



2019 ANNUAL REPORT



Zoarville Waterline Project

August 10, 2020

Tuscarawas County Metropolitan Sewer District

9944 Wilkshire Boulevard NE

Bolivar, OH 44612

www.tcmsd.org

Committed to providing safe, high quality water and wastewater services to Tuscarawas County

We are an equal opportunity employer and provider.

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Our Mission

The Tuscarawas County Metropolitan Sewer District is committed to providing safe, high quality water and wastewater services to the communities we serve, while maintaining a standard of excellence in customer service and environmental conservation.

Description of the Tuscarawas County Metropolitan Sewer District

The Tuscarawas County Metropolitan Sewer District was formed in 1973 by the Board of County Commissioners under the provisions of Ohio Revised Code (ORC) 6117 and provides water service under the provisions of ORC 6103. The resolution authorizes the District to provide drinking water and sanitary service to all unincorporated areas of Tuscarawas County, excluding those areas served by the following regional districts, which were formed under the provisions of ORC 6119:

- Twin City Water & Sewer District, which provides service to the City of Uhrichsville, the Village of Dennison, and unincorporated areas of Mill Township
- Atwood Regional Water & Sewer District, which provides service to a portion of Warren Township in Tuscarawas County, as well as unincorporated areas within Carroll County.

In addition to authorization to provide service to unincorporated areas of Tuscarawas County, the original resolution of formation, along with authorizing ordinances from various municipalities, provide authorization to the County to provide services to the following municipalities: Village of Barnhill, Village of Bolivar, Village of Midvale, Village of Parral, Village of Roswell, Village of Stone Creek, Village of Zoar

In 1973, the Board of Commissioners commissioned the *Report and General Plans of Sewerage and Water Systems for Portions of Lawrence and Sandy Townships, Tuscarawas County, Ohio* (“GENERAL PLAN”), which was prepared by W.E. Quicksall and Associates, Inc. At the time the plan was prepared, the existing Wilkshire Hills Water and Sewerage facilities were owned and operated by the developers of Wilkshire Hills. The GENERAL PLAN provided a framework for development of water and sewerage facilities to serve the northeastern portion of the County. Upon the recommendation of the GENERAL PLAN, the County developed the Wilkshire Hills-Bolivar-Zoar Sewer Districts as a regional sewer district, with sewerage from these three areas being treated at the Wilkshire Hills Wastewater Treatment Plant. At the time the study was prepared, Mineral City had already received a grant from Ohio EPA to construct a wastewater treatment facility, and as such, was excluded from the regional sewerage planning.

The GENERAL PLAN also recommended a regional solution for water supply, which included Wilkshire Hills, Zoar, Sandyville, Crossroads Area, Mineral City, and Zoarville.

In November, 1974 the Tuscarawas County Commissioners purchased the water distribution system and water wells from the developers of Wilkshire Hills to assure continuing proper development, operation and maintenance of the system. At the time, the water system consisted of three drilled wells and approximately 3.5 miles of 6”, 8” and 12” water mains.

Shortly after acquiring the water facilities, the Commissioners approved a regional water system for Wilkshire Hills and the Village of Zoar in conformance with the GENERAL PLAN. At this time, the Commissioners authorized the preparation of detailed plans for the construction of a 500,000 gallon storage tank for the system to provide fire protection and system storage. The tank was constructed during the winter and spring of 1975 – 1976. During this same period, the Commissioners

also authorized the preparation of detailed plans for the construction of a water distribution system in the Village of Zoar.

In May 1976, the Commissioners received a letter from the Southeast District of the Ohio Environmental Protection Agency expressing concern that the existing well yield was not adequate for even the present demand, let alone the addition of the Village of Zoar water system. At this time the County retained W.E. Quicksall and Associates, Inc. for the preparation of a *Feasibility Study of a Supplemental Water Supply for the Wilkshire Hills-Zoar Water Distribution System*.

The Feasibility Study evaluated: connection to the City of Canton water supply; connection to the Village of Bolivar water supply; and drilling new wells in accordance with the GENERAL PLAN. Although the Feasibility Study recommended connecting to the Village of Bolivar, the County ultimately drilled a new well at the site of the present day Welton Rd. Well Field. The new well also included the construction of a new pump house. A second well was drilled at the Welton Rd. site in 1982, and sometime after Well #2 was placed into operation, the existing wells near Northwood Dr and Wilkshire Blvd were abandoned.

In January 1976, a *Facilities Plan of Sewerage for the Uhrichsville-Dennison Planning Area Including Barnhill, Brightwood, Midvale, Roswell and Parts of Tuscarawas County* was prepared by W.E. Quicksall and Associates, Inc. on behalf of the Tuscarawas County Commissioners and the City of Uhrichsville. This plan evaluated alternatives for providing sewer facilities to the areas tributary to the Twin City Water & Sewer District sewer collection system and treatment plant. The Midvale and Barnhill sewerage systems were ultimately constructed as a result of this facilities plan; however, the Village of Roswell and the Brightwood area remain unsewered.

The District boundaries have been amended several times to include the villages of Mineral City and Port Washington. The full service area of the District is more fully described in the following section.

Water and Sewer Districts

Kerr Sewer District (010)

The Kerr Sewerage system was constructed by Raymond E. Kerr in 1967. These facilities were transferred to the County for ownership, operation and maintenance in 1971.

Midvale/Barnhill Sewer District (015)

Service to the villages of Midvale and Barnhill was authorized as part of the 1973 resolution to form the District. The Midvale/Barnhill system is served with a small-diameter, variable grade sewerage system. With this type of system, each customer connection has a septic tank, which is owned and operated by the County.

The sewage from this system flows to the Twin City Water & Sewer District where it is transported through Twin City's sewerage system for treatment at its wastewater treatment facility. Twin City provides this service to the District through a sewer service agreement, which went into effect in 1986.

Since its original construction in 1988, the system has seen moderate growth through private development, which primarily occurred between the mid-1990's through the mid-2000's.

Renner Water & Sewer District (020, Water & Sewer & 021, Sewer Only)

The Renner sewerage system was originally constructed in 1967 and included gravity sewers and a sewage treatment facility. Between 1967 and 1981, the sewerage system was expanded, and the sewage treatment facility was upgraded. The sewerage system was transferred to the County for ownership, operation and maintenance in 1981.

The water supply for this district was constructed in 1983 by Ridgewood Development, Inc. This water supply system consists of two groundwater wells, a 100,000 gallon welded steel storage tank, and a small building with a pressure tank(s). This system was ultimately transferred to the County for ownership, operation and maintenance.

In 1989, the County and the City of Dover entered an agreement to expand the County's sewerage system to include the Village of Parral. As part of this agreement, sewage from the County's system was to be discharged to the City's sewerage system where it would be transported to the City's wastewater treatment facility for treatment.

As part of this agreement, the City made the improvements to the County's system, and the County was to repay the City for such improvements over the course of 40 years. The City never provided a repayment schedule to the County, and the County never made the necessary capital payments, which ultimately led to a dispute between the City and the County.

Between 1989 and present, this district saw expansion resulting from private residential development (Ridgewood Subdivisions), as well as commercial/industrial development along the State Route 39 corridor east of Interstate Route 77.

Between 2012 and 2018, the County and City were in negotiations relating to a number of outstanding issues stemming from the 1989 agreement, including repayment of initial capital costs, ongoing operation and maintenance costs, and ongoing capital costs. The City and County were not able to come to an agreement of the amount of money owed by the County, and it was ultimately, mutually agreed that the County would transfer those systems tributary to the City of Dover in exchange for the City relinquishing its claims for payment.

This system was transferred to the City of Dover on October 1, 2019.

Parral Sewer District (025)

The Village of Parral sewerage facilities were constructed as part of the 1989 Agreement between the County and the City of Dover (*see District 020 for further explanation*).

This system was transferred to the City of Dover on October 1, 2019.

Lowden Sewer District (026)

The Lowden sewerage system was constructed in 2013 under a Consent Order Agreement with Ohio EPA to eliminate nuisance conditions associated with failing on-lot sewage treatment systems. The project was funded using a combination grant/loan from the Ohio Public Works Commission ("OPWC"). This system is tributary to the City of Dover's wastewater treatment facility.

This system was transferred to the City of Dover on October 1, 2019; however, the County retains the debt obligation with OPWC for original construction of the facilities.

Wilkshire Hills Water & Sewer District (030/032)

Service to the Wilkshire Hills District was authorized as part of the 1973 resolution to form the District. The Wilkshire Hills District is located in Lawrence Township and is comprised of a number of different subdivisions that were developed primarily during the late 1960's through the early 1990's. The majority of the subdivisions in this district were developed by Rog-Win, Inc. Sewage from this system is discharged to the County's Wilkshire Hills wastewater treatment facility.

Zoar Water & Sewer District (040)

Service to the village of Zoar was authorized as part of the 1973 resolution to form the District. The Zoar sewerage system was constructed in 1980 as part of a joint project that included construction of the Bolivar sewerage system, the Zoar sewerage system, as well as improvements to the Wilkshire Hills WWTP. Sewage from the Village of Zoar is discharged into the Wilkshire Hills sewerage system where it is conveyed to the County's Wilkshire Hills wastewater treatment facility.

Water is supplied by the County's Wilkshire Hills Water Treatment Plant located in Lawrence Township. The Zoar water distribution system was constructed in 1979 and included water facility upgrades in the Wilkshire District in order to provide the required pressure and capacity for the Zoar system. These improvements included construction of a new water mains on Laurens Dr, Bimeler St, Lawnridge St, and an extension along State Route 212 to the Village.

Zoarville Water District (042)

In 2019, the District extended a water transmission line to connect the Zoarville Water Works to the Wilkshire Hills public water system. The connection became operational in December 2019, and final transfer of assets and customers from the Zoarville Water Works Co. to the County will be finalized in early 2020. Once the transfer is complete, the Zoarville Water Works Co. will be dissolved.

Mineral City Water & Sewer District (045)

On November 25, 1991, the limits of the District were amended to include the Village of Mineral City, at which time, the Village passed an ordinance authorizing the transfer of the Village's water facility assets, obligations and customers to the County. The Mineral City sewer district was established and the Village's existing water and wastewater facilities were transferred to the County on January 1, 1992. Wastewater from this system is conveyed to the Mineral City wastewater treatment facility, which is now owned and operated by the County.

Mineral City is part of the County's Wilkshire Hills Public Water System and receives its water from the Wilkshire Hills Water Treatment Facility located in Lawrence Township.

Dundee Water District (050)

Service to the Dundee Water District was authorized as part of the 1973 resolution to form the District. The Dundee Water system provides drinking water for the unincorporated community of Dundee and surrounding areas of Wayne Township. The Dundee water facilities were constructed in 1981. Facilities were subsequently expanded in 1981 to provide service to residents along Pleasant Hill Rd (TR 72), and in 1996 to provide service to residents along Hardy Dr (TR 443).

Bolivar Sewer District (060)

Service to the Village of Bolivar was authorized as part of the 1973 resolution to form the District. Sewage from the Village of Bolivar is pumped to the County's Wilkshire Hills wastewater treatment facility. The Bolivar sewerage facilities were constructed in 1980 in conjunction with the Zoar sewerage system and the Wilkshire Hills WWTP Upgrade.

The Village of Bolivar owns and operates a public drinking water system and is not served by County drinking water; however, there are two emergency interconnections between the County and the Village, if needed. The Village and County entered into an agreement for the purchase of water for emergency purposes on July 8, 1985.

Lawrence Township Industrial Park Water & Sewer District (061)

Service to this District was authorized as part of the 1973 resolution to form the District. Water for this district is supplied from the County's Wilkshire Hills Water Treatment Plant. Sewerage from this district discharges into the County's Bolivar Sewer District.

Bolivar Sewer District – Metered (062)

This district was established for those commercial and industrial customers in the Village of Bolivar whose monthly sewer rates are based upon their metered water usage. The water meters are the property of the Village of Bolivar; however, we obtain monthly readings of such meters for the purposes of sewer billing.

Hunters Green Sewer District (063)

Service to this District was authorized as part of the 1973 resolution to form the District. In the late 1990's, County water and sewer facilities were extended by a private developer to provide service to the proposed Hunters Green subdivision. Once constructed, these facilities were subsequently transferred to the County for ownership, operation and maintenance. The sewer facilities are tributary to the Wilkshire Hills Wastewater Treatment Plant. The water facilities are connected to the Wilkshire Hills water system.

Sandyville Sewer District (070)

Service to this District was authorized as part of the 1973 resolution to form the District. The facilities in this district were originally constructed in 1979 as part of a joint project between Tuscarawas County and Stark County. Stark County's East Sparta sewerage system discharges into the Sandyville Sewer District, which transports sewage to the Sandyville/East Sparta WWTP. The County provides sewer service to Stark County through a Sewer Service Agreement, which was most recently amended on December 15, 2016 to detail the proportionate share of each party relating to the upgrade of the WWTP.

Sandyville Water & Sewer District (071)

Service to this District was authorized as part of the 1973 resolution to form the District. Water facilities were extended to Sandyville in 2013 as part of a major capital improvement project. Water is supplied from the County's Wilkshire Hills WTP.

Sandy Valley Estates Water & Sewer District (072)

Water and sewer facilities within the Sandy Valley Estates Water & Sewer District are owned and operated by United Mobile Homes, Inc. (“UMH”). Water is supplied to this district through a water supply agreement between the County and UMH, which was most recently updated on February 25, 2016. Water is supplied from the County’s Wilkshire Hills WTP.

Sewer service is provided through a sewer service agreement between the County and UMH dated June 4, 1980. Sewer from this District is discharged into the Sandyville Sewer District.

Jennie Brick/Dover Zoar & 183 from Eight Corner School House to Carroll Co. Line (073)

Service to this District was authorized as part of the 1973 resolution to form the District. Water facilities were extended to this area in 2013 as part of a major capital improvement project. Water is supplied from the County’s Wilkshire Hills WTP.

Sandy Township (074)

Service to this District was authorized as part of the 1973 resolution to form the District. Water facilities were extended to this area in the mid 1990’s following a petition requesting such extension from property owners within the service area. Water is supplied from the County’s Wilkshire Hills WTP.

Port Washington Sewer District (080)

The limits of the District were amended to include the Village of Port Washington in the District’s service area. The Port Washington Sewer District was established to provide sewer service to the Village. The sewage from this system is pumped to the Village of Newcomerstown where it is transported through the Village’s sewerage system for treatment at the Village’s wastewater treatment facility. The Village provides this service to the District through a sewer service agreement, the most recent version of which was adopted December 19, 2016.

Stone Creek Sewer District (085)

Service to this District was authorized as part of the 1973 resolution to form the District. Sewer facilities serving this district were constructed in 2009, which included the construction of the County-owned Stone Creek WWTP.

Wainwright Water & Sewer District (090/091)

Service to this District was authorized as part of the 1973 resolution to form the District. The sewage from this system is pumped to the Village of Tuscarawas where it is transported through the Village’s sewerage system for treatment at the Village’s wastewater treatment facility. The Village provides this service to the District through a sewer service agreement dated June 30, 1980.

The water for this District is supplied by the Village of Tuscarawas Public Water System through a water service agreement with the Village, the most recent version of which went into effect on July 5, 1994.

Sewerage Collection and Treatment

The District provides sanitary sewer service to 4,780 equivalent dwelling units (“EDUs”) in Tuscarawas County, which includes 529 EDUs from the East Sparta area in Stark County for a total estimated equivalent service population of 11,950.

The County currently owns and operates five separate wastewater treatment facilities:

- Wilkshire Hills WWTP - 0.75 MGD Extended Aeration Activated Sludge
- Sandyville/East Sparta WWTP – 0.50 MGD Extended Aeration Activated Sludge
- Mineral City WWTP – 0.15 MGD Extended Aeration Activated Sludge
- Stone Creek WWTP – 0.03 MGD Membrane Bioreactor
- Kerr WWTP – 0.08 MGD Extended Aeration Package Plant

The County also has a number of sewerage systems that discharge to other political subdivisions for treatment. These systems include:

- Midvale/Barnhill - discharges to the Twin City Water & Sewer District sewerage system
- Port Washington – discharges to the Village of Newcomerstown sewerage system
- Wainwright – discharges to the Village of Tuscarawas sewerage system

The District sewerage system is comprised of 84 miles of sewer mains, 23 major pump stations, numerous grinder pump stations, 550 septic tank systems, and 5 wastewater treatment plants.

Drinking Water Production and Distribution

The District provides water service to 2,521 customers with an equivalent service population of 6,765 in the following areas:

- Wilkshire Hills Public Water System
 - Crossroads Area
 - Hunters Green
 - Lawrence Township Industrial Park
 - Jennie Brick Road Area
 - Mineral City
 - Sandyville Area
 - Zoarville
- Dundee Public Water System
 - Serves the community of Dundee and surrounding unincorporated areas of Wayne Township
- Wainwright Public Water System
 - Unincorporated community of Wainwright and surrounding areas of Warwick Township

The District is responsible for operation and maintenance of 64 miles of water mains, 9 water storage tanks, 5 booster pump stations, and 2 water treatment plants.

Contracted Operations

In addition to those facilities owned by the County, the District is responsible for operation and/or maintenance of several other facilities through service agreements. These include:

- Tuscarawas Valley Local Schools WWTP – Contract operation of wastewater treatment plant as required to meet Ohio EPA minimum staffing requirements. The School is responsible for maintenance of the facility.
- Zoarville Water Works – Contract operation of the water system as required to meet Ohio EPA minimum staffing requirements. Zoarville is responsible for maintenance of the system. This service is being provided to Zoarville until such time as the County extends a new water transmission line to Zoarville and the facilities are transferred to the County.
- Job & Family Services Grinder Pump Station – Contract operation and maintenance of the grinder pump station; however, Job & Family is responsible for the cost of major equipment replacement/repairs.

Other Contracts

- United Mobile Homes (Water & Sewer Agreements)
- Brightwood Mobile Home Park (Sewer Agreement)
- Eastport Estates Mobile Home Park (Sewer Agreement)
- Superior Mobile Homes (Sewer Agreement)
- Dutchtown Road Ext. – Dedicated Private Drive – (Agreement to share in the cost of operating and maintaining the reservoir access drive)

Goals and Objectives for 2020

Administrative and Engineering Goals

- Once Well #3 has been constructed, update the existing Source Water Protection Plan for Wilkshire Hills Water System to include the recently updated inventory of potential contaminant sources prepared by HzW Environmental in 2019.
- Annual Update of Comprehensive Drinking Water Contingency Plan and Desktop Training Exercises
 - *Contingency Plan was updated April 8, 2020*
 - *Desktop training was completed for the following scenarios: To be determined. Training was cancelled due to the COVID-19 pandemic.*
- Annual update of Water Facilities Asset Management Plan
- Finalize identified public system improvements needed to reduce I/I in the Wainwright Sewer System. Once public system improvements have been completed, begin work on eliminating sources of private property I/I, such as downspouts, yard drains, and foundation drains.
- Complete a comprehensive update of Water and Sewer technical standards, specifications and standard drawings.

- Prepare a Bid Package for general contracting services for 2020. Selected contractor will be utilized to move forward with hydrant replacement program.
- Blow-off assembly replacements in the Wainwright Water District. The selected general contractor may be used to complete this work on a time and materials basis.
- Actuator for the inlet valve on the Wainwright Booster Station. Assess during 2020 whether or not this work is warranted.
- Rehabilitation of Dundee Reservoir #1 and WTP Filter train #1 using OPWC grant. Plans and specifications are being prepared by Dixon Engineering, Inc.
- ROV Inspection of the Wainwright Reservoir (Mid-Atlantic Storage Tanks)
- Inspection of the Sandyville Elevated Reservoir (Caldwell Tanks)
- Finalize construction plans and specifications, prepare a cost estimate, evaluate land rights issues, and investigate funding alternatives for the Buehler Easement Area Sewer Rehabilitation Project.
- Implement Fall Protection Interventions that have been funding with an Ohio BWC Safety Intervention Grant.

Water District – Level of Service Goals

Level of Service – Primary Goals and Objectives

- Quantity Goal
 - Meet average day demand with largest well/pump out of service 100% of the time
 - Limit total water loss to 15% for all District Water Systems
- Quality Goal
 - Meet all drinking water standards, as well as secondary standards for iron and manganese; provide adequate chlorine residual at all times, maintain compliance with fluoridation standards
- Reliability Goal
 - Limit unplanned service outages to 6 hours
 - Respond to customer service complaints and/or inquiries within 1 business day

Level of Service – Measure of Success

- Quantity Goals Measurable
 - Annual review of Average Daily Demand vs. known capacity of small component (i.e. well or pump)
 - Monthly and Annual review of daily pump production vs. water sales for the District water systems
 - *Our primary focus at this time is addressing water loss in the Wainwright water system. Efforts have been made to find and repair leaks in the system, and we anticipate we will reach the goal leakage rate of 15% within the next year.*
 - *Water loss in the Wilkshire Hills water system exceeds 15%; however, we believe a portion of this loss is due to meter inaccuracies from manganese accumulation.*

Once the planned filtration plant is constructed, we will further evaluate the water loss in the Wilkshire Hills system.

- Quality Goal Measurable
 - Annual review of MOR submissions to determine if any exceedances or other violations have occurred.
 - *We are not currently able to meet the quality goal for manganese for the Wilkshire Hills system. Manganese is a secondary contaminant and not considered a health concern; however, we have received funding from USDA Rural Development to construct a filtration plant to address this issue and allow for expansion of our well field.*
- Reliability Goal Measurable
 - Report to the Sanitary Engineer any leak/disruption of service that exceeds 6 hours and review as necessary to determine what, if any, improvements can be made

Water District – Operational Goals

- Operate all facilities in compliance with state and federal standards, as well as each facility's License to Operate
- Provide adequate staffing to meet Ohio's minimum staffing requirements for drinking water facilities
- Continue Implementation of a Computerized Maintenance Management System (CMMS) (Upkeep)
- Continue Reduction of Non-Revenue Water. #1 Priority – Wainwright Water District; #2 Priority – Wilkshire Hills Water District.
- Valve Exercising Program – Dedicated crew for valve exercising at least 1 day per during warm weather months – Exercise 20% of all system valves every year, minimum.
- Hydrant Flushing Program – flush all water distribution systems at least once per year

Sewer District Operational Goals

- Operate all facilities in compliance with state and federal standards, as well as each facility's NPDES permit
- Provide adequate staffing to meet Ohio's minimum staffing requirements for wastewater facilities
- Maintain and continually improve wastewater facility housekeeping standards
- Conduct a Sanitary Sewer Evaluation Survey of the Wilkshire Hills Sub-Sewershed #1, which is tributary to the Cedar Village Apartment area sewerage system. Initial phase of work to be smoke testing, supplemented with CCTV and dye testing as needed.
- Conduction a sewer condition assessment of the Melrose Easement Area
- Complete contracted portion of Wainwright I/I reduction programs (i.e. chemical grout of mainline where identified in the report)
- Service at least 50 septic tanks in the Midvale/Barnhill Sewer Districts

Summary of Assets Received from Zoarville Water Works

Depreciable Capital Assets

Category	Accumulated Depreciation	Depreciated Value
Water Mains and Service Branches	29,600	20,900
Hydrants & Valves	2,000	1,000
Well #1	7,500	1,000
Well #2	7,500	1,000
Pump House	14,900	2,000
Total Depreciable Capital Assets	61,500	25,900

Land

Parcel Identification	Auditor's Appraised Value
Parcel #54-00446-002, Pump House/Well Site	8,080
Parcel #54-01000-000, Pump House/Well Site	11,920
Total Land Assets	20,000

Capital Asset Statistics

Category	Value
Waterlines, miles	0.98
Reservoirs, each	0
Water treatment facilities, each	1 ¹
Pumping stations, each	0

Summary of Water District Assets Transferred to the City of Dover

Depreciable Capital Assets

Category	Accumulated Depreciation	Depreciated Value
Water Mains and Service Branches	70,300	162,500
Hydrants & Valves	14,100	31,900
Water System Valves	5,300	11,900
100,000 Gallon Reservoir	43,500	98,300
Well #1	13,000	15,300
Well #2	13,000	15,300
Chlorination Building	6,500	2,000
Total Depreciable Capital Assets	165,700	337,200

¹ Pump house is being razed as part of Zoarville Waterline Project

Land

Parcel Identification	Auditor's Appraised Value
Parcel #10-00687-032, Reservoir Site	960
Parcel #10-00687-033, Reservoir Site	3,470
Parcel #10-03486-000, Well #1 Site	0
Total Land Assets	4,430

Capital Asset Statistics

Category	Value
Waterlines, miles	3
Reservoirs, each	1
Water treatment facilities, each	1
Pumping stations, each	0

Summary of Sewer District Assets Transferred to the City of Dover

Depreciable Capital Assets

Category	Accumulated Depreciation	Depreciated Value
Gravity Sanitary Sewers	453,228	874,355
Sanitary Manholes	129,800	264,900
Pump Stations	158,100	79,500
Force Mains	9,300	17,200
Total Depreciable Capital Assets	750,428	1,235,955

Land

Parcel Identification	Auditor's Appraised Value
Parcel #10-01339-006, Saltwell Pump Station	5,000
Parcel #10-02379-001, Woodhaven Pump Station	670
Total Land Assets	5,670

Capital Asset Statistics

Category	Value
Sanitary Sewers, miles	5.85
Wastewater Treatment Facilities, each	0
Pump Stations, each	3

Construction in Progress

Sewer District Capital Projects

Project	2019 Expenses	Total Expenses
Wilkshire Hills WWTP – Headworks Upgrade	522,328	648,664
Sandyville/East Sparta WWTP Upgrade	135,020	2,758,199
Mineral City – High St Sewer Upgrade	0	15,250
Bolivar Pump Station Upgrade	12,400	12,400
Dundee Booster Station Replacement	5,000	5,000
Sandy Valley Estates Storage Tank Decommission	2,040	2,040
Totals	676,788	3,441,553

Water District – Capital Projects

Project	2019 Expenses	Total Expenses
Land Acquisition for Wilkshire Hills Well Field Protection Area	1,669	18,959
Dundee Waterline Replacement Project	7,150	2,638,522
Zoarville Waterline Project	373,921	416,104
McKinley Ave. Waterline Replacement	1,451	25,623
Wilkshire Water System Upgrade	9,954	29,954
Wilkshire Hills Reservoir #2 Rehabilitation	47,145	47,145
Totals	441,290	3,176,307

Sewer District – Key Financial Performance Indicators

Financial Performance Indicator	Goal	2019²	2018	2017
Operating Ratio, including depreciation <i>Measures the profitability of the system. It shows whether the revenues from sales are sufficient to cover the cost of operations (O&M) and depreciation, which is used here as a surrogate for capital needs.</i>	1.20	0.94	0.83	1.02
Operating Ratio, not including depreciation <i>Measures whether the revenues from sales are sufficient to cover just the cost of operations and maintenance (without any consideration for capital expenses).</i>	1.50	1.19	1.04	1.33
Debt Service Coverage Ratio <i>Measures the ability to pay debt service with operating revenue. This means that after paying off operating and maintenance costs, adequate funds remain to pay existing debt service.</i>	1.20	0.78	0.21	1.47
Quick Ratio <i>Measures short-term liquidity: the system's ability to pay its bills with its unrestricted assets on the day the financial statements are recorded.</i>	2.00	2.85	1.43	1.69
Days Cash on Hand <i>Measures the ability of the system to weather a significant temporary reduction in revenue to continue paying for daily operations and maintenance.</i>	60	105	112	190
Percent Capital Assets Depreciated <i>An indicator that measures how much of the assessed value of all depreciable assets has already been depreciated.</i>	<50%	46%	44%	
Operating Cost Ratio (\$/EDU) <i>Quantifies utility costs related to operations and maintenance normalized to cost per account.</i>	AWWA Median \$599 ³	\$420		

² Rates were increased approximately 5.8% effective January 1, 2020 to address shortfalls in Sewer District operating revenues

³ Based on AWWA Benchmarking Report, 2011 for systems with service population 0-10,000 and adjusted for inflation (3% per year)

Water District – Key Financial Performance Indicators

Financial Performance Indicator	Goal	2019	2018	2017
Operating Ratio, including depreciation <i>Measures the profitability of the system. It shows whether the revenues from sales are sufficient to cover the cost of operations (O&M) and depreciation, which is used here as a surrogate for capital needs.</i>	>1.20	1.16	1.28	1.30
Operating Ratio, not including depreciation <i>Measures whether the revenues from sales are sufficient to cover just the cost of operations and maintenance (without any consideration for capital expenses).</i>	>1.50	1.55	1.72	1.72
Debt Service Coverage Ratio <i>Measures the ability to pay debt service with operating revenue. This means that after paying off operating and maintenance costs, adequate funds remain to pay existing debt service.</i>	>1.20	1.33	1.41	1.45
Quick Ratio <i>Measures short-term liquidity: the system's ability to pay its bills with its unrestricted assets on the day the financial statements are recorded.</i>	>2.00	3.62	2.88	2.83
Days Cash on Hand <i>Measures the ability of the system to weather a significant temporary reduction in revenue to continue paying for daily operations and maintenance.</i>	>60	266	316	321
Percent Capital Assets Depreciated <i>An indicator that measures how much of the assessed value of all depreciable assets has already been depreciated.</i>	<50%	28%	26%	24%
Operating Cost Ratio (\$/EDU) <i>Quantifies utility costs related to operations and maintenance normalized to cost per account.</i>	AWWA Median \$599 ⁴	\$369		

⁴ Based on AWWA Benchmarking Report, 2011 for systems with service population 0-10,000 and adjusted for inflation (3% per year)

Operational Statistics

	2019	2018	2017	2016	2015
Alarms (Water & Sewer)	2,047	1,335	2,507	1,826	2,235
OUPS Marking Requests	3,831	5,904	4,668	4,228	2,932
Water System Operating Statistics					
Number of Customers	2,521				
Residential Equivalents	2,706				
Equivalent Population Served	6,765				
Number of Tap-Ins	62	8	14	9	77
Million Gallons Water Produced	183.60	179.41	189.05	205.64	212.40
Million Gallons Water Sold	128.85	131.32	130.71	135.89	136.0
Percent Non-Revenue Water, %	30	27	31	34	36
Violations / Out of Compliance	0	0	0	0	0
Water Main Breaks	9	8	6	10	9
<i>Per 100 miles of pipe</i>	<i>14</i>	<i>12</i>	<i>9</i>	<i>15</i>	<i>14</i>
AWWA Median	33.5	33.5	33.5	33.5	33.5
Service Line Breaks	11	37	14	16	14
Hydrants Repaired	0	8	7	10	7
Hydrants Replaced	2	0	1	1	N/A
Mn-Related Service Complaints	13	15	23	56	69
Number of Employees	6.5	6.5	6.25	6	7
Number of Vehicles	12	12	9	9	10
Sewer District Operating Statistics					
Number of Customers	3,594				
Number of Residential Equivalents	4,780				
Equivalent Population	11,950				
Number of Tap-Ins	9	6	10	9	42
MG Treated at County WWTPs	377.41	378.10	328.9	277	303.9
Screenings Disposed in Landfill, tons	42.38	46.47	66.59	91.78	110.28
Sludge Disposal (Landfill)					
<i>Transported to Landfill, wet tons</i>	<i>267.06</i>	<i>213.30</i>	<i>357.97</i>	<i>462.21</i>	<i>348.73</i>
<i>Actual Weight of Solids, dry tons</i>	<i>35.60</i>	<i>30.20</i>	<i>48.45</i>	<i>70.65</i>	<i>53.29</i>
<i>Average Solids Concentration, %</i>	<i>12.85</i>	<i>14.0</i>	<i>13.5</i>	<i>15.3</i>	<i>15.3</i>
Sanitary Sewer Overflows (SSOs)	4	5	4	1	0
SSOs per 100 miles of pipe	4.4	5.6	4.4	1.1	0

	2019	2018	2017	2016	2015
AWWA Median (Benchmark)	2.5	2.5	2.5	2.5	2.5
Water-in-Basements (WIBs)	5	4	4	0	6
Sewer Line Video Inspection, feet	5,743	14,918	10,000	4,806	2,679
Sewer Line Cleaning, feet	3,460	13,418	6,000	5,493	31,413
Septic Tanks Cleaned	47	26	28	43	27
Number of Manhole Inspections	26	124	N/A	43	110
Number of Employees	10.5	10.5	10.5	12	11
Number of Vehicles	9	12	12	12	13
Miles of Sewer	84	90	90	N/A	N/A
Wastewater Treatment Facilities	5	5	5	N/A	N/A
Pumping Stations	23	25	25	N/A	N/A
Miles of Waterlines	64	66	66	N/A	N/A
Reservoirs	9	10	10	N/A	N/A
Water Treatment Facilities	3	4	4	N/A	N/A
Pumping Stations	5	5	5	N/A	N/A

Fleet and Fuel Management Summary

	2019	2018	2017	2016	2015
Non-CDL Vehicles	17	17	N/A	N/A	N/A
CDL Vehicles (Tankers, Vector, Dump)	3	4	N/A	N/A	N/A
Mileage					
Miles Drive, Water District	86,396	75,560	79,854	N/A	N/A
Miles Driven, Sewer District	89,080	84,069	85,111	N/A	N/A
Miles Driven, Total	176,016	159,629	164,966	N/A	N/A
Fuel					
Gasoline Used, gallons	16,453	14,970	15,012	N/A	N/A
Diesel (Clear) Used, gallons	-	2,088	3,261	N/A	N/A
Diesel (Dyed) Used, gallons	-	2,895	N/A	N/A	N/A
Diesel (Ultra) Used, gallons	4,051	333	N/A	N/A	N/A
Propane-Stone Creek WWTP, gallons	2,089	3,631	N/A	N/A	N/A
Total Vehicle Maintenance Cost	32,212	32,692	37,380	N/A	N/A

Interim Customer Review

The following table illustrates the reduction in customers as a result of the transfer of the Dover township area water and sewer facilities to the City of Dover.

Category	Water District		Sewer District	
	<i>As of June 30, 2020</i>	<i>As of December 31, 2019</i>	<i>As of June 30, 2020</i>	<i>As of December 31, 2019</i>
Customer Accounts	2,506	2,521	3,363	3,594
Equivalent Customers	2,688	2,706	4,516	4,780
Equivalent Population	6,720	6,765	11,290	11,950

Interim Cash Flow Analysis

Evaluation Period: January 1, 2020 through July 31, 2020.

	Water District	Sewer District
Operating Activities		
Operating Revenue	862,051	1,314,885
Purchase of Goods & Services	(196,633)	(460,277)
Payroll Expenses	(286,957)	(465,354)
Net Cash from Operating Activities	378,461	389,254
Investing Activities		
Property, Plant, Equipment	(661,898)	(84,055)
Grant Proceeds	143,892	0
Net Cash from Investing Activities	(518,006)	(84,055)
Financing Activities		
Loan Proceeds	402,543	4,624
Principal & Interest Payments	(36,522)	(272,525)
Net Cash from Financing Activities	366,021	(267,901)
Overview		
Starting Balance (All Funds)	721,926	572,681
Net Cash Change	226,475	37,298
Ending Balance (All Funds)	948,401	609,979