

**City of Port Washington
Wastewater Utility
2018 Annual Report**

Operations Performance Summary

The Wastewater Utility recorded a total annual influent plant flow of 501,310,000 gallons (-11.8%) * in 2018. The average daily plant flow was 1.37 million gallons versus 1.56 million in 2017. There were two bypassing events during 2018. One was the morning of August 26 during the large rainfall event. Influent wastewater bypassed through the WWTP's manhole covers directly east to Lake Michigan. Total estimated bypass was 1.5 million gallons. The second bypass event occurred on September 6 and was caused by a large tree falling across our primary and secondary power lines in an area where they are attached to the same power poles. Total estimated bypass for that event was 220,000 gallons.

Total rainfall in 2018 was 44.51 inches (+24.5 %).

The plant Influent Biochemical Oxygen Demand (BOD) loading was 893,216 pounds (-6.8 %) for a daily average of 2,447 pounds, or 214 mg/l. The treatment plant reduced the BOD in the effluent to 48,736 pounds (+7.7 %) for the year and a daily average of 134 lbs, or 12 mg/l.

The plant Influent Suspended Solids (TSS) loading was 762,120 pounds (-13.0%), for a daily average of 2088 pounds, or 182 mg/l. The treatment plant reduced the yearly effluent TSS to 22,544 pounds (+2.1 %), with a daily average of 62 pounds or 5.4 mg/l.

The plant influent phosphorus loading for the year was 21,942(-5.4 %) pounds for a daily average of 60.1 pounds or 5.2 mg/l. The treatment plant reduced the yearly effluent phosphorus to 2324 pounds (-8.4 %), with a daily average of 6.4 pounds or 0.56 mg/l. Phosphorus removal was achieved with 71,566 pounds (+12.7 %) of iron from a ferrous chloride solution.

The City of Port Washington Wastewater Utility Wisconsin Pollutant Discharge Elimination System (WPDES) permit, calls for effluent limits of the above mentioned evaluating criteria to be:

<u>Permit Limits</u>	<u>2018 discharges</u>	<u>% Removal</u>
BOD - 30 mg/l	48,736 lbs.	94.5 %
TSS - 30 mg/l	22,544 lbs.	97.0 %
Phosphorus - 0.9 mg/l	2,324 lbs.	89.4 %

In 2018 the plant produced a total of 215 metric tons (-14.8 %) of anaerobic sludge.

The Sewage Utility Rate did not increase in 2018 and no rate increases are planned for 2019.

WWTP Capital purchases for 2018

- Sewer Jetter Hose - \$2594
- Replace WWTP Gas Detection Equipment \$51,806

**CITY OF
PORT WASHINGTON**

**DEPARTMENT OF
PUBLIC WORKS**

WASTEWATER UTILITY

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- Rebuild Thickened Anaerobic sludge pump \$11,309
- Replaced Generator- Sewer Camera - \$1999
- Phase 2 and 3 SCADA upgrade WWTP - \$316,216
- Replaced L.S. 4 Pumps - \$8329
- Replaced Grit Screw and Wear Bars - \$11,206
- Replaced Level Transmitter Scum Wet well - \$2390
- Replaced South Garage Heater WWTP - \$2268
- Replaced Transfer Switch Lift Station 1 - \$3895
- Replaced Level Transducer L.S. 1 - \$2076
- Replaced Headworks Exterior Wall Pack lights(LED's) - \$1807

Total WWTP /Lift Station Capital Related Costs - \$415,895

SANITARY Sewer Capital Purchases for 2018

- Heartland Construction Lining and Repairs - \$438,657
- Prairies Edge Install of Sewer - \$83,129
- Installations and additions for Greystone and Woods at White Pine were completed with Developer financing.

Revenue and Expense Summary

2018 Waste Hauler revenue for septage, holding tank, grease trap, landfill leachate, and other surcharged wastewaters totaled \$393,569 (+.12.5 %).

Additional information on revenues and expenses vs. the 2018 WWTP budget plan can be found in the final Revenue and Expense Report summary.

The Compliance Maintenance Annual Report (CMAR) which shows in greater detail the operational performance of the Wastewater Utility for 2018 will be forwarded to the DNR Plymouth Service Center, upon approval from the Board of Public Works and the City Council. The CMAR is available on May 31 with a June 30th submittal deadline.

SANITARY SEWER MAINTENANCE SUMMARY

Basic Sanitary Sewer Street Dept. Utility Repairs and Maintenance

- 1275 Mineral Springs – Replaced top 18 inches sanitary manhole and installed new casting.
- 1220 Mineral Springs - Raised Manhole 6 inches South of J&H Heating.
- 119 Grandview – Replaced top 6 inches of Manhole and new casting.
- 1220 Bywater Drive – Reset Casting on Sanitary manhole.
- 1220 Bywater Dr. – Replaced top 1 foot of sanitary manhole and casting.
- Jackson Street – South of Bike Path – repaired and reset deck on main manhole.
- 108 Cleveland Street – Replaced Top 2 feet of sanitary and casting.
- Bike Path - Raised manhole 6 inches and installed new cover.

* (%) Indicates % increase or decrease from 2017