



UTILITIES DEPARTMENT

MONTHLY ACTIVITY REPORT

JUNE 2022

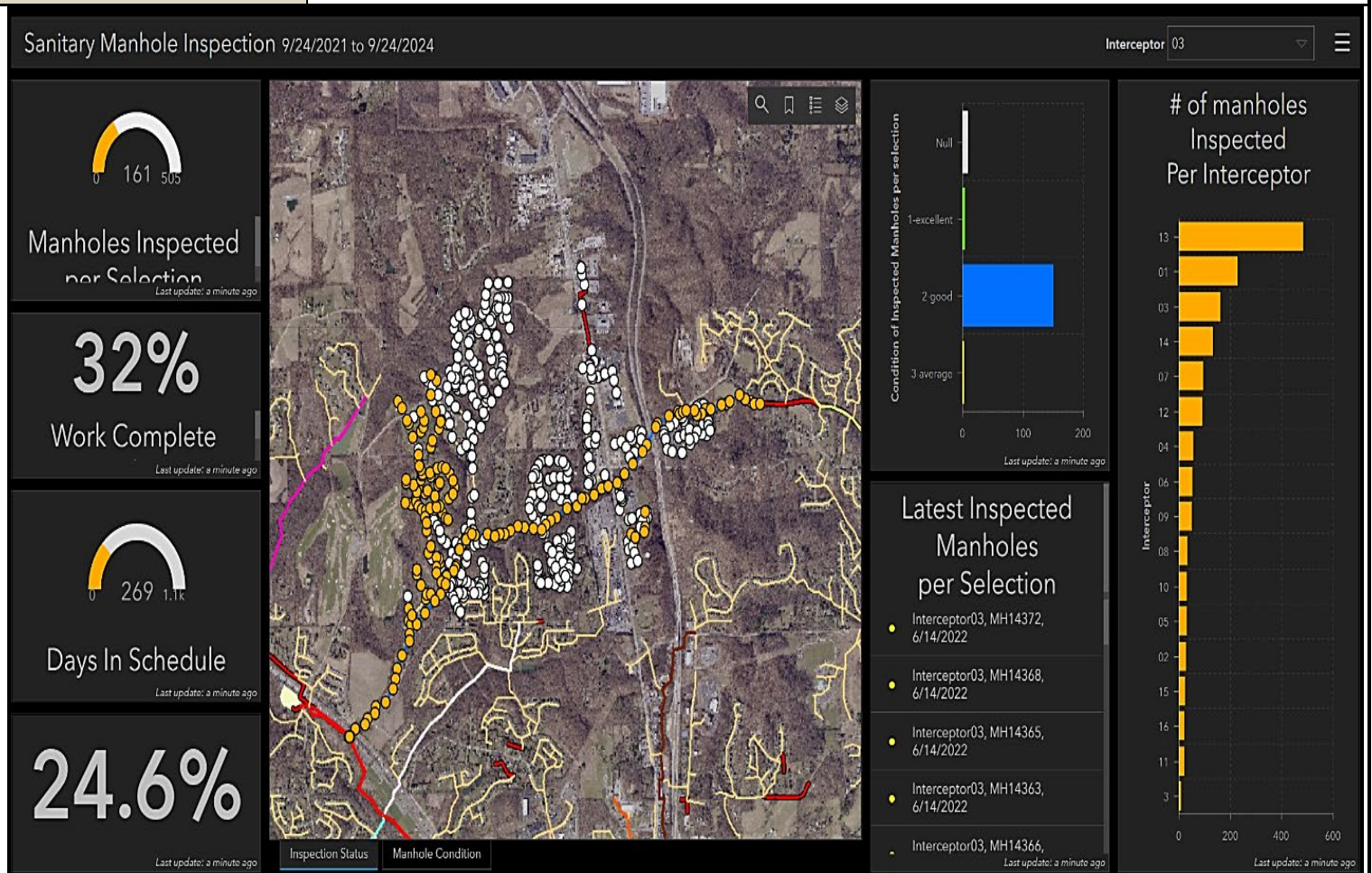
BCTP	
6/06/2022	-Installed a new electrical breaker to service a new A/C unit in the headworks building.
6/07/2022	-Repaired broken mud valves in bioreactor #1 and grouted link seals around RAS and Influent lines.
Franklin Acres Pump Station	-6/8-At approximately 2:00p.m. plant staff responded to a power outage.
Briar Creek Pump Station	-No operational issues.
Wolfe Run Pump Station	-6/7-Troubleshoot WRPS pump #1. The impellor nut had sheared, a new bolt was installed, and the pump was returned to normal duty.
Laurel Point Lift Station	-No operational issues.
Water Supply	-6/1-At 1:30a.m. the auto dialer alerted staff of a high turbidity alarm at the Pennwood booster station. West View had a break on the main transmission line leaving the Baden water plant. In an effort not to pump dirty water into the Cranberry System, operators utilized water in the storage tanks to feed the Township. However, by 6:00a.m. on Wednesday the water tank levels were dropping, and staff had no choice than to pump cloudy water into our system to maintain supply to our customers. West View initiated a very aggressive flushing exercise to rid their system of the cloudy water. Water storage tank levels began to increase on Thursday 6/2. -6/6-West View switched to chloramines as a summertime disinfectant.
**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. -The Good Slice/Sim Clubz–Formerly Quaker Steak & Lube. -Henry’s Meat Market–Butcher shop in planning stage. -Sankalp Restaurant. -Condado Taco. -Sheetz–1665 Route 228.
Existing FOG Maintenance	-Performing FOG permit renewal inspections. -Site visits for “Non-compliant” and “No Pump Outs” FOG user. -10 users are non-compliant with their pump out schedule.
Flow Metering	-Sub-basin I14S14A identified as area with high I&I. Sub-basin will be smoke & dye tested along with 4 other sub-basins. -SmartCover –Flow monitoring technology installed on Interceptor 1.
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 32% complete. -Collection system 26% complete.
Sewer Flow Meters	-Two manholes raised near Sheetz (Freedom Rd). -7,335 Ft of sewer was cleaned of debris, fats, oils, and grease by State Pipe Services.

PRETREATMENT CONT...**Force Main**

- No operational issues.
- Preventative maintenance performed on 2 air reliefs,

Miscellaneous

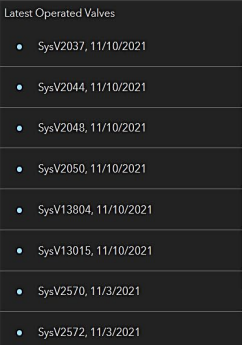
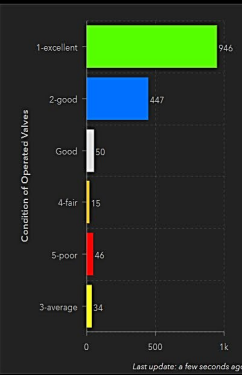
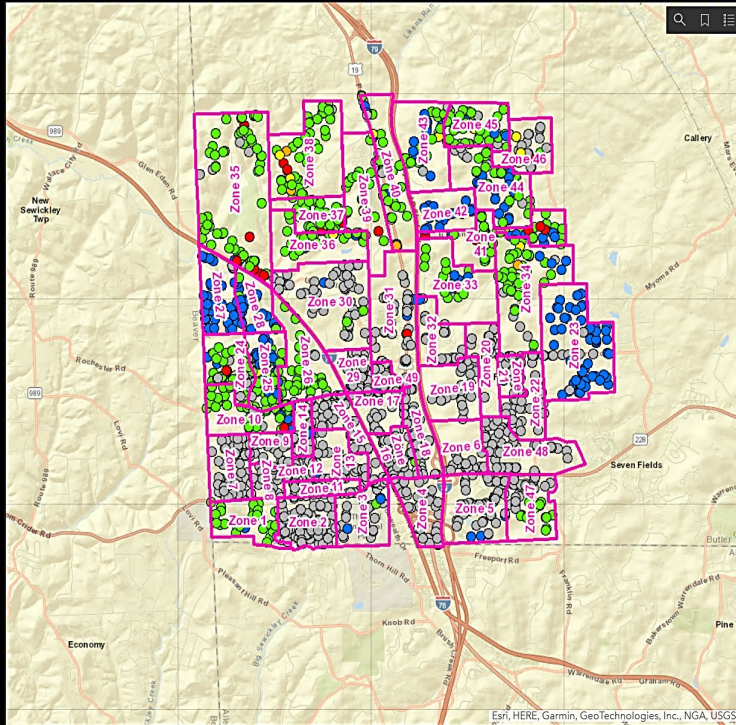
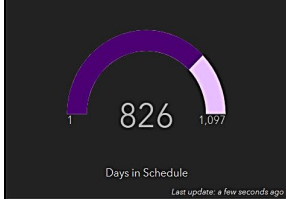
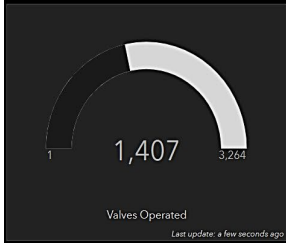
- No operational issues.

**WATER DISTRIBUTION**

5/20/2022	-Crew repaired a malfunctioning hydrant near the soccer fields in Graham Park.	
5/23/2022	-Personnel excavated, repaired, and straightened two water service curb boxes. One located at 200 Cameron Dr. in the Manorline plan of homes and the other at 913 Poplar Pl. in the Pinehurst plan of homes.	
5/24/2022	-Excavated and repaired a leak on the eight-inch water main in front of 300 Green Fields Ct. in the green Field plan of homes.	
6/15/2022	-Personnel excavated and repaired a leak on a 1.5-inch water main in front of 508 Somerset Drive in the Manorline plan of homes.	
Flushing Program	-Personnel have completed weeks five thru eight of the annual water distribution system flushing program.	
Curb Box Maintenance	-Excavated and straightened a water service curb box at 508 Somerset Dr. in the Manorline plan of homes.	
Hydrant Maintenance	-During the month of June personnel completed hydrant maintenance (grease & oil) on hydrants in week one & two of the flushing program.	
Valve Maintenance	-On hold, equipment issues.	
Monthly Utility Counts: May 2022	TAPS: 2	METER INSTALLS: 18
	METER REPLACEMENTS: 9	INSPECTIONS (Water, Sewer & Development): 24

WATER DISTRIBUTION CONT...

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



19 Open Munis Work order

Last update: a few seconds ago

- 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
- Last update: a few seconds ago

BACKFLOW PROGRAM

Program Start Date: 2/7/2022

Compliance Percentage: 10.91%

Total # of Devices
1408

Total Tests Performed
129

Total Tests Passed
127

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

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

Ticket summary

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

Tickets by type



Tickets by assignee



Response codes



Service areas



NPDES Compliance History Report 2022

Brush Creek Water Pollution Control Facility

Limit mg/L	Parameter											
	Total		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	
	CBOD	Suspended solids										
	10/20*	30										
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												
July												
August												
September												
October												
November												
December												
Yearly Avg.	0.0	0.0	0.4	6.6	0.8	0.000	6.9	7.3	4.2	0.0	14.8	

* 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.
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 for those recreating in Pennsylvania's surface waters.
Total Suspended solids	Total suspended solids are any particles that float or "suspend" 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

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 Alllocation .135 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							TO DATE
B.C.T.P. FLOW	122.499	126.136	138.835	134.762	115.835	140.809							778.876
DAILY AVG.	4.3740	3.9420	4.958	4.2110	4.2900	4.1440							25.919
MARSHALL FLOW	24.089	25.748	28.338	23.582	19.576	22.307							143.64
DAILY AVG.	0.8603	0.8046	1.0207	0.7369	0.7250	0.6561							4.8036
NEW SEWICKLEY	0.310	0.326	0.241	0.294	0.251	0.293							1.715
DAILY AVG.	0.0111	0.0102	0.0086	0.0092	0.0093	0.0086							0.057
RAIN FALL	4.47	3.75	4.56	3.62	4.01	7.33							27.74
PURCHASED WATER	62.339	77.364	67.024	76.310	65.179	92.296							440.512
DAILY AVG.	2.226	2.417	2.394	2.385	2.414	2.7146							2.425

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