Northfield Rd. in the Timberline plan of homes.	
7/21/2023	- Excavated and repaired a leak on the eight-inch water main at 426 Ten Point Ln. in the Deer Run Complex.	
PA One-Calls	-During the months of July & August, Pa One-Call tickets have been arriving at a pace greater than what S&W Field personnel can complete within the legal time restraints. An alternate plan is in the works with a subcontractor.	
Flushing Program	-Due to State DEP Declaration, S&W Field Operations has suspended flushing as of this time. Seven weeks of flushing out of the thirteen scheduled have been completed.	
Curb Box Maintenance	-No operational issues.	
Hydrant Maintenance	-No operational issues.	
Valve Maintenance	-Issues resolved; program restart required.	
Monthly Utility Counts: July 2023	Meter Replacements: 5	Inspections (Water, Sewer & Development): 15
	TAPS: 4	Meter Installs: 19

BRUSH CREEK SEWAGE TREATMENT PLANT

Flow History

** Flow is in millions of gallons multiply x 1 Brush Creek Capacity 8.7 mg 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.

2023	12/8/22 - 1/9/23	1/9/23-2/9/23	2/9/23-3/9/23	3/9/23-4/10/23	4/10/23-5/8/23	5/8/23-6/8/23	TO DATE				
B.C.T.P. FLOW	129.711	132.773	106.815	123.043	100.74	94.940	111.604				799.626
DAILY AVG.	4.0530	4.2830	3.815	3.8450	3.5979	3.0630	3.4876				26.1445
MARSHALL FLOW	22.526	23.662	19.896	21.021	17.251	16.513	17.984				138.853
DAILY AVG.	0.7039	0.7633	0.7106	0.6569	0.6112	0.5327	0.5620				4.5406
NEW SEWICKLEY	0.353	0.272	0.246	0.291	0.277	0.306	0.323				2.068
DAILY AVG.	0.0110	0.0088	0.0088	0.0091	0.0099	0.0099	0.0100				0.0675
RAIN FALL	2.79	2.84	2.27	1.95	2.94	0.9	7.05				20.74
PURCHASED WATER	75.402	74.645	65.576	76.131	72.363	101.832	93.396				559.345
DAILY AVG.	2.356	2.408	2.342	2.379	2.584	3.284	2.919				2.610

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	11/7/22-12/8/22
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	100.175	121.396
DAILY AVG.	4.3740	3.9420	4.958	4.2110	4.2900	4.1440	3.7140	3.4270	3.5620	3.4350	3.1304	3.9160
MARSHALL FLOW	24.089	25.748	28.338	23.582	19.576	22.307	18.288	19.118	19.592	16.750	18.304	21.844
DAILY AVG.	0.8603	0.8046	1.0207	0.7369	0.7250	0.6561	0.6306	0.5974	0.6320	0.5982	0.5720	0.7046
NEW SEWICKLEY	0.310	0.326	0.241	0.294	0.251	0.293	0.290	0.316	0.328	0.280	0.339	0.329
DAILY AVG.	0.0111	0.0102	0.0086	0.0092	0.0093	0.0086	0.0100	0.0099	0.0110	0.0100	0.0106	0.0106
RAIN FALL	4.47	3.75	4.56	3.62	4.01	7.33	4.65	5.84	5.04	2.72	2.04	5.0
PURCHASED WATER	62.339	77.364	67.024	76.310	65.179	92.296	89.578	97.305	84.574	73.673	78.617	73.66
DAILY AVG.	2.226	2.417	2.394	2.385	2.414	2.7146	3.0889	3.0401	2.728	2.631	2.457	2.376

NPDES Compliance History Report 2023
Brush Creek Water Pollution Control Facility
Parameter

Limit mg/L	Total		Ammonia Nitrogen	Dissolved Oxygen	Phosphorus	Chlorine Residual	p H**		Flow MG/D	Fecal	Total Nitrogen	Regulatory Compliance
	Suspended solids						Coliform					
	CBOD 10/20*	30	2/5*	5 min	2.0	0.18	standard units	9.0	8.73	200/100*	M&R	Y/N
January	< 2.0	< 2.0	< 0.03	8.09	0.8	0	6.8	8.8	4.402	<1.0	22	Y
February	< 2.0	< 2.0	< 0.03	8.44	0.88	0	6.9	7.3	3.523	<1.0	19.9	Y
March	< 2.0	< 2.0	< 0.03	8.18	0.7	0	6.8	7.3	3.885	<1.0	24.4	Y
April	< 2.0	< 2.0	< 0.03	6.68	0.79	0	6.8	7.4	3.262	<1.0	17.6	Y
May	< 2.0	< 2.0	< 0.03	7.8	1.16	0	6.9	7.4	3.335	<1.0	30.5	Y
June	< 2.0	< 2.0	< 0.03	7.33	1.38	0	6.9	7.3	2.987	<1.0	21.7	Y
July	< 2.0	< 2.0	< 0.03	6.89	1.43	0	7.0	7.4	3.498	< 5.0	12.85	Y
August												Y
September												Y
October												Y
November												Y
December												Y
Yearly Avg.	0.0	0.0	0.0	7.6	1.0	0.000	6.9	7.6	3.6	0.0	21.3	Y

* 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.

Backflow Program

Program Start Date: 2/7/2022

Compliance Percentage: 37.99%

Total # of Devices: 1487

Total Tests Performed: 565

Total Tests Passed: 544

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

Last 30 Days

Tickets Closed: 616

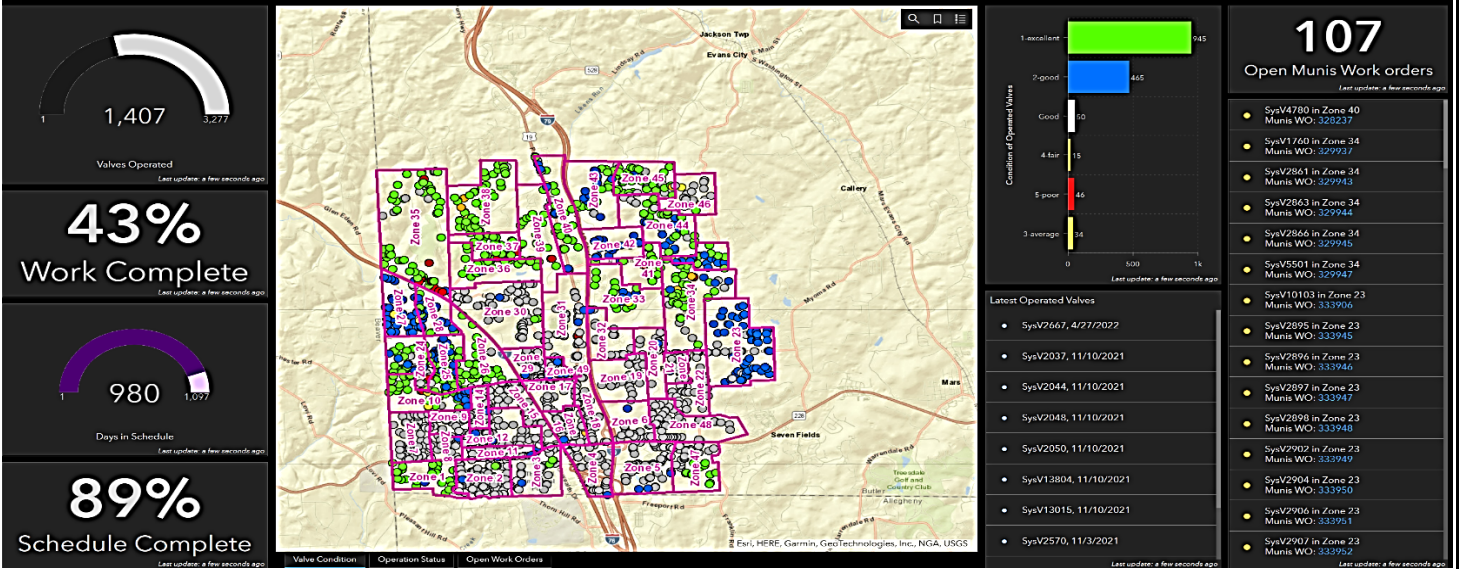
Design: 19

Emergency: 34

Locate CA1: 616

Isolation Valve Operation Status

Isolation Valve Operation Status - 1/13/2020 through 1/14/2023



Sanitary Manhole Inspections

