

**Edward J. Haller, Director**

Here is a look back on things accomplished by this Department in 2020, a look forward to the projects already planned for 2021, and some issues of interest for Water Pollution Control.

**2020 Projects**

- **Star Allotment** in Leavittsburg **Phase 3** project was successfully completed. New Sanitary and Storm Sewers along Elm St. and Clark were installed by Utility Contracting.
- Refurbishment of the **Grohl Alley Sewer** was successfully completed by Marra Services.
- The majority of the installation of the **Perkins Park Parallel Sewer** was successfully completed by Utility Contr. The final tie in and restoration work will be done in 2021.
- The sewer installation along S. Park and Franklin St, known as **Dry Weather Overflow**, was completed successfully by Woodford. Final paving will be completed in 2021.
- The Plant **Early Action Projects** (EAP) were successfully completed by A.P. O’Horo. All four clarifiers had current density baffles installed and the first three of five Primary Settling Tanks were completely rebuilt.
- The field research portion of the **Expanded Inflow and Infiltration (I&I) Study** was completed.

**2021 Projects**

- The **High Street Sanitary Sewer** will be installed by S.E.T., Inc.
- The **Main Pump Station and South Leavitt Pump Station** will both start to be refurbished by Mike Coats Construction as part of the Phase 1 Plant & Pump Station Refurbishment. Construction is anticipated to take 24 months.
- A **New Wastewater Force Main** will be installed from the Main Pump Station to the Water Pollution Control Facility by Woodford Excavating.
- **Phase 1 Plant Refurbishment** will be started by A.P. O’Horo including a new Septage Receiving Station, new raw influent screens, rebuilding the remaining Primary Settling Tanks, and rebuilding the four final clarifiers. Construction to take 24 months.
- **Process Computer Monitoring** will be installed both for the Plant Processes and the Pump Stations by Westmoreland Electric Services also as part of Phase 1.
- The **Old Force Main will be Cleaned and Evaluated for Refurbishment** by Pure Technologies as part of the Phase 1 work.

**Ward Meetings on Sewer Issues**

Both the Sanitary and Storm Sewer Systems will continue to need improvements. We will meet virtually by video conference call with interested residents and businesses, by ward, to present sanitary and storm issues throughout the city, some in their specific ward, for their consideration. We will be facilitating discussions about these potential projects to also gain better understanding of sewer issues from the residents and businesses in Warren.

The dates for the Warren Sewer Virtual Meetings are all at 3:00 p.m.:

Ward 1 (Larry Larson)	2/4	Ward 5 (Ken MacPherson)	4/1
Ward 2 (Al Novak)	2/18	Ward 6 (Cheryl Saffold)	4/15
Ward 3 (Greg Greathouse)	3/4	Ward 7 (Ron White)	4/29
Ward 4 (Mark Forte)	3/18		

**WPC Thickened Sludge Flood of Administrative Offices**

On November 24, 2020 the Dissolved Air Flotation (DAF) Sludge Thickener experienced a failure that resulted in thickened sewage sludge flooding the adjacent WPC Administrative Offices. The unit takes thinner process sludges and thickens them with polymer. The water removed from the sludge, called subnate, is pumped back to the process. The speed of the subnate pump is controlled by a variable frequency drive (VFD). That controller failed.

As the water from the unit stopped being withdrawn and more thin sludge continued to be pumped into the unit for thickening, the unit overflowed. In a short period of time the sludge flowed down the hall into five offices and a conference room. Once the operator discovered the failure at 3:00 a.m. he shut off the supply pumps and called in additional employees to start the cleanup. The affected offices and hallways were squeegeed of all standing sludge before 7:00 a.m.

The carpet in 6 rooms were saturated with sewage sludge. With permission from City Administration, Serv Pro was called and started the cleaning process later that very morning. On 11/24, Serv Pro used steam and vacuum to remove as much of the sludge as they could from the carpets. On 11/25, Serv Pro started removing carpeting and the saturated drywall along the floors from the Conference Room and started on offices. On 11/27 Serv Pro removed the rest of the affected carpeting and drywall. Estimates for dry wall restoration, painting and carpet replacement were obtained in December with installation anticipated for January.

*Why did this happen? What can we do to prevent this from happening again?*

WPC has two specific issues for readers to understand.

1. The plant influent screens were overdue to be replaced in 2010. In 2010 a rate increase was approved to replace those influent screens. The screens were never replaced. They will now be replaced in Phase 1. The result, is screenings getting into EVERYTHING. Our four Maintenance mechanics spend about 75% of their time cleaning out sludge pumps and drain pumps of screenings. There is little time left over to fix or maintain much of anything else.
2. There is no current remote process monitoring. An operator only knows what is happening with any piece of equipment when they are physically near that equipment. I don't know of another wastewater treatment plant in Ohio that doesn't have remote monitoring. Computer process monitoring will be added to the Plant and the Pump Stations through Phase 1. Not all processes are modern enough to connect to this new system initially. Phase 1 will connect those processes being renovated and all other processes that are capable of connection. Phases 2 and 3 will be required to upgrade and connect the rest of the processes. In the meantime, we are trying to hire more operators so we can at least have two on per shift, to better monitor plant and pump station operation.

Until this Department has a comprehensive process monitoring system and all equipment is upgraded to reliable conditions, this Department will continue to be at risk of additional similar failures.

**No More Room at the Plant**

Our Water Pollution Control Facilities are rated for an average flow rate of 16 million gallons per day (MGD). Our 2020 flow average was 15.56 MGD or 97.25% of our maximum. We also have treatment capacity promised to Lordstown Motors, the Ultium Battery Plant and a few others. Between what we are getting in now and what we have promised to others, we are out of wastewater treatment capacity.

This means that if I receive any requests for increasing wastewater flow from Warren, Champion or Lordstown, I must decline providing an approval. I have already declined a request for about 34 homes in Champion from connecting through a proposed sewer extension. I have already declined Lordstown's Lafarge Landfill from increasing their wastewater discharge limit. Until this facility has surplus capacity, there cannot be any approved increases in wastewater treated by this facility.

Warren can increase the system capacity in two ways, making the plant bigger or reducing the stormwater that gets into the sanitary sewer system. We hope to do both. The plant capacity will only go up after completion of all three phases of the Plant and Pump Station Refurbishment. The request for approval of the design of the Phase 2 work is planned to be brought before council later this year. This can only be considered if there is a Sewer Rate Increase to pay for it. Further reduction of Inflow and Infiltration will continue with a number of proposed projects being considered. The ward meetings will allow discussion of more specifics around those projects.

**Trumbull County and Village of Lordstown**

We received final payment of past due sewer bills from Trumbull County on July 17, 2020. They have continued to pay their bills at the new Judicially-ordered rate. Unfortunately, Village of Lordstown also has a substantial balance due. Further, the Village had a Satellite Sewer Contract with Warren that expired on January 1, 2021 without a request to extend or negotiate a new one. The Village has been informed that in the absence of a contract, they will be required to pay outside rates starting January 1, 2021. We are continuing to attempt to get the Village of Lordstown to pay their past due balances. However, Legal means may need to be required.

**Sewer Rate Increase**

Phases 2 and 3 of the Plant and Pump Station Refurbishment as well as all additional Sanitary Sewer construction projects will require an increase in the low sewer rates we have in Warren. Legislation requesting an increase in those rates will be presented to Council subsequent to the scheduled public meetings between February and April.

**Invitation**

If you have any questions about the work we are doing or the projects we have planned feel free to call me at 330 841-2765 or email me.