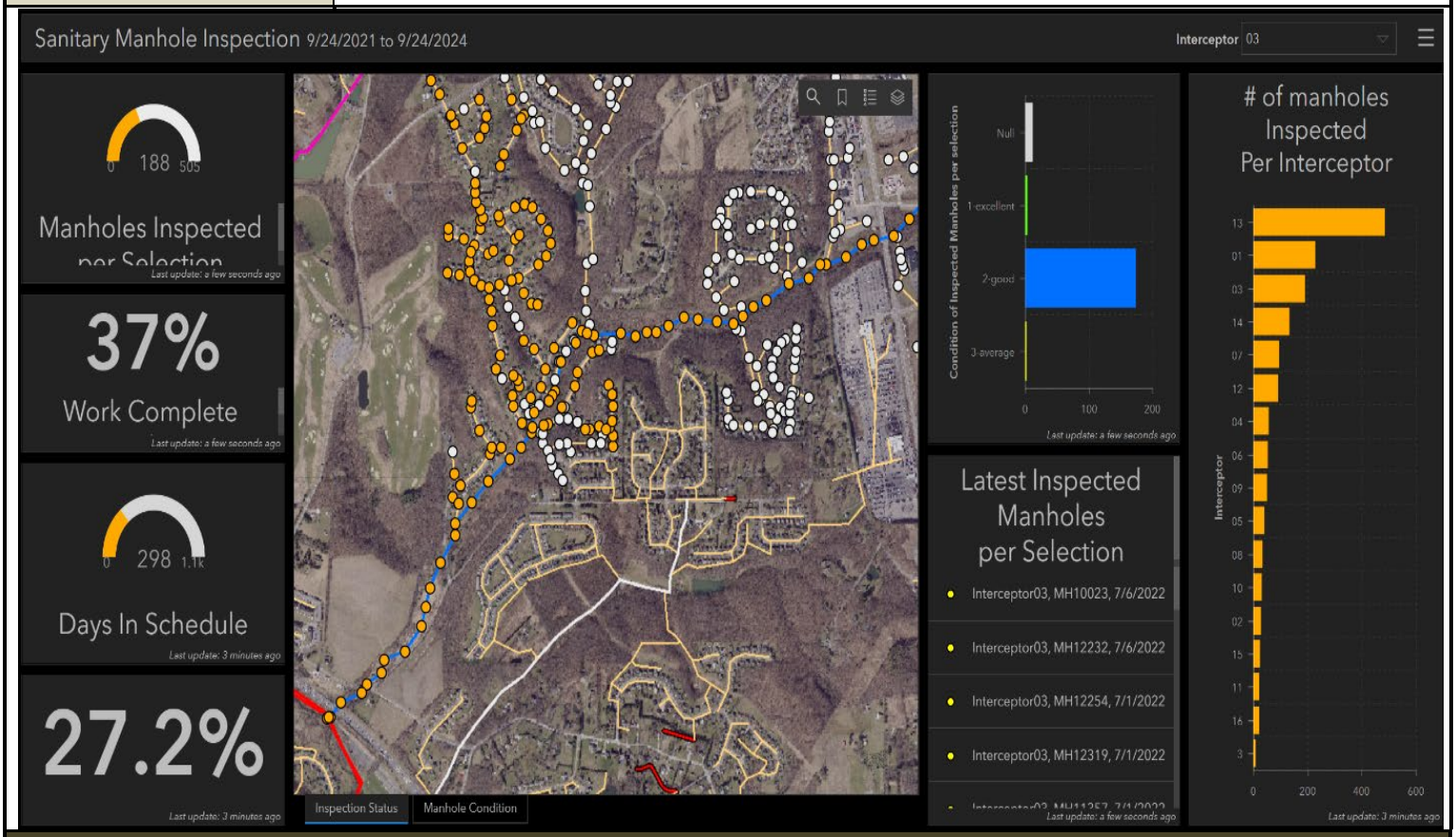
UTILITIES DEPARTMENT
MONTHLY ACTIVITY REPORT
JULY 2022

BCTP	
6/13/2022	-Staff removed old headworks MCC room A/C unit.
6/15/2022	-Operators installed new rotor and stator in Primary sludge pump #3.
6/15/2022	-Facilities installed new A/C unit at headworks MCC.
7/5/2022	-Repaired broken primary clarifier odor misting line.
7/6/2022	-Contractor on site to initiate new **MBR** blower silencer install.
7/7/2022	-Staff completed plumbing, wiring and grout work for new rotary drum thickener feed pump. Awaiting start up with local vendor representative.
7/7/2022	-Plant staff replaced sheared bolts on Primary pump #3.
7/8/2022	-It was discovered that a bad tote of sodium hypochlorite was delivered by the chemical vendor and was pumped off into three tanks. This resulted in the three tanks being contaminated. The vendor supplied 5 empty totes and plant staff transferred all contaminated product from the day tanks to the totes. Cause of the incident is still to be determined.
Franklin Acres Pump Station	-6/14 at 8:00 p.m. The auto dialer alerted staff of a commercial power loss at the lift station. Staff responded to assess the situation.
Briar Creek Pump Station	-No operational issues.
Wolfe Run Pump Station	-No operational issues.
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 Route 228. -Miutt Pizza (formerly Pizza Palermo).
Existing FOG Maintenance	-Performing FOG permit renewal inspections. -Site visits for "Non-compliant" and "No Pump Outs" FOG user. -14 users are non-compliant with their pump out schedule. -Giant Eagle issued a Notice of Violation for non-compliance of grease trap cleaning schedule.
Flow Metering	-Smoke testing & CCTV was performed on Sandalwood Dr. -SmartCover – Flow monitoring technology installed on Interceptor 1. Additional units ordered.
Manhole Assessment Program	-Phase 2 (sub-basin manholes). -Inspection of Interceptor 14 sub-basins completed. -Inspection of Interceptor 13 sub-basins 84% complete. -Inspection of Interceptor 3 sub-basins 37% complete. -Collection system 27% complete-Collection system 26% complete.

PRETREATMENT CONT…	
Sewer Flow Meters	-1 manhole raised and another cleared of asphalt on the lid at 8656 Peters Rd.
Force Main	-No operational issues.
Miscellaneous	-No operational issues.



WATER DISTRIBUTION		
7/6/2022	-Excavated and repaired a leaking six-inch supply line valve at 1717 Rt. 228 near Lowes in the Cranberry Commons Mall complex.	
7/8/2022	-Personnel assisted with the cut & cap of a 3/4” water tap at 1172 Freedom Rd. (near CVS Pharmacy) in conjunction with the Freedom Rd. Build One project.	
7/11/2022	-Crew installed a one-inch water sample station along Kira Cir. in the Woodlands plan of homes.	
7/12/2022	-Excavated and repaired a leak on the six-inch water main near 501 Creekside Ct. in the Greenfield Estates plan of homes.	
7/12/2022	-Personnel excavated and repaired a leak on the eight-inch water main in front of 108 Havenwood Dr. in the Havenwood plan of homes.	
7/12/2022	-Crew excavated and repaired a leak on the sixteen-inch main near 2630 Rochester Rd. just west of Graham Park Dr.	
7/15/2022	-Excavated and replaced a malfunctioning 3/4” service valve (curb stop) at 213 Sherwood Dr. in the Fernway plan of homes.	
Flushing Program	-7/19 completed all thirteen weeks of the annual water distribution system flushing program.	
Curb Box Maintenance	-No operational issues.	
Hydrant Maintenance	-No operational issues.	
Valve Maintenance	-On hold, equipment issues. Munis update scheduled for 7/25 should fix issues.	
Monthly Utility Count June 2022	**TAPS:** 4	**METER INSTALLS:** 19
	METER REPLACEMENTS: 4	**INSPECTIONS (Water, Sewer & Development):** 39

WATER DISTRIBUTION CONT…

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

43%
Work Complete
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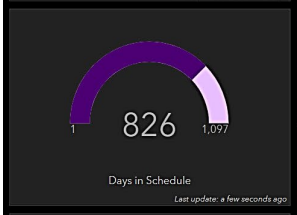

75%
Schedule Complete
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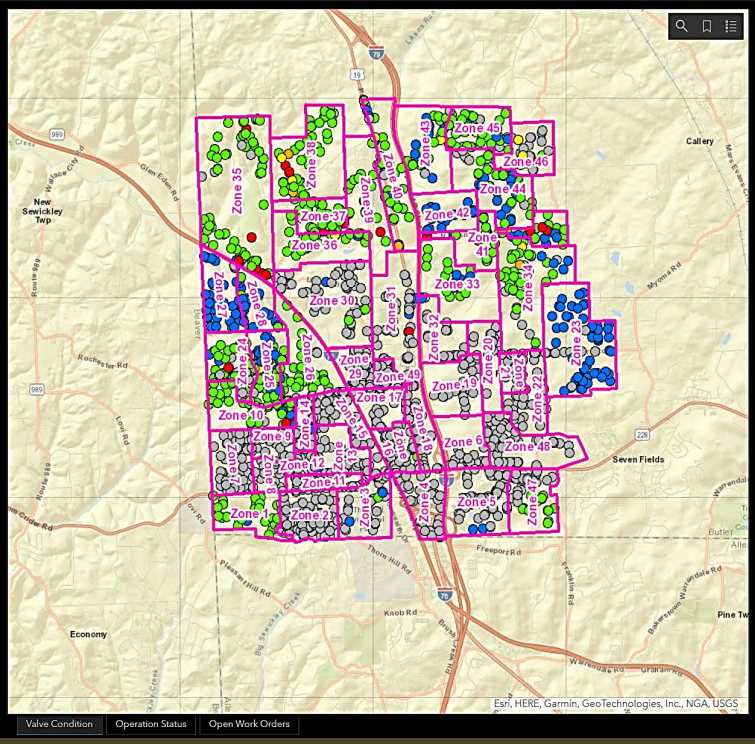

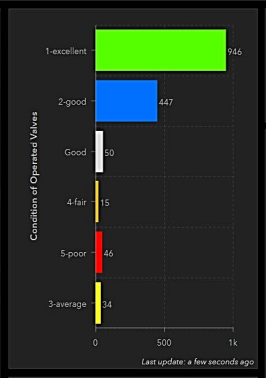

Latest Operated Valves

- 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
- SysV2572, 11/3/2021

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19
Open Munis Work orders
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- SysV4780 in Zone 40 Munis WO: 328237
- SysV1760 in Zone 34 Munis WO: 329937
- SysV2861 in Zone 34 Munis WO: 329943
- SysV2863 in Zone 34 Munis WO: 329944
- SysV2866 in Zone 34 Munis WO: 329945
- SysV5501 in Zone 34 Munis WO: 329947
- SysV10103 in Zone 23 Munis WO: 333906
- SysV2895 in Zone 23 Munis WO: 333945
- 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

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BACKFLOW PROGRAM

Program Start Date: 2/7/2022	**Compliance Percentage: 8.96%**

Total # of Devices	Total Tests Performed	Total Tests Passed
1415	158	156

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

Ticket summary PA811- Water Sewer Storm, 01 May 2022 - 31 May 2022

Ticket summary

266	266	0	266	0
Number of Tickets	Assigned Tickets	Unassigned Tickets	Closed Tickets	Open Tickets

Tickets by type

Tickets by assignee

Response codes

Service areas

NPDES Compliance History Report 2022

Brush Creek Water Pollution Control Facility

	Parameter											
	CBOD	Total Suspended solids	Ammonia Nitrogen	Dissolved Oxygen	Phosphorus	Chlorine Residual	p H** standard units		Flow MG/D	Fecal Coliform	Total Nitrogen	Regulatory Compliance
Limit mg/L	**10/20***	**30**	**2/5***	**5 min**	**2.0**	**0.18**	**6.0**	**9.0**	**8.73**	**200/100*** **2100/100***	M&R	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												
August												
September												
October												
November												
December												
Yearly Avg.	0.0	0.0	0.4	6.7	0.9	0.000	6.9	7.3	4.1	0.0	15.7	

* 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 (INCUDING 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.
CBOD	Carbonaceous Biochemical Oxygen Demand (CCOD)Measures the potential of wastewater to deplete the oxygen level of the receiving waters
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 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 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 nutuent and can cause algae blooms

BRUSH CREEK SEWAGE TREATMENT PLANT

Flow History

** Flow is in millons of gallons multiply x 1,000,000 Brush Creek Capacity 8.7 mgd Marshall Alliocation .1.35 mg Purchased Water (West View) Annual allocation 4.150 MGD

NOTE: as of 7/9 2020 all flow data is based on Marshal Township billing cycle and NOT montly averages since billing is not based on a calandar 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						TO DATE
B.C.T.P. FLOW	122.499	126.136	138.835	134.762	115.835	140.809	107.708						886.584
DAILY AVG.	4.3740	3.9420	4.958	4.2110	4.2900	4.1440	3.7140						29.633
MARSHALL FLOW	24.089	25.748	28.338	23.582	19.576	22.307	18.288						161.928
DAILY AVG.	0.8603	0.8046	1.0207	0.7369	0.7250	0.6561	0.6306						5.4342
NEW SEWICKLEY	0.310	0.326	0.241	0.294	0.251	0.293	0.290						2.005
DAILY AVG.	0.0111	0.0102	0.0086	0.0092	0.0093	0.0086	0.0100						0.067
RAIN FALL	4.47	3.75	4.56	3.62	4.01	7.33	4.65						32.39
PURCHASED WATER	62.339	77.364	67.024	76.310	65.179	92.296	89.578						530.09
DAILY AVG.	2.226	2.417	2.394	2.385	2.414	2.7146	3.0889						2.520

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

2020	JAN.	FEB.	MARCH	APRIL	MAY	JUNE	JULY	7/9-8/17	8/17/-9/11	9/11-10/9	9/10-11/12	11/12-12-10	TO DATE
B.C.T.P. FLOW	118.587	140.084	125.275	160.622	105.106	97.92	85.039	99.411	85.576	86.6160	111.833	105.269	1321.338
DAILY AVG.	4.0890	4.2450	4.474	4.5770	4.3794	2.9670	2.7430	2.5490	3.4230	3.0930	3.2890	3.7560	3.6320
MARSHALL FLOW	23.435	28.565	23.078	27.011	17.597	19.247	18.376	24.625	17.442	17.608	22.066	20.235	259.285
DAILY AVG.	0.8370	0.8927	0.8242	0.7717	0.7332	0.6015	0.5928	0.6314	0.6976	0.6289	0.6490	0.7227	0.7152
NEW SEWICKLEY	0.246	0.244	0.205	0.268	0.269	0.287	0.263	0.433	0.266	0.266	0.169	0.237	3.153
DAILY AVG.	0.0087	0.0070	0.0073	0.0076	0.0112	0.0089	0.0085	0.0111	0.0106	0.0095	0.0049	0.0085	0.0087
RAIN FALL	3.31	3.94	5.85	4.33	3	1.28	1.31	5.73	1.63	3.51	3.04	3.1	39.66
PURCHASED WATER	71.543	67.245	71.452	71.857	68.774	83.449	78.906	129.52	64.1294	66.793	84.496	65.348	76.9594
DAILY AVG.	2.313	2.299	2.285	2.264	2.5481	3.1338	3.431	3.238	2.466	2.385	2.485	2.333	2.5984

B.C.T.P. FLOW	129.22	134.4	117.101	113.96	122.534	134.2	120.14	124.062	106.359	96.4830	127.316	121.93	1447.705
DAILY AVG.	4.1680	4.8000	3.7770	3.7990	3.9530	4.4730	3.8760	3.6489	3.4310	3.3270	3.8580	3.8100	3.9101
MARSHALL FLOW	28.48	26.975	21.813	11.007	27.367	23.707	22.641	20.349	18.405	18.824	24.187	23.321	267.076
DAILY AVG.	0.9187	0.9634	0.7036	0.7338	0.8552	0.7902	0.8086	0.6166	0.6135	0.6491	0.7558	0.7523	0.7634
NEW SEWICKLEY	0.260	0.222	0.216	0.218	0.167	0.272	0.285	0.333	0.286	0.264	0.264	0.274	3.061
DAILY AVG.	0.0084	0.0079	0.0069	0.0072	0.0079	0.0091	0.0102	0.0101	0.0095	0.0091	0.0083	0.0088	0.0086
RAIN FALL	3.33	3.28	2.4	4.6	8.09	9.56	5.97	1.88	3.5	7.34	6.11	3.0	59.09
PURCHASED WATER	2.259	2.343	2.251	2.344	2.53	2.642	2.791	2.908	2.816	2.467	2.233	2.333	2.4931