Mary Taylor, CPA
Auditor of State

CITY OF GIRARD
PERFORMANCE AUDIT

MAY 6, 2010

Mary Taylor, CPA
Auditor of State

To the Residents, Mayor, Service Director, and Council of the City of Girard:

On July 13, 2009, the City of Girard engaged the Auditor of State's Office to conduct a performance audit of the Water and Sewer Departments. The performance audit request was based on the City's desire to ensure efficient and effective operations, and emerge from its fiscal emergency condition. The performance audit was designed to review and analyze the selected areas of these departments in relation to peer cities, industry benchmarks, and leading or recommended practices.

The performance audit contains recommendations which the City can consider in its efforts to improve operational efficiency and effectiveness, and financial conditions. While the recommendations contained in the audit report are resources intended to assist in identifying improvements, the City is encouraged to independently assess operations and develop additional alternatives.

An executive summary has been prepared which includes the project history; a city overview; the scope, objectives and methodology for the performance audit; the status of the 2002 performance audit; and a summary of the key recommendations, assessments not yielding recommendations, and financial implications. This report has been provided to the City and its contents discussed with the appropriate elected officials and administrators. The City has been encouraged to use the results of the performance audit as a resource for improving overall operations.

Additional copies of this report can be requested by calling the Clerk of the Bureau's office at (614) 466-2310 or toll free at (800) 282-0370. This performance audit is also accessible online through the Auditor of State of Ohio website at http://www.auditor.state.oh.us/ by choosing the "Audit Search" option.

Sincerely,

Mary Taylor

Mary Taylor, CPA
Auditor of State

May 6, 2010

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EXECUTIVE SUMMARY

Executive Summary

Project History

On July 13, 2009, the City of Girard (Girard or the City) engaged the Auditor of State's Office (AOS) to conduct a performance audit of the Water and Sewer Departments. The performance audit request was based on the City's desire to ensure efficient and effective operations, and emerge from its fiscal emergency condition. The performance audit was designed to review and analyze the selected areas of these departments in relation to peer cities, industry benchmarks, and leading or recommended practices.

City Overview

Girard was incorporated under the laws of the State of Ohio in 1922 and is located in Trumbull County. The City operates under a Mayor-Council form of government. According to the U.S. Census Bureau, the City is comprised of 10,182 residents (2007 estimate) and 6.60 square miles (land square miles is 6.11). Additionally, the 2000 Census reported the City's median household income at $32,672 and family poverty rate at 10.3 percent. By comparison, the 2000 Census reported the national median household income at $41,994 and family poverty rate at 9.2 percent.

On August 8, 2001, AOS declared the City to be in a state of fiscal emergency in accordance with Ohio Revised Code (ORC) Section 118.03. The declaration resulted in the establishment of a Financial Planning and Supervision Commission (the Commission). The City continues to be in fiscal emergency and all financial activity of the City must be in accordance with an annual spending plan approved by the Commission. Further, the Local Government Services Section of AOS is the fiscal monitor for the City.

The mission of Girard's Water Department is to supply customers in its system with water service. Girard purchases its water from three surrounding suppliers; the City of Niles, the Village of McDonald, and the City of Youngstown. Girard's Water Department is separated into two categories: Administrative Support and Utility Billing Staff, and Operations Staff. The Administrative Support and Utility Billing Staff's primary responsibilities are to oversee day-to-day operations of the Water Department, as well as generate billing information based on water usage and collect charges from customers. The primary responsibility of the Operations Staff is to maintain the City's water infrastructure to ensure proper pumping and distribution of potable water for all water customers. The City's Water Department has a total staffing level of 17 positions equaling 8.8 full-time equivalents (FTEs).

The mission of the Sewer Department is to treat, in compliance with EPA standards, all wastewater and stormwater generated within Girard as well as to treat a portion of wastewater and stormwater generated in the Trumbull County service areas. In addition, the Sewer Department is responsible for maintenance and operation of the sewer plant, associated buildings, substations, infrastructure, and wastewater and stormwater lines. The City's Sewer Department has a total staffing level of 14 positions equaling 12.3 FTEs.

Objectives

Performance audits are defined as engagements that provide assurance or conclusions based on an evaluation of sufficient, appropriate evidence against stated criteria, such as specific requirements, measures, or defined business practices. Performance audits provide objective analysis so that management and those charged with governance and oversight can use the information 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.

The overall objective of this performance audit was to review the Water and Sewer Departments' operations and, where warranted, develop recommendations for improvement. The following areas were assessed in this performance audit:

- Trends in revenues and expenditures from 2006 to 2008, and budgeted and projected expenditures for 2009;
- Staffing levels;
- Rates, water loss, meter reading, water purchasing, and billing and collections;
- Strategic, capital and preventative maintenance planning; and
- The implementation status of the recommendations in the 2002 performance audit for the Water and Sewer Departments.

The recommendations in the performance audit comprise options that Girard can consider in its efforts to improve operational efficiency and effectiveness, and identify strategies to eliminate its fiscal emergency declaration.

Scope and Methodology

This performance audit was conducted in accordance with generally accepted government auditing standards. Those standards require that AOS plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for the findings and conclusions based on the audit objectives. AOS and the Performance Audit Section (PAS) are aware of, and have considered, the potential independence issue regarding undertaking performance audits of fiscal watch and emergency municipalities that are also being monitored by the AOS' Local

Government Services Division (LGS) as fiscal supervisor. Because LGS is statutorily required to serve as fiscal supervisor, an independence impairment may exist (GAGAS 3.14). However, under ORC 118.023 and consistent with the intent of the legislature and Auditor of State under this law, performance audits are a component of the activities undertaken by AOS to assist local governments in fiscal distress.

Audit work was conducted between July 2009 and January 2010, and data was drawn from fiscal years 2006 to 2009. To complete this report, the auditors gathered a significant amount of data pertaining to the City, conducted interviews with numerous individuals, and reviewed and assessed available information. Due to several factors, the reliability of financial data from the City's trial balance reports is questionable. However, the likelihood that using the financial data would adversely impact the conclusions in this performance audit appears to be minimal, with the exception of the overtime assessment. Additionally, the performance audit attempts to account for data concerns regarding water purchased, sold and treated through various methods of estimation, with the exception of water sold in 2006. However, the number of gallons billed is skewed by the City's meter reading process and related billing practices because the number of gallons billed does not reflect actual consumption. Lastly, Girard was unable to corroborate some information used in the performance audit. See **R3.1** for the detailed discussion of data concerns. Peer data and other information used for comparison purposes were not tested for reliability, although the information was reviewed for reasonableness.

The performance audit process involved significant information sharing with Girard, including preliminary drafts of findings and proposed recommendations related to the identified audit areas. Furthermore, periodic status meetings were held throughout the engagement to inform the City of key issues impacting selected areas, and share proposed recommendations to improve or enhance operations. Throughout the audit process, input from the City was solicited and considered when assessing the selected areas and framing recommendations. Finally, the City provided verbal and written comments in response to various recommendations, which were taken into consideration during the reporting process. Where warranted, AOS modified the report based on the City's comments.

Three cities (peers) were selected to provide benchmark comparisons for the areas assessed in the performance audit: Cambridge, Canfield and New Philadelphia. These cities were selected based upon demographic and operational data, and input from Girard. Furthermore, external organizations and sources were used to provide comparative information and benchmarks, such as the Ohio Environmental Protection Agency (EPA), *Municipal Benchmarks: Assessing Local Performance and Establishing Community Standards* (Ammons, 2001), the New Mexico Rural Water Association, the American Water Works Association, and the Government Finance Officers Association.

The Auditor of State and staff express appreciation to Girard and peer cities for their cooperation and assistance throughout this audit.

Status of the 2002 Performance Audit

Of the 14 recommendations contained in the 2002 Performance Audit in the Water Department section, Girard implemented 2 recommendations, partially implemented 2 recommendations, did not implement 9 recommendations, and 1 recommendation is no longer applicable. Of the 10 recommendations contained in the 2002 Performance Audit in the Sewer Department section, Girard implemented 4 recommendations, partially implemented 1 recommendation, did not implement 4 recommendations, and 1 recommendation is no longer applicable. The 2009 Performance Audit addresses the recommendations in the 2002 Performance Audit if the related issues fell within the current audit scope. See the **Appendix** for more information.

Assessments Not Yielding Recommendations

The assessment of the Sewer Department's staffing levels did not warrant changes or yield recommendations. This is based on total FTEs, composition of staffing, average million gallons of flow, miles of sewer line, housing units, and New Philadelphia contracting for certain maintenance and repair services. See **Table 2-4** and the related discussion for additional detail.

Key Recommendations

The audit report contains recommendations that are intended to provide Girard with options to enhance its operational efficiency and improve its long-term financial stability. In order to obtain a full understanding of the assessed areas, the reader is encouraged to review the recommendations in their entirety. The following summarizes the key recommendations from the performance audit report.

- Girard should implement measures to ensure data in the Water and Sewer Departments is reliable for decision-making purposes, including consistently managing data and reviewing the reliability of such data. In addition, the Service Director should work with the City Auditor in reconciling and reviewing the trial balance reports for accuracy.

- Girard should take measures to ensure the reliability of its operating data (see **R3.1**) and subsequently review its staffing levels in the Water Department, particularly the operations staff. When doing so, Girard should consider factors that can impact staffing levels, such as those outlined in the performance audit. The outcome of the City's staffing analysis should be incorporated into the budgeting process (see **R3.9**) to ensure the City has sufficient funds to support its Water Department staffing needs. Thereafter, Girard should annually review staffing levels to account for potential changes in the Department's workload and/or operations.

- The City should maintain current contracts with its water suppliers. Girard should also seek to update the contracts with provisions that formally require water suppliers to provide justification for increases to water rates.

- Girard should review both the ordinance covering sewer rates and industry standards about rate setting processes and various rate structures. Subsequently, the City should develop a formal rate setting methodology, and related policies and procedures for its water and sewer rates. Once established, Girard should review its water and sewer rates on an annual basis to avoid significant increases to customers. As a part of the methodology and general rate setting process, the City should first ensure cost-effective operations. It should also consider all current and future costs based on gallons purchased, treated and billed. In addition, Girard should ensure the reliability of financial and operating data, and accurately track all data necessary to reliably determine rates (see **R3.1**, **R3.5** and **R3.6**). Furthermore, the City should take steps to address unaccounted for water (see **R3.4**) and delinquencies (see **R3.7**), which will be necessary in its rate-setting process. Because water rates generate the funds to operate the Water Department, any changes in the rates should include City Council involvement and approval. Lastly, Girard should reevaluate is water rates every time suppliers increase the price of water purchased.

- After Girard completes its review of rates, the Service Director should contact the EPA to determine whether the submission of its rate review would enable the City to obtain funding from the State Revolving Fund for a meter replacement project (see **R3.5**). Moreover, the City should establish a customer education program to communicate its rate methodology and related process, as well as its justification for potential rate adjustments.

- The City should maintain an accurate and complete record of all water flowing through its system. To accomplish this, City Council should pass an ordinance that addresses water loss, including the detection of causes and calculation of the amount of water loss, and master meter readings from its three suppliers to ensure readings are occurring on a routine basis (i.e., monthly) and are being verified for accuracy. Subsequently, the City should take steps to identify the factors contributing to unaccounted for water, such as implementing an accurate metering system (see **R3.5**); accurately recording data (see **R3.1**); and conducting water use audits (see **Table 3-8**) and monitoring key activity (e.g., compare the amount of billings to customers to the amount of water purchased and wastewater treated).

- Girard should conduct a cost-benefit analysis for the installation of remote read water meters for all customers versus implementing a process that provides more accurate meter readings (i.e., performing actual meter readings rather than relying on self-reported usage from customers). This analysis should account for the impact on the billing

technology (see **R3.6**) and demonstrate the Water Fund's ability to remain solvent while either taking on the debt associated with purchasing and properly maintaining remote read water meters for all customers or incurring the costs associated with increasing the frequency of performing meter reads for all customers. Along with the costs, this analysis should account for the potential revenue impact of both alternatives. After an option has been chosen based on the cost-benefit analysis and approved by City Council, the City should formally document its meter reading process and communicate it to customers.

- The City should develop codified ordinances and related formal procedures to reflect its billing and collection practices. Girard should then adhere to the ordinances and procedures. The City should modify the codified ordinances and related procedures as billing and collection practices change. Additionally, Girard should train another employee(s) to complete the billing process. If the City decides to increase the frequency of meter reads rather than purchasing remote read meter transmitters, the Service Director should work with the Water Department and software provider to obtain detailed information on functionality and training. This would help address the duplication of effort. Additionally, Girard should fix the faulty industrial/commercial meters which would eliminate the manual work completed by the Water Department Office Manager. Lastly, the City should formally evaluate whether outsourcing part of its utility billing and collection cycle would increase efficiency, strengthen data reliability, improve customer service, and lower costs.

- Girard should use its full authority to collect delinquent monies, including continuing to certify monies owed to the County Auditor and continuing to shut off water. Girard should develop a codified ordinance describing the process for collecting delinquencies, similar to the ordinance for the Sewer Department. The codified ordinance should also detail when water shut-offs should occur and when any additional fees or penalties (e.g., water service termination or reactivation) will be assessed. In addition, the City should resolve the discrepancies about payment plans in the ordinance relative to actual practices, and update the ordinance if necessary. Girard should also develop a policy that defines roles and responsibilities for the delinquent collection process. Furthermore, the City should develop a formal uncollectable utility write-off policy to determine how long delinquent accounts remain part of the accounts receivables.

- Girard should develop City-wide preventive maintenance and multi-year capital improvement plans. Subsequently, these plans should be reviewed on a regular basis and updated where necessary. By developing and maintaining these plans, the City can better address its current and long-term needs in a cost-effective manner, and potentially reduce overtime costs (see **R3.13**).

Summary of Financial Implications

The following table summarizes the performance audit recommendations that contain financial implications. Detailed information concerning the financial implications, including assumptions, is contained within the **Recommendations** section of the performance audit.

Financial Implications Summary

Recommendation	Annual Cost Savings
R3.4 Reduce water loss	$66,000
R3.13 Reduce overtime	$24,000
Total	**$90,000**

Source: AOS performance audit

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BACKGROUND AND AUDIT OBJECTIVES

Background and Audit Objectives

This section of the performance audit presents background information, trend comparisons of revenues and expenditures, and the audit objectives for the City of Girard's (Girard or the City) Water and Sewer Departments.

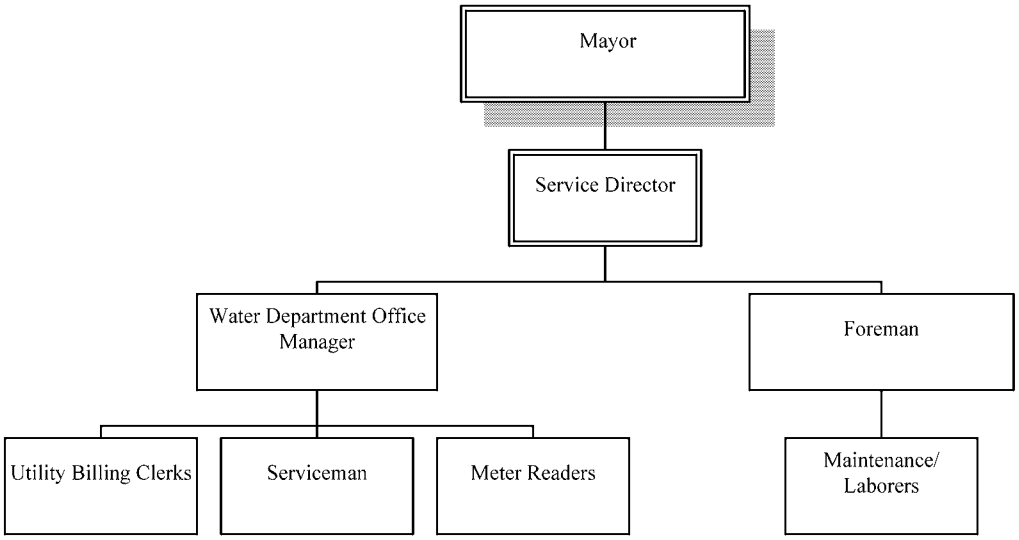
Water Department

Mission

According to the Service Director, the mission of Girard's Water Department is to supply customers in its system with water service.

Organizational Structure

Chart 2-1 shows the organizational structure of the City's Water Department.



As shown in **Chart 2-1**, the Water Department is led by the Office Manager and the Foreman. These positions are under the responsibility of the Service Director who, in turn, reports to the Mayor.

Staffing

Girard's Water Department is separated into two categories: Administrative Support and Utility Billing Staff, and Operations Staff. The Administrative Support and Utility Billing Staff's primary responsibilities are to oversee day-to-day operations of the Water Department, as well as generate billing information based on water usage and collect charges from water and sewer customers. The primary responsibility of the Operations Staff is to maintain the City's water infrastructure to ensure proper pumping and distribution of potable water for all water customers.

Table 2-1 shows the Water Department's positions and full-time equivalent (FTE) staffing for 2009.

Table 2-1: 2009 Water Department Staffing Levels

Administrative Support and Utility Billing Staff		
Classification	**Positions**	**FTEs**
Service Director[1]	1	0.1
Office Manager	1	1.0
Utility Billing Clerks	2	2.0
Meter Readers[2]	8	0.7
Serviceman	1	1.0
Total Administration Support and Utility Billing Staff	**13**	**4.8**
Operations Staff		
Classification	**Positions**	**FTEs**
Foreman	1	1.0
Maintenance/Laborer	3	3.0
Total Operations Staff	**4**	**4.0**
Total Water Department Staffing	**17**	**8.8**

Source: Girard 2009 Water Department staffing and payroll.
[1]The Service Director provides oversight for eight different City departments, which includes the Sewer Department. The Service Director's time was calculated as equally among all eight departments for FTE purposes.
[2]The Water Department had eight summer employees during 2009. All hours charged to the Water Department represented hours dedicated to meter reading. These employees also allocated a portion of time to other City Departments (e.g., the Sewer and Street Departments). To determine the FTE calculation, the total hours billed in payroll to the Water Department (1,554.25) were divided by 2,080.

As shown in **Table 2-1**, the City's Water Department has a total staffing level of 17 positions equaling 8.8 FTEs. The large difference between Water Department positions and FTEs is due to the meter reader classification. Summary descriptions of the Water Department's job responsibilities include the following:

- **Service Director:** The Service Director provides oversight for eight City departments that include: Fire, Police, Water, Sewer, Streets, Cemetery, Zoning, and Parks. The

Service Director approves and reviews payroll, sets water rates, and assists with budgeting and purchasing activities for the Water Department.

- **Office Manager:** This employee is responsible for daily operations and data input. Additionally, this employee assists the utility billing clerks when necessary.

- **Utility Billing Clerks:** These employees are responsible for accounts receivable/payable, serving customer walk-ins, and creating delinquency notices.

- **Meter Readers:** These seasonal part-time employees are responsible for reading residential customer meters.

- **Serviceman:** This employee is responsible for conducting move-in readings, ensuring water shut-offs, checking leaky meters, buying new meters, and reading the remote transmitting meters used by majority of the City's industrial users.

- **Foreman:** This employee is responsible for overseeing the water system operations. The Foreman completes all work needed to report to the EPA. Additionally, the Foreman is responsible for maintaining the City water infrastructure and performing all waterline taps.

- **Maintenance Workers/Laborers:** These employees are responsible for general maintenance and infrastructure repairs.

Financial Information

Table 2-2 shows Girard's Water Department revenues and expenditures for calendar years 2006 through 2008, and budgeted revenues and expenditures for 2009, from the City's trial balance reports. Based on the financial audit results for 2006 and 2007, and comparisons of the trial balance reports to these financial audits, the reliability of the financial data is questionable. However, the likelihood that using the financial data would adversely impact the conclusions in this performance audit appears to be minimal, with one exception (see **R3.13**). Additionally, the financial audit for 2008 was in progress during the timeframe of the performance audit. As a result, the trial balance report for 2008 could not be compared to the respective financial audit. See **R3.1** for more information.

Table 2-2: Water Department Revenues and Expenditures

Line-items	Actual 2006	Actual 2007	% Difference	Actual 2008	% Difference	Budget 2009	% Difference
Beginning Fund Balance	**$120,988**	**$17,668**	**(85.4%)**	**($339,441)**	**(2,021.2%)**	**($693,210)[1]**	**(104.2%)**
Water Department Revenues							
Charges for Services[2]	$2,235,827	$2,029,765	(9.2%)	$2,355,502	16.0%	$3,131,600	32.9%
Miscellaneous	$6,499	$12,034	85.2%	$2,498	(79.2%)	$10,000	300.3%
State Issue II	$0	$498,984	N/A	$107,245	(78.5%)	$0	(100.0%)
Reimbursement BWC	$5,199	$0	(100.0%)	$0	N/A	$0	N/A
Total Revenue	**$2,247,525**	**$2,540,783**	**13.0%**	**$2,465,245**	**(3.0%)**	**$3,141,600**	**27.4%**
Cash Balance	**$2,368,513**	**$2,558,451**	**8.0%**	**$2,125,804**	**(16.9%)**	**$2,448,390**	**15.2%**
Water Department Expenditures							
Overtime	$16,549	$27,975	69.0%	$57,856	106.8%	$40,000	(30.9%)
Salaries[3]	$363,146	$380,709	4.8%	$448,192	17.7%	$369,600	(17.5%)
Benefits[4]	$223,812	$181,954	(18.7%)	$268,624	47.6%	$214,000	(20.3%)
Water Purchases	$1,020,906	$984,848	(3.5%)	$1,200,113	21.9%	$1,251,835	4.3%
Utilities[5]	$55,926	$67,484	20.7%	$72,149	6.9%	$73,200	1.5%
Other[6]	$51,654	$29,724	(42.5%)	$49,772	67.4%	$51,250	(3.0%)
Operation & Maintenance[7]	$195,214	$218,330	11.8%	$285,734	30.9%	$161,857	(43.4%)
OWDA Loan (Water)	$300,788	$287,927	(4.3%)	$296,000	2.8%	$295,980	0.0%
Overpayment/ Reimbursement	$102,086	$155,296	52.1%	$21,210	(86.3%)	$28,000	32.0%
State Issue II	$20,761	$563,647	2615.0%	$113,784	(79.8%)	$0	100.0%
Total Expenditures	**$2,350,842**	**$2,897,894**	**23.3%**	**$2,813,434**	**(2.9%)**	**$2,485,722**	**(11.6%)**
Ending Fund Balance	**$17,668**	**($339,441)**	**(2021.2%)**	**($687,629)[1]**	**102.6%**	**($37,332)**	**94.6%**

Source: Girard Detailed Trial Balance Reports for 2006 through 2009.

Note 1: Totals may vary from actual due to rounding.

Note 2: The reliability of the information in **Table 2-2** is questionable (see **R3.1**).

[1] The City Auditor noted that there was an encumbrance of $5,581 reported in 2007, which misstated the 2008 beginning fund balance. This problem was identified and an adjustment was made to the 2009 beginning cash balance (see **R3.1**).

[2] The charges for services category includes: water user charges, water tap and connect charges, and water meter charges.

[3] The salaries category includes: salaries, severance pay, and hourly wages.

[4] The benefits category includes: hospitalization, workers compensation, Medicare tax, uniform allowance, and pension.

[5] The utilities category includes: Telephone, Dominion East Ohio Gas, and Ohio Edison.

[6] The other category includes: legal fees, gasoline, insurance, state examiner fees, and postage.

[7] The operations and maintenance category includes: operations and maintenance, vehicle repair, breaks, and computer operation and maintenance.

Table 2-2 shows the Water Department's total revenues increased in 2007, decreased in 2008, and are budgeted to increase in 2009. Additionally, the Water Department's total expenditures increased in 2007, and decreased in 2008 and 2009 (budgeted). **Table 2-2** also shows that Girard's Water Fund beginning balance decreased by 85.4 percent in 2007. Additionally, the City's Water Fund ending balance significantly decreased to a deficit fund balance of ($339,441) in 2007, which more than doubled to a deficit ending fund balance of ($687,629) in 2008. However, based on the budgeted revenues and expenditures, the City anticipates finishing 2009 with a significantly lower deficit fund balance of ($37,332), due primarily to increases in revenue from charges for services.

Explanations for the revenue variances in **Table 2-2** include the following:

- **Charges for Services: Table 2-2** shows that the Water Department's charges for services decreased 9.2 percent ($206,062) from 2006 to 2007 and increased 16.0 percent ($325,737) from 2007 to 2008. The Auditor noted that the economy, delinquency collection (see **R3.7** for a discussion of delinquency collection), the rate increase of 20 percent in 2008, and the Department's process of increasing water users' bills in order to motivate self-reporting of meter readings could all be reasons for the fluctuations (see **R3.6** for a discussion of billings and collections). The Department's 2009 budget reflects a projected increase of 32.9 percent in charges for services, which is consistent with the year-to-date annualized financials. Specifically, based on the 2009 year-to-date financials through July 31, the Water Department's charges for services are on track to increase by 31.8 percent in 2009. The projection assumes a continuation of revenue collections at a constant rate to what was experienced through the first seven months of 2009. A primary reason for the significant increase is the City's effort to collect delinquencies during the first seven months. Therefore, if the City has maximized on delinquency collections in the first seven months, charges for services in the last five months would likely be lower than the first seven months. For instance, with the influx of delinquency collections, the City Auditor feels revenue is going to peak because of collections related to delinquencies, and then level off and stabilize.

- **Miscellaneous[1]: Table 2-2** shows that the Water Department's miscellaneous revenue increased 85.2 percent from 2006 to 2007. The Auditor noted that these one-time revenues were derived from a reimbursement received from a group that requested a water study of the City's infrastructure flow and usage capabilities. As of July 31, 2009, the City collected $35,173, as compared to the budgeted amount for 2009 of $10,000. Although actual revenue was significantly higher than budgeted, the overall amount was not material to total revenue and therefore, not pursued further.

[1] The Auditor noted that any revenue collected that does not fit in any of the other revenue line-items is reported in this miscellaneous category.

- **State Issue II: Table 2-2** shows that the Water Department's Issue II revenue decreased by 78.5 percent from 2007 to 2008. The Auditor stated that these revenues include funds received from outside parties that provided a portion of the funding for certain special projects. The Auditor also noted that there were not any upcoming projects planned. The lack of upcoming projects is due to the City's requirement to contribute 25 percent towards such planned projects and as a result of its fiscal emergency situation, Girard does not have sufficient funds to do so.

- **Reimbursement BWC: Table 2-2** shows that the Water Department did not report revenue in this category after 2006. The City Auditor stated that BWC discontinued its discount programs. The Auditor noted that the City previously received revenue because of it drug-free program.

During a review of the City's prior performance audit that was released in 2002, AOS noted the City collected total revenues of $2,029,500 in 2000. Based on the City's 2008 total Water Fund revenues ($2,465,245), the City's total revenues increased 21.5 percent from 2000 to 2008.

Explanations for the expenditure variances in **Table 2-2** include the following:

- **Overtime: Table 2-2** shows that the Water Department's overtime expenditures increased by 69.0 percent in 2007 ($11,426) and 106.8 percent in 2008 ($29,881). According to the City Auditor, the City experienced a significant number of water line breaks due to aged and failing infrastructure in 2008 (see **R3.10** for a discussion of preventative maintenance planning). Based on year-to-date financials through July 31, the Water Department is on track to spend $27,924 on overtime in 2009, a 51.7 percent decrease from 2008. Additionally, the budget for 2009 shows overtime expenditures decreasing by 30.9 percent when compared to actual overtime costs in 2008.

- **Salaries: Table 2-2** shows that the Water Department's salaries increased 17.7 percent from 2007 to 2008 ($67,483). According to the Water Department Office Supervisor, the City hired a serviceman in 2008. Additionally, the City hired part-time college students to complete meter reading activities. Based on the year-to-date financials through July 31, the Water Department is on track to spend $391,863 on salaries in 2009, a 12.6 percent decrease from 2008. Additionally, the budget for 2009 shows salaries decreasing by 17.5 percent, when compared to actual salaries in 2008.

- **Benefits: Table 2-2** shows that the Water Department's benefits decreased 18.7 percent from 2006 to 2007 ($41,858). Conversely, the Water Department's benefits increased 47.6 percent from 2007 to 2008 ($86,670). These fluctuations are mainly due to hospitalization costs. The City Auditor noted this line-item includes hospital, stop-loss and administrative costs. The Auditor also stated that the City is self-insured and each Water Department employee's healthcare costs are charged to the Water Fund. Based on

year-to-date financials through July 31, the Water Department is on track to spend $237,240 on benefits in 2009, an 11.7 percent decrease. Additionally, the budget for 2009 shows that benefits expenditures would decrease by 20.3 percent, when compared to actual benefits costs in 2008. The variances in the projection and budget, as well as the projected and budgeted decreases for 2009, are partially attributable to salary fluctuations.

- **Water Purchases: Table 2-2** shows that the Water Department's water purchases increased 21.9 percent from 2007 to 2008 ($215,265). The City Auditor noted that the increase could be due to timing, specifically noting that the City could have purchased water in 2007 that was billed into the next calendar year. Based on year-to-date financials through July 31, the Water Department is on track to spend $1,136,229 on water purchases in 2009, a 5.3 percent decrease. However, the budget for 2009 shows water purchases increasing by 4.3 percent, when compared to actual water purchases costs in 2008.

- **Utilities: Table 2-2** shows that the Water Department's utilities increased by 20.7 percent ($11,558) from 2006 to 2007 and increased by 6.9 percent ($4,665) from 2007 to 2008. The increase from 2007 to 2008 was primarily due to increases in the Department's electricity expenditures. Specifically, the Department's electricity expenditure increased from $43,363 in 2007 to $49,642 in 2008. Based on year-to-date financials through July 31, the Water Department is on track to spend $64,827 on utilities in 2009, a 10.1 percent decrease from 2008. However, the budget for 2009 shows utilities increasing by 1.5 percent, when compared to actual utilities costs in 2008.

- **Other: Table 2-2** shows that the Water Department's other expenditures decreased by 42.5 percent ($21,930) from 2006 to 2007 and increased by 67.4 percent ($20,048) from 2007 to 2008. The decrease from 2006 to 2007 was due to decreases in the Department's insurance (i.e., property / liability), state examiner fees, and postage. For example, the Department's insurance expenditures decreased from $21,500 in 2006 to $8,360 in 2007. The increase from 2007 to 2008 was primarily due to increases in the Department's insurance costs. Specifically, the Department's insurance expenditure increased from $8,360 in 2007 to $25,000 in 2008. Based on year-to-date financials through July 31, the Water Department is on track to spend $56,131 on other in 2009, a 12.8 percent increase from 2008. The budget for 2009 shows other expenditures increasing by 3.0 percent, when compared to actual other costs in 2008.

- **Operations and Maintenance: Table 2-2** shows that the Water Department's operations and maintenance expenditures increased by 11.8 percent from 2006 to 2007 ($23,116) and increased 30.9 percent from 2007 to 2008 ($67,404). The increases in 2007 and 2008 are primarily due to increases in the Department's operations and maintenance line-item and breaks line-item. For example, the Department's operations and maintenance line-

item increased from $180,493 in 2007 to $218,183 in 2008. As noted above, the City Auditor indicated that the City experienced a significant number of water line breaks due to aged and failing infrastructure (see **R3.10**). Based on year-to-date financials through July 31, the Sewer Department is on track to spend $159,223 on operations and maintenance in 2009, a 44.3 percent decrease from 2008. The budget for 2009 shows operations and maintenance expenditures decreasing by 43.4 percent, when compared to actual operations and maintenance costs in 2008.

- **OWDA Loan: Table 2-2** shows that the Water Department's OWDA loan has remained fairly constant over the last three years. In 1995, the City purchased lakes with the intention of treating their own water for distribution. The City continues to carry debt on this purchase until 2015 (see **R3.8** for an additional discussion on strategic planning).

- **Overpayment/Reimbursement: Table 2-2** shows that the Water Department's overpayment/reimbursement expenditures increased 52.1 percent from 2006 to 2007 (53,210). The City Auditor stated that the increase was due to the Water Department's practice of overestimating water user's bills. The Auditor also noted that the 86.3 percent decrease from 2007 to 2008 ($134,086) was due to the City terminating the Water Department's practice of overestimating user's bills (see **R3.6**).

- **State Issue II: Table 2-2** shows that the Water Department's State Issue II expenditures increased 2,615 percent from 2006 to 2007 ($542,886) and decreased 79.8 percent from 2007 to 2008 ($449,863). The City Auditor noted Girard had special projects in 2007 which subsided in 2008. The City did not budget for any State Issue II projects in 2009.

During a review of the City's prior performance audit that was released in 2002, AOS noted the City's total expenditures were $2,067,500 in 2000. Based on the City's 2008 total Water Fund expenditures ($2,813,434), the City's total expenditures increased 36.1 percent from 2000 to 2008.

Additionally, the City has budgeted for the Water Department to expend $2,485,722 in 2009. Based on annualizing the City's year-to-date figures through July 31 for 2009, the City is expected to spend 3.4 percent less than the 2009 budgeted total expenditures. The City's Water Department revenue is on pace to meet the budgeted amount for 2009. The difference between annualized revenues and expenditures, including the beginning fund cash balance,[2] is projected to leave the City with a positive fund balance of $71,651 at the end of 2009. However, this projection assumes a continuation of revenue collections and expenditures at a constant rate to what was experienced through the first seven months of 2009, for the remaining five months. As previously noted, it may be difficult for charges for services to maintain the same level of collections experienced in the first seven months of 2009, for the remaining five months.

[2] Girard's Water Fund had a beginning fund cash balance of approximately ($693,210) for 2009.

Sewer Department

Mission

The mission of the Sewer Department is to treat, in compliance with EPA standards, all wastewater and stormwater generated within Girard as well as to treat a portion of wastewater and stormwater generated outside of the City in the Trumbull County service areas. In addition, the Sewer Department is responsible for maintenance and operation of the sewer plant, associated buildings, substations, all infrastructure, and the entirety of the wastewater and stormwater lines.

Relationship with Trumbull County

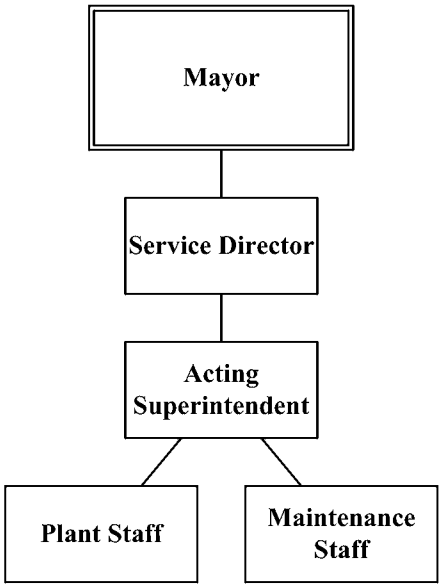
Girard provides wastewater treatment services to a portion of Trumbull County and has done so since a formal contract was originally signed by both parties in 1967. The City and County have a formal agreement in place which is in effect through December 31, 2020.

Per the formal agreement, Girard provides Trumbull County with an annual cost per million gallons of wastewater treated and the County provides the City with monthly records of metered wastewater flow. At present, when the Sewer Department receives metered usage directly from Trumbull County, the Acting Superintendent reviews, signs, and sends the usage reports directly to the Mayor. The Mayor then provides the usage reports to the Water Department for billing. During the course of the audit Girard made improvements to its Sewer Department technology systems, including computer updates and the establishment of a secure connection between City Hall and the wastewater treatment plant. As a result, the City plans to revise its County billing process with an estimated effective timeframe of January 2010. The planned process change entails moving the responsibility for billing Trumbull County to the Sewer Department. This duty will be carried out by the Sewer Department clerk. See **R3.6** for further information on the Water and Sewer Department's billing processes and **R3.3** for additional information on the Water and Sewer Department's rate structures.

Organizational Structure

Chart 2-2 shows the organizational structure of the City's Sewer Department.

Chart 2-2: Sewer Department Organizational Chart



As shown in **Chart 2-2**, the Sewer Department is led by the Acting Superintendent[3] but is ultimately under the responsibility of the City Service Director who in turn reports to the Mayor.

Staffing and Statistics

Table 2-3 shows the Sewer Department's positions and full-time equivalent (FTE) staffing for 2009.

[3] The Acting Superintendent is designated as "acting" because Girard's wastewater treatment plant is a Class IV plant and the Acting Superintendent currently holds only a Class III operator's license. The City is working with a consultant to see if the class can be changed to III, but this has to be approved by the EPA.

Table 2-3: 2009 Sewer Department Staffing Levels

Administrative & Support Staff		
Classification	**Positions**	**FTEs**
Service Director [1]	1	0.1
Acting Superintendent	1	1.0
Clerk	1	1.0
Total Administration & Support Staff	**3**	**2.1**
Plant and Maintenance Staff		
Classification	**Positions**	**FTEs**
Pretreatment Coordinator / Lab Analyst	1	1.0
Maintenance Man	1	1.0
Operator	3	3.0
Heavy Equipment Operator [2]	1	1.0
Light Equipment Operator [2]	1	1.0
Utility Operator	1	1.0
Electrician [3]	1	1.0
Labor / Meter Reader	1	1.0
Summer Help [4]	1	0.2
Total Plant & Maintenance Staff	**11**	**10.2**
Total Sewer Department Staffing	**14**	**12.3**

Source: Girard 2009 Sewer Department staffing and payroll.

[1] The Service Director provides oversight for eight different City departments, of which the Sewer Department is one. The Service Director's time was calculated as equally divided among all eight departments for FTE purposes.

[2] Girard's sewer line maintenance is the responsibility of the Heavy Equipment Operator and the Light Equipment Operator only.

[3] The electrician's time is based on information from the City payroll and Sewer Department roster, rather than the testimonial evidence from the Acting Superintendent. See **R3.12** for further discussion.

[4] For 2009, the Sewer Department had one summer employee. However, this employee also allocated a portion of time to other City Departments (e.g., the Water and Street Departments). To determine the FTE calculation, the total number of hours billed in payroll to the Sewer Department (373.25) were divided by 2,080 hours.

As shown in **Table 2-3**, the City's Sewer Department has a total staffing level of 14 positions equaling 12.3 FTEs. Summary descriptions of the Sewer Department's job responsibilities include the following:

- **Service Director:** The Service Director provides oversight for eight City departments that include: Fire, Police, Water, Sewer, Streets, Cemetery, Zoning, and Parks. The Service Director approves and reviews payroll, and assists with budgeting and purchasing activities for the Sewer Department.

- **Acting Superintendent:** This employee is responsible for the daily operations of the Sewer Department, including the treatment of all wastewater and stormwater generated within the City and Trumbull County service areas. Additionally, the Acting Superintendent is responsible for the maintenance and operation of the sewer plant, all infrastructure, and wastewater and stormwater lines. Lastly, the Acting Superintendent

works with Trumbull County to develop annual sewer rates for sewage treatment in Trumbull County service areas.

- **Pretreatment Coordinator / Lab Analyst:** This employee is responsible for monitoring and testing, including lab work and analysis, the emissions of the industrial users within the City. This employee monitors a total of seven to eight industrial users and is required to submit quarterly and annual reports to the EPA.

- **Maintenance Man:** This employee is responsible for general maintenance throughout the Department, including equipment, building, and infrastructure repairs.

- **Operator:** There are three employees in this classification. The most senior of these employees is responsible for the majority of the actual plant operations. The other two operator employees share responsibility for the plant operations on an as-needed basis. In addition, these two employees work on plant and general maintenance activities.

- **Heavy Equipment Operator:** This employee is responsible for sewer line maintenance. Duties include operating the vactor (i.e., high pressure sewer cleaning system) and helping to operate other heavy equipment on an as-needed basis.

- **Light Equipment Operator:** This employee is responsible for sewer line maintenance. This employee is also responsible for operating the vactor and helps to operate other equipment on an as-needed basis.

- **Utility Operator:** This employee runs the filter press, and helps with plant and general maintenance activities.

- **Electrician:** This employee is a licensed electrician that is based out of the Sewer Department. According to the Acting Superintendent, this employee also provides electrical support for the rest of the City's departments (see **R3.12**).

- **Labor / Meter Reader:** This employee has only been with the Sewer Department since July 2009 and was a call back from previous City lay-offs. The Labor / Meter Reader is primarily responsible for light maintenance activities like mowing and painting, and has not actually done any meter reading for the Department (see **R3.5** for further discussion on the meter reading process).

- **Clerk:** This employee works in the Sewer Department office and provides administrative support to the Acting Superintendent including answering the phones. In addition, the Clerk receives all billing information from Trumbull County, aggregates the information into a form that the Water Department uses for billing, and sends the information to the

Water Department so that bills can be sent. As previously noted, this process is expected to change around January 2010.

- **Summer Help:** This is a seasonal employee hired by the City and assigned to the Sewer Department. The employee is temporary in nature, May through September 2009, and is primarily responsible for light maintenance.

Furthermore, Girard, through a contractor, completed an approximate $1 million EPA grant project in 2009 to split out a portion of the sanitary and storm sewer lines that previously had been a single line

Table 2-4 compares the Sewer Department's staffing levels and select operating statistics to the peer cities[4].

[4] See the **executive summary** for a list of the peer cities and an explanation of the selection methodology, and **R3.2** for the staffing assessment of the Water Department.

Tale 2-4: Sewer Department Staffing Comparison

	Girard	Cambridge	Canfield	New Philadelphia	Peer Average [1]
Administration & Support FTEs					
Management / Director	0.1	1.3	0.3 [2]	N/A	N/A
Superintendent / Administration	1.0	2.0	N/A	2.0	2.0
Clerical	1.0	0.4	0.5	N/A	N/A
Billing	N/A [3]	1.5	N/A	N/A	N/A
Total Administration & Support Staff	**2.1**	**5.2**	**0.8**	**2.0**	**3.6**
Plant Staff					
Pretreatment Coordinator [4]	0.5	1.0	N/A	N/A	N/A
Lab Analyst [4]	0.5	1.0	N/A	2.0	1.5
Electrician	1.0	N/A	N/A	N/A	N/A
Operator	3.0	4.0	N/A	5.0	4.5
Utility Operator	1.0	N/A	N/A	N/A	N/A
Total Plant Staff	**6.0**	**6.0**	**N/A**	**7.0**	**6.5**
Maintenance Staff - Line Maintenance					
Maintenance	N/A	N/A	1.0	2.0	N/A
Equipment Operator / Pipefitter	2.0 [5]	4.0	N/A	N/A	N/A
Maintenance Staff - General Maintenance					
Maintenance	1.0	N/A	N/A	N/A	N/A
Meter Reader / Labor	1.0	2.0	0.5	N/A	N/A
Seasonal Labor	0.2	N/A	N/A	0.2	N/A
Total Maintenance Staff	**4.2**	**6.0**	**1.5**	**2.2**	**4.1**
Total Sewer Department Staff	**12.3**	**17.2**	**2.3[6]**	**11.2**	**14.2**
Staffing & Operating Ratios					
Average Flow in Million Gallons (MG)	3.0[7]	2.9[7]	N/A	2.3	2.6
Average MG per Plant Staff FTE	**0.50[7]**	**0.48[7]**	**N/A**	**0.33**	**0.41**
Average MG per Total FTE	**0.24[7]**	**0.17[7]**	**N/A**	**0.21**	**0.19**
Design Flow in MGD	5.0	6.0	N/A	4.5	5.3
Average Flow % of Design Capacity	**59.0%**	**47.6%**	**N/A**	**51.1%**	**49.4%**
Miles of Sewer Line	51.0[7]	120.0[7]	42.0[6]	124.5	122.3
Miles of Sewer Line per Line Maintenance FTE	**25.5[7]**	**30.0[7]**	**42.0[6]**	**62.3**	**46.1**
Administration & Support % of Total FTEs	**17.3%**	**30.3%**	**34.8%**	**17.9%**	**24.1%**
General Maintenance % of Total FTEs	**17.7%**	**11.6%**	**21.7%**	**1.8%**	**6.7%**
Total Housing Units (2000 Census)	4,988	5,557	3,062	7,830	6,694
Housing Units per Total FTE	**405**	**323**	**N/A**	**699**	**511**

Source: Girard, peers and U.S. Census

[1] The City of Canfield was excluded from the peer average because it does not operate a wastewater treatment facility.

[2] The City of Canfield employs a City Manager and Finance Director who each provide oversight for the seven public works departments. Each FTE was allocated evenly among the seven departments for a total of 0.3 FTEs to the Sewer Department.

[3] Girard's Water Department is responsible for commercial and residential Sewer Department billing. During the course of the audit, the Sewer Department put the infrastructure in place to begin processing and billing Trumbull County for outside sewer treatment services. These duties are to be assumed by the Department's clerk.

[4] Girard's pretreatment coordinator and lab analyst responsibilities are under the purview of one employee. As such, 0.5 FTE has been allocated to each responsibility.

[5] Girard's sewer line maintenance is the responsibility of the Heavy Equipment operator and the Light Equipment Operator only.

[6] Due to a lack of corroborating information, AOS was unable to verify Canfield's staffing and miles of sewer line data.

[7] Due to a lack of corroborating information, AOS was unable to verify Girard's and Cambridge's average flow in million gallons and miles of sewer line information.

As shown in **Table 2-4**, the Sewer Department has 12.3 total FTEs which is 2.2 FTEs higher than the 2000 staffing level of 10.1 FTEs. However, **Table 2-4** shows that Girard's overall staffing level is lower than the peer average, 12.3 FTEs compared to 14.2 FTEs. Additionally, the City's average million gallon flow per plant staff FTE and per total FTE are higher than the peer averages, Cambridge and New Philadelphia. Although **Table 2-4** shows that the City has fewer miles of sewer line per line maintenance FTE when compared to the peer average, this is partially due to New Philadelphia contracting for major sewer line replacement and repair as well as heavy equipment operation. As a result, New Philadelphia requires less staff and is able to maintain a higher number of miles of sewer line per FTE. **Table 2-4** also shows that the City's administrative and support staff comprises the lowest percentage of total FTEs when compared to each peer, while its percentage of general maintenance FTEs is in between Cambridge and Canfield. The number of general maintenance FTEs and corresponding percentage are significantly lower at New Philadelphia, which is due to contracting for maintenance services. Nevertheless, developing preventive maintenance and capital improvement plans would help the City ensure that related activities are addressed in a cost-effective manner (see **R3.10** and **R3.11**). Furthermore, **Table 2-4** shows that Girard's ratio of housing units per total FTE is higher than Cambridge but lower than New Philadelphia. This is due, in part, to the contracted services at New Philadelphia. Lastly, **Table 2-4** also indicates that Girard uses the highest percentage of its wastewater treatment plant design capacity, an average of 59.0 percent compared to the peer average of 49.4 percent.

Financial Information

Table 2-5 shows Girard's Sewer Department revenues and expenditures for calendar years 2006 through 2008, and budgeted revenues and expenditures for 2009, from the City's trial balance reports. Based on the financial audit results for 2006 and 2007, and comparisons of the trial balance reports to these financial audits, the reliability of the financial data is questionable. However, the likelihood that using the financial data would adversely impact the conclusions in this performance audit appears to be minimal, with one exception (see **R3.13**). Additionally, the financial audit for 2008 was in progress during the timeframe of the performance audit. As a result, the trial balance report for 2008 could not be compared to the respective financial audit. See **R3.1** for more information.

Table 2-5: Sewer Department Revenues and Expenditures

Line-Items	Actual 2006	Actual 2007	% Difference	Actual 2008	% Difference	Budget 2009	% Difference
Beginning Fund Balance	**$384,812**	**$189,300**	**(50.8%)**	**($92,817)**	**(149.0%)**	**$59,759** [1]	**164.4%**
Sewer Department Revenues							
Charges for Services [2]	$1,671,085	$1,360,943	(18.6%)	$1,503,394	10.5%	$1,500,000	(0.2%)
Miscellaneous Refunds & Reimbursements	$152,098	$67,182	(55.8%)	$1,353	(98.0%)	$2,000	47.9%
Reimbursement BWC	$6,696	$0	(100.0%)	$0	N/A	$0	N/A
Transfers	$0	$0	N/A	$94,484	N/A	$0	(100%)
Total Revenue	**$1,829,879**	**$1,428,125**	**(22.0%)**	**$1,599,230**	**12.0%**	**$1,502,000**	**(6.1%)**
Cash Balance	**$2,214,691**	**$1,617,425**	**(27.0%)**	**$1,506,413**	**(6.9%)**	**$1,561,759**	**3.7%**
Sewer Department Expenditures							
Overtime	$20,502	$27,924	36.2%	$48,761	74.6%	$49,000	0.5%
Salaries [3]	$494,256	$429,389	(13.1%)	$407,961	(5.0%)	$508,000	24.5%
Benefits [4]	$307,990	$398,443	29.4%	$309,292	(22.4%)	$261,935	(15.3%)
Utilities [5]	$230,765	$227,026	(1.6%)	$250,909	10.5%	$265,500	5.8%
Other [6]	$168,797	$149,730	(11.3%)	$179,489	19.9%	$205,814	14.7%
Operation and Maintenance [7]	$248,591	$139,962	(43.3%)	$182,196	30.2%	$150,306	(17.5%)
Equipment Replacement	$35,750	$0	(100.0%)	$0	N/A	$0	N/A
OWDA Loan	$483,500	$267,226	(44.7%)	$50,747	(81.0%)	$50,900	0.3%
Overpayment / Reimbursement	$35,239	$70,543	100.2%	$13,388	(81.0%)	$13,800	3.1%
Total Expenditures	**$2,025,391**	**$1,710,242**	**(15.6%)**	**$1,442,742**	**(15.6%)**	**$1,505,255**	**4.3%**
Ending Fund Balance	**$189,300**	**($92,817)**	**(149.0%)**	**$63,671** [1]	**168.6%**	**$56,504**	**(11.3%)**

Source: Girard Detailed Trial Balance Reports for 2006 through 2009.

Note 1: Totals may vary from actual due to rounding.

Note 2: The reliability of the information in **Table 2-5** is questionable (see **R3.1**).

[1] The City Auditor noted that there was an encumbrance of $3,912 reported in 2007, which misstated the 2008 beginning fund balance. The problem was identified and an adjustment was made to the 2009 beginning cash balance (see **R3.1**).

[2] The charges for services category includes: Sewer Rental Charges and Sewer Rental Trumbull County.

[3] The salaries category includes: Sewer Rental Salaries, Sewer Rental Severance, and Sewer Rental Hourly Wages.

[4] The benefits category includes: Sewer Rental Hospitalization, Sewer Rental Workers' Compensation, Sewer Rental Medicare Tax, Sewer Rental Uniform Allowance, and Sewer Rental Pension.

[5] The utilities category includes: Sewer Rental Telephone, Sewer Rental Dominion East Ohio, Sewer Rental Ohio Edison, and Sewer Rental Water.

[6] The other category includes: Sewer Rental Legal Fees, Sewer Rental Gasoline, Sewer Rental Insurance, Sewer Rental State Examiner Fee, Sewer Rental Postage, Sewer Rental Lab Supplies & Testing, Sewer Rental Consultant Fees, Sewer Rental Chemicals, and Sewer Rental Sludge Disposal.

[7] The operation and maintenance category includes: Sewer Rental Operation & Maintenance, Sewer Rental Vehicle Repair, Sewer Rental Computer Operation, and Special Projects.

Table 2-5 shows the Sewer Department's total revenues decreased in 2007, increased in 2008, and are budgeted to decrease in 2009. Additionally, the Sewer Department's total expenditures decreased in 2007 and 2008, but are budgeted to increase in 2009. **Table 2-5** also shows that Girard's Sewer Fund beginning balance decreased by 50.8 percent in 2007. Additionally, the City's Sewer Fund ending balance significantly decreased in 2007, resulting in a deficit fund balance of $92,817. The City's Sewer Fund ending balance increased to a positive balance of $59,759 in 2008. However, the positive ending balance would not have been possible without the transfer of approximately $94,000 into the Sewer Fund. Based on the budgeted revenues and expenditures, the City anticipates finishing 2009 with a positive balance of $56,504.

Explanations for the revenue variances in **Table 2-5** include the following:

- **Charges for Services: Table 2-5** shows that the Sewer Department's charges for services decreased by 18.6 percent ($310,142) from 2006 to 2007 and increased by 10.5 percent ($142,450) from 2007 to 2008. The City Auditor did not provide any specific reason for the year-to-year fluctuations but felt that, in the past, this revenue had been weaker than expected due to foreclosures, abandonment, and general economic decline. However, with the influx of delinquency collections, the City Auditor feels revenue is going to peak because of collections related to delinquencies, and then level off and stabilize. Based on the actual year-to-date revenues as of July 31, the Sewer Department's charges for services are on track to increase by 35.7 percent in 2009. The projection assumes a continuation of revenue collections at a constant rate to what was experienced through the first seven months of 2009. This, in turn, assumes the same level of delinquent collections, which may not be sustainable. For example, the Department's 2009 budget reflects a projected decrease of only 0.2 percent in charges for services, when compared to actual charges for services in 2008.

- **Miscellaneous Refunds and Reimbursements: Table 2-5** shows that the Sewer Department's miscellaneous refunds and reimbursements decreased by 55.8 percent ($84,916) from 2006 to 2007 and again decreased by 98.0 percent ($65,829) from 2007 to 2008. The City Auditor noted that the majority of the revenue in this line-item was associated with the City's agreement with Trumbull County (i.e., OWDA loan share). The City's OWDA loan has been paid off, so there is no longer a Trumbull County portion in this line-item. In 2009, the City collected $11,028 (as of July 31, 2009), significantly more than the budgeted amount of $2,000. However, because the overall amount is not material to total revenue, this variance was not pursued further.

- **Reimbursement BWC: Table 2-5** shows that the Sewer Department did not report revenue after 2006. The City Auditor stated that BWC discontinued the discount programs. The Auditor noted that the City previously received revenue because of the drug-free program.

- **Transfers: Table 2-5** shows that the Sewer Department reported revenue in this category only in 2008. According to the City Auditor, the transfer was directly related to the allocation of a FEMA grant to help the City recover from the 2003 flooding incident. Girard experienced significant flooding in 2003, including in the Sewer Department plant. FEMA provided the City with grant funds to address the flooding and the City determined that approximately $94,000 was the share of the funds that should be allocated to the Sewer Department. The City Auditor specifically stated that the amount was not tied to the Sewer Fund beginning fund balance deficit of approximately ($92,000).

During a review of Girard's prior performance audit that was released in 2002, AOS noted the City collected total Sewer Fund revenues of $1,517,800 in 2000. Based on the City's 2008 total Sewer Fund revenues of $1,599,230, the City's total revenue increased 5.4 percent from 2000 to 2008.

Explanations for the expenditure variances in **Table 2-5** include the following:

- **Overtime: Table 2-5** shows that the Sewer Department's overtime increased by 36.2 percent ($7,421) from 2006 to 2007 and increased by 74.6 percent ($20,837) from 2007 to 2008. According to the City Auditor, Girard experienced a number of significant issues with its Water Department infrastructure in 2008 (see **R3.10** for a discussion of preventative maintenance planning). The Sewer Department staff allocated time to help address these issues within the City (see **R3.12**). Based on year-to-date expenditures through July 31, the Sewer Department is on track to spend $45,384 on overtime in 2009, a 6.9 percent decrease from 2008. However, the budget for 2009 shows that overtime expenditures were projected to increase by only 0.5 percent when compared to actual overtime costs in 2008.

- **Salaries: Table 2-5** shows that the Sewer Department's salaries decreased by 13.1 percent ($64,868) from 2006 to 2007 and decreased by 5.0 percent ($21,428) from 2007 to 2008. According to the City Auditor, the Sewer Department had one employee retire in 2006. The City's severance, which is equal to approximately one year's wages, is required to be paid out within 90 days of retirement. Based on the year-to-date expenditures through July 31, the Sewer Department is on track to spend $576,223 on salaries in 2009, a 41.2 percent increase from 2008. However, the budget for 2009 shows salaries increasing by 24.5 percent, when compared to actual salaries in 2008.

- **Benefits: Table 2-5** shows that the Sewer Department's benefits increased by 29.4 percent ($90,453) from 2006 to 2007 and decreased by 22.4 percent ($89,152) from 2007 to 2008. These fluctuations are mainly due to hospitalization and workers compensation costs. The City is self-insured and health insurance cost is allocated to each department based on the plan coverage and utilization of the department employees. Workers'

Compensation is also allocated to each department based on cost incurred due to the employees of the department. Based on year-to-date expenditures through July 31, the Sewer Department is on track to spend $389,924 on benefits in 2009, a 26.1 percent increase from 2008. However, the budget for 2009 shows that benefits expenditures would decrease by 15.3 percent, when compared to actual benefits costs in 2008. The variances in the projection and budget, as well as the projected and budgeted increases for 2009 are partially attributable to salary fluctuations.

- **Utilities: Table 2-5** shows that the Sewer Department's utilities decreased by 1.6 percent ($3,739) from 2006 to 2007 and increased by 10.5 percent ($23,883) from 2007 to 2008. The significant increase from 2007 to 2008 was due to increases in the Department's electricity and water expenditures. Based on actual expenditures through July 31, the Sewer Department is on track to spend $222,854 on utilities in 2009, an 11.2 percent decrease from 2008. However, the budget for 2009 shows utilities increasing by 5.8 percent, when compared to actual costs in 2008.

- **Other: Table 2-5** shows that the Sewer Department's other expenditures decreased by 11.3 percent ($19,067) from 2006 to 2007 and increased by 19.9 percent ($29,759) from 2007 to 2008. The significant decrease from 2006 to 2007 was due to decreases in the Department's insurance (i.e., property / liability) and consultant fees. The significant increase from 2007 to 2008 was due to increases in the Department's insurance and state examiner fee. Based on year-to-date expenditures through July 31, the Sewer Department is on track to spend $201,376 on other in 2009, a 12.2 percent increase from 2008. The budget for 2009 shows other expenditures increasing by 14.7 percent, when compared to actual other costs in 2008.

- **Operation and Maintenance: Table 2-5** shows that the Sewer Department's operation and maintenance decreased by 43.7 percent ($108,630) from 2006 to 2007 and increased by 30.2 percent ($42,234) from 2007 to 2008. According to the City Auditor, all Sewer Department equipment needs are allocated to this line-item, including vehicle repair and computer hardware. Based on year-to-date expenditures through July 31, the Sewer Department is on track to spend $176,284 on operations and maintenance in 2009, a 3.2 percent decrease from 2008. The budget for 2009 shows operations and maintenance expenditures decreasing by 17.5 percent, when compared to actual operations and maintenance costs in 2008.

- **Equipment Replacement: Table 2-5** shows that the Sewer Department did not record any expenditure after 2006. According to the City Auditor, this line-item was associated with the City's agreement with Trumbull County (i.e., related equipment purchases).

- **OWDA Loan: Table 2-5** shows that the Sewer Department's OWDA loan decreased by 44.7 percent ($216,274) from 2006 to 2007 and decreased by 81.0 percent ($216,479)

from 2007 to 2008. The City's Sewer Department had two loans from the OWDA; the greater of which was paid off in 2007. The remaining OWDA loan, with an outstanding balance of $24,620, is scheduled to be paid in full by 2017.

- **Overpayment Reimbursement: Table 2-5** shows that the Sewer Department's overpayment reimbursement increased by 100.2 percent ($35,304) from 2006 to 2007 and decreased by 81.0 percent ($57,154) from 2007 to 2008. According to the City Auditor, this line-item reflects billing errors that the City's customers have brought to the Water Department's attention and that have been assessed as inaccurate (i.e., reimbursements to customers) (see **R3.6**).

During a review of the City's prior performance audit that was released in 2002, AOS noted the City's total expenditures were $1,580,100 in 2000. Based on the City's 2008 total Sewer Fund expenditures of $1,442,742, the City's total expenditures decreased by 8.7 percent from 2000 to 2008. Additionally, the City budgeted for the Sewer Department to expend $1,505,255 in 2009. Based on annualizing the City's year-to-date figures through July 31 for 2009, the City is expected to spend $1,667,819 or 10.8 percent more than the budgeted figure. However, the City's Sewer Department revenue is also on pace to exceed the budgeted amount for 2009, due primarily to charges for services. The difference between annualized revenues and expenditure, including the beginning fund cash balance,[5] is projected to leave the City with additional cash of $446,301 at the end of 2009; however, this projection assumes a continuation of revenues and expenditures at a constant rate to what was experienced through the first seven months of 2009. As previously noted, it may be difficult for charges for services to maintain the same level of collections experienced in the first seven months of 2009, for the remaining five months.

[5] Girard's Sewer Fund had a beginning fund cash balance of approximately $59,759 for 2009.

Audit Objectives

The following is a list of questions used to evaluate the City's Water and Sewer Departments:

- What has been the Water and Sewer Departments' financial and operational history?
- Do the Water and Sewer Departments maintain appropriate staffing levels based on relevant workload measures?
- What is the City's cost to purchase water, how do the City's water and sewer rates compare to costs, and how effective is the City's rate setting process?
- How efficient and effective is the meter reading, billing, and collection process?
- Do the Water and Sewer Departments have appropriate strategic planning processes in place?
- Do the Water and Sewer Departments maintain, and plan to replace, capital resources as appropriate?
- What is the implementation status of the recommendations from the 2002 performance audit (see **Appendix**)?

Assessments Not Yielding Recommendations

The assessment of the Sewer Department's staffing levels did not warrant changes or yield recommendations. See **Table 2-4** and the related discussion for additional detail.

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RECOMMENDATIONS

Recommendations

This section of the performance audit presents the recommendations and related assessments on the City of Girard's (Girard or the City) Water and Sewer Departments' operations. The Water and Sewer Departments' operations were assessed against leading or recommended practices, industry benchmarks, and selected peer cities.[1] Sources of leading or recommended practices and industry standards include the Ohio Environmental Protection Agency (EPA), *Municipal Benchmarks: Assessing Local Performance and Establishing Community Standards* (Ammons, 2001), the New Mexico Rural Water Association, the American Water Works Association, and the Government Finance Officers Association (GFOA).

Data Reliability

R3.1 Girard should implement measures to ensure data in the Water and Sewer Departments is reliable for decision-making purposes, including consistently managing data and reviewing the reliability of such data. For instance, the Water and Sewer Departments should accurately record all information (e.g., amount of water purchased, and amount of water and sewage billed). In addition, the Service Director should work with the City Auditor in reconciling and reviewing the trial balance reports for accuracy.

As noted in the 2007 financial audit, Girard should complete a bank to book reconciliation on a monthly basis. The reconciliation should be reviewed and approved by the City Auditor. Reconciling items should be adjusted at the time the item or error is discovered and the discrepancy is resolved. As also noted in the 2007 financial audit, the City Auditor should monitor disbursements to ensure overspending does not occur and that monies are being used for the purpose for which the funds were established. Lastly, improving the meter reading process (see R3.5) and billing procedures (see R3.6) would help improve data accuracy.

As a cost savings measure, the City decided to eliminate meter reader positions in December 2001. As a result, the City's 2006 financial audit noted weaknesses in the utility billing and collection cycle of the City. Specifically, the financial audit indicted that utility customers are responsible for self-reporting usage. If the customer fails to report their usage as required, the Utility Department response was to issue bills that would reflect usage that was significantly higher than a reasonable estimate of use based on prior billings. These weaknesses contributed to AOS being unable to obtain reasonable assurance with regards to the accuracy, completeness, and existence of the

[1] See the **executive summary** for a list of the peer cities and an explanation of the selection methodology.

Utility Department's charges for services and accounts receivable. AOS concluded that there was a lack of sufficient competent evidential matter relating to operating revenue reported in the Water Fund and Sewer Fund for the year ended December 31, 2006. Additionally, AOS recommend the City establish more reliable procedures which would enable it to accurately bill customers on an ongoing basis (see **R3.6** for additional information on utility billing). The procedures may include using increased technology, such as electronic meter reading (see **R3.5** for additional information on meter reading technology).

The City's 2007 financial audit included a repeat finding from the above 2006 financial audit (Finding Number 2006-003). Additionally, the 2007 financial audit included the following finding:

- Ohio Revised Code Section 5705.10 states that money paid into any fund shall be used only for the purpose for which the fund is established. As a result, a negative fund balance indicates that money from one fund was used to cover the expenses of another fund. At various times throughout the fiscal year, the City had several funds which had deficit fund balances. At December 31, 2007, the Water Revenue Fund and Sewer Rental Fund had the negative cash fund balances totaling $339,441 and $92,817, respectively. AOS recommend that the City Auditor monitor disbursements to ensure overspending does not occur and to assure monies are being used for the purpose for which the funds were established.

- The City was unable to reconcile the bank to book balance throughout 2007. The bank reconciliation is performed by the Finance Clerk and reviewed by the City Auditor. It was noted that while the City Auditor reviews the monthly reconciliations, there is no evidence of his review. In addition, the City's accounts were not fully reconciled from August through December 2007 until March 2009. In 2009, the City Auditor reconciled the accounting records to the bank account and the City posted the corresponding reconciling factors to the City's financial statements. Total adjustments necessary were approximately $87,140.

During this performance audit, a review of the City's Water Fund and Sewer Fund financial data for 2006 and 2007 revealed the following:

- *Water Revenues:* The City's trial balance total revenues for the Water Fund differed from the 2006 and 2007 financial audits by 9.4 and 15.4 percent, respectively.

- *Water Expenditures:* The City's trial balance total expenditures for the Water Fund differed from the 2006 and 2007 financial audits by 0.1 percent and 2.6 percent, respectively.

- *Sewer Revenues:* The City's trial balance total revenues for the Sewer Fund differed from the 2006 and 2007 financial audit by 7.7 and 24.7 percent, respectively.

- *Sewer Expenditures:* The City's trial balance total expenditures for the Sewer Fund differed from the 2006 and 2007 financial audits by 23.4 and 7.9 percent, respectively.

The City Auditor was unable to explain the differences in Water revenues, and Sewer revenues and expenditures[2]. However, the City Auditor noted that there was an encumbrance of $5,581 reported in 2007 (Water Fund), which misstated the beginning fund balance in 2008. Additionally, the 2009 Sewer Fund beginning cash balance ($63,671) did not reconcile to the 2008 ending cash balance ($59,759). The City Auditor confirmed that this is due to encumbrances of $3,912 in 2007 which were recorded incorrectly (i.e., the 2008 beginning cash balance was misstated). The City Auditor noted that in 2007, the clerk who normally closes out the City's books was unable to do so because of a health-related absence. As a result, the City Auditor let one of the other less experienced clerks close out the books and errors were made that affected the City's 2007 and 2008 financial statements. The City Auditor noted that the above problems were addressed by the City and that 2009 financial statements will be accurate.

Areas of inaccurate or insufficient data tracking/recording for the Water and Sewer Departments include the following:

- Water purchased from suppliers in July of 2008 (not recorded due to water main breaks);
- Water sold to customers in 2006 (four months of missing data);
- Water sold to customers in 2007 (incorrectly recorded the amount of water sold in October); and
- Water sold and sewage treated in February 2008 (not recorded due to extended illness).

Due to the aforementioned factors taken collectively and the financial audit for 2008 being in progress and therefore unavailable for comparison purposes during the performance audit, the reliability of financial data from the City's trial balance reports is questionable. However, the likelihood that using the financial data would adversely impact the conclusions in this performance audit appears to be minimal for the following reasons, with the exception of the overtime assessment (see **R3.13**):

[2] Based on the insignificant variances in Water expenditures, explanations were not sought.

- The findings in the 2006 and 2007 financial audits, in regards to the financial statement opinion for Water and Sewer Funds, affect only revenues. Revenues are only used for trend comparison purposes in the **Background** section (see **Tables 2-2** and **2-5**).

- The trend comparisons in **Tables 2-2** and **2-5** contain explanations for certain variances in revenues and expenditures, which serve as an added test of data reliability.

- The trial balance/financial audit variances in the Water Department's expenditures are insignificant (0.1 and 2.6 percent).

- The trial balance/financial audit variance in the Sewer Department's expenditures of 7.9 percent in 2007 would not alter the conclusions derived from the rate comparisons in **Table 3-6**.

Additionally, although the data was unable to be corroborated with a secondary source, the performance audit attempts to account for the aforementioned data concerns regarding water purchased, sold and treated through various methods of estimation, with the exception of water sold in 2006 (see **R3.3** and **R3.4**). However, the number of gallons billed is skewed by the City's meter reading process and related billing practices because the number of gallons billed does not reflect actual consumption (see **R3.5** and **R3.6**). Lastly, Girard was unable to corroborate the following information used in the performance audit:

- Water Department: gallons purchased and billed, miles of water line, and the number of water accounts; and
- Sewer Department: gallons treated and billed, miles of sewer line, number of sewer accounts, average flow in million gallons, and design flow in million gallons.

Staffing Assessment[3]

R3.2 Girard should take measures to ensure the reliability of its operating data (see R3.1) and subsequently review its staffing levels in the Water Department, particularly the operations staff. When doing so, Girard should consider factors that can impact staffing levels. Such factors include installing remote meters versus altering current methods of obtaining and verifying utility usage information (see R3.5); completing utility billing internally versus outsourcing (see R3.6); identifying true water loss

[3] The review of staffing levels in the Sewer Department did not yield a recommendation (see **Background and Audit Objectives** section).

(see R3.4); and developing a strategic, capital improvement, and preventive maintenance plans (see R3.8, R3.10, and R3.11, respectively). The outcome of the City's staffing analysis should be incorporated into the budgeting process (see R3.9) to ensure the City has sufficient funds to support its Water Department staffing needs. Thereafter, Girard should annually review staffing levels to account for potential changes in the Department's workload and/or operations. Lastly, if the Foreman is still the only employee with a water operator license, Girard should consider providing the opportunity for the Water Department's operations staff to obtain a water operator license. This would provide back-up and assistance to the Foreman, especially when he is absent.

Table 3-1 compares the Water Department's staffing levels to the peer cities. Canfield is similar to Girard in that all water distributed to customers is purchased from surrounding suppliers. However, Cambridge and New Philadelphia maintain staff to produce and purify water prior to customer distribution. For the purposes of this analysis, these staff members are excluded from Cambridge and New Philadelphia.

Table 3-1: Water Department Staffing Comparison

	Girard	Cambridge	Canfield	New Philadelphia	Peer Average[1]
Administrative Support and Utility Billing Staff					
Management / Director[2]	0.1	0.4	0.3	N/A	N/A
Office Manager/Superintendent / Administrator[3]	1.0	0.4	N/A	1.0	0.7
Clerical	N/A	0.4[4]	N/A	N/A	N/A
Billing	2.0[5]	1.5	0.5	3.8	2.6
Meter Reader	0.7	1.0	0.5	2.0	1.5
Servicemen	1.0	N/A	N/A	N/A	N/A
Total Administrative Support and Utility Billing FTEs	**4.8**	**3.7**	**1.3**	**6.8**	**5.3**
Operations Staff					
Foremen	1.0	1.0	N/A	N/A	N/A
Maintenance / Labor Staff	3.0	6.0	1.0	7.7	6.8
Total Operations FTEs	**4.0**	**7.0**	**1.0**	**7.7**	**7.3**
Total Water Department Staff	**8.8**	**10.7**	**2.3**	**14.5**	**12.6**
Staffing Ratios					
Total Number of Water Accounts[6]	7,119	6,179	3,074	7,657	6,918
Water Accounts per Administrative Support and Utility FTE	**1,483**	**1,659**	**2,402**	**1,129**	**1,394**
Total Miles of Water Line[6]	180.0	100.0	48.5	102.7	101.3
Miles of Water Line per Operations FTE	**45.0**	**14.3**	**48.5**	**13.4**	**13.8**
Administration & Support % of Total FTEs	**54.5%**	**34.7%**	**56.1%**	**46.9%**	**40.8%**
Operations % of Total FTEs	**45.5%**	**65.3%**	**43.9%**	**53.1%**	**59.2%**
Total Housing Units (2000 Census)	4,988	5,557	3,062	7,830	6,694
Housing Units per Total FTE	**567**	**518**	**1,343**	**542**	**530**
Housing Units per Administrative Support and Utility Billing FTE	**1,039**	**1,492**	**2,392**	**1,155**	**1,323**
Housing Units per Operations FTE	**1,247**	**794**	**3,062**	**1,020**	**907**

Source: Girard, peers, U.S. Census

[1] Canfield was excluded from the peer average due to operating a Public Works Department that includes water responsibilities. While **Table 3-1** reflects the time spent on water activities, this time is based only on verbal estimates. Furthermore, although unrelated to Water Department operations, Canfield does not operate a wastewater treatment facility, in contrast to Girard, Cambridge and New Philadelphia (see **Table 2-4**).

[2] This classification represents administrators outside of the Water Department allocating time to the Water Department, which includes Girard's Service Director, Cambridge's Engineer, and Canfield's City Manager and Finance Director.

[3] This classification represents staff that are responsible for overseeing the day-to-day operations of the Water Department.

[4] This represents the time the Administrative Assistant completes tasks for Cambridge's the Water Department. The Administrative Assistant's time is allocated to the Water Department in the same manner as the City Engineer's time.

[5] Girard's Water Department is responsible for commercial and residential water and sewer department billing. During the course of the audit, the Sewer Department put the infrastructure in place to begin processing and billing Trumbull County for outside sewer treatment services. These duties are to be assumed by the Department's clerk.

[6] Due to the lack of corroborating information, AOS was unable to verify Girard's and the peers' number of water accounts and miles of water line information. Information from the 2002 performance audit and City Engineer call into question the reliability of the figure of 180 for miles of water line.

As shown in **Table 3-1**, the Water Department has 8.8 total FTEs which is 1.5 FTEs lower than the 2000 staffing level of 10.3 FTEs. **Table 3-1** also shows that Girard's overall staffing level is lower than the peer average, 8.8 FTEs compared to 12.6 FTEs. Additionally, **Table 3-1** shows that while Girard maintains fewer housing units per administrative support and utility billing FTEs than the peer average, it has a higher number of water accounts per administrative support and utility billing FTE when compared to the peer average.

Table 3-1 also shows that Girard maintains over three times more miles of water line per total operations FTE than the peer average, indicating the Girard's operations staff handles larger workloads than Cambridge and New Philadelphia. Likewise, the City's number of housing units per operations FTE is higher than the peer average. These higher ratios are further supported by the allocation of FTEs. Specifically, **Table 3-1** shows that Girard's operations FTEs comprise 45.5 percent of total FTEs, which is much lower than the peer average of 59.2 percent. The Foreman noted that at one point in time, the City employed 8.0 operations FTEs.

The Ohio EPA, in its *Water Department Sanitary Survey* (2005) found that Girard's Water Department is very short on personnel. The survey noted that the number of personnel employed by Girard's Water Department is about the same as for water system about half the size. While it is understood that economic hardship may lead to the under-funding of some city departments, the results of the under-funding may actually cost the City more money in the long-run, by cutting back on routine preventative maintenance and focusing on emergency maintenance. Emergency maintenance usually costs more. The Ohio EPA specifically recommended that Girard determine realistic personnel needs for the water system based on maintenance and sampling goals. In the 2008 *Sanitary Survey,* the Ohio EPA recommended that a realistic assessment of the maintenance needs of the water department should be determined and additional personnel hired if necessary. Additionally, the Ohio EPA encouraged Girard to hire additional personnel and to provide the opportunity for employees to obtain a water operator license.

The lower operations staffing levels can contribute to the City's reactive approach to addressing maintenance needs, rather than using a planned preventive maintenance approach (see **R3.10**). Additionally, the City has not established strategic and capital improvement plans that outline realistic goals, objectives, or priorities for maintaining the City's water infrastructure (see **R3.8** and **R3.11**). The lack of these planning activities contributed to Girard addressing major infrastructure repairs (see **R3.13**).

Rate Structure

R3.3 The City should maintain current contracts with its water suppliers and seek to update them with provisions that formally require water suppliers to provide justification for increases to water rates. Additionally, Girard should review both the ordinance covering sewer rates and industry standards about rate-setting processes and various rate structures. Subsequently, the City should develop a formal rate-setting methodology, and related policies and procedures for its water and sewer rates. Once established, Girard should review its water and sewer rates on an annual basis to avoid significant increases to customers.

As a part of the methodology and general rate-setting process, the City should first ensure cost-effective operations. It should also consider all current and future costs based on gallons purchased, treated and billed, including proper system maintenance (see R3.10) and capital improvement planning (see R3.11). In addition, Girard should ensure the reliability of financial and operating data, and accurately track all data necessary to reliably determine rates, such as actual customer consumption for billing purposes, breakdowns of inside versus outside gallons billed, and the number of customers receiving the discounted rate (see R3.1, R3.5 and R3.6). Tracking gallons billed inside and outside the City would also help ensure the purchase of the appropriate amount of water from the most appropriate supplier. Furthermore, the City should take steps to address unaccounted for water (see R3.4) and delinquencies (see R3.7), which will be necessary in its rate-setting process. Because water rates generate the funds to operate the Water Department, any changes in the rates should include City Council involvement and approval.

After Girard completes its review of rates, the Service Director should contact the EPA to determine whether the submission of its rate review would enable the City to obtain funding from the State Revolving Fund for a meter replacement project (see R3.5). Moreover, the City should establish a customer education program to communicate its rate methodology and related process, as well as its justification for potential rate adjustments. This would help increase transparency between the City and its stakeholders. Lastly, Girard should reevaluate is water rates every time suppliers increase the price of water purchased.

Water Rates

Girard does not have a comprehensive methodology for setting rates for water customers and actual practices are not formalized. More specifically, the City does not have a formal budgetary process (see **R3.9**) and does not complete capital improvement or strategic planning (see **R3.11** and **R3.8**, respectively) to aid in determining future water rates. Additionally, the City's current rate-setting process does not account for the costs

associated with proactively performing regular system maintenance and planning for needed upgrades to its water system infrastructure, properly reading meters to ensure accuracy of customer water usage, and the impacts of water loss (see **R3.10**, **R3.11**, and **R3.4**, respectively). Lastly, the City does not assess efficiency and effectiveness of its water service to determine if there may be cost reductions that could impact current rates. Instead, the City raises water rates when it needs a short-term increase in cash to cover projected deficits in the Water Fund.

Girard purchases its water from three surrounding suppliers; the City of Niles, the Village of McDonald, and the City of Youngstown. The City maintains a contract with each of the suppliers, but two of the three contracts are currently expired. The water supplier contracts detail the cost per thousand gallons of water to be purchased and the amounts of water that Girard can purchase. However, the suppliers have the ability to increase the price charged to Girard without providing documented justification for the rate adjustment. For example, when Youngstown increases its water rate to "inside city users", that same percentage increase is then passed on to Girard without justification. According to the Service Director, the City absorbs the higher costs associated with suppliers' increasing rates until the Water Fund can no longer afford to postpone rate increases to its customers.

Girard's water rates are approved by the City's Service Director. Although Girard's Service Director approves the City's water rates, Cambridge and Canfield's water rates are approved by their City Councils.

Table 3-2 shows Girard's water rate per 1,000 gallons (inside and outside) to its customers compared to the cost of purchasing 1,000 gallons from the three suppliers.

Table 3-2: Girard and Supplier Water Rates (per 1,000 gallons used)

	Girard[1]		Niles		Youngstown		McDonald	
Year	Customer Rate Inside (<10,000 & >10,000 gallons) – Outside	% Increase	Supplier Rate	% Increase	Supplier Rate	% Increase	Supplier Rate	% Increase
2006	$4.75/$4.29 - $6.65	N/A	$1.72	N/A	$2.60	N/A	$2.72	N/A
2007	$5.23/$4.72 - $7.30	10.1%	$1.72	0.0%	$2.81	8.1%	$2.88	5.9%
2008	$6.28/$5.66 - $8.76	20.1%	$2.07	20.3%	$3.11	10.7%	$2.88	0.0%
2009	$6.50/$5.86 - $9.07	3.5%	$2.07	0.0%	$3.44	10.6%	$3.15	9.4%

Source: Girard

[1]Girard's inside water rates are tiered based on consumption. The higher rate is paid for each 1,000 gallons consumed up to 10,000 gallons. Consumption beyond 10,000 gallons is charged at the lower rate.

Table 3-2 shows that Girard provides a discount for high volume users by reducing the price for all water consumed over 10,000 gallons. However, Girard's suppliers do not

provide a reduced rate for higher volume water purchases. According to the Service Director, providing the reduced rate to high volume water users within city limits was an inherited practice from the previous administration. Although requested, the Water Department was unable to provide a report noting customers receiving this discounted rate. **Table 3-2** also shows for each of the four years, Niles was the least expensive water supplier; and for the last two years, Youngstown was the most expensive water supplier.

The Service Director noted that water customers outside the city limits are charged a 40 percent higher rate per 1,000 gallons used due to the infrastructure requirements necessary to pump water to those locations; as well as the costs associated with Girard's responsibility to maintain the water infrastructure outside the city limits. However, AOS was unable to locate this practice in the City's ordinances, policies, or procedures. By comparison, New Philadelphia and Cambridge both charge customers outside the city limits 50 percent more than customers inside city limits. Additionally, Canfield charges customer outside city limits 20 percent more than customers inside city limits.

Table 3-3 shows Girard's water purchases from its three suppliers for the last three years.

Table 3-3: Girard's Water Purchases from Suppliers

	Niles		Youngstown		McDonald		
Year	Gallons Purchased	% of Total	Gallons Purchased	% of Total	Gallons Purchased	% of Total	Total Gallons Purchased
2006	329,139,480	66.1%	128,132,400	25.7%	40,570,000	8.1%	497,841,880
2007	315,670,960	65.4%	126,112,800	26.1%	40,680,000	8.4%	482,463,760
2008[1]	316,379,520	64.4%	128,438,400	26.2%	46,123,636	9.4%	490,941,556

Source: Girard

[1] According to the City Auditor, Girard did not record the amount of water purchased from its suppliers in July 2008 due to numerous water main breaks. As such, AOS estimated the amount of water purchased for that month for each supplier. Specifically, AOS annualized the amount of water purchased in 2008 based on the 11 months of information.

As shown in **Table 3-3**, Girard has historically purchased the most water from Niles; Girard's lowest priced supplier. According to the Service Director, all water purchased from McDonald as well as the majority of water purchased from Youngstown is provided to water customers outside city limits. However, Girard was not able to provide a report that detailed the number of gallons billed to customers that reside inside versus outside the City.

Although Girard has a codified ordinance that notes rates and charges for sewer billing, the City's codified ordinances do not address the rate-setting process for water billing. For the most recent water rate increase (October, 2009), the Service Director, Mayor, and City Auditor collectively made the decision to increase the water rates by 3.5 percent. Based on the City Auditor's calculations, the Service Director noted that a 3.0 rate

increase was needed for the City's Water Fund to break even, and the additional 0.5 percent increase would be dedicated to capital projects and infrastructure repairs. However, the City could not provide documentation supporting this rationale. The Water Department Office Manager noted that the adjusted rate was posted on customer bills and a memo was posted on the Water Department's bill window.

The peers' ordinances note specifics related to city water rates and charges. For example, Chapter 937 (section 937.01 (c)) of New Philadelphia's ordinances notes that the rates and charges for the waterworks system shall be established by the Service Director. Additionally, Chapter 937.04 of New Philadelphia's ordinances notes that the Director of Public Service shall be authorized and directed to maintain such rates and charges for the products and services of the waterworks system as shall be necessary to pay all costs associated, including debt service and other payments related to bonds and notes issued to extend or improve the waterworks system, and in accordance with Ohio Revised Code 743.04, make any and all adjustments in such rates and charges, at any time, in order to pay all such costs and comply with rate and any other covenants of any and all ordinances or indentures of mortgage authorizing the issuance of or securing debt to finance extensions and improvements to and directed to review annually, by November 1, of each year, the operation and maintenance expenses, debt service requirements and other requirements of such waterworks system for the succeeding year, including necessary and reasonably foreseeable costs for capital improvements and based on such review, to take such action as may be necessary to adjust the rates and charge of the waterworks system effective on January of the succeeding year. Furthermore, Chapter 935 (section 935.02) of New Philadelphia's codified ordinances notes that all consumers of water and sewer outside the City limits shall be charged an additional fifty percent of the current water/sewer rate.

Chapter 51, sections 51.36 and 51.37 of Cambridge's codified ordinances specifically note the rates for inside and outside city customers. Chapter 51 also includes a section (51.38) that notes the following: "The foregoing charges in section 51.36 and 51.37 are minimum charges and not maximum charges and the City reserves the right and is obligated to increase the rate at any time should the revenues of the waterworks system prove insufficient to pay present and future operation and bonding indebtedness." Additionally, Chapter 927 (sections 927.025(a) and 977.01(c)) of Canfield's codified ordinances specifically notes the water rates to be charged to inside and outside customers for 2007 through 2009 (starting at 20,000 gallons and increasing to 220,000 gallons).

Table 3-4 provides a ten year history of Girard's water rates.

Table 3-4: Ten Year History of Girard's Water Rates

Year	Customer Rate Inside (<10,000 gallons and >10,000 gallons) – Outside[1]	Percent Increase
2000	$4.06/$3.66 - $5.12	0.0%/0.0% - 0.0%
2001	$4.06/$3.66 - $5.12	0.0%/0.0% - 0.0%
2002	$4.34/$3.92 - $6.07	6.9%/7.1% - 18.6%
2003	$4.34/$3.92- $6.07	0.0%/0.0% - 0.0%
2004	$4.34/$3.92 - $6.07	0.0%/0.0% - 0.0%
2005	$4.75/$4.29 - $6.65	9.4%/9.4% - 9.6%
2006	$4.75/$4.29 - $6.65	0.0%/0.0% - 0.0%
2007	$5.23/$4.72 - $7.30	10.1%/10.1% - 9.8%
2008	$6.28/$5.66 - $8.76	20.1%/19.9% - 20.0%
2009	$6.50/$5.86 - $9.07	3.5%/3.5% - 3.5%

Source: Girard

[1] Girard's inside water rates are tiered based on consumption. The higher rate is paid for each 1,000 gallons consumed up to 10,000 gallons. Consumption beyond 10,000 gallons is charged at the lower rate.

As shown in **Table 3-4**, Girard has increased water rates in each of the last three years. The most recent rate increase went into effect October 1, 2009, due to the Youngstown raising the price of its water supplied. According to the Service Director, water rate increases are not formally announced and/or explained to Girard water customers. **Table 3-4** also shows that Girard prefers to significantly increase rates every few years, instead of providing small increases on a yearly basis. According to the Service Director, Girard waits until a deficit is projected in the Water Fund before considering rate increases for its customers. Once the projected deficit in the Water Fund is calculated, Girard increases water rates to generate enough revenue to offset the estimated deficit. However, the projected deficit considered during the rate adjustment process does not include all factors associated with the true operating costs of providing water to its customers (see **R3.10**, **R3.11** and **R3.4**).

Table 3-5 displays Girard's Water Fund revenues and expenditures for 2006 through 2008 on a per 1,000 gallons of water purchased and a per 1,000 gallons of water billed basis.

Table 3-5: Water Revenue and Expenditures Purchased/Billed

Category	2007	2008
Total Expenditures per 1,000 Gallons Purchased	$6.01	$5.73[1]
Total Expenditures per 1,000 Gallons Billed	$6.95[2]	$7.59[3]
Customer Rate Inside[4]	$5.23 / $4.72	$6.28 / $5.66
Customer Rate Outside	$7.30	$8.76

Source: Girard City Auditor and Girard Water Department Office Manager.
Note: Gallons billed and purchased were unable to be corroborated with a secondary source.
[1] According to the City Auditor, Girard did not record the amount of water purchased from its suppliers in July 2008 due to numerous water main breaks. As such, AOS estimated the amount of water purchased for that month for each supplier by annualizing the amount of water purchased in 2008 based on the 11 months of information.
[2]The 2007 total gallons of water billed includes a revised amount of gallons billed in October 2007. The City inaccurately recorded the total number of gallons billed for October, but was able to provide the corrected figure.
[3] The Water Department Office Manager noted that water billing information was not generated during February, 2008, due to an extended absence in the Water Department. As such, the 2008 total gallons of water billed includes an estimated amount of gallons billed in February, which is a moving account month. Specifically, AOS estimated the figure based on the average amount of water billed during the other moving account months (April, June, August, October, and December).
[4]Girard's inside water rates are tiered based on consumption. The higher rate is paid for each 1,000 gallons consumed up to 10,000 gallons. Consumption beyond 10,000 gallons is charged at the lower rate.

Table 3-5 shows that the City's inside rates were lower than the expenditures per 1,000 gallons purchased and per 1,000 gallons billed in 2007, while the outside rate was higher than these cost ratios. Although the City's inside rate under 10,000 gallons consumed and outside rate were higher than the expenditures per 1,000 gallons purchased in 2008, both inside rates were lower than the expenditures per 1,000 gallons billed. This is due, in part, to the unaccounted for water in 2008 (see **R3.4**). However, the ratio of expenditures per 1,000 gallons billed and unaccounted for water are skewed by the City's meter reading process and related billing practices because the number of gallons billed does not reflect actual consumption (see **R3.5** and **R3.6**).

The Ohio EPA, in its *Water Department Sanitary Survey* (2005), found that the City should examine water rate structures and determine if the water department revenue is self sustaining of the water systems budget. In the 2008 *Sanitary Survey,* the Ohio EPA recommended that the City continue to maintain comparable rate adjustments to ensure adequate cost recovery for the water system. Revenues should continue to be directed towards a sustainable operations and maintenance budget, work crew, and capital improvements to the system. Also contained in the 2008 EPA report was evidence that the City has not properly conducted a formal review of its water rates:

> "We briefly discussed the eligibility of Girard to receive money from the State Revolving Loan Fund (SRF) for the meter replacement project. Several large water systems in Northeast Ohio were able to take advantage of the SRF program for their meter replacement projects. The "pre-application" for the State

> Revolving Loan Fund can be found on the Ohio EPA website. To be eligible for the SRF loan you must provide a copy of your current rate study to this office. I was unable to obtain a copy of your current rate study at the time of the survey."

During the course of the audit, AOS confirmed that the City has not completed a formal rate study.

Sewer Rates

Girard's Sewer Department provides wastewater treatment services to both residential and industrial / commercial customers in the City, as well as to four metered areas within Trumbull County[4].

Inside the City of Girard

The City's sewer rate is established by ordinance of the City Council in accordance with ORC § 729.49. Girard has a chapter (933) within its ordinances that discusses sewer rates and charges. Specifically, ordinance 933.03 outlines the process for establishing an appropriate sewer rate. According to the ordinance, the sewer rate charge is to be calculated by apportioning the Department's operating cost to all consumers based on the volume of water used and wastewater generated. Further, the operating cost shall include: operation, maintenance, equipment replacement and debt service for the wastewater disposal treatment works, plus all appropriate administrative, routine replacement, monitoring surveillance, analysis, and debt service costs. Finally, the ordinance provides for a formula-based user charge including operating cost, volume contribution, and usage per unit of time.

For 2009, Girard's sewer rate for inside customers is $4.38 per 1,000 gallons of water used. This same rate has been in place since 2002 when it was passed by ordinance of the City Council. The 2002 rate increase was not based on the previously outlined formula; rather, the ordinance states that the increase was "in accordance with recommendations from the State of Ohio Performance Audit."

Outside the City of Girard (Trumbull County)

Girard provides wastewater treatment services to a portion of Trumbull County and has done so since a formal contract was originally approved by both parties in 1967. The City and County have a formal agreement in place which is in effect through December 31, 2020. Per the formal agreement, Girard provides Trumbull County with an annual cost

[4]The four areas include: Weathersfield Sanitary Sewer Subdistrict No. 1, Hubbard-Liberty Sanitary Sewer Subdistrict No. 3., Shannon Road Pit, and Secrest Pit.

per million gallons of wastewater treated and the County provides the City with monthly records of metered wastewater flow.

The annual statement of cost per million gallons is developed by the Acting Superintendent, but the Service Director also provides input to ensure that all appropriate costs have been allocated when calculating the Trumbull County rate.

Table 3-6 shows Girard's Sewer Department cost of wastewater treated, cost per gallon billed, and rates.

Table 3-6: Girard's Sewer Cost and Rate Comparisons

	2007	2008
Cost of Wastewater Treated per 1,000 Treated Gallons	$1.68[1]	$1.31
Cost of Wastewater Treated per 1,000 Billed Gallons[2]	$2.92[1]	$2.16[3]
Inside Treatment Rate per 1,000 Gallons	$4.38[1]	$4.38
Outside Average Rate per 1,000 Gallons[4]	$1.31	$1.26

Source: Girard and Trumbull County
Note: Gallons billed and treated were unable to be corroborated with a secondary source.
[1] Using the expenditures from the 2007 financial audit would not alter the conclusions derived from **Table 3-6**. See **R3.1** for more information.
[2]Total wastewater billed is the sum of Trumbull County metered flow and Girard's inside billing and could not be corroborated (see **R3.1** for further information).
[3]The Water Department Office Manager noted that water billing information was not generated during February, 2008 due to an extended absence in the Water Department. As such, the 2008 total gallons of sewer billed includes an estimated amount of gallons billed in February, which is a moving account month. Specifically, AOS estimated the figure based on the average amount of water billed during the other moving account months (April, June, August, October, and December).
[4]Girard bills Trumbull County based on monthly metered flow. The average rate reflects the average rate per million gallons for each month of the year.

As shown in **Table 3-6**, Girard's cost of wastewater treated and billed is much lower than the inside rate per 1,000 gallons in each year. However, **Table 3-6** also shows that Girard's cost of wastewater treated is higher than the outside average rate per 1,000 gallons in each year. This is primarily due to the OWDA Loan (see **Table 2-5**) in which costs are shared between Trumbull County and the City. Similarly, the County would likely not agree to include expenditures that were reimbursements to Girard's customers because the City overbilled them for consumption[5] (see **Tables 2-2** and **2-5**, and **R3.6**) When excluding the OWDA loan and reimbursements to customers, the City's cost per 1,000 gallons treated drops to $1.35 in 2007 and $1.25 in 2008. While the cost is approximately four cents higher than the outside rate in 2007, it is approximately only one cent lower than the outside rate in 2008. Therefore, assuming the City billed and

[5]**Tables 3-8** and **3-10** reflect total expenditures including the customer reimbursements. However, these reimbursements comprised less than six percent of the total respective water and sewer expenditures in 2007, and less than one percent of total respective water and sewer expenditures in 2008.

collected all of the gallons treated for Trumbull County (see **R3.6** and **R3.7**), it would have recouped all of its costs in 2008 and almost all of its costs in 2007. Nevertheless, Girard does not complete a rate analysis to determine if the inside and outside rates are sufficient to cover all operating expenditures. Furthermore, similar to **Table 3-5**, the ratio of expenditures per 1,000 gallons billed is skewed by the City's meter reading process and related billing practices because the number of gallons billed does not reflect actual consumption (see **R3.5** and **R3.6**). This also impacts the calculation of unaccounted for water, which can contribute to the variance in costs for gallons treated and billed (see **R3.4**).

According to *Financial Planning: A Guide for Water and Wastewater Systems* (Guidebook) (New Mexico Rural Water Association (NMRWA), 2006[6]), a well-conceived rate structure is the foundation of a well-run utility system. The ideal rate structure for a particular system is equitable and generates sufficient revenues. A utility's good reputation depends on, among other things, its customers' confidence that their use fees are reasonable and equitable. Some of the basic rate structure principals described in the Guidebook include:

- Charging the full cost to deliver the service ensures the system's financial health by protecting the system's ability to provide its service now and into the future.
- Rates should be adequate and equitable. Adequate means the rates generate sufficient income to cover the full cost to operate the system and equitable means that each class of customer is paying its proportional share of the costs directly influenced by their consumption and/or benefit they are receiving.
- The rate structure should be explained to the utility customers. Customers will be more receptive to rate changes if they understand how rates are related to covering the full cost of the service received. Rates should be posted and customers should be sent a rate schedule annually and each time the rates are adjusted.
- Rate changes should be fully transparent and easy to understand. In the case of a water utility, the rates should promote water conservation.
- Rates can become outdated once they are not generating the revenues necessary to cover all major expense categories and reserve set asides. For that reason, they should be examined annually during the budget development process to determine if it is time to "adjust" them.
- Annual review ensures that a system will continue to earn sufficient revenue to cover costs. Keep good records of previous years expenses and revenues and be sure to adequately fund the system's reserve accounts.

[6]This is one of three guidebooks intended to be used together as integrated tools. All three guidebooks were published in 2006 in conjunction with the Environmental Finance Center, NMRWA, and Rural Community Assistance Corporation. The other two guidebooks are entitled: *Water Use Auditing: A Guide to Accurately Measure Water Use and Water Loss*, and *Asset Management: A Guide for Water and Wastewater Systems*.

Girard's current water rate structure can be best described as a decreasing block rate. The Guidebook describes this as the price of water declining as the amount used increases. Each succeeding consumption block is cheaper. This rate structure provides advantages to high volume users. However, the disadvantages include the following:

- High water consumption increases the need for wastewater treatment facilities;
- Does not offer an incentive to conserve water; and
- It is complex to determine and administer.

The Guidebook also describes the uniform rate or single block rate structure. This is where customers are charged a uniform rate per unit of water (per 1,000 gallons, per cubic feet) regardless of the amount of water used; often coupled with a minimum monthly charge. A disadvantage to this rate structure is it has the ability to discourage high volume users. However, the single block rate structure has the following advantages:

- Easy to administer;
- May encourage water conservation; and
- Cost to the customer is in direct proportion to the water consumption

The Guidebook also describes the increasing block rate structure. This is where the price of water increases as the consumption increases. Although this system requires a computerized billing system, the advantages to the increasing block rate structure are as follows:

- Promotes water conservation;
- Provides a reasonable amount of water at reasonable price;
- May discourage high volume use.

The Guidebook provides two overall rate increase strategies to consider:

- Small increases are always better than large increases.
- Scheduled small increases are even better. Do not wait until the system is in deep financial trouble or the pump goes out to start thinking about a rate increase.

The Guidebook continues to advocate for customer education in order to gain support from stakeholders. When a rate increase is implemented, customers want and need to know why. It is critical for customers to understand and appreciate what it takes to operate and maintain a utility system. Customer education should be an ongoing part of a system's operation. A utility system belongs to the customers. One of the best times to educate customers is during the annual budget development process. Notify the public when working on the budgets. Post notices inviting them to attend budget meetings.

Transparency is very important to gaining customer support. The more customers know about what it takes to provide services they take for granted, the more likely they will be to support a rate increase, if necessitated. Customers are much more likely to be supportive if they know specifically how their fee will be used. Given the amount of work put into determining equitable rate structures to cover all operational costs, they should feel confident their rate structure is based on accurate figures, facts and fairness.

Principles of Water Rates, Fees, and Charges [American Water Works Association (AWWA), 2000] notes that in providing adequate water service to its customers, every water utility must receive sufficient total revenue to ensure proper operation and maintenance, development and perpetuation of the system, and preservation of the utility's financial integrity. The adequacy of water revenues can be measured by comparing revenue requirements to be met from rates with revenues under existing or authorized rates. Additionally, for a utility to be self-sufficient, the utility must recover its full revenue requirements on an ongoing basis. Such revenue requirements include operating and maintenance expenses which are the prudent and necessary costs to operate and maintain lines, pumping, transmission, and distribution facilities, and the cost of customer service and administrative and general expenses. In addition to operation and maintenance, administrative, and general expenses, capital-related costs should also be met. Specifically, capital-related costs include debt principal and interest, contributions to specific reserves, and the cost of capital expenditures that are not debt-financed or contributed.

AWWA further notes that a water rate structure is a fee schedule or fees designed, among other things, to recover the utility's costs. Rate structures vary from utility to utility, but generally include three elements. First, a rate structure should include the consideration of the classifications of customer services (i.e., residential, commercial, and industrial). Second, the rate structure should establish the frequency of billing. Third, the rate structure should identify the charges or schedule of charges each classification of customer will be assessed. It is the final element of a rate structure, the schedule or charges, on which utilities and customers tend to focus. For water utilities that use a cost-of-service approach, the level of the utility's rates is a function of the utility's costs and customer demands. The design, however, is a function of many diverse and sometimes competing objectives. When diverse and competing objectives are well understood and evaluated, a utility has the opportunity to design a rate structure that does more than simply recover its costs. A properly selected rate structure should support and optimize a blend of various utility objectives and should work as a public information tool in communicating these objectives to customers[7].

[7] For detailed descriptions and examples of rate-setting structures, see Chapter 10 (Uniform Rates), Chapter 11 (Declining Block Rate), Chapter 12 (Increasing Block Rate), and Chapter 13 (Seasonal Rate) of the manual.

Water Loss

R3.4 The City should maintain an accurate and complete record of all water flowing through its system. To accomplish this, City Council should pass an ordinance that addresses water loss, including the detection of causes and calculation of the amount of water loss, and master meter readings from its three suppliers to ensure readings are occurring on a routine basis (i.e., monthly) and are being verified for accuracy. Subsequently, the City should take steps to identify the factors contributing to unaccounted for water, including the following:

- **Implement an accurate metering system (see R3.5);**
- **Accurately record data (number of gallons purchased, treated and billed, unbilled authorized use, etc.) (see R3.1); and**
- **Conduct water use audits (see Table 3-8) and monitor key activity (e.g., compare the amount of billings to customers to the amount of water purchased and wastewater treated).**

Taking these steps would allow the City to more accurately determine the causes of unaccounted for water, including actual loss from infrastructure in need of repair or replacement (e.g., water main breaks). This, in turn, would help the City determine appropriate rates (see R3.3). Finally, the City should incorporate the identified infrastructure repair needs into a capital improvement plan (see R3.11).

Girard's Water Department does not maintain an accurate and complete record of all water flowing through its system, and the City's meter reading process does not reflect actual usage (see **R3.5**). As a result, the City is unable to track the amount of actual water loss or accurately determine the reasons for water loss. Regarding accurate and complete data for water flow, Girard was unable to provide a complete figure for the number of gallons purchased from its suppliers in 2008. According to the City, this was due to the large number of water line breaks in July which prevented the reading of the master meters. The Water Foreman noted that the City was not able to quantify the amount of water loss during 2008 due to the water line breaks. Additionally, the City did not track four months of water billed in 2006 and incorrectly recorded the amount of water billed in October 2007. Specifically, the City recorded 169,580 gallons billed; however, the actual billings were 16,856,000 gallons. Likewise, the amount of water billed in February 2008 was not recorded due to an extended absence of the Water Department Office Manager (see **R3.1** for an additional discussion of data reliability). Furthermore, the City could not provide supporting documentation to corroborate the monthly water consumption.

Table 3-7 shows a three year history of unaccounted for water in Girard.

Table 3-7: Historical Unaccounted for Water

Category	2006	2007	2008
Total Gallons of Water Purchased	497,841,880	482,463,760	490,941,556[1]
Total Gallons of Water Billed	312,102,000[2]	417,062,000[3]	370,440,200[4]
Difference between Gallons Purchased and Gallons Billed (Unaccounted for Water)	(185,739,880)	(65,401,760)	(120,501,356)
Unaccounted for Water as a Percentage of Water Purchased	**37.3%[2]**	**13.6%**	**24.5%**

Source: Girard City Auditor and Girard Water Department Office Manager.
Note: Gallons billed and purchased were unable to be corroborated with a secondary source.
[1] According to the City Auditor, Girard did not record the amount of water purchased from its suppliers in July 2008 due to numerous water main breaks. As such, AOS estimated the amount of water purchased for that month for each supplier by annualizing the amount of water purchased in 2008 based on the 11 months of information.
[2] The Water Department could not provide total gallons of water billed for September through December 2006. This timeframe is too large to accurately estimate; therefore, AOS used the figure provided by the Water Department Office Manager.
[3] The 2007 total gallons of water billed includes a revised amount of gallons billed in October 2007. The City inaccurately recorded the total number of gallons billed for October, but was able to provide the corrected figure.
[4] The Water Department Office Manager noted that water billing information was not generated during February, 2008, due to an extended absence in the Water Department. As such, the 2008 total gallons of water billed includes an estimated amount of gallons billed in February, which is a moving account month. Specifically, AOS estimated the figure based on the average amount of water billed during the other moving account months (April, June, August, October, and December).

Table 3-7 shows significant fluctuations in Girard's percentage of unaccounted for water. However, this is skewed by the City's billing practices (see **R3.5** and **R3.6**). In addition, the higher percentage in 2006 is primarily due to the Water Department not being able to provide billing information from September through December. **Table 3-7** also indicates that the unaccounted for percentage increased from 13.6 percent to 24.5 percent in 2008. By comparison, the Ohio EPA, in its *Water Department Sanitary Survey* (2005), recommends that water loss should be calculated on a regular basis and should not exceed 15 percent. Furthermore, based on the City's historical billing practices (see **R3.6**), the billings in **Table 3-7** could be overstated. Therefore, the actual unaccounted for water in 2007 and 2008 could be higher than 13.6 and 24.5 percent, respectively.

Girard does not have policies and procedures to identify the causes for or the amount of water loss in its system during a given timeframe. Additionally, Girard does not have formal policies and procedures to ensure that master meter readings from its three suppliers are occurring on a routine basis (i.e., monthly) and that the readings from the suppliers are verified for accuracy. For example, the Service Director explained a problem the City experienced during 2009 with a faulty master meter measuring how much water was purchased from the Village of McDonald. Due to the large increase in water purchased from McDonald, the Service Director had suspicions of water theft. Surveillance was maintained on several hydrants outside city limits to monitor unusual activity. According to the Service Director, there were several months of investigation

until it was determined that a master meter was functioning improperly. The City is currently waiting on the Village of McDonald to issue a credit for the inflated water purchases made during 2009.

The Ohio EPA, in its *Water Department Sanitary Survey* (2005), found that Girard's residential water meters are read on a "self-reporting" basis and that unaccounted for water figures are not calculated. To ensure adequate cost recovery, the City must first determine how much water is being lost in the system by calculating an "unaccounted for" water value. This is done by comparing the amount of water billed to customers to the amount of water purchased. In order to make the unaccounted for water value accurate, the City must have a good, accurate metering system. Metering ensures that customers (including the City) are accurately (and fairly) billed. Meter accuracy is usually based on the age and sizing of the meter. Water meters older than 15 years or undersized meters (such as industrial meters) may read low. This can result in revenue loss for the City. At some point it is wise for a water system to invest in meter replacement and/or repair because the costs pay for themselves in revenue recovery." See **R3.5** for an assessment of meter reading.

In the 2005 *Sanitary Survey*, the Ohio EPA recommended the following: "An unaccounted for water value should be periodically calculated by the water system. The Public Utility Commission of Ohio (PUCO) guidelines indicate that large municipal water systems should not exceed 15 percent in water loss. This is the point at which it may be beneficial for the city to invest in leak detection and repair leaks. The cost savings can often be realized if the leaks are larger and easier to find. However, when there are several leaks which are small and chronic, it may be beneficial to replace entire water mains. These are decisions which must be evaluated by the City. Nevertheless, water loss may result in added long-term expenditures, and can result in consumer expense as well."

According to *Water Use Auditing: A Guide to Accurately Measure Water Use and Water Loss (New Mexico Rural Water Association (NMRWA), 2007*[8]*),* utilities cannot reduce their water loss to zero. Some water loss is unavoidable, and it is not worth the expense to try and eliminate every drop escaping the system. NMRWA notes that most of the loss that occurs in water systems can be better managed by using a water use audit, which provides a rational, scientific framework that categorizes all water use in the system. A portion of the total water use is leakage, some of it is due to inaccurate metering, some of it may be unauthorized use, and some of it is water delivered to customers. A water use audit determines where the water ends up and how much of it got there. In addition, the

[8] This is one of three guidebooks intended to be used together as integrated tools. All three guidebooks were published in 2007 in conjunction with the Environmental Finance Center, New Mexico Rural Water Association (NMRWA), and Rural Community Assistance Corporation. The other two guidebooks are: *Financial Planning: A Guide for Water and Wastewater Systems* and *Asset Management: A Guide for Water and Wastewater Systems.*

standard water balance is the framework for categorizing and quantifying all water uses in the water use audit. It is called a balance because when it is completed, all uses of water in the system equal the amount of water input by the sources. **Table 3-8** presents a display of the standard water balance.

Table 3-8: An Overview of the Standard Water Balance

<table>
<tr><td rowspan="10">System Input</td><td rowspan="2">Authorized Use</td><td>Billed Authorized Use</td><td>Revenue Water</td><td>Billed Metered Consumption</td></tr>
<tr><td></td><td></td><td>Billed Unmetered Consumption</td></tr>
<tr><td rowspan="2">Unbilled Authorized Use</td><td rowspan="8">Non Revenue Water</td><td rowspan="2">Unbilled Metered Use</td></tr>
<tr><td rowspan="8">Water Losses</td></tr>
<tr><td>Apparent Losses</td><td>Unbilled Unmetered Use</td></tr>
<tr><td rowspan="6">Real Losses</td><td>Metering Inaccuracies</td></tr>
<tr><td>Unauthorized Use</td></tr>
<tr><td>Leakage on Mains</td></tr>
<tr><td>Overflows on Storages</td></tr>
<tr><td>Leakage on Service Connections</td></tr>
</table>

Source: NMRWA

As illustrated in **Table 3-8**, the first step in completing the standard water balance is determining System Input. NMRWA notes that determining the System Input is a very important step, because even though it is only one category, the amount of water input to the balance is half the equation. NMRWA noted that in any type of balance, outputs must equal inputs. If this number is inaccurate, all the remaining calculations be in error. NMRWA also explains that the vertical heights of each category represent a proportional amount of water. Thus, the height of System Input category represents all water pumped by the system in a given time period. This amount of water can be broken down into two additional categories, Authorized Use and Water Losses. Therefore, Authorized Use plus Water Losses equals System Input. This vertical height water measurement holds true across the entire standard water balance.

NMRWA explains some of the common causes for the categories within Non Revenue Water in **Table 3-8**. Unbilled Authorized Use is most often made up of public uses in the community. Unbilled Authorized Consumption can be water uses like irrigation of public parks, fire flow for training or emergency use, and flushing of water line by utility personnel. Water can also be consumed by treatment processes at the water or wastewater utility. Since much of this water use is in the public interest, and perhaps is consumed by

the water utility itself, it is apparent why it is not billed to anyone. These uses should be metered if appropriate, or estimated as accurately as possible.

Water loss can be equated to increased costs and/or lost revenue for the City, depending upon the actual causes of the water loss (see **Table 3-8**). Moreover, not having a system in place to accurately quantify and compare water purchased, water sold, and water loss prevents the City from adequately determining appropriate water rates (see **R3.3**).

Financial Implication: Reducing unaccounted for water could allow the City to reduce water purchases. If the City reduced unaccounted for water to 15 percent, it could save approximately $132,900 annually. This is based on data for 2008, which accounted for the percentage of water purchases attributed to each supplier. As stated previously, there is a potential that the City's actual unaccounted for water is greater than reflected in **Table 3-7**, based on historical billing practices (see **R3.5** and **R3.6**). However, due to not knowing the true billings, this financial implication is estimated at approximately $66,000 to be conservative, which is approximately half of the aforementioned amount.

Meter Reading

R3.5 Girard should conduct a cost-benefit analysis for the installation of remote read water meters for all customers versus implementing a process that provides more accurate meter readings (i.e., performing actual meter readings rather than relying on self-reported usage from customers). This analysis should account for the impact on the billing technology (see R3.6) and demonstrate the Water Fund's ability to remain solvent while either taking on the debt associated with purchasing and properly maintaining remote read water meters for all customers or incurring the costs associated with increasing the frequency of performing meter reads for all customers. Along with the costs, this analysis should account for the potential revenue impact of both alternatives. After an option has been chosen based on the cost-benefit analysis and approved by City Council, the City should formally document its meter reading process and communicate it to customers.

Taking measures to improve the accuracy of meter readings would assist the City in its rate-setting process (see R3.3), ensure customers are billed appropriately (see R3.6), and help to determine true water loss (see R3.4). Lastly, the City should incorporate water meter replacement and repair into its capital improvement plan (see R3.11), including the replacement of known malfunctioning meters.

Girard was placed into its current fiscal emergency designation in July 2001. According to the Mayor, due to Girard's financial difficulties, the City reduced all Water Department positions dedicated to meter reading that same year. The Mayor also noted that the remaining Water Department staff attempted to complete meter reading duties, in

addition to their own position responsibilities; however, they were unable to keep up with the meter reading activities. As such, the City implemented a system where its customers read their own meters on a monthly basis and report usage by using a call-in or mail-in system[9]. Although the City implemented this call-in/mail-in system, it did not formalize this process or document its meter reading procedures. In addition, the City does not have codified ordinances that support its meter reading processes or procedures.

According to the Water Department Office Manager, the water usage reported from customers through the call-in or mail-in system is not consistently checked for accuracy. Instead, the Water Department only checks the meters associated with the accounts identified as reporting drastic increases or decreases compared to historical usage. Customers not reporting water usage to the Water Department receive estimated bills generated based on historical water usage for the prior three months. The Water Department Office Manager also noted that when customers do not report monthly usage for the first three quarters of the year, the Department automatically increases the estimated usage in hopes customers will dispute the charges and start reporting their actual usage (see **R3.6**).

The Water Department Office Manager and Service Director noted that in 2008 and 2009, the City used part-time college students to perform meter reading duties during the summer months. According to the Mayor and Service Director, these part-time meter readers performed two reads during 2008 and one read during 2009. However, the Water Department Office Manager and Service Director both stated the meter reads performed by the part-time college students were not always accurate or complete.

The City's financial difficulties have hindered it from making the capital investment in remote meters for all water customers. In addition, the City does not have a capital improvement plan in place to help guide the replacement of existing meters or the purchase of new meters for all customers (see **R3.11**). The Mayor and Service Director noted that the City has considered remote meters for its residential and remaining industrial/commercial customers on many occasions. Specifically, the City attempted to move forward with legislation to purchase remote water meters in October 2008 from the same company that provided remote water meters for its industrial/commercial water customers[10]. However, the City could not prove to the State Fiscal Commission that the Water Fund would be able to remain solvent if it took on the debt associated with purchasing remote meters for all customers. Consequently, the City terminated the project. According to the Water Department Office Manager, the City has approximately 600 industrial/commercial water customers equipped with remote meters; however, 10 to 15 of these meters are known to be malfunctioning. Additionally, the Water Department

[9] The call-in/mail-in system applies to all residential customers as well as some industrial users.

[10] Based on the Fiscal Commission Meeting minutes from October, 2008; after advertising for bids, the City received one bid from a vendor for approximately $1.9 million to install remote meters.

Office Manager noted that the City provides water to approximately 100 industrial/commercial users that are not equipped with remote meters. Lastly, the Water Department Office Manager noted that no new remote water meters have been installed since the 2002 performance audit.

The City's financial audits for 2006 and 2007 noted that relying on customers to self report usage contributed to AOS being unable to obtain reasonable assurance with regards to the accuracy, completeness, and existence of the City's utility departments charges for services and accounts receivable (see **R3.1**). Specifically, the financial audits recommended the City establish more reliable procedures which would enable them to accurately bill customers on an ongoing basis. The procedures may include using increased technology such as electronic meter reading technology.

The Ohio EPA, in its *Water Department Sanitary Survey* (2005), recommended that City Administration should continue with the remote meter installation, ensure the accuracy of both residential and commercial meters, and abandon the "self read" program. Since the City purchases water from McDonald, Niles and Youngstown, it should ask to see records on the master meter calibrations and ensure accuracy of these meters, compare the amount of water billed with the amount of water purchased, and determine an "unaccounted for" water value. Additionally, in the 2008 *Sanitary Survey*, the Ohio EPA noted the following: "The City of Girard still remains on the meter self-read program due to the lack of personnel to read the meters. Additionally, aging meters tend to read low, so it is possible the meters lack accuracy. This leads to inadequate cost recovery for the City." See **R3.4** for more information on unaccounted for water.

All peers allocate staff to perform meter reading duties. Specifically, the Canfield and Cambridge read all customer water meters on a quarterly basis. The City of New Philadelphia (CNP) began upgrading to digital touchpad water meters in 1996. CNP employs two meter readers who obtain meter reads for the whole city every month using hand-held meter readers. The two meter readers prevent the CNP Water Office from having to estimate bills and allow the Water Office to generate bills monthly. The CNP meter reading technology and billing technology work directly through an interface. The CNP's Water Office runs a monthly report to check for large or unusual increases or decreases or problems with the readings collected. Notes are made on this report and service men are sent out to check specific meters if deemed necessary. Furthermore, Cambridge and New Philadelphia have ordinances that note specifics related to meter reading.

According to *Municipal Benchmarks: Assessing Local Performance and Establishing Community Standards* (Ammons, 2001), to ensure the system's financial integrity, meters must operate at a high degree of accuracy. To achieve and sustain such accuracy, many municipalities establish regular programs of testing and replacement. Decatur, Illinois,

replaces any meter exceeding ten years of age. The meter replacement policy in Hurst, Texas, calls for large commercial meters to be tested annually and replaced every one million gallons or every ten years, whichever occurs first.

The water meter reading procedures used by Girard are susceptible to incorrect and incomplete meter readings. This impacts the City's ability to prepare accurate water bills and collect the proper amount of revenues from its water customers (see **R3.6**). These factors also contribute to the City's inability to accurately account for water flowing through its system (see **R3.4**).

The City obtained a quote to purchase remote water meters in October of 2008. Based on this quote, the installation of remote meters would cost the City approximately $1.9 million. See **R3.3** for a discussion of how the cost of purchasing remote water meter equipment could be partially offset by receiving funds from the State Revolving Loan Fund to purchase this technology.

Billing and Collections

R3.6 The City should develop codified ordinances and related formal procedures to reflect its billing and collection practices, including the bimonthly utility billing cycle, the process used to estimate utility bills, and the process for collecting utility bill payments. Girard should then adhere to the ordinances and procedures. The City should modify the codified ordinances and related procedures as billing and collection practices change. Additionally, Girard should train another employee(s) to complete the billing process. This would ensure the completion of the process during times of extended absences and avoid missing billing data (see R3.1).

When the City conducts a cost/benefit analysis for the purchase of remote read meter transmitters for all customers versus implementing a manual process that provides more accurate meter readings (see R3.5), it should review the corresponding impacts on the billing software. Doing so would ensure that the billing and collection process can be performed electronically. If the City decides to increase the frequency of meter reads rather than purchasing remote read meter transmitters, the Service Director should work with the Water Department and software provider to obtain detailed information on functionality and training. This would help address the duplication of effort. Additionally, Girard should fix the faulty industrial/commercial meters (see R3.5) which would eliminate the manual work completed by the Water Department Office Manager. Lastly, the City should formally evaluate whether outsourcing part of its utility billing and collection cycle would increase efficiency, strengthen data reliability, improve customer service, and lower costs.

The Water Department generates bi-monthly bills detailing charges for both water and sewer customers[11]. The Water Department uses a combination of software and manual compilation to collect the data needed to generate bills. Water usage is collected electronically from industrial users that are equipped with remote meter transmitters. As previously discussed, not all industrial users are equipped with this technology and some of the remote meter transmitters are known to be faulty. This causes the Water Department Office Manager to manually review and adjust the readings provided by the remote meter transmitters before the information is loaded into the software program and bills are generated. The remainder of the water usage charges are generated through the use of the call-in/mail-in system (see **R3.5** for the meter reading process, including remote meters).

During February 2008, the utility billing cycle was not completed due to the absence of the Water Department Office Manager. This demonstrates vulnerability in utility billing by not having other Water Department staff trained to complete the utility billing cycle in the event of the Water Department's Office Manager's extended absence. However, the Service Director noted the Water Department employees are trying to do more cross-training, but also indicated a significant potential to further increase cross-training that would help avoid the situation in February 2008. During the course of this performance audit, Girard provided numerous documents that were developed using software other than the utility billing software. Additionally, the Water Department provided water and sewer data that was hand written. Compiling data manually and electronically results in duplicative efforts. Further, the Water Department is unaware of the full functionality in its billing software package and instead maintains internal spreadsheets. Lastly, the 2006 and 2007 financial audits identified utility billing and collections as a significant deficiency/material weakness in internal controls for the Water Department (see **R3.1** and **R3.5** and **R3.6**).

The City's Water Department has not maintained consistent bill estimation practices and the City does not have a written policy regarding its bill estimation practices. If customers fail to provide self-reported water meter readings, the Water Department generates estimated bills based on the customers' previous three month average water usage. When customers failed to provide self-reported meter readings for nine consecutive months, the Water Department's practice was to significantly increase water usage on the bills to catch the customer's attention. The intent of this practice was to have citizens dispute the increased bill and report the actual amount of water used. However, there was not a uniform methodology applied to determine the increase in water bills.

According to the City Auditor, the Water Department has since ceased the higher bill estimation practice. In addition, the City has increased its collection efforts, resumed

[11] Girard completes monthly billing for moving accounts (move-ins and move-outs)

sending delinquency notices, and begun performing water shut-offs for accounts 30 days past due. The Mayor and Service Director review the delinquent accounts on a weekly basis, send out delinquency notices, and determine when water shut-offs should be performed. However, these collection efforts are not formalized (see **R3.7**). Lastly, Girard does not have codified ordinances that support utility billing and collection practices, such as providing an overview of the bimonthly utility billing cycle; the process used to estimate utility bills for customers not providing water meter reads; and the process for collecting utility bill payments. In addition, these items are not formally documented as policies and procedures approved by either the City Service Director or City Council. When asked for documentation, the Water Department was able to provide only descriptions of its processes regarding utility billing and collections.

The City of New Philadelphia (CNP) has two meter readers that read all meters monthly (within the first fourteen days of the month). CNP increased its meter reader staffing levels (from one to two meter readers) to significantly reduce the amount of estimated bills. CNP uses a combination of manual and electronic reads, because not all CNP water customers are equipped with remote meter transmitters. CNP noted that its touch pad system allows the meter readers the ability to gather data in digital form from a sensor mounted on the outside of the home without having to gain entry. Currently, CNP is around 70 percent touchpad reading while the remaining 30 percent of meters are still read manually. CNP noted that the touchpad technology makes the meter reading process faster with fewer reading errors, and informs the Water Department of unusually high or low readings. Before the upgrade to the touchpad readings, the City would read half the meters and would estimate the other bills. The change has allowed the City to become more effective in regard to the bills generated.

Once all the billing information is compiled using the remote transmitter technology, CNP contracts with a third party to complete the remainder of the billing process. According to the CNP Water Superintendent, the billing process is now smoother than it has ever been. The third party provider controls the process of printing and sending the bills; all services are provided so the City does not have a part in the process after creating the bills. The third party provider also allows for more communication with the residents because the company will include one extra piece of paper per mailing, so the City can send different fliers to inform the residents of events and health notifications.

According to section 932.07 of New Philadelphia's ordinances, "All meters shall be read with a frequency as determined by the Service Director of New Philadelphia. All bills shall be billed monthly and all bills shall be payable within 15 calendar days after the bill is rendered." Canfield has a water ordinance (section 926.06) that notes the following: "All water meters are the property of the City of Canfield. Meters will be read and billed quarterly. When a meter cannot be accessed by an authorized agent of the Water Department for billing purposes, it becomes the consumer's responsibility to report their

meter reading either by returning the postage-paid card provided by the meter reader or by telephoning their reading to the Water Department as promptly as possible. Those consumers who do not cooperate in the prompt reporting of their quarterly reading will be subject to an estimated bill. Estimated bills will not be adjusted once posted for that billing period. Estimated bills should reflect previous usage history." Additionally, section 926.06 notes "sewer charges shall be based upon the quantity of water used as the same is measured by the Municipal water meter."

The Changing Water Utility (American Water Works Association, 1998) states, in part, that customer service and billing systems are used to enhance superior customer service, support, and communications. A billing system can help enhance customer service by improving response time to leaks and providing the customer with continuing audits of usage. Additionally, the publication states that implementing information technology in the customer information and billing area provides opportunities to reduce the average number of disputed bills each month, increase customer service satisfaction, reduce time to solve customer inquiries, reduce nonpayment of receivables and reduce billing requirements.

Delinquencies

R3.7 Girard should use its full authority to collect delinquent monies, including continuing to certify monies owed to the County Auditor and continuing to shut off water. Girard should develop a codified ordinance describing the process for collecting delinquencies, similar to the ordinance for the Sewer Department. The codified ordinance should also detail when water shut-offs should occur and when any additional fees or penalties (e.g., water service termination or reactivation) will be assessed. In addition, the City should resolve the discrepancies about payment plans in the ordinance relative to actual practices, and update the ordinance if necessary. Girard should also develop a policy that defines roles and responsibilities for the delinquent collection process. Furthermore, the City should develop a formal uncollectable utility write-off policy to determine how long delinquent accounts remain part of the accounts receivables.

Girard does not have policies or procedures in codified ordinances to address delinquent collections and write-offs of uncollectible delinquencies, including the following:

- The process for and the fees associated with water service termination, or reactivation; and

- The City's description of its ability to hold both lessor and lessee liable for unpaid water charges[12].

In addition, Girard passed an ordinance in January 2009 that notes the following: "Council hereby requires the Service Director to collect on all delinquent water accounts by establishing payment plans. The payment plans shall be established to provide for payments in monthly equal installments. The delinquent account shall be paid back in full in a period not to exceed 12 months" However, according to the Office Manager, the City offers 1 or 2-year payment plans and individuals must also pay a $50 fee, which could be waived by the Service Director or Mayor. The 2-year plan and fee requirement are absent from the January 2009 ordinance.

The uncollectable monies are not purged from the City's delinquency reports, thereby inflating the total amount of delinquencies that the City can realistically expect to be collected. Additionally, Girard has not consistently performed water shut-offs to help address the City's delinquent utility accounts. Furthermore, the roles of the Water Department and City Management are not clearly defined concerning delinquencies. For example, Girard does not have a policy that notes who is responsible for reviewing accounts to determine delinquency, when accounts should be reviewed, who should develop the delinquent account notice, and when water accounts should be shut off.

In prior years, Girard did not put forth a large effort to collect on delinquent accounts. However, during 2008, the Mayor and Service Director began performing water shut-offs of accounts more than 30 days past due in an effort to increase collections on utility account delinquencies. This was in response to the Water Department experiencing a high number and large amounts of delinquent utility bills during 2008. The Mayor and the Service Director are now involved with the City's utility bill collection process; both review accounts 30 days past due on a weekly basis to determine water shut-offs to be performed. However, these activities completed by the Service Director and the Mayor are not documented.

The 2002 performance audit also addressed the problem with the City's aged receivables with the following recommendation:

[12] Girard's codified ordinances (section 933.04) notes the following: "Each sewer service charge or rate levied by or pursuant to his chapter is hereby made a lien upon the corresponding lot, land or premises charged therewith. If the sewer service charge is not paid within fifteen days after it shall be due, a late charge of ten percent shall be payable. If the sewer change, included any late charges, is not paid within thirty days after it shall be due and payable, it shall be certified to the Auditor of Trumbull County, Ohio, who shall place the same on the tax duplicate of the County with the interest and penalties allowed by law and be collected as other taxes are collected. The City shall also have the right, in event of non-payment, to discontinue services to such premises or water supplied by the City's waterworks system, until such unpaid sewer charges have been fully paid".

- "The City should consult with the software supplier to eliminate the reporting of significant credit balances in its Aged Receivables Report (delinquency report). Additionally, the City should determine the probability of collection and establish a policy allowing older accounts that have been through the collection process without positive results to be written off the system."

Additionally, Girard's 2006 and 2007 Financial Management Letters noted the following:

- "No formal policy has been adopted to address the collecting of delinquent accounts and for writing off uncollectible accounts. Management was advised that the failure to adopt adequate policies and procedures to address the collection of delinquent accounts and writing off uncollectible accounts could result in errors or irregularities in the Utility Department's billing/collection process going undetected by management. We recommend that the City adopt appropriate policies and procedures for the handling the collection of delinquent accounts and writing off uncollectible accounts."

Furthermore, the 2006 and 2007 financial audits indicated that the City failed "to follow through on attempting to collect delinquent water and sewer billings by garnishing property tax with the County. This action had identified savings of $28,657. The Service Director and Water Department Billing Clerk noted that in 2008, Girard started certifying delinquencies with the County Auditor. Additionally, the Water Department Billing Clerk provided documentation that supported the City collecting delinquent water and sewer billings in 2009 by garnishing property tax with the County in 2008. As previously mentioned, the 2006 and 2007 financial audits were unable to obtain reasonable assurance with regards to the accuracy, completeness, and existence of the City's utility departments charges for services and accounts receivable. AOS recommended the City establish more reliable procedures which would enable them to accurately bill customers on an ongoing basis. The procedure may include using increased technology such as electronic meter reading technology."

Ohio Revised Code, section 743.04 gives the director of public service or other official the authority to certify the water charges not paid together with any penalties, to the county auditor. The county auditor shall place the certified amount on the real property tax list and duplicate against the property served by the connection if he/she also receives from the director or other official or body additional certification that the unpaid rents or charges have arisen pursuant to a service contract made directly with an owner who occupies the property served. The amount placed on the tax list and duplicate shall be a lien on a property. The amount placed on the tax list shall be collected in the same manner as other taxes, except that a county treasurer shall accept a payment in such amount when separately tendered as payment for the full amount of unpaid water charges. The lien shall be released immediately upon payment in full of the certified

amount. Furthermore, the director of public service may collect charges by actions at law from an owner, tenant, or other person who is liable to pay the charges.

New Philadelphia's codified ordinances contain the following language:

- Sections 937.02 (water) and 933.01 (sewer) note with respect to the product and services of such municipal waterworks/sanitary sewerage system provided to leased premises, both lessors and lessees shall be responsible and liable for the payment of the charges herein provided. The City shall proceed to collect such charges from either the lessor or the lessee. Additionally, section 937.02 notes that services may shut off or terminated to any premises more than 30 days delinquent in the payment of their bill.

Canfield's codified ordinances contain the following language:

- Section 925.06 notes that water may be shut off to any premises if the owner or consumer becomes delinquent in payment of utility bills or any other obligations to the City of Canfield Utility Department. A notice of such action must be given. Water may be shut off to any premises regardless of whether such indebtedness was incurred at the premises where service is discontinued or at any other property of such owner or consumer. Utility bills (water, sewer, storm sewer, etc.) unpaid when due shall be increased ten percent. Sale of water shall be discontinues with or without notice on utility accounts unpaid forty-dive days after the due date of the bill.

Additionally, Cambridge's ordinances, section 51.39 {Delinquent Bills, Fees for Service Resumption}, section 51.41 {Water Service Termination}, and section 51.42 {Delinquent Notice Procedures} formalize the processes and procedures for handling and collecting on delinquent accounts.

Financial Implication: The City increased its delinquent collection activity during the first seven months of 2009. As a result, the charges for services in the Water and Sewer Funds are on pace to increase by 31.8 and 35.7 percent[13], respectively, when compared to actual charges for services in 2008. Although the City may not be able to sustain the same level of collections for the remaining five months of 2009, this shows the potential impact of improved collection practices. The City could realize further positive impacts by implementing **R3.6** and **R3.7**. However, based on practices implemented by the City during 2009 and the financial data concerns that primarily affect revenues in the Water and Sewer Funds (see **R3.1**), a financial implication was not developed.

[13] Projections are based on actual revenues from charges and services through July 31.

Planning

R3.8 Girard should develop a comprehensive City-wide strategic plan that incorporates the Sewer and Water Departments' long-term needs and objectives. In preparing the plan, the City should include detailed goals, objectives, benchmarks, timeframes, performance measures, and, where applicable, cost estimates. In addition, the City should link the strategic plan to each department's budget (see R3.9), capital improvement plan (See R3.11), and preventive maintenance plan (see R3.10). Lastly, Girard should review the City-wide strategic plan on a regular basis and update it as needed.

Girard does not have a City-wide strategic plan. Likewise, the Sewer and Water Departments do not have department-specific strategic plans. The Service Director noted that due to the City's financial condition, the City is reactive, not proactive, to its needs. As such, the City has primarily focused on short-term decision-making. For example, the City purchased two lakes in 1995 for approximately $2.5 million with the intent to use the lakes as a source of potable water. However, due to a lack of appropriate long-term planning, the City has not been able to use the lakes. The City also has no plan in place for future use of the lakes. Furthermore, according to City administrators, the year-to-year budgeting and planning efforts have focused on the short-term rather than long-term, due to the lack of financial resources.

Recommended Practices on the Establishment of Strategic Plans (GFOA, 2005), indicates that governments should develop a strategic plan that provides a long-term perspective for service delivery and budgeting, thus establishing logical links between spending and goals. In addition, the focus of a strategic plan should be on aligning organizational resources to bridge the gap between present conditions and the envisioned future. GFOA further states that while it is important to balance the vision of the community with available resources, the availability of resources should not necessarily inhibit the vision. The key steps to create an effective strategic planning process are as follows:

- Prepare a mission statement;
- Assess environmental factors;
- Identify critical issues;
- Agree on a small number of broad goals;
- Create an action plan;
- Develop measurable objectives;[14]
- Incorporate performance measures;

[14] Objectives should be expressed as quantities or at least as verifiable statements and ideally would include timeframes.

- Monitor progress; and
- Reassess the plan.

Without a comprehensive strategic plan to tie all program needs together, including budgetary (see **R3.9**), capital improvement (see **R3.11**), and preventive maintenance (see **R3.10**), the Sewer and Water Departments may have difficulty evaluating the relationship between spending decisions and program outcomes. This, in turn, increases the risk of ineffectively addressing the City and each department's long-term needs.

R3.9 When developing the strategic plan (see R3.8), Girard should establish a formal budgetary process that is based on funding the priorities that will help achieve the identified goals and objectives. The City should include department heads, other staff based on technical expertise, and other relevant stakeholders in the budget development process. Additionally, the Sewer and Water Department budgets should support and be consistent with the City's capital improvement plan (see R3.11) and preventive maintenance plan (see R3.10). Lastly, Girard should review the City-wide budget with department heads and other relevant stakeholders on a regular basis and update it as needed.

Girard's Sewer and Water Department budget development process is an extension of the City-wide budget development process. To develop the City and department budgets, the City Auditor uses staffing information including raises, longevity, and benefits. The staffing portion serves as the base for each budget; to that base the City Auditor adds all other budget line-items based on historical expenditures. Because the City has not developed a formal strategic plan (see **R3.8**), the City's budget is based primarily on historical expenditures rather than funding action steps needed to achieve specific goals and objectives. The City's Department heads, including the Sewer Department's Acting Superintendent and Water Department's Office Manager, are not formally involved with the City's budget development process. The Mayor, City Service Director, and City Auditor meet to discuss departmental needs when developing the City-wide budget. The City Auditor provides the final City-wide and departmental budgets to the Mayor and Service Director.

Recommended Budget Practices - A Framework for Improved State and Local Government Budgeting (GFOA, 1999), indicates "a government should establish an administrative structure that facilitates the preparation and approval of a budget in a timely manner. Procedures should be established for ensuring coordination of the budget process. A process is also needed to develop and communicate the policies and guidelines that will guide budget preparation. In order for the budget to be adopted in a timely manner, processes should be developed to assist stakeholders in understanding tradeoffs and to help decision-makers make choices among available options. The processes should

include reporting to, communicating with, involving, and obtaining the support of stakeholders." Some recommended practices include: [15]

- Mechanisms for coordinating budget preparation and review;
- Procedures to facilitate budget review, discussion, modification, and adoption;
- Opportunities for stakeholders input;
- Practices to monitor, measure, and evaluate budgetary performance; and
- Procedures for adopting and adjusting the budget.

Since Girard was placed in fiscal emergency, the Auditor has given the City its budget/available funds each year. As a result of the City's financial condition, the perception is that there is no need to solicit feedback from the departments because the feedback will not result in additional appropriations.

Developing the budget based on the goals and objectives outlined in the strategic plan (see **R3.8**) will help the City focus limited resources, which subsequently should allow for more efficient use of monies. Furthermore, including key stakeholders in the budgeting process would ensure that the budget incorporates each department's knowledge of the City's operations and needs. Lastly, expanding involvement in the budgeting process can help provide City officials and other stakeholders with a clearer and more thorough understanding of the budget and financial condition of the Sewer and Water Departments.

R3.10 Girard should develop a City-wide preventive maintenance plan that addresses all routine, cyclical, and planned maintenance. The City should prioritize the maintenance needs of its water and sewer systems, and categorize them based on time-frames and costs. In order to do so, the Sewer Department should continue with the implementation of the work order system/log books to track capital asset descriptions (i.e., age, location, valuation data, etc.), and begin scheduling and logging maintenance activities. The City should do the same assessment for Water Department assets. As a part of the Department asset assessment, the City should evaluate the overall integrity of the system. Additionally, the City-wide preventive maintenance plan should be tied to the capital improvement plan (see R3.11), the City's strategic plan (see R3.8), and budget (see R3.9). Lastly, Girard should review the City-wide preventive maintenance plan on a regular basis and update it as needed. By developing and maintaining a preventive maintenance plan, the City can better address its current and long-term needs in a cost-effective manner.

[15] For a detailed descriptions and example of GFOA recommended policies, see http://www.gfoa.org/services/nacslb/

Girard does not have a City-wide preventive maintenance plan. Similarly, the Sewer and Water Departments do not have department-specific preventive maintenance plans. The City and its Water and Sewer Departments have focused on reactive rather than proactive maintenance.

The Acting Superintendent noted that the Sewer Department has begun to try and complete preventive maintenance activities as time allows, but the primary focus is still on reactive maintenance. In addition, the Sewer Department does not maintain documentation of preventive maintenance activities that are completed.

The Acting Superintendent indicated that the Sewer Department plans to re-implement a work order system that was originally purchased in the mid 1990s but was never fully used and ultimately abandoned. During the course of the performance audit, the Department's maintenance employee was working to update the work order system's equipment profiles (e.g., description, serial number, model number, repair history, and comments) and preventive maintenance schedules. The Acting Superintendent estimated that the updated system would be ready to test in 2009. The Acting Superintendent also plans to develop preventive maintenance log books that would be available in each Sewer Department building (e.g., control building, digester building, maintenance garage, etc.) and would facilitate on-site review of preventive maintenance activities.

The Ohio EPA, in its *Water Department Sanitary Survey* (2008), found that the City's water system appeared to lack a formal operations and maintenance plan. In addition, the Ohio EPA found that the City was not adhering to a formal capital improvement plan, including preventive maintenance, repair, and replacement of capital assets (see **R3.11**). The Ohio EPA specifically recommended that valve maintenance and water main replacement be integrated into the City's capital improvement plan. In the 2005 *Sanitary Survey,* the Ohio EPA recommended that the City prioritize the maintenance needs of its water distribution system and categorize them based on time-frames.

Finally, Girard's 2006 and 2007 AOS financial audit management letters both noted that the City does not maintain a complete capital asset listing. City administrators indicated that the City is not in a position to replace its capital assets based on a useful life schedule. Instead, the City replaces its capital assets on an as-needed basis and frequently exceeds the projected useful life of its capital assets unless replacement is absolutely necessary. In addition, the Sewer Department was unable to provide a documented age distribution of its major infrastructure and capital assets. The 2002 performance audit also included a recommendation that the City assess the age, useful life, and repair history of its capital assets (see **Appendix**).

Effective Utility Management, A Primer for Water and Wastewater Utilities (U.S. EPA, 2008) states that infrastructure stability is a key attribute of effectively managed water sector utilities. A utility that has achieved infrastructure stability:

- "Understands the condition of and costs associated with critical infrastructure assets;
- Maintains and enhances the condition of all assets over the long-term at the lowest possible life-cycle cost and acceptable risk consistent with customer, community, and regulator-supported service levels, and consistent with anticipated growth and system reliability goals; and
- Assures asset repair, rehabilitation, and replacement efforts are coordinated within the community to minimize disruptions and other negative consequences."

To achieve infrastructure stability, a utility must first assess its assets and condition of those assets including:

- Age and location;
- Asset size and/or capacity;
- Valuation data (e.g., original and replacement cost);
- Installation date and expected service life;
- Maintenance and performance history; and
- Construction materials and recommended maintenance practices.

The utility will then need to assess the integrity of the distribution / collection system. "For wastewater utilities, this measure examines the frequency of collection system failures. When tracked over time, a utility can evaluate whether its failure rate is decreasing, stable, or increasing. When data are maintained to characterize failures by pipe type and age, type of failure, and cost of repairs, decisions regarding routine maintenance and replacement/ renewals can be better made."

Effective Utility Management, A Primer for Water and Wastewater Utilities further indicates that the last step in achieving infrastructure stability is a system of planned maintenance. Planned maintenance includes both preventive and predictive maintenance. Preventive maintenance is performed according to a predetermined schedule rather than in response to failure. Predictive maintenance is initiated when signals indicate that maintenance is due. All other maintenance is categorized as corrective or reactive.

Preventive Maintenance for Local Government Buildings: A Best Practice Review (Office of the Minnesota State Legislative Auditor, 2000), found that "local jurisdictions should include preventive maintenance along with other maintenance projects in long- and short-term maintenance plans that are tied to capital improvement programs, capital budgets, reserved accounts, and operating budgets. Active planning for preventive

maintenance should occur at the same time as planning for other maintenance; it is needed both for the long-term (at least a three-year outlook) and the short-term (the upcoming year). Long-term planning includes a long-range facility plan and a capital improvement program. Short-term planning includes annual work plans and annual budgets."

The Sewer Department Acting Superintendent feels that the Department has incurred a lot of costs due to a lack of planning for maintenance and repairs. In addition, the City Auditor noted that there are millions of dollars of deferred maintenance City-wide due to a lack of planning and resources.

R3.11 Girard should develop a City-wide, multi-year capital improvement plan that is based on priorities outlined in the strategic plan (see R3.8). During the development of the capital improvement plan, the City should identify needs, determine costs, prioritize requests, and develop financing strategies. Additionally, the capital plan should be linked to the budget (see R3.9) and preventive maintenance plan (see R3.10), and address issues noted by the EPA (i.e., valve maintenance and water main replacements). Once developed, the capital improvement plan should be reviewed and updated on an annual basis to ensure the completion of identified projects. By developing and maintaining a capital improvement plan, the City can better address its current and long-term needs in a cost-effective manner.

Girard does not have a City-wide capital improvement plan and nor do the Sewer and Water Departments. In addition, neither the City nor the Departments have a dedicated funding source for capital improvement and replacement activities. The City has a year-to-year budgeting process that does not include input on the Water and Sewer Department's capital needs (see **R3.9**). The City's, and by extension the Departments, capital improvement and replacement activities are addressed on an as-needed basis. Capital improvement and replacement activities are funded by the City's General Fund and are based on the availability of funds at the time of the request. In order to make a capital improvement or replacement purchase, department-heads send a direct request to the City Service Director who ensures availability of funds and approves all City purchases.

The Ohio EPA, in its *Water Department Sanitary Survey* (2008), found that the City appears to lack a formal operations and maintenance plan. In addition, the Ohio EPA found that the City was not adhering to a formal capital improvement plan, including preventive maintenance, repair, and replacement of capital assets. The Ohio EPA specifically recommended that the City's capital improvement plan include valve maintenance and water main replacement. Additionally, in the 2005 *Sanitary Survey*, the Ohio EPA recommended that the City prioritize maintenance needs and categorize them based on time-frames.

Multi-Year Capital Planning (GFOA, 2006) recommends that state and local governments prepare and adopt comprehensive multi-year capital plans to ensure effective management of capital assets. A prudent capital plan identifies and prioritizes expected needs based on a government's strategic plan, establishes project scope and costs, details estimated amounts of funding from various sources, and projects future operating and maintenance costs. A capital plan is a component of an entity's strategic plan and is essential to the future financial health of an organization and continued delivery of services to citizens and businesses. A capital plan should not be less than three years in length. Additionally, the capital planning process should encompass the following:

- **Identify Needs:** Governments should identify present and future service needs that require capital infrastructure or equipment.
- **Determine Costs:** The full extent of project costs should be determined when developing the multi-year capital plan.
- **Prioritize Capital Requests:** Continually faced with extensive capital needs and limited financial resources, governments should properly evaluate project submittals.
- **Develop Financing Strategies:** Financing strategies should align with expected project requirements while sustaining the financial health of the organization.

The City of Montgomery, Ohio has established a capital improvement plan that meets elements of the GFOA recommended practices. Its capital improvement plan is based on requests from the city departments which are submitted to the finance director and city manager. The finance director and city manager review the submissions, make adjustments, and then submit a draft version to Council for review and approval. This plan lists the planning initiatives and anticipated capital needs throughout all city funds and related departments. The plan carefully projects funding needs in order to properly finance capital improvements and goals for the city. Upon approval, Montgomery's capital improvement plan is incorporated in its financial forecast and aligned with its strategic plan.

Girard officials believe that the City's financial situation has precluded it from focusing on capital improvement and replacement. Furthermore, according to the City Auditor, in order to implement a capital improvement and replacement program, a plan would need to be presented to council for approval of funding. This is seen as unlikely due to the

extent of the need coupled with the City's financial condition.[16] Nevertheless, the City's and Departments' reactive approach to capital improvement and replacement increases the risk of incurring higher maintenance and repair costs than under an official plan that would drive a more proactive system. For example, the lack of a planned approach to capital improvement and preventative maintenance (see **R3.10**) contribute to the high overtime costs (see **R3.13**). Further, the City Auditor noted that Girard has millions of dollars of deferred maintenance and capital replacement but inadequate resources to address these needs.

Without a multi-year capital improvement plan, the City hinders a full and clear understanding of its capital and major equipment needs, maintenance requirements, funding options, and budget impacts. This, in turn, increases the potential for incurring higher costs in the long run.

Payroll and Overtime

R3.12 Girard should develop and approve a policy governing payroll submission, review, and approval. Once developed and approved, the City should develop a payroll manual noting detailed policies and procedures, and determine whether training is necessary. In addition, the City should ensure that time spent by Sewer Department staff assisting other departments is charged back to the respective funds.

Girard does not have a policy governing its payroll submission, review, and approval processes. Instead, the City has relied on an undocumented and informal payroll process. According to the City Auditor, payroll is only processed by the Auditor's Office and not reviewed for accuracy. The City Service Director reviews both Sewer and Water Department payroll, relative to the employee timesheets. Both the City Auditor and Service Director rely on the Department heads to ensure that the employee hours have been allocated to the appropriate funds. The Acting Superintendent noted that he does not have authority to review or approve payroll. Additionally, the Acting Superintendent noted that at times he is unsure of whether the Sewer Department staff's time is correctly charged to the appropriate funds when completing work for other departments. For example, in 2008, the City's Sewer Department staff assisted the Water Department, due to water line breaks; however, the Acting Superintendent noted he was unsure if the time was charged to the appropriate fund. As a result, the Sewer Department employees may have allocated time to the Sewer Fund when performing tasks unrelated to the Sewer Department (see **Table 2-5** which illustrates a spike in overtime expenditures in 2008). In addition, the Acting Superintendent indicated that the electrician spends approximately 30 percent of time supporting the Sewer Department. However, evidence obtained from

[16] On August 8, 2001, the Auditor of State's office declared Girard to be in a state of fiscal emergency in accordance with Section 118.03 of the Ohio Revised Code. To date, the City continues to be in fiscal emergency.

City payroll and the Sewer Department roster revealed that the Electrician's entire time is allocated to the Sewer Department.

Payroll Best Practices (Bragg, 2005) states that a basic payroll best practice is to have a payroll policies and procedures manual in place. The manual should list the main payroll policies and should contain procedures that define the activities that take place within the boundaries that the policy creates. The publication further states that "a procedure is usually sufficient to use as a guideline for an employee who needs to understand how a process works." Further, "when combined with a proper level of training, the policies and procedures manual is an effective way not only to increase control over the payroll department, but also to enhance its efficiency."

R3.13 Once Girard ensures the reliability of its financial data (see R3.1), it should review overtime costs in the Sewer and Water Departments. Assuming the overtime costs as a percentage of salaries remain higher than the peer average, Girard should reduce overtime use to a level comparable to the peer average. This can be accomplished, in part, by developing preventive maintenance and capital improvement plans (see R3.10 and R3.11).

Table 3-9 shows Girard's Water and Sewer Departments' overtime, salaries, and overtime as a percentage of total salaries for 2006, 2007, 2008, and 2009 (budget), based on data in the City's trial balance reports. In addition to the data concerns noted in **R3.1**, a comparison of the City's salary and benefit costs to the financial audits in 2006 and 2007[17] revealed discrepancies which could impact the ensuing comparisons of overtime costs.

Table 3-9: Sewer and Water Department Overtime

	2006	2007	2008	2009 Budget
Sewer Department				
Total Overtime	$20,502	$27,924	$48,761	$49,000
Total Salaries	$450,651	$429,389	$407,961	$508,000
Overtime as a % of Salaries	**4.5%**	**6.5%**	**12.0%**	**9.6%**
Water Department				
Total Overtime	$16,549	$27,975	$57,856	$40,000
Total Salaries	$363,146	$380,709	$448,192	$369,600
Overtime as a % of Salaries	**4.6%**	**7.3%**	**12.9%**	**10.8%**

Source: Girard Detailed Trial Balance Reports for 2006 through 2009.
[1] The reliability of the information in **Table 3-9** is questionable (see **R3.1**).

[17] The 2008 financial audit was in process during the timeframe of this performance audit.

As shown in **Table 3-9**, Sewer and Water Department overtime as a percentage of regular salaries has increased each year from 2006 to 2008. The Acting Superintendent noted that one reason for overtime has been the emergency nature of repairs that the Sewer Department is forced to address because of the lack of capital improvement planning and preventive maintenance (see **R3.10** and **R3.11**). Additionally, the Acting Superintendent noted that the Sewer Department has been seen as a manpower resource for use by other departments. For example, the Sewer Department incurred significant overtime in 2008 because the Water Department experienced major problems. The Acting Superintendent noted he is unsure if the time incurred was charged back to the Water Fund (see **R3.12**). Lastly, the City budgeted for the Sewer and Water Departments' overtime as a percent of salaries to decrease in 2009; however, the percentages are still higher than in 2006 and 2007.

To help benchmark overtime costs, **Table 3-10** compares Girard's 2008 Sewer Department overtime as a percentage of salaries wages to the peer average.

Table 3-10: Sewer Department Overtime Comparison – 2008

Expenditures	Girard [1]	Cambridge	Canfield	New Philadelphia [2]	Peer Average [3]
Salaries	$407,961	$422,418	$81,983	$483,350	$452,884
Overtime	$48,761	$33,267	$5,063	$21,895	$27,581
Overtime Percentage	**12.0%**	**7.9%**	**6.2%**	**4.5%**	**6.1%**

Source: Girard and peer Sewer Department regular salaries and wages and overtime expenditures for 2008.
[1] The reliability of the information in **Table 3-10** is questionable (see **R3.1**).
[2] New Philadelphia's financial information is based on testimonial evidence.
[3] Canfield does not have a wastewater treatment plant or specific Sewer Department staff. The City's Public Works Department maintains the sanitary and storm sewer lines. Therefore, Canfield is excluded from the peer average.

As shown in **Table 3-10**, Girard's Sewer Department overtime percentage was almost twice the peer average for 2008. In addition to the aforementioned information from the Acting Superintendent, the Assistant Superintendent and City Auditor indicated that a portion of Girard's Sewer Department overtime from 2008 was attributed to Department staff allocating time to the Water Department for help in addressing major infrastructure issues (see **R3.12** for further discussion of the payroll process). However, the lack of a preventive maintenance plan (see **R3.10**) and capital improvement plan (see **R3.11**) likely contribute to the overtime, resulting in a reactive approach to addressing maintenance and capital needs.

Financial Implication: If Girard reduced Sewer Department overtime expenditures to the peer average percent of total salaries (6.1 percent), it would save approximately $24,000 per year based on 2008 expenditure levels. This assumes that once the City has improved the reliability of its financial data (see **R3.1**), the Sewer Department's overtime costs as a percentage of salaries would not materially differ from **Table 3-10**.

Financial Implications Summary

Table 3-11 presents a summary of cost savings identified in the report.

Table 3-11: Financial Implications Summary

Recommendation	Annual Cost Savings
R3.4 Reduce water loss	$66,000
R3.13 Reduce overtime	$24,000
Total	**$90,000**

Source: AOS performance audit

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APPENDIX: 2002
PERFORMANCE AUDIT

Appendix: 2002 Performance Audit

Tables 4-1 and **4-2** summarize the 2002 Performance Audit recommendations for the Water and Sewer Departments, and the current implementation status. Each recommendation was categorized as implemented, partially implemented, not implemented, or no longer applicable. Of the 14 recommendations contained in the 2002 Performance Audit in the Water Department section, Girard implemented 2 recommendations, partially implemented 2 recommendations, did not implement 9 recommendations, and 1 recommendation is no longer applicable. Of the 10 recommendations contained in the 2002 Performance Audit in the Sewer Department section, Girard implemented 4 recommendations, partially implemented 1 recommendation, did not implement 4 recommendations, and 1 recommendation is no longer applicable. The 2009 Performance Audit addresses the recommendations in the 2002 Performance Audit if the related issues fell within the current audit scope.

Table 4-1: Status of 2002 Performance Audit Recommendations – Water

Recommendation	Implemented	Partially Implemented	Not Implemented	No Longer Applicable
R5.1 The City recently laid-off 2.2 FTEs in the Department.	X			
R5.2 The City should maintain current and fully executed water contracts from the cities of Youngstown, Niles, and McDonald.		X[1] (see **R3.3**)		
R5.3 The City should evaluate its rate structure and consider if the rate is sufficient to cover the cost to supply the water, service existing debt, and fund future capital projects. The City should also consider increases in employee compensation and benefits when determining future water rates. Lastly, City Council should be involved and approve any changes in water rates.			X (see **R3.3**)	
R5.4 The Department should develop a more consistent meter reading scheduling approach that includes establishing the number of meters to be read and in a defined period of time to accomplish the task.			X (see **R3.4**)	
R5.5 The Department should consider having meter readers leave the appropriate notices during the course of their route to eliminate the need for the service person to make a second trip to complete this task.				X[2]
R5.6 The Department should establish a policy to ensure that customer supplied readings are periodically checked for accuracy.			X (see **R3.4**)	

Recommendation	Implemented	Partially Implemented	Not Implemented	No Longer Applicable
R5.7 The Department, working in conjunction with the software supplier, should investigate possible programming and formatting changes, which would eliminate the need for the office Manager to manually review and edit readings completed by the radio frequency technology system.			X (see **R3.6**)	
R5.8 The Department should review its various Excel spreadsheet reports to ensure the information is not already maintained either by the system of in manual logs.		X (see **R3.6**)		
R5.9 The Department should consider reducing the number days delinquent users receive water before service is terminated.	X			
R5.10 The City should consult with the software supplier to eliminate the reporting of significant credit balances in its Aged Receivables Report (delinquency report). Additionally, the City should determine the probability of collection and establish a policy allowing older accounts that have been through the collection process without positive results to be written off the system.			X (see **R3.7**)	
R5.11 The Department should attempt to reduce its water loss.			X (see **R3.5**)	
R5.12 The City should develop a clearly detailed assessment of the remaining useful life of its tangible assets and utilize the assessment to assist it in determining when any given asset may need to be replaced.			X (see **R2.3**)	
R5.13 The City should consider replacing all meters with radio frequency meters at some future point in time and investigate having the customers bear the cost of the project.			X (see **R3.4**)	
R5.14 The Department should establish a clearly defined capital improvement plan to be used for long-term capital planning and forecasting.			X (see **R2.4**)	
Summary of Implementation Status	**2**	**2**	**9**	**1**

Source: Girard Performance Audit (2002) and interviews with the Girard's Service Director and Water Department Office Manager.

[1] The City's contracts with Niles and Youngstown are expired.

[2] The Water Office Manager stated that since there are no official meter readers, the Department mails out all delinquency notices. The Service Director stated that delinquency notices are sent out once a month (see **R3.7**).

Table 4-2: Status of 2002 Performance Audit Recommendations – Sewer

Recommendation	Implemented	Partially Implemented	Not Implemented	No Longer Applicable
R6.1 The City should evaluate the sewer rate structure and implement an annual increase of 3%.			X (See **R3.3**)	
R6.2 In accordance with the August 2001 agreement, the City should bill Trumbull County for the difference between the newly established rate and the previous year's rate for all flow billed from January to September 2001.	X			
R6.3 The City should bill Trumbull County for the difference between the newly established rate and the previous year's rate for all flow billed in 2000.	X			
R6.4 The City should research and determine whether the rates charged to Trumbull County since 1992 were calculated in accordance with the established agreements. Any differences should be charged or credited to the County.				X [1]
R6.5 The City should ensure that it maintains a complete and accurate file of readings taken from each meter as well as the documentation of each rate calculation.			X (See **R3.4**)	
R6.6 The City should ensure the Enterprise Sewer Rental Fund contributes to the Enterprise Sewer Rental Equipment Replacement Fund in accordance with the agreements.	X			
R6.7 The City should ensure that Trumbull County contributes to the Enterprise Sewer Rental Equipment Replacement Fund in accordance with the agreements.	X			
R6.8 The City should develop a clearly defined assessment of the remaining useful lives of Sewer Department assets. By maintaining detailed records regarding general maintenance and repairs made to the system, the City could apply cost-benefit techniques to determine when replacement of any given asset is expected.			X (See **R2.3** and **R2.4**)	
R6.9 The Sewer Department should establish a clearly defined capital improvement plan.			X (See **R2.4**)	
R6.10 The City should work with the EPA to ensure full compliance with the EPA's consent order.		X [2]		
Summary of Implementation Status	**4**	**1**	**4**	**1**

Source: Girard Performance Audit (2002)

[1] This recommendation is no longer applicable because the City and County attempted to implement the recommendation and found that neither party was in a financial position that would have allowed for implementation. The City's Service Director noted that the annual rate agreements are in place to ensure that billing is accurate, so the Service Director feels that this is not an issue moving forward.

[2] The City prepared a long-term control plan and is working with the EPA to receive approval of the plan in order to implement it and fulfill the consent order.

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City Response

The letter that follows is the City of Girard's official response to the performance audit. Throughout the audit process, staff met with City officials to ensure substantial agreement on the factual information presented in the report. When City officials disagreed with information contained in the report and provided supporting documentation, the audit report was revised.

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April 12, 2010

Ohio Auditor of State
Attn: Danielle M. Lorenz, MBA
242 Federal Plaza West, Suite 302
Youngstown, Ohio 44503

Dear Ms. Lorenz:

On behalf of Council and the Administration, I would like to thank the Performance Audit Team for their time and effort in completing the recent Performance Audit.

Please consider this letter the City of Girard's formal response.

The majority of the Audit Findings are based upon the accuracy of meter readings. The entire process cannot be completed without the Water Meter Replacement Program. Without the new meters, completing the recommendations will be difficult.

Council has asked for legislation to advertise for bids for the water meters at the March 22, 2010 meeting.

The members of the MVSD will all be notified on a number of issues:

1. Justification of rate increases
2. Updated copies of current contracts
3. Calibration of meters into the City of Girard
4. Maximum rates charged by contract/law

Also, the Administration and the Utility Committee will work together to recommend the following to Council for their approval:

1. Ordinances for billing practices
2. Ordinances for collection practices
3. Possible rate increases for Capital Improvement Projects

There will also be hands on training within the department as well as formalized classes either with the software company or through the Internet.

Jerry Lambert, Service Director

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