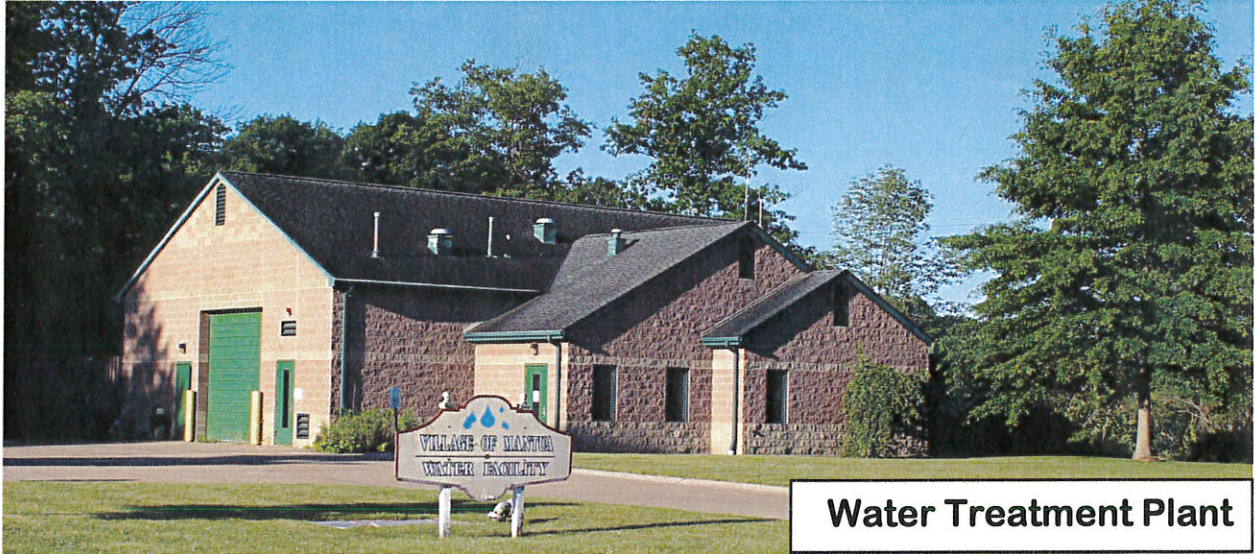




Proposal & Qualifications

For the Ownership, Operation &
Management of the Village of Mantua Water
and Wastewater Treatment Facilities



April 2019

Prepared by the Portage County Water Resource Department
for the Village of Mantua

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PART 2	Proposal
PART 3	Statement of Qualifications



Board of Commissioners

Vicki A. Kline, President
Kathleen Clyde, Vice President
Sabrina Christian-Bennett, Board Member

Gene Roberts, P.E. Director
Water Resources Department

April 9, 2019

Village of Mantua
Mayor Linda Clark
Mantua Village Hall
4650 West High Street

Portage County is offering to acquire and operate the Village of Mantua Water and Wastewater Systems by assuming the Village of Mantua's debt, liabilities, receivables, and assets from the operation of their Water and Wastewater Systems.

If Portage County is selected to acquire and operate the Village of Mantua Water and Wastewater Systems Portage County requires no financing from the Village of Mantua for the transfer of the facilities.

Portage County has provided its current financial position as of the end of 2018 and twelve years of Comprehensive Annual Financial Reports as prepared by or for the State of Ohio Auditor's Office.

Portage County proposes to continue with the current Village of Mantua water and sewer rate structure, including future increases provided for by Ordinance. The difference between the Village of Mantua rate structure and the Portage County rate structure shall be used to pay the debt transferred with the utilities and the identified repairs required at the time of transfer. This rate structure shall remain in place, until such time as all actual cost of debt and required improvements at the Village of Mantua Water and Wastewater Facilities are completed and paid for as identified at the time of ownership transfer. At the future date when all improvements are paid for the Village of Mantua Water and Wastewater Systems customers would then pay the current Portage County rates for utility services.

Respectfully submitted,

A handwritten signature in blue ink, appearing to read "Eugene K. Roberts".

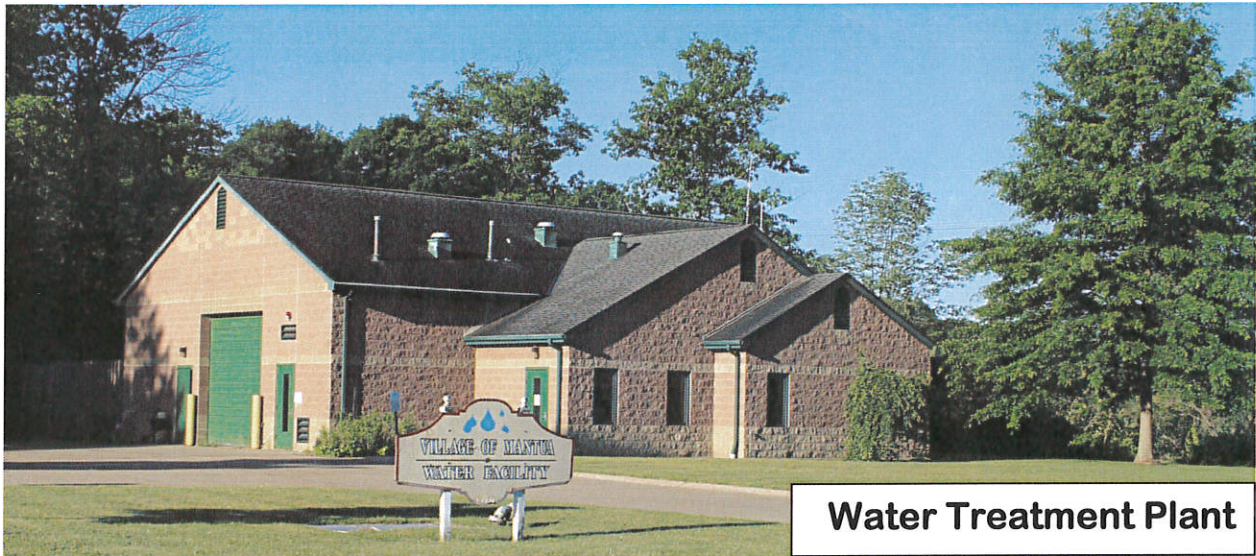
Eugene K. Roberts, P.E.
Director Portage County Water Resources

Cc: Portage County Board of Commissioners



Proposal

For the Village of Mantua Water and Wastewater Treatment Facilities



April 2019
Prepared by the Portage County Water Resource Department
for the Village of Mantua

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1 PURCHASE PROPOSAL

Portage County is offering to acquire and operate the Village of Mantua Water and Wastewater Systems by assuming the Village of Mantua's debt, liabilities, receivables and assets as they may pertain to or are the outcome of the Village of Mantua Water and Wastewater Systems operations.

Portage County expects that the Village of Mantua will pass all necessary resolutions required so that Portage County can own and operate the utilities transferred without obstruction, hindrance or obstacle.

1.1 DEBT

Debt will include any outstanding balance on the date of transfer from all loans where the proceeds of the loan were used to maintain the Village of Mantua Water and Wastewater Systems. Portage County will require that the Village assist in the debt transfer including turnover of all necessary documents developed when the debt was acquired.

Portage County understands from financial documents provided by Village of Mantua that the reported debt, acquired for improvements to the Village of Mantua Water and Wastewater Systems, total payoff in 2019 is approximately One Million Five Hundred Thousand Dollars, principal and interest. The Village of Mantua projected in 2017 that all debt would be paid off in 2024.

1.2 LIABILITIES

Liabilities shall include all accounts payable at the time of ownership transfer for any pending amount to be paid for operation, maintenance, repair and replacement of the Village of Mantua Water and Wastewater facilities. Portage County will require that the Village assist is the transfer, where deemed prudent, of all vendor accounts as soon as possible after ownership transfer.

All known Liabilities shall be presented by the Village of Mantua to Portage County prior to execution of the Asset Purchase Agreement.

1.3 RECEIVABLES

Receivables shall include all funds due the Village of Mantua at the time of ownership transfer for any outstanding collectable, due the Village of Mantua, from anyone owing a debt which upon collection would be used for the operation, maintenance, repair and replacement of the Village of Mantua Water and Wastewater facilities.

All known receivable shall be presented by the Village of Mantua to Portage County as part of the execution of the Asset Purchase Agreement. Portage County will require that the Village assist with the collection of known receivables including but not limited to transfer of the debt in whatever form is necessary by which Portage County can exercise all of its available rights to collect the debt.

1.4 ASSETS

Assets shall include the Water Treatment Plant, Well Field including required sanitary protection zone around each Well, Raw Water Line, Water Wells, Electrical Service to the Wells, Water Booster Station, Water Reservoir, all of the Water Distribution System, all incidentals related to the Water system, the land under all Water system facilities except public right-of-way and use of the public right-of-way for the delivery of utility services at time of transfer and in the future.

Assets shall include the Wastewater Treatment Plant, the Wastewater Lift Stations and the Collections System, both gravity and force main, all incidentals related to the Wastewater system, the land under all Wastewater system facilities except public right-of-way and use of the public right-of-way for the delivery of utility services at time of transfer and in the future.

If it is determined that any of the Water or Wastewater facilities are not identified at the time of transfer to be located on property required to be transferred as outlined above then the Village of Mantua shall work with Portage County to obtain suitable easements or ownership of lands identified for operation of utility services and access to the facilities.

In addition to the assets outlined above all equipment, inventory and cash assets used by or obtained from the operation of the Village of Mantua utilities shall become the property of Portage County.

If Portage County is selected to receive ownership and operating responsibility of the Village of Mantua Water and Wastewater facilities all assets shall transfer on the day agreed to by the Village of Mantua and Portage County.

2 FINANCING

Portage County does not require financing from the Village of Mantua for the transfer of the facilities and proposes to acquire and operate the Village of Mantua Water and Wastewater Systems as owner/operator.

When needed and determined prudent by Portage County it will obtain financing for future improvement projects at the Village of Mantua Water and Wastewater Facilities. Future financing will be similar to financing used for all other public improvement projects undertaken by Portage County Water Resources. Portage County typically uses State of Ohio funding available to Publicly Owned Utilities. Portage County will search the available funding sources selecting the most favorable terms for all debt instruments.

3 FINANCIAL ASSURANCE

Portage County provided in its "Statement of Qualifications, Section 5 - Financial Assurance" the following information:

Portage County Water Resources end of 2018 financial position is below:

For 2018	PC Sanitary	STBO Sanitary	PC Water
Carry over from 2017	\$5,737,836	\$6,614,156	\$6,809,413
Revenue	8,165,174	4,537,298	6,286,099
Personnel	2,380,680	1,236,165	1,202,315
Operating Expenses	2,719,130	1,369,385	2,172,815
Capital Expenses *	1,449,077	238,713	429,818
Service Debt	1,463,564	526,559	149,349
End of Year 2018	\$5,890,558	\$7,780,632	\$9,141,214

Further Portage County Water Resources offered in its Statement of Qualifications Section 5 - Financial Assurance, a summary of twelve years of Comprehensive Annual Financial Reports as prepared by or for the State of Ohio Auditor's office for each year and certified as accurately representing Portage County Water Resources' ability to provide financial

4 RATE STABILIZATION

If selected to take over the ownership and operation of the Village of Mantua Water and Wastewater Systems, Portage County is proposing for the Village of Mantua customers to continue their current rate structure. The current rate structures, including future increases, are provided for in the Village of Mantua Codified Ordinance; for water, Section 921.02 "Water Usage Rates" (Ord. 2017-24. Passed 9-19-17.) and for sanitary sewer, Section 931.01 "Rates" (Ord. 2017-25. Passed 9-19-17.). The Portage County proposal leaves customers in the same rate schedule as they currently have. Once the last planned future increase, provided for in the Village of Mantua Ordinance, is implanted no additional increases are planned.

The improvements needed at the Village of Mantua Water and Wastewater Facilities are listed in Portage County's Statement of Qualifications "Section 2 - Capital Investment Plan". The improvements needed are in large part due to lack of timely maintenance and staying current with current regulatory and design standards. Portage County's willingness to offer to acquire and operate the Village of Mantua Water and Wastewater Systems is based on correcting the backlog of maintenance and updating utility systems to meet current regulatory and design standards.

The needs identified for the Wastewater Facilities are included in the 32 projects listed requiring a total investment budgeted at \$3,951,150. The needs identified for the Water Facilities are included in the 21 projects listed requiring a total investment budgeted at \$9,144,593. The combined total budget for Capital Investment for the Village of Mantua Water and Wastewater Facilities is \$13,095,743; this amount is the basis of the five year Capital Investment Plan budget.

Funding for the current transferred debt, the five year Capital Investment Plan and future debt required to implement the Capital Investment Plan, will come from the difference between what Portage County Charges for utility service and the rate structure currently in place by the Village of Mantua, including current increases provided for by Ordinance through 2024. The difference between the Village of Mantua rate and the Portage County rate will be added to the Village of Mantua customers' invoices as a surcharge for payment of the current transferred debt, the five year Capital Investment Plan and future debt required to implement the Capital Investment Plan. When the cost of the current transferred debt, the five year Capital

Investment Plan and future debt needed to implement the Capital Investment Plan is paid for in full the Village of Mantua customers will no longer pay the surcharge collected for said purpose and will continue paying the then current Portage County rate structure.

The amount to be paid back to implement the Capital Investment Plan will only be known once the projects are completed and the costs are totaled. Based on analysis of the Capital Investment Plan budget and future surcharge revenue projected to be received from the Village of Mantua customers, the payoff is projected for the capital investments in Wastewater in year 2030 and in Water in year 2041. There is no way to know exactly the cost of implementing the Capital Investment Plan or to know the future revenue from the Village of Mantua customers and therefore there is no way to guarantee when the surcharges for Water and Wastewater will be retired.

Portage County will exercise due diligence with regard to the cost of implementing the Capital Investment Plan so as to have the work completed at the best possible price. Portage County Water Resources will prepare and maintain detailed financial accounting, no different than it does for any other capital project, which will be available to the Village of Mantua customers and elected officials to upon request.

Portage County, if selected to take over the ownership and operation of the Village of Mantua Water and Wastewater Systems, looks forward to working with the Village of Mantua officials to develop the mutually agreeable details specific to the Asset Purchase Agreement.



Statement of Qualifications

For the Village of Mantua Water and Wastewater Treatment Facilities



April 2019
Prepared by the Portage County Water Resource Department
for the Village of Mantua

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1 TECHNICAL CAPABILITIES & EXPERIENCE

1.1 HISTORY OF THE PORTAGE COUNTY SANITARY ENGINEER

Portage County Water Resources traces its roots back to 1924, when the Village of Mogadore requested the Commissioners to create a sanitary sewer district. The sanitary sewer district would include all of the Village of Mogadore within Portage County. On May 19, 1924, the Commissioners established the Portage County Main Sewer District No.1, Sub-District M. They also accepted the proposals to enter into an agreement with E.D. Barstow to serve as County Sanitary Engineer.

During the summer of 1925, the Commissioners received petitions to establish sanitary sewer districts in Franklin and Aurora Townships. On August 31, 1925, the Commissioners extended the agreement with E.D. Barstow to complete the necessary sanitary engineering work anywhere in the County. The following years contained large volumes of sanitary sewer district work. The arrangement E.D. Barstow was extended, with minor modifications, until July 25, 1932.

On July 27, 1936, via Resolution No. 939, the Commissioners hired Charles C. Hommon as sanitary engineer to operate the sewage system at the County Home, in Shalersville Township, this work didn't apply to the other County sanitary sewer districts.

On February 8, 1937, the Commissioners found a long term solution to the County's Sanitary Engineer needs by appointing Paul C. Shafer, County Engineer, to the role of Sanitary Engineer. He served in this dual capacity for 30 years.

On June 26, 1967, via Resolution #67-97, the Commissioners created a Sanitary Engineering Department and appointed A. Ken Boydell as Portage County Sanitary Engineer, effective July 1, 1967, his duties were summarized in Ohio Revised Code Chapter 6117.

1.2 VILLAGE OF MANTUA AND PORTAGE COUNTY PARTNERSHIP

On May 23, 1974, Ohio Environmental Protection Agency operator and laboratory requirements resulted in the Village of Mantua and Portage County beginning a mutual benefit arrangement. Portage County agreed to pay for the use of the laboratory at the Village of Mantua Wastewater Treatment Plant while a new County laboratory was being built. This arrangement lasted until December 31, 1976, when the Portage County Sanitary Engineer started using their new laboratory. On the same date Portage County agreed to have the Sanitary Engineer operate and maintain the Village of Mantua four sewage pump stations and the sewage treatment plant. This arrangement was annually renewed until 1978.

In the early 1990's, Ohio Environmental Protection Agency requested that Portage County consider providing central sewer service in Mantua Township around Mantua Corners. Portage County hired a consulting engineer, to design a sanitary sewer system and pump station for the area. Via Resolution 96-505 Portage County agreed to send a maximum of 31,800 gallons per day of sewage to the Village of Mantua for treatment and pay a tap fee of \$55,000.

On September 5, 2000, Resolution 96-505 was rescinded and replaced by Resolution No. 00-663 based on flows from Mantua Corners and Ohio Turnpike Commissioners request for wastewater service at the Ohio Turnpike, Brady Leap Service Plaza, in Freedom Township, the Village of Mantua agreed to accept a total average daily flow from Portage County of 75,000 gallons per day. A tap fee of \$143,250 was paid by Portage County and the County agreed to pay up to \$562,500 for 15% of the Wastewater Treatment Plant expansion project cost.

On September 19, 2006, the Commissioners authorized the preparation of detailed plans and authorized the pursuit of funding assistance for sanitary improvements for the Aurora Meadows Subdivision in Mantua Township. On May 9, 2007, The Ohio Environmental Protection Agency issued Findings and Orders, under the authority of Ohio Revised Code Sections 6117.34 and 3745.01, to the Commissioners for the Aurora Meadows Subdivision in Mantua Township. On May 22, 2007, via Resolution No. 07-0498 the Commissioners accepted the Findings and Orders from the Ohio Environmental Protection Agency's and accepted the report from the Portage County Sanitary Engineer about anti-degradation and water quality being a problem from a new treatment plant. Consequently, collecting the wastewater and pumping to the Mantua Corners Pump Station was selected. On September 9, 2008, the Commissioners authorized the purchase of an additional 300,000 gallons per day capacity in the Village of Mantua Wastewater Treatment Plant.

On August 10, 1995, via Resolution No. 95-488, the Commissioners officially modified the name of the Portage County Sanitary Engineer Department, to the Portage County Water Resources Department.

1.3 PORTAGE COUNTY'S WATER RESOURCES DEPARTMENT MISSION

For almost a century Portage County has been actively pursuing a clean and healthy environment for all Portage County residents with a single mission of quality service at the least possible price, ever mindful of partnering with all communities in the obtainment of this most important goal for the sustainability of all of Portage County and all residents.

1.4 PORTAGE COUNTY'S CURRENT CUSTOMERS AND PARTNERSHIPS

Portage County Water Resources currently serves 3,649 water customers, 9,215 Portage County Sewer Customers, 4,754 City of Streetsboro sewer customers, and wholesales waters to both the City of Aurora and City of Streetsboro.

1.5 PORTAGE COUNTY BOARD OF COMMISSIONERS TABLE OF ORGANIZATION

Figure 1-1 is the current Portage County Board of Commissioner organization chart.

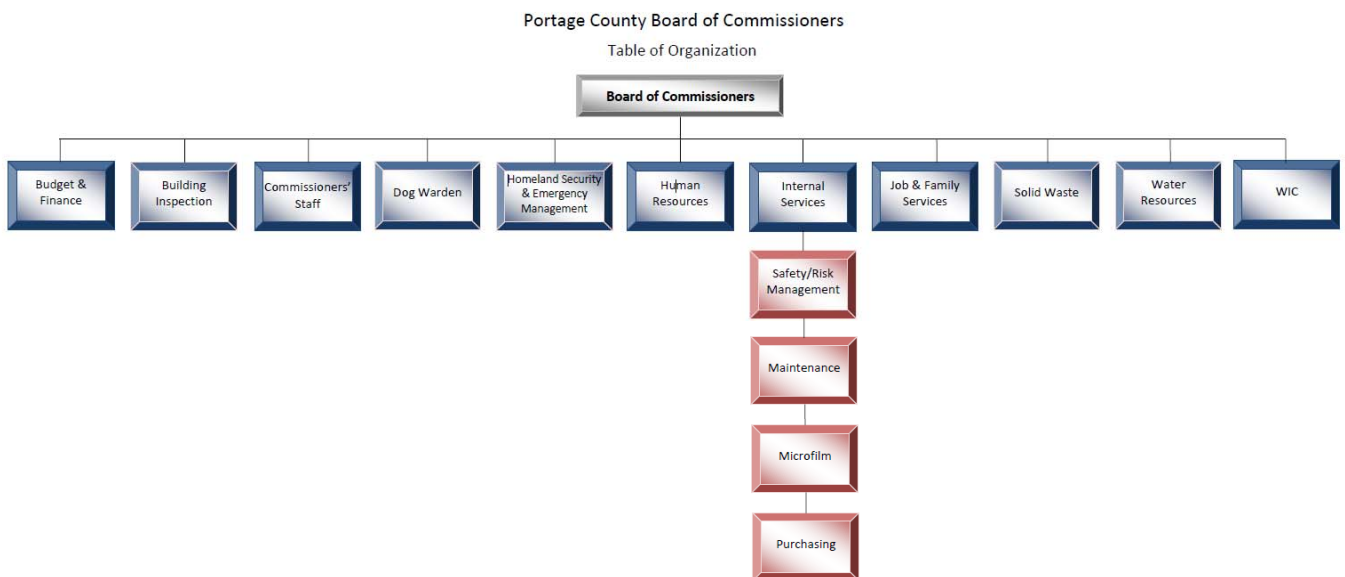


Figure 1-1 Portage County Board of Commissioners Table of Organization, effective date March 1, 2019

1.6 PORTAGE COUNTY BOARD OF COMMISSIONERS' DEPARTMENTS

The following Portage County Board of Commissioners' Department that are consulted with regarding the operations which Portage County Water Resources (PCWR) is responsible for are provided below.

In addition, Portage County Water Resources consults with the Assistant Prosecutor assigned by the Portage County Prosecutor's Office to provide legal counsel for the Department.

Finally, Portage County Water Resources consults with and relies on the Portage County Auditor's Office regarding maintaining appropriate financial records and retrieval of financial documents.

1.6.1 Budget & Finance

Provides PCWR with project financial estimates providing for long term financial stability for the utilities, operation of the utility billing, collection of past due bills and collection of assessment fees.

1.6.2 Building Inspection

Provides PCWR with building code guidance allowing for value engineering at the beginning of building projects.

1.6.3 Commissioner's Staff

Provides PCWR guidance for and scheduling of issues to be consider by the Portage County Board of Commissioners. Commissioners' staff are consulted when PCWR is looking for historical records held by the County Commissioner's Clerk.

1.6.4 Homeland Security & Emergency Management

Provides PCWR guidance for implantation of PCWR's Emergency Response Plan into the County Wide Emergency Response Plan.

1.6.5 Human Resources

Provides guidance and consultation in all matters relating to Employees and Employee benefits both for Collective Bargaining Agreement and non Collective Bargaining Agreement staff.

1.6.6 Internal Services

Provides PCWR with guidance for all Agreements between the utility and any entity. Further they are consulted regarding all matters relating to public records request and County insurance matters.

1.7 PORTAGE COUNTY WATER RESOURCES ORGANIZATION CHART

Figure 1-2 is the current Portage County Water Resources Organization Chart.

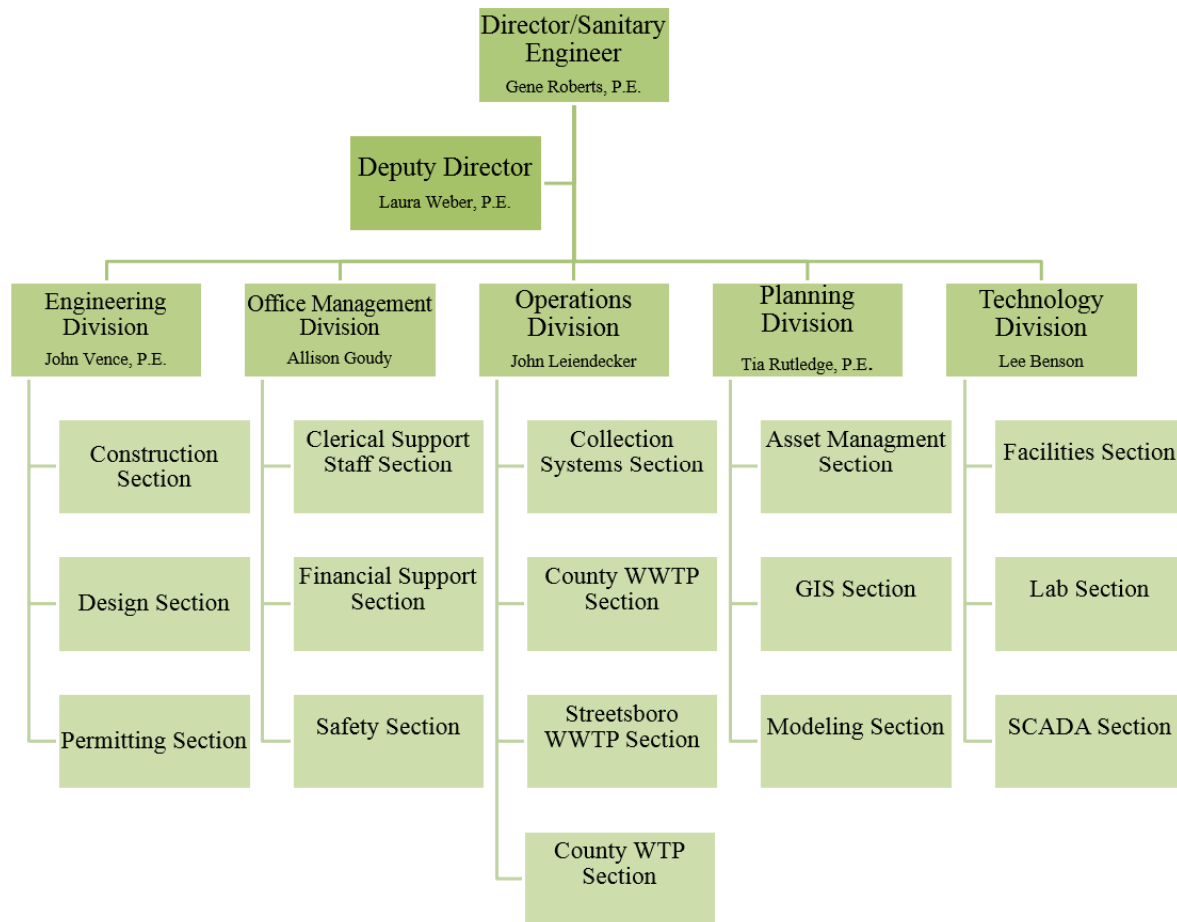


Figure 1-2 Portage County Water Resources Department Organization Chart January 28, 2019

1.8 PORTAGE COUNTY WATER RESOURCES' DIVISIONS AND SECTIONS

The following Divisions are included in the Portage County Water Resources Department (PCWR) and are responsible for:

1.8.1 Engineering Division

The Division has three Sections, Design, Construction and Permitting. The Design Section is tasked with the design and/or administration of all public improvement

approved by the Board of Commissioners and oversight of all engineered projects which are or presented by contractors or developers for review and approval. The Construction Section is tasked with field inspection of all public and private improvement projects and provides inspection of permitted discharges into the sanitary sewer system to verify compliance of regulations for such things as fats, oils and grease or other chemicals which could upset wastewater treatment plants resulting in permit violations. The Permitting Section is tasked with the responsibility for all permitting of private infrastructure projects and connections to both water and sanitary.

1.8.2 Office Management Division

The Division has three Sections, Clerical Support, Financial Support and Safety. The Clerical Support Section provides records assistance for improvement projects, provides for Department payroll, responsible for historical records and answering phones during normal business hours. The Financial Support Section is tasked with data entry and tracking of purchase order requests, generation of special reports requested by other Divisions and annually accounting for the Departments' debt. The Safety Section is tasked with safety inspections, oversight of safe operations including confined space entry permitting, safety training presentations and operations training tracking.

1.8.3 Operations Division

The Division has four Sections, Collection Systems, County Wastewater Treatment Plants, Streetsboro Wastewater Treatment Plant and County Water Treatment Plant and Distribution. The Collections Systems Section is tasked with all maintenance and repair of gravity sanitary sewers, lift stations and force mains. The County Wastewater Treatment Plants Section is tasked with operating, maintaining and repair of the ten County regional Wastewater Treatment Plants. The Streetsboro Wastewater Treatment Plant Section is tasked with operating, maintaining, repair of the plant and receives for final treatment waste sludge from all ten regional plants. The County Water Treatment Plant is tasked with the operations, maintenance and repair of the three potable water treatment plants, interconnection to other public water supplies and water distribution system including meter water usage.

1.8.4 Planning Division

The Division has three Sections, Asset Management, Global Information System and Modeling. The Asset Management Section is responsible for inventory of all wastewater and water facilities and their valuation including estimated replacement schedule. The Global Information System Section is tasked with mapping all of the Portage County Water Resource facilities including attribute identification. The Modeling Section is tasked with the hydraulic modeling of both drinking water and wastewater systems. Combined the three sections support the primary mission of the Planning Division which

is to look out into the future to minimize the chance for the need to rebuild infrastructure prior to end of life resulting in the maximum use of the Department's financial resources.

1.8.5 Technology Division

The Division has three Sections, Facilities, Lab and Supervisory Command and Data Acquisition (SCADA). The Facilities Section is responsible for all equipment and vehicle selection, purchase, maintenance and repair. In addition the Facilities Section is responsible for the maintenance and repair of the Operations and Maintenance Facility on Infirmary Road. The Lab Section is tasked with testing water and wastewater samples and reporting results to submitting entity and the Ohio Environmental Protection Agency when required. The SCADA Section is tasked with the planning installation, maintenance, repair and programming of the Department SCADA system which provides for decreased labor cost by decreasing on site time as permitted by the Ohio Environmental Protection Agency. Combined the three sections support the primary mission of the Technology Division which is to look at every opportunity to automate data command and control in the effort of maximum use of the Department's financial resources.

1.9 DEPARTMENT STAFFING

Portage County Water Resources current staffing is comprised of 70 total positions:

Department

Director
Deputy Director

Engineering Division

Engineering Division Manager

Design Section

- 1 - Design Engineer, Section Supervisor
- 2 – Design Technicians (Level I or II, based on experience)

Construction Section

- 1 – Construction Supervisor
- 4 – Engineering Technicians (Level I, II or III, based on experience)

Permitting Section

- 1 – Permit/Project Coordinator

Office Management Division

Office Management Division Manager

Clerical Support Section

2 – Office Assistant

Financial Support Section

1 - Financial Analyst

Safety Section

1 - Safety and Administrative Support Supervisor

Operations Division

Operations Division Manager

Collection Systems Section

1 - Collections System Superintendent

1 - Collections Chief Operator

1 - Collections Mechanic

5 - Collections System Operator

2 - Laborer

County Wastewater Treatment Plants Section

1 - Wastewater Superintendent

1 - Wastewater Chief Operator

1 - Wastewater Mechanic

8 - Wastewater Operators

(Operators are Level I, II or III, based on experience)

Streetsboro Wastewater Treatment Plant Section

1 - Wastewater Superintendent

6 - Wastewater Operators

(Operators are Level I, II or III, based on experience)

County Water Treatment Plant and Distribution Section

1 - Water Superintendent

7 - Water Operators

1 - Meter Reader

(Operators are Level I, II or III, based on experience)

Planning Division

Planning Division Manager

Asset Management Section

1 – Asset Management Superintendent

Global Information System Mapping Section

1 – Global Information System Coordinator

Water Modeling Section

1 – Water Modeling Engineer

Technology Division

Technology Division Manager

Facilities Section

1 - Facilities Supervisor

1 - Vehicle Mechanic

Lab Section

1 - Lab Supervisor/IPP Coordinator

2 - Biologist

1 - Laboratory Technician

Supervisory Command and Data Acquisition (SCADA) Section

1 - SCADA Supervisor

1.10 STAFF EXPERIENCE

Portage County Water Resources has the following years of experience within its Divisions:

Department Director & Deputy Director	55 years combined experience
Engineering Division	206 years combined experience
Office Management Division	37 years combined experience
Operations Division Management	45 years combined experience
Collection Systems Section	52 years combined experience
County Wastewater Treatment Plants Section	194 years combined experience
Streetsboro Wastewater Treatment Plant Section	151 years combined experience
County Water Treatment Plant and Distribution Section	151 years combined experience
Planning Division	78 years combined experience
Technology Division	150 years combined experience

In total the depth of experience at Portage County Water Resources spans 1,119 years crossing multiple agencies.

1.11 CURRENT FACILITIES MANAGED

Portage County Water Resources is currently managing:

Wastewater Collections

- 228 – Miles of Sanitary Gravity Sewers
- 104 – Lift Stations
- 57 – Miles of Force Mains

Wastewater Treatment Plants

- 11 – County Wastewater Treatment Plants
 - Atwater Wastewater Treatment Plant - 0.200 Million Gallon per Day (MGD)
 - Bollingbrook Wastewater Treatment Plant - 0.128 MGD
 - Countryside Wastewater Treatment Plant - 0.030 MGD
 - Fairlane Wastewater Treatment Plant - 0.052 MGD
 - Randolph Wastewater Treatment Plant - 0.30 MGD (Membrane Filter Plant)
 - Red Fox Wastewater Treatment Plant - 0.160 MGD
 - Rivermoor Wastewater Treatment Plant - 0.0425 MGD
 - Streetsboro Wastewater Treatment Plant - 4.0 MGD
 - Twin Lakes Wastewater Treatment Plant - 0.456 MGD
 - Western Reserve Wastewater Treatment Plant - 0.0286 MGD

County Water Treatment Plant and Distribution Section

Distribution System

- 4 – County Water Booster Stations
- 5 – County Storage Tanks
- 123 – Miles of Water Mains

Water Treatment Plants

- 3 – County Water Treatment Plants
 - Brimfield Water Treatment Plant - 1 MGD
 - Shalersville Water Treatment Plant - 4 MGD
 - Rivermore Water Treatment Plant - 0.120 MGD

1.12 PERMITTED FACILITIES

Portage County Water Resources is currently permitted by the Ohio Environmental Protection Agency to operate for the following facilities:

Table 1-1 Portage County Water Resources Permitted Facilities

Category	Site	Location	Work Group	OEPA Permit
Wastewater Plant	Bolingbrook WWTP	10199 Wentworth Rd.	PC Regional Wastewater	3PH00035*JD
Wastewater Plant	Western Reserve WWTP	11708 State Route 88	PC Regional Wastewater	3PG00121*JD
Wastewater Plant	Rivermoor WWTP	1596 Hawthorn St.	PC Regional Wastewater	3PG00127*ID
Wastewater Plant	Fairlane WWTP	1879 Whitehall Dr.	PC Regional Wastewater	3PG00096*ID
Wastewater Plant	Randolph WWTP	2053 State Route 44	PC Regional Wastewater	3PH00059*CD
Wastewater Plant	Franklin Hills WWTP	5756 Hodgeman Lane	PC Regional Wastewater	3PK00015*HD
Wastewater Plant	Atwater WWTP	6174 Waterloo Rd.	PC Regional Wastewater	3PH00033*JD
Wastewater Plant	Countryside WWTP	6605 State Route 5	PC Regional Wastewater	3PG00120*HD
Wastewater Plant	Twin Lakes WWTP	7240 State Route 43	PC Regional Wastewater	3PH00038*KD
Wastewater Plant	Red Fox WWTP	9263 Price Rd.	PC Regional Wastewater	3PH00037*KD
Wastewater Plant	Streetsboro WWTP	9501 Jefferson St.	Streetsboro Wastewater	3PK00014*HD
Water Plant	Brimfield WTP	3785 Grace Rd.	PC Water	OH6702812
Water Plant	Rivermoor WTP	1594 Hawthorn St.	PC Water	OH6705312
Water Plant	Shalersville WTP	9750 Coit Rd.	PC Water	OH6702812

PC = Portage County

OEPA=Ohio Environmental Protection Agency

WTP = Water Treatment Plant

WWTP = Wastewater Treatment Plant

1.13 CURRENT VALUE OF ASSETS MANAGED

Portage County Water Resources total value of water and wastewater facilities breaks down as follows:

Table 1-2 Portage County Water Resources Water and Wastewater Treatment Assets

Asset	2018 Estimated Value
Water Treatment Plants	\$13,775,000
Water Booster Stations	\$ 1,526,000
Water Storage Tanks	\$ 7,940,000
Water Distribution System	\$79,181,000
Total Water Assets	\$102,422,000
Wastewater Treatment Plants	\$52,940,000
Wastewater Collection System (gravity and force mains)	\$151,138,000
Wastewater Lift Stations	\$14,455,000
Total Wastewater Assets	\$218,533,000

Note: This total does not include vehicles, tools, part inventory, or PCWR Administrative Facilities (Operations Building and Rootstown Water Operations Building)

The total combined value of Portage County Water Resources water and wastewater facilities is \$ 320,955,000 in 2018 dollars.

2 CAPITAL INVESTMENT PLAN

As Portage County Water Resources worked with the Village of Mantua Council, Administration and Engineer it developed considerable knowledge of the deficiencies in the Village of Mantua's utility systems. In the Summer of 2018 Portage County Water Resources met with the Village of Mantua Council where the value of the Immediate Needs identified in the Wastewater Systems were discussed as follows:

Table 2-1 Village of Mantua Wastewater Needs

No.	Immediate Needs	Estimated Cost
1	Oxidation Ditch - Clean the #2 Oxidation Ditch	\$25,000
2	Influent Wet Well Cleaned	\$1,800
3	Repair or Replace scum pit sump pump (5 HP)	\$4,000
4	Clarifiers - Repair Broken valves between the Clarifiers	\$20,000
5	SCADA - Upgrade WWTP and Pump Station SCADA System	\$60,000
6	Raw and Effluent Monitoring - Replace Meters/Probes	\$14,000
7	Pump Building - Replace HVAC and insulate building	\$12,000
8	Mud Valves (4) - Replace corroded stems	\$6,000
9	Replace Automatic Samplers (2)	\$15,000
10	RAS Pumps - Replace VFDs on RAS pumps	\$3,000
11	Flow Meters - Calibrate	\$12,000
12	Electrical Outlets - Replace with GFI outlets	\$1,000
13	Back Flow Devices - Conduct Study and replace/repair	\$100,000
14	Influent Screening - Install an automatic fine screening device	\$120,000
15	Install new "chopper" pumps at the North River Pump Station	\$50,000
16	Aerobic Digester - Drain, clean, replace diffusers	\$7,000
17	Grit Removal Bldg. - Upgrade interior heater unit	\$5,000
18	Inventory Projected Failures for 2019	\$324,650
19	Clarifiers - Construct walkway around each	\$46,000
20	Clarifiers - Improve skimmer system	\$200,000
21	Grit Removal-Enclose exterior to prevent freezing	\$72,500
22	Blowers - Provide a safe method for blower removal	\$40,000
23	WAS piping - Install heat tape and insulation	\$2,700
24	Backup Power - Convert all equipment to automatic restart	\$10,000
25	Blowers - install VFDs on the blower motors	\$25,000
26	Sludge Disposal - Research most economical method	\$8,000
27	Repair and Clean debris from Perimeter Fence	\$17,000
28	Sludge Holding Tanks - Repair or Remove	\$520,000
29	I/I Collection System Repairs	\$1,660,000
30	Bulk Chemical Storage- Construct building Addition	\$112,500
31	Lab Building - Enlarge for addition space	\$25,000
32	Workshop - Provide a work shop/area	\$432,000
Total Wastewater Treatment Identified Needs		\$3,951,150

GFI = Ground Fault Interrupter

HP = Horse Power

HVAC = Heating, Ventilation and Air Conditioning

I/I = inflow and infiltration

RAS = Return Activated Sludge

SCADA = Supervisory Control and Data Acquisition

VFD = Variable Frequency Drive

WAS = Waste Activated Sludge

Also discussed in the Summer of 2018 with the Village of Mantua Council were the value of the Immediate Needs identified in the Water Systems as follows:

Table 2-2 Village of Mantua Water Needs

No.	Identified Need	Estimated Cost
1	Distribution System Water Storage Reservoir Roof Repair	\$450,000
2	Replace Mercury Switch Level Controls in Clearwell	\$20,000
3	Upgrade SCADA System	\$40,000
4	Restore Well Pump #1 to operate automatic	\$3,000
5	Plant Dehumidifier	\$20,000
6	Distribution System Replacement Projects	\$3,500,000
7	Replace "likely" lead service laterals	\$1,505,000
8	Customer Meter Upgrade Project	\$220,000
9	Replace three (3) HS Pump Discharge Valves	\$48,000
10	Projected Equipment Life Cycle Replacements	\$622,214
11	Purchase a second pump for EQ tank	\$8,000
12	Emergency Water Interconnect with PCWR Water System (50%)	\$1,247,879
13	Clean Well #1 and rebuild/replace pump	\$50,000
14	Clean Well #2 and rebuild/replace pump	\$50,000
15	Clean Well #3 and rebuild/replace pump	\$50,000
16	Rebuild/replace HS #1 pump and motor	\$35,000
17	Rebuild/replace HS #2 pump and motor	\$35,000
18	Rebuild/replace HS #3 pump and motor	\$35,000
19	Develop a Wellhead Protection Program	\$8,000
20	Convert to liquid Chlorine	\$60,000
21	Loop Water Distribution System	\$1,137,500
	Total Water Treatment Identified Needs	\$9,144,593

EQ = Equalization

HS = High Service

PCWR = Portage County Water Resources Department

SCADA = Supervisory Control and Data Acquisition

The combined total of Immediate Needs for the Water and Wastewater systems is \$13,095,743, this amount is the basis of the five year Capital Improvement Plan.

3 CUSTOMER SERVICE

Portage County Water Resources has a long standing history of customer service. During normal business hours staff answers all calls from customers regarding operations of Water and Wastewater systems. During normal business hours Utility Billing staff answers all calls from customers regarding billing concerns. During non business hours emergency calls are handled through a contract call center. The call center contacts the Portage County Water Resources on call supervisor, or their backup, who determines if the caller's issue requires an immediate response or if the caller's issue can wait until the next business day.

The Portage County Board of Commissioners places a high priority on customer service and response to customers during and after incidents of service disruptions. In the event of water service disruptions or wastewater backup staff responds with the necessary equipment to correct the problem.

4 LOCAL CONTACT & CONTINGENCY PLAN

Portage County Water Resources local contacts for the Village of Mantua and the Village utility customers will be the same as all other existing Portage County Water Resource customers or government agency. The current contacts for any issue relating to the operation, finances or service is the same as for all customers being provided service from the organization as follows:

Board of Commissioners	330-297-3600
Vicki A. Kline, President	
Kathleen Clyde, Vice President	
Sabrina Christian-Bennett, Board Member	
Portage County Water Resources	
Gene Roberts, Director	330- 298-2072
Laura Weber, Deputy Director	330- 235-7306
John Leiendecker, Operations Division Manager	330- 235-7304
Tia Rutledge, Planning Division Manager	330- 298-2133
John Vence, Engineering Division Manager	330- 297-3677
Lee Benson, Technology Division Manager	330-298-5017
Allison Goudy, Office Manager	330- 297-3673

Currently Portage County Water Resources provides service to 3,649 water customers, 9,215 Portage County Sewer Customers, 4,754 Streetsboro sewer customers, and wholesales waters to both the City of Aurora and City of Streetsboro. If Portage County is selected to absorb the

Village of Mantua's utilities and their stated 500 customers the County will not experience any drop in level of service to its current customers or the new Village of Mantua customers.

If Portage County is selected to absorb the Village of Mantua's utilities then both entities should cost share in a water interconnect of the County's water supply system to the Village's system. The reason that a shared cost arrangement would be supported is based on the shared benefit received by both the Village of Mantua and Portage County.

5 FINANCIAL ASSURANCE

Portage County Water Resources year end of 2018 financial position is below:

Table 5-1 Portage County Water Resources Financial Position

For 2018	PC Sanitary	STBO Sanitary	PC Water
Carry over from 2017	\$5,737,836	\$6,614,156	\$6,809,413
Revenue	\$8,165,174	\$4,537,298	\$6,286,099
Personnel	\$2,380,680	\$1,236,165	\$1,202,315
Operating Expenses	\$2,719,130	\$1,369,385	\$2,172,815
Capital Expenses	\$1,449,077*	\$238,713	\$429,818
Service Debt	\$1,463,564	\$526,559	\$149,349
End of Year 2018	\$5,890,558	\$7,780,632	\$9,141,214

PC = Portage County STBO = City of Streetsboro

*includes Oakwood Acres Sanitary Assessment Costs

Further, Portage County Water Resources offers in Appendix "A" twelve years of Comprehensive Annual Financial Reports as prepared by or for the State of Ohio Auditor's office for each year and certified as accurately representing Portage County Water Resources' ability to provide financial assurance.

6 REQUIRED APPROVALS

Once a final Agreement can be approved by both the Portage County Board of County Commissioners and the Village of Mantua Council and Mayor, execution of the final Agreement on the County's behalf would depend on the Board of County Commissioners meeting schedule, typically approval can occur within one week.

7 LITIGATION/NOTICE OF VIOLATION

Portage County Water Resources offers the following in response to the Village of Mantua's request for any Litigation/Notice of Violation.

The only known litigation Portage County Water Resources is involved in is Portage County Common Pleas Court Case Number 2018 CV 00908 titled Workman Industrial Services, Inc. v. Johnson-Lauch Construction, LLC, et al. This litigation will not impact Portage County's ability to enter into an Agreement with the Village of Mantua and/or operate, maintain or fund the Village of Mantua utilities.

For the current Portage County Water Treatment Plant and Water Distribution System operations the following date, type and excursion from regulations or Water Quality Permit Levels is provided for the five year period 2014 through 2018:

**Table 7-1 Ohio Environmental Protection Agency
Violation and Enforcement Action Report from 01/01/2014 to 03/18/2019**

Date	Description	EPA Response
1/3/2014	Monthly Operating Report Content	Minor Violation Delinquency Letter Sent
2/11/2016	Monthly Operating Report Not Received	Minor Violation Delinquency Letter Sent
12/7/2016	Monthly Operating Report Content	Minor Violation Delinquency Letter Sent
7/17/2017	Monthly Operating Report Content	Minor Violation Delinquency Letter Sent
8/28/2017	Monthly Operating Report Content	Minor Violation Delinquency Letter Sent
10/2/2017	Monthly Operating Report Content	Minor Violation Delinquency Letter Sent
11/1/2017	CCR Deficiency	State Notice of Violation Letter Sent
12/5/2017	CCR Deficiency	State Notice of Violation Letter Sent
1/17/2018	WQP Level Non-Compliance	Public Notice Required

CCR = Consumer Confidence Report

WQP = Water Quality Parameter

In addition to the above report from the Ohio Environmental Protection Agency please see Appendix "B" containing Consumer Confidence Reports for the years 2014 through 2017.

For the Wastewater Treatment Plants National Pollution Discharge Elimination System permit compliance, the following is a summary of violations for the period 2/1/14 through 2/1/19.

Table 7-2 Ohio Environmental Protection Agency Compliance Data

Compliance Data for Period 2/1/2014 - 2/1/2019	Violations Limit	Violations Code	Violations Frequency	Missing eDMRs	SSO Event
Countryside Estates WWTP	1	0	2	0	0
Fairlane WWTP	6	0	4	0	0
Franklin Hills WWTP	2	5	48	1	6
Randolph WWTP	0	0	5	0	0
Red Fox WWTP	0	11	4	0	1
Rivermoor Estates WWTP	0	0	4	0	0
Twin Lakes WWTP	8	81	15	0	5
Western Reserve WWTP	5	0	0	0	0
Streetsboro WWTP	26	29	53	0	6

eDMRs = electronic discharge monitoring reports

SSO = sanitary sewer overflow

WWTP = wastewater treatment Plant

In addition to the above summary please see Appendix “C” for the Ohio Environmental Protection Agency detail reports.

8 ECONOMIC DEVELOPMENT AND COMMUNITY INVOLVEMENT

Portage County Water Resources is a member of and attends Portage County Regional Planning, works with Portage County Development Board, Cities, Villages and Townships to assist where possible and within regulatory financial limitations with improvements and developments.

Portage County Water Resources is committed to the wise use of the resources of its customers. As such priority points are added to project selection ranking when a project has a community interest value or will aid in development.

If Portage County Water Resources (PCWR) is elected to partner with the Village of Mantua PCWR staff would maintain the portion of the public Glacial Esker Trail used by Water Treatment Operations in order to maintain access to water wells and all public road right-of-way vegetation maintenance next to all utility facilities such as booster stations or lift stations. Where required next to utility facilities such as plants, lift stations or booster stations PCWR would participate in public improvement projects put forward by the Village of Mantua.

9 DUE DILIGENCE AND TIMING

Portage County Water Resources has spent over a year studying the Village of Mantua water and wastewater systems. Portage County Water Resources has operated the Village of Mantua water and wastewater systems as the operator of record for the past nine months, making considerable emergency repairs at plants, booster stations and lift stations. Portage County Water Resources is of the belief that it knows the water and wastewater utility system in their current conditions and as such has exercised due diligence.

The only issue for Portage County Water Resources is development of an Agreement, agreeable to both the Village of Mantua and Portage County Commissioners, in order to consummate the arrangements.

10 EMPLOYEES

Portage County Water Resources would need the assistance of the full-time employee administering the Village's billing system during any transition. During transition additional

duties would be assigned in order to fully utilize the skills Village of Mantua's full-time clerk as any employee in one of the many Portage County Water Resources Divisions/Sections.

In addition, Portage County Water Resources will need to hire additional operations staff in order to fully provide service to the Village of Mantua customers.

11 AGREEMENT

If Portage County were to be the successful bidder then the Village of Mantua and Portage County would negotiate what would be included as part of the final Asset Purchase Agreement. The Asset Purchase Agreement would include a list of the representations and warranties specifically made by and to each party. The promises made between the parties, which could survive for a period of time after the closing of the asset transfer, could include indemnification and/or warranty provisions as yet to be determined by either the Village of Mantua and Portage County.

12 OTHER INFORMATION

Portage County Water Resources attended the Village of Mantua pre-bid meeting with the Village Administrator, held on April 3, 2019 at 10:00 a.m. at the Village Hall and the plant tours which followed. As stated in Section 9 - Due Diligence and Timing, Portage County Water Resources by operating the Village of Mantua water and wastewater plant has a detailed understanding of the issues related to the Village's utilities.

The only issue for Portage County Water Resources is an Agreement agreeable to both the Village of Mantua and Portage County to be developed in order to consummate the arrangements. Portage County is available to meet the day following the due date for Qualifications and Proposals, April 9, 2019 to establish the contents of the Village of Mantua's required Asset Purchase Agreement.

13 MINIMUM SERVICE STANDARDS

The following fourteen Village of Mantua identified Minimum Service Standards are addressed in the manner as Portage County Water Resources addresses each Service Standard with all current customers.

13.1 CONTINUOUS OPERATIONS

As previously stated in Section 3 - Customer Service, Portage County Water Resources responds to all service requests both during normal business hours and during non-business hours.

During non business hours, Portage County Water Resources retains one Supervisor on-call and in each Operation Section a minimum of one on call staff member responsible to respond to non-business hours emergencies.

The on call Supervisor receives non-business hours calls through the contracted call center. In the event that the on call Supervisor does not receive both the page and text from the call center then, the call center resends the message to all Operations Supervisors. In the event the call center cannot confirm that any Operations Supervisor received the call then the Operations Chief Supervisor is notified. This three tiered notification system has never failed to reach someone in the Portage County Water Resources Management team, whom can respond to non-business hours issues.

In addition, all Operation Section Supervisors respond in their respective areas of responsibility alarms from the Portage County Supervisor Command and Data Acquisition (SCADA) System received during non-business hours when any SCADA monitored system reports out of normal operation issues.

This combination of responding to SCADA system alarms and calls for service from customers provides for Portage County Water Resources' response to issues 24-hours a day, 365-days per year.

13.2 MAINTENANCE AND REPAIR

Portage County Water Resources uses a combination of computer monitoring, scheduled maintenance and routine onsite verification of the operation of each system to confirm operational readiness.

Computer monitoring includes all types of sensors, such as but not limited to, flow volume meters, electricity demand or hour run meters which provides for the timing of routine maintenance, preventative maintenance and predictive maintenance. Sensor monitors are tied to the County's System Command and Data Acquisition (SCADA) system, which when combined with manufacture recommendations, extends maximum use between maintenance efforts and results in decreased cost of operation.

Repairs are required when something in the system damages the equipment in the system. This may be a piece of wood floating into a lift station becomes sucked into a pump, which lodges in the pumps impeller freezing the pump rotation and resulting in burning out the windings of the motor. Repairs caused by system damage cannot totally

be eliminated and in order to minimize customer interruption the County's System Command and Data Acquisition System monitors for normal operations. If normal operation parameters are exceeded an alarm is transmitted to the Section Supervisor resulting in staff being dispatched to investigate and make necessary repairs.

When for any reason manufacture recommendations cannot be met or continual system damage occurs then an operations investigation is initiated by operation staff and/or maintenance engineering to find the cause and a resolution to return the system to its intend use.

13.3 LAND

Portage County Water Resources would not be interested in partnering with the Village of Mantua to take ownership of and operational responsibility for the Village of Mantua Water and Wastewater Facilities if the Land beneath the facilities is not include with the transfer of the utility facilities. As stated in the letter to the Village of Mantua dated March 14, 2019, Portage County Water Resources would be interested in providing the Village certain guarantees and the ability of the Village of Mantua to return to ownership of the land if Portage County Water Resources ever does not continue to operate the utility facilities for their intended purpose. This position is taken based on three premises:

1. All Portage County water and sewer utilities systems are on land owned by the Board of Commissioners and in order to provide equity between the current customers of Portage County and any future customers, such as Mantua Customers this needs to remain in balance.
2. Portage County Water Resources' intent is not to remove any current facilities but rather to improve current Village of Mantua facilities. Removing any facility would be doing a disservice to all customers. All current Village of Mantua facilities have gone through considerable review and approval processes by the Ohio Environmental Protection Agency. Any Water or Wastewater facility which would be removed from service would require, at minimum, replacement somewhere at a future increased cost. Specific to wastewater, any new location for the Village of Mantua Wastewater Treatment Plant would require a new permit and as such the new facility must go through an Anti-Degradation review process which would most likely lead to increased treatment being required and resultant increased cost.
3. Portage County Water Resources interest in partnering with the Village of Mantua is based on a perpetual relationship with the Village of Mantua

and the Mantua customers. Portage County is looking for a working partnership is not looking to remove profits but instead to cover expenses which at times may require financial loans to be obtained. In the future, Portage County lacking ownership of the land could limit the ability to obtain the best possible financial loan terms resulting in increased costs.

13.4 METERING OF GOVERNMENT-OWNED FACILITIES

Portage County Water Resources shall install water meters at Village-owned facilities including; but not limited to, Village Hall, Buchert Park, and the Service Garage as the Department's Rules and Regulations requires that it is "necessary to fix and collect rates to be charged for every person, firm or corporation in the "District" whose premises are served by such water system". (R&R 1406.01)

Further the Department's Rules and Regulations require that "The expense of all meters and meter vaults constructed shall be borne by the owner at the rate established by the Sanitary Engineer" (R&R 1105.23). As such the cost of meters shall be included in the expenses of the water system capital improvements. The required meters shall be installed within the first month of operations.

13.5 SANITARY SEWER FEE CREDIT

Under the current Portage County Water Resources Rules and Regulations, the Department can issue a one- time annual credit on users' sewer bills that need water to fill swimming pools.

When a person, firm or corporation has reason to believe that a reduction in or exemption from the sewage service charge is justified, that person, firm or corporation shall submit a written application to the Sanitary Engineer and shall furnish such information as required in support of the request. The Sanitary Engineer shall have the authority to approve, deny or adjust any such applications. (R&R 1010.14)

13.6 POLLUTANTS AND RESIDUALS

Pollutants will continue to be removed at the Wastewater Treatment Plant both in liquid form and in solid forms. The treated liquid shall continue to be discharged, as is current

permitted practice, into the Cuyahoga River in a manner meeting the Ohio Environmental Protection Agency regulations, current and future.

The solids residuals shall be transported from the Wastewater Treatment Plant in the most cost effective manner. The Village of Mantua current process provides for solids, in the form of sludge, to be placed onto farm fields. Portage County transports sludge from their regional wastewater treatment plants to its Streetsboro Wastewater Treatment Plant. At Streetsboro, the sludge is further treated into Class A biosolids. If this treatment process is determined to be cost effective for the Mantua facility a transition will be implemented. Either process does not eliminate the need for the Ohio Environmental Protection Agency required sludge storage at the Mantua Wastewater Treatment Plant.

13.7 DATA MANAGEMENT

Portage County Budget and Finance Department, Utility Billing Division will be charged with transfer of data for each customer and transfer of the information necessary to continue current accounts receivables and future invoicing. The Village of Mantua full-time employee administering the Village's billing system will be tasked with confirming the accurate transfer of data from the Village of Mantua billing system to the Portage County billing system.

The current Village of Mantua Data Management system will be maintained by Portage County Water Resources until such time as the historical data is deemed to no longer have any administrative value.

13.8 CYBERSECURITY

Portage County IT Department is charged with the responsibility to maintain and secure all technology systems including those used by the Portage County Budget and Finance Department for utility Billing and for the Portage County Water Resources data files and System Command and Data Acquisition (SCADA) system.

13.9 LABORATORY SERVICES

Portage County Water Resources' Technology Division, Laboratory Section provides all biological or chemical analysis for all Portage County water and wastewater system for

special, operational and regulatory compliance. The same cost effective Laboratory Services would be used for the Village of Mantua water and wastewater systems.

13.10 ODOR CONTROL

Portage County Water Resources' Operations Division, Wastewater Collection Systems Section is responsible for the Portage County Odor Control at all wastewater lift stations. Odor is currently controlled by the introduction of odor controlling biological constituents to reduce the hydrogen sulfide which is the source of odor complaints. The same process for odor control will be applied to all odor complaints in the Village of Mantua wastewater collection systems.

In the event of odor complaints hydrogen sulfide monitors are deployed to measure the level of hydrogen sulfide and the time of occurrence which is then used in the attempt to mitigate the odor complaint by modification of operational issues prior to the addition of biological constituents.

13.11 EMERGENCY PREPAREDNESS

Portage County Water Resources has developed and implemented Emergency Response Plans, Emergency Contingency Plans and is currently working with the Portage County Emergency Management Agency in preparing a Continuity of Operations Plan. Just like Portage County Water Resources' Management Plans, Rules and Regulations, Department Policies and Procedures the Emergency Response Plans, Emergency Contingency Plans and Continuity of Operations Plans are required to go through continual review and update annually.

13.12 SAFETY PROGRAM

Portage County Water Resources' Office Management Division Safety Section's Safety and Administrative Support Supervisor is tasked with the Department's safe operations. The Supervisor tracks and oversees all training, safety inspections and accident reporting and minimization. The same program will be used at all Village of Mantua facilities.

13.13 INVENTORY

Portage County Water Resources' maintains an inventory of typical repair parts and replacement equipment at strategic locations within the County. Portage County Water Resources works with its vendors for critical parts and replacement equipment based on just in time delivery thus reducing cost to maintain inventory. Currently, the development of asset management software includes inventory as a critical component of the program as it relates to assets and work orders. The same program will be used at all Village of Mantua facilities.

13.14 EQUAL OPPORTUNITY EMPLOYMENT

Portage County Board of County Commissioners' Personnel Policy Manual Section 2, Discrimination Prohibited, states the following:

A. EQUAL EMPLOYMENT OPPORTUNITY

- 1) The Board of Commissioners' policy is to provide equal opportunity in employment to all employees. No appointing authority, department director, manager, supervisor or other employee may discriminate against a person with respect to the terms and conditions of employment on the basis of the person's race, sex, religion, color, national origin, age, ancestry, disability, or military status.
- 2) All County employees shall be treated fairly and equitably based on their respective merit, fitness and bona fide occupational qualifications.
- 3) The "Complaints," "Retaliation," and "False Complaints" sections of the County's Harassment Free Workplace policy as outlined in Part B below shall apply with equal force and effect to the County's Equal Employment Opportunity Policy. A proven violation of the Equal Employment Opportunity Policy by any County employee shall be considered justification for dismissal.

Portage County Board of County Commissioners' Personnel Policy Manual Section 2, Discrimination Prohibited, states the following:

Appendix A

Annual Financial Reports

Portage County Water Resources CAFR 2006 - 2017

	Yr-1 2006	Yr-2 2007	Yr-3 2008	Yr-4 2009	Yr-5 2010	Yr-6 2011	Yr-7 2012	Yr-8 2013	Yr-9 2014	Yr-10 2015	Yr-11 2016	Yr-12 2017
Statement of Activities												
Primary Government	50	64	52	51	60	56	58	40	58	58	62	60
Business-Type Activities												
Expenses	\$ 2,670,841	\$ 3,215,320	\$ 3,014,470	\$ 3,045,310	\$ 3,528,699	\$ 3,866,177	\$ 3,151,727	\$ 5,236,761	\$ 2,020,492	\$ 3,698,484	\$ 3,547,313	\$ 4,018,925
Charges for Services, Sales and Assessments	\$ 2,905,063	\$ 3,642,309	\$ 4,194,684	\$ 3,844,159	\$ 4,003,862	\$ 4,178,067	\$ 4,175,615	\$ 4,207,331	\$ 4,687,819	\$ 4,124,902	\$ 4,104,787	\$ 4,259,315
Operating Grants and Contributions	\$ 380	\$ 373,393	\$ 93,031	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Capital Grants, Contributions and Assessments	\$ -	\$ 637,119	\$ -	\$ -	\$ -	\$ 349,900	\$ 1,185,859	\$ 359,113	\$ 257,374	\$ -	\$ -	\$ -
Total Business-Type Activities	\$ 234,602	\$ 1,437,501	\$ 1,273,245	\$ 798,849	\$ 475,163	\$ 661,790	\$ 2,209,747	\$ (670,317)	\$ 2,924,701	\$ 426,418	\$ 557,474	\$ 240,390
Statement of Fund Net Assets												
Assets	60	76	62	63	72	68	70	52	70	70	74	72
Current Assets:												
Equity in Pooled Cash and Cash Equivalents	\$ 5,442,230	\$ 6,570,104	\$ 7,214,865	\$ 7,950,290	\$ 7,851,391	\$ 8,489,052	\$ 14,167,148	\$ 10,291,174	\$ 6,065,367	\$ 6,294,898	\$ 6,792,268	\$ 7,200,356
Cash and Cash Equivalents in Segregated Accounts	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Accounts Receivable	\$ 842,086	\$ 459,064	\$ 969,254	\$ 1,021,018	\$ 957,181	\$ 1,021,307	\$ 1,283,551	\$ 1,551,077	\$ 1,173,293	\$ 1,064,025	\$ 1,071,705	\$ 1,158,449
Materials and Supplies Inventory	\$ 20,757	\$ 17,858	\$ 20,359	\$ 17,439	\$ 1,112	\$ 6,466	\$ 47,610	\$ 24,669	\$ 5,748	\$ 54,713	\$ 48,052	\$ 19,222
Prepaid Items	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Interfund Receivable	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Intergovernmental Receivable	\$ -	\$ 139,959	\$ -	\$ 5,301	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Current Portion of Assets Limited to Use	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Estimated Third-Party Payer Settlements	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Other Current Assets	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Total Current Assets	\$ 6,305,073	\$ 7,186,985	\$ 8,204,478	\$ 8,994,048	\$ 8,809,684	\$ 9,516,825	\$ 15,498,309	\$ 11,866,920	\$ 7,244,408	\$ 7,413,636	\$ 7,912,025	\$ 8,378,027
Noncurrent Assets:												
Restricted Assets: Intergovernmental Receivable	\$ 2,412,526	\$ 2,246,180	\$ 2,097,255	\$ 2,021,186	\$ 1,786,367	\$ 1,624,148	\$ 1,457,235	\$ 1,285,491	\$ 1,108,774	\$ 926,939	\$ 834,055	\$ 607,514
Assets Limited as to Use or Restricted (net of Current)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Deferred Charges	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Goodwill	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Unamortized Bond Issue Costs	\$ 6,217	\$ 5,646	\$ 5,075	\$ 4,504	\$ 3,933	\$ 3,362	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 0
Other Assets	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Capital Assets:												
Nondepreciable Capital Assets	\$ 1,174,174	\$ 511,905	\$ 555,009	\$ 799,073	\$ 1,935,019	\$ 924,228	\$ 2,905,193	\$ 5,603,721	\$ 413,896	\$ 444,889	\$ 657,378	\$ 751,696
Depreciable Capital Assets, Net	\$ 21,221,740	\$ 26,437,937	\$ 26,172,245	\$ 25,375,054	\$ 24,667,103	\$ 25,220,741	\$ 26,971,038	\$ 26,278,748	\$ 30,934,354	\$ 30,678,979	\$ 29,853,745	\$ 29,155,151
Total Noncurrent Assets	\$ 24,814,657	\$ 29,201,668	\$ 28,829,584	\$ 28,199,817	\$ 28,392,422	\$ 27,772,479	\$ 31,333,466	\$ 33,167,960	\$ 32,457,024	\$ 32,050,807	\$ 31,345,178	\$ 30,514,361
Total Assets	\$ 31,119,730	\$ 36,388,653	\$ 37,034,062	\$ 37,193,865	\$ 37,202,106	\$ 37,289,304	\$ 46,831,775	\$ 45,034,880	\$ 39,701,432	\$ 39,464,443	\$ 39,257,203	\$ 38,892,388
Deferred Outflows of Resources												
Interest Rate Swap												
Pension												
Liabilities												
Current Liabilities:												
Accounts Payable	\$ 76,412	\$ 321,885	\$ 68,732	\$ 162,905	\$ 117,422	\$ 228,360	\$ 94,384	\$ 143,053	\$ 67,604	\$ 197,788	\$ 132,103	\$ 131,711
Accrued Wages	\$ 25,416	\$ 25,067	\$ 33,769	\$ 41,420	\$ 46,188	\$ 36,240	\$ 39,917	\$ 42,847	\$ 45,574	\$ 26,941	\$ 29,502	\$ 34,197
Contract Payable		\$ 33,154	\$ 58,846	\$ 17,289	\$ 89,459	\$ 21,175	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Intergovernmental Payable	\$ 5,083	\$ 4,654	\$ 6,694	\$ 7,539	\$ 8,363	\$ 7,026	\$ 13,897	\$ 7,171	\$ 7,978	\$ 5,573	\$ 5,794	\$ 7,038
Retainage Payable		\$ 9,702										

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	Yr-1 2006	Yr-2 2007	Yr-3 2008	Yr-4 2009	Yr-5 2010	Yr-6 2011	Yr-7 2012	Yr-8 2013	Yr-9 2014	Yr-10 2015	Yr-11 2016	Yr-12 2017
Interfund Payable	\$ 28,193	\$ 28,960	\$ 34,304	\$ 24,547	\$ 28,454	\$ 26,804	\$ 32,628	\$ 28,321	\$ 28,069	\$ 23,876	\$ 15,123	\$ 14,941
Compensated Absences Payable	\$ 21,999	\$ 22,761	\$ 34,456	\$ 5,637	\$ 39,558	\$ 31,334	\$ 33,779	\$ 36,724	\$ 34,532	\$ 36,402	\$ 37,475	\$ 52,473
Accrued Expenses	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Estimated Amount Third-Party Payer	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Accrued Interest Payable	\$ 2,593	\$ 2,283	\$ 2,071	\$ 1,868	\$ 1,657	\$ 1,439	\$ 21,313	\$ 1,059	\$ 857	\$ 586	\$ 301	\$ -
Notes Payable	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 8,000,000	\$ 7,500,000	\$ -	\$ -	\$ -	\$ -
Revenue Bonds Payable	\$ 52,105	\$ 57,967	\$ 60,170	\$ 62,723	\$ 64,926	\$ 55,080	\$ 57,008	\$ 59,486	\$ 62,791	\$ 66,096	\$ 69,677	\$ -
OPWC Loans Payable	\$ 14,990	\$ 19,990	\$ 19,990	\$ 24,453	\$ 24,451	\$ 20,561	\$ 20,561	\$ 20,561	\$ 25,561	\$ 25,561	\$ 20,561	\$ 20,561
OWDA Loans Payable	\$ 594,093	\$ 378,317	\$ 547,247	\$ 563,070	\$ 579,356	\$ 596,119	\$ 613,372	\$ 631,130	\$ 649,410	\$ 644,658	\$ 639,021	\$ 656,974
ORDC Loans Payable	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Intergovernmental Loans Payable	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Capital Lease Payable	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Long-term Debt	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Claims Payable	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Other Current Liabilities	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Total Current Liabilities	\$ 820,884	\$ 904,740	\$ 866,279	\$ 911,451	\$ 999,834	\$ 1,024,138	\$ 8,926,859	\$ 8,470,352	\$ 922,376	\$ 1,027,481	\$ 949,557	\$ 917,895
Long-Term Liabilities (net of current portion):												
Compensated Absences Payable	\$ 25,175	\$ 25,749	\$ 52,714	\$ 6,816	\$ 47,665	\$ 29,343	\$ 25,354	\$ 23,710	\$ 26,593	\$ 24,333	\$ 21,227	\$ 25,413
Revenue Bonds Payable	\$ 615,948	\$ 557,957	\$ 497,787	\$ 435,063	\$ 390,707	\$ 332,634	\$ 272,633	\$ 210,154	\$ 144,370	\$ 75,281	\$ 2,611	\$ -
OPWC Loans Payable	\$ 80,721	\$ 105,730	\$ 121,553	\$ 101,459	\$ 77,010	\$ 137,218	\$ 116,657	\$ 96,096	\$ 120,535	\$ 94,974	\$ 74,413	\$ 53,850
OWDA Loans Payable	\$ 7,868,515	\$ 7,490,197	\$ 6,942,949	\$ 6,379,879	\$ 5,800,522	\$ 5,204,404	\$ 4,591,032	\$ 3,959,903	\$ 3,310,492	\$ 2,665,835	\$ 2,026,813	\$ 1,369,839
ORDC Loans Payable	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Intergovernmental Loans Payable	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Capital Lease Payable	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Solid Waste Liability	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Notes Payable	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Claims Payable	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Net Pension Liability	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Long-term Debt	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Self Insurance and Other Liabilities	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Total Long-Term Liabilities	\$ 8,590,359	\$ 8,179,633	\$ 7,615,003	\$ 6,923,217	\$ 6,315,904	\$ 5,703,599	\$ 5,005,676	\$ 4,289,863	\$ 3,601,990	\$ 3,301,561	\$ 2,759,516	\$ 2,288,165
Total Liabilities	\$ 9,411,243	\$ 9,084,373	\$ 8,481,282	\$ 7,834,668	\$ 7,315,738	\$ 6,727,737	\$ 13,932,535	\$ 12,760,215	\$ 4,524,366	\$ 4,329,042	\$ 3,709,073	\$ 3,206,060
Deferred Inflows of Resources												
Interest Rate Swap												
Pension												
Net Assets												
Invested in Capital Assets, Net of Related Debt	\$ 13,208,326	\$ 18,374,878	\$ 18,569,188	\$ 18,611,984	\$ 19,669,083	\$ 19,802,315	\$ 22,016,341	\$ 20,289,404	\$ 27,035,091	\$ 27,551,463	\$ 27,678,027	\$ 27,805,623
Restricted for Other Purposes	\$ 2,412,526	\$ 2,246,180	\$ 2,097,255	\$ 2,021,186	\$ 1,785,367	\$ 1,624,148	\$ 1,457,235	\$ 1,285,491	\$ 1,108,774	\$ 926,939	\$ 834,055	\$ 607,514
Unrestricted (Deficit)	\$ 6,087,635	\$ 6,683,222	\$ 7,886,337	\$ 8,726,027	\$ 8,430,918	\$ 9,135,104	\$ 9,425,664	\$ 10,699,770	\$ 7,033,201	\$ 6,727,580	\$ 7,268,092	\$ 7,596,510
Total Net Assets (Deficit)	\$ 21,708,487	\$ 27,304,280	\$ 28,552,780	\$ 29,359,197	\$ 29,886,368	\$ 30,561,567	\$ 32,899,240	\$ 32,274,665	\$ 35,177,066	\$ 35,205,982	\$ 35,780,174	\$ 36,009,647
Statement of Revenues, Expenses and Changes in Fund Net Assets												
Operating Revenues	64	80	66	67	76	72	74	56	72	72	76	74
Charges for Services Pledged as Security for Revenue	\$ 83,653											
Charges for Services - Unpledged	\$ 2,821,410	\$ 3,642,309	\$ 4,194,684	\$ 3,844,159	\$ 4,003,862	\$ 4,178,067	\$ 4,175,615	\$ 4,207,331	\$ 4,687,819	\$ 4,124,902	\$ 4,104,787	\$ 4,259,315

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	Yr-1 2006	Yr-2 2007	Yr-3 2008	Yr-4 2009	Yr-5 2010	Yr-6 2011	Yr-7 2012	Yr-8 2013	Yr-9 2014	Yr-10 2015	Yr-11 2016	Yr-12 2017
Tap-In Fees	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Contributions and Donations	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Other	\$ 50,170	\$ -	\$ 28,528	\$ 5,377	\$ -	\$ -	\$ 102,193	\$ 2,514	\$ -	\$ 1,613	\$ 12,740	\$ -
Total Operating Revenues	\$ 2,955,233	\$ 3,642,309	\$ 4,223,212	\$ 3,849,536	\$ 4,003,862	\$ 4,178,067	\$ 4,277,808	\$ 4,209,845	\$ 4,687,819	\$ 4,126,515	\$ 4,117,527	\$ 4,259,315
Operating Expenses												
Personal Services	\$ 886,098	\$ 882,634	\$ 941,950	\$ 918,193	\$ 1,418,356	\$ 948,041	\$ 953,304	\$ 929,837	\$ 875,566	\$ 870,984	\$ 1,031,885	\$ 1,312,680
Materials and Supplies	\$ 340,317	\$ 292,172	\$ 332,301	\$ 269,340	\$ 330,359	\$ 482,445	\$ 445,501	\$ 267,183	\$ 79,329	\$ 452,787	\$ 425,028	\$ 530,328
Contractual Services	\$ 595,182	\$ 1,042,659	\$ 529,145	\$ 720,422	\$ 460,256	\$ 1,367,364	\$ 657,309	\$ 2,869,829	\$ -	\$ 1,098,957	\$ 781,664	\$ 905,394
Depreciation and Amortization	\$ 762,574	\$ 791,865	\$ 827,931	\$ 836,074	\$ 829,259	\$ 842,794	\$ 873,708	\$ 881,557	\$ 900,639	\$ 1,182,822	\$ 1,204,412	\$ 1,195,312
Claims	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Change in Worker's Compensation Estimate	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Other	\$ 36,437	\$ 7,890	\$ 30,486	\$ 64,663	\$ 13,796	\$ 8,078	\$ 6,101	\$ 3,596	\$ 5,397	\$ 891	\$ 8,975	\$ 1,105
Total Operating Expenses	\$ 2,620,608	\$ 3,017,220	\$ 2,661,813	\$ 2,808,692	\$ 3,052,026	\$ 3,648,722	\$ 2,935,923	\$ 4,952,002	\$ 1,860,931	\$ 3,606,441	\$ 3,451,964	\$ 3,944,819
Operating Income (Loss)	\$ 334,625	\$ 625,089	\$ 1,561,399	\$ 1,040,844	\$ 951,836	\$ 529,345	\$ 1,341,885	\$ (742,157)	\$ 2,826,888	\$ 520,074	\$ 665,563	\$ 314,496
Non-Operating Revenues (Expenses)												
Interest	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 7,661	\$ 14,026	\$ 5,540	\$ -	\$ -	\$ -
Operating Grants	\$ 380	\$ 373,393	\$ 93,031	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Capital Grants	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 349,900	\$ 1,185,859	\$ -	\$ -	\$ -	\$ -	\$ -
Interest and Fiscal Charges	\$ (42,046)	\$ (193,757)	\$ (405,930)	\$ (234,427)	\$ (236,703)	\$ (194,274)	\$ (197,732)	\$ (255,557)	\$ (175,158)	\$ (113,857)	\$ (91,371)	\$ (70,692)
Gain on Sale of Fixed Assets	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Loss on Sale of Fixed Assets	\$ -	\$ -	\$ -	\$ -	\$ -	\$ (9,772)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Loss on Disposal of Capital Assets	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ (12,243)	\$ -	\$ -	\$ -
Contributions	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Other Non-Operating Revenues	\$ 25	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Other Non-Operating Expenses	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Total Non-Operating Revenues (Expenses)	\$ (41,641)	\$ 179,636	\$ (312,899)	\$ (234,427)	\$ (461,449)	\$ 145,854	\$ 995,788	\$ (241,531)	\$ (181,861)	\$ (113,857)	\$ (91,371)	\$ (85,023)
Income (Loss) before Capital Contributions	\$ -	\$ 804,725	\$ 1,248,500	\$ 806,417	\$ 490,387	\$ 675,199	\$ 2,337,673	\$ (983,688)	\$ 2,645,027	\$ 406,217	\$ 574,192	\$ 229,473
Capital Contributions	\$ -	\$ 637,119	\$ -	\$ -	\$ 36,784	\$ -	\$ -	\$ 359,113	\$ 257,374	\$ -	\$ -	\$ -
Transfers In	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Donation of Water Plant	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Transfers Out	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Change in Net Assets	\$ 292,984	\$ 1,441,844	\$ 1,248,500	\$ 806,417	\$ 527,171	\$ 675,199	\$ 2,337,673	\$ (624,575)	\$ 2,902,401	\$ 406,217	\$ 574,192	\$ 229,473
Net Assets (Deficit) Beginning of Year - Restated	\$ 21,415,503	\$ 25,862,436	\$ 27,304,280	\$ 28,552,780	\$ 29,359,197	\$ 29,886,368	\$ 30,561,567	\$ 32,899,240	\$ 32,274,665	\$ 34,799,765	\$ 35,205,982	\$ 35,780,174
Net Assets (Deficit) End of Year	\$ 21,708,487	\$ 27,304,280	\$ 28,552,780	\$ 29,359,197	\$ 29,886,368	\$ 30,561,567	\$ 32,899,240	\$ 32,274,665	\$ 35,177,066	\$ 35,205,982	\$ 35,780,174	\$ 36,009,647
Statement of Cash Flows												
Increase (Decrease) in Cash and Cash Equivalents	66	82	68	69	78	74	76	58	74	74	78	76
Cash Flows from Operating Activities												
Cash Received from Customers	\$ 3,486,964	\$ 4,201,643	\$ 3,823,453	\$ 3,868,464	\$ 4,073,000	\$ 4,113,941	\$ 4,080,284	\$ 4,111,549	\$ 5,242,320	\$ 4,416,005	\$ 4,189,991	\$ 4,399,112
Cash Received from Interfund Services Provided	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Tap In Fees	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

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	Yr-1 2006	Yr-2 2007	Yr-3 2008	Yr-4 2009	Yr-5 2010	Yr-6 2011	Yr-7 2012	Yr-8 2013	Yr-9 2014	Yr-10 2015	Yr-11 2016	Yr-12 2017
Cash Received from Contributions and Donations	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Other Cash Receipts	\$ 50,170	\$ -	\$ 28,528	\$ 5,641	\$ -	\$ -	\$ 102,193	\$ 2,514	\$ -	\$ 1,613	\$ 12,740	\$ -
Non-Operating Revenues	\$ 25	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Cash Payments to Employees for Services	\$ (878,548)	\$ (880,889)	\$ (918,402)	\$ (993,856)	\$ (1,088,689)	\$ (987,646)	\$ (944,772)	\$ (936,372)	\$ (872,345)	\$ (908,499)	\$ (1,003,672)	\$ (1,158,324)
Cash Payments from Interfund Services Provided	\$ (1,070,341)	\$ (1,063,691)	\$ (1,059,946)	\$ (940,106)	\$ (758,180)	\$ (1,650,166)	\$ (1,292,809)	\$ (3,065,669)	\$ (135,105)	\$ (1,465,375)	\$ (1,270,082)	\$ (1,408,422)
Cash Payments for Goods and Services	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Cash Payments for Claims	\$ (36,437)	\$ (7,890)	\$ (30,486)	\$ (64,663)	\$ (13,796)	\$ (8,078)	\$ (6,101)	\$ (3,596)	\$ (5,397)	\$ (891)	\$ (8,975)	\$ (1,105)
Other Cash Payments	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Non-Operating Expenses	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Net Cash Provided by (Used for) Operating Activities	\$ 1,551,833	\$ 2,249,173	\$ 1,843,147	\$ 1,875,480	\$ 2,212,335	\$ 1,468,051	\$ 1,938,795	\$ 108,426	\$ 4,229,473	\$ 2,042,853	\$ 1,920,002	\$ 1,816,320
Cash Flows from Noncapital Financing Activities												
Operating Grants Received	\$ 380	\$ 233,434	\$ 232,990	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Gifts, Grants and Bequests Received	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Donation of Water Plant	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Advances In	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Advances Out	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Transfers In	\$ -	\$ -	\$ -	\$ -	\$ 36,784	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Transfers Out	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Net Cash Provided by (Used for) Noncapital Financing Activities	\$ 380	\$ 233,434	\$ 232,990	\$ -	\$ 36,784	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Cash Flows from Capital and Related Financing Activities												
General Obligations Notes Issued	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 7,500,000	\$ -	\$ -	\$ -	\$ -
Proceeds from Sale of Revenue Bonds	\$ 567,324	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Revenue Bonds Premium Issued	\$ 32,939	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Proceeds from Sale of Notes	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 8,000,000	\$ -	\$ -	\$ -	\$ -	\$ -
Proceeds from OPWC Loans	\$ -	\$ 50,000	\$ 35,811	\$ 8,823	\$ -	\$ 85,022	\$ -	\$ -	\$ 50,000	\$ -	\$ -	\$ -
Proceeds from OWDA Loans	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Bond Issuance Costs	\$ (6,288)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Payment to Refunded Bond Escrow Agent	\$ (600,239)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Principal Paid on Revenue Bonds	\$ (52,124)	\$ (52,105)	\$ (57,967)	\$ (60,171)	\$ (62,722)	\$ (64,926)	\$ (55,080)	\$ (57,008)	\$ (59,486)	\$ (62,791)	\$ (66,096)	\$ (69,677)
Interest Paid on Revenue Bonds	\$ (22,061)	\$ (31,509)	\$ (27,781)	\$ (23,805)	\$ (22,740)	\$ (20,164)	\$ (15,288)	\$ (15,301)	\$ (12,878)	\$ (10,426)	\$ (7,128)	\$ (3,654)
Principal Paid on OWDA Loans	\$ (612,968)	\$ (594,094)	\$ (378,318)	\$ (547,247)	\$ (563,071)	\$ (579,355)	\$ (596,119)	\$ (613,371)	\$ (631,131)	\$ (649,409)	\$ (644,659)	\$ (639,021)
Interest Paid on OWDA Loans	\$ (20,341)	\$ (162,011)	\$ (377,790)	\$ (208,857)	\$ (193,034)	\$ (176,750)	\$ (159,985)	\$ (142,732)	\$ (124,974)	\$ (106,695)	\$ (87,521)	\$ (69,950)
Principal Paid on OPWC Loans	\$ (14,991)	\$ (19,991)	\$ (19,988)	\$ (24,454)	\$ (24,451)	\$ (28,704)	\$ (20,561)	\$ (20,561)	\$ (20,561)	\$ (25,561)	\$ (25,561)	\$ (20,563)
Principal Paid on ORDC Loans	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Interest Paid on ORDC Loans	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Principal Paid on Notes	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ (8,000,000)	\$ (7,500,000)	\$ -	\$ -	\$ -
Interest Paid on Notes	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ (40,501)	\$ -	\$ -	\$ -
Principal Paid on Intergovernmental Loans	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ (120,771)	\$ -	\$ -	\$ -	\$ -
Interest Paid on Intergovernmental Loans	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Principal Paid on Capital Leases	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Interest Paid on Capital Leases	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Capital Grants	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Principal Paid on Long-term Debt	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 349,900	\$ 1,185,859	\$ -	\$ -	\$ -	\$ -	\$ -
Interest Paid on Long-term Debt	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

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	Yr-1 2006	Yr-2 2007	Yr-3 2008	Yr-4 2009	Yr-5 2010	Yr-6 2011	Yr-7 2012	Yr-8 2013	Yr-9 2014	Yr-10 2015	Yr-11 2016	Yr-12 2017
Capital Contributions												
Proceeds From Sale of Capital Assets												
Proceeds from Termination of Swap												
Paid on Termination of Swap												
Principal Paid on Capital Lease												
Payments for Capital Acquisitions												
Net Cash Used for Capital and Related Financing Activities	\$ (765,469)	\$ (545,023)	\$ (605,343)	\$ (284,344)	\$ (1,482,000)	\$ (395,413)	\$ (4,604,970)	\$ (2,887,795)	\$ (3,145,854)	\$ (958,440)	\$ (591,667)	\$ (605,367)
	\$ (1,494,218)	\$ (1,354,733)	\$ (1,431,376)	\$ (1,140,055)	\$ (2,348,018)	\$ (830,390)	\$ 3,733,856	\$ (3,998,426)	\$ (8,460,820)	\$ (1,813,322)	\$ (1,422,632)	\$ (1,408,232)
Cash Flows from Investing Activities												
Purchases of Investments	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Sale of Investments	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Interest on Investments	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 5,445	\$ 14,026	\$ 5,540	\$ -	\$ -	\$ -
Change in assets limited as to use	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Net Cash Provided by Investing Activities	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 5,445	\$ 14,026	\$ 5,540	\$ -	\$ -	\$ -
Net Increase (Decrease) in Cash and Cash Equivalent	\$ 57,995	\$ 1,127,874	\$ 644,761	\$ 735,425	\$ (98,899)	\$ 637,661	\$ 5,678,096	\$ (3,875,974)	\$ (4,225,807)	\$ 229,531	\$ 497,370	\$ 408,088
Cash and Cash Equivalents Beginning of Year	\$ 5,384,235	\$ 5,442,230	\$ 6,570,104	\$ 7,214,865	\$ 7,950,290	\$ 7,851,391	\$ 8,489,052	\$ 14,167,148	\$ 10,291,174	\$ 6,065,367	\$ 6,294,898	\$ 6,792,268
Cash and Cash Equivalents End of Year	\$ 5,442,230	\$ 6,570,104	\$ 7,214,865	\$ 7,950,290	\$ 7,851,391	\$ 8,489,052	\$ 14,167,148	\$ 10,291,174	\$ 6,065,367	\$ 6,294,898	\$ 6,792,268	\$ 7,200,356
Reconciliation of Operating Income (Loss) to Net Cash Provided by (Used for) Operating Activities												
Operating Income (Loss)	\$ 334,625	\$ 625,089	\$ 1,561,399	\$ 1,040,844	\$ 951,836	\$ 529,345	\$ 1,341,885	\$ (742,157)	\$ 2,826,888	\$ 520,074	\$ 665,563	\$ 314,496
Adjustments:												
Depreciation and Amortization	\$ 762,574	\$ 791,865	\$ 827,931	\$ 836,074	\$ 829,259	\$ 842,794	\$ 873,708	\$ 881,557	\$ 900,639	\$ 1,182,822	\$ 1,204,412	\$ 1,195,312
Provision for Doubtful Accounts	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Non-Operating Revenues	\$ 25	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Non-Operating Expenses	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
(Increase) Decrease in Assets:												
Accounts Receivable	\$ (30,266)	\$ 383,022	\$ (510,190)	\$ (51,764)	\$ 63,837	\$ (64,126)	\$ (262,244)	\$ (267,526)	\$ 377,784	\$ 109,268	\$ (7,680)	\$ (86,744)
Intergovernmental Receivable	\$ 612,167	\$ 166,346	\$ 148,925	\$ 70,768	\$ 240,120	\$ 162,219	\$ 166,913	\$ 171,744	\$ 176,717	\$ 181,835	\$ 92,884	\$ 226,541
Materials and Supplies Inventory	\$ (6,598)	\$ 2,899	\$ (2,501)	\$ 2,920	\$ 16,327	\$ (5,354)	\$ (41,144)	\$ 22,941	\$ 18,921	\$ (48,965)	\$ 6,661	\$ 28,830
Interfund Receivable	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Prepaid Items	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Internal Receivable	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Other Current Assets	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Other Assets	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Deferred Outflows of Resources	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Increase (Decrease) in Liabilities:												
Accounts Payable	\$ (123,004)	\$ 245,473	\$ (253,153)	\$ 94,173	\$ (45,483)	\$ 110,938	\$ (133,976)	\$ 48,669	\$ (75,449)	\$ 130,184	\$ (65,685)	\$ (392)
Accrued Wages	\$ 297	\$ (349)	\$ 8,702	\$ 7,651	\$ 4,768	\$ (9,948)	\$ 3,677	\$ 2,930	\$ 2,727	\$ (18,633)	\$ 2,561	\$ 4,695
Contract Payable	\$ -	\$ 33,154	\$ 15,990	\$ (41,557)	\$ 72,170	\$ (68,284)	\$ (21,175)	\$ -	\$ -	\$ -	\$ -	\$ -
Compensated Absences Payable	\$ 3,718	\$ 1,336	\$ 38,660	\$ (74,717)	\$ 74,770	\$ (26,546)	\$ (1,544)	\$ 1,301	\$ 691	\$ (390)	\$ (2,033)	\$ 19,184

Portage County Water Resources CAFR 2006 - 2017

	Yr-1 2006	Yr-2 2007	Yr-3 2008	Yr-4 2009	Yr-5 2010	Yr-6 2011	Yr-7 2012	Yr-8 2013	Yr-9 2014	Yr-10 2015	Yr-11 2016	Yr-12 2017
Interfund Payable	\$ (2,667)	\$ 767	\$ 5,344	\$ (9,757)	\$ 3,907	\$ (1,650)	\$ 5,824	\$ (4,307)	\$ (252)	\$ (4,193)	\$ (8,753)	\$ (182)
Intergovernmental Payable	\$ 962	\$ (429)	\$ 2,040	\$ 845	\$ 824	\$ (1,337)	\$ 6,871	\$ (6,726)	\$ 807	\$ (2,405)	\$ 221	\$ 1,244
Claims Payable	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Other Current Liabilities	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Post-closure Liability	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Net Pension Liability	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Decrease in Deferred Inflow - Pension	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ (8,132)	\$ (6,535)	\$ 18,783
Accrued Hospital Expenses	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ (3,576)	\$ (7,309)	\$ (11,035)
Deferred Inflows of Resources	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Estimated Third-Party Payer Settlements	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Total Adjustments	\$ 1,217,208	\$ 1,624,084	\$ 281,748	\$ 834,636	\$ 1,260,499	\$ 938,706	\$ 596,910	\$ 850,583	\$ 1,402,585	\$ 1,522,779	\$ 1,254,439	\$ 1,501,824
Net Cash Provided by (Used) Operating Activities	\$ 1,551,833	\$ 2,249,173	\$ 1,843,147	\$ 1,875,480	\$ 2,212,335	\$ 1,468,051	\$ 1,938,795	\$ 108,426	\$ 4,229,473	\$ 2,042,853	\$ 1,920,002	\$ 1,816,320
(1) Dollars rounded to the nearest thousands												

Appendix B

Consumer Confidence Reports 2014 through 2017

Shalersville Water Plant- Table 1

Provides drinking water to surrounding Shalersville Township, the City of Streetsboro, the City of Aurora, Aqua Ohio Water Company Inc., and as far south as portions of Franklin Township, and uses ground water wells as its drinking water source. In addition, measures have been taken to assure a constant water supply through agreements to purchase water from the City of Ravenna and the City of Cleveland water systems.

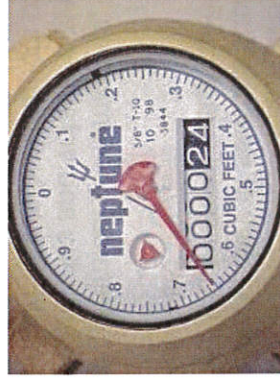
Brimfield Water Plant- Table 1 Provides drinking water service to the local Brimfield area, Aqua Ohio Water Company Inc., Rootstown Water Company, and as far north as the Meadowview Plaza in Franklin and Ravenna Townships, and uses ground water wells as its source. Supplemental water is purchased from the City of Ravenna at an average of 0.12 million gallons per day. The City of Ravenna water system uses surface water drawn from Lake Hodgson. Ravenna's water quality data is included in **Table (2).**

Rivermoor Water Plant- Table 1 Provides drinking water service to the local Rivermoor area, and uses ground water wells as its source.



About your Drinking Water

The EPA requires regular testing to ensure drinking water safety. Portage County Water Resources conducted sampling for bacteria and inorganic and organic contaminants during 2013. Samples were collected for a number of different contaminants most of which were not detected in the Portage County Water Resources water supply. The Ohio EPA requires us to monitor for some contaminants less than once per year because the concentrations of these contaminants do not change frequently. Some of our data, though accurate, are more than one year old.



Customer Views Welcome

If you are interested in learning more about the water department and water quality or participating in the decision-making process, there are a number of opportunities available. Questions about water quality can be answered by calling our Customer Service office at 330-297-3685. Inquiries about public participation and policy decisions can be made by calling 330-297-3670. The Board of Commissioners' meetings are held weekly on Thursdays beginning at 9:30 AM and are open to the public.

PORTAGE COUNTY WATER QUALITY REPORT

2013

Water Quality Exceeds Mark

Shalersville Water Plant
Brimfield Water Plant
Rivermoor Water Plant

Portage County Water Resources has prepared the following report to provide information to you, the consumer, on the quality of our drinking water from our three water treatment plants. Included within this report is general health information, water quality test results, how to participate in decisions concerning your drinking water and water system contacts.



DEFINITIONS OF TERMS

Maximum Contaminant Level Goal

(MCLG): The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs allow for a maximum margin of safety.

Maximum Contaminant Level (MCL):

The highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the available treatment technology.

Maximum Residual Disinfectant Level

(MRDL): The highest residual disinfectant level allowed.

Maximum Residual Disinfectant Level Goal (MRDLG):

The level of residual disinfectant below which there is no known or expected risks to health.

Action Level (AL): The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.

Treatment Technique (TT): A required process intended to reduce the level of a contaminant in drinking water.

Parts per million (ppm), or milligrams per liter (mg/l): Are units of measure for concentration of a contaminant.

Required Health Information:

The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs and wells. As water travels over the surface of the land or through the ground, it dissolves naturally occurring minerals and, in some cases, other contaminants, and can pick up substances resulting from the presence of animal or human activity.

Contaminants that may be present in source water include:

1. Microbial contaminants, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations and wildlife;

2. Inorganic contaminants, such as salts and metals, which can be naturally occurring or result from urban storm water runoff, industrial or domestic wastewater discharges, oil and gas production, mining or farming;

3. Pesticides and herbicides, which may come from a variety of sources such as agriculture, urban storm water runoff and residential uses;

4. Organic chemical contaminants, including synthetic and volatile organic chemicals, which are by-products of industrial processes and petroleum production, and can also come from gas stations, urban stormwater runoff and septic systems; and

5. Radioactive contaminants, which can be naturally occurring or be the result of oil and gas production and mining activities.

In order to ensure that tap water is safe to drink, USEPA prescribes regulations which limit the amount of certain contaminants in water provided by public water systems. Food and Drug Administration regulations establish limits for contaminants in bottled water, which shall provide the same protection for public health.

Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that water poses a health risk. More information about contaminants and potential health effects may be obtained by calling the Federal Environmental Protection Agency's Safe Drinking Water Hotline (800-426-4791). Some people may be more vulnerable to contaminants in drinking water than the general population. Immunocompromised people such as people with cancer undergoing chemotherapy, people who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly and infants can be particularly at risk from infections. These people should seek advice from their health care providers about drinking water. USEPA/Centers for Disease Control and Prevention (CDC) guidelines on appropriate means to lessen the risk of infection by Cryptosporidium and other microbial contaminants are available from the Safe Drinking Water Hotline (800-426-4791).

COMPLIANCE WITH DRINKING WATER REGULATIONS:

Portage County Water Resources is in compliance with all Maximum Contaminant Levels and Treatment Techniques for drinking water. Portage County has current Licenses, issued by the Ohio Environmental Protection Agency, to operate our three water systems.

Table 1

An Explanation of the Water Quality Data

The following table presents the information on any regulated contaminant that was found to be present in our three drinking water plants.

Substances we detected (Units)	What's Allowed (MCL)	What's the goal? (MCLG)	Rivermoor Water Plant		Brimfield Water Plant		Shalersville Water Plant		Violation?	When we checked (2)	Where can it come from?
			Level Found	Range	Level Found	Range	Level Found	Range			
Fluoride (ppm)	4	4	<0.10	NA	1.07	0.75-1.18	1.08	0.84-1.13	NO	2013	Erosion of natural deposits; Water additive which promotes strong teeth
Nitrate (ppm)	10	10	0.38	NA	<0.10	NA	<0.10	NA	NO	2013	Runoff from fertilizer use
Copper (ppm)	AL = 1.3	1.3	.355 90%	.030- .460	1.10 90%	<.010- 1.10	.550 90%	<.010- .810	NO	2013 Rivermoor 2013 Brimfield 2013 Shalersville	Corrosion of household plumbing systems; Erosion of natural deposits
Lead (ppb) (1)	AL = 15	0	<2.0 90%	<2.0	2.6 90%	<2.0- 7.0	4.45 90%	<2.0-8.9	NO	2013 Rivermoor 2013 Brimfield 2013 Shalersville	Corrosion of household plumbing systems; Erosion of natural deposits
Barium (ppm)	2	2	0.110	NA	0.110	NA	0.032	NA	NO	2013	Discharge of drilling wastes; Discharge from metal refineries
Bromodichloro Methane (ppb)	NA	NA	1.1	NA	3.6	NA	6.1	NA	NO	2013	Byproduct of drinking water chlorination
Bromoform (ppb)	NA	NA	0.5	NA	<0.5	NA	2.4	NA	NO	2013	Byproduct of drinking water chlorination
Chloroform (ppb)	NA	NA	0.8	NA	2.9	NA	2.4	NA	NO	2013	Byproduct of drinking water chlorination
Dibromochloro Methane (ppb)	NA	NA	1.4	NA	2.7	NA	8.2	NA	NO	2013	Byproduct of drinking water chlorination
Gross Alpha	15	0	<3	NA	<3	NA	6.38	NA	NO	2013	Decay of natural deposits
Radium 228	5	0	<1	NA	1.73	NA	0.04	NA	NO	2013	Decay of natural deposits
TTHM's (ppb) DS 201	80 ARA	80	10.5	NA	61.0	NA	34.5	NA	NO	2013	Byproduct of drinking water chlorination
HAA5's (ppb) DS 201	60 ARA	60	<6.0	NA	13.1	NA	6.0	NA	NO	2013	Byproduct of drinking water chlorination
TTHM's (ppb) DS 202	80 ARA	80	NA	NA	49.4	NA	NA	NA	NO	2013	Byproduct of drinking water chlorination
HHA5's (ppb) DS 202	60 ARA	60	NA	NA	16.4	NA	NA	NA	NO	2013	Byproduct of drinking water chlorination
Total Chlorine (ppm)	MRDL = 4	MRDLG=4	.77	0.50- 1.00	1.03	0.70- 1.20	1.10	0.70 - 1.20	NO	2013	Water additive to control microbes

- (1) If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. Portage County Water Resources is responsible for providing high-quality drinking water but cannot control the variety of materials used in plumbing components in the home. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to 2 minutes before using water for drinking or cooking. If you are concerned about lead in your water, you may wish to have your water tested. Information on lead in drinking water, testing methods and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline at 800-426-4791 or at <http://www.epa.gov/safewater/lead>.
- (2) We are required to monitor your drinking water for specific parameters on a regular basis. Results of regular monitoring are an indicator of whether or not your drinking water meets health standards.

Table 2

An Explanation of the Water Quality Data

The following table is for the water produced by the Ravenna WTP and purchased as supplemental water for the Shalersville system, normally in the northeastern portion of the Shalersville distribution system and during emergencies.

Substances we detected (Units)	What's Allowed (MCL)	What's the goal? (MCLG)	Level Found	Range	Violation?	When we checked	Where can it come from?
Nitrate (ppm)	10	10	0.15	0.10-0.36	NO	2013	Runoff from fertilizer use; Erosion of natural deposits
Fluoride (ppm)	4	4	0.97	0.81-1.10	NO	2013	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer plants and aluminum factories
Copper (ppm)	AL = 1.3	1.3	0.24 90%	.031-0.58	NO	2012	Corrosion of household plumbing systems.
Lead (ppb)	AL = 15	0	5.40 90%	0-17	NO	2012	Corrosion of household plumbing systems.
Total Chlorine (ppm)	MRDL = 4	MRDLG=4	0.97	0.3-1.9	NO	2013	Water additive to control microbes
Chlorite (ppm)	1.0	0.8	0.55	0.00-0.87	NO	2013	Byproduct of drinking water chlorination
Turbidity (NTU) 99% of samples were below the TT value of 0.3	0.3	TT	0.24	0.04-0.24	NO	2013	Soil Runoff
Total Coliform Bacteria	1	0	0	NA	NO	2013	Naturally present in the environment
Total Organic Carbon (ppm)	TT	NA	1.42	1.16-1.71	NO	2013	Naturally present in the environment
Barium (ppm)	2.0	.010	.014	NA	NO	2013	Discharge of drilling waste; erosion of natural deposits
Radium 228 (pCi/L)	5	0	<1	NA	NO	2010	Decay of natural deposits
Bromodichloro Methane (ppb)	NA	NA	16.0	NA	NO	2013	Byproduct of drinking water chlorination
Chlorodibromomethane (ppb)	NA	NA	3.6	NA	NO	2013	Byproduct of drinking water chlorination
Chloroform (ppb)	NA	NA	35.0	NA	NO	2013	Byproduct of drinking water chlorination
TTHM's (ppb) DS 201	80 ARA	80	69.1	40.2-99.6	NO	2013	Byproduct of drinking water chlorination
HAA5's (ppb) DS 201	60 ARA	60	32.0	31.0-33.0	NO	2013	Byproduct of drinking water chlorination
TTHM's (ppb) DS 202	80 ARA	80	70.8	30.7-109.0	NO	2013	Byproduct of drinking water chlorination
HAA5's (ppb) DS 202	60 ARA	60	30.4	23.0-36.0	NO	2013	Byproduct of drinking water chlorination
TTHM's (ppb) DS 203	80 ARA	80	57.8	35.4-95.0	NO	2013	Byproduct of drinking water chlorination
HAA5's (ppb) DS 203	60 ARA	60	39.0	25.0-54.0	NO	2013	Byproduct of drinking water chlorination
TTHM's (ppb) DS 204	80 ARA	80	54.2	29.3-94.9	NO	2013	Byproduct of drinking water chlorination
HHAA5's (ppb) DS 204	60 ARA	60	36.6	20.0-55.2	NO	2013	Byproduct of drinking water chlorination

Shalersville Water Plant- Table 1

Provides drinking water to surrounding Shalersville Township, the City of Streetsboro, the City of Aurora, Aqua Ohio Water Company Inc., and as far south as portions of Franklin Township, and uses ground water wells as its drinking water source. In addition, measures have been taken to assure a constant water supply through agreements to purchase water from the City of Ravenna and the City of Cleveland water systems.

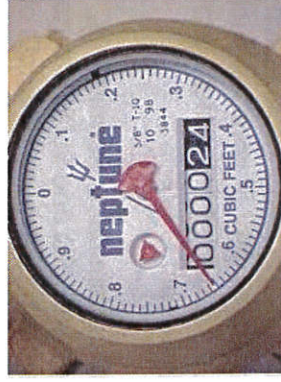
Brimfield Water Plant- Table 1 Provides drinking water service to the local Brimfield area, Aqua Ohio Water Company Inc., Rootstown Water Company, and as far north as the Meadowview Plaza in Franklin and Ravenna Townships, and uses ground water wells as its source. Supplemental water is purchased from the City of Ravenna at an average of 0.10 million gallons per day. The City of Ravenna water system uses surface water drawn from Lake Hodgson. Ravenna's water quality data is included in **Table (2)**.

Rivermoor Water Plant- Table 1 Provides drinking water service to the local Rivermoor area, and uses ground water wells as its source.



About your Drinking Water

The EPA requires regular testing to ensure drinking water safety. Portage County Water Resources conducted sampling for bacteria and inorganic and organic contaminants during 2014. Samples were collected for a number of different contaminants most of which were not detected in the Portage County Water Resources water supply. The Ohio EPA requires us to monitor for some contaminants less than once per year because the concentrations of these contaminants do not change frequently. Some of our data, though accurate, are more than one year old.



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PORTAGE COUNTY WATER QUALITY REPORT

2014

Water Quality Exceeds Mark

Shalersville Water Plant
Brimfield Water Plant
Rivermoor Water Plant

Portage County Water Resources has prepared the following report to provide information to you, the consumer, on the quality of our drinking water from our three water treatment plants. Included within this report is general health information, water quality test results, how to participate in decisions concerning your drinking water and water system contacts.



DEFINITIONS OF TERMS

Maximum Contaminant Level Goal

(MCLG): The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs allow for a maximum margin of safety.

Maximum Contaminant Level (MCL):

The highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the available treatment technology.

Maximum Residual Disinfectant Level

(MRDL): The highest residual disinfectant level allowed.

Maximum Residual Disinfectant Level

Goal (MRDLG): The level of residual disinfectant below which there is no known or expected risks to health.

Action Level (AL): The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.

Treatment Technique (TT): A required process intended to reduce the level of a contaminant in drinking water.

Parts per million (ppm), or milligrams per liter (mg/l): Are units of measure for concentration of a contaminant.

Required Health Information:

The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs and wells. As water travels over the surface of the land or through the ground, it dissolves naturally occurring minerals and, in some cases, other contaminants, and can pick up substances resulting from the presence of animal or human activity.

Contaminants that may be present in source water include:

1. Microbial contaminants, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations and wildlife;
2. Inorganic contaminants, such as salts and metals, which can be naturally occurring or result from urban storm water runoff, industrial or domestic wastewater discharges, oil and gas production, mining or farming;
3. Pesticides and herbicides, which may come from a variety of sources such as agriculture, urban storm water runoff and residential uses;
4. Organic chemical contaminants, including synthetic and volatile organic chemicals, which are by-products of industrial processes and petroleum production, and can also come from gas stations, urban stormwater runoff and septic systems; and
5. Radioactive contaminants, which can be naturally occurring or be the result of oil and gas production and mining activities.

In order to ensure that tap water is safe to drink, USEPA prescribes regulations which limit the amount of certain contaminants in water provided by public water systems. Food and Drug Administration regulations establish limits for contaminants in bottled water, which shall provide the same protection for public health.

Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that water poses a health risk. More information about contaminants and potential health effects may be obtained by calling the Federal Environmental Protection Agency's Safe Drinking Water Hotline (800-426-4791). Some people may be more vulnerable to contaminants in drinking water than the general population. Immunocompromised people such as people with cancer undergoing chemotherapy, people who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly and infants can be particularly at risk from infections. These people should seek advice from their health care providers about drinking water. USEPA/Centers for Disease Control and Prevention (CDC) guidelines on appropriate means to lessen the risk of infection by Cryptosporidium and other microbial contaminants are available from the Safe Drinking Water Hotline (800-426-4791).

COMPLIANCE WITH DRINKING WATER REGULATIONS:

Portage County Water Resources is in compliance with all Maximum Contaminant Levels and Treatment Techniques for drinking water. Portage County has current Licenses, issued by the Ohio Environmental Protection Agency, to operate our three water systems.

Table 1

An Explanation of the Water Quality Data

The following table presents the information on any regulated contaminant that was found to be present in our three drinking water plants.

Substances we detected (Units)	What's Allowed (MCL)	What's the goal? (MCLG)	Rivermoor Water Plant		Brimfield Water Plant		Shalersville Water Plant		Violation?	When we checked	Where can it come from?
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Fluoride (ppm)	4	4	<0.10	NA	1.00	0.91-1.07	1.08	0.95-1.14	NO	2014	Erosion of natural deposits; Water additive which promotes strong teeth
Copper (ppm)	AL = 1.3	1.3	.355 90%	.030-.460	1.10 90%	<.010-1.10	.550 90%	<.010-.810	NO	2013 Rivermoor 2013 Brimfield 2013 Shalersville	Corrosion of household plumbing systems; Erosion of natural deposits
Lead (ppb) (1)	AL= 15	0	<2.0 90%	<2.0	2.6 90%	<2.0-7.0	4.45 90%	<2.0-8.9	NO	2013 Rivermoor 2013 Brimfield 2013 Shalersville	Corrosion of household plumbing systems; Erosion of natural deposits
Barium (ppm)	2	2	0.110	NA	0.110	NA	0.032	NA	NO	2013	Discharge of drilling wastes; Discharge from metal refineries
Bromochloro Methane (ppb)	NA	NA	1.6	NA	3.6	NA	6.1	NA	NO	2014	Byproduct of drinking water chlorination
Bromoform (ppb)	NA	NA	1.0	NA	<0.5	NA	2.4	NA	NO	2014	Byproduct of drinking water chlorination
Chloroform (ppb)	NA	NA	1.1	NA	2.9	NA	2.4	NA	NO	2014	Byproduct of drinking water chlorination
Dibromochloro Methane (ppb)	NA	NA	2.1	NA	2.7	NA	8.2	NA	NO	2014	Byproduct of drinking water chlorination
Gross Alpha	15	0	<3	NA	<3	NA	6.38	NA	NO	2013	Decay of natural deposits
Radium 228	5	0	<1	NA	1.73	NA	0.04	NA	NO	2013	Decay of natural deposits
TTHM's (ppb) DS 201	80 ARA	80	NA	NA	(2) 91.2 105.0	63.7-105.0	NA	NA	YES	2014	Byproduct of drinking water chlorination
HAA5's (ppb) DS 201	60 ARA	60	NA	NA	(3) 63.3	45.6-71.6	NA	NA	YES	2014	Byproduct of drinking water chlorination
TTHM's (ppb) DS 202	80 ARA	80	5.8	NA	76.08	52.0-100.6	40.5	NA	NO	2014	Byproduct of drinking water chlorination
HHA5's (ppb) DS 202	60 ARA	60	<6.0	NA	21.6	0.0-37.2	8.9	NA	NO	2014	Byproduct of drinking water chlorination
Total Chlorine (ppm)	MRDL = 4	MRDLG=4	.77	0.40-0.90	1.00	0.60-1.10	1.00	0.70-1.10	NO	2014	Water additive to control microbes

(1) If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. Portage County Water Resources is responsible for providing high-quality drinking water but cannot control the variety of materials used in plumbing components in the home. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to 2 minutes before using water for drinking or cooking. If you are concerned about lead in your water, you may wish to have your water tested. Information on lead in drinking water, testing methods and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline at 800-426-4791 or at <http://www.epa.gov/safewater/lead>.

(2) TTHM Violation- The levels detected do not pose an immediate risk to your health, however, some people who drink water containing trihalomethanes in excess of the MCL over many years may experience problems with their liver, kidneys, or central nervous systems and may have an increased risk of getting cancer. Portage County had a MCL violation during the Oct, Nov, Dec. quarter at 5409 Powder Mill Road in 2014. To solve the problem, we have discontinued taking supplemental water from another water source.

(3) HAA Violation- The levels detected do not pose an immediate risk to your health, however, some people who drink water containing haloacetic acids in excess of the MCL over many years may have an increased risk of getting cancer. Portage County had a MCL violation during the Oct, Nov, Dec. quarter at 5409 Powder Mill Road in 2014. To solve the problem, we have discontinued taking supplemental water from another water source.

Table 2

An Explanation of the Water Quality Data

The following table is for the water produced by the Ravenna WTP and purchased as supplemental water for the Brimfield system, normally in the northeastern portion of the Brimfield distribution system and during emergencies.

Substances we detected (Units)	What's Allowed (MCL)	What's the goal? (MCLG)	Level Found	Range	Violation?	When we checked	Where can it come from?
Nitrate (ppm)	10	10	0.33	0.10-0.56	NO	2014	Runoff from fertilizer use; Erosion of natural deposits
Fluoride (ppm)	4	4	1.00	0.85-1.18	NO	2014	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer plants and aluminum factories
Copper (ppm)	AL = 1.3	1.3	0.24 90%	.031-0.58	NO	2012	Corrosion of household plumbing systems.
Lead (ppb)	AL = 15	0	5.40 90%	0-17	NO	2012	Corrosion of household plumbing systems.
Total Chlorine (ppm)	MRDL = 4	MRDLG=4	1.46	0.9-2.3	NO	2014	Water additive to control microbes
Chlorite (ppm)	1.0	0.8	0.63	0.22-0.93	NO	2014	Byproduct of drinking water chlorination
Turbidity (NTU) 99% of samples were below the TT value of 0.3	0.3	TT	0.17	0.03-0.17	NO	2014	Soil Runoff
Total Coliform Bacteria	1	0	0	NA	NO	2014	Naturally present in the environment
Total Organic Carbon (ppm)	TT	NA	1.43	1.14-1.65	NO	2014	Naturally present in the environment
Barium (ppm)	2.0	.010	.029	NA	NO	2014	Discharge of drilling waste; erosion of natural deposits
Radium 228 (pCi/L)	5	0	<1	NA	NO	2010	Decay of natural deposits
Bromodichloro Methane (ppb)	NA	NA	12.4	NA	NO	2014	Byproduct of drinking water chlorination
Chlorodibromomethane (ppb)	NA	NA	2.14	NA	NO	2014	Byproduct of drinking water chlorination
Chloroform (ppb)	NA	NA	32.8	NA	NO	2014	Byproduct of drinking water chlorination
TTHM's (ppb) DS 201	80 ARA	80	62.3	42.5-88.5	NO	2014	Byproduct of drinking water chlorination
HAA5's (ppb) DS 201	60 ARA	60	54.7	32.6-102	NO	2014	Byproduct of drinking water chlorination
TTHM's (ppb) DS 202	80 ARA	80	60.8	39.1-98.4	NO	2014	Byproduct of drinking water chlorination
HAA5's (ppb) DS 202	60 ARA	60	57.2	35.4-107	NO	2014	Byproduct of drinking water chlorination
TTHM's (ppb) DS 203	80 ARA	80	60.4	25.4-98.8	NO	2014	Byproduct of drinking water chlorination
HAA5's (ppb) DS 203	60 ARA	60	56.9	19.9-114	NO	2014	Byproduct of drinking water chlorination
TTHM's (ppb) DS 204	80 ARA	80	53.0	27.9-82.2	NO	2014	Byproduct of drinking water chlorination
HHA5's (ppb) DS 204	60 ARA	60	54.5	23.3-108	NO	2014	Byproduct of drinking water chlorination

Shalersville Water Plant – Table 1

Provides drinking water to surrounding Shalersville Township, the City of Streetsboro, the City of Aurora, Aqua Ohio Water Company Inc., and as far south as portions of Franklin Township, and uses ground water wells as its drinking water source. In addition, measures have been taken to assure a constant water supply through agreements to purchase water from the City of Ravenna and the City of Cleveland.

Brimfield Water Plant – Table 1

Provides drinking water service to the local Brimfield and Rootstown² areas, Aqua Ohio Water Company Inc., and as far north as the Meadowview Plaza in Franklin and Ravenna Townships, and uses ground water wells as its source. Supplemental water is purchased from the City of Ravenna at an average of 0.16 million gallons per day. The City of Ravenna water system uses surface water drawn from Lake Hodgson. Ravenna's water quality data is included in **Table 2**.

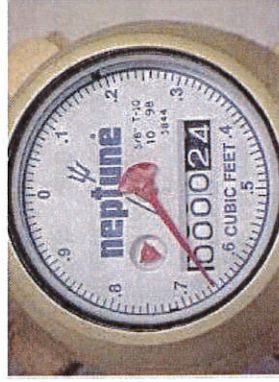
Rivermoor Water Plant – Table 1

Provides drinking water service to the local Rivermoor area (Suffield Township), and uses ground water wells as its source.



About your Drinking Water

The USEPA requires regular testing to ensure drinking water safety. The Portage County Water Resources Department conducted sampling for bacteria, inorganic and organic contaminants during 2015. Samples were collected for a number of different contaminants most of which were not detected in the Portage County Water Resources water supply. The Ohio EPA requires us to monitor for some contaminants less than once per year because the concentrations of these contaminants do not change frequently. Some of our data, though accurate, are more than one year old.



Customer Views Welcome

If you are interested in learning more about the water department and water quality or participating in the decision-making process, there are a number of opportunities available. Questions about water quality can be answered by calling our Customer Service office at (330)-297-3685. Inquiries about public participation and policy decisions can be made by calling (330)-297-3670. The Portage County Board of Commissioners' meetings are held weekly on Tuesdays and Thursdays beginning at 9:00 AM and are open to the public.

PORTAGE COUNTY WATER QUALITY REPORT

2015

Water Quality Exceeds Mark

Shalersville Water Treatment Plant
Brimfield Water Treatment Plant
Rivermoor Water Treatment Plant

The Portage County Water Resources Department has prepared the following report to provide information to you, the consumer, on the quality of our drinking water from our three water treatment plants. Included within this report is general health information, water quality test results, how to participate in decisions concerning your drinking water and water system contacts.



DEFINITIONS OF TERMS

Maximum Contaminant Level Goal (MCLG): The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs allow for a maximum margin of safety.

Maximum Contaminant Level (MCL): The highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the available treatment technology.

Maximum Residual Disinfectant Level (MRDL): The highest residual disinfectant level allowed.

Maximum Residual Disinfectant Level Goal (MRDLG): The level of residual disinfectant below which there is no known or expected risks to health.

Action Level (AL): The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.

Treatment Technique (TT): A required process intended to reduce the level of a contaminant in drinking water.

Parts per million (ppm), or milligrams per liter (mg/l): Are units of measure for concentration of a contaminant.

Required Health Information:

The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs and wells. As water travels over the surface of the land or through the ground, it dissolves naturally occurring minerals and, in some cases, other contaminants, and can pick up substances resulting from the presence of animal or human activity.

Contaminants that may be present in source water include:

1. Microbial contaminants, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations and wildlife;

2. Inorganic contaminants, such as salts and metals, which can be naturally occurring or result from urban storm water runoff, industrial or domestic wastewater discharges, oil and gas production, mining or farming;

3. Pesticides and herbicides, which may come from a variety of sources such as agriculture, urban storm water runoff and residential uses;

4. Organic chemical contaminants, including synthetic and volatile organic chemicals, which are by-products of industrial processes and petroleum production, and can also come from gas stations, urban stormwater runoff and septic systems; and

5. Radioactive contaminants, which can be naturally occurring or be the result of oil and gas production and mining activities.

In order to ensure that tap water is safe to drink, USEPA prescribes regulations which limit the amount of certain contaminants in water provided by public water systems. Food and Drug Administration regulations establish limits for contaminants in bottled water, which shall provide the same protection for public health.

Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that water poses a health risk. More information about contaminants and potential health effects may be obtained by calling the Federal Environmental Protection Agency's Safe Drinking Water Hotline (1-800-426-4791). Some people may be more vulnerable to contaminants in drinking water than the general population. Immunocompromised people such as people with cancer undergoing chemotherapy, people who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly and infants can be particularly at risk from infections. These people should seek advice from their health care providers about drinking water. USEPA/Centers for Disease Control and Prevention (CDC) guidelines on appropriate means to lessen the risk of infection by Cryptosporidium and other microbial contaminants are available from the Safe Drinking Water Hotline (1-800-426-4791).

COMPLIANCE WITH DRINKING WATER REGULATIONS:

The Portage County Water Resources Department is in compliance with all Maximum Contaminant Levels and treatment techniques for drinking water. Portage County has current licenses and permits, issued by the Ohio Environmental Protection Agency, to operate our three water systems.

Table 1

An Explanation of the Water Quality Data

The following table presents the information on any regulated contaminant that was found to be present in the county's three drinking water treatment plants.

Substances we detected (Units)	What's Allowed (MCL)	What's the goal? (MCLG)	Rivermoor Water Plant		Brimfield Water Plant		Shalersville Water Plant		Violation?	When we checked	Where can it come from?
			Level Found	Range	Level Found	Range	Level Found	Range			
Fluoride (ppm)	4	4	<0.10	NA	1.03	0.86-1.10	1.12	0.33-1.22	NO	2015	Erosion of natural deposits; Water additive which promotes strong teeth
Copper (ppm)	AL = 1.3	1.3	.355 90%	.030-.460	1.10 90%	<.010-1.10	.235 90%	<.010-.390	NO	2013 Rivermoor 2013 Brimfield 2015 Shalersville	Corrosion of household plumbing systems; Erosion of natural deposits
Lead (ppb) (1)	AL = 15	0	<2.0 90%	<2.0	2.6 90%	<2.0-7.0	<2.0 90%	<2.0	NO	2013 Rivermoor 2013 Brimfield 2015 Shalersville	Corrosion of household plumbing systems; Erosion of natural deposits
Barium (ppm)	2	2	0.110	NA	0.110	NA	0.032	NA	NO	2013	Discharge of drilling wastes; Discharge from metal refineries
Bromodichloro Methane (ppb)	NA	NA	1.6	NA	3.6	NA	6.1	NA	NO	2013	Byproduct of drinking water chlorination
Bromoform (ppb)	NA	NA	1.0	NA	<0.5	NA	2.4	NA	NO	2013	Byproduct of drinking water chlorination
Chloroform (ppb)	NA	NA	1.1	NA	2.9	NA	2.4	NA	NO	2013	Byproduct of drinking water chlorination
Dibromochloro Methane (ppb)	NA	NA	2.1	NA	2.7	NA	8.2	NA	NO	2013	Byproduct of drinking water chlorination
Gross Alpha	15	0	<3	NA	<3	NA	6.38	NA	NO	2013	Decay of natural deposits
Radium 228	5	0	<1	NA	1.73	NA	0.04	NA	NO	2013	Decay of natural deposits
TTHM's (ppb) DS ₂₀₁	80 ARA	80	8.8	NA	24.03	17.9-30.0	35.9	NA	NO	2015	Byproduct of drinking water chlorination
HAA5's (ppb) DS ₂₀₁	60 ARA	60	<6.0	NA	9.75	9.70-10.8	9.5	NA	NO	2015	Byproduct of drinking water chlorination
TTHM's (ppb) DS ₂₀₂	80 ARA	80	NA	NA	33.40	30.7-36.5	NA	NA	NO	2015	Byproduct of drinking water chlorination
HHA5's (ppb) DS ₂₀₂	60 ARA	60	NA	NA	11.13	9.30-12.9	NA	NA	NO	2015	Byproduct of drinking water chlorination
Total Chlorine (ppm)	MRDL = 4	MRDLG=4	.70	0.40-0.90	0.83	0.70-0.90	1.10	0.70 - 1.20	NO	2015	Water additive to control microbes

(1) If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. The Portage County Water Resources Department is responsible for providing high-quality drinking water but cannot control the variety of materials used in plumbing components in the home. When your water has been sitting unused for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to 2 minutes before using water for drinking or cooking. If you are concerned about lead in your water, you may wish to have your water tested. Information on lead in drinking water, testing methods and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline at 1 (800) 426-4791 or at <http://www.epa.gov/safewater/lead>.

(2) The Portage County Water Resources Department assumed full ownership and operation of the Rootstown Water Service Company on November 1, 2015. Prior to November 1, 2015 the Portage County Water Resources Department was acting as Operator of Record for the Rootstown Water Service Company. Also the majority of water for the Rootstown area was being supplied by the City of Ravenna until July 13, 2015. On July 14th, the Portage County Water Resources Department began supplying the majority of Rootstown's water from the Brimfield Water Treatment Plant. The Locational Running Annual Average (LRAA) sample results for Rootstown's Trihalomethanes & Haloacetic Acids in 2015 are as follows: DS201 TTHM LRAA = 19.4ug/l HHA5 LRAA = 8.26 ug/l DS202 TTHM LRAA = 79.6 ug/l HAA5 LRAA = 47.9 ug/l there were no violations in the Rootstown water system in 2015.

Table 2

An Explanation of the Water Quality Data

The following information has been furnished by the City of Ravenna for the water produced by the Ravenna Water Treatment Plant. This water is purchased as supplemental water for the Brimfield system, normally in the northeastern portion of the Brimfield distribution system and also during emergencies. Additionally, this water is still being supplied to the northern portion of the former Rootstown Water Service Company service area.

Substances we detected (Units)	What's Allowed (MCL)	What's the goal? (MCLG)	Level Found	Range	Violation?	When we checked	Where can it come from?
Nitrate (ppm)	10	10	0.18	0.10-0.33	NO	2015	Runoff from fertilizer use; Erosion of natural deposits
Fluoride (ppm)	4	4	1.04	0.89-1.14	NO	2015	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer plants and aluminum factories
Copper (ppm)	AL = 1.3	1.3	0.12 90%	.018-0.15	NO	2015	Corrosion of household plumbing systems.
Lead (ppb)	AL = 15	0	3.30 90%	0-4.20	NO	2015	Corrosion of household plumbing systems.
Total Chlorine (ppm)	MRDL = 4	MRDLG=4	1.13	0.9-1.6	NO	2015	Water additive to control microbes
Chlorite (ppm)	1.0	0.8	0.68	0.37-0.94	NO	2015	Byproduct of drinking water chlorination
Turbidity (NTU) 99% of samples were below the TT value of 0.3	0.3	TT	0.17	0.05-0.26	NO	2015	Soil Runoff
Total Coliform Bacteria	1	0	0	NA	NO	2015	Naturally present in the environment
Total Organic Carbon (ppm)	TT	NA	1.62	1.44-1.83	NO	2015	Naturally present in the environment
Barium (ppm)	2.0	.010	.020	NA	NO	2015	Discharge of drilling waste; erosion of natural deposits
Radium 228 (pCi/L)	5	0	<1	NA	NO	2010	Decay of natural deposits
Bromodichloro Methane (ppb)	NA	NA	15.1	7.6-19.5	NO	2015	Byproduct of drinking water chlorination
Chlorodibromomethane (ppb)	NA	NA	4.03	1.8-5.7	NO	2015	Byproduct of drinking water chlorination
Chloroform (ppb)	NA	NA	45.3	23.9-64.8	NO	2015	Byproduct of drinking water chlorination
TTHM's (ppb) DS 201	80 ARA	80	72.2	56.3-89.6	NO	2015	Byproduct of drinking water chlorination
HAA5's (ppb) DS 201	60 ARA	60	33.3	24.6-45.6	NO	2015	Byproduct of drinking water chlorination
TTHM's (ppb) DS 202	80 ARA	80	69.5	53.5-86.1	NO	2015	Byproduct of drinking water chlorination
HAA5's (ppb) DS 202	60 ARA	60	35.8	30.5-46.8	NO	2015	Byproduct of drinking water chlorination
TTHM's (ppb) DS 203	80 ARA	80	62.8	47.6-80.1	NO	2015	Byproduct of drinking water chlorination
HAA5's (ppb) DS 203	60 ARA	60	33.3	27.8-41.1	NO	2015	Byproduct of drinking water chlorination
TTHM's (ppb) DS 204	80 ARA	80	66.2	47.2-85.0	NO	2015	Byproduct of drinking water chlorination
HHA5's (ppb) DS 204	60 ARA	60	34.2	27.0-45.8	NO	2015	Byproduct of drinking water chlorination
Unregulated Contaminants*							
Chromium (ppb)	N/A	N/A	0.65	0.31-.85		2015	
Molybdenum (ppb)	N/A	N/A	1.5	1.2-1.8		2015	
Strontium (ppb)	N/A	N/A	112	109-117		2015	
Chromium, Hexavalent (ppb)	N/A	N/A	0.46	0.26-.65		2015	
Chlorate (ppb)	N/A	N/A	470	412-457		2015	

*Unregulated contaminants are those for which EPA has not established drinking water standards. The purpose of unregulated contaminant monitoring is to assist EPA in determining the occurrence of unregulated contaminants in drinking water and whether future regulation is warranted.

Shalersville Water Plant- Table 1

Provides drinking water to surrounding Shalersville Township, the City of Streetsboro, the City of Aurora, Aqua Ohio Water Company Inc., and as far south as portions of Franklin Township, and uses ground water wells as its drinking water source. In addition, measures have been taken to assure a constant water supply through agreements to purchase water from the City of Ravenna and the City of Cleveland water systems.

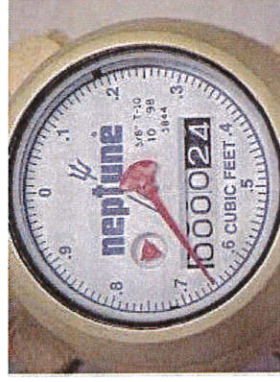
Brimfield Water Plant- Table 1 Provides drinking water service to the local Brimfield and Rootstown area, Aqua Ohio Water Company Inc., and as far north as the Meadowview Plaza in Franklin and Ravenna Townships, and uses ground water wells as its source. Supplemental water is purchased from the City of Ravenna at an average of 0.16 million gallons per day. The City of Ravenna water system uses surface water drawn from Lake Hodgson. Ravenna's water quality data is included in **Table (2)**.

Rivermoor Water Plant- Table 1 Provides drinking water service to the local Rivermoor area, and uses ground water wells as its source.



About your Drinking Water

The EPA requires regular testing to ensure drinking water safety. Portage County Water Resources conducted sampling for bacteria and inorganic and organic contaminants during 2016. Samples were collected for a number of different contaminants most of which were not detected in the Portage County Water Resources water supply. The Ohio EPA requires us to monitor for some contaminants less than once per year because the concentrations of these contaminants do not change frequently. Some of our data, though accurate, are more than one year old.



Customer Views Welcome

If you are interested in learning more about the water department and water quality or participating in the decision-making process, there are a number of opportunities available. Questions about water quality can be answered by calling our Customer Service office at 330-297-3685. Inquiries about public participation and policy decisions can be made by calling 330-297-3670. The Board of Commissioners' meetings are held weekly on Tuesdays 9:00 AM and are open to the public.

PORTAGE COUNTY WATER QUALITY REPORT

2016

Water Quality Exceeds Mark

Shalersville Water Plant
Brimfield Water Plant
Rivermoor Water Plant

Portage County Water Resources has prepared the following report to provide information to you, the consumer, on the quality of our drinking water from our three water treatment plants. Included within this report is general health information, water quality test results, how to participate in decisions concerning your drinking water and water system contacts.



DEFINITIONS OF TERMS

Maximum Contaminant Level Goal

(MCLG): The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs allow for a maximum margin of safety.

Maximum Contaminant Level (MCL):

The highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the available treatment technology.

Maximum Residual Disinfectant Level

(MRDL): The highest residual disinfectant level allowed.

Maximum Residual Disinfectant Level

Goal (MRDLG): The level of residual disinfectant below which there is no known or expected risks to health.

Action Level (AL): The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.

Treatment Technique (TT): A required process intended to reduce the level of a contaminant in drinking water.

Parts per million (ppm), or milligrams per liter (mg/l): Are units of measure for concentration of a contaminant.

Required Health Information:

The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs and wells. As water travels over the surface of the land or through the ground, it dissolves naturally occurring minerals and, in some cases, other contaminants, and can pick up substances resulting from the presence of animal or human activity.

Contaminants that may be present in source water include:

1. Microbial contaminants, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations and wildlife;

2. Inorganic contaminants, such as salts and metals, which can be naturally occurring or result from urban storm water runoff, industrial or domestic wastewater discharges, oil and gas production, mining or farming;

3. Pesticides and herbicides, which may come from a variety of sources such as agriculture, urban storm water runoff and residential uses;

4. Organic chemical contaminants, including synthetic and volatile organic chemicals, which are by-products of industrial processes and petroleum production, and can also come from gas stations, urban stormwater runoff and septic systems; and

5. Radioactive contaminants, which can be naturally occurring or be the result of oil and gas production and mining activities.

In order to ensure that tap water is safe to drink, USEPA prescribes regulations which limit the amount of certain contaminants in water provided by public water systems. Food and Drug Administration regulations establish limits for contaminants in bottled water, which shall provide the same protection for public health.

Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that water poses a health risk. More information about contaminants and potential health effects may be obtained by calling the Federal Environmental Protection Agency's Safe Drinking Water Hotline (800-426-4791). Some people may be more vulnerable to contaminants in drinking water than the general population. Immunocompromised people such as people with cancer undergoing chemotherapy, people who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly and infants can be particularly at risk from infections. These people should seek advice from their health care providers about drinking water. USEPA/Centers for Disease Control and Prevention (CDC) guidelines on appropriate means to lessen the risk of infection by Cryptosporidium and other microbial contaminants are available from the Safe Drinking Water Hotline (800-426-4791).

COMPLIANCE WITH DRINKING WATER REGULATIONS:

Portage County Water Resources is in compliance with all Maximum Contaminant Levels and Treatment Techniques for drinking water. Portage County has current Licenses, issued by the Ohio Environmental Protection Agency, to operate our three water systems.

Table 1

An Explanation of the Water Quality Data

The following table presents the information on any regulated contaminant that was found to be present in our three drinking water plants.

Substances we detected (Units)	What's Allowed (MCL)	What's the goal? (MCLG)	Rivermoor Water Plant		Brimfield Water Plant		Shalersville Water Plant		Violation?	When we checked	Where can it come from?
			Level Found	Range	Level Found	Range	Level Found	Range			
Fluoride (ppm)	4	4	<0.10	NA	1.03	0.68-1.13	1.06	0.88-1.14	NO	2016	Erosion of natural deposits; Water additive which promotes strong teeth
Copper (ppm)	AL = 1.3	1.3	.190 90%	0.11-0.36	.60 90%	0.17-0.89	0.22 90%	<.010-.36	NO	2016	Corrosion of household plumbing systems; Erosion of natural deposits
Lead (ppb) (1)	AL= 15	0	1.2 90%	<1.0-2.7	3.6 90%	<2.0-10.0	<2.0 90%	<2.0-25.0	NO	2016	Corrosion of household plumbing systems; Erosion of natural deposits
Barium (ppm)	2	2	0.110	NA	0.110	NA	0.033	NA	NO	2016	Discharge of drilling wastes; Discharge from metal refineries
Bromodichloro Methane (ppb)	NA	NA	1.9	NA	3.6	NA	13.3	NA	NO	2016	Byproduct of drinking water chlorination
Bromoform (ppb)	NA	NA	1.3	NA	<0.5	NA	8.4	NA	NO	2016	Byproduct of drinking water chlorination
Chloroform (ppb)	NA	NA	1.1	NA	2.9	NA	5.7	NA	NO	2016	Byproduct of drinking water chlorination
Dibromochloro Methane (ppb)	NA	NA	2.8	NA	2.7	NA	19.4	NA	NO	2016	Byproduct of drinking water chlorination
Gross Alpha	15	0	<3	NA	<3	NA	6.38	NA	NO	2016	Decay of natural deposits
Radium 228	5	0	<1	NA	<1	NA	0.04	NA	NO	2016	Decay of natural deposits
TTHM's (ppb) DS 201	80 ARA	80	7.1	NA	64.2	31.7-94.3	46.8	NA	NO	2016	Byproduct of drinking water chlorination
HAA5's (ppb) DS 201	60 ARA	60	<6.0	NA	17.2	8.1-32.1	9.2	NA	NO	2016	Byproduct of drinking water chlorination
TTHM's (ppb) DS 202	80 ARA	80	NA	NA	38.0	28.7-48.6	NA	NA	NO	2016	Byproduct of drinking water chlorination
HHA5's (ppb) DS 202	60 ARA	60	NA	NA	10.7	<6.0-12.8	NA	NA	NO	2016	Byproduct of drinking water chlorination
Total Chlorine (ppm)	MRDL = 4	MRDLG=4	.63	0.40-0.70	0.80	0.80-0.90	1.37	0.90 - 1.4	NO	2016	Water additive to control microbes

(1) If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. Portage County Water Resources is responsible for providing high-quality drinking water but cannot control the variety of materials used in plumbing components in the home. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to 2 minutes before using water for drinking or cooking. If you are concerned about lead in your water, you may wish to have your water tested. Information on lead in drinking water, testing methods and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline at 800-426-4791 or at <http://www.epa.gov/safewater/lead>.

Table 2

An Explanation of the Water Quality Data

The following table is for the water produced by the Ravenna WTP and purchased as supplemental water for the Brimfield system, normally in the northeastern portion of the Brimfield distribution system and during emergencies.

Substances we detected (Units)	What's Allowed (MCL)	What's the goal? (MCLG)	Level Found	Range	Violation?	When we checked	Where can it come from?
Nitrate (ppm)	10	10	0.13	0.10-0.22	NO	2016	Runoff from fertilizer use; Erosion of natural deposits
Fluoride (ppm)	4	4	0.97	0.78-1.10	NO	2016	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer plants and aluminum factories
Copper (ppm)	AL = 1.3	1.3	0.12 90%	.018-0.15	NO	2015	Corrosion of household plumbing systems.
Lead (ppb)	AL = 15	0	3.30 90%	0-4.20	NO	2015	Corrosion of household plumbing systems.
Total Chlorine (ppm)	MRDL = 4	MRDLG=4	1.31	0.8-1.9	NO	2016	Water additive to control microbes
Chlorite (ppm)	1.0	0.8	0.62	0.42-0.89	NO	2016	Byproduct of drinking water chlorination
Turbidity (NTU) 99% of samples were below the TT value of 0.3	0.3	TT	0.07	0.05-0.18	NO	2016	Soil Runoff
Total Coliform Bacteria	1	0	0	NA	NO	2016	Naturally present in the environment
Total Organic Carbon (ppm)	TT	NA	1.62	1.44-1.83	NO	2016	Naturally present in the environment
Nickel (ppb)	100	100	0.39	NA	NO	2016	Discharge of drilling waste; erosion of natural deposits
Radium 228 (pCi/L)	5	0	<1	NA	NO	2016	Decay of natural deposits
Bromodichloro Methane (ppb)	NA	NA	6.60	NA	NO	2016	Byproduct of drinking water chlorination
Chlorodibromomethane (ppb)	NA	NA	2.06	NA	NO	2016	Byproduct of drinking water chlorination
Chloroform (ppb)	NA	NA	11.8	NA	NO	2016	Byproduct of drinking water chlorination
TTHM's (ppb) DS 201	80 ARA	80	42.1	40.4-44.4	NO	2016	Byproduct of drinking water chlorination
HAA5's (ppb) DS 201	60 ARA	60	35.6	26.8-42.4	NO	2016	Byproduct of drinking water chlorination
TTHM's (ppb) DS 202	80 ARA	80	46.0	36.1-64.1	NO	2016	Byproduct of drinking water chlorination
HAA5's (ppb) DS 202	60 ARA	60	38.8	30.5-46.8	NO	2016	Byproduct of drinking water chlorination
TTHM's (ppb) DS 203	80 ARA	80	43.5	31.8-59.4	NO	2016	Byproduct of drinking water chlorination
HAA5's (ppb) DS 203	60 ARA	60	37.8	27.8-41.1	NO	2016	Byproduct of drinking water chlorination
TTHM's (ppb) DS 204	80 ARA	80	40.7	33.1-52.3	NO	2016	Byproduct of drinking water chlorination
HHA5's (ppb) DS 204	60 ARA	60	36.6	25.5-48.9	NO	2016	Byproduct of drinking water chlorination
Unregulated Contaminants*							
Chromium (ppb)	N/A	N/A	0.65	0.31-.85		2015	
Molybdenum (ppb)	N/A	N/A	1.5	1.2-1.8		2015	
Strontium (ppb)	N/A	N/A	112	109-117		2015	
Chromium, Hexavalent (ppb)	N/A	N/A	0.46	0.26-.65		2015	
Chlorate (ppb)	N/A	N/A	470	412-457		2015	
Saxitoxin	AL = 0.30	NA	0.023	NA		2016	Harmful Algae Blooms

*Unregulated contaminants are those for which EPA has not established drinking water standards. The purpose of unregulated contaminant monitoring is to assist EPA in determining the occurrence of unregulated contaminants in drinking water and whether future regulation is warranted.



Presented By

Portage County Water Resources

ANNUAL
**WATER
QUALITY
REPORT**

WATER TESTING PERFORMED IN 2017



Portage County PWS ID#:OH6702812
Rivermoor PWS ID#:OH6705312

Quality First

Once again, we are pleased to present our annual water quality report. As in years past, we are committed to delivering the best-quality drinking water possible. To that end, we remain vigilant in meeting the challenges of new regulations, source water protection, water conservation, and community outreach and education while continuing to serve the needs of all our water users. Thank you for allowing us the opportunity to serve you and your family.

We encourage you to share your thoughts with us on the information contained in this report. After all, well-informed customers are an asset to our systems.

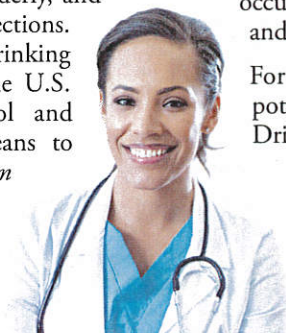
Source Water Assessment

A Source Water Assessment Plan (SWAP) is now available at our office. This plan is an assessment of the delineated area around our listed sources through which contaminants, if present, could migrate and reach our source water. It also includes an inventory of potential sources of contamination within the delineated area, and a determination of the water supply's susceptibility to contamination by the identified potential sources.

According to the Source Water Assessment Plan, our water system had a susceptibility rating of "High." If you would like to review the Source Water Assessment Plan, please feel free to contact our office during regular office hours.

Important Health Information

Some people may be more vulnerable to contaminants in drinking water than the general population. Immunocompromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly, and infants may be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. The U.S. EPA/CDC (Centers for Disease Control and Prevention) guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* and other microbial contaminants are available from the Safe Drinking Water Hotline at (800) 426-4791 or <http://water.epa.gov/drink/hotline>.



Substances That Could Be in Water

To ensure that tap water is safe to drink, the U.S. EPA prescribes regulations limiting the amount of certain contaminants in water provided by public water systems. U.S. Food and Drug Administration regulations establish limits for contaminants in bottled water, which must provide the same protection for public health. Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of these contaminants does not necessarily indicate that the water poses a health risk.

The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water travels over the surface of the land or through the ground, it dissolves naturally occurring minerals, in some cases, radioactive material, and substances resulting from the presence of animals or from human activity. Substances that may be present in source water include:

Microbial Contaminants, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations, or wildlife;

Inorganic Contaminants, such as salts and metals, which can be naturally occurring or may result from urban stormwater runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or farming;

Pesticides and Herbicides, which may come from a variety of sources such as agriculture, urban stormwater runoff, and residential uses;

Organic Chemical Contaminants, including synthetic and volatile organic chemicals, which are by-products of industrial processes and petroleum production and may also come from gas stations, urban stormwater runoff, and septic systems;

Radioactive Contaminants, which can be naturally occurring or may be the result of oil and gas production and mining activities.

For more information about contaminants and potential health effects, call the U.S. EPA's Safe Drinking Water Hotline at (800) 426-4791.

Where Does My Water Come From?

Portage County draws source water from nine wells located throughout Portage County. These wells are spread out over the Shalersville, Brimfield, and Suffield areas. All of Portage County water is considered to be ground water. Portage County Water also has interconnections with the City of Cleveland and the City of Ravenna, both of which are surface water supplies and meet all state and federal standards. These interconnections are designed to supplement and assist in emergency situations if needed. We received water from the City of Ravenna to supplement our water supply to the Rootstown area from January 1st to April 30th. No water was needed to respond to emergencies in 2017. Combined, our treatment facilities provided roughly 1.2 billion gallons of clean drinking water in 2017.

Water treatment is a complex, time-consuming process.

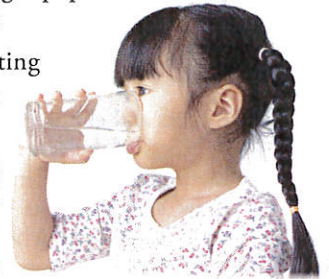
Lead in Home Plumbing

If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. We are responsible for providing high-quality drinking water, but cannot control the variety of materials used in plumbing components. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to 2 minutes before using water for drinking or cooking. If you are concerned about lead in your water, you may wish to have your water tested. A list of laboratories certified in the State of Ohio to test for lead may be found at <http://www.epa.ohio.gov/ddagw> or by calling 614-644-2752. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline or at www.epa.gov/lead.

Count on Us

Delivering high-quality drinking water to our customers involves far more than just pushing water through pipes. Water treatment is a complex, time-consuming process. Because tap water is highly regulated by state and federal laws, water treatment plant and system operators must be licensed and are required to commit to long-term, on-the-job training before becoming fully qualified. Our licensed water professionals have a basic understanding of a wide range of subjects, including mathematics, biology, chemistry, and physics. Some of the tasks they complete on a regular basis include:

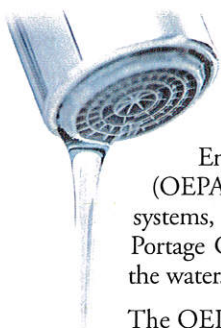
- Operating and maintaining equipment to purify and clarify water;
- Monitoring and inspecting machinery, meters, gauges, and operating conditions;
- Conducting tests and inspections on water and evaluating the results;
- Maintaining optimal water chemistry;
- Applying data to formulas that determine treatment requirements, flow levels, and concentration levels;
- Documenting and reporting test results and system operations to regulatory agencies; and
- Serving our community through customer support, education, and outreach.



So, the next time you turn on your faucet, think of the skilled professionals who stand behind each drop.

QUESTIONS?

For more information about this report, or for any questions relating to your drinking water, please call Don Macko, Water Department Superintendent, at (330) 297-3685.



About Our Violation

To maintain copper and lead within Ohio Environmental Protection Agency (OEPA) acceptable limits in our water systems, as well as the homeowner's, Portage County adds orthophosphate to the water.

The OEPA issued a Notice of Violation for not maintaining a minimum level of 1.50 ppm orthophosphate concentration during the months of November and December in the Portage County PWS. We were directed to correct the deficiency immediately and did so. Contingency plans have been put in place so that this does not occur again.

Infants and children who drink water containing lead in excess of the action level could experience delays in their physical or mental development. Children could show slight deficits in attention span and learning abilities. Adults who drink this water over many years could develop kidney problems or high blood pressure.

Copper is an essential nutrient, but some people who drink water containing copper in excess of the action level over a relatively short amount of time could experience gastrointestinal distress. Some people who drink water containing copper in excess of the action level over many years could suffer liver or kidney damage. People with Wilson's disease should consult their personal doctor.

Community Participation

Inquiries about public participation and policy decisions can be made by calling (330) 297-3670. The Board of Commissioner's meetings are held weekly on Thursdays at 9:00 a.m. and are open to the public.

What's a Cross-connection?

Cross-connections that contaminate drinking water distribution lines are a major concern. A cross-connection is formed at any point where a drinking water line connects to equipment (boilers), systems containing chemicals (air-conditioning systems, fire sprinkler systems, irrigation systems), or water sources of questionable quality. Cross-connection contamination can occur when the pressure in the equipment or system is greater than the pressure inside the drinking water line (backpressure). Contamination can also occur when the pressure in the drinking water line drops due to fairly routine occurrences (main breaks, heavy water demand), causing contaminants to be sucked out from the equipment and into the drinking water line (backsiphonage).

Outside water taps and garden hoses tend to be the most common sources of cross-connection contamination at home. The garden hose creates a hazard when submerged in a swimming pool or when attached to a chemical sprayer for weed killing. Garden hoses that are left lying on the ground may be contaminated by fertilizers, cesspools, or garden chemicals. Improperly installed valves in your toilet could also be a source of cross-connection contamination.

Community water supplies are continuously jeopardized by cross-connections unless appropriate valves, known as backflow prevention devices, are installed and maintained. We have surveyed industrial, commercial, and institutional facilities in the service area to make sure that potential cross-connections are identified and eliminated or protected by a backflow preventer. We also inspect and test backflow preventers to make sure that they provide maximum protection.



For more information on backflow prevention, contact the Safe Drinking Water Hotline at (800) 426-4791.

Test Results

Our water is monitored for many different kinds of substances on a very strict sampling schedule. The information in the data tables show only those substances that were detected between January 1 and December 31, 2017. Remember that detecting a substance does not necessarily mean the water is unsafe to drink; our goal is to keep all detects below their respective maximum allowed levels. The State recommends monitoring for certain substances less than once per year because the concentrations of these substances do not change frequently. In these cases, the most recent sample data are included, along with the year in which the sample was taken.

Note that we have a current, unconditioned license to operate our water system.

REGULATED SUBSTANCES											
Portage County PWS				Rivermoor PWS				City of Ravenna PWS			
SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	MCL [MRDL]	MCLG [MRDLG]	AMOUNT DETECTED	RANGE LOW-HIGH	AMOUNT DETECTED	RANGE LOW-HIGH	AMOUNT DETECTED	RANGE LOW-HIGH	VIOLATION	TYPICAL SOURCE
Alpha Emitters (pCi/L)	2016	15	0	6.38	NA	<3.0	NA	<4	NA	No	Erosion of natural deposits
Barium (ppm)	2016	2	2	0.091	NA	0.098	NA	0.014 ¹	NA ¹	No	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits
Chlorine (ppm)	2017	[4]	[4]	1.20	0.60–1.30	0.73	0.30–0.80	1.26	0.90–1.60	No	Water additive used to control microbes
Chlorite (ppm)	2017	1	0.8	NA	NA	NA	NA	0.70	0.38–0.89	No	By-product of drinking water disinfection
Combined Radium (pCi/L)	2016	5	0	0.04	NA	<0.01	NA	<1	NA	No	Erosion of natural deposits
Fluoride (ppm)	2017	4	4	1.10	0.85–1.16	<0.10 ²	NA ²	0.89	0.76–1.06	No	Erosion of natural deposits; Water additive that promotes strong teeth; Discharge from fertilizer and aluminum factories
Haloacetic Acids [HAA] (ppb)	2017	60	NA	22.0	14.5–27.1	12.9	NA	47.5	19.0–61.3	No	By-product of drinking water disinfection
Nitrate (ppm)	2017	10	10	0.12	NA	<0.10	NA	0.14	0.10–0.28	No	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
TTHMs [Total Trihalomethanes] ¹ (ppb)	2017	80	NA	78.6	37.8–89.2	8.5	NA	53.3	23.7–79.7	No	By-product of drinking water disinfection
Total Organic Carbon [TOC] ¹ (ppm)	2017	TT	NA	NA	NA	NA	NA	1.30	1.69–2.22	No	Naturally present in the environment
Turbidity ¹ (NTU)	2017	TT	NA	NA	NA	NA	NA	0.12	0.03–0.12	No	Soil runoff
Tap water samples were collected for lead and copper analyses from sample sites throughout the community											
Portage County PWS						Rivermoor PWS					
SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	AL	MCLG	AMOUNT DETECTED (90TH%TILE)	RANGE LOW-HIGH	SITES ABOVE AL/TOTAL SITES	AMOUNT DETECTED (90TH%TILE)	RANGE LOW-HIGH	SITES ABOVE AL/TOTAL SITES	VIOLATION	TYPICAL SOURCE
Copper (ppm)	2017	1.3	1.3	0.750	<0.010–1.3	0/40	0.190 ²	0.11–0.36	0/5 ²	No	Corrosion of household plumbing systems; Erosion of natural deposits
Lead (ppb)	2017	15	0	<2.0	<2.0–6.8	0/40	<2.0 ²	<2.0–2.7	0/5 ²	No	Corrosion of household plumbing systems; Erosion of natural deposits

UNREGULATED SUBSTANCES

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	Portage County PWS			Rivermoor PWS			City of Ravenna PWS			TYPICAL SOURCE
		AMOUNT DETECTED	RANGE LOW-HIGH		AMOUNT DETECTED	RANGE LOW-HIGH		AMOUNT DETECTED	RANGE LOW-HIGH		
Bromochloromethane (ppb)	2016	13.3	NA		1.9	NA		7.8 ¹	NA ¹		By-product of drinking water chlorination
Bromoform (ppb)	2016	8.4	NA		1.3	NA		NA	NA		By-product of drinking water chlorination
Chloroform (ppb)	2016	5.7	NA		1.1	NA		18.9 ¹	NA ¹		By-product of drinking water chlorination
Dibromochloromethane (ppb)	2016	19.4	NA		2.8	NA		2.32 ¹	NA ¹		By-product of drinking water chlorination
Nickel (ppb)	2017	NA	NA		NA	NA		1.91	NA		Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits

¹ Sampled in 2017.

² Sampled in 2016.

³ Some people who drink water containing trihalomethanes in excess of the MCL over many years may experience problems with their liver, kidneys, or central nervous systems, and may have an increased risk of getting cancer.

⁴ The value reported under Amount Detected for TOC is the lowest ratio between percentage of TOC actually removed and the percentage of TOC required to be removed. A value of greater than one indicates that the water system is in compliance with TOC removal requirements. A value of less than one indicates a violation of the TOC removal requirements.

⁵ Turbidity is a measure of the cloudiness of the water. It is monitored because it is a good indicator of water quality and the effectiveness of disinfectants.

Definitions

AL (Action Level): The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.

LRAA (Locational Running Annual Average): The average of sample analytical results for samples taken at a particular monitoring location during the previous four calendar quarters. Amount Detected values for TTHMs and HAAs are reported as the highest LRAAs.

MCL (Maximum Contaminant Level): The highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology.

MCLG (Maximum Contaminant Level Goal): The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs allow for a margin of safety.

MRDL (Maximum Residual Disinfectant Level): The highest level of a disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.

MRDLG (Maximum Residual Disinfectant Level Goal): The level of a drinking water disinfectant below which there is no known or expected risk to health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contaminants.

NA: Not applicable

NTU (Nephelometric Turbidity Units): Measurement of the clarity, or turbidity, of water. Turbidity in excess of 5 NTU is just noticeable to the average person.

pCi/L (picocuries per liter): A measure of radioactivity.

ppb (parts per billion): One part substance per billion parts water (or micrograms per liter).

ppm (parts per million): One part substance per million parts water (or milligrams per liter).

removal ratio: A ratio between the percentage of a substance actually removed to the percentage of the substance required to be removed.

TT (Treatment Technique): A required process intended to reduce the level of a contaminant in drinking water.

Appendix C

Ohio Environmental Protection Agency Compliance Report

Compliance Data for Brimfield WTP between 2/1/2014 and 2/1/2019

Summary

Permit Effluent Limit Violations: 6

Permit Effluent Code Events: 0

Permit Effluent Frequency Violations: 6

Compliance Schedule Milestones Not Entered: 0

Limit Violations						
Reporting Period	Station	Parameter	Limit Type	Limit	Reported Value	Violation Date
January 2018	001	Iron, Total (Fe)	30D Conc	190	306.5	1/1/2018
January 2018	001	Iron, Total (Fe)	30D Qty	0.0195	.03307	1/1/2018
January 2018	001	Iron, Total (Fe)	1D Qty	0.0276	.03414	1/9/2018
January 2018	001	Iron, Total (Fe)	1D Conc	270	311.	1/9/2018
January 2018	001	Iron, Total (Fe)	1D Qty	0.0276	.03201	1/10/2018
January 2018	001	Iron, Total (Fe)	1D Conc	270	302.	1/10/2018

Frequency Violations						
Reporting Period	Station	Parameter	Sample Frequency	Expected	Reported	Violation Date
July 2016	001	Total Suspended Solids	1/Month	1	0	7/1/2016
July 2016	001	Chlorine, Total Residu	1/Month	1	0	7/1/2016
July 2016	001	Residue, Total Dissolv	1/Month	1	0	7/1/2016
July 2016	001	Iron, Total (Fe)	1/Month	1	0	7/1/2016
July 2016	001	Manganese, Total (Mn)	1/Month	1	0	7/1/2016
July 2016	001	pH	1/Month	1	0	7/1/2016

High Flow Data for Brimfield WTP between 2/1/2014 and 2/1/2019

Top 10 Flows	
Date	Flows (MGD)
7/17/2016	0.040
1/4/2018	0.037
7/18/2016	0.032
1/6/2018	0.030
1/8/2018	0.029
1/9/2018	0.029
1/10/2018	0.028
1/5/2018	0.027
1/7/2018	0.026
7/19/2016	0.013
Average	0.029

Compliance Data for Countryside Estates between 2/1/2014 and 2/1/2019

Summary

Permit Effluent Limit Violations: 1

Permit Effluent Code Events: 0

Permit Effluent Frequency Violations: 2

Compliance Schedule Milestones Not Entered: 0

Limit Violations						
Reporting Period	Station	Parameter	Limit Type	Limit	Reported Value	Violation Date
July 2014	001	Dissolved Oxygen	1D Conc	6.0	5.9	7/24/2014

Frequency Violations						
Reporting Period	Station	Parameter	Sample Frequency	Expected	Reported	Violation Date
November 2016	001	CBOD 5 day	1/Week	1	0	11/22/2016
November 2016	001	Total Suspended Solids	1/Week	1	0	11/22/2016

High Flow Data for Countryside Estates between 2/1/2014 and 2/1/2019

Top 10 Flows	
Date	Flows (MGD)
6/27/2015	0.145
8/13/2018	0.075
7/22/2018	0.074
3/14/2015	0.056
2/21/2014	0.055
12/27/2015	0.051
3/11/2015	0.050
8/20/2014	0.046
3/13/2015	0.045
1/12/2017	0.045
Average	0.022

Compliance Data for Fairlane WWTP between 2/1/2014 and 2/1/2019

Summary

Permit Effluent Limit Violations: 6

Permit Effluent Code Events: 0

Permit Effluent Frequency Violations: 4

Compliance Schedule Milestones Not Entered: 0

Limit Violations						
Reporting Period	Station	Parameter	Limit Type	Limit	Reported Value	Violation Date
February 2018	001	Nitrogen, Ammonia (NH3)	30D Conc	4.0	8.68667	2/1/2018
February 2018	001	Nitrogen, Ammonia (NH3)	30D Qty	0.455	.9759	2/1/2018
February 2018	001	Nitrogen, Ammonia (NH3)	7D Qty	0.682	1.85465	2/8/2018
February 2018	001	Nitrogen, Ammonia (NH3)	7D Conc	6.0	19.6	2/8/2018
February 2018	001	Nitrogen, Ammonia (NH3)	7D Qty	0.682	1.0492	2/15/2018
February 2018	001	Nitrogen, Ammonia (NH3)	7D Conc	6.0	6.16	2/15/2018

Frequency Violations						
Reporting Period	Station	Parameter	Sample Frequency	Expected	Reported	Violation Date
November 2016	001	Total Suspended Solids	1/Week	1	0	11/22/2016
November 2016	001	CBOD 5 day	1/Week	1	0	11/22/2016
September 2018	001	Water Temperature	1/Day	1	0	9/21/2018
September 2018	001	Turbidity, Severity	1/Day	1	0	9/21/2018

High Flow Data for Fairlane WWTP between 2/1/2014 and 2/1/2019

Top 10 Flows	
Date	Flows (MGD)
2/21/2014	0.147
7/26/2014	0.144
3/14/2015	0.107
1/12/2017	0.084
6/18/2014	0.074
1/23/2019	0.066
6/27/2015	0.063
7/12/2017	0.060
4/16/2018	0.060
2/25/2018	0.060
Average	0.019

Compliance Data for Franklin Hills WWTP between 2/1/2014 and 2/1/2019

Summary

Permit Effluent Limit Violations: 2

Permit Effluent Code Events: 5

Permit Effluent Frequency Violations: 48 *1 missing data report.

Compliance Schedule Milestones Not Entered: 0

Reported SSO Events: 6

Limit Violations						
Reporting Period	Station	Parameter	Limit Type	Limit	Reported Value	Violation Date
February 2014	001	pH, Minimum	1D Conc	6.5	6.4	2/21/2014
October 2014	001	pH, Minimum	1D Conc	6.5	6.4	10/30/2014

Code Events				
Reporting Period	Station	Parameter	Reported Value	Event Date
January 2016	001	Flow Rate	AD	1/5/2016
January 2018	801	Nitrogen, Ammonia (NH3)	AF	1/3/2018
January 2018	801	Dissolved Oxygen	AF	1/3/2018
January 2018	801	Water Temperature	AF	1/3/2018
January 2018	801	pH	AF	1/3/2018

Frequency Violations						
Reporting Period	Station	Parameter	Sample Frequency	Expected	Reported	Violation Date
April 2014	001	Residue, Total Filtera	1/2Weeks	1	0	4/1/2014
May 2014	001	Nitrogen, Ammonia (NH3)	3/Week	3	2	5/15/2014
May 2014	001	Total Suspended Solids	3/Week	3	2	5/15/2014
May 2014	001	Phosphorus, Total (P)	1/Week	1	0	5/15/2014
May 2014	601	CBOD 5 day	3/Week	3	2	5/15/2014
May 2014	001	CBOD 5 day	3/Week	3	2	5/15/2014
May 2014	601	Total Suspended Solids	3/Week	3	2	5/15/2014
May 2014	001	Fecal Coliform	3/Week	3	2	5/22/2014
May 2014	001	E. coli	3/Week	3	2	5/22/2014
July 2014	001	Residue, Total Filtera	1/2Weeks	1	0	7/1/2014
October 2014	601	CBOD 5 day	3/Week	3	2	10/1/2014

October 2014	001	Residue, Total Filtera	1/2Weeks	1	0	10/1/2014
October 2014	001	CBOD 5 day	3/Week	3	2	10/1/2014
October 2014	001	Fecal Coliform	3/Week	3	2	10/1/2014
October 2014	001	Nitrogen, Ammonia (NH3	3/Week	3	2	10/1/2014
October 2014	001	Total Suspended Solids	3/Week	3	2	10/1/2014
October 2014	601	Total Suspended Solids	3/Week	3	2	10/1/2014
October 2014	001	E. coli	3/Week	3	2	10/1/2014
January 2015	001	Residue, Total Filtera	1/2Weeks	1	0	1/1/2015
January 2015	001	CBOD 5 day	3/Week	3	2	1/8/2015
January 2015	601	Total Suspended Solids	3/Week	3	2	1/8/2015
January 2015	001	Total Suspended Solids	3/Week	3	2	1/8/2015
January 2015	001	Phosphorus, Total (P)	1/Week	1	0	1/8/2015
January 2015	601	CBOD 5 day	3/Week	3	2	1/8/2015
January 2015	001	Nitrogen, Ammonia (NH3	3/Week	3	2	1/8/2015
April 2015	001	Residue, Total Filtera	1/2Weeks	1	0	4/1/2015
July 2015	001	Residue, Total Filtera	1/2Weeks	1	0	7/1/2015
September 2015	001	Residue, Total Filtera	1/2Weeks	1	0	9/1/2015
October 2015	001	E. coli	3/Week	3	2	10/1/2015
October 2015	001	CBOD 5 day	3/Week	3	2	10/1/2015
October 2015	001	Total Suspended Solids	3/Week	3	2	10/1/2015
October 2015	001	Nitrogen, Ammonia (NH3	3/Week	3	2	10/1/2015
October 2015	601	CBOD 5 day	3/Week	3	2	10/1/2015
October 2015	601	Total Suspended Solids	3/Week	3	2	10/1/2015
December 2015	001	Residue, Total Filtera	1/2Weeks	1	0	12/1/2015
March 2016	001	Residue, Total Filtera	1/2Weeks	1	0	3/1/2016
June 2016	001	Residue, Total Filtera	1/2Weeks	1	0	6/1/2016
June 2016	001	Total Suspended Solids	3/Week	3	2	6/22/2016
June 2016	601	Total Suspended Solids	3/Week	3	2	6/22/2016
June 2016	001	Nitrogen, Ammonia (NH3	3/Week	3	2	6/22/2016
June 2016	001	CBOD 5 day	3/Week	3	2	6/22/2016
June 2016	601	CBOD 5 day	3/Week	3	2	6/22/2016
November 2016	001	Residue, Total Filtera	1/2Weeks	1	0	11/1/2016
December 2016	001	Total Suspended Solids	3/Week	3	2	12/15/2016
December 2016	601	Total Suspended Solids	3/Week	3	2	12/15/2016
December 2016	001	Nitrogen, Ammonia (NH3	3/Week	3	2	12/15/2016
December 2016	001	CBOD 5 day	3/Week	3	2	12/15/2016
December 2016	601	CBOD 5 day	3/Week	3	2	12/15/2016

Missing eDMRs		
Station	Required Report Period	DMR Received
588	December 2014	No

Franklin Hills WWTP SSO Events			
Parameter	Units	Date	Reported Value
Overflow Occurrence	No./Month	5/1/2014	1
Overflow Occurrence	No./Month	8/1/2014	1
Overflow Occurrence	No./Month	12/1/2015	1
Overflow Occurrence	No./Month	4/1/2016	1
Overflow Occurrence	No./Month	3/1/2018	1
Overflow Occurrence	No./Month	4/1/2018	1

High Flow Data for Franklin Hills WWTP between 2/1/2014 and 2/1/2019

Top 10 Flows	
Date	Flows (MGD)
3/15/2015	2.484
2/16/2018	2.325
1/28/2015	2.299
6/28/2015	2.235
4/3/2018	2.201
8/12/2014	2.116
11/1/2018	2.089
4/15/2018	2.065
9/25/2018	2.053
10/7/2018	2.047
Average	1.103

Compliance Data for Randolph WWTP between 2/1/2014 and 2/1/2019

Summary

Permit Effluent Limit Violations: 0

Permit Effluent Code Events: 0

Permit Effluent Frequency Violations: 5

Compliance Schedule Milestones Not Entered: 0

Frequency Violations						
Reporting Period	Station	Parameter	Sample Frequency	Expected	Reported	Violation Date
November 2016	001	Total Suspended Solids	2/Week	2	1	11/22/2016
November 2016	001	Nitrogen, Ammonia (NH3)	2/Week	2	1	11/22/2016
November 2016	601	CBOD 5 day	2/Week	2	1	11/22/2016
November 2016	601	Total Suspended Solids	2/Week	2	1	11/22/2016
November 2016	001	CBOD 5 day	2/Week	2	1	11/22/2016

High Flow Data for Randolph WWTP between 2/1/2014 and 2/1/2019

Top 10 Flows	
Date	Flows (MGD)
2/25/2018	0.267
1/12/2017	0.261
2/16/2018	0.257
1/24/2019	0.252
4/16/2018	0.243
6/27/2015	0.241
9/10/2018	0.232
4/4/2018	0.220
3/2/2018	0.202
4/3/2018	0.201
Average	0.081

Compliance Data for Red Fox WWTP between 2/1/2014 and 2/1/2019

Summary

Permit Effluent Limit Violations: 0

Permit Effluent Code Events: 11

Permit Effluent Frequency Violations: 4

Compliance Schedule Milestones Not Entered: 0

Reported SSO Events: 1

Code Events				
Reporting Period	Station	Parameter	Reported Value	Event Date
January 2016	001	Flow Rate	AD	1/1/2016
January 2016	001	Flow Rate	AD	1/2/2016
January 2016	001	Flow Rate	AD	1/3/2016
April 2016	001	Flow Rate	AD	4/19/2016
April 2016	001	Flow Rate	AD	4/20/2016
April 2016	001	Flow Rate	AD	4/21/2016
April 2016	001	Flow Rate	AD	4/22/2016
April 2016	001	Flow Rate	AD	4/23/2016
April 2016	001	Flow Rate	AD	4/24/2016
April 2016	001	Flow Rate	AD	4/25/2016
April 2016	001	Flow Rate	AD	4/26/2016

Frequency Violations						
Reporting Period	Station	Parameter	Sample Frequency	Expected	Reported	Violation Date
November 2016	001	Total Suspended Solids	2/Week	2	1	11/22/2016
November 2016	601	CBOD 5 day	1/Week	1	0	11/22/2016
November 2016	601	Total Suspended Solids	1/Week	1	0	11/22/2016
November 2016	001	CBOD 5 day	2/Week	2	1	11/22/2016

Red Fox WWTP SSO Events			
Parameter	Units	Date	Reported Value
Overflow Occurrence	No./Month	12/1/2018	1

High Flow Data for Red Fox WWTP between 2/1/2014 and 2/1/2019

Top 10 Flows	
Date	Flows (MGD)
1/13/2017	0.750
12/30/2015	0.496
7/13/2017	0.442
1/14/2017	0.368
1/15/2017	0.368
7/11/2017	0.304
7/1/2017	0.292
1/16/2017	0.284
7/14/2017	0.224
7/10/2017	0.207
Average	0.049

Compliance Data for Rivermoor Estates WWTP between 2/1/2014 and 2/1/2019

Summary

Permit Effluent Limit Violations: 0

Permit Effluent Code Events: 0

Permit Effluent Frequency Violations: 4

Compliance Schedule Milestones Not Entered: 0

Frequency Violations						
Reporting Period	Station	Parameter	Sample Frequency	Expected	Reported	Violation Date
November 2016	001	Total Suspended Solids	1/Week	1	0	11/22/2016
November 2016	001	CBOD 5 day	1/Week	1	0	11/22/2016
September 2018	001	Water Temperature	1/Day	1	0	9/21/2018
September 2018	001	Turbidity, Severity	1/Day	1	0	9/21/2018

High Flow Data for Rivermoor Estates WWTP between 2/1/2014 and 2/1/2019

Top 10 Flows	
Date	Flows (MGD)
6/18/2014	0.081
4/16/2018	0.068
5/21/2014	0.063
4/17/2018	0.057
4/4/2018	0.056
1/24/2019	0.054
4/15/2018	0.052
4/19/2018	0.052
4/18/2018	0.052
5/6/2017	0.051
Average	0.021

Compliance Data for Shalerville WTP between 2/1/2014 and 2/1/2019

Summary

Permit Effluent Limit Violations: 1

Permit Effluent Code Events: 0

Permit Effluent Frequency Violations: 5

Compliance Schedule Milestones Not Entered: 0

Limit Violations						
Reporting Period	Station	Parameter	Limit Type	Limit	Reported Value	Violation Date
January 2017	001	Chlorine, Total Residu	1D Conc	0.019	.061	1/10/2017

Frequency Violations						
Reporting Period	Station	Parameter	Sample Frequency	Expected	Reported	Violation Date
August 2016	001	Chlorine, Total Residu	1/Week	1	0	8/22/2016
August 2016	001	pH	1/Week	1	0	8/22/2016
August 2016	001	Manganese, Suspended (1/Week	1	0	8/22/2016
August 2016	001	Iron, Suspended (Fe)	1/Week	1	0	8/22/2016
August 2016	001	Specific Conductance a	1/Week	1	0	8/22/2016

High Flow Data for Shalerville WTP between 2/1/2014 and 2/1/2019

Top 10 Flows	
Date	Flows (MGD)
1/30/2016	0.576
12/6/2018	0.220
8/21/2018	0.214
10/15/2018	0.206
8/3/2017	0.204
1/31/2016	0.192
9/17/2018	0.188
9/25/2015	0.188
9/9/2017	0.185
6/9/2017	0.184
Average	0.109

Compliance Data for Streetsboro Hudson Regional WWTP between 2/1/2014 and 2/1/2019

Summary

Permit Effluent Limit Violations: 26

Permit Effluent Code Events: 29

Permit Effluent Frequency Violations: 53

Compliance Schedule Milestones Not Entered: 1

Reported SSO Events: 7

Limit Violations						
Reporting Period	Station	Parameter	Limit Type	Limit	Reported Value	Violation Date
March 2014	001	Dissolved Oxygen	1D Conc	6.0	4.03	3/1/2014
April 2014	001	Mercury, Total (Low Le	30D Conc	1.3	1.32733	4/1/2014
April 2014	001	Dissolved Oxygen	1D Conc	6.0	5.31	4/3/2014
August 2014	001	Phosphorus, Total (P)	7D Qty	10.6	13.1746	8/15/2014
August 2014	001	Phosphorus, Total (P)	7D Conc	0.70	.75	8/15/2014
December 2015	001	Total Suspended Solids	7D Qty	273	288.795	12/22/2015
December 2015	001	Phosphorus, Total (P)	7D Conc	0.70	.9	12/22/2015
December 2015	001	Phosphorus, Total (P)	7D Qty	10.6	19.6384	12/22/2015
April 2016	001	pH, Minimum	1D Conc	6.5	6.08	4/20/2016
June 2016	001	pH, Maximum	1D Conc	9.0	9.17	6/22/2016
December 2016	001	Dissolved Oxygen	1D Conc	6.0	5.7	12/24/2016
December 2016	001	Dissolved Oxygen	1D Conc	6.0	4.5	12/26/2016
December 2016	001	Dissolved Oxygen	1D Conc	6.0	5.7	12/27/2016
March 2017	001	Nitrogen, Ammonia (NH3	7D Conc	3.0	6.36667	3/1/2017
March 2017	001	Nitrogen, Ammonia (NH3	7D Qty	45.5	111.541	3/1/2017
March 2017	001	Dissolved Oxygen	1D Conc	6.0	5.7	3/6/2017
May 2017	001	Dissolved Oxygen	1D Conc	6.0	5.5	5/1/2017
May 2017	001	Dissolved Oxygen	1D Conc	6.0	5.	5/17/2017
August 2017	001	Dissolved Oxygen	1D Conc	6.0	5.7	8/7/2017
August 2017	001	Dissolved Oxygen	1D Conc	6.0	5.1	8/8/2017
April 2018	001	Phosphorus, Total (P)	7D Qty	10.6	17.3056	4/1/2018
April 2018	001	pH, Minimum	1D Conc	6.5	5.38	4/12/2018
April 2018	001	Dissolved Oxygen	1D Conc	6.0	5.7	4/18/2018
June 2018	001	Chronic Toxicity, Ceri	30D Conc	1.0	1.4	6/1/2018
July 2018	001	pH, Maximum	1D Conc	9.0	9.14	7/4/2018
January 2019	001	Nitrogen, Ammonia (NH3	7D Conc	3.0	3.03333	1/15/2019

Code Events				
Reporting Period	Station	Parameter	Reported Value	Event Date
February 2014	801	Phosphorus, Total (P)	AF	2/19/2014
February 2014	801	Nitrogen, Ammonia (NH3)	AF	2/19/2014
February 2014	801	Water Temperature	AF	2/19/2014
February 2014	801	Nitrite Plus Nitrate,	AF	2/19/2014
February 2014	801	Dissolved Oxygen	AF	2/19/2014
February 2014	801	pH	AF	2/19/2014
April 2014	001	Dissolved Oxygen	AD	4/14/2014
July 2015	001	pH, Maximum	AD	7/1/2015
July 2015	001	pH, Minimum	AD	7/1/2015
July 2015	001	pH, Maximum	AD	7/2/2015
July 2015	001	pH, Minimum	AD	7/2/2015
July 2015	001	pH, Maximum	AD	7/3/2015
July 2015	001	pH, Minimum	AD	7/3/2015
July 2015	001	pH, Maximum	AD	7/4/2015
July 2015	001	pH, Minimum	AD	7/4/2015
July 2015	001	pH, Minimum	AD	7/5/2015
July 2015	001	pH, Maximum	AD	7/5/2015
July 2015	001	pH, Maximum	AD	7/6/2015
July 2015	001	pH, Minimum	AD	7/6/2015
July 2015	001	pH, Minimum	AD	7/7/2015
July 2015	001	pH, Maximum	AD	7/7/2015
July 2015	001	pH, Minimum	AD	7/8/2015
July 2015	001	pH, Maximum	AD	7/8/2015
July 2015	001	pH, Minimum	AD	7/9/2015
July 2015	001	pH, Maximum	AD	7/9/2015
August 2015	001	Dissolved Oxygen	AD	8/6/2015
August 2015	001	Dissolved Oxygen	AD	8/9/2015
December 2015	901	pH	AD	12/2/2015
December 2015	801	pH	AD	12/2/2015

Frequency Violations						
Reporting Period	Station	Parameter	Sample Frequency	Expected	Reported	Violation Date
May 2014	001	CBOD 5 day	3/Week	3	2	5/15/2014
May 2014	601	Total Suspended Solids	3/Week	3	2	5/15/2014
May 2014	601	CBOD 5 day	3/Week	3	2	5/15/2014
May 2014	001	Total Suspended Solids	3/Week	3	2	5/15/2014
May 2014	001	Nitrogen, Ammonia (NH3)	3/Week	3	2	5/15/2014
May 2014	001	Phosphorus, Total (P)	1/Week	1	0	5/22/2014
May 2014	001	Fecal Coliform	3/Week	3	2	5/22/2014
October 2014	001	Total Suspended Solids	3/Week	3	2	10/1/2014
October 2014	001	E. coli	3/Week	3	2	10/1/2014
October 2014	001	Nitrogen, Ammonia (NH3)	3/Week	3	2	10/1/2014
October 2014	001	Fecal Coliform	3/Week	3	2	10/1/2014
October 2014	601	CBOD 5 day	3/Week	3	2	10/1/2014
October 2014	601	Total Suspended Solids	3/Week	3	2	10/1/2014
October 2014	001	CBOD 5 day	3/Week	3	2	10/1/2014
October 2014	001	E. coli	3/Week	3	2	10/15/2014
October 2014	001	CBOD 5 day	3/Week	3	2	10/15/2014
October 2014	001	Fecal Coliform	3/Week	3	2	10/15/2014
October 2014	001	Nitrogen, Ammonia (NH3)	3/Week	3	2	10/15/2014
October 2014	001	Total Suspended Solids	3/Week	3	2	10/15/2014
October 2014	601	CBOD 5 day	3/Week	3	2	10/15/2014
October 2014	601	Total Suspended Solids	3/Week	3	2	10/15/2014
January 2015	001	Nitrogen, Ammonia (NH3)	3/Week	3	2	1/8/2015
January 2015	001	CBOD 5 day	3/Week	3	2	1/8/2015
January 2015	001	Total Suspended Solids	3/Week	3	2	1/8/2015
January 2015	601	Total Suspended Solids	3/Week	3	2	1/8/2015
January 2015	601	CBOD 5 day	3/Week	3	2	1/8/2015
October 2015	001	E. coli	3/Week	3	2	10/1/2015
October 2015	001	CBOD 5 day	3/Week	3	2	10/1/2015
October 2015	601	CBOD 5 day	3/Week	3	2	10/1/2015
October 2015	001	Fecal Coliform	3/Week	3	2	10/1/2015
October 2015	001	Nitrogen, Ammonia (NH3)	3/Week	3	2	10/1/2015
October 2015	001	Total Suspended Solids	3/Week	3	2	10/1/2015
October 2015	601	Total Suspended Solids	3/Week	3	2	10/1/2015
January 2016	001	Nitrogen, Ammonia (NH3)	3/Week	3	2	1/8/2016
January 2016	001	Total Suspended Solids	3/Week	3	2	1/8/2016
January 2016	001	CBOD 5 day	3/Week	3	2	1/8/2016

January 2016	601	CBOD 5 day	3/Week	3	2	1/8/2016
January 2016	601	Total Suspended Solids	3/Week	3	2	1/8/2016
June 2016	601	Total Suspended Solids	3/Week	3	2	6/22/2016
June 2016	001	Total Suspended Solids	3/Week	3	2	6/22/2016
June 2016	001	Nitrogen, Ammonia (NH3	3/Week	3	2	6/22/2016
June 2016	601	CBOD 5 day	3/Week	3	2	6/22/2016
June 2016	001	CBOD 5 day	3/Week	3	2	6/22/2016
September 2016	001	Total Suspended Solids	3/Week	3	2	9/15/2016
September 2016	601	CBOD 5 day	3/Week	3	2	9/15/2016
September 2016	001	Nitrogen, Ammonia (NH3	3/Week	3	2	9/15/2016
September 2016	001	CBOD 5 day	3/Week	3	2	9/15/2016
September 2016	601	Total Suspended Solids	3/Week	3	2	9/15/2016
December 2016	001	Nitrogen, Ammonia (NH3	3/Week	3	2	12/15/2016
December 2016	001	Total Suspended Solids	3/Week	3	2	12/15/2016
December 2016	001	CBOD 5 day	3/Week	3	2	12/15/2016
December 2016	601	Total Suspended Solids	3/Week	3	2	12/15/2016
December 2016	601	CBOD 5 day	3/Week	3	2	12/15/2016

Compliance Schedule Milestones				
Schedule Due Date	Completion Date	Event Code	Schedule Type	Schedule Milestone
August 2016		95999	Other	Status Report

Streetsboro Hudson Regional WWTP SSO Events			
Parameter	Units	Date	Reported Value
Overflow Occurrence	No./Month	3/1/2015	1
Overflow Occurrence	No./Month	6/1/2015	1
Overflow Occurrence	No./Month	12/1/2015	1
Overflow Occurrence	No./Month	1/1/2017	1
Overflow Occurrence	No./Month	3/1/2018	1
Overflow Occurrence	No./Month	4/1/2018	2

High Flow Data for Streetsboro Hudson Regional WWTP between 2/1/2014 and 2/1/2019

Top 10 Flows	
Date	Flows (MGD)
1/12/2017	8.365
1/24/2019	8.245
4/16/2018	8.199
3/14/2015	7.815
12/27/2015	7.806
11/1/2018	7.575
3/11/2015	7.471
9/10/2018	7.326
2/16/2018	7.254
2/25/2018	7.162
Average	2.890

Compliance Data for Twin Lakes WWTP between 2/1/2014 and 2/1/2019

Summary

Permit Effluent Limit Violations: 8

Permit Effluent Code Events: 80

Permit Effluent Frequency Violations: 15

Compliance Schedule Milestones Not Entered: 0

Reported SSO Events: 6

Limit Violations						
Reporting Period	Station	Parameter	Limit Type	Limit	Reported Value	Violation Date
June 2016	001	Total Suspended Solids	30D Conc	8.0	24.	6/1/2016
June 2016	001	Total Suspended Solids	30D Qty	13.9	17.0779	6/1/2016
June 2016	001	Total Suspended Solids	7D Conc	12	80.	6/8/2016
June 2016	001	Total Suspended Solids	7D Qty	20.8	56.9264	6/8/2016
June 2017	001	Dissolved Oxygen	1D Conc	8.0	7.7	6/13/2017
June 2017	001	Dissolved Oxygen	1D Conc	8.0	7.8	6/14/2017
June 2017	001	Dissolved Oxygen	1D Conc	8.0	7.8	6/16/2017
July 2017	001	Dissolved Oxygen	1D Conc	8.0	7.6	7/14/2017

Code Events				
Reporting Period	Station	Parameter	Reported Value	Event Date
April 2014	001	Flow Rate	AD	4/1/2014
April 2014	001	Flow Rate	AD	4/2/2014
April 2014	001	Flow Rate	AD	4/3/2014
April 2014	001	Flow Rate	AD	4/4/2014
April 2014	001	Flow Rate	AD	4/5/2014
April 2014	001	Flow Rate	AD	4/6/2014
April 2014	001	Flow Rate	AD	4/7/2014
April 2014	001	Flow Rate	AD	4/8/2014
April 2014	001	Flow Rate	AD	4/9/2014
April 2014	001	Flow Rate	AD	4/10/2014
April 2014	001	Flow Rate	AD	4/11/2014
April 2014	001	Flow Rate	AD	4/12/2014
April 2014	001	Flow Rate	AD	4/13/2014
April 2014	001	Flow Rate	AD	4/14/2014
April 2014	001	Flow Rate	AD	4/15/2014

April 2014	001	Flow Rate	AD	4/16/2014
April 2014	001	Flow Rate	AD	4/17/2014
April 2014	001	Flow Rate	AD	4/18/2014
April 2014	001	Flow Rate	AD	4/19/2014
April 2014	001	Flow Rate	AD	4/20/2014
April 2014	001	Flow Rate	AD	4/21/2014
April 2014	001	Flow Rate	AD	4/22/2014
April 2014	001	Flow Rate	AD	4/23/2014
April 2014	001	Flow Rate	AD	4/24/2014
April 2014	001	Flow Rate	AD	4/25/2014
April 2014	001	Flow Rate	AD	4/26/2014
April 2014	001	Flow Rate	AD	4/27/2014
April 2014	001	Flow Rate	AD	4/28/2014
April 2014	001	Flow Rate	AD	4/29/2014
April 2014	001	Flow Rate	AD	4/30/2014
January 2016	001	Flow Rate	AD	1/11/2016
January 2016	001	Flow Rate	AD	1/12/2016
January 2016	001	Flow Rate	AD	1/13/2016
January 2016	001	Flow Rate	AD	1/14/2016
January 2016	001	Flow Rate	AD	1/15/2016
January 2016	001	Flow Rate	AD	1/16/2016
January 2016	001	Flow Rate	AD	1/17/2016
January 2016	001	Flow Rate	AD	1/18/2016
January 2016	001	Flow Rate	AD	1/19/2016
January 2016	001	Flow Rate	AD	1/20/2016
January 2016	001	Flow Rate	AD	1/21/2016
January 2016	001	Flow Rate	AD	1/22/2016
January 2016	001	Flow Rate	AD	1/23/2016
January 2016	001	Flow Rate	AD	1/24/2016
January 2016	001	Flow Rate	AD	1/25/2016
January 2016	001	Flow Rate	AD	1/26/2016
January 2016	001	Flow Rate	AD	1/27/2016
January 2016	001	Flow Rate	AD	1/28/2016
January 2016	001	Flow Rate	AD	1/29/2016
January 2016	001	Flow Rate	AD	1/30/2016
January 2016	001	Flow Rate	AD	1/31/2016
February 2016	001	Flow Rate	AD	2/1/2016
February 2016	001	Flow Rate	AD	2/2/2016
February 2016	001	Flow Rate	AD	2/3/2016
February 2016	001	Flow Rate	AD	2/4/2016
February 2016	001	Flow Rate	AD	2/5/2016

February 2016	001	Flow Rate	AD	2/6/2016
February 2016	001	Flow Rate	AD	2/7/2016
February 2016	001	Flow Rate	AD	2/8/2016
February 2016	001	Flow Rate	AD	2/9/2016
February 2016	001	Flow Rate	AD	2/10/2016
February 2016	001	Flow Rate	AD	2/11/2016
February 2016	001	Flow Rate	AD	2/12/2016
February 2016	001	Flow Rate	AD	2/13/2016
February 2016	001	Flow Rate	AD	2/14/2016
February 2016	001	Flow Rate	AD	2/15/2016
February 2016	001	Flow Rate	AD	2/16/2016
February 2016	001	Flow Rate	AD	2/17/2016
February 2016	001	Flow Rate	AD	2/18/2016
February 2016	001	Flow Rate	AD	2/19/2016
February 2016	001	Flow Rate	AD	2/20/2016
February 2016	001	Flow Rate	AD	2/21/2016
February 2016	001	Flow Rate	AD	2/22/2016
February 2016	001	Flow Rate	AD	2/23/2016
February 2016	001	Flow Rate	AD	2/24/2016
February 2016	001	Flow Rate	AD	2/25/2016
February 2016	001	Flow Rate	AD	2/26/2016
February 2016	001	Flow Rate	AD	2/27/2016
February 2016	001	Flow Rate	AD	2/28/2016
February 2016	001	Flow Rate	AD	2/29/2016

Twin Lakes WWTP SSO Events			
Parameter	Units	Date	Reported Value
Overflow Occurrence	No./Month	5/1/2014	2
Overflow Occurrence	No./Month	6/1/2015	1
Overflow Occurrence	No./Month	3/1/2018	1
Overflow Occurrence	No./Month	4/1/2018	1
Overflow Occurrence	No./Month	1/1/2019	1

Frequency Violations						
Reporting Period	Station	Parameter	Sample Frequency	Expected	Reported	Violation Date
April 2014	001	Residue, Total Filtera	1/2Weeks	1	0	4/1/2014
July 2014	001	Residue, Total Filtera	1/2Weeks	1	0	7/1/2014
October 2014	001	Residue, Total Filtera	1/2Weeks	1	0	10/1/2014
April 2015	001	Residue, Total Filtera	1/2Weeks	1	0	4/1/2015
July 2015	001	Residue, Total Filtera	1/2Weeks	1	0	7/1/2015
September 2015	001	Residue, Total Filtera	1/2Weeks	1	0	9/1/2015
December 2015	001	Residue, Total Filtera	1/2Weeks	1	0	12/1/2015
March 2016	001	Residue, Total Filtera	1/2Weeks	1	0	3/1/2016
June 2016	001	Residue, Total Filtera	1/2Weeks	1	0	6/1/2016
November 2016	001	Residue, Total Filtera	1/2Weeks	1	0	11/1/2016
November 2016	001	Total Suspended Solids	2/Week	2	1	11/22/2016
November 2016	001	Nitrogen, Ammonia (NH3	2/Week	2	1	11/22/2016
November 2016	001	CBOD 5 day	2/Week	2	1	11/22/2016
November 2016	601	Total Suspended Solids	2/Week	2	1	11/22/2016
November 2016	601	CBOD 5 day	2/Week	2	1	11/22/2016

High Flow Data for Twin Lakes WWTP between 2/1/2014 and 2/1/2019

Top 10 Flows	
Date	Flows (MGD)
1/12/2017	1.293
3/7/2017	1.023
3/31/2017	0.996
5/5/2017	0.987
2/7/2017	0.937
4/16/2018	0.889
5/6/2017	0.882
3/14/2015	0.847
2/25/2018	0.840
5/1/2017	0.823
Average	0.258

Compliance Data for Western Reserve WWTP between 2/1/2014 and 2/1/2019

Summary

Permit Effluent Limit Violations: 5

Permit Effluent Code Events: 0

Permit Effluent Frequency Violations: 0

Compliance Schedule Milestones Not Entered: 0

Limit Violations						
Reporting Period	Station	Parameter	Limit Type	Limit	Reported Value	Violation Date
July 2017	001	E. coli	7D Conc	362	770.1	7/1/2017
April 2018	001	Nitrogen, Ammonia (NH3	7D Conc	13.8	15.6	4/1/2018
April 2018	001	Nitrogen, Ammonia (NH3	7D Qty	1.15	2.89325	4/1/2018
April 2018	001	Nitrogen, Ammonia (NH3	30D Conc	9.2	11.2	4/1/2018
April 2018	001	Nitrogen, Ammonia (NH3	30D Qty	0.767	1.69114	4/1/2018

High Flow Data for Western Reserve WWTP between 2/1/2014 and 2/1/2019

Top 10 Flows	
Date	Flows (MGD)
1/12/2017	0.076
3/31/2017	0.065
1/24/2019	0.058
3/7/2017	0.055
4/1/2017	0.054
6/27/2015	0.051
2/7/2017	0.051
10/28/2015	0.050
4/4/2018	0.049
4/15/2018	0.049
Average	0.015