



Water and Sewer Department 2018 Annual Report



MISSION

The Water & Sewer Department strives to provide quality water and wastewater services to Warren County residents in a cost-effective manner; to treat all customers with respect, courtesy and professionalism; and provide the highest quality of customer service.

BACKGROUND

The Warren County Water and Sewer Department is a regional water supplier that owns and operates two water treatment plants with a total rated capacity of 24 million gallons per day. The treatment plants withdraw water from wells located along the Great Miami and Little Miami aquifers. The water is distributed from four booster pump stations through 500 miles of water mains to over 28,000 water customers. Fire protection and daily storage is provided from nine elevated storage tanks with a total storage volume of 13 million gallons. The County serves the Villages of Corwin, Harveysburg, and Maineville, as well as portions of Clearcreek, Deerfield, Franklin, Hamilton, Turtlecreek, Union, and Wayne Townships. In addition to the water furnished by County owned facilities, it also purchases potable water from the City of Springboro and the City of Cincinnati. The County has emergency water system interconnections with neighboring cities and villages including Cincinnati, Franklin, Lebanon, Middletown, Springboro, South Lebanon, Waynesville, and the Western Water Company.

The Water and Sewer Department serves over 18,000 sewer customers. It owns and operates four wastewater treatment plants with Ohio EPA permitted capacities of 12.0 million gallons per day, 0.7 million gallons per day, 80,000 and 16,000 gallons per day. The County also has agreements with the Metropolitan Sewer District of Greater Cincinnati, Franklin Regional Wastewater Treatment Corporation, and Butler County, to provide wastewater treatment to portions of unincorporated areas of the County. The County maintains over 340 miles of sanitary sewers and over 70 sewage pump stations.

In 2018, the Water and Sewer Department employed 75 people (39 in wastewater and 36 in water). All operating costs are paid from the water and sewer user fees, sewer connection and water tap fees. These fees and charges are sufficient to pay the cost of operating and maintaining the sewer and water systems, as well as paying debt service on the County sewer and water revenue bonds and complying with the provisions of the trust agreements under which such bonds were issued.

The user fees paid by County customers for service are the lowest utility rates within the local region. Based on the 2018 survey performed by the City of



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Oakwood, County water and sewer rates ranked 10th lowest out of the 64 utilities that completed the survey.

The Water and Sewer Department is continually undergoing capital improvement projects necessary to replace aging equipment and serve an expanding customer base. These projects are organized, planned, and scheduled to avoid or minimize the issuance of debt. The following is a summary of the current capital construction projects.

BUDGET

(2017 Comprehensive Annual Financial Report)

	Water	Sewer
Operating Revenues:		
Charges for Services	\$ 12,572,634	\$ 9,460,674
Tap in Fees	316,209	0
Other Operating Revenue	184,057	80,329
Total Operating Revenues	13,072,900	9,541,003
Operating Expenses:		
Personal Services	2,865,463	2,600,235
Contractual Services	769,134	668,793
Materials and Supplies	913,435	1,049,819
Utilities	5,074,520	2,661,688
Depreciation	5,192,072	4,845,213
Health Insurance Claims	0	0
Other Operating Expenses	87,118	39,983
Total Operating Expenses	14,901,742	11,865,731
Operating Income (Loss)	(1,828,842)	(2,324,728)
Nonoperating Revenue (Expenses):		
Interest and Fiscal Charges	(68,250)	(304,815)
Gain (Loss) on Disposal of Capital Assets	(40,094)	(21,942)
Total Nonoperating Revenues (Expenses)	(108,344)	(326,757)
Income (Loss) Before Contributions and Transfers	(1,937,186)	(2,651,485)
Capital Contributions - Tap in Fees	4,028,812	3,700,153
Capital Contributions	1,458,485	1,082,207
Transfers In	0	0
Change in Net Position	3,550,111	2,130,875



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CAPITAL CONSTRUCTION

Waynesville Regional Wastewater Treatment Plant Upgrades

Design Engineer: Jacobs Engineering
Construction Contractor: Building Crafts, Inc
Project Cost: \$3.75 Million
Completion: December 2019

The Board of County Commissioners accepted ownership of the Waynesville Regional Wastewater Treatment Plant and sanitary sewer collection system on January 1, 2016. The treatment plant that was formally owned by the Village of Waynesville and serves approximately 4,000 residents within the Villages of Waynesville, Cowin, and Harveysburg, the Caesar Creek State Park, and unincorporated areas of Wayne Township. The transfer was a collaborative effort between the Warren County Water & Sewer Department, Village of Waynesville, Ohio EPA Southwest District Office, and the Ohio/Kentucky/Indiana Regional Council of Governments.

The construction upgrades includes general improvements to a 0.71 million gallons per day wastewater treatment plant. The major components of work include the replacement of the influent mechanical bar screen, replacement of the secondary clarifier mechanisms, construction of chemical feed systems, electrical improvements, instrumentation & control improvements, and roof replacements on several buildings.

Franklin Regional Wastewater Treatment Plant Improvements

Design Engineer: Hazen & Sawyer
Construction Contractor: Peterson Construction
Project Cost: \$10.29 Million
Completion: July 2020

Construction of upgrades to the Clearcreek Influent lift station, new influent screening facility, replacement of the primary clarifier mechanisms, final chlorine contact tank, and sodium hypochlorite and sodium bisulfate storage and feed systems.

Warren County Sewer Maintenance Facility

Design Engineer: Arcadis
Construction Contractor: TBD
Budgeted Project Cost: \$3.6 Million
Bid Opening: June 2019
Completion: September 2020

Construction of the Sewer Maintenance Building located at the Lower Little Miami Wastewater Treatment Plant, landscaping and pavement improvements surrounding the new Sewer Maintenance Building, and utility work associated with the Sewer Maintenance Building.



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Simpson Creek, Bear Run, and Kings Union Lift Station Upgrades

Design Engineer: Fishbeck, Thompson, Carr & Huber, Inc.
 Construction Contractor: Danis Industrial, Inc
 Project Cost: \$1.19 Million
 Completion: September 2019

Construction of upgrades to three existing sanitary lift stations including the Simpson Creek Lift Station (8873 Duke Blvd), the Bear Run Lift Station (1751 Fosters-Maineville Road), and the Kings Union Lift Station (adjacent to 6973 Kings Mills Road). Project includes, pump replacement, HVAC upgrades, asphalt repairs, architectural upgrades, concrete repairs, control and electrical improvements and painting.

Lower Springboro and Corwin Road Waterline

Design Engineer: Jones Warner Consultants, Inc.
 Phase I & II Contractor: Rack & Ballauer
 Phase III Contractor: JNT, Inc.
 Project Cost: \$1.65 Million
 Completion: May 2019

Construction of approximately 18,000 feet of 10-inch waterline extending from Lower Springboro Road to Corwin Avenue.

Well Redevelopment Phase 1

Design Engineer: Warren County Water & Sewer
 Well Contractor: National Water Service
 Project Cost: \$325,000
 Completion: June 2019

The project consists of the rehabilitation of five drinking water production wells located at three different well fields in Warren County. The work generally consists of pump removal, video inspection of the well screen and casing, chemical and mechanical redevelopment of the wells, step down and 24-hour pump testing, and plumbness/alignment testing.

Lower Little Miami Wastewater Treatment Plant Roof Replacement

Design Engineer: Jacobs Engineering
 Construction Contractor: William Kramer & Son, Inc.
 Project Cost: \$110,000
 Completion: June 2019

Remove and replace the existing Ethylene-Propylene-Diene-Monomer (EPDM) Roofs on the Digester Control Building and the Old Chlorine Building at the Lower Little Miami Wastewater Treatment Plant. The roofs are approximately 2,850 and 950 square feet, respectively.



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Waynesville Collection System Improvements – Phase 1

Design Engineer: Warren County Water & Sewer
Construction Contractor: Inland Waters Pollution Control, Inc.
Project Cost: \$350,000
Completion: September 2019

Cured-in-Place Pipe rehabilitation of twenty-six segments of 8-inch diameter sanitary sewers (approximately 5,500 feet), two segments of 18-inch diameter sanitary sewer (approximately 400 feet), and rehabilitation of thirty-two manholes.

RAR Water Treatment Plant Filter Rehabilitation

Design Engineer: Warren County Water & Sewer
Construction Contractor: Layne Christensen Company
Project Cost: \$653,000
Completion: December 2019

Remove and replace the filter media, nozzles, and differential pressure sensor piping for the seven gravity filters at the RAR Water Treatment Plant. Procurement and installation of new Aeration Bypass piping, chlorine feed flexible piping and containment piping.

ENGINEERING DESIGN

RAR Water Treatment Plant Expansion & Softening Upgrades

Design Engineer: AECOM, Inc.
Project Budget: \$28 Million
Planned Construction: 2021

Expansion of the RAR water treatment plant to 14 million gallons per day with membrane softening upgrades.

Lower Little Miami Wastewater Treatment Plant Improvements

Design Engineer: Burgess & Niple, Inc.
Project Budget: \$850,000
Planned Construction: 2020

Project includes miscellaneous upgrades to the 12.0 million gallons per day treatment facility located at 2086 State Route 22&3, Maineville, Ohio. The facility discharges to the Little Miami River, a state and nationally recognized scenic river. Improvements include the removal and replacement of the influent screens and washer/compactors, replacement of two existing 70-foot diameter clarifier mechanisms, and replacement of the turning vane / air release assemblies on Vertical Loop Reactor No. 2.



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Franklin Area Water Treatment Plant Expansion & Softening Upgrades

Design Engineer: AECOM, Inc.
Project Budget: \$23 Million
Planned Construction: 2021

Expansion of the Franklin Area water treatment plant to 15 million gallons per day with membrane softening upgrades.

Sycamore Trails Wastewater Treatment Plant Improvements

Design Engineer: Strand Associates
Project Budget: \$3.5 Million
Planned Construction: 2021

Project includes expansion and upgrades to the 80,000 gallons per day wastewater treatment plant that serves the Sycamore Trails subdivision in Clearcreek Township. The project will replace equipment that is near the end of its useful life.

Well Redevelopment Phase 2

Design Engineer: Warren County Water & Sewer
Project Budget: \$400,000
Planned Construction: 2020

The project consists of the rehabilitation of four drinking water production wells located in the East and Sod Farm wellfields. The work generally consists of pump removal, video inspection of the well screen and casing, chemical and mechanical redevelopment of the wells, step down and 24-hour pump testing.

Snider Tower No. 2 Tank Painting

Design Engineer: Warren County Water & Sewer
Project Budget: \$500,000
Planned Construction: 2020

Surface preparation and overcoat painting for a 3.0 million gallon elevated storage tank. The tank, built in 2001, is a composite design that has a concrete pedestal and steel bowl.

PLANNING

Warren County/City of Middletown North Verity Parkway Interconnect

Project Budget: \$250,000
Design Completion: 2020
Construction Completion: 2021

2,000 feet of waterline from the City of Middletown's water mains on Tytus Ave and North Breiel Blvd to the County's Watermain at the intersection of North Verity Pkwy (ST RT 73) and N Breiel Blvd. Project would include coordination with both Warren County and the City of Middletown to determine how the interconnect can benefit both entities.



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Morrow Area Sewer District Study

Study Completion: 2021

Study and development of a sanitary sewer plan for the Morrow-Roachester and Morrow-Cozaddale Sewer Improvement Areas of the Warren County Sewer District.

Caesar Creek Lake Redundant Line:

Project Budget: \$200,000

Design Completion: 2020

Construction Completion: 2021

1,500 feet of 8-inch waterline across the State Route 73 bridge across Caesar Creek Lake.

Socialville Transmission Main:

Project Budget: \$8,700,000

Design Completion: 2022

Construction Completion: 2026

24-inch waterline from the Richard Renneker Water Treatment Plant to the Socialville Booster Station. Project includes a route study to determine the best route for the transmission main.

State Route 22&3 Water Line Replacement:

Project Budget: \$350,000

Design Completion: 2021

Construction Completion: 2022

3,500 feet of 12-inch waterline along State Route 22&3 in Deerfield Township.

Hopkinsville Improvements:

Project Budget: \$750,000

Design Completion: 2021

Construction Completion: 2022

4,900 feet of 16-inch waterline along State Route 48 and State Route 22&3 in Hamilton Township.

Columbia Road Water Line:

Project Budget: \$1,200,000

Design Completion: 2022

Construction Completion: 2026

10,300 feet of 12-inch waterline along Columbia Road in Deerfield Township.