

**OTTAWA COUNTY
SANITARY ENGINEERING DEPARTMENT**

315 Madison Street, Room 105
Ottawa County Courthouse
Port Clinton, Ohio 43452

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February 13, 2020

To: Board of Ottawa County Commissioners
From: James K. Frey, P.E., P.S.
Re: 2019 Year End Report

Attached please find the Ottawa County Sanitary Engineering Department's 2019 Year End Highlight Report of Daily Operations and Capital Improvements.

Our mission continues to focus upon the prompt delivery of safe and reliable water and wastewater services at a reasonable cost. Recognizing the various challenges that are presented by record high lake levels, increased regulatory requirements, limited federal and state financial resources, cyber security and an aging workforce, we stand committed to working with industry stakeholders to maximize the quality of life that the Western Basin of Lake Erie offers.

Cc: File

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2019

SANITARY ENGINEERING DEPARTMENT
YEAR END REPORT

Danbury Township Wastewater Treatment System

1. Operated the Danbury Wastewater Treatment System within the original appropriated operations budget. Revenues exceeded actual operating expenses by \$419,903 for the year allowing for an end of the year transfer of an additional \$250,000 to the repair and replacement fund for planned future capital improvements.
2. Awarded a contract to Unilliance Inc. in the amount of \$889,320 to construct the Danbury Township Sewer District 7 Pump Station Improvement Projects to maintain the integrity of the pump stations and collection system.
3. The 2019 average annual residential sewer rate in Danbury Township was \$324.00 (\$27.00 per month, per EDU). The latest average annual residential sewer rate throughout Ohio (based upon 2018 data available through the Ohio EPA's Economic Analysis Unit) was \$715.00 (\$59.58 per month); which is more than double the Danbury Wastewater Treatment System's residential sewer rate.
4. Treated 517,001,000 gallons of wastewater, an increase of 9.93% from 2018.
5. Maintained compliance with EPA, NPDES permit treatment requirements, with no exceptions.
6. Completed a Low Level Chlorine/SCADA monitoring project to achieve further staffing requirement reductions in 2019.
7. Responded to thirteen (13) E1 Grinder Pump service calls.
8. Repaired one (1) gravity sewer main break. Contracted thirteen (13) service connection/tap repairs.
9. Issued fifty (50) permits to connect to the sanitary sewer system totaling \$140,190.00 in up-front permit fees and charges.
10. Six (6) permits to connect were issued to the sanitary sewer system with deferred connection fees in the amount of \$15,000.00.

11. Maintained certified delinquent receipts at \$14,848.45 (0.63%) of billed receipts (0.53% in 2018).
12. Worked with developers to review plans for future sanitary sewer extensions in Safe Harbor Subdivision & RV Park, East Harbor State Park Shower House Replacements, and Bayfield Subdivision.
13. Completed a 2018 Annual Sewer System Overflow (SSO) Report for the Danbury Township Collection System. Experienced zero (0) collection system surcharge violations (SSO) in 2019.
14. Performed fifty-nine (59) video camera investigations of private/public collection systems to confirm problems and/or record drawing infrastructure information covering 12,745 linear feet of pipe. Contracted CCTV work of 4,176 linear feet of pipe inspection.
15. Conducted one-hundred one (101) I&I property inspections.
16. Contracted smoke testing on 11,960 linear feet of sewer pipe.
17. Issued forty-four (44) notice of violation letters to property owners. Thirty-seven (37) have been brought in to compliance, including the removal of seventeen (17) sump pumps.
18. Conducted multiple meetings with engineers and two (2) with general contractors regarding possible subdivision developments.
19. Repaired three (3) gravity sewer lateral breaks in-house caused by sewer service installation and zero (0) pressure sewer lateral leaks.
20. Raised/repaired forty-six (46) manholes.
21. Conducted one hundred one (101) manhole inspections.
22. Installed three (3) new E-1 grinder pumps.
23. Started an in-house Phosphorus reduction study by injecting alum between pond #2 and pond #3; initial results are promising.
24. Started SCADA system upgrade.

Portage/Catawba Island Wastewater Treatment System

1. Operated the Portage/Catawba Island Wastewater Treatment System within the original appropriated operations budget. System revenues exceeded actual operation expenses by \$81,797 for the year.
2. Completed construction of the \$2.4 million dollar Portage/Catawba Island WWTS capital improvement projects to maintain the integrity of the wastewater treatment plant and collection system.

3. Substantially completed the \$299,275 State Road Sanitary Sewer Subsidence Emergency Repair Project. Final administrative closeout of the project will occur in early 2020.
4. Increased sanitary sewer rates by \$1.00 per equivalent dwelling unit: effective 12/18/19. The 2019 average annual residential sewer rate in the Portage/Catawba Island Wastewater System was \$420.00 (\$35.00 per month, per EDU). The latest average annual residential sewer rate throughout Ohio (based upon 2018 data available through the Ohio EPA's Economic Analysis Unit) was \$715.00 (\$59.58 per month); which is 70% greater than the Portage/Catawba Island Wastewater Treatment System's 2019 rate.
5. Applied for a zero (0.0%) interest loan from the Ohio Public Works Commission to pay for the \$270,808 Moores Dock Road Sanitary Sewer Rehabilitation/Replacement Project. Initiated design of the improvements in anticipation of starting construction in the fall of 2020.
6. Treated 199,968,000 gallons of wastewater, an increase of 16.2% from 2018.
7. Met all EPA NPDES permit treatment requirements with the exception of two (2) suspended solids violations that were caused by record high lake levels combined with significant rain events. The department is continuing to conduct I/I inspections throughout the collection system and is requiring all violations to be corrected as soon as is practical.
8. Land applied 734,170 gallons of digested and thickened sludge.
9. Upgraded two (2) odor/corrosion control stations in the collection system.
10. Completed a 2018 Annual Sewer System Overflow (SSO) Report for the Portage/Catawba Island Collection System. Experienced no (0) collection system surcharge violations in 2019.
11. Issued thirty-seven (37) permits to connect to the sanitary sewer system totaling \$145,413.27 in up-front permit fees and charges.
12. Three (3) Permits to Connect were issued to the sanitary sewer system with deferred connection fees in the amount of \$12,140.28.
13. Maintained certified delinquent receipts at \$4,635.34 (0.21%) of the billed receipts (0.18% in 2018).
14. Worked with developers to review plans for future sanitary sewer extensions in Fairway Estates Development, and Harbor's Edge at CIC Condominium #6 expansion.
15. Installed three (3) new E-1 grinder pump stations.
16. Responded to two hundred four (204) E-1 grinder pump service calls.
17. Repaired one (1) pressure sewer main break.

18. Performed fifty-one (51) video camera investigations of private/public collection systems to confirm problems and/or record drawing infrastructure information covering 6,484 linear feet of pipe.
19. Performed five (5) infiltration/inflow site and/or office meetings with mobile home/RV park owners and/or association members.
20. Issued thirty-three (33) notice of violation letters to property owners. Twenty-three (23) are known to be in compliance, including the removal of seven (7) sump pumps.
21. Conducted multiple meetings with engineers and two (2) with general contractors regarding possible subdivision developments.
22. Repaired ten (10) pressure sewer service breaks. Repaired thirty four (34) E-1 grinder cans including internal valves.
23. Performed maintenance on forty (40) manholes including raising manholes, repairing manhole leaks and raising/repairing six (6) manhole castings.
24. Maintained odor control improvements at the Portage/Catawba Island Wastewater Treatment Plant to minimize gases released throughout the treatment process.
25. Conducted twenty-nine (29) manhole inspections.
26. Started Supervisory Control and Data Acquisition system upgrade.
27. Design and Install new Return Activated Sludge blending system.
28. Performed E-coli study for Commodore drive residence and surrounding area.
29. Worked with Ohio EPA Rep: Jon van Dommelen on process control improvements.
30. Successfully completed an Ohio EPA compliance/sampling inspection with no deficiencies reported at the wastewater treatment plant.

Ottawa County Regional Water Distribution System

1. Operated the Ottawa County Regional Water Distribution System within the original appropriated operations budget. Revenues (\$4,367,467) exceeded operating expenses (\$4,222,426) by \$145,041 allowing for an end of the year transfer of an additional \$100,000 to the repair and replacement fund for planned future capital improvements.
2. Completed construction of the \$1.2 million dollar Elevated Water Tower Rehabilitation Project; including various mechanical repairs/upgrades and paint restoration of the interior and exterior of the Catawba Island, Harris and Danbury Township Water Towers.
3. The average annual residential water rate throughout the Regional Water Distribution System was \$462.70 (\$38.56 per month, per EDU). The latest average annual residential water rate throughout Ohio (based upon 2018 data available through the

Ohio EPA's Economic Analysis Unit) was \$639.00 (\$53.25 per month); which is 38% higher than Ottawa County's regional water rate.

4. Issued one-hundred eight (108) permits to connect to the public water system totaling \$325,823.52 in up-front fees and charges.
5. Nine (9) permits to connect were issued to the public water system with deferred connection fees in the amount of \$24,228.00.
6. Collected \$17,525 in backflow testing fees (932 devices were tested).
7. Certified delinquent receipts were \$5,163.47 (0.13%) of the billed receipts (0.14% in 2018).
8. Performed maintenance on three hundred seventy five (375) fire hydrants & blow offs including leaks & greasing.
9. Repaired one (1) water main break.
10. Repaired three (3) water service leaks.
11. Fifty four (54) excavations to repair valve boxes.
12. Eight (8) depressurizations occurred that resulted in boil advisories for three hundred one (301) services.
13. Mailed out twenty-five (25) meter pit/yoke and/or riser violation letters. County raised and invoiced five (5) repairs. Twenty-four (24) are in compliance. County will be performing the one outstanding violation repair work in 2020.
14. Continued to implement Ottawa County's backflow prevention program including education of the general public and performing inspection surveys.
15. Continued an in-house monitoring program to verify the accuracy of the regional water system master meters.
16. Continued the in-house program of testing and upgrading approximately 1,687 cathodic protection test stations.
17. Performed maintenance on 13 cathodic protection test stations including replacement of anodes @ 3 locations.
18. Performed Encoder Receiver Transmitter (ERT) maintenance on 972 units (ERT maintenance, missed meter, meter maintenance).
19. Reread 52 meters.
20. Performed spring and fall flushing of 1,030 fire hydrants and 323 blow-offs.
21. Annual Non-Revenue Water (Water Loss) percentage for 2019 was maintained at 11%.

22. Installed an estimated fifty (50) meter pit insulation kits.
23. Worked with developers to review plans for future water extensions in The Resort at Erie Landing RV Park, Safe Harbor Subdivision & RV Park, Bayfield Subdivision, Fairway Estates Development, and Harbor's Edge at CIC Condominium #6.
24. Developed an Asset Management Plan that meets Ohio EPA requirements.
25. New meter reading hardware & software.

Ottawa County Regional Water Treatment Plant & Transmission System

1. Operated the Ottawa County Regional Water Treatment Plant and Transmission System within the original appropriated operations budget. Revenues (\$3,417,426) exceeded total expenses (\$3,297,072) by \$120,354 for the year allowing for an end of the year transfer of an additional \$100,000.00 to the repair and replacement fund for planned future capital improvements.
2. Completed construction of the \$481,071 Regional Water Treatment Plant, Clarifier Rehab and Paint Restoration Project.
3. Water Treatment Plant production – 1.27 billion gallons.
High Service Flows – 1.19 billion gallons.
4. Conducted three (3) Regional Water Policy Board meetings to continue to maintain a positive working partnership with the City of Port Clinton and Village of Oak Harbor.
5. Completed FY 2019 with zero (0) treatment violations; experienced one (1) OEPA reporting violation due to a lab error.
6. Upgraded the Consumer Confidence Report format and posted on the same on the department website. Mailed out billing message notices to all county distribution water customers referencing the report's availability.
7. Operated the Water Treatment Plant 24 hour per day, 7 days a week throughout the entire year to maximize treatment capabilities.
8. Completely re-wrote the Drinking Water System Contingency Plan as required by EPA; including language to address algae/microcystin concerns.
9. Conducted various tours of the water plant for the general public including Leadership Ottawa County and American Water Works Association (AWWA) Young Professionals.
10. Attended the state AWWA conference.
11. Completed one (1) Ohio EPA sanitary survey.
12. Attended a Lake Erie Water Treatment Plant Group meeting.

13. Cleaned wet wells at the raw; all three clarifiers, flumes to and from clarifiers, and pretreatment basis.
14. Secured chemical recertification for four (4) employees.
15. Authorized Aulick and Bonded Chemical to evaluate two (2) set of corrosion coupons.
16. Risk Management Plan was reviewed.
17. Updated the Asset Management Plan for 2019.
18. Worked with USEPA on project to determine if algae in raw water increases TTHM formation.
19. Rebuilt raw water pump #3.
20. Emergency acid feed system approved by Ohio EPA to treat microcystin toxins.
21. Participated in various media interviews regarding the Harmful Algal Bloom and its effect on drinking water.

Ottawa County Radio Tower (Regional Water Transmission)

1. Continued ongoing operation and maintenance of the radio tower.
2. System Revenues: FY 2019 - \$56,224
System O & M Expenses: FY 2019- \$34,955
3. Transferred \$3,000 per month from the Radio Tower fund to the Regional Water Plant and Transmission Main fund to support the general operations of the Regional Water Treatment Plant.
4. Installed new Obstruction Lighting System per FAA regulations, replacing an antiquated and malfunctioning system.

Salem Township Sewer District

1. Continued to provide operational/maintenance support services, as needed, to the Riverview Health Care Campus and Ottawa County Fairgrounds wastewater pump stations.

Safety

1. Participated in Ottawa County Safety & Risk Management meetings.
2. Zero (0) OSHA recordable injury in 2019; resulting in zero (0) days lost time.

3. Completed thirty-five (35) confined space entries without incident.

Allen/Jerusalem Township

1. Completed a Joint Ottawa & Lucas County Sanitary Collection and Treatment General Plan for the Curtice and Williston Unsewered Areas.
2. Began to negotiate the terms and conditions of an Intergovernmental Agreement between Ottawa County, Lucas County, and the City of Oregon to address the design, financing, construction, operation, maintenance, and administration of the proposed Curtice/Williston Sanitary Sewer System.
3. Submitted an Ohio EPA, WPCLF Nomination Request for the Curtice/Williston Sanitary Sewer Project.
4. Completed stream sampling in Cedar and Crane Creeks for the Curtice/Williston Sanitary Sewer Project.
5. Met with the Director of the Ohio EPA and representatives of the governor's office to request funding for the Curtice/Williston Sewer Project. Met with Ohio Representative DJ Sweringin and Ohio Senator Theresa Gavarone to pursue funding for the Curtice/Williston Sewer Project.

General

1. Responded to 3,866 locates via Ohio Utilities Protection Services (OUPS).
2. Responded to 7,617 Mobile 311 service calls and 3,172 Muni-Link service calls.
3. Rebuilt one hundred fifteen (115) E1 Grinder Pumps in-house.
4. Continued to update and maintain a department website to disseminate information to the general public.
5. Continued to serve on the Ottawa Regional Planning Commission (ORPC).
6. Continued to sign-up customers for paperless billing services (e-bill) to our customers. Total as of December 31, 2019 was 906 e-bill customers. 1,800 customers have registered on the customer portal to access their account information or pay their bill.
7. Continued to participate in the Toledo Metropolitan Area Council of Governments Environmental Council (TMACOG) meetings.
8. Continued to work with TMACOG and local communities to update the areawide water quality management plan, a.k.a. 208 Plan, for areas of need throughout Ottawa County.
9. Processed forty-one (41) property splits resulting in assessment re-distributions for Danbury, Portage/Catawba Island Sewer, and Regional Water Customers. Processed twenty-four (24) property splits resulting in no changes in assessments.

10. Reviewed seven (7) Administrative Approval property splits.
11. Continued to sign-up customers for the electronic funds transfer method of water and sewer bill payment. Total as of December 31, 2019 was 3,753 customers.
12. Updated the FY-2019 5-Year Capital Improvement Plan for water & sewer throughout Ottawa County.
13. Consulted and advised the Village of Put-in-Bay on new low pressure sewer system regulations. Continued to act as plan reviewer for all sewer and water extensions into the township on South Bass Island, in compliance with Intergovernmental Agreement.
14. Administered and maintained the water and sewer monthly billing system for 9,978 accounts.
15. Attended the County Commissioner Association of Ohio/County Engineers Association of Ohio/Sanitary Engineers Association of Ohio summer and winter conferences.
16. Managed several personnel changes, including: Hiring Shirley Ross as Billing/Clerical Specialist I, Dillon Kodak as Laborer and Brandon Garber as Summer Seasonal Laborer; Promoted Jacob Wukie to Water Operator II/Maintenance and Ryan Mahler to Water Operator I/Maintenance; Reclassified Spencer Wadsworth to Part-time Laborer and then promoted Spencer to Full-time Laborer; accepted the resignation of Jack Evans as Water Operator III/Maintenance; and Linda Tisza retired as Billing/Clerical Specialist II.
17. Collected \$4,366.48 in deferred assessments from agricultural properties that have been developed and no longer qualify as agriculturally deferred. The deferred assessments were then paid back to the Ohio Water and Sewer Rotary Commission.
18. Collected \$4,709.16 in developer recoupment fees and paid back to the developer.
19. Continued to serve as the alternate on the District 5 executive, integrating, and local Ohio Public Works Commission State Issue II Committees.
20. Advertised for bids and contracted for the delivery of chemicals for the Danbury and Portage-Catawba Island Wastewater Treatment Plants and the Ottawa County Regional Water Treatment Plant through 2020.
21. Provided the necessary training and educational support to maintain professional operations and engineering licenses through required continued education hours.
22. Continued maintenance of all public records relating to department operations in compliance with applicable public record laws. Ensured availability, upon request within a reasonable time frame, as evidenced by several different records requests.
23. Internet auction, Gov Deals sales of \$9,163.06 plus \$3,104.69 in scrap metal recycling.
24. Continued active participation and membership in the water industry's leading trade organization, the American Water Works Association.

25. Utilized the new cloud based Muni-Link utility billing software service throughout 2019.
26. Processed a total of 1,863 shut-off notices and actually turned off a total of 219 accounts for the entire year of 2019.
27. Printed and mailed out 110,861 invoices in 2019 through Smartbill.
28. Processed 112,591 receipts, 1,652 cash payments, 43,422 direct payment (ACH), 12,927 electronic fund transfer (EFT), 3,382 Jet Pay payments, 41,102 scanned payments, and 10,106 scan/hand posted payments (bank checks).
29. Processed one (1) Sheriff Sale.
30. Served on the Ottawa County Improvement Corporation Business Attraction Strategy Committee working to attract and promote businesses to Ottawa County.
31. Served as a member of The Ohio State University Sea Grant review panel to award Ohio Department of Higher Education grant funds to various universities for HAB research projects.
32. Developed/created an Ottawa County Sanitary Engineering "Heart of the Western Basin" logo for the department. Printed decals for all of the department vehicles and building entrances.
33. Continued to implement ESRI's online platform to update and maintain the Utility GIS Mapping by pairing the ESRI's Collector Application with a GPS Receiver to locate new assets in the field. This application allows field personnel to create and location new features in the field as part of their daily workflow.
34. At the request of Senator Rob Portman, the Sanitary Engineer participated in a Lake Erie Roundtable with the Senator Portman, Congressman Joyce, ODNR Director Mertz, Lake Erie Commission Director Joy Mulinex, Ohio Sea Grant Director Chris Winslow and others to discuss the environmental status of the lake.
35. Participated in the Ottawa County Career Day with local students.

cc: file