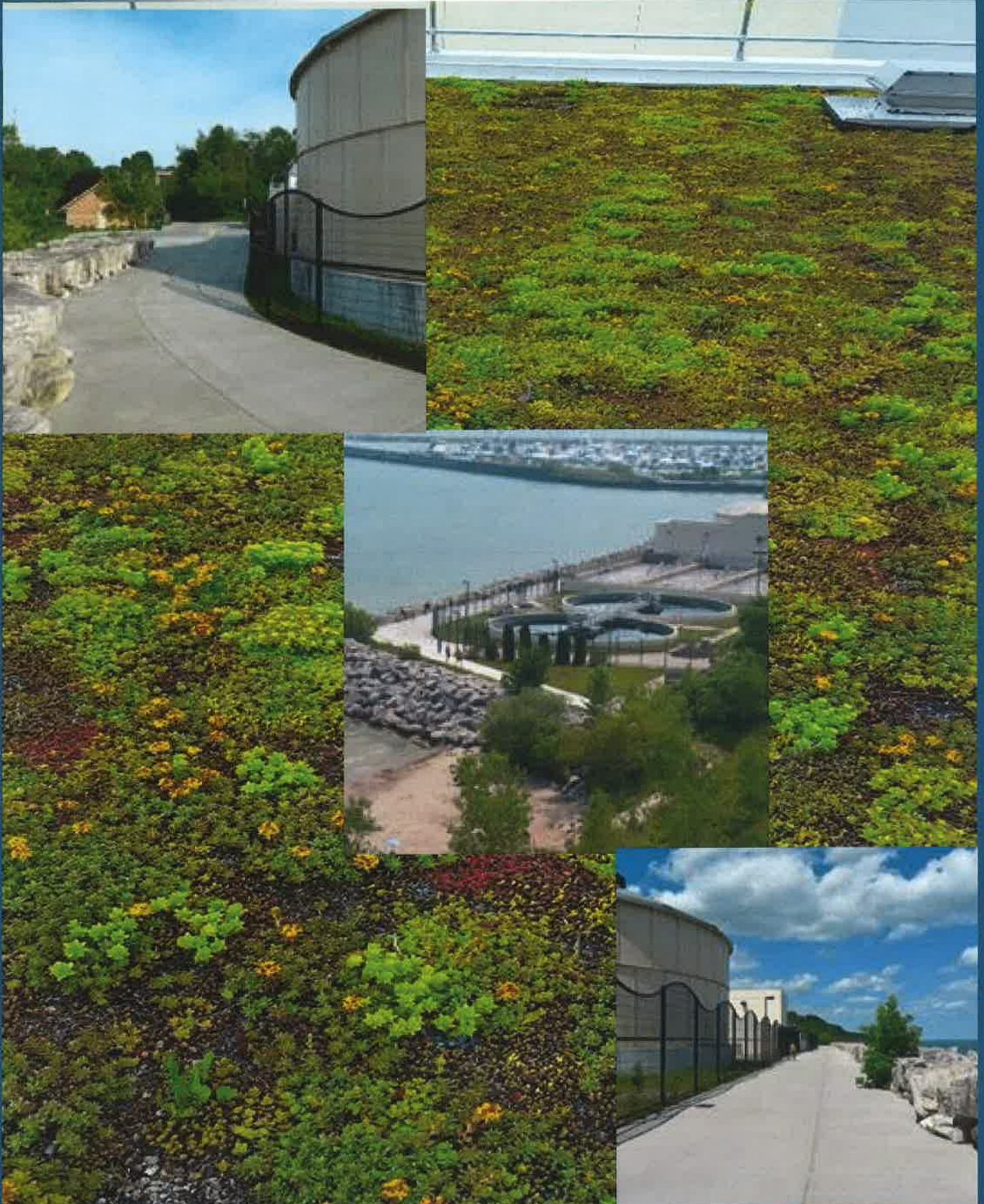


2016 WASTEWATER ANNUAL REPORT



**City of Port Washington
Wastewater Utility
2016 Annual Report**

Operations Performance Summary

The Wastewater Utility recorded a total annual influent plant flow of 587,200,000 gallons (+9.4%)* in 2016. The average daily plant flow was 1.61 million gallons versus 1.47 million in 2015. There was no bypassing of flow during 2016. Total rainfall in 2015 was 37.11 inches (-2.0%).

The plant Influent Biochemical Oxygen Demand (BOD) loading was 992,467 pounds (-1.1%) for a daily average of 2,719 pounds, or 203 mg/l. The WWTP has typically processed over 1 million pounds each year. The treatment plant reduced the BOD in the effluent to 45,799 pounds (-1.6 %) for the year and a daily average of 125 lbs, or 9 mg/l.

The plant Influent Suspended Solids (TSS) loading was 887,224 pounds (+ 3.7 %), for a daily average of 2431 pounds, or 181 mg/l. The treatment plant reduced the yearly effluent TSS to 31,278 pounds (-2.5 %), with a daily average of 86 pounds or 6 mg/l.

The plant influent phosphorus loading for the year was 21,322(-4.1 %) pounds for a daily average of 58 pounds or 4.4 mg/l. The treatment plant reduced the yearly effluent phosphorus to 2681 pounds (-10.0 %), with a daily average of 7.3 pounds or 0.55 mg/l. Phosphorus removal was achieved with 63,514 pounds (+ 14.9 %) 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>2016 discharges</u>	<u>% Removal</u>
BOD - 30 mg/l	45,799 lbs.	95.4 %
TSS - 30 mg/l	31,278 lbs.	96.5 %
Phosphorus - 1.0 mg/l	2,681 lbs.	87.4 %

In 2016 the plant produced a total of 216 metric tons (- 25.8%) of anaerobic sludge. All of this material was land applied and injected. The reason for the large drop vs. the previous year was most likely due to not accepting water treatment plant sludge for storage and disposal. In 2015, 120,000 gallons of water treatment plant sludge was delivered to the WWTP.

The Sewage Utility Rate did not increase in 2016 and no rate increases are planned for 2017.

WWTP Capital purchases for 2016

- Lift Station 4 Controls Replacement - \$28,546
- WWTP Scada Upgrade (3yrs.) - \$21,500
- Sewer Inspection Pole Camera - \$18,000
- WWTP Influent Sampler - \$5,629
- Lift Station 3 Transfer Switch - \$5,455
- RAS pump 4 VFD replacement - \$5736

**CITY OF
PORT WASHINGTON**

**DEPARTMENT OF
PUBLIC WORKS**

WASTEWATER UTILITY

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- Rebuild #1 WAS pump - \$4,723
- Booster pump for Weir Washing - \$14,423
- New Lawn Mower - \$2,399
- Polymer Pump - \$1561

Revenue and Expense Summary

2016 Waste Hauler revenue for septage, holding tank, grease trap, landfill leachate, and other surcharged wastewaters totaled \$348,756 (- 3%).

Additional information on revenues and expenses vs. the 2016 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 2016 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

- Larabee Street – near Old Simplicity Bld. – Replaced manhole and installed new casting.
- Bike Path – Raised Sanitary Manhole 2 feet and Replaced casting
- Right of Way off of Mineral Springs Drive – Replaced covers with 2 bolt down type on 2 manholes.
- Jackson and Lake – Replaced top 1 feet of sanitary manhole.
- Cleaned approximately 1/3 of City sanitary sewers.
- 3.5 Miles of Sanitary sewers were lined in 2016.
- 1000 feet of Sanitary sewers were video recorded in 2016.

* (%) Indicates % increase or decrease from 2015

