

**OTTAWA COUNTY  
SANITARY ENGINEERING DEPARTMENT**

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

James K. Frey, P.E., P.S.

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**March 29, 2019**

**To: Board of Ottawa County Commissioners**  
**From: James K. Frey, P.E., P.S.**  
**Re: Revised 2018 Year End Report**

Attached please find a revised/updated 2018 Sanitary Engineering Department Year End Report.

Several metrics were adjusted to reflect the latest and most accurate information available to the department.

Please feel free to contact me if you have any questions.

Thank you,

Cc: File

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**2018**

**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 \$397,990.67 for the year allowing for an end of the year transfer of an additional \$350,000.00 to the repair and replacement fund for planned future capital improvements.
2. Began construction of the \$1.6 million dollar Danbury Township WWTS capital improvement projects to maintain the integrity of the treatment plant and collection system. Awarded two of the three scheduled construction contracts.
3. The 2018 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 2017 data available through the Ohio EPA's Economic Analysis Unit) was \$677.00 (\$56.42 per month); which is more than double the Danbury Wastewater Treatment System's residential sewer rate.
4. Treated 470,292,100 gallons of wastewater, an increase of 7.3% from 2017.
5. Maintained compliance with EPA, NPDES permit treatment requirements, with no exceptions.
6. Completed "No Exposure" certification for exclusion from Industrial NPDES storm water permitting.
7. Acquired new five (5) year NPDES permit.
8. Secured Ohio EPA approval of a Mercury Variance Application request.
9. Completed a Phosphorus Discharge Optimization Plan.
10. Secured a Minimum Staffing reduction for Class #3 operators and initiated a Low Level Chlorine/SCADA monitoring project to achieve further staffing requirement reductions in 2019.

11. Responded to thirteen (13) E1 Grinder Pump service calls.
12. Repaired two (2) gravity sewer main break.
13. Issued eighty-two (82) new and/or repair permits to connect to the sanitary sewer system totaling \$126,128.74 in up-front permit fees and charges.
14. Seven (7) permits to connect were issued to the sanitary sewer system with deferred connection fees in the amount of \$17,500.00.
15. Maintained certified delinquent receipts at \$12,503.63 (0.53%) of billed receipts (0.66% in 2017).
16. Worked with developers to review plans for future sanitary sewer extensions in Meadows on the Bay RV Park, Prehistoric Forest RV Park, Bass Haven Sewer Relocation, Hershey Sewer Relocation, Rucinski Memorial Shoreway Sewer Extension and Willow Cove Boataminium.
17. Completed a 2017 Annual Sewer System Overflow (SSO) Report for the Danbury Township Collection System. Experienced two (2) collection system surcharge violations (SSO) in 2018.
18. Performed fourteen (14) video camera investigations of private/public collection systems to confirm problems and/or record drawing infrastructure information covering 4,450 linear feet of pipe. Contracted CCTV work of 23,098 linear feet of pipe inspection.
19. Issued twenty-one (21) notice of violation letters to property owners. Ten (10) have been brought in to compliance.
20. Conducted multiple meetings with engineers and two (2) with general contractors regarding possible subdivision developments.
21. Repaired five (5) gravity sewer lateral breaks caused by sewer service installation and three (3) pressure sewer lateral leaks.
22. Raised/repaired thirty-two (32) manholes.
23. Conducted eighty-eight (88) manhole inspections.
24. Installed one (1) new E-1 grinder pump.

### **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 \$243,997.29 for the year allowing for an end of the year transfer of an additional \$200,000.00 to the repair and replacement fund for planned future capital improvements.

2. Began construction of the \$2.6 million dollar Portage/Catawba Island WWTS capital improvement projects to maintain the integrity of the wastewater treatment plant and collection system. Construction is anticipated to be completed in 2019.
3. Secured \$113,985 OPWC Emergency Grant for the State Road Sanitary Sewer Subsidence Emergency Repair Project. Awarded a construction contract to Ken Gill Construction to perform the work. Final completion is scheduled for 4/15/19.
4. Increased sanitary sewer rates by \$2.00 per equivalent dwelling unit: effective 12/19/18. The 2018 average annual residential sewer rate in the Portage/Catawba Island Wastewater System was \$396.00 (\$33.00 per month, per EDU). The latest average annual residential sewer rate throughout Ohio (based upon 2017 data available through the Ohio EPA's Economic Analysis Unit) was \$677.00 (\$56.42 per month); which is 71% greater than the Portage/Catawba Island Wastewater Treatment System's 2018 rate.
5. Treated 172,051,000 gallons of wastewater, an increase of 13.2% from 2017.
6. Complied with EPA NPDES permit treatment requirements with no exceptions.
7. Land applied 469,000 gallons of digested sludge. Increased the percentage of solids to 3.5% resulting in a savings of \$15,125 over past operating practices.
8. Upgraded three (3) odor/corrosion control stations in the collection system.
9. Replaced administration building roof with Duro-Last energy saving roofing system.
10. Installed metal ceiling and R-50 insulation in vehicle storage building.
11. Cleaned VVR tank #1 and replaced 168 fine bubble diffusers.
12. Completed a 2017 Annual Sewer System Overflow (SSO) Report for the Portage/Catawba Island Collection System. Experienced two (2) collection system surcharge violations in 2018.
13. Issued one hundred fourteen (114) new and/or repair permits to connect to the sanitary sewer system totaling \$196,524.58 in up-front permit fees and charges.
14. Three (3) Permits to Connect were issued to the sanitary sewer system with deferred connection fees in the amount of \$12,140.28.
15. Maintained certified delinquent receipts at \$4,041.37 (0.18%) of the billed receipts (0.31% in 2017).
16. Worked with developers to review plans for future sanitary sewer extensions in Smith-Spitler Subdivision, Woodlands (Laurel Ridge) Sewer Extension, and SR 163 Extension.
17. Installed three (3) new E-1 grinder pumps.
18. Responded to one hundred sixty-eight (168) E-1 grinder pump service calls.
19. Repaired one (1) pressure sewer main break.

20. Performed thirty-nine (39) video camera investigations of private/public collection systems to confirm problems and/or record drawing infrastructure information covering 8,744 linear feet of pipe.
21. Performed eight (8) infiltration/inflow site and/or office meeting with mobile home/RV park owner and/or association members.
22. Issued sixty-three (63) notice of violation letters to property owners. Fifty-nine (59) are known to be in compliance.
23. Conducted multiple meetings with engineers and five (5) with general contractors regarding possible subdivision developments.
24. Repaired four (4) gravity sewer lateral breaks and three (3) pressure sewer breaks. Replaced three (3) valves and seven (7) check valves in E-1 grinder pumps.
25. Raised/repaired twenty-eight (28) manhole castings.
26. Maintained odor control improvements at the Portage/Catawba Island Wastewater Treatment Plant to minimize gases released throughout the treatment process.
27. Conducted thirty-five (35) manhole inspections.
28. Performed smoke testing on 8,667 linear feet of sewer pipe.

### **Ottawa County Regional Water Distribution System**

1. Operated the Ottawa County Regional Water Distribution System within the original appropriated operations budget. Revenues (\$4,376,132.23) exceeded operating expenses (\$4,167,516.35) by \$208,615.88 allowing for an end of the year transfer of an additional \$150,000.00 to the repair and replacement fund for planned future capital improvements.
2. Continued construction of the \$1.3 million dollar Elevated Water Tower Rehabilitation Project. Completed the paint restoration work of the interior and exterior of the Catawba Island and Harris Township Water Towers. The Danbury Township Water Tower is scheduled to be completed in 2019 along with minor mechanical improvements to the other two 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 2017 data available through the Ohio EPA's Economic Analysis Unit) was \$634.00 (\$52.83 per month); which is 37% higher than Ottawa County's regional water rate.
4. Issued one hundred sixty-nine (169) new and/or repair permits to connect to the public water system totaling \$351,606.07 in up-front fees and charges.

5. Ten (10) permits to connect were issued to the public water system with deferred connection fees in the amount of \$26,920.00.
6. Collected \$16,830.00 in backflow testing fees (878 devices were tested).
7. Certified delinquent receipts were \$5,624.32 (0.14%) of the billed receipts (0.17% in 2017).
8. Repaired one hundred sixty-eight (168) hydrants of which eight (8) were hydrant leaks and four (4) blow-off leaks. Replaced two (2) hydrants damaged by automobile accidents.
9. Repaired three (3) water main breaks.
10. Repaired nine (9) water service leaks.
11. Eleven (11) excavations to repair valve boxes.
12. Fifteen (15) depressurizations that resulted in boil advisories for three hundred twenty-six (326) services.
13. Mailed out twenty-eight (28) meter pit/yoke and/or riser violation letters. Seven (7) are in compliance. The county will be performing the work for twelve (12) this spring and bill the customers.
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 825 cathodic protection test stations.
17. Replaced one (1) failed anode.
18. Performed ERT and meter maintenance on 1,396 (ERT maintenance, missed meter, meter maintenance, and rereads).
19. Performed spring and fall flushing of 826 fire hydrants and 254 blow-offs.
20. Annual Non-Revenue Water (Water Loss) percentage for 2018 was maintained at 8%.
21. Installed an estimated forty (40) meter pit insulation kits.
22. Replaced twenty-two (22) failed Tap Saddles on Lake Street in Gypsum.
23. Worked with developers to review plans for future water extensions in Meadows on the Bay RV Park, Prehistoric Forest RV Park, Smith-Spitler Subdivision, and The Resort at Erie Landings.

## 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 (\$3,359,469.48) exceeded total expenses (\$3,118,121.01) by \$241,348.47 for the year allowing for an end of the year transfer of an additional \$200,000.00 to the repair and replacement fund for planned future capital improvements.
2. Initiated construction of the \$657,000 Regional Water Treatment Plant, Clarifier Rehab and Paint Restoration Project.
3. Water Treatment Plant production – 1.24 billion gallons.  
High Service Flows – 1.16 billion gallons.
4. Completed various water treatment plant repairs and rehabilitation projects at a total cost of \$37,334.00; including repairs to #3 clarifier rake arm; cleaned and inspected both clearwells; sealed gap between concrete walls and fiberglass dome on both clearwells.
5. 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.
6. Completed FY 2018 with zero (0) treatment violations.
7. Posted Consumer Confidence Report on the department website and mailed out billing message notices to all county distribution water customers referencing the report's availability.
8. Operated the Water Treatment Plant 24 hour per day, 7 days a week throughout the entire year to maximize treatment capabilities.
9. Updated the Drinking Water System Contingency Plan as required by EPA; including language to address algae/microcystin concerns.
10. Conducted various tours of the water plant for the general public.
11. Attended regional and state AWWA conferences.
12. Completed one (1) EPA sanitary survey.
13. Attended Lake Erie Water Treatment Plant Group meeting.
14. Cleaned wet wells at the raw; all three clarifiers, flumes to and from clarifiers, and pretreatment basis.
15. Participated in Ottawa County Career Day with local students.
16. Secured chemical recertification for two (2) new employees.
17. Authorized Bonded Chemical to evaluate two (2) set of corrosion coupons.

18. Risk Management Plan audit was approved.
19. Chlorine training for twelve (12) employees.
20. Developed an Asset Management Plan that meets Ohio EPA requirements.
21. Worked with USEPA on project to determine if algae in raw water increases TTHM formation.

**Erie Township Sanitary Sewer Project**

1. Completed the construction of \$1,276,738.05 Phase I, Erie Township Sanitary Sewer Project. Certified final assessments relating to the project to the Ottawa County Auditor for collection over a 20-year period.

**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.
2. Issued one (1) new and/or repair permit to connect to the sanitary sewer system totaling \$25.00 in up-front fees and charges.

**Ottawa County Radio Tower (Regional Water Transmission)**

1. Continued ongoing operation and maintenance of the radio tower.
2. System Revenues: FY 2018 - \$55,935.90  
System O & M Expenses: FY 2018- \$16,335.11
3. Transferred \$2,000.00 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. In addition, transferred \$117,500.00 from the Radio Tower Fund to the RWTP, Clarifier Rehab and Paint Restoration Project to financially support the construction of the project.
4. Installed new roof on radio tower building at a cost of \$2,200.00.

**Safety**

1. Participated in Ottawa County Safety & Risk Management meetings.
2. Five (5) OSHA recordable injury in 2018; resulting in Zero (0) days lost time.
3. Completed sixty (60) confined space entries without incident.



## General

1. Responded to 3,895 locates via Ohio Utilities Protection Services (OUPS).
2. Responded to 5,274 Mobile 311 service calls and 3,319 Muni-Link.
3. Rebuilt two hundred five (205) 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, 2018 was 748 e-bill customers. 1,428 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 thirty-eight (38) property splits resulting in assessment re-distributions for Danbury, Portage/Catawba Island Sewer, and Regional Water Customers. Processed thirty (30) property splits resulting in no changes in assessments.
10. Reviewed three (3) 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, 2018 was 3,547 customers.
12. Updated the FY-2018 5-Year Capital Improvement Plan for water & sewer throughout Ottawa County.
13. Administered and maintained the water and sewer monthly billing system for 9,918 accounts.
14. Attended the County Commissioner Association of Ohio/County Engineers Association of Ohio/Sanitary Engineers Association of Ohio summer and winter conferences.
15. Managed several personnel changes, including: promoting Theresa Spitler to Chief Billing/Clerical Specialist, Dan Bond to Chief Water Operator/Maintenance, Jack Evans to Water Operator III/Maintenance, and Adam Smith to Water Operator II/Maintenance, and Jared Fleming to Maintenance III; reclassified Jeff Kukay to Water Operator III/Maintenance and Matt Berry to Wastewater Operator III/Maintenance; hired Jacob Wukie as a Water Operator I/Maintenance; Hired Alex Camerato and Spencer Wadsworth as Summer Seasonal Laborers; accepted the resignation of Jaime Mendoza as Water Operator II/Maintenance; and Wesley Brewer retired as Wastewater Operator III/Maintenance.

16. Collected \$4,296.71 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.
17. Continued to serve as the alternate on the District 5 executive, integrating, and local Ohio Public Works Commission State Issue II Committees.
18. 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 2019.
19. Provided the necessary training and educational support to maintain professional operations and engineering licenses through required continued education hours.
20. 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.
21. Internet auction, Gov Deals sales of \$6,558.35 plus \$1,536.65 in scrap metal recycling.
22. Continued active participation and membership in the water industry's leading trade organization, the American Water Works Association.
23. Utilized the new cloud based Muni-Link utility billing software service throughout 2018.
24. Processed a total of 1,871 shut-off notices and actually turned off a total of 209 accounts for the entire year of 2018.
25. Printed and mailed out 112,154 invoices in 2018 through Smartbill.
26. Processed 111,835 receipts; 2,070 cash payments, 42,524 direct payment (ACH), 10,428 electronic fund transfer (EFT), 2,472 official payments, 44,028 scanned payments, and 10,273 scan/hand posted payments (bank checks).
27. Processed five (5) Sheriff Sales.
28. Served on the Ottawa County Improvement Corporation Business Attraction Strategy Committee working to attract and promote businesses to Ottawa County.
29. 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.
30. Presented to the Society of the Environmental Journalists at their annual meeting in Toledo, Ohio.

cc: file