



UTILITIES DEPARTMENT

MONTHLY ACTIVITY REPORT

SEPTEMBER 2022

BCWWTP	
8/3/2022	-Operators repaired grit pump #3.
8/11/2022	-Received DEP Energy Assessment report; reviewed with consultant 8/24 to discuss the report.
8/18/2022	-Completed Infrared thermal scan of all major electrical components at the treatment plant and outbuildings.
8/24/2022	-Plant staff cleaned out maintenance building and rear parking lot of unused equipment and debris.
8/29/2022	-A rainfall event prompted staff to man the plant from 6-10p.m. (total rainfall 1.57inches).
Franklin Acres Pump Station	-No operational issues.
Briar Creek Pump Station	-No operational issues.
Wolfe Run Pump Station	-9/14 plant staff removed pump #1 to replace the impeller.
Laurel Point Lift Station	-No operational issues.
Water Supply	-No operational issues.
**Commonly Used Acronyms	IPS: Influent Pump Station, EPS: Effluent Pump Station, RDT: 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.
Incoming FOG Users	-Sunbelt Rentals. -Henry's Meat Market – Butcher shop in planning stage. -Sankalp Restaurant. -Condado Taco. -Sheetz – 1665 Rt. 228. -Mintt Pizza (formerly Pizza Palermo). -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	-SmartCover –Several flow monitoring units have been delivered and scheduled to be installed on the interceptors.
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. -Collection system 30% complete.
Sewer Repair & Maint.	-1 manhole raised.

PRETREATMENT CONT...		
Force Main	-One air relief on the Wolfe Run Pump Station force main was changed out as part of preventative maintenance.	
Inflow & Infiltration (I&I)	-Fox Run Dr. is being investigated for I&I. -Smoke testing & CCTV was performed on Sandalwood Dr.	
WATER DISTRIBUTION		
8/22/2022	-Personnel made repairs at hydrants located near 601 Cranberry Point Ln., near 320 Green Fields Ct. and at 20006 Rt 19.	
8/23/2022	-Excavated and repaired a two-inch water blow-off assembly and installed a one-inch water sample station near 4 David Hill Rd.	
8/24/2022	-Crew installed a one-inch water sample station along Hillmont Dr. near the North Catholic High School entrance road.	
9/1/2022	-Excavated and repaired a 3/4" inch water service road crossing at 205 Lexington Dr. in the Old Towne Apartment complex.	
9/12/2022	-Personnel along with a sub-contractor, Municipal Management Group, began the annual water distribution leak detection survey covering the entire water distribution system.	
9/13/2022	- Excavated and repaired a leaking 3/4" inch water service road crossing at 236 Greenwood Dr. in the Sun Valley plan of homes.	
9/19/2022	- Repaired a leak on a hydrant near 219 LaGrande Dr. in the LaGrande Maison plan of homes. This leak was detected and verified by the water distribution leak detection survey crew.	
Flushing Program	-During the months of August & September, continued performing repairs on water blow-off assemblies and hydrants as reported during the water distribution flushing program.	
Curb Box Maintenance	-No operational issues.	
Hydrant Maintenance	-During the month of August, personnel completed the system wide hydrant maintenance program (grease nozzle caps & check oil reservoir levels).	
Valve Maintenance	-On hold, equipment issues.	
Monthly Utility Counts: Aug 2022	TAPS: 16	METER INSTALLS: 19
	METER REPLACEMENTS: 5	INSPECTIONS (Water, Sewer & Development): 23

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	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	1106.682
DAILY AVG.	4.3740	3.9420	4.958	4.2110	4.2900	4.1440	3.7140	3.4270	3.5620	36.622
MARSHALL FLOW	24.089	25.748	28.338	23.582	19.576	22.307	18.288	19.118	19.592	200.638
DAILY AVG.	0.8603	0.8046	1.0207	0.7369	0.7250	0.6561	0.6306	0.5974	0.6320	6.6636
NEW SEWICKLEY	0.310	0.326	0.241	0.294	0.251	0.293	0.290	0.316	0.328	2.649
DAILY AVG.	0.0111	0.0102	0.0086	0.0092	0.0093	0.0086	0.0100	0.0099	0.0110	0.0879
RAIN FALL	4.47	3.75	4.56	3.62	4.01	7.33	4.65	5.84	5.04	43.27
PURCHASED WATER	62.339	77.364	67.024	76.310	65.179	92.296	89.578	97.305	84.574	711.969
DAILY AVG.	2.226	2.417	2.394	2.385	2.414	2.7146	3.0889	3.0401	2.728	2.601

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	10/11/21-11/08/21	11/8/21-12/9/21	TO DATE
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	1366.693
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	44.8802
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	278.678
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	9.0249
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	2.826
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	0.2856
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	42.22
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	924.878
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	2.498

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												
October												
November												
December												
Yearly Avg.	0.0	0.0	0.3	6.7	1.1	0.000	6.9	7.4	3.9	0.0	17.4	

* 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
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
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
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-
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
Seasonal Limits	Recreational water quality criteria that provide 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
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

Backflow Program

Program Start Date: 2/7/2022

Compliance Percentage: 7.16%



Total # of Devices
1425



Total Tests Performed
199



Total Tests Passed
196

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

Last 30 Days

Tickets Closed: 276

Design: 4

Emergency: 14

Locate CA1: 124

Isolation Valve Operation Status

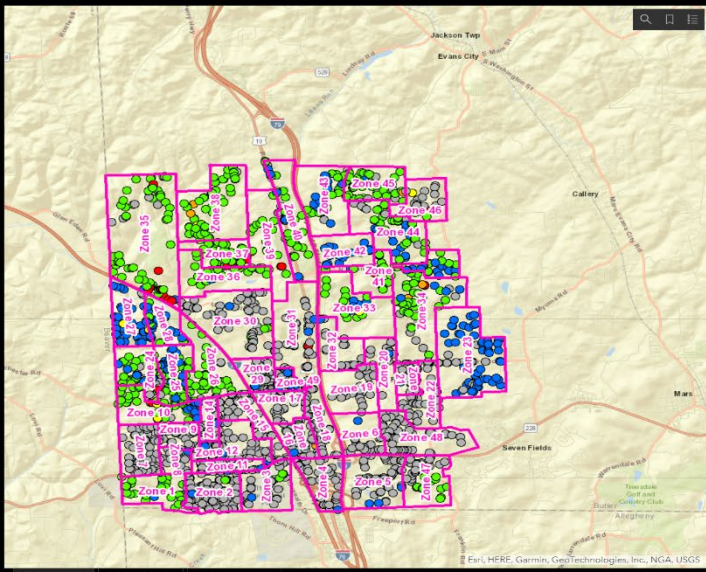
Isolation Valve Operation Status - 1/13/2020 through 1/14/2023

1,407 Valves Operated

43% Work Complete

980 Days In Schedule

89% Schedule Complete



Condition of Operated Valves

- 1 excellent: 945
- 2-good: 466
- 3-average: 10
- 4-fair: 15
- 5-poor: 46

Latest Operated Valves

- SysV2661, 4/7/2022
- SysV2037, 11/10/2021
- SysV2044, 11/10/2021
- SysV2048, 11/10/2021
- SysV2050, 11/10/2021
- SysV13804, 11/10/2021
- SysV13015, 11/10/2021
- SysV2570, 11/3/2021

107 Open Munis Work orders

- SysV4780 in Zone 40 Munis WO: 322237
- SysV1760 in Zone 34 Munis WO: 322952
- SysV2861 in Zone 34 Munis WO: 322983
- SysV2863 in Zone 34 Munis WO: 322984
- SysV2866 in Zone 34 Munis WO: 322985
- SysV5501 in Zone 34 Munis WO: 322987
- SysV10103 in Zone 23 Munis WO: 333906
- SysV2895 in Zone 23 Munis WO: 333946
- SysV2896 in Zone 23 Munis WO: 333946
- SysV2897 in Zone 23 Munis WO: 333947
- SysV2898 in Zone 23 Munis WO: 333948
- SysV2902 in Zone 23 Munis WO: 333949
- SysV2904 in Zone 23 Munis WO: 333950
- SysV2906 in Zone 23 Munis WO: 333951
- SysV2907 in Zone 23 Munis WO: 333952

Sanitary Manhole Inspection

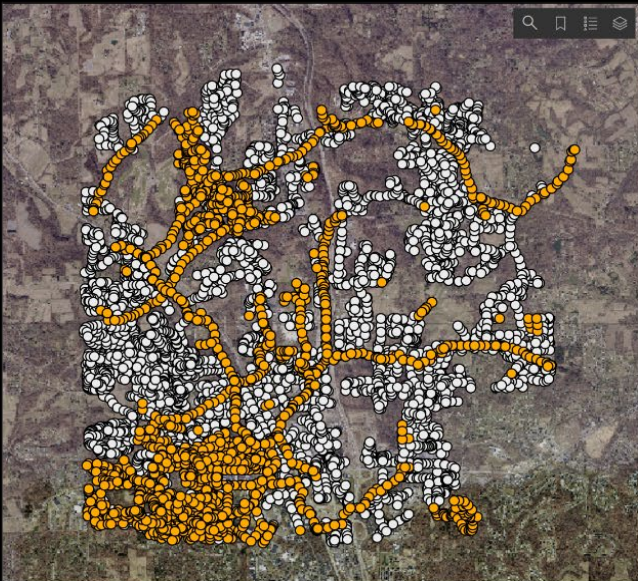
Sanitary Manhole Inspection 9/24/2021 to 9/24/2024

1,759,778 Manholes Inspected per Selection

30% Work Complete

361 Days In Schedule

33%



Condition of Inspected Manholes per selection

- 1-excellent: 1
- 2-good: 1300
- 3-average: 1000
- 4-fair: 1000
- 5-poor: 1000
- Good: 1000

Latest Inspected Manholes per Selection

- Interceptor04, MH13297, 9/19/2022
- Interceptor04, MH13221, 9/19/2022
- Interceptor04, MH13259, 9/19/2022
- Interceptor04, MH13289, 9/19/2022

of manholes Inspected Per Interceptor

