

OHIO AUDITOR OF STATE
KEITH FABER



City of Findlay

Performance Audit

October 20, 2020

OHIO AUDITOR OF STATE
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To the City of Findlay community,

The Auditor of State's Office recently completed a performance audit for the the City of Findlay (the City) at the request of the City Council. This review was conducted by the Ohio Performance Team and provides an independent assessment of operations within select functional areas.

This performance audit report contains recommendations, supported by detailed analysis, to enhance the City's overall economy, efficiency, and/or effectiveness. This report has been provided to the City and its contents have been discussed with the appropriate elected officials and City management. The City has been encouraged to use the recommendations contained in the report and to perform its own assessment of operations and develop alternative management strategies independent of the performance audit report.

This data-driven analysis of operations provides the City valuable information which can be used to make important financial decisions. Additional resources related to performance audits are available on the Ohio Auditor of State's website.

This performance audit report can be accessed online through the Auditor of State's website at <http://www.ohioauditor.gov> and choosing the "Search" option.

Sincerely,

Keith Faber
Auditor of State
October 20, 2020

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Introduction

Access to clean, safe, and affordable water is a critical component of everyday life. Humans need water to survive; not only for drinking, but also for growing plants, raising animals, or conducting regular cleaning of spaces. Water distribution and the collection and treatment of wastewater is typically done on the local level and is a benefit of living in a populated area. Ohio has several laws which govern water systems in the state, including how clean water is provided to residents and how wastewater is treated so that it is safe for the environment. These laws ensure that Ohioans have access to clean water.



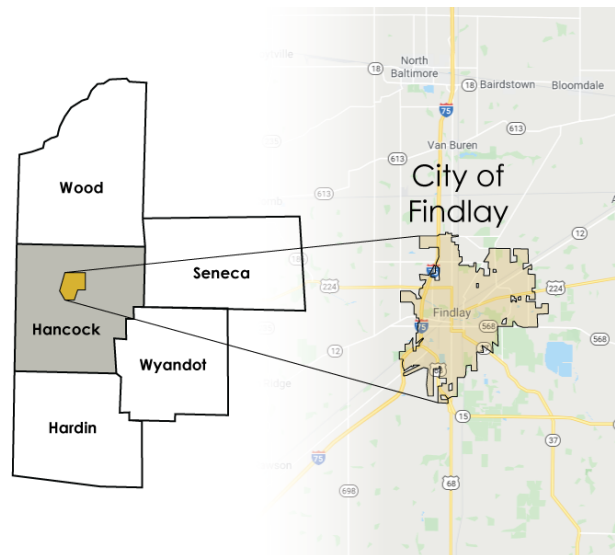
NOTE TO REPORT USERS:

Information in this report is based on data available as of 2019. The State of Ohio declared a state of emergency in March 2020 due to the COVID-19 pandemic. While the financial impact of the pandemic and ensuing emergency measures has not been fully realized and cannot be estimated, it may have a significant impact on the City's revenues and operations. Our analysis does not take into account the potential reduction of revenue due to reductions in billing collections.

The provision of water and treatment of wastewater can be costly enterprises. Generally a municipality offering water services funds those services through fees and charges for services, which means that residents or other account holders are charged based on their water usage. These fees and charges are billed on a regular basis and are designed to support the ongoing operations of water departments. As with any government enterprise, municipal water departments can benefit from performance audits in order to assess the efficiency, economy, and effectiveness of its operations. The City of Findlay requested a performance audit of the Water Department and Water Pollution Control Department to provide operational guidance and recommendations.¹

City of Findlay

The City of Findlay (the City or Findlay) is located in Northwest Ohio and has approximately 42,000 residents. The City is the county seat of Hancock County and is just south of Toledo. Findlay is near the site of a former swamp area and the Blanchard River runs through the City.



¹ Performance audits are conducted in accordance with Generally Accepted Government Auditing Standards, see [Appendix A](#).

Governance

Findlay has an elected mayor, auditor, and law director as well as an 11 member City Council. The City Council is comprised of an elected Council President, seven elected representatives of wards, and three elected members who represent the city at large. Findlay's government has multiple departments which are responsible for providing services to residents including fire, police, water distribution, and sewer control.

Finances

A city relies on a variety of revenue sources to provide services to residents including property taxes, income taxes, licensing fees, and charges for services. These revenues allow a city to ensure roads are salted in the winter, police respond promptly to calls, and that green spaces are appropriately maintained. Much like an individual may have a checking, savings, and retirement account, cities operate using multiple types of accounts for various activities related to daily operations and long-term planning. Revenues are allocated to accounts based on a variety of factors including legal authority, and these accounts allow for the transparent use of public dollars.

Fund Types

Government entities can maintain three different types of funds: Governmental, Proprietary, and Fiduciary. Governmental and Proprietary funds can be used for operations whereas a Fiduciary fund contains resources held by a government but belonging to other individuals or entities. While Findlay uses Governmental funds for some city operations, the Water Treatment and Water Pollution Control Departments both operate using a Proprietary Fund.

Proprietary Funds, also known as enterprise funds, are similar to business accounts. They obtain revenue through fees for services or memberships and that revenue is used to pay for the expenses related to the specific business operations. In respect to Water Treatment and Water Pollution Control, accountholders are billed on a regular basis according to a rate schedule for the amount of water used and the amount of wastewater produced.

Public Services

The City's Service Director is responsible for overseeing a variety of operations. This includes both the Water Department (Water or WD) and the Water Pollution Control Department (Sewer or WPC), which will be referred to as the Utility Department within the City. Both Water and Sewer have operated with a net revenue since 2014; this means that the Departments are earning enough money to pay for annual expenditures and have funds left over at the end of each year.

Water Department

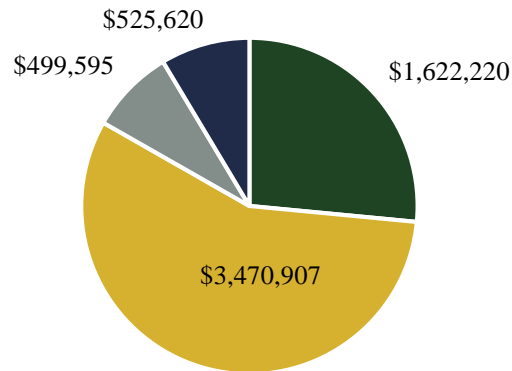
Findlay WD is responsible for the treatment and delivery of water in the City. The treatment of water provides a supply of safe, clean and pleasant tasting drinking water while the distribution

of water requires the maintenance of all public water mains, service lines, hydrants, and meters. Both the areas of operation – treatment and distribution – are necessary to ensure there is an uninterrupted supply of water to the end users.

There are just over 20,000 water accounts in Findlay which serve approximately 54,000 individuals. In order to provide water to these accounts, the City maintains two reservoirs in Marion Township. Water is drawn from these reservoirs and is treated by the WD for use. The City distributes on average 6.0 million gallons (MG) of water on a daily basis, or just over 2,200 MGs a year. A standard bathtub holds approximately 40 gallons of water, so 1.0 MGs would be equal to nearly 25,000 bathtubs.

Total Water Department O&M Expenditures

- Water Distribution
- Water Treatment
- Supply Reservoir
- Customer Service



Source: City of Findlay

In 2019, the WD had just more than \$7.7 million in annual revenue and approximately \$6.1 million in expenditures.² More than half of the total expenditures were for water treatment which is the process water goes through in order to guarantee water is clean and safe for use, while the remaining expenditures were related to operational maintenance and customer service.

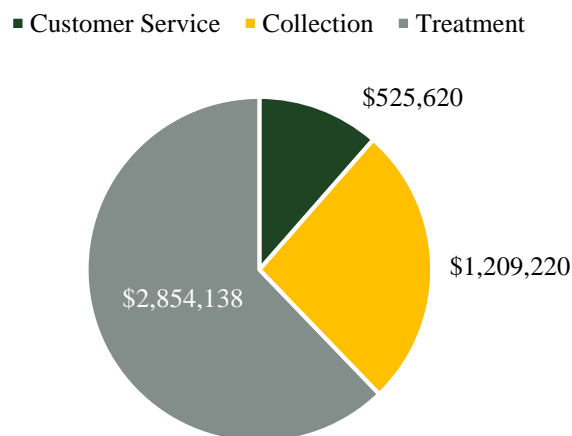
Water Pollution Control Department

Findlay Sewer provides wastewater treatment services for the City through the Water Pollution Control Center (WPCC). In 2019, the WPCC treated an average of nearly 13 MGs of wastewater daily. The City uses a combined sewer system which collects both sewage and storm water. The WPCC also treats groundwater that intrudes into the collection system. The combination of storm water and groundwater is called Inflow and Infiltration and leads to the WPCC treating a significantly larger volume of water than what is provided by the WD.

² Expenditures do not include capital outlay or debt service payments.

In 2019, the WPC had approximately \$8.8 million in total revenue and \$4.5 million in total operations and maintenance expenditures. Additionally, WPC appropriated approximately \$4.2 million to sewer projects. More than half of Sewer’s operations and maintenance expenditures were related to the treatment of wastewater and making sure that it was environmentally safe to be recirculated.

Total WPCD O&M Expenditures



Source: City of Findlay

While not uncommon, WPC has had some issues relating to overflow due to capacity being reached. Overflow happens when sewer systems are overwhelmed and there is more volume than existing systems can handle. During an overflow event, wastewater may back up into other areas such as rivers. This typically happens as a result of the combined sewer system and during periods of heavy rainfall or other flooding type events. The City is currently working with the Ohio Environmental Protection Agency to eliminate these issues.

Utility Billing

Water and Sewer account holders are billed on either a bi-monthly or monthly basis. The billing staff are housed within the Water Department; however, they process bills for both Departments and are funded on an equal basis through both the Water and Sewer Funds.

The billing office provides meter reading, billing, collection, and customer service for all utility account holders. Residential accounts are billed every other month while commercial and industrial customers are billed on a monthly basis. On an annual basis, the billing office generates more than 230,000 bills.

Audit Overview

At the request of the City, we reviewed both the Water Department and the Sewer Department in order to provide recommendations for improved operational economy, efficiency, and effectiveness. Scope areas relating to both Departments were analyzed with specific objectives in mind. Where applicable, recommendations are based on industry standards, best practices, or peer comparisons.³ Our audit resulted in the following recommendations:

³ See [Appendix A](#) for a list of peers used for comparisons.

- The City should consider following all best practices identified by the Government Finance Officers Association (GFOA) for capital planning.
- The City should update its billing software; develop a process to document system related concerns; and develop a set of criteria to use when considering changes to the current software.

Overall, we found Findlay's Water and Sewer Departments to be appropriately staffed in comparison to both peer averages and industry standards. We further found that the current rates which are being charged for both services are well below peer and state averages. Finally, we found that the City's revenues for both funds are based primarily on core services provided rather than assessed fees.

Noteworthy Accomplishment

Compared to peers, Findlay produces more water, processes more wastewater, and services more accounts. Additionally, the City of Findlay's utility departments are operating efficiently based on workload metrics when compared to the peers. The utility department, collectively water and sewer, is producing and processing 22% more water and wastewater per FTE than the peers at an 18% less cost per MG in the total operation and maintenance. The report analyses, taken as a whole, show that the City of Findlay's utility department is operating efficiently with a smaller staff compared to both relative to peers and nationally.

Capital Planning

A Capital Improvement Plan (CIP) is a tool that can be used to coordinate the timing and financing of capital improvements over a multi-year period. These improvements are major, non-recurring physical expenditures for items such as equipment, buildings, or infrastructure. A city's capital plan should alleviate acute financial distress when large expenditures are necessary because the expense has already been accounted for and appropriate funds have been set aside or identified.

Recommendation: Capital Planning

The City of Findlay should consider following all of the best practices suggested by the GFOA with regards to their capital planning.

Impact

While no financial impact can be associated with implementing these best practices, doing so would allow the City to be best suited to effectively plan, fund, and communicate long-term goals to the public.

Background

Each year, the City develops a city-wide five-year planning document for future capital projects. The plan is presented to City Council for approval and use by the Engineering Department to coordinate and administer projects. The City's current five-year capital plan has projections for the Water and Water Pollution Control Departments.

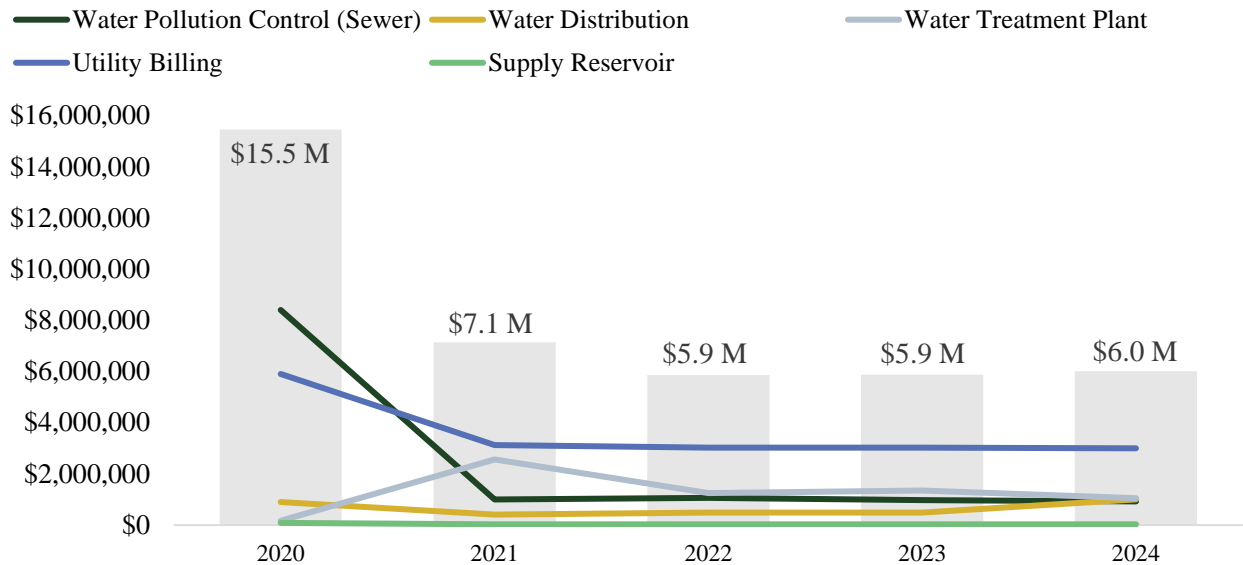
Methodology

We reviewed the existing capital plan documents as well as the policies and procedures for its development. We then compared this to the GFOA best practices which are developed by government finance experts for the purposes of governmental capital planning and budgeting.

Analysis

The most recent capital plan provides cost projections through 2024 for both the Water and Water Pollution Control Departments. As seen in the chart on the following page, the City expects to have significant capital expenditures in 2020, followed by four years of lower levels of spending. These projections represent the cost of equipment and other projects.

Total Equipment and Capital Project Future Projection Costs



Source: City of Findlay

The GFOA identifies nine best practices for CIPs. We found that while the City was generally adhering to these practices that there were areas which could be improved upon, including:

- **Multi-year capital planning:** A multi-year capital plan should project future operating and maintenance costs as well as provide clear prioritization rating for all assets. While the City does have a multi-year capital plan, it presently lacks these elements;
- **Capital planning policies:** The City does not have capital planning policies specific to water or sewer services. The existing policies are limited in scope and are not strictly followed;
- **Environmental stewardship analysis:** This type of analysis reviews the triple bottom line, which is an accounting framework that considers social, environmental, and financial factors. The City currently does not undertake such analyses;
- **Communication of capital improvement strategies:** There appears to be a water and sewer committee within City government that focuses on capital needs for the two Departments. However, the recommendations provided by this committee are not presented to the community at large;
- **Presentation of Capital Plan:** The most recently approved capital plan for 2020 is maintained in a spreadsheet format and does not contain all of the elements that are identified as best practices. Elements that are lacking in the current capital plan include project monitoring, project summary, project detail, and operating impacts; and,
- **Long-term financial planning:** The strategic planning committee recommended the City begin assessing the basis of a strategic plan in 2019, however this recommendation was voted down by City Council. The City currently does not consider long-term funding as a part of the CIP.

Many of the necessary changes to fully comply with best practices would require approval through a legislative process. Specifically any long term planning would need to be formally passed by the long term strategic planning committee and the City Council.

Conclusion

The City of Findlay currently has elements of best practices related to capital planning, but does not follow all best practices identified by GFOA. Most notably, there is no long-term planning strategy incorporated with the capital improvement planning. Also, the current policy in place is limited in scope and does not contain all the minimum elements in the GFOA's best practice for capital planning policies. If the City does not adjust the capital plan to incorporate long-term planning tied to funding, it could face difficulties aligning programmatic goals with financial capacity in the future.

Utility Staffing

At the request of the City, we reviewed the Water Department, Water Pollution Control Department, and Utility Billing staffing to that of peers and industry standards. Our analysis showed that the staffing for each area is in-line with, or below most observable metrics. Because of this, we found the Department to be appropriately staffed and did not make a recommendation to the City on this item.

Water Department

Background

As discussed previously, the Water Department is responsible for ensuring the safety and delivery of water to account holders. This involves both the treatment of drinking water and the maintenance of water delivery systems. In order to accomplish this task, the Department employs 30.0 full-time equivalent (FTE) employees. This includes 15.0 FTEs in water treatment, 14.0 FTEs water distribution, and one supervisor.

The City of Findlay Water Treatment Plant is supplied by two reservoirs located east of Findlay in Marion Township. One FTE is assigned to the supply reservoirs. The City of Findlay Water Treatment Plant is responsible for providing the citizens of Findlay and the surrounding area with potable water. The water is treated using lime/soda softening, coagulation, sedimentation, stabilization, fluoridation, disinfection, and filtration to remove or reduce harmful contaminants in the source water. In 2019, the plant treated approximately 6.20 million gallons daily on average (MGD) and pumped about 6.03 MGD.

The Water Distribution Department is responsible for delivering that treated water to the approximately 20,000 water accounts by maintaining all public water mains, service lines, hydrants, and meters.

Methodology

We identified four peer water departments and reviewed staffing levels relative to production, class category, and size. We also used American Water Works Association (AWWA) guidance as the industry standard. Several key metrics were compared to peers and industry standards in order to create a comprehensive overview of Department staffing.

The Water Department has 9.0 FTEs who work within the Utility Billing Office. These individuals are responsible for both Water and Sewer billing and their expense is split evenly between the two departments. For comparison purposes, half of the billing office FTEs were considered a part of Water while the other half were considered a part of Sewer.

Analysis

In 2019, the City Water Department produced approximately 6.0 MGD of water on a daily basis. This is higher than the peer average of approximately 5.0 MGD daily. At the same time, the City’s total expenditures related to operations and maintenance were approximately \$6.0 million, less than the peer average of approximately \$7.0 million. This indicates that the Water Department is producing and providing more water at a lower overall cost.

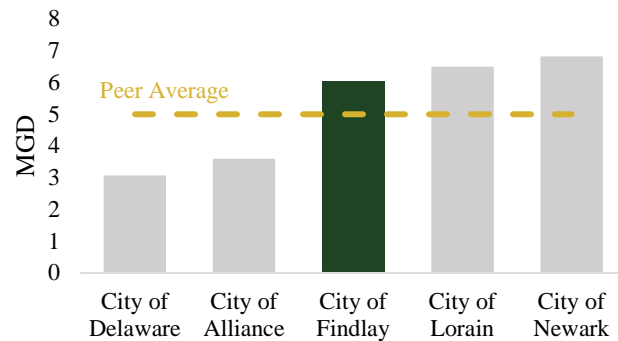
In comparison to peers, the Water Department treats and delivers more water per FTE on a MG basis and does so at a lower cost per FTE. This is true for both the treatment and distribution of water. On an account and population basis, the Water Department is also staffed at a lower rate than the peer average.

In addition to the peer metrics, we conducted a comparison to the AWWA median metrics. These medians are based on the AWWA annual utility benchmarking survey which provides a national average for water services. We found that while Findlay is below the national median for daily water demand per FTE, it services more accounts per FTE. When combining these two metrics, the City is below the national median for Water Department staffing.

Conclusion

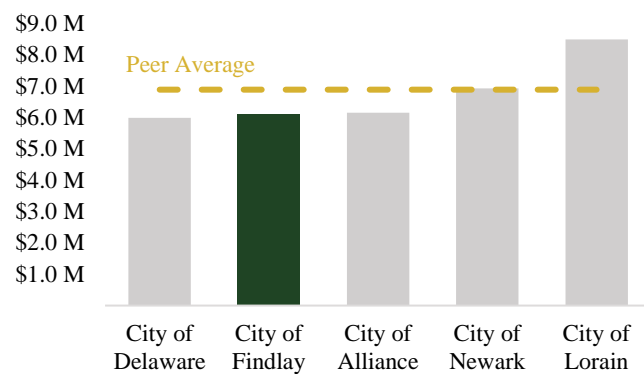
Overall, the City’s Water Department employs fewer staff than peers and industry standards. These employees produce more water than peers and service more accounts per FTE, and they do so at a lower cost per FTE.

2019 Water MGD



Source: City of Findlay and Peers

2019 Total O&M Expenditures



Source: City of Findlay and Peers

Water Pollution Control Department

Background

The Water Pollution Control Department, or Sewer Department, consists of the Water Pollution Control Center (WPCC) and sewer maintenance. The Department employs 28.0 FTEs within these two sections. As previously mentioned, the Department processed an average of nearly 13.0 MGs of wastewater daily in 2019. The total cost of operations and maintenance for the Department were approximately \$4.5 million in 2019.⁴

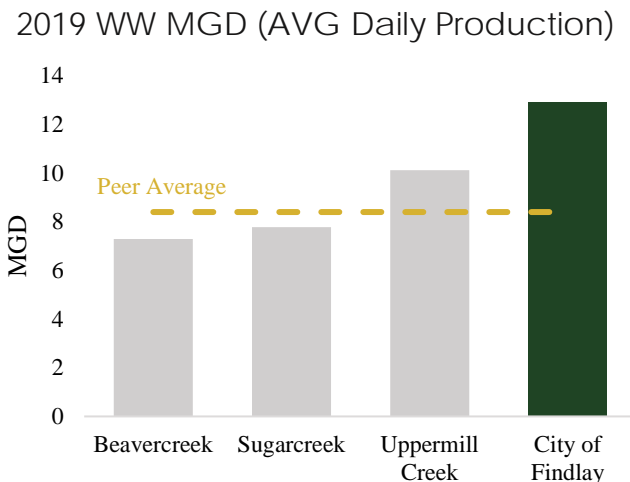
Methodology

We identified three peer wastewater departments and reviewed staffing levels relative to production, class category, and size. We also used AWWA guidance as the industry standard. Several key metrics were compared to peers and industry standards in order to create a comprehensive overview of Department staffing.

The Water Department has 9.0 FTEs who work within the Utility Billing Office. These individuals are responsible for both Water and Sewer billing and their expense is split evenly between the two departments. For comparison purposes, half of the billing office FTEs were considered a part of Water while the other half were considered a part of Sewer.

Analysis

In 2019, the City Water Pollution Control Department treated nearly 13.0 MGs of water on a daily basis. This is higher than the peer average of just more than 8.0 MGs daily. The majority of increase in sewer flow is due to Inflow and Infiltration. A combined sewer system receives flow from both sanitary and storm sources and during rain events, the City sees a large increase in flow at the treatment plant. At the same time, the City's total expenditures related to operations and maintenance were approximately \$4.5 million, which was higher than the peer average. The City of Findlay's wastewater department is processing more wastewater annually per FTE than their peers. However, the cost to do so per FTE is higher than the peer average.

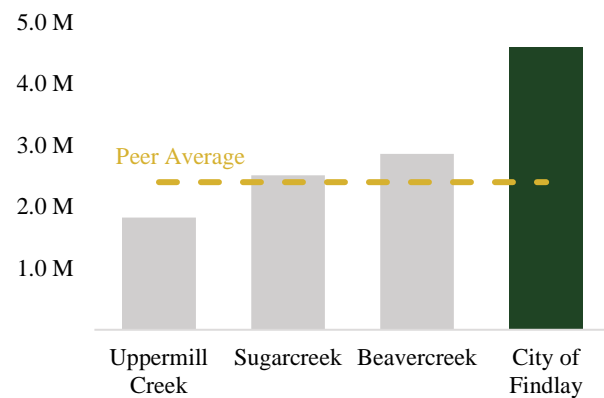


Source: City of Findlay and Peers

⁴ WPC spent approximately \$155,000 on debt service financing and transferred approximately \$4.2 million to the Sewer Project Expense Fund.

In addition to the peer metrics, we conducted a comparison to the AWWA median metrics. These medians are based on the AWWA annual utility benchmarking survey which provides a national average for water services. We found that Findlay is above the national median for daily wastewater processed per FTE, meaning that they process more than the national median per FTE. We also found that the number of accounts serviced per FTE is higher than the national median.

Total O&M Expenditures



Source: City of Findlay and Peers

Conclusion

Overall, the City’s Water Pollution Control Department employs fewer staff than peers and industry standards. These employees treat more wastewater than peers and service more accounts per FTE.

Water and Sewer Billing

Enterprise Funds, as previously discussed, are a type of fund that allow governments to operate certain activities in a manner similar to a business. Those activities, like running a water department, charge for services based on standard rates, fee schedules, or other means. Individuals or entities that decide to use the services being offered are charged according to the agreed upon method.

The Findlay Water and Water Pollution Control Departments both operate under an enterprise fund. Each Department has its own fund which is used to finance regular operations and maintenance related to the specific Department’s function. For example, the water bill a resident receives is based on the amount of water used in a given period and the money collected is used to fund the treatment and distribution of water.

Billing Rates

Water and sewer rates need to be set at a level that can generate the necessary revenue to maintain, replace, and expand the water and sewer infrastructure. At the same time, rates also need to be in line with the community’s ability to pay such rates.

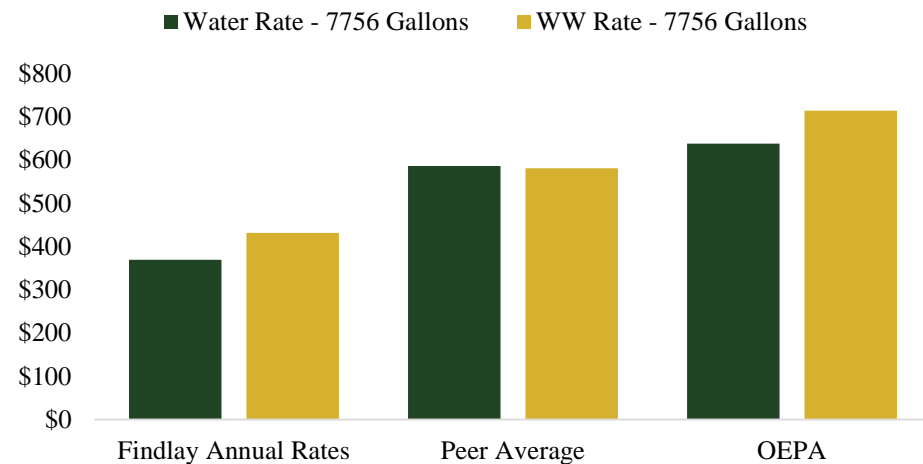
The city currently charges based on usage for both water and sewer. These rates are variable with the first 200 cubic feet for both water and sewer charged a flat rate, and any amount over that charged at a lower

rate per 100 cubic feet of usage. These rates are charged on a monthly basis and billed bi-monthly for residential accounts and monthly for industrial and commercial accounts.

Beginning in 2014, both the Water and Water Pollution Control Funds have had net operational

revenue, meaning that the revenues exceeded expenditures, or that the funds have had an annual surplus.

Water and Sewer Rate Comparison



Source: City of Findlay, OEPA, and Peers

In order to provide a basis of comparison for rate structure, we compared the City’s rates to both peer averages and the state average as identified by the Ohio Environmental Protection Agency

(OEPA). While the revenues for both Departments have exceeded expenditures for the past six years, the actual rates charged by the Departments is lower than both peer averages and the OEPA reported average. Based on a standard volume of water and sewer usage, the rates charged by Findlay result in a significantly lower bill than both the peer and state averages. The City's water and wastewater rates are more affordable and results in lower bills for account holders for similar volumes of usage. At the same time, Findlay's rates still provide enough revenue to cover expenditures for both the Water Department and Water Pollution Control Department.

Utility Fees

In addition to regular rates for usage, both the Water and Water Pollution Control Departments assess various fees. These types of fees are typical for utility departments to charge and may include items such as a capacity charge, water tapping fee, service calls, and laboratory tests. It is important that fees which are assessed are reasonable, appropriate, and charged in accordance with law. In order to evaluate Findlay's fees for water and sewer, we compared them to identified peers. While determining the fees for specific services is difficult based on the information available, we were able to identify the total amount of revenue earned by each Department and compared the percentage of revenue which resulted from fees. The Findlay Water Department obtained 4.0 percent of annual revenue from fees in 2019. By comparison, the peer average was 20.0 percent,⁵ however three out of the four peers had fee revenue of only 2.0 percent. The Water Pollution Control Department had fee revenue totaling just 1.0 percent compared to a peer average of 24 percent.

Overall, the City's fees seem reasonable when compared to peer averages. Further, the fees which were identified are generally less than the actual cost for the work performed.

Conclusion

The City's water and sewer rates are well below the peer and state averages, but generate enough revenue to cover the current expenditures related to Departmental operations and maintenance. The City also maintains fees that are reasonable and appropriate based on the work performed and the amount of revenue generated compared to peers. While both Departments currently are operating with positive balances, rates can be adjusted based on the operational needs of the Departments, the economic health of the City, and the ability of account holders to pay for services.

⁵ City of Lorain water had fees accounting for 30 percent of revenue, which resulted in higher than normal peer averages. The "Readiness to Serve Charge" is a flat, monthly fee that supports the large repairs and capital projects in the water department.

Utility Billings Systems

In order to process and provide prompt billing services to account holders, the City uses an electronic billing software for both the Water Department and Water Pollution Control Department. Such a system allows for automation of billing and should reduce errors. Findlay requested a review of their existing billing system to determine what opportunities existed for increased efficiency or effectiveness.

Recommendation: Billing System

If the City determines a new utilities billing system is necessary it should consider taking the following steps:

- It should update the existing software in order to determine if that addresses any current efficiency issues;
- It should develop a process of documentation for any system problems; and
- It should conduct studies as necessary and review current costs when considering potential upgrades or changes to the utility billing system.

Background

The City's billing system consists of a utility billing software, data collectors and transmitters, and water meters.

The City currently uses the billing software Authority Utility by Civica/CMI. The software was purchased in 2008 and was most recently updated in 2017. The annual cost of the software includes a virtual server and customer support. It collects billing data for water, sewer and storm water customers and produces billing statements.

In 2018, the City identified problems with the system, including duplicate customer identification numbers, which could lead to data integrity issues. The City also reported dissatisfaction with their customer support.

The City uses data collectors and transmitters supplied by Badger Meter. The City identified several issues with both the data collectors and transmitters including the failure of transmitters, which leads to the manual reading of meters. In order to complete the manual readings related to failed transmitters, utility billing employees are required to take time away from their regularly assigned tasks. Currently this process takes 88 hours on a monthly basis. The time employees spend reading meters is in addition to their other duties.

Finally, the meters used by the City are supplied by Badger Meter. Due to internal decision making, meters which fail are being replaced with NECO (formally known as Neptune) meters.

The City has received an estimate for the new data collection units, new transmitters and 550 new meters a year over five years starting in 2020. The estimate is approximately \$765,506 annually over five years for a total of \$4,593,035.

This project is being evaluated and revised to address the needs of the Water Department.

Methodology

We reviewed the City's existing billing systems and practices associated with billing and identified the annual operating cost for the current utilities billing system, taking into account the cost of software support and expense related to the manual reading of water meters.

We also attempted to identify the availability and approximate cost of alternative billing systems providers including other providers of billing software, transmitters, or meters and utilities billing systems used by other water department peers.

Analysis

The City currently operates version 1.6.12 of its billing software. We determined that a more updated version is available. We also found that Findlay spends more than \$36,000 annually for its utilities billing system. This includes software expenses and the personnel cost associated with having employees conduct manual meter readings on a monthly basis.

We found that there are several options available should the City wish to seek out alternative utilities billings systems. While we were able to identify some cost information, these should be considered estimates and not be used for decision making purposes without further review:

- **Muni Link** (Software) - \$22,000 for implementation and training and \$48,720 in annual service costs;
- **Tyler Technologies** (Software) - \$119,100 initial cost and \$19,512 annual service costs;
- **Continental Utility Solutions** - \$274,045 initial cost and \$29,205 annual service cost;
- **NECO (formerly Neptune Equipment Company)** (Transmitters and Meters) - \$141.25 per meter with transmitter. \$130.00 per Meter without transmitter

In addition to these systems, we identified seven additional alternatives that did not provide cost estimates.

- Aclara Technologies (Transmitters and Meters)
- Ampstun (Software)
- Mueller Systems (Transmitters)
- Starnik Systems (Software)
- Sensus (Transmitters and Meters)
- Kamstrup (Meters)
- Mater Meter (Meters)

Conclusion

The City currently pays more than \$36,000 annually for its utilities billing system. While issues with the current system have been reported, there is no documentation process for these concerns. Prior to making a decision regarding new systems, the City should update the existing software in order to determine if that addresses the issues. If the City determines a new system is necessary it should conduct a thorough review of potential options to ensure one is chosen which addresses the needs of the City in a fiscally responsible manner.

Client Response Letter

Audit standards and AOS policy allow clients to provide a written response to an audit. The City of Findlay chose not to provide a written response to this audit.

Appendix A: Purpose, Methodology, Scope, and Objectives of the Audit

Performance Audit Purpose and Overview

Performance audits provide objective analysis to assist management and those charged with governance and oversight to improve program performance and operations, reduce costs, facilitate decision making by parties with responsibility to oversee or initiate corrective action, and contribute to public accountability.

Generally accepted government auditing standards (GAGAS) require that a performance audit be planned and performed so as to obtain sufficient, appropriate evidence to provide a reasonable basis for findings and conclusions based on audit objectives. Objectives are what the audit is intended to accomplish and can be thought of as questions about the program that the auditors seek to answer based on evidence obtained and assessed against criteria.

We conducted this performance audit in accordance with GAGAS. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives.

Audit Scope and Objectives

In order to provide the City with appropriate, data driven, recommendations, the following questions were assessed within each of the agreed upon scope areas:

Summary of Objectives and Conclusions

Objective	Conclusion
Water Department	
Are the City’s water department staffing levels appropriate in comparison productivity levels, demand for services, industry standards or peers?	The water department is appropriately staffed.
Sewer Department	
Are the City’s sewer department staffing levels appropriate in comparison productivity levels, demand for services, industry standards or peers?	The wastewater department is appropriately staffed.
Utilities Billings and Combined Departments	
Are the City’s utilities billings department staffing levels appropriate in comparison productivity levels, demand for services, industry standards or peers?	Utility Billing is appropriately staffed.

<p>Are water and sewer rates comparable to peers and/or industry standards?</p>	<p>Overall, the City's water and wastewater rates are more affordable than their peers on average.</p>
<p>Are utility fees collected for water and sewer department service reasonable and appropriate?</p>	<p>The City of Findlay's revenue is more weighted towards sale of water/wastewater than their peers.</p>
<p>Are the City's water and wastewater capital planning practices consistent with leading practices and industry standards?</p>	<p>Recommendation: The City of Findlay should consider following all of the best practices suggested by the Government Finance Officers Association (GFOA) with regards to their capital planning. Doing so would allow the City to be best suited to effectively plan, fund, and communicate long-term goals to the public.</p>
<p>Is the current billing system effective and efficient when compared to industry standards or leading practices?</p>	<p>Recommendation: The city should document any and all issues with its current system. Furthermore, it should update its billing software. Finally, it should conduct studies as necessary and review current costs if it decides to upgrade part or all of its utilities billing system.</p>

Audit Methodology

To complete this performance audit, auditors gathered data, conducted interviews with numerous individuals associated with the areas of City's operations included in the audit scope, and reviewed and assessed available information. Assessments were performed using criteria from a number of sources, including:

- Peer Cities;
- Industry Standards;
- Leading Practices;
- Statutes; and
- Policies and Procedures.

In consultation with the City, peer groups were selected for comparisons contained in this report. These peers are identified as necessary and appropriate within the section where they were used. Peers were determined through numerous factors, specifically; classification, capacity, population served, total and average daily flow, compliance history, and financial information. All the peers were in range of these measurable factors. The following table shows the Ohio public water and wastewater departments (and their related utilities billing department) included in these peer groups.

Peer Departments

Water Department Peers

- Alliance City PWS (Stark County)
- Delaware City PWS (Delaware County)
- Lorain City PWS (Lorain County)
- Newark City PWS (Licking County)

Wastewater Department Peers

- Beavercreek WRRF (Greene County)
- Sugarcreek WRRF (Greene County)
- Upper Mill Creek Water Reclamation Facility (Butler County)

Where reasonable and appropriate, peer utilities departments were used for comparison. However, in some operational areas industry benchmarks or leading practices were used for secondary comparisons such as the AWWA and OEPA benchmarks and GFOA leading practices. Each section in this report describes the specific methodology and criteria used to reach our conclusions.

Appendix B: Additional Data

Water Department Assessment Data

As discussed in the report, The City’s water department was compared to national benchmarks set by the American Water Works Association (AWWA). Specifically, the City’s water department was compared to the median value for each metric. Per capita consumption is the daily amount of water used by the population served by the utility. This metric includes both residential and nonresidential consumption. Domestic per capita consumption is only the amount of residential water used in a service normalized by the population served.

Total Per Capita Consumption (gal/person/day)

Average Daily Production	Production (in gallons)	Population Served	Ratio	AWWA Median
6.03 MGD	6,030,000	54,040	111.6	110.6

Source: City of Findlay and AWWA

Residential Water Sales (gal/person/day)

Residential Water Sales	Production (in gallons)	Population Served x 365	Ratio	AWWA Median
909,625 HCF	680,399,500	19,724,600	34.5	60.8

Source: City of Findlay and AWWA

Note: HCF stands for Hundred Cubic Feet

Energy Consumption (kBTU/year/MG)

kBTUs	Average Daily Demands x 365	Ratio	AWWA Median
15,934,363	2,200.95	7,240	7,221

Source: City of Findlay and AWWA

Note 1: Consumption based on Purchases of Electricity, Natural Gas, and Other Fuels (minus stored amounts)

Note 2: kBTU stands for kilo-British thermal unit

The City of Findlay’s water department total production per person is slightly above the national median. For strictly only residential water sales per person, the city is below the national median. This may be due to numerous reasons such as industry presence in the City. Overall, the production consumes slightly more energy than the national median.

Water Staffing Comparison Data

The AWWA also provided national indicators to measure staffing levels. The indicators used in part of this audit were MGD of water produced per employee and customer accounts per employee. These indicators provide a measure of employee efficiency.

The City's water department delivered slightly less potable water by utility employees than the national median in 2019. The department is lower than the AWWA median of MGD of water produced by employee by 5 FTEs. However, on a water accounts per employee basis, the City's water department is well above the national median. The water department is better than the AWWA benchmark by an estimated 13.5 FTEs. Overall, taking the average of the two results, the City's water department is better than those AWWA staffing benchmark medians by 4.50 FTEs. The City of Findlay is overall handling more accounts per FTE than the national median.

AWWA Water Department Comparisons

	Value	Ratio	AWWA Median	Difference	Q3	FTEs Changed to be at Median
Average Daily Demand	6.03	0.17	0.20	(0.03)	0.27	(5.00)
Water FTEs + UB FTEs/2	34.5	-	-	-	-	-
Total Water Accounts	20,234	586.49	424	162.49	585.00	13.50
Water FTEs + UB FTEs/2	34.5	-	-	-	-	-
				Average		4.25
				Rounded to Nearest Half FTE		4.50

Source: City of Findlay and AWWA

Conducting staffing analyses related to staffing levels at the City's water department was done in comparison to the peers' average for each metric. Metrics used include flow in million gallons per FTE, Operation and Maintenance expenditures per FTE, and FTE per 1,000 of population.

Water Department Metric Peer Comparisons

Water Department	Client	Peers	Difference	Real FTE Variance
MG / FTE	63.76	49.00	14.76	10.50
O&M / FTE	\$177,343	\$184,892	(\$7,549)	(1.50)
O&M Treatment / FTE	\$100,606	\$63,744	\$36,862	20.00
O&M Distribution / FTE	\$47,021	\$40,408	\$6,613	5.50
FTE / MGD	5.72	7.45	(1.73)	10.50
FTE / Account	0.0017	0.0021	(0.0004)	8.50
FTE / 1,000 Population	0.64	0.84	(0.20)	10.50
Water Production Per FTE	0.17	0.13	0.036	11.50
Water Accounts Per FTE	586.49	469.67	116.83	8.50
			Average	9.33
			Rounded to Nearest Half FTE	9.50

Source: City of Findlay and Peers

Real FTE variance represents the amount of FTEs the City’s water department would have to either add or subtract in order to meet the Peers’ average for that metric. On average, Findlay’s water department is better by an estimated 9.50 FTEs to peers’ average. Overall, Findlay’s water department appears to be operating with a smaller staff than the peers and is in a position of growth.

Sewer Department Assessment Data

We conducted similar analyses by comparing the sewer department to AWWA metrics. The metrics used to compare the City’s sewer department to a national median were non-capacity and capacity sewer overflow expressed as the ratio of the number of events per 100 miles of sanitary collection system piping. They are intended to measure overflows created by conditions within collection system components under control of the utility, such as overflows from sanitary sewers and dry-weather overflows from combined sanitary/story sewers. Non-capacity overflow is a discharge related to maintenance issues. A capacity overflow occurs as a result of inflow and infiltration, generally a direct result of rain events.

AWWA National Benchmarks

Non-Capacity Sewer Overflow Rate	Value	Ratio	AWWA Median
Number of non-capacity sewer overflow events during the reporting period X 100	0	0	1.4
Total miles of collection system piping	319.1	-	-

Capacity Sewer Overflow Rate	Value	Ratio	AWWA Median
Number of capacity sewer overflow events during the reporting period X 100	1,200	3.76	0
Total miles of collection system piping	319.1	-	-

Energy Consumption WW (kBTU/Year/MG)	KWH	kBTU	Ratio	AWWA Median	Q3
Energy Consumption Based on Purchases of Electricity, Natural Gas, and Other Fuels (minus stored amounts) Converted to kBTU	6,960,456	23,735,155	6,426	10,910	8,857
Average Daily Production x 365 days	3,694	-	-	-	-

Source: City of Findlay and AWWA

In regards to the sewer collection system and its maintenance, Findlay’s ratio of events is below the national median. Their capacity sewer overflow rate is above the national median; however plans are in place in compliance with the EPA to reduce this occurrence.

The City’s annual energy consumption for the sewer department is well below the national median and third quartile. In other words, the City’s sewer department is consuming less energy per their annual processing than the top third quartile nationally. This may be in part due to the use of solar panels at the plant supplied by Marathon Petroleum Company.

Sewer Staffing Comparison Data

The same staffing analyses conducted for the water department was conducted for the sewer department. Comparisons to metrics to both the AWWA and the peers’ average.

The City of Findlay’s sewer department processed significantly more wastewater by utility employees than the national median in 2019. Compared to the AWWA median of MGD of wastewater treated per employee, the department is significantly more efficient by an estimated 28.0 FTEs. Also, on a sewer accounts per employee basis, the City’s sewer department is slightly better than the national median by an estimated 2.75 FTEs. Overall, taking the average of the two results, the City’s sewer department is comparatively better than the AWWA staffing benchmark medians by an estimated 15.50 FTEs.

AWWA Wastewater Department Comparisons

	Value	Ratio	AWWA Median	Difference	Q3	FTEs Changed to be at Median
Avg MGD Wastewater Processed	12.9	0.40	0.21	0.19	0.28	28.00
WPC FTEs + UB FTEs/2	32.5	-	-	-	-	-
Total Sewer Accounts	19,586	602.65	555	47.65	734.00	2.75
WPC FTEs + UB FTEs/2	32.5	-	-	-	-	-
					Average	15.38
					Rounded to Nearest .5 FTE	15.50

Source: City of Findlay; AWWA

Similarly to water department, staffing analyses related to staffing levels at the City’s sewer department were conducted in comparison to the peers’ average for each metric. Metrics used include flow in million gallons per FTE, Operation and Maintenance expenditures per FTE, and FTE per 1000 of population.

Wastewater Department Metric Peer Comparisons

WPC Department	Client	Peers	Difference	Real FTE Variance
MG / FTE	144.63	87.76	56.87	21.00
O&M / FTE	\$141,199	\$115,414	\$25,786	7.50
O&M Treatment / FTE	\$87,820	\$81,402	\$6,417	2.50
O&M Collection / FTE	\$37,207	\$34,011	\$3,195	3.00
FTE / MGD	2.51	2.48	0.037	(0.50)
FTE / Account	0.0017	0.0015	0.0001	(2.50)
FTE / 1000 population	0.72	0.47	0.26	(11.50)
Wastewater Production Per FTE	0.40	0.40	(0.0069)	(0.50)
Wastewater Accounts Per FTE	602.65	650.07	(47.42)	(2.50)
			Average	1.83
			Rounded to Nearest .5 FTE	2.00

Source: City of Findlay and Peers

Real FTE variance represents the amount of FTEs the City’s sewer department would have to either add or subtract in order to meet the Peers’ average for that metric. On average, Findlay’s sewer department is lower by an estimated 2.00 FTEs to the peers’ average. The interpretation of the FTE Variance column in the above table depends on the metric. For example, Findlay’s wastewater department is handling more total flow per FTE than the peers’ average. Accordingly, the City would be on par with the peers’ average production rate per FTE if Findlay had an additional 21.0 FTEs in the wastewater department. Overall, Findlay’s wastewater department appears to be in a position of operating with a smaller staff then the peers and in a position of growth.

Utility Staffing Comparison Data

The water and sewer department staffing analyses both include a split share of the total utilities billing department FTEs since utilities billing supports both funds. However, we also compared the portion in which the utilities billing staff makes up for the entire water and sewer operation within a city/county.

Utility Billing Department	FTEs	% of Utility Department
City of Findlay	9.0	15.5%
Peers Average	6.7	11.6%

Source: City of Findlay and Peers

Utility Department Assessment Data

The utilities billing department was also compared to multiple AWWA national benchmarks related to utilities billing in particular. The median metric was specifically used in these comparisons. This was done to have a comprehensive understanding of how the City of Findlay’s utilities billing department compares nationally in cost and performance.

The indicator, customer service cost per account, measures the amount of resources a utility applies to its customer service program over the course of one year (2019). It is expressed as the cost of managing a single customer account for one year. Billing accuracy measures the effectiveness of a utility’s billing practices and is reported as the number of errors per 10,000 billings where the lower number of errors made is preferred. Finally, the delinquency rate indicator provides a look at the percentage of overall accounts that are delinquent over the given year. The following tables are different benchmarks established by the 2019 AWWA national survey. These metrics are in the form of ratios. AWWA’s median or second quartile metric is the first comparison and the third quartile if necessary.

AWWA National Benchmarks

Customer Service Cost	Water & Wastewater Accounts	Cost per Account	AWWA Median
\$1,051,240	39,820	\$26.40	\$28.82

Source: City of Findlay, AWWA

City of Findlay’s Utility Billing Accuracy

Water Billing Accuracy	Client	Ratio	AWWA Benchmarks	
			Median	Q3
Number of Error-Driven Billing Adjustments x 10,000	500,000	4.4	9.8	1.8
Number of Bills Generated	114,638	-	-	-
Sewer Billing Accuracy	Client	Ratio	Median	Q3
Number of Error-Driven Billing Adjustments x 10,000	680,000	5.9	10.2	2.4
Number of Bills Generated	115,825	-	-	-

Source: City of Findlay, AWWA

Delinquency Rate - 2019	Amounts	Ratio	Median	Q3
Average of Delinquent Accounts	860.9	2.2	9.9	2.4
Total Accounts	39,820	-	-	-

Source: City of Findlay, AWWA

In both Customer Service Cost and Billing Accuracy, the City’s Utility Billing Office performs significantly better than the AWWA median.

Fees Comparison Data

The City's water and wastewater revenues were compared to peer data. Percentages were used to analyze spending patterns, which helps normalize the data due to differences in operational capacity.

Water Department Revenue Breakdown

Water Departments	2019 O&M Expenditures	2019 Department Revenue	2019 Water Sales or Water Rental Revenue	2019 Water Fees	Revenue Ratios	
					% Water Sale of Revenue	% Water Fees of Revenue
City of Findlay	\$6,118,343	\$7,781,250	\$7,231,503	\$277,093	93%	4%
Peer Average	\$6,885,856	\$9,240,335	\$6,838,880	\$1,891,861	74%	20%
City of Alliance	\$6,149,141	\$5,691,713	\$5,420,641	\$93,365	95%	2%
City of Delaware	\$5,984,999	\$5,942,929	\$5,779,832	\$121,744	97%	2%
City of Lorain	\$8,485,672	\$18,938,622	\$10,649,375	\$7,215,889	56%	38%
City of Newark	\$6,923,612	\$6,388,077	\$5,505,671	\$136,448	86%	2%

Source: City of Findlay and Peers

Wastewater Department Revenue Breakdown

Sewer Departments	2019 O&M Expenditures	2019 Department Revenue	2019 Revenue from Sewer Charge	2019 Sewer Fees	Revenue Ratios	
					% WW Sale of Revenue	% WW Fees of Revenue
City of Findlay	\$4,588,978	\$8,845,778	\$8,571,725	\$124,310	97%	1%
Peer Average	\$2,399,742	\$10,825,921	\$8,063,800	\$2,402,485	74%	22%
Beavercreek	\$2,861,349	\$11,509,606	\$8,263,151	\$2,863,821	72%	25%
Sugarcreek	\$2,511,904	\$9,571,201	\$6,871,502	\$2,381,507	72%	25%
Uppermill Creek	\$1,825,974	\$11,396,956	\$9,056,748	\$1,962,127	79%	17%

Source: City of Findlay and Peers

Note: Sewer charges are solely from the usage charged on a rate basis. Fees include tasks outside the flow rate and can include mostly capacity charges, impact charges, and local services.

The City of Findlay spent \$6,118,343 and \$4,588,978 on their water and sewer department's operation and maintenance respectively in 2019. For the water department, 93% of the revenue, around \$7.24 million was covered by the volumetric charge for water use. That covers the total expenditures and so less weight is placed on fee revenue for the City as compared to the peers. The peers on average brought in around \$6.84 million which doesn't cover the entire average expenditure of \$6.89 million. The rest is covered by the revenue brought in by fees which is represented by the 74% and 20% split of revenue between volumetric charge and fees for the peers. A similar situation is the case for the sewer department.

OHIO AUDITOR OF STATE KEITH FABER



CITY OF FINDLAY

HANCOCK COUNTY

AUDITOR OF STATE OF OHIO CERTIFICATION

This is a true and correct copy of the report, which is required to be filed pursuant to Section 117.26, Revised Code, and which is filed in the Office of the Ohio Auditor of State in Columbus, Ohio.



Certified for Release 10/20/2020

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