



AGENDA
Water and Wastewater Financing Board

November 8, 2012
10:00 am
Room 31, Legislative Plaza
301 Sixth Avenue North
(6th Avenue between Charlotte Avenue and Union Street)
Nashville, Tennessee

Call to Order

Approval of Minutes

July 12, 2012

Cases:

| | |
|---|-------------------|
| Town of Alamo | Crockett County |
| http://www.comptroller.tn.gov/Repository/MA/Financial/1581-2011-alamo-afr-cpa12-3-20-12.pdf | |
| Town of Alexandria | DeKalb County |
| http://www.comptroller.tn.gov/Repository/MA/Financial/1583-2011-alexandria-afr-cpa517-3-01-12.pdf | |
| City of Greenfield | Weakley County |
| http://www.comptroller.tn.gov/Repository/MA/Financial/1704-2011-greenfield-afr-cpa258-3-21-12.pdf | |
| Town of Henning | Lauderdale County |
| http://www.comptroller.tn.gov/Repository/MA/Financial/1712-2011-henning-afr-cpa118-3-20-12.pdf | |
| City of Moscow | Fayette County |
| http://www.comptroller.tn.gov/Repository/MA/Financial/1787-2011-moscow-afr-cpa89-6-13-12.pdf | |
| Town of Rossville | Fayette County |
| http://www.comptroller.tn.gov/Repository/MA/Financial/1842-2011-rossville-afr-cpa476-2-29-12.pdf | |

Status:

| | |
|---|-----------------|
| Town of Oneida | Scott County |
| http://www.comptroller.tn.gov/Repository/MA/Financial/1811-2011-oneida-afr-cpa385-12-28-11.pdf | |
| City of Grand Junction | Hardeman County |
| http://www.comptroller.tn.gov/Repository/MA/Financial/1699-2011-grandjunction-afr-cpa89-2-29-12.pdf | |

Cases – Water loss

| | |
|---|---------------|
| City of Lenoir City | Loudon County |
| http://www.comptroller.tn.gov/Repository/MA/Financial/1748-2011-lenoircity-afr-cpa39-6-04-12.pdf | |
| City of Watertown | Wilson County |
| http://www.comptroller.tn.gov/Repository/MA/Financial/1898-2009-watertown-afr-cpa87-5-17-12.pdf | |

Status – Water loss

| | |
|---|----------------|
| Town of Decaturville | Decatur County |
| http://www.comptroller.tn.gov/Repository/MA/Financial/1655-2011-decaturville-afr-cpa625-1-03-12.pdf | |

Miscellaneous:

| | |
|---|-----------------|
| Town of Whiteville | Hardeman County |
| City of Whitwell | Marion County |
| Cases currently under WWFB jurisdiction | |
| Water loss status | |
| Next meeting | March 14, 2013 |

Open Discussion

Visitors to the Legislative Plaza are required to pass through a metal detector and must present photo identification. Individuals with disabilities who wish to participate in this meeting or to review filings should contact the Division of Local Government Audit to discuss any auxiliary aids or services need to facilitate such participation. Such contact may be in person or by writing, telephone or other means, and should be made prior to the scheduled meeting date to allow time to provide such aid or service. Contact the Division of Local Government Audit (Ms. Joyce Welborn) for further information.

505 Deaderick Street, Suite 1500
James K. Polk State Office Building
Nashville, TN 37243-1402
Telephone (615) 401-7864
Fax (615) 741-6216
Joyce.Welborn@cot.tn.gov

MINUTES
of the
WATER AND WASTEWATER FINANCING BOARD MEETING
July 12, 2012
10:05 a.m.

Chairperson Ann Butterworth opened the meeting of the Water and Wastewater Financing Board (WWFB) at Legislative Plaza, Room 31, in Nashville, Tennessee.

Board members present and constituting a quorum:
Ann Butterworth, Chairperson, Comptroller Designee
Tom Moss, Department of Environment and Conservation Designee
Randy Wilkins, Representing Utility Districts
Drexel Heidel, Active Employee of a Water Utility District
Kenny Wiggins, Active Employee of a Municipal Water System
Ben Bolton, Representing Manufacturing Interests

Staff present from the Office of the Comptroller of the Treasury:
Joyce Welborn
Greg Cothron
Sheila Reed

Approval of Minutes

Ms. Butterworth moved approval of the minutes of March 8, 2012, and June 6, 2012. Mr. Moss seconded the motion. Motion to approve the minutes was approved unanimously.

Ms. Butterworth asked the members of the Board to introduce themselves and state who they represent. Representatives were present from the City of Kingsport and the City of Columbia. Mr. Jason Griffin was present to discuss depreciation issues.

City of Kingsport – water loss

Mr. Ryan McReynolds was present to address the Board regarding the City's excessive water loss of 36.94%. The Board questioned the large unbilled metered usage reflected on the reporting worksheet. Mr. McReynolds stated that amount accounted for water being used in fire lines. He also brought to the Board's attention that the City was in compliance with the new standards adopted by the Board regarding validity score and non-revenue water as a percent by cost of operating system. Mr. Moss moved to endorse the City's actions. Mr. Bolton seconded the motion and commended the City for its efforts. The motion was unanimously approved.

City of Columbia

The City of Columbia had been reported to the Board as having a negative change in net assets in its sewer system for two consecutive years. Effective June 1, 2011, the rates were increased the

equivalent of 53% for the 5,000 gallon per month user. City Manager Paul Boyer and City Attorney Tim Tisher were present to answer any questions from the Board members. It appeared that the problems in the City were, in part, related to the cut in manufacturing at the local General Motors plant in 2007. The production of a new car at the plant will be a benefit to the City in additional revenue. Mr. Wiggins moved to endorse the actions of the City. Mr. Moss seconded the motion and it was unanimously approved.

Depreciation issues

Ms. Butterworth recognized Mr. Jason Griffin, an engineer for Springville Utility District. Mr. Griffin requested the assistance of the Board in reviewing the current depreciation criteria. He asked that the depreciation expense be deferred for five to seven years or a waiver be given to allow time for a new system to get established and build a cash flow before reverting to the 50 year schedule. With the new technology currently being used to construct the water system in Henry County, he felt it justifiable to use an 80-year depreciation schedule for the water mains. Mr. Bolton asked if this technology was being used elsewhere, if variance procedures were in place allowing the Board to take such action and if this type of depreciation was appropriate for Tennessee. Mr. Cothron stated that he would have to research the legality of the Board altering the depreciation allowance. Ms. Welborn stated that the Board had no variance procedures. Ms. Reed stated that TCA requires utility districts to report in accordance with generally accepted accounting principles, which in turn require that the depreciation expense be included in the audit. The previous law that had been repealed allowed the Comptroller's Office to not consider depreciation expense (during the first 7 years of operation) for purposes of reporting to the Board. Mr. Wiggins was concerned that changing the depreciation schedule may create many problems with existing systems. The Board asked Mr. Griffin to submit a written request for the depreciation variances and to include any documentation he felt was relevant.

Cases – Financial distress

Town of Big Sandy

The Town of Big Sandy experienced a negative change in net assets in its water and sewer funds for two consecutive fiscal years. During the process of reviewing the needs of the Town, the rates were increased by 25%, the tier structure was adjusted, as well as connection, reconnection and tap fees. Additionally, a second 15% rate increase will be implemented July 1, 2013 and a 2% annual increase thereafter. Mr. Wilkins moved to endorse the actions of the Town. Mr. Wiggins seconded the motion which passed unanimously.

Cheatham County Water and Wastewater Authority

The Cheatham County Water and Wastewater Authority experienced a negative change in net assets in its sewer system for two consecutive fiscal years. The Authority furnishes sewer service to the 12 customers in the Industrial Park in Ashland City. The sewer rates have been increased twice in the previous 18 months (from \$6.25 per thousand gallons to \$15.00.) Mr. Wiggins moved to accept the actions of the Authority. Ms. Butterworth seconded the motion and it was unanimously approved.

City of Clarksburg

The City of Clarksburg experienced a negative change in net assets in its water and sewer system for the last two fiscal years and excessive water loss of 43.553%. Mr. Bolton voted to endorse the 25% rate increase adopted by the City in March 2011. He questioned if the City had chosen to adopt an annual rate adjustment based on the cost of living index. Mr. Wilkins seconded the motion and strongly encouraged the City to review its financial condition during and after fiscal year 2013 making any necessary adjustments.

Coffee County Sewer System

The Coffee County Sewer System experienced a negative change in net assets for two consecutive fiscal years. Based on a plan submitted on behalf of the system by John Hall, Mr. Moss moved to endorse the plan as follows: 1) a 15% rate increase effective July 1, 2012, with a cost of living adjustment to be made annually; 2) an additional rate increase each time the rates are increased by the water provider; 3) the assumption of the debt of the system by Coffee County; 4) an influx of \$2,000 per month from the County Infrastructure Improvement Fund for repair or replacement of 54 sewer pumps; 5) the required connection of 34 additional homes in the area; and, 6) compliance by June 30, 2013. Mr. Wiggins seconded the motion. The Board requested additional information regarding infiltration and inflow in the system. They also asked if the sewer rates were to continue as a flat charge or be based on metered water usage in the future. Ms. Welborn could not answer the questions, but will ask for a response from the system. The motion was unanimously approved.

Town of Dover

The Town of Dover had been reported to the Board as having two consecutive years with a negative change in net assets in its water and sewer system. On May 1, 2012, the rates were increased with projections of 28% additional revenue. Recent changes in the system, both operational and accounting, will result in lower expenses in the future. Mr. Heidel moved to endorse the actions of the Town. Mr. Wilkins seconded the motion which was unanimously approved.

Town of Eastview

The Town of Eastview experienced a negative change in net assets for two consecutive years in its water system. In September 2011, the minimum bill was increased by \$1.00 per customer per month. In June 2012, the amount of usage over the minimum bill was increased by 12%. Ms. Butterworth made a motion to endorse the actions of the Town but strongly suggested the Town, 1) adopt and implement a meter replacement policy; 2) rates increases enacted concurrently with any increases from the water supplier; 3) conduct a rate study; and, 4) maintain the fixed assets of the system "in-house." Mr. Wiggins seconded the motion. The motion was approved unanimously.

City of Erin

The City of Erin has been reported to the Board as having experience a negative change in net assets for two consecutive years as well as excessive water loss. Effective July 1, 2011, the City increased its water rates by 10% for all usage above the minimum bill and the sewer rates by 2% for all usage above the

minimum bill, generating approximately \$80,000. There are additional rate increases in the budget for the fiscal year ending June 30, 2013. The City had two projects underway to lower the operating costs and reduce a large part of the infiltrations and inflow problem in the system. A \$1,000,000 disaster grant had recently been awarded for work at the water treatment plant. Additional funding has been requested to replace current water meters with digital read meters, add master meters to easier locate problems, and install a SCADA system to all water tanks to prevent recurring overflows. New policies and procedures had been implemented to address many areas of operation, such as, leak adjustments, water loss, meter replacement, and damage to meters or meter boxes. The Mayor and Board of Alderman of the City has expressed a commitment to resolve ongoing problems. Mr. Bolton made a motion to accept the actions of the City. Ms. Butterworth seconded the motion. Motion carried unanimously.

City of Grand Junction

The City of Grand Junction has been experiencing a negative change in net assets in its water and sewer system since the fiscal year ending June 30, 2008. At its May 2011 meeting, the Board voted to allow the City to implement annual rate increases of 12% effective July 1, 2011, 2012, and 2013. Further directives from the Board were endorsing a meter replacement program in which 100 meters are replaced annually, required monitoring the unmetered usage by farmers, required replacement or recalibration of large meters, and investigation and implementation of updated billing software. The City was to report to the Board six months after the first rate increase (approximately March 2012) to ensure the actions approved by the Board had been effective. Since only limited information had been received, Mr. Bolton made a motion that the Mayor be required to attend the November 8, 2012, WWFB meeting, unless the requested information is received by October 8, 2012. Mr. Moss seconded the motion which was adopted unanimously.

City of Middleton

The City of Middleton was reported as having two consecutive years with a negative change in net assets in its water and sewer system. The City adopted a rate increase effective July 1, 2012, that will increase the average 5,000 gallon water user's bill by approximately 50%. Mr. Wiggins voted to endorse the actions of the City and recommend the City reconsider adopting some of the recommendations from the MTAS rate study, as well as a meter replacement policy. Mr. Heidel seconded the motion, which was adopted unanimously.

City of Wartburg

The City of Wartburg experienced a negative change in net assets for two consecutive fiscal years in its sewer system. The system has been experiencing infiltration and inflow problems, pump failures and issues regarding sludge disposal. Effective July 1, 2012, the rates will be increased by 20% over the next four years. Authorization to land apply sludge had been granted and operational changes have been made to lower expenses. The City believed they would be in compliance by June 30, 2016. Mr. Heidel moved to accept the actions of the City. Mr. Bolton seconded the motion. The motion carried unanimously.

Town of Whiteville

The Town of Whiteville experienced a negative change in net assets for two consecutive years in its water and sewer fund. Expenses will be reduced in the near future based on the retirement of a long time employee. Water meter were recently installed in the Town facilities. The Town adopted a substantial rate increase effective July 1, 2012, which is projected to put the Town in compliance by June 30, 2013. Mr. Wiggins made a motion to accept the actions of the Town. Mr. Wilkins seconded the motion, which was carried unanimously.

Status Reports

City of Lakeland

The City of Lakeland submitted information to the Board updating the financial condition of its sewer system. The rates had been increased 25% for any usage above the minimum bill for calendar year 2012 (the 6,000 gallon minimum bill remained at the same \$27.20 rate), but the City is still expecting a negative change in net assets at June 30, 2012. The Board requested the FY 12 audit be submitted and another status report be presented in March 2013.

Town of Oneida

The Town of Oneida submitted draft financial and aging information as required by the Board. The Mayor and City Council are to appear at the meeting on November 8, 2012, since the September meeting was cancelled.

City of Pikeville

The City of Pikeville submitted the information requested by the Board at its last meeting. No action was taken by the Board.

Cases – Water Loss

Town of Cumberland Gap

The Town of Cumberland Gap had been reported to the Board for excessive water loss of 47% and 35%. The Board reviewed the information submitted and Mr. Moss made a motion to request more information on the leak detection program. Ms. Butterworth seconded the motion, which carried unanimously.

Town of Decaturville

The Town of Decaturville had been reported to the Board for excessive water loss of 43.43%. After reviewing the information, Mr. Wilkins made a motion to require additional information be submitted for review by the Board at its next meeting. Mr. Wiggins seconded the motion. The motion was approved unanimously.

Water loss cases

The Board reviewed information submitted by the Towns of Livingston, Oliver Springs, Scotts Hill and Sharon and the Cities of Lobelville and Madisonville. Mr. Bolton moved to accept the information and

review in conjunction with the annual audited statements. Mr. Moss seconded the motion, which was unanimously approved.

Compliance reports

Ms. Welborn stated the following are now in compliance with the law both financially and for water loss: the Towns of Mason, Rutherford, Stanton, and Tiptonville; the Cities of Bluff City, Graysville, Luttrell, Maynardville, Memphis, Whitwell and Winchester; and Hartsville/Trousdale County Utilities.

Miscellaneous Items

Jurisdiction List

Ms. Welborn stated that the Board package included a schedule identifying all systems which were currently under the Board's jurisdiction. The City of Whitwell had been added to the jurisdiction list based on receipt of the FY 11 audit. A separate sheet is included for the systems dealing with excessive water loss.

Non-revenue water subcommittee

Ms. Welborn reminded the Board members, based on the joint meeting with the Utility Management Review Board in June, a committee was to be appointed to create a water management plan, and develop follow up information for those systems reported to the Board based on existing criteria. She had furnished the Chair with recommendations for members of the committee. The recommendations included a city and a utility district from each grand divisions of the state, Chris Leuber, a TAUD representative, and a TDEC representative. Ms. Welborn would serve as staff. At this time, none of the nominees have been approached to serve on the committee. All meetings would be subject to the Open Meetings Act. They will serve without any compensation or travel reimbursement. It was also suggested that subcommittees be developed by the members of the committee. Mr. Wilkins moved to authorize the Chairman to appoint the committee. Mr. Bolton seconded the motion which carried unanimously.

Future Meetings

The next regular meeting was scheduled for November 8, 2012, at 10:00 AM.

Motion made by Ms. Butterworth and seconded by Mr. Bolton to adjourn. Motion carried unanimously. Meeting was adjourned at 12:15 p. m.

Respectfully submitted,

Ann Butterworth
Chairperson

Joyce Welborn
Board Coordinator

WATER AND WASTEWATER FINANCING BOARD
Case Study

Case: Town of Alamo, Crockett County
Mayor: Tommy Green
Customers: 1,203 water; 1,095 sewer
Water Loss: 26.19%

The Town of Alamo has been experiencing a negative change in net assets in its water and sewer system for two consecutive fiscal years according to the information contained in audited financial statements.

The financial and rate history is attached. The last rate increase was in 2002.

The utility has over \$1,000,000 in its cash accounts and is debt free.

According to the Mayor, 70% of the residents of the Town are considered low to moderate income and 40% receive social security.

Based on information provided by the Town, FY 12 is projected to reflect a loss of approximately \$30,000 after depreciation and the receipt of \$65,000 in grant funds.

Effective October 1, 2012, the Town increased its rates as follows:

| | <u>Inside</u> | <u>Outside</u> |
|--------------------|---------------|----------------|
| <u>Water</u> | | |
| 0-2,000 gallons | \$7.00 | \$8.00 |
| Over 2,000 gallons | \$2.20 | \$2.64 |

Sewer rates will remain at 100% of water rates.

Town officials project that the increases will result in approximately \$30,336 of additional revenue. Employees of the Town will also be required to pay 5% of the health insurance premium in order to help cut expenses.

Staff recommends the Board endorse the actions of the Town. The Town will continue to be under the jurisdiction of the Board until an audit is received which reflects compliance.

| TOWN OF ALAMO | | | |
|---------------------------------|------------------------------|------------------------------|------------------------------|
| HISTORY FILE | | | |
| | Audited | Audited | Audited |
| Fiscal Year 6/30 | 2009 | 2010 | 2011 |
| Water/sewer revenues | \$ 399,953 | \$ 402,866 | \$ 401,585 |
| Other revenues | \$ 49,364 | \$ 47,840 | \$ 54,257 |
| Total Operating Revenues | \$ 449,317 | \$ 450,706 | \$ 455,842 |
| Total Operating Expenses | \$ 435,072 | \$ 452,776 | \$ 501,888 |
| Operating Income | \$ 14,245 | \$ (2,070) | \$ (46,046) |
| Interest Expense | | | |
| Change in Net Assets | \$ 14,245 | \$ (2,070) | \$ (46,046) |
| <u>Supplemental Information</u> | | | |
| Principal payment | | | |
| Depreciation | \$ 112,194 | \$ 108,513 | \$ 106,370 |
| <u>Water Rates</u> | | | |
| <u>Inside Rate</u> | | | |
| First 2,000 gallons | \$ 6.50 | \$ 6.50 | \$ 6.50 |
| All over | \$ 2.00 | \$ 2.00 | \$ 2.00 |
| <u>Outside Rate</u> | | | |
| First 2,000 gallons | \$ 7.50 | \$ 7.50 | \$ 7.50 |
| All over | \$ 2.40 | \$ 2.40 | \$ 2.40 |
| Water customers | 1,206 | 1,212 | 1,203 |
| Water Loss | 19.51% | 24.20% | 26.19% |
| <u>Sewer Rates</u> | | | |
| Sewer customers | 100% of water rates 1,097 | 100% of water rates 1,104 | 100% of water rates 1,095 |

6WATER AND WASTEWATER FINANCING BOARD
Case Study

Case: Town of Alexandria, DeKalb County
Mayor: Maria Baker
Customers: 821 water; 363 sewer
Water Loss: 50.5%

The Town of Alexandria has been experiencing a negative change in net assets in its water and sewer system for two consecutive fiscal years according to the information contained in audited financial statements. The water system also has excessive water losses.

The financial and rate history is attached. Prior to the July 2011 increase, the last rate increase was in 2008. All water is purchased from the Smith Utility District for \$2.83 per thousand gallons. There is an emergency connection with DeKalb Utility District.

A \$500,000 CDBG has been awarded in order to replace all the two-inch galvanized lines in town and the six-inch main line from pump station into town. These are the areas that appear to be causing most of the water loss problems. The project is scheduled to begin in the spring of 2013 and should take approximately six months to complete.

The current customer base is 872 water and 383 sewer. One reason for the change is the inclusion of twenty individually metered customers that were previously included on the master meter of the housing authority.

The Town has yet to adopt its debt management policy. Also, there are not written policies in place for other areas of operation and management, such as purchasing or travel. Staff suggested that they contact MTAS or TAUD to obtain guidance in developing such policies.

Operation of the water and sewer system is contracted to a private company. The operator stated that they have been working diligently to find and repair leaks in the system. In fact, “we dried up three creeks in the process.”

The preliminary estimates from the Town appear to reflect that the system will be in compliance for FY 12 financially as well as with water loss. Through April 2012, the change in net assets is approximately \$50,000. The water loss at that point was 27.589%. Currently the water loss is closer to 25%.

Staff recommends the Board endorse the actions of the Town as it relates to water loss reduction, rate increases and projected financial compliance. The Town will continue to be under the jurisdiction of the Board until an audit is received which reflects compliance.

| TOWN OF ALEXANDRIA | | | |
|---------------------------------|---------------------|---------------------|---------------------|
| HISTORY FILE | | | |
| | Audited | Audited | |
| Fiscal Year 6/30 | 2010 | 2011 | |
| Water/sewer revenues | \$ 516,954 | \$ 462,757 | |
| Other revenues | \$ 2,055 | \$ 57,660 | |
| Total Operating Revenues | \$ 519,009 | \$ 520,417 | |
| Total Operating Expenses | \$ 563,480 | \$ 590,019 | |
| Operating Income | \$ (44,471) | \$ (69,602) | |
| Interest Expense | \$ 26,966 | \$ 25,702 | |
| Change in Net Assets | \$ (71,437) | \$ (95,304) | |
| <u>Supplemental Information</u> | | | |
| Principal payment | \$ 34,066 | \$ 15,794 | |
| Depreciation | \$ 141,202 | \$ 140,988 | |
| <u>Water Rates</u> | | | 8/1/2012 |
| <u>Inside Rate</u> | | | per ordinance |
| First 2,000 gallons | \$ 12.50 | \$ 12.50 | \$ 19.75 |
| All over | \$ 4.00 | \$ 4.00 | \$ 7.00 |
| <u>Outside Rate</u> | | | |
| First 2,000 gallons | \$ 18.75 | \$ 18.75 | \$ 28.52 |
| All over | \$ 6.00 | \$ 6.00 | \$ 7.00 |
| Water customers | 821 | 821 | |
| <u>Water Loss</u> | 37.00% | 50.49% | |
| <u>Sewer Rates</u> | 100% of water rates | 100% of water rates | 100% of water rates |
| Sewer customers | 363 | 363 | |

Town of Alexandria - Water & Sewer Fund

Profit & Loss

July 1, 2011 through May 1, 2012

| | <u>Jul 1, '11 - May 1, 12</u> |
|--------------------------------|-------------------------------|
| Ordinary Income/Expense | |
| Income | |
| Service Income | 6,310.00 |
| Water Income | 413,321.61 |
| Sewer Charges | 125,951.65 |
| Penalties | 39,458.76 |
| Total Income | <u>585,042.02</u> |
| Expense | |
| Office Supplies | 121.28 |
| Water Supplies | 15,019.77 |
| Sales Tax | 29,188.00 |
| USDA RD Dcfo | 24,206.00 |
| Bank Service Charge | 23.70 |
| Uncategorized Expenses | 232.50 |
| Dues | 1,468.70 |
| Utility Gas | 154.14 |
| Payroll Tax Expense | 227.59 |
| Water Purchased | 167,325.22 |
| Salaries | 5,732.81 |
| FICA & MEDI Expense | 236.40 |
| SUTA Expense | 48.16 |
| Repairs | 1,830.00 |
| Bad Debts | 994.81 |
| Sewer Supplies | 15,092.04 |
| Insurance | 12,529.33 |
| Electric & Gas | 39,091.49 |
| Professional Services | 5,511.00 |
| Office Expense (Postage) | 3,063.39 |
| Telephone | 2,019.71 |
| Contracted Services | 13,077.88 |
| Contract Labor | 71,038.05 |
| Miscellaneous | 805.74 |
| Total Expense | <u>409,037.71</u> |
| Net Ordinary Income | 176,004.31 |
| Other Income/Expense | |
| Other Income | |
| Interest Income | 540.44 |
| Total Other Income | <u>540.44</u> |
| Net Other Income | 540.44 |
| Net Income | <u><u>176,544.75</u></u> |

Town of Alexandria
 Schedule of Unaccounted For Water
 July, 2010 to June, 2011

(All amounts in gallons)

| | | | |
|----------|--|------------|--|
| A | Water Treated and Purchased | | |
| B | Water Pumped (potable) | 0 | |
| C | Water Purchased | 82,091,283 | |
| D | Total Water Treated and Purchased (Sum Lines B and C) | 82,091,283 | |
| E | Accounted for Water: | | |
| F | Water Sold | 0 | |
| G | Metered for Consumption (in house usage) | 40,344,400 | |
| H | Fire Department(s) Usage | 31,300 | |
| I | Flushing | 271,719 | |
| J | Tank Cleaning/Filling | 0 | |
| K | Street Cleaning | 0 | |
| L | Bulk Sales | 0 | |
| M | Water Bill Adjustments | 0 | |
| N | Total Accounted for Water (Sum Lines F thru M) | 40,647,419 | |
| O | Unaccounted for Water (Line D minus Line N) | 41,443,864 | |
| P | Percent Unaccounted for Water (Line O divided by Line D times 100) | 50.485% | |

Q Other (explain) See Below

Explain Other:

All amounts included in this schedule are supported by documentation on file at the water system. If no support is on file for a line item or if line item is not applicable, a "0" is shown.



Town of Alexandria
Office of Mayor

P.O. Box 277
Alexandria, TN 37012

October 23, 2012

OCT 25 2012

Dear Ms. Welborn:

This letter is our response to the E-Mail received on October 23, 2012 regarding our water system unaccounted for water loss.

We would like to inform the board of us being awarded a CDBG grant to address the issues concerning our water loss. Work should start in the spring of 2013. Work includes replacing several 2 inch galvanized pipe with PVC and replacing up to 11000 feet of six inch main line from our pumping station toward our city limits which includes our problem areas as indicated by our engineers and water department operator.

Attached are the answers to the questions sent on October 23, 2012 and updated information you have requested.

Our unaccounted for water loss for the months of May 2012 thru September 2012 is 17%.

The Town of Alexandria hopes that our proactive approach to this matter will show that we are making every attempt to get this situation under control in a fiscally responsible manner.

Sincerely,



Maria Baker
Mayor

Click to access definition

Water Audit Report for: **Town of Alexandria**

Reporting Year: **2011** / **7/2011 - 6/2012**

Please enter data in the white cells below. Where available, metered values should be used; if metered values are unavailable please estimate a value. Indicate your confidence in the accuracy of the input data by grading each component (1-10) using the drop-down list to the left of the input cell. Hover the mouse over the cell to obtain a description of the grades

All volumes to be entered as: **MILLION GALLONS (US) PER YEAR**

WATER SUPPLIED

<< Enter grading in column 'E'

| | | | |
|---|----------------------------------|-------------------------------------|---------------------------------|
| Volume from own sources: | <input type="text" value="n/a"/> | <input type="text" value="0.000"/> | Million gallons (US)/yr (MG/Yr) |
| Master meter error adjustment (enter positive value): | <input type="text" value="7"/> | <input type="text" value="0.010"/> | under-registered MG/Yr |
| Water imported: | <input type="text" value="9"/> | <input type="text" value="82.000"/> | MG/Yr |
| Water exported: | <input type="text" value="n/a"/> | <input type="text" value="0.000"/> | MG/Yr |
| WATER SUPPLIED: | | <input type="text" value="82.010"/> | MG/Yr |

AUTHORIZED CONSUMPTION

| | | | |
|---------------------|----------------------------------|-------------------------------------|-------|
| Billed metered: | <input type="text" value="10"/> | <input type="text" value="41.000"/> | MG/Yr |
| Billed unmetered: | <input type="text" value="n/a"/> | <input type="text" value="0.000"/> | MG/Yr |
| Unbilled metered: | <input type="text" value="9"/> | <input type="text" value="0.140"/> | MG/Yr |
| Unbilled unmetered: | <input type="text" value="5"/> | <input type="text" value="1.025"/> | MG/Yr |

Default option selected for Unbilled unmetered - a grading of 5 is applied but not displayed

Click here: for help using option buttons below

Pcnt: Value:

Use buttons to select percentage of water supplied OR value

WATER LOSSES (Water Supplied - Authorized Consumption)

MG/Yr

Apparent Losses

Unauthorized consumption: MG/Yr
 Default option selected for unauthorized consumption - a grading of 5 is applied but not displayed

| | | | |
|----------------------------------|--------------------------------|------------------------------------|-------|
| Customer metering inaccuracies: | <input type="text" value="9"/> | <input type="text" value="0.000"/> | MG/Yr |
| Systematic data handling errors: | <input type="text" value="7"/> | <input type="text" value="1.100"/> | MG/Yr |

Apparent Losses:

Pcnt: Value:

Choose this option to enter a percentage of billed metered consumption. This is NOT a default value

Real Losses (Current Annual Real Losses or CARL)

Real Losses = Water Losses - Apparent Losses: MG/Yr

WATER LOSSES: MG/Yr

NON-REVENUE WATER

NON-REVENUE WATER: MG/Yr

= Total Water Loss + Unbilled Metered + Unbilled Unmetered

SYSTEM DATA

| | | | |
|--|---------------------------------|------------------------------------|---|
| Length of mains: | <input type="text" value="7"/> | <input type="text" value="32.0"/> | miles |
| Number of active AND inactive service connections: | <input type="text" value="7"/> | <input type="text" value="1,041"/> | |
| Connection density: | | <input type="text" value="33"/> | conn./mile main |
| Average length of customer service line: | <input type="text" value="10"/> | <input type="text" value="10.0"/> | ft (pipe length between curbstop and customer meter or property boundary) |
| Average operating pressure: | <input type="text" value="8"/> | <input type="text" value="140.0"/> | psi |

COST DATA

| | | | |
|---|--------------------------------|--|----------------------|
| Total annual cost of operating water system: | <input type="text" value="9"/> | <input type="text" value="\$590,019"/> | \$/Year |
| Customer retail unit cost (applied to Apparent Losses): | <input type="text" value="7"/> | <input type="text" value="\$36.50"/> | \$/1000 gallons (US) |
| Variable production cost (applied to Real Losses): | <input type="text" value="9"/> | <input type="text" value="\$150.00"/> | \$/Million gallons |

PERFORMANCE INDICATORS

Financial Indicators

| | |
|---|---------------------------------------|
| Non-revenue water as percent by volume of Water Supplied: | <input type="text" value="50.0%"/> |
| Non-revenue water as percent by cost of operating system: | <input type="text" value="9.1%"/> |
| Annual cost of Apparent Losses: | <input type="text" value="\$47,633"/> |
| Annual cost of Real Losses: | <input type="text" value="\$5,781"/> |

Operational Efficiency Indicators

| | | |
|--|-------------------------------------|----------------------------|
| Apparent Losses per service connection per day: | <input type="text" value="3.43"/> | gallons/connection/day |
| Real Losses per service connection per day*: | <input type="text" value="101.43"/> | gallons/connection/day |
| Real Losses per length of main per day*: | <input type="text" value="N/A"/> | |
| Real Losses per service connection per day per psi pressure: | <input type="text" value="0.72"/> | gallons/connection/day/psi |

Unavoidable Annual Real Losses (UARL):

From Above, Real Losses = Current Annual Real Losses (CARL):

Infrastructure Leakage Index (ILI) [CARL/UARL]:

* only the most applicable of these two indicators will be calculated

WATER AUDIT DATA VALIDITY SCORE:

*** YOUR SCORE IS: 83 out of 100 ***

A weighted scale for the components of consumption and water loss is included in the calculation of the Water Audit Data Validity Score

PRIORITY AREAS FOR ATTENTION:

Based on the information provided, audit accuracy can be improved by addressing the following components:

- 1: Master meter error adjustment
- 2: Water imported
- 3: Unauthorized consumption

For more information, click here to see the Grading Matrix worksheet

Initial Check List for Addressing Water Loss

1. Are you billing for all general government water use? Examples: City Hall, Parks, Community Centers?
Answer: The water used at these facilities' are metered but are non-revenue generative
2. Are you accounting for the water used by the water and/or sewer department?
Answer: The Water Department uses flushing forms and other assets and tools to accurately gauge water used and have installed meters at pumping station and the sewer plant is metered.
3. Do you periodically check or inspect all 2" and larger meters?
Answer: The Alexandria Water Department is in the process of replacing all 2 inch meters with 1.5 inch or one inch meters
4. Do you have a recalibration policy and procedure in place?
Answer: The Alexandria Water Department at this time has no recalibration or procedures.
5. Do you have a meter replacement policy? Is the trigger based on age (length of time in service) or on gallons?
Answer: Yes, the Alexandria Water Department has a replacement policy of replacing meters after 1 million gallons and by results of meter testing if age or gallons cannot be accurately determined.
6. Do you have a process to inspect for unauthorized consumption? What are the consequences if unauthorized consumption is discovered?
Answer: We drive our system on a regular basis and have hydrant locks on highly susceptible places (b) at this time we are in the process of adopting polices that deal with unauthorized consumption and will be in place by Jan.1 2013.
7. Do you have a leak detection program currently in place?
Answer: Currently we have no written policy in place, but we are targeting high suspect lines such as (galvanize lines) for leaks to repair or replace
8. Do you have written policies, including a policy for billing adjustments? Are the written policies followed correctly by all levels of staff?
Answer: Are currently in the process of writing and implementing these policies and should be in place Jan.1 2013.
9. Do you have authorized non-customer users (volunteer fire departments, etc)? Do you account for the use? Do you have a method for the user to report water usage?
Answer: Yes, and each department submits a monthly report on their estimated use
10. Is your system "zoned" to isolate water loss?
Answer: Due to the way our water system is structured there is a lot of dead-end lines and would be very expensive to zone.
11. Do you search for leaks at night when there is little traffic or small household usage?
Answer: Not currently, but we do monitor our system charts daily to indentify changes such as tank loss, pressure drops and so on.
12. Do you or can you control pressure surges?

- Answer: We have just installed Variable Frequency Drives to our pumps so this should cease any pressure surges except for fire hydrant mis-use
13. Do you have or have access to leak detection equipment?
Answer: We have very limited resources on leak- detection equipment
14. What is your policy for notifying customers they have a leak?
Answer: We post Door Knockers on customer's doors to notify them of a suspected leak
15. Do you have a public relations program to encourage citizens to report leaks?
Answer: Not at this time
16. Do you have a policy to prosecute water theft or meter tampering/damage?
Answer: We are currently working on a policy and should be implemented on Jan.1 2013
17. What is the monetary value of the lost water?
Answer: 2.83 per thousand
18. Is the cost to repair the leak justified based on the amount of water being lost?
Answer: Yes

Town of Alexandria
 Schedule of Unaccounted For Water
 July, 2011 to April, 2012

(All amounts in gallons)

| | | |
|--------------------------------------|--|------------|
| A Water Treated and Purchased | | |
| B | Water Pumped (potable) | 0 |
| C | Water Purchased | 64,161,079 |
| D | Total Water Treated and Purchased (Sum Lines B and C) | 64,161,079 |
| E Accounted for Water: | | |
| F | Water Sold | 0 |
| G | Metered for Consumption (in house usage) | 45,923,074 |
| H | Fire Department(s) Usage | 49,950 |
| I | Flushing | 486,570 |
| J | Tank Cleaning/Filling | 0 |
| K | Street Cleaning | 0 |
| L | Bulk Sales | 0 |
| M | Water Bill Adjustments | 0 |
| N | Total Accounted for Water (Sum Lines F thru M) | 46,459,594 |
| O | Unaccounted for Water (Line D minus Line N) | 17,701,485 |
| P | Percent Unaccounted for Water (Line O divided by Line D times 100) | 27.589% |

Q Other (explain)

See Below

Explain Other:

All amounts included in this schedule are supported by documentation on file at the water system. If no support is on file for a line item or if line item is not applicable, a "0" is shown.



WATER AND WASTEWATER FINANCING BOARD
Case Study

Case: City of Greenfield, Weakley County
Mayor: Eddie Joe McKelvy
Customers: 974 water; 906 sewer
Water Loss: 16.28%

The City of Greenfield has been experiencing a negative change in net assets in its water and sewer system for two consecutive fiscal years according to the information contained in audited financial statements.

The financial and rate history is attached. Prior to 2012, the rates were last increased in 2006.

The budget for the City is prepared on a cash basis and that reflects that revenue exceeds expenditures. However, referring criteria to the Board for being financially distressed is based on the information reflected in the annual "income statement." That format projects a loss of approximately \$68,000 after depreciation.

Effective July 1, 2012, the City increased its sewer minimum bill from \$17.00 to \$19.70 for the first 3,000 gallons. The per thousand gallon amount did not change nor did the water rates. This equates to approximately 7.7% for any sewer customer using the average of 5,000 gallons per month. Staff projected the additional revenue necessary as approximately 15%.

Staff also suggested that the minimum usage be lowered from 3,000 gallons to 2,500 or 2,000 gallons. Officials stated that 35% of the customers use less 3,000 gallons per month.

The Board has historically allowed three full fiscal years for a utility system to show audited financial statements which reflect compliance with the law. The actions taken by the City are step one toward that goal.

The next step is.....

Staff recommends the Board

The City will continue to be under the jurisdiction of the Board until an audit is received which reflects compliance.

| CITY OF GREENFIELD | | | |
|---------------------------------|--------------------|--------------------|-----------------|
| HISTORY FILE | | | |
| | Audited | Audited | |
| Fiscal Year 6/30 | 2010 | 2011 | |
| Water/sewer revenues | \$ 418,232 | \$ 420,859 | |
| Other revenues | \$ 31,544 | \$ 38,644 | |
| Total Operating Revenues | \$ 449,776 | \$ 459,503 | |
| Total Operating Expenses | \$ 476,154 | \$ 461,917 | |
| Operating Income | \$ (26,378) | \$ (2,414) | |
| Interest Expense | \$ 14,196 | \$ 12,876 | |
| Change in Net Assets | \$ (40,574) | \$ (15,290) | |
| <u>Supplemental Information</u> | | | |
| Principal payment | \$ 77,208 | \$ 78,528 | |
| Depreciation | \$ 172,034 | \$ 176,757 | |
| Water Rates | | | |
| Inside Rate | | | <u>7/1/2012</u> |
| First 3,000 gallons | \$ 6.00 | \$ 6.00 | \$ 6.00 |
| All over | \$ 3.00 | \$ 3.00 | \$ 3.00 |
| Outside Rate | | | |
| First 3,000 gallons | \$ 10.00 | \$ 10.00 | \$ 10.00 |
| All over | \$ 3.00 | \$ 3.00 | \$ 3.00 |
| Water customers | 976 | 974 | |
| Water Loss | 25.51% | 16.28% | |
| Sewer Rates | | | |
| Inside Rate | | | |
| First 3,000 gallons | \$ 17.00 | \$ 17.00 | \$ 19.70 |
| All over | \$ 3.00 | \$ 3.00 | \$ 3.00 |
| Outside Rate | | | |
| First 3,000 gallons | \$ 18.00 | \$ 21.00 | \$ 23.70 |
| All over | \$ 3.00 | \$ 3.00 | \$ 3.00 |
| Sewer customers | 909 | 906 | |

**CITY OF GREENFIELD
WATER & SEWER
BUDGET
2012-13**

| | ACTUAL 2010-11 | TO DATE 2011-12 | BUDGET 2011-12 | PROPOSED 2012-13 |
|---------------------------------|---------------------------|----------------------------|---------------------------|-----------------------------|
| INCOME | | | | |
| GRANTS & LOANS | | | | |
| 2010 CDBG-WATER LAB | \$ - | \$ - | \$ 157,000.00 | \$ 157,000.00 |
| TOTAL GRANTS & LOANS | \$ - | \$ - | \$ 157,000.00 | \$ 157,000.00 |
| W&S REVENUE | | | | |
| back bill | \$ - | \$ - | \$ 50.00 | \$ - |
| bank interest | \$ 30.64 | \$ 14.49 | \$ 50.00 | \$ 25.00 |
| cd interest | \$ - | \$ - | \$ - | \$ 700.00 |
| connection/transfer fee | \$ 1,430.00 | \$ 1,040.00 | \$ 1,500.00 | \$ 1,500.00 |
| cutoff fee | \$ 1,725.00 | \$ 1,100.00 | \$ 2,000.00 | \$ 2,000.00 |
| hydrant fee | \$ 18,216.00 | \$ 18,216.00 | \$ 18,216.00 | \$ 18,216.00 |
| meter reading service | \$ 6,490.07 | \$ 5,103.00 | \$ 6,800.00 | \$ 6,800.00 |
| miscellaneous | \$ 871.90 | \$ 1,105.59 | \$ 500.00 | \$ 1,000.00 |
| sale of equipment | \$ 8,940.00 | \$ - | \$ - | \$ - |
| sales tax | \$ 13,549.46 | \$ 10,074.00 | \$ 13,750.00 | \$ 13,750.00 |
| sanitation sales | \$ 141,969.00 | \$ 117,528.00 | \$ 160,000.00 | \$ 160,000.00 |
| service chg on rt'd cks | \$ 320.00 | \$ 280.00 | \$ 360.00 | \$ 360.00 |
| sewer sales | \$ 258,666.03 | \$ 191,871.00 | \$ 260,000.00 | \$ 289,160.00 |
| surcharge | \$ 866.00 | \$ 520.00 | \$ 1,000.00 | \$ 1,000.00 |
| tap fees | \$ - | \$ 700.00 | \$ 700.00 | \$ 700.00 |
| water sales | \$ 148,111.30 | \$ 109,742.00 | \$ 151,500.00 | \$ 151,500.00 |
| TOTAL W&S REVENUE | \$ 601,185.40 | \$ 457,294.08 | \$ 616,426.00 | \$ 646,711.00 |
| TOTAL INCOME | \$ 601,185.40 | \$ 457,294.08 | \$ 773,426.00 | \$ 803,711.00 |

**CITY OF GREENFIELD
WATER & SEWER
BUDGET
2012-13**

PAGE 2

| EXPENSE | ACTUAL 2010-11 | TO DATE 2011-12 | BUDGET 2011-12 | PROPOSED 2012-13 |
|-------------------------------|---------------------------|----------------------------|---------------------------|-----------------------------|
| W&S EXPENSES | | | | |
| 2010 CDBG-WATER LAB | \$ - | \$ 5,272.00 | \$ 162,000.00 | \$ 157,000.00 |
| advertising | \$ 240.00 | \$ 464.00 | \$ 300.00 | \$ 500.00 |
| capital expenditures | \$ 25,836.00 | \$ 4,707.00 | \$ 25,000.00 | \$ 30,000.00 |
| collection mgt | \$ 128.00 | \$ 5.00 | \$ 100.00 | \$ 100.00 |
| fuel | \$ 7,433.00 | \$ 7,017.00 | \$ 7,500.00 | \$ 9,500.00 |
| insurance-health | \$ 18,165.00 | \$ 15,600.00 | \$ 21,000.00 | \$ 23,100.00 |
| insurance-prop & liab | \$ 7,500.00 | \$ 7,500.00 | \$ 7,500.00 | \$ 9,000.00 |
| insurance-worker's comp | \$ 5,000.00 | \$ 5,000.00 | \$ 5,000.00 | \$ 6,000.00 |
| machine & equip | \$ 960.00 | \$ 2,191.00 | \$ 3,550.00 | \$ 3,550.00 |
| miscellaneous | \$ 855.00 | \$ 532.00 | \$ - | \$ 1,000.00 |
| repair & maint. | \$ 22,291.00 | \$ 7,252.00 | \$ 20,000.00 | \$ 20,000.00 |
| salaries | \$ 126,160.00 | \$ 97,107.00 | \$ 128,021.00 | \$ 133,461.00 |
| sales tax payable | \$ 14,425.00 | \$ 10,144.00 | \$ 13,000.00 | \$ 13,000.00 |
| sanitation collection | \$ 153,072.00 | \$ 106,374.00 | \$ 160,000.00 | \$ 160,000.00 |
| school, travel, food | \$ 131.00 | \$ 1,244.00 | \$ 500.00 | \$ 1,500.00 |
| services-professional | \$ 3,741.00 | \$ 1,835.00 | \$ 5,500.00 | \$ 5,500.00 |
| social security/medicare | \$ 9,651.00 | \$ 7,429.00 | \$ 9,900.00 | \$ 10,225.00 |
| SRF interest pmts | \$ 12,923.00 | \$ 8,172.00 | \$ 10,950.00 | \$ 9,516.00 |
| SRF principal pmts | \$ - | \$ 60,381.00 | \$ 80,508.00 | \$ 81,888.00 |
| subscription & dues | \$ 400.00 | \$ 400.00 | \$ 500.00 | \$ 500.00 |
| sundry-state fees | \$ 3,172.00 | \$ 3,262.00 | \$ 4,000.00 | \$ 4,000.00 |
| supplies-chemical | \$ 8,421.00 | \$ 7,927.00 | \$ 9,197.00 | \$ 10,600.00 |
| supplies-office | \$ 2,978.00 | \$ 2,040.00 | \$ 3,500.00 | \$ 3,500.00 |
| supplies-other materials | \$ 17,622.00 | \$ 14,399.00 | \$ 15,500.00 | \$ 19,500.00 |
| tcrs-retirement | \$ 21,573.00 | \$ 16,605.00 | \$ 22,000.00 | \$ 23,150.00 |
| utilities-electric | \$ 38,682.00 | \$ 30,748.00 | \$ 39,000.00 | \$ 41,000.00 |
| TOTAL W&S EXPENSES | \$ 501,359.00 | \$ 423,607.00 | \$ 754,026.00 | \$ 777,090.00 |
| NET INCOME | \$ 99,826.40 | \$ 33,687.08 | \$ 19,400.00 | \$ 26,621.00 |

2011-2012

| <u>Service</u> | | <u>Inside</u> | | <u>Outside</u> |
|----------------------------------|----|----------------------|----|---------------------------------|
| Water (0 - 3,000 gallons) | | | | |
| Residential | \$ | 6.00 | \$ | 10.00 |
| Commerical | \$ | 6.00 | | N/A |
| More than 3,000 gallons | | | | \$3.00 per 1,000 gallons |
| Sewer (0 - 3,000 gallons) | | | | |
| Residential | \$ | 17.00 | \$ | 21.00 |
| Commerical | \$ | 17.00 | | N/A |
| More than 3,000 gallons | | | | \$3.00 per 1,000 gallons |
| Garbage | | | | |
| Residential | \$ | 13.71 | \$ | 20.12 |
| Commerical | \$ | 16.85 | | N/A |
| Minimum Utility Bill | | \$37.30 | | |

2012-2013

| <u>Service</u> | | <u>Inside</u> | | <u>Outside</u> |
|----------------------------------|----|----------------------|----|---------------------------------|
| Water (0 - 3,000 gallons) | | | | |
| Residential | \$ | 6.00 | \$ | 10.00 |
| Commerical | \$ | 6.00 | | N/A |
| More than 3,000 gallons | | | | \$3.00 per 1,000 gallons |
| Sewer (0 - 3,000 gallons) | | | | |
| Residential | \$ | 19.70 | \$ | 23.70 |
| Commerical | \$ | 19.70 | | N/A |
| More than 3,000 gallons | | | | \$3.00 per 1,000 gallons |
| Garbage | | | | |
| Residential | \$ | 13.71 | \$ | 20.12 |
| Commerical | \$ | 16.85 | | N/A |
| Minimum Utility Bill | | \$40.00 | | |

4:35 PM
 10/22/12
 Cash Basis

WATER & SEWER Profit & Loss Budget vs. Actual July through September 2012

| | Jul - Sep 12 | Budget | % of Budget |
|--|-------------------|-------------------|---------------|
| Income | | | |
| GRANTS & LOANS | | | |
| 2010 CDBG - WATER LAB | 118,636.18 | 157,000.00 | 75.6% |
| Total GRANTS & LOANS | 118,636.18 | 157,000.00 | 75.6% |
| W & S REVENUE | | | |
| cd interest | 0.00 | 700.00 | 0.0% |
| sales tax | 3,734.64 | 13,750.00 | 27.2% |
| sanitation sales | 40,219.18 | 160,000.00 | 25.1% |
| tap fees | 0.00 | 700.00 | 0.0% |
| 2-34410 · meter reading service | 1,768.00 | 6,800.00 | 26.0% |
| 2-35200 · service chge on rt'd cks | 80.00 | 360.00 | 22.2% |
| 2-36100 · bank interest | 9.30 | 25.00 | 37.2% |
| 2-36200 · connection/transfer fee | 490.00 | 1,500.00 | 32.7% |
| 2-36300 · cutoff fee | 550.00 | 2,000.00 | 27.5% |
| 2-36400 · hydrant fees | 0.00 | 18,216.00 | 0.0% |
| 2-36990 · miscellaneous | 391.20 | 1,000.00 | 39.1% |
| 2-37110 · water sales | 38,304.01 | 151,500.00 | 25.3% |
| 2-37200 · water deposits | 3,210.00 | | |
| 2-37211 · sewer sales | 80,515.55 | 289,160.00 | 27.8% |
| 2-37260 · surcharge | 168.00 | 1,000.00 | 16.8% |
| Total W & S REVENUE | 169,439.88 | 646,711.00 | 26.2% |
| Total Income | 288,076.06 | 803,711.00 | 35.8% |
| Expense | | | |
| W & S EXPENSES | | | |
| 2010 CDBG - WATER LAB | 121,845.06 | 157,000.00 | 77.6% |
| 2-11100 · salaries | 31,218.59 | 133,461.00 | 23.4% |
| 2-14200 · insurance-health | 5,362.50 | 23,100.00 | 23.2% |
| 2-14210 · insurance-prop & liab | 9,000.00 | 9,000.00 | 100.0% |
| 2-14220 · insurance-worker's comp | 6,000.00 | 6,000.00 | 100.0% |
| 2-14230 · tcrr-retirement | 5,413.30 | 23,150.00 | 23.4% |
| 2-23000 · subscription & dues | 394.00 | 500.00 | 78.8% |
| 2-23600 · supplies-chemical | 2,546.20 | 10,600.00 | 24.0% |
| 2-23700 · advertising | 0.00 | 500.00 | 0.0% |
| 2-24000 · utilities-electric | 10,630.67 | 41,000.00 | 25.9% |
| 2-25000 · services-professional | 1,655.48 | 5,500.00 | 30.1% |
| 2-25200 · social security/medicare | 2,388.23 | 10,225.00 | 23.4% |
| 2-26000 · repair & maint. | 6,277.53 | 20,000.00 | 31.4% |
| 2-26500 · machine & equip | 0.00 | 3,550.00 | 0.0% |
| 2-29900 · sundry-state fees | 1,251.90 | 4,000.00 | 31.3% |
| 2-31000 · supplies-office | 711.45 | 3,500.00 | 20.3% |
| 2-33100 · fuel | 1,493.85 | 9,500.00 | 15.7% |
| 2-49000 · supplies-other materials | 5,030.58 | 19,500.00 | 25.8% |
| 2-51000 · school, travel, food | 746.70 | 1,500.00 | 49.8% |
| 2-52000 · collection mgt | 19.59 | 100.00 | 19.6% |
| 2-53500 · miscellaneous | 19.74 | 1,000.00 | 2.0% |
| 2-54000 · sales tax payable | 2,523.00 | 13,000.00 | 19.4% |
| 2-54500 · sanitation collection | 40,219.18 | 160,000.00 | 25.1% |
| 2-63600 · SRF interest pmts | 2,809.00 | 9,516.00 | 29.5% |
| 2-70000 · SRF interest payments | 0.00 | 81,888.00 | 0.0% |
| 2-90000 · capital expenditures | 1,490.40 | 30,000.00 | 5.0% |
| Total W & S EXPENSES | 259,046.95 | 777,090.00 | 33.3% |
| Total Expense | 259,046.95 | 777,090.00 | 33.3% |
| Net Income | 29,029.11 | 26,621.00 | 109.0% |

WATER AND WASTEWATER FINANCING BOARD
Case Study

Case: Town of Henning, Lauderdale County
Mayor: Michael Bursey
Customers: 435 water; 407 sewer
Water Loss: 50.5%

The Town of Henning has been experiencing a negative change in net assets in its water and sewer systems for two consecutive fiscal years according to the information contained in audited financial statements. The water system also has excessive water losses.

The financial and rate history is attached.

Mayor Bursey has been in office since 2009 and is running for re-election this fall. Staff was told that 40% of the customers are on the cutoff list on a regular basis. However, only about ten customers are actually disconnected because many pay at the last minute.

In the last two years, the Town has spent a great deal of money to replace six pumps in the water system and three grinder pumps in the sewer system. A raccoon also got into the lift station, causing a lot of damage. Four major water leaks have been repaired, but there are more to locate. The Mayor believes that the pumps have not been maintained adequately, thereby resulting in failure. The Town will institute a preventative maintenance and inspection program to ensure equipment is maintained properly. The Town has invested in updating, sealing, and painting its main water tank. The main lift station was recently pumped to help prevent sewer lines from backing up.

The Town has received approval notice for a CDBG (Disaster Recovery) for \$730,000 to replace water lines in the downtown area (see map), and generators for the police station and community center. Some of the lines in the downtown area have been in use since the 1950's and are leaking underground. The grant will also allow the replacement of six-inch cast iron main lines. Plans are being made with the next CDBG to continue the replacing and updating of old water lines and meters.

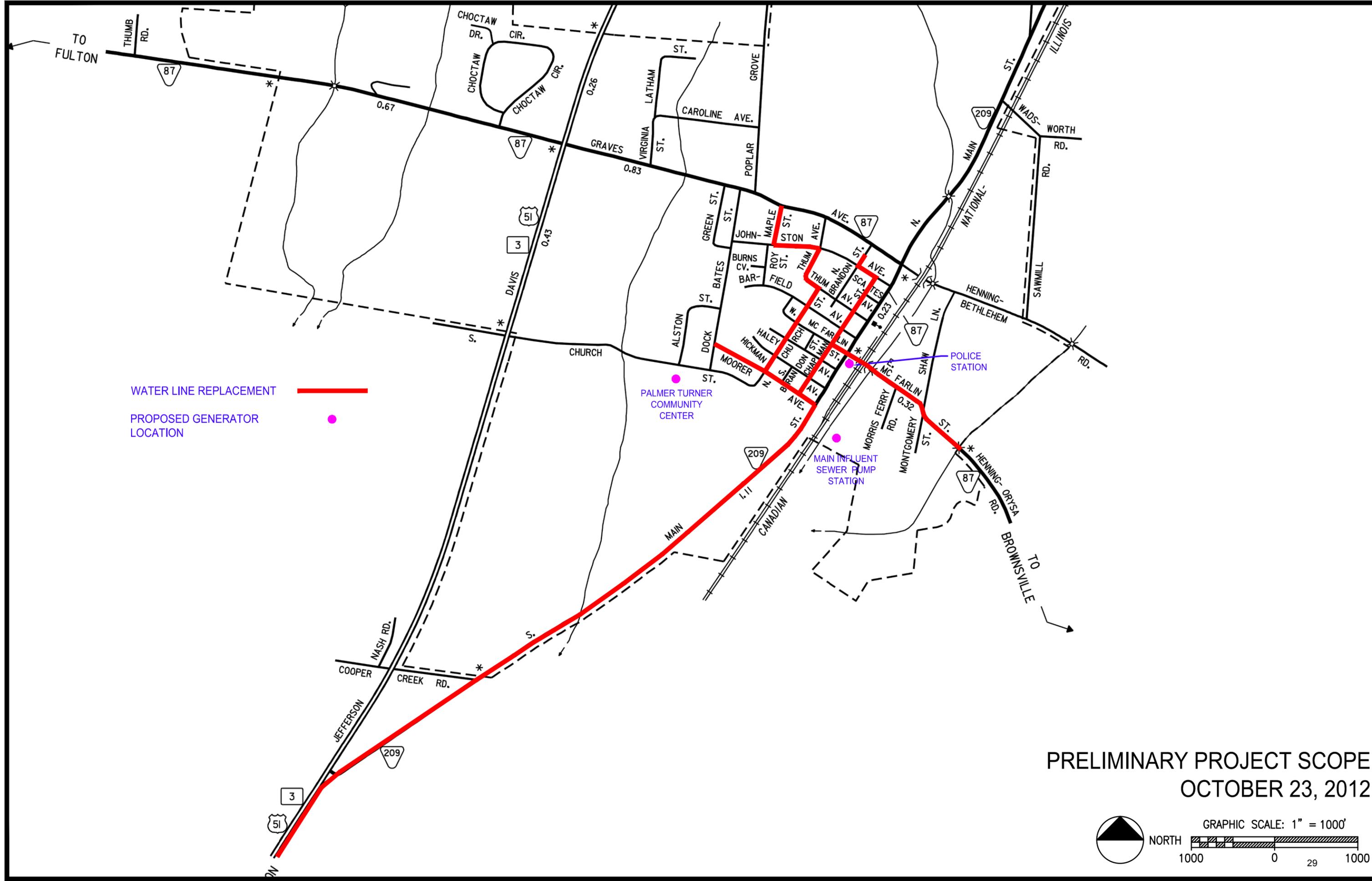
The Town was under the jurisdiction of the Board previously. The Board mandated a 3% annual increase for three consecutive years. Previous administration instituted the first increase in January 2007. Current administration continued the increases for two years and has tried to hold the increases steady until now.

Staff was told that the Town does not have written policies, but is working on the development of those. It was suggested that MTAS or TAUD may have policies that could be adapted to fit the needs of the Town and should be contacted for assistance in that area.

Staff suggested the Mayor contact MTAS for a rate study. They should also contact TAUD for assistance with the leak issues as well as completing the AWWA water loss methodology. The Town may need to consider using the CDBG funding for line replacement instead of automatic meter reading equipment. A preventative maintenance program should be developed for the pumps. MTAS suggested that, in order to control water loss, all lines and meters should be replaced and all incidents of possible water theft be investigated.

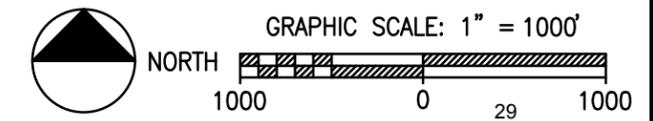
Staff recommends the Board endorse the actions of the Town. However, because it is apparent that the Town is dependent on the Community Development Block Grant program to fund its capital projects, staff also recommends that a rate structure be implemented to decrease that dependence. MTAS should also be contacted regarding a rate study. The Town will continue to be under the jurisdiction of the Board until an audit is received which reflects compliance.

| Town of Henning Projections | | | | | | | |
|---------------------------------|-------------------------|--------------------|-----|---------------------------|---------------------------|---------------------------|---------------------------|
| | | | 0% | Growth rate Projection | Growth rate Projection | Growth rate Projection | Growth rate Projection |
| Fiscal Year 6/30 | Audited 2011 | Projected 2012 | | 2013 | 2014 | 2015 | 2016 |
| Water/sewer revenues | \$ 295,623 | \$ 295,623 | | \$ 295,623 | \$ 295,623 | \$ 295,623 | \$ 295,623 |
| Other revenues | \$ 21,646 | \$ 21,646 | | \$ 21,646 | \$ 21,646 | \$ 21,646 | \$ 21,646 |
| | | | 12% | \$ 35,475 | \$ 35,475 | \$ 35,475 | \$ 35,475 |
| Total Operating Revenues | \$ 317,269 | \$ 317,269 | | \$ 352,744 | \$ 352,744 | \$ 352,744 | \$ 352,744 |
| | | | | | | | |
| Total Operating Expenses | \$ 294,678 | \$ 300,572 | 2% | \$ 306,583 | \$ 312,715 | \$ 318,969 | \$ 325,349 |
| | | | | | | | |
| Operating Income | \$ 22,591 | \$ 16,697 | | \$ 46,160 | \$ 40,029 | \$ 33,774 | \$ 27,395 |
| Interest Expense | \$ 33,007 | \$ 32,291 | | \$31,315 | \$30,296 | \$29,226 | \$28,315 |
| Capital Contributions | \$ 2,552 | | | | | | |
| Change in Net Assets | \$ (7,864) | \$ (15,594) | | \$ 14,845 | \$ 9,733 | \$ 4,548 | \$ (920) |
| | | | | | | | |
| <u>Supplemental Information</u> | | | | | | | |
| Principal payment | \$ 15,051 | \$ 20,265 | | \$ 21,241 | \$ 22,260 | \$ 21,764 | \$ 13,841 |
| Depreciation | \$ 133,149 | \$ 133,149 | | \$ 133,149 | \$ 133,149 | \$ 133,149 | \$ 133,149 |
| | | | | | | | |
| Water Rates | <u>Effective 3/1/11</u> | | | | | | |
| Inside Rate | | | | | | | |
| First 3,000 gallons | \$ 19.89 | | | | | | |
| 3,001 -5,000 gallons | \$ 5.36 | | | | | | |
| 5,001 - 8,000 gallons | \$ 4.97 | | | | | | |
| All over | \$ 4.59 | | | | | | |
| Water customers | 435 | | | | | | |
| Water Loss | 50.50% | | | | | | |
| Sewer Rates | | | | | | | |
| Sewer customers | 407 | | | | | | |



WATER LINE REPLACEMENT 
 PROPOSED GENERATOR LOCATION 

PRELIMINARY PROJECT SCOPE
 OCTOBER 23, 2012



Initial Check list for Addressing Water Loss

1. Are you billing for all general government water use? Examples: City Hall, Parks, Community Centers, etc.

The town has placed meters on all public buildings including the community center, fire department and maintenance department. A work order is currently in place to place a meter on the wastewater treatment building. Recently, the Town was notified that a 6" water line is connected from the Town's water tank on Highway 51 to the VF Imagewear's (formally Todd Uniforms) high bay building. This line is not metered and is supposed to provide water to the building's fire suppression system. Mr. Keith Klutz, the manager on VF Imagewear informed me that there was a verbal agreement between former Mayor Montgomery (tenure ended in 1993) and VF Imagewear. The Town was allowed to place a water tower on their land for the fire suppression line. However, the Town has no way to monitor this line without a meter. We are in the process of sending Mr. Klutz a letter informing him of our intentions to monitor the line and set up a formal contract.

2. Are you accounting for the water used by the water and/or sewer department?

The water department's water use is monitored and accounted for. The sewer department water lines are scheduled to be metered. However, the plant has a low volume use because one operator operates both plants and he mainly operates at the water treatment plant.

3. Do you periodically check or inspect all 2" and larger meters?

Yes, we have replaced approximately 50 meters last year. However, most of the meters are old and needs replacing. The current CDBG grant and follow on grant should help us replace all meters in the Town with automatic meters.

4. Do you have a recalibration policy and procedure in place?

The main water meter has not been calibrated. The operator informed me that it would cost more to have someone (who has to come from Alabama) to calibrate the meter than to replace the meter. Currently, we are looking at the cost to replace the meter.

5. Do you have a meter replacement policy? Is the trigger based on age (length of time in service) or on gallons?

Currently, we replace meters based on age and failure of the meters.

6. Do you have a process to inspect for unauthorized consumption? What are the consequences if unauthorized consumption is discovered?

Yes, our superintendent has 30 years of experience reading and inspecting meters. The meters and lines are inspected at least monthly. We have found a customer who bypassed our meter and connected his own line to his house. He agreed to repay the Town in lieu of being prosecuted in court.

7. Do you have a leak detection program currently in place?

Our leak detection program consists of monitoring the town for leaks coming from the ground or from pipes. We have found several leaks coming from old pipes or broken lines underground. Those lines have been repaired or replaced.

8. Do you have written policies, including a policy for billing adjustments? Are the written policies followed correctly by all levels of staff?

Yes, if a customer has a known leak, we will allow a one-time adjustment of his sewer amount to a six month average. Staff is instructed to apply the same policies to all customers including the Mayor.

9. Do you have authorized non-customer users (volunteer fire departments, etc)? Do you account for the use? Do you have a method for the user to report water usage?

The volunteer fire department will use the Town hydrants to refill their tankers when they fight fires inside the city limits. If they fight fires outside the city limits, they must use hydrants in the county. The fire chief should have records of water use based on refills and size of the tanks on the trucks.

10. Is your system "zoned" to isolate water loss?

Not all systems can be isolated yet. Some shutoff valves are so old they no longer work. We sometimes have to repair leaks with water still running through the lines. The CDBG grant we received should replace the lines and well as provide strategically placed shutoff valves to isolate the leaks and prevent water loss.

11. Do you search for leaks at night when there is little traffic or small household usage?

Not yet. We plan to place the operators on a night shift to find, isolate, and fix leaks.

12. Do you or can you control pressure surges?

The system has two water tanks that maintain closed loop equilibrium between them. When one tank had to undergo refurbishment, we had multiple leaks in older lines due to water hammer in the lines. However, if a line leaks due to a surge, that line can be repaired.

13. Do you have or have access to leak detection equipment?

If needed, we can have access to leak detection equipment access from Ripley Gas and Water.

14. What is your policy for notifying customers they have a leak?

Our operators and meter readers will notify customers who have a leak by leaving a note on their door or notifying them personally.

15. Do you have a public relations program to encourage citizens to report leaks?

Yes, most citizens talk with city leaders and employees on a regular basis.

16. Do you have a policy to prosecute water theft or meter tampering/damage?

Yes, theft of utilities can be prosecuted or retribution made.

17. What is the monetary value of the lost water?

The town estimates we lose about \$5,000 monthly in water loss

18. Is the cost to repair the leak justified based on the amount of water being lost?

Yes, with a water lose rate over 50%, we are losing too much money in supplies and repair of equipment.

Suggestion: The Division of Water Supply requires a specific person(s) be assigned to the cross connection program. It may be beneficial to assign the same person to account for water loss.

Mr. Eddie Raynor will be the person assigned.

Mayor's Notes

The Town is aware of the high water lose rate and it is believed to be due to the following:

Age of the water system: Some water and sewer lines are over 50 years old and have not been replaced or maintained on a regular basis. The current CDBG grant is aimed to replace all cast iron main lines. A follow-up grant will be used to replace all metal service lines and meters. We are working engineers from and Askew and Hargraves (see attachments) to prioritize which lines need replacing. Our goal is to have all metal or cast iron lines replace with PVC lines.

The water meters are also old and needs replacing. With the current CDBG grant, we may not be able to get new meters due to cost overruns. Hopefully, new meters will be replaced under the next CDBG grant.

Leaks in the water system: The Town has isolated water leaks from lines that were leaking underground, under old buildings, and inside the community center. These lines were leaking for years. We are aggressively seeking, isolating, and repairing water lines throughout the Town.

To increase revenue, we passed during the October Board meeting to apply commercial water rates to commercial businesses in Town. Previously, commercial businesses were paying the same as residential businesses. About 30 businesses will be affected by this rate change (see Attachment). We based our rate schedule on a model similar to Ripley Gas and Water. The rate changes should increase our water revenues by \$2,000 monthly.

WATER AND WASTEWATER FINANCING BOARD
Case Study

Case: City of Moscow, Fayette County
Mayor: Gladys Kercheval
Customers: 268 water; 268 sewer
Water Loss: 28.22%

The City of Moscow has been experiencing a negative change in net assets in its water and sewer system for two consecutive fiscal years according to the information contained in audited financial statements.

The financial and rate history is attached. The rates were increased 35% in 2010. On July 1, 2012, the rates were increased by 9% on both the minimum and the overage. Effective October 1, 2012, the minimum bill was raised another 5%. These are all residential changes. Other percentages of change affected the commercial and industrial customers.

The general fund of the City has no debt. The debt in the utility system will be in repayment until 2028. The City has no plans to borrow funds anytime soon, so they have not yet adopted a debt management policy.

Recently, they started using a collection agency to collect past due bills. They also started taking credit cards for utility payments.

Projections for the year ending June 30, 2012 reflect a negative change in net assets of approximately \$44,000.

Based on an average of 5,000 gallons per month, the residential water rate increased 13.7%, commercial increased 82% and industrial increased 122%. Sewer rates are equivalent to water rates since the rates reflected in the audit ending June 30, 2011.

Staff recommends the Board endorse the actions of the City of Moscow. The City will continue to be under the jurisdiction of the Board until an audit is received which reflects compliance.

| TOWN OF MOSCOW | | |
|---------------------------------|--------------------|--------------------|
| HISTORY FILE | | |
| | Audited | Audited |
| Fiscal Year 6/30 | 2010 | 2011 |
| Water/sewer revenues | \$ 167,316 | \$ 201,047 |
| Other revenues | \$ 1,048 | \$ 26,236 |
| Insurance reimbursements | \$ 45,321 | |
| Total Operating Revenues | \$ 213,685 | \$ 227,283 |
| Total Operating Expenses | \$ 283,745 | \$ 238,888 |
| Operating Income | \$ (70,060) | \$ (11,605) |
| Interest Expense | \$ 13,415 | \$ 11,156 |
| Change in Net Assets | \$ (83,475) | \$ (22,761) |
| <u>Supplemental Information</u> | | |
| Principal payment | \$ 28,929 | \$ 38,922 |
| Depreciation | \$ 69,591 | \$ 68,700 |
| <u>Water Rates</u> | | |
| <u>Residential</u> | | |
| First 2,000 gallons | \$ 22.95 | \$ 22.95 |
| All over | \$ 1.35 | \$ 1.35 |
| <u>Commercial</u> | | |
| First 2,000 gallons | \$ 28.35 | \$ 28.35 |
| All over | \$ 1.35 | \$ 1.35 |
| <u>Industrial</u> | | |
| First 2,000 gallons | \$ 75.60 | \$ 75.60 |
| All over | \$ 1.35 | \$ 1.35 |
| Water customers | 276 | 268 |
| <u>Water Loss</u> | 19.56% | 28.22% |
| <u>Sewer Rates</u> | | |
| Sewer customers | 262 | 268 |



City Of Moscow

Moscow City Hall
14075 Hwy 57
Moscow Tennessee 38057

Gladys Kercheval
Mayor



Ms. Joyce Welborn,
Comptroller State Water

This letter is sent to you in reply to your request by letter and by open public meeting. I am reporting that the Board of the City of Moscow has met in four open meetings.

They agreed to the following:

1. Charging a higher nonrefundable connection fee for all citizens
2. Charging a higher fee for reconnect after being shut off for nonpayment
3. They have already applied a 9% fee in July before the request of 18%
4. Hired collection service for the left behind water bills
5. All water bills are paid in full every month

In the past year these are things that we have changed in our water department:

1. We have ended all debts and only owe on bonds for lagoon
2. With new management the utility bills and the chemicals have dropped on servicing utility the utility department
3. All streets have been taken out of the water accounts and placed in general.
4. New locks have been purchased to put on meters to control theft
5. We have worked very hard to insure all residential homes and commercial business have working meters and will be charged accurately based on metered gallons used
6. The water plant and lagoon are set up on regular maintenance schedules, which has proven to be very important in lowering the expenses for our water and sewer department
7. We have just installed a full operational generator for the water plant to take over in case of power outage.
8. We have just been awarded a million dollar grant {no match} to do flood control, sewer maintenance and culverts for all road ways and new fire hydrants. This will help in water loss.
9. Our water loss is also being kept to a low
10. The board raised the residents another 5% [making a total of 15%]
11. The board raised the business 62%
12. The board raised the Industrial 112%

This is the last meetings results and voting at last evenings special called meeting.

The enclosed sheets will show results of all changes the board has made.

Thank you so much for working with us and seeing that in these trying times cities do care. My hands are tied at the results of some decisions.

Mayor *Thaddeus J. Kuchera*
City Recorder *April Atkins*



City Of Moscow

Moscow City Hall
14075 Hwy 57
Moscow Tennessee 38057

Changes to rates
after special called
meeting 9-17-12

2012---2013 Rates

Water Rates

Residential:

First 2,000 gallons---\$26.27

Over 2,000 gallons-\$1.48 per 1,000 gal.

Commercial:

First 2,000 gallons---\$50.00

Over 2,000 gallons-\$3.00 per 1,000 gal.

Industrial/School:

First 2,000 gallons---\$82.41

Over 2,000 gallons---\$5.00 per 1,000 gal.

Sanitation Fee: ---\$14.25

Sewer Rates

Residential:

\$26.27

\$1.48 per 1,000 gal.

Commercial:

\$50.00

\$3.00 per 1,000 gal.

Industrial/School:

\$82.41

\$5.00 per 1,000 gal.

A 10% penalty is applied to customer's bill if it is not paid by the 16th of the month.

Shut off is on the 20th of the month for non payment of bill and a \$50.00 charge is added for reconnection of services.

*Rates in place
for July 2012*



City Of Moscow

Moscow City Hall
14075 Hwy 57
Moscow Tennessee 38057

2012---2013 Rates

Water Rates

Residential:

First 2,000 gallons---\$25.02

Over 2,000 gallons-\$1.48 per 1,000 gal.

Commercial:

First 2,000 gallons---\$30.91

Over 2,000 gallons-\$1.48 per 1,000 gal.

Industrial/School:

First 2,000 gallons---\$82.41

Over 2,000 gallons---\$2.36 per 1,000 gal.

Sanitation Fee: ---\$14.00

Sewer Rates

Residential:

\$25.02

\$1.48 per 1,000 gal.

Commercial:

\$30.91

\$1.48 per 1,000 gal.

Industrial/School:

\$82.41

\$2.36 per 1,000 gal.

A 10% penalty is applied to customer's bill if it is not paid by the 16th of the month.

Shut off is on or around the 20th of the month for non payment of bill and a \$25.00 charge is added for reconnection of services.

*Expenses
improving new
arrangement.*

REPAIRS & MAINTANCE

| <u>9-10</u> | <u>10-11</u> | <u>11-12</u> | <u>12-13</u> |
|-------------|--------------|--------------|--------------|
| \$8,595 | \$81,900 | \$14,000 | \$5,000 |

CHEMICALS

| <u>9-10</u> | <u>10-11</u> | <u>11-12</u> | <u>12-13</u> |
|-------------|--------------|--------------|--------------|
| \$23,383 | \$20,180 | \$14,000 | \$10,000 |

ELECTRIC BILLS

| <u>9-10</u> | <u>10-11</u> | <u>11-12</u> | <u>12-13</u> |
|-------------|--------------|--------------|--------------|
| \$17,802 | \$11,000 | \$11,100 | \$10,000 |

WATER AND WASTEWATER FINANCING BOARD
Case Study

Case: Town of Rossville, Fayette County
Mayor: James Gaither
Customers: 299 water; 290 sewer
Water Loss: 26.19%

The Town of Rossville has been experiencing a negative change in net assets in its water and sewer system for two consecutive fiscal years according to the information contained in audited financial statements.

The financial and rate history is attached. The last water rate increase was in 2003. The last sewer increase was approximately 20 years ago.

The major sewer user in the Town is the Kellogg Company, which has its own water source. The contract negotiated and signed in 1969 with Tennessee Foods, Inc. (now Kellogg), included percentages of expenses that would be paid to the Town for continued operation of the sewer system. For the year ended June 30, 2011, the total amount of those expenses was just over \$90,000. Kellogg has been billed for almost \$64,000 based on the original percentages.

In 2004, the Town annexed an area to prevent encroachment of a neighboring Town. Twelve customers were added at that time. In 2008, a second annexation, at the request of Fayette County, was undertaken to encompass an area for a railroad intermodal. It is estimated that only two residential customers will be added with that annexation. These two annexations basically tripled to land area of the Town. With the exceptions of the annexations, there is no growth in the Town.

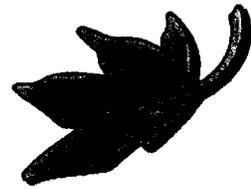
As a result of a MTAS rate study, water and sewer rates were drastically increased as explained in the material from the Mayor. The Town also repaid a loan for the water department which will reduce some debt related expenses.

Staff recommends the Board endorse the actions of the Town of Rossville. The Town will continue to be under the jurisdiction of the Board until an audit is received which reflects compliance.

| TOWN OF ROSSVILLE | | |
|---------------------------------|--------------------|--------------------|
| HISTORY FILE | | |
| | Audited | Audited |
| Fiscal Year 6/30 | 2010 | 2011 |
| Water/sewer revenues | \$ 132,194 | \$ 143,723 |
| Other revenues | \$ 44,340 | \$ 17,419 |
| Total Operating Revenues | \$ 176,534 | \$ 161,142 |
| Total Operating Expenses | \$ 177,053 | \$ 198,378 |
| Operating Income | \$ (519) | \$ (37,236) |
| Interest Expense | \$ 26,221 | \$ 25,597 |
| Change in Net Assets | \$ (26,740) | \$ (62,833) |
| <u>Supplemental Information</u> | | |
| Principal payment | \$ 7,175 | \$ 7,798 |
| Depreciation | \$ 67,793 | \$ 67,793 |
| <u>Water Rates</u> | | |
| <u>Inside Rate</u> | | |
| First 1,000 gallons | | \$ 3.75 |
| 1,001 -3,000 gallons | | \$ 1.25 |
| 3,001 - 7,000 gallons | | \$ 0.75 |
| All over | | \$ 0.67 |
| Water customers | | 299 |
| <u>Water Loss</u> | | 11.89% |
| <u>Sewer Rates</u> | | |
| First 13,500 gallons | | \$ 9.00 |
| 13,501 -15,000 gallons | | \$ 0.29 |
| 15,001 - 100,000 gallons | | \$ 0.26 |
| All over | | \$ 0.23 |

James C. Gaither, Mayor
Aldermen:

Ben Farley Ken Spencer
Jerry Fant Brian Dewberry
John McKenna David Robertson



Town of Rossville, Tennessee

September 24, 2012

SEP 27 2012

Ms. Joyce Welborn
Office of State and Local Finance
505 Deadrick Street, Suite 1600
James K. Polk State Office Building
Nashville, TN 37243-1402

Dear Ms. Welborn:

The Town of Rossville takes very seriously the letter we received from the State concerning the depreciation of our infrastructure. In order to get into compliance with State Code, we are preparing the following changes:

- There will be a payoff of the water loan with USDA. Loan 91-01 original amount was \$628,000.00 for water lines. The Interest rate was set at 4.25%. Today the payoff of this loan is \$599,434.49 with includes \$2986.33 in interest. We know that this will not take complete care of our problem, but we feel it will help if the interest costs are down as our CD's are not drawing but 1 ½% interest at this time.
- Second, we intend to follow Steve Wyatt's Example C on his review. We have attached a copy of the Ordinance. Our first vote is September 24th in Special Called and the second vote and public hearing will be October 8th.

We realize this will take another year to get into the black, but hope that the state of Tennessee will take into account that we are trying hard. Part of the problem we

360 Morrison St. PO Box 27 Rossville, TN 38066

(901)853-4681 (phone) (901)854-3976 (fax)

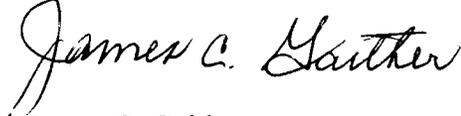
September 24, 2012

Page 2

will be encountering is the fact that the Railroad will only have themselves on a line that will be dedicated to us. It is an expensive line to depreciate with only one customer. We did not ask for the railroad to be in our town, but there is hope that it will help the city, county and state economically by being here.

If you do not feel that this is enough to keep us out of review this year, please let us know what else we should do. We really do not want the State Board to decide the fate of our water/sewer program.

Sincerely,

A handwritten signature in cursive script that reads "James C. Gaither". The signature is written in black ink and is positioned above the printed name.

James C. Gaither
Rossville Mayor

ORDINANCE NUMBER 2012-6

ORDINANCE REPEALING RATES FOR WATER AND SEWER SERVICE FOR THE TOWN OF ROSSVILLE AND ADOPTING NEW WATER AND SEWER RATES

WHEREAS, the State of Tennessee has notified the Town of Rossville that it must increase its water and sewer rates in order to comply with the requirements of state law; and

WHEREAS, the Board of Mayor and Aldermen engaged the Municipal Technical Advisory Service ("MTAS") to conduct a study of existing rates; and

WHEREAS, on September 20, 2012, the Board met with Steve Wyatt, a utilities consultant from MTAS, to review and discuss the proposals made by MTAS for setting water and sewer rates in an amount sufficient to comply with state law; and

WHEREAS, the Board of Mayor and Aldermen of the Town of Rossville finds it necessary to increase the rates for the water and sewer service charged by the Town as set out herein ;

NOW, THEREFORE: BE IT ORDAINED BY THE BOARD OF MAYOR AND ALDERMEN OF THE TOWN OF ROSSVILLE, TENNESSEE, as follows:

Section 1. This Ordinance repeals in their entirety, effective as of the date set out in Section 3 below, the now-existing rates for water and sewer service for the Town of Rossville.

Section 2. Beginning as of October 26, 2012, rates for Town of Rossville water and sewer service shall be as follows:

Water

| | |
|---|---------|
| Minimum charge (without regard to volume) | \$ 9.00 |
| Charge per each 1,000 gallons or part thereof | \$ 2.15 |

Sewer

| | |
|---|---------|
| Minimum charge (without regard to volume) | \$ 9.00 |
| Charge per each 1,000 gallons or part thereof | \$ 1.50 |

Section 3. The rates stated in Section 2 above shall go into effect beginning as of October 26, 2012, so that bills sent out on or about December 1, 2012 for the October-November billing period shall reflect the new rates.

Section 4. This Ordinance shall become effective upon final passage, the public welfare requiring it.

Passed First Reading September 24, 2012

Passed Second Reading Oct 9, 2012

James Clay Gaither, Mayor

Rebecca Feathers
Rebecca Feathers, City Clerk
and Recorder

Town of Rossville

Water and Sewer Review

September 21, 2012

The Town of Rossville has been placed under the authority of the Water and Wastewater Financing Board, due to two consecutive years of negative changes in Net Assets as shown on the Town's annual audits. The Town has asked MTAS to prepare a review of the water and sewer rates to correct the negative change in net assets.

(Excerpts from the Tennessee Code Annotated which discuss the Water and Wastewater Financing Board as well as state requirements for utility finances; are included at the end of this report.)

MTAS used the following assumptions/facts to prepare the review:

- Rossville has approximately 350 water and sewer customers.
- The water and sewer volumes billed for the period of July 2011 through June 2012 was 35,704,000 gallons.
- Kellogg was billed for 120,578,000 gallons of sewer for the period of July 2011 through June 2012.
- The 2011 Audit, page 61; the unaccounted for water was 11.893%.
- Revenue projections for 2013 through 2016 increase by 0.5% per year.
- Expense projections for 2013 through 2016 increase by 1.5% per year.
- Auditor and engineer expenses are held constant at 2012 amount through 2016.
- Interest income and penalties are held constant at 2012 amount through 2016.
- Connection revenue is held constant at \$5,000 from 2012 through 2016
- New interest expense is held constant at 2013 amount through 2016.
- Estimated revenue for the railroad project is not available.
- There are no new capital projects in this review. The Rossville/Piperton Engineering Report from Fisher and Arnold, Inc. (*dated March 2012*) is not included in this review.
- The new railroad water project estimated cost is \$710,055.
- The new railroad sewer project estimated cost \$667,920.
- The new railroad and sewer project is depreciated for 40 years using the straight line method of deprecation. Deprecation will increase \$17,751 per year for the water extension to the railroad. Depreciation will increase \$16,698 per year for the sewer extension to the railroad. The total increase in depreciation for the railroad project is estimated to be \$34,449 per year. (*A copy of the deprecation guide from the comptroller is attached at the end of the review.*)

- Rossville only has one water rate schedule and one sewer rate schedule, excluding Kellogg. *(The rates are not classified as residential, commercial or industrial.)*
- The 2012 preliminary data have an \$184,254; Misc. Expense listed in the non-operating revenue section. This is the amount paid to a contractor for the TDOT relocation project. This is for the water and sewer being extended to the railroad.
- The 2012 preliminary data has an \$189,190; TDOT reimbursement in the non-operating revenue section.
- The 2012 preliminary data has a \$65,000; Developers fees listed in the non-operating revenue section. This is for the water and sewer being extended to the railroad.
- The 2012 preliminary data has an \$80,000; Uncategorized income listed in the non-operating revenue section. This is a transfer from the West Property taxes for taps.
- According to the June 30, 2011 audit Rossville's water and sewer department had \$907,256 in Certificates of Deposit. The operating revenue for water and sewer in 2011 was \$151,862. This is 16.7% of the amount in the CDs.
- Tap fees, service fees, etc. revisions are not included in this review.
- Rossville operates the water and sewer department as one enterprise (proprietary) fund.
- Water and sewer revenue and expenses are not separated in the audits or in the accounting process used by the town. This makes it difficult to make decisions concerning where money is coming and going.
- The original contract with Tennessee Foods Inc. and Rossville on the construction of the water and sewage system was signed in 1969. The contract was for a 20 year period, renewable for 79 years on a year to year automatic basis.
- The contract states that it binds the successors, so it appears the contract may apply to Kellogg. *(The city attorney should be able to ascertain whether this is a correct statement, MTAS cannot.)*
- MTAS is not aware of any changes to the original contract.
- MTAS does not have the current billing details for Kellogg.

Example A: There are no rate changes or increases illustrated on this spreadsheet. The spreadsheet has audited data for 2010 and 2011, preliminary data for 2012 and projections through 2016. The 2010 and 2011 audit, show an operating loss and a negative change in net assets for both years. The preliminary numbers for 2012 show an operating loss but a positive change in net assets. The positive change in net assets is due to three factors which occurred in the 2011/12 fiscal year. (Developers fee, TDOT

reimbursement and uncategorized income). In 2013 through 2016 the town will have an operating loss and a negative change in net assets each fiscal year.

Example B: The spreadsheet has all the data and assumptions as used in Example A. There are three rate increases illustrated on the sheet. The first rate increase is for all the customers except Kellogg. It is effective October 1, 2012. The current rates for water and sewer will increase 60%. The second rate increase is for all the customers except Kellogg. It is effective July 1, 2013. The rates for water and sewer increase of 50%. The third rate increase is a “Cost of Living Adjustment” for all customers, including Kellogg. The review uses 3%. It is effective July 1, 2014. This has the potential to produce a positive operating income and a positive change in net assets in the fiscal year ending June 30, 2014. With the third increase that trend has the potential to continue through 2016.

Example C: The spreadsheet has all the data and assumptions as used in Example A. There are two rate changes on this sheet. The first change is a revised rate schedule for all the customers but Kellogg effective October 1, 2012. The new rate structure will have a monthly base bill for water and sewer with no volumes included. The customer will then pay for each 1,000 gallons at a uniform cost per 1,000 gallons. The number of customers and volumes sold used in this example are listed above in the assumptions/facts list.

The proposed rates are shown below:

- Water monthly base with no volumes included \$9.00
- Water per 1,000 gallons used \$2.15
- Sewer monthly base with no volumes included \$9.00
- Sewer per 1,000 gallons used \$1.50

The current rate structure with volumes included in the minimum and a declining block for the volumes used will be eliminated.

The second increase is a “Cost of Living Adjustment” for all customers, including Kellogg. The review uses 3%. It is effective July 1, 2014. These increases have the potential to produce a positive income in 20113 and a positive change in net assets in 2014. That trend has the potential to continue through 2016.

Example C Alternative: This example is the same as Example C, with the oldest loan paid off by June 30, 2013. This reduces interest expense and it reduces interest income.

Example D: Is a cash flow summary for Examples A, B and C. This illustrates debt payment for a proprietary fund.

Example E: The spreadsheet compares the current rates excluding Kellogg, to the proposed rate changes as shown in Examples B and C.

MTAS suggestions:

- Rossville should raise revenue and possibly cut expenses to comply with state law. Examples B and C illustrate two approaches to raising revenue. **There are probably other responses which could also raise revenue.**
- Rossville should evaluate whether or not it would be beneficial to have more than one rate schedule as it currently has. Rates should be set up by customer class such as: residential, commercial and industrial.
- All revenue and expenses should be reviewed on a regular basis.
- Tap fees, customer fees, returned check fees, turn on fees, etc. should be kept current to reflect actual expenses incurred.
- MTAS strongly suggests that Rossville have greater detail in revenue generation and expenses in the audit. Water and sewer revenue and expenses should be recorded separately even in a combined enterprise fund.
- The Town of Rossville should adopt an annual cost of living adjustment for rates and fees effective July 1 of every year. The percentage adjustment could be in accordance with the Consumer Price Index as determined by the U.S. Department of Labor. This cost of living increase should become effective July 1, 2014.
- The Town should prioritize any proposed new capital projects and complete the projects in order of priority and when financially feasible.
- Any new capital projects will require additional rate increases due to depreciation and possible interest expense.
- Rossville should consider taking a portion of their savings and paying down their debt. This would reduce the interest expense.
- Rossville should review the current arrangement with Kellogg to clarify roles, rates and expectations.

With any rate change/increase the projected revenue will not match what is realized. Customers will reduce consumption for a period of time, which will reduce the estimated revenue.

If any of the data or assumptions used in the review are inaccurate or do not occur, then the review will not provide an accurate projection of the future financial viability of the utility and additional rate increases may be necessary.

Rossville Water and Sewer review

2012

Example C

Change in rate structure to non volume base and a uniform cost per 1,000 gallon, except for Kellogg

| | Audit 2010 | Audit 2011 | Pre 2012 | Project 2013 | Project 2014 | Project 2015 | Project 2016 |
|--|-----------------|-----------------|------------------|-----------------|-----------------|-----------------|-----------------|
| year ending June 30, | | | | | | | |
| Operating revenues | | | | | | | |
| sales and services fees -regular | 71,870 | 79,856 | 84,294 | 21,179 | | | |
| water base of 350 customers effective Oct. 1, 2012 | | | | 28,350 | 37,800 | 37,989 | 38,179 |
| water volume sales of 35.704 million gallons per year | | | | 57,573 | 76,764 | 77,147 | 77,533 |
| Cost of living adjustment of 3% effective July 1, 2014 | | | | | | 3,454 | 3,471 |
| sewer base of 350 customers effective Oct. 1, 2012 | | | | 28,350 | 37,800 | 37,989 | 38,179 |
| sewer volume sales of 35.704 million gallons per year | | | | 40,167 | 53,556 | 53,824 | 54,093 |
| Cost of living adjustment of 3% effective July 1, 2014 | | | | | | 2,754 | 2,768 |
| Estimated water and sewer revenue from railroad project | | | | 0 | 0 | 0 | 0 |
| sales and services fees -industrial | 60,324 | 63,867 | 60,324 | 60,324 | 60,324 | 60,324 | 60,324 |
| Cost of living adjustment of 3% effective July 1, 2014 for Kellogg | | | | | | 3,016 | 3,016 |
| penalties | 2,298 | 2,085 | 2,311 | 2,311 | 2,311 | 2,311 | 2,311 |
| connections | 19,300 | 5,761 | 11,825 | 5,000 | 5,000 | 5,000 | 5,000 |
| other | 363 | 293 | 0 | 0 | 0 | 0 | 0 |
| Total operating revenues | 154,155 | 151,862 | 158,754 | 243,254 | 273,555 | 283,809 | 284,875 |
| Operating expenses | | | | | | | |
| administrative | 109,260 | | | | | | |
| salaries | | 58,488 | 52,862 | 53,655 | 54,460 | 55,277 | 56,106 |
| payroll taxes | | 4,474 | 3,965 | 4,024 | 4,085 | 4,146 | 4,208 |
| repairs and maintenance | | 16,445 | 12,609 | 12,798 | 12,990 | 13,185 | 13,383 |
| insurance | | 14,468 | 14,157 | 14,369 | 14,585 | 14,804 | 15,026 |
| utilities | | 13,164 | 14,404 | 14,620 | 14,839 | 15,062 | 15,288 |
| operating supplies | | 4,456 | | | | | |
| office supplies | | 1,865 | 2,109 | 2,141 | 2,173 | 2,205 | 2,238 |
| operating expenses | | | 5,207 | 5,285 | 5,364 | 5,445 | 5,527 |
| advertising | | | 254 | 258 | 262 | 266 | 270 |
| auditor | | | 4,125 | 4,125 | 4,125 | 4,125 | 4,125 |
| dues and subscriptions | | | 1,267 | 1,286 | 1,305 | 1,325 | 1,345 |
| engineer | | | 4,871 | 4,871 | 4,871 | 4,871 | 4,871 |
| fuel | | | 1,595 | 1,619 | 1,643 | 1,668 | 1,693 |
| professional services | | 4,290 | | | | | |
| sales tax | | 3,405 | 3,402 | 3,453 | 3,505 | 3,557 | 3,611 |
| training | | | 789 | 801 | 813 | 825 | 837 |
| travel | | 2,123 | 1,086 | 1,102 | 1,119 | 1,136 | 1,153 |
| testing | | 1,757 | 2,301 | 2,336 | 2,371 | 2,406 | 2,442 |
| retirement | | 1,373 | 5,178 | 5,256 | 5,335 | 5,415 | 5,496 |
| mobile phone | | | 657 | 667 | 677 | 687 | 697 |
| telephone | | 1,557 | 856 | 869 | 882 | 895 | 909 |
| truck | | 642 | 214 | 217 | 220 | 224 | 227 |
| misc. expense---paid to contractor for TDOT relocation project | | | 184,254 | | | | |
| other | | 2,078 | | | | | |
| new depreciation of water to railroad project | | | | 17,751 | 17,751 | 17,751 | 17,751 |
| new depreciation of sewer to railroad project | | | | 16,698 | 16,698 | 16,698 | 16,698 |
| depreciation | 67,793 | 67,793 | 67,793 | 67,793 | 67,793 | 67,793 | 67,793 |
| Total operating expenses | 177,053 | 198,378 | 383,955 | 235,994 | 237,865 | 239,764 | 241,692 |
| Operating income (loss) | (22,898) | (46,516) | (225,201) | 7,260 | 35,690 | 44,044 | 43,182 |
| Non-operating revenues (expenses) | | | | | | | |
| investment earnings | 22,379 | 9,280 | 9,209 | 9,209 | 9,209 | 9,209 | 9,209 |
| Developers fee- is the fee to run water and sewer to the railroad | | | 65,000 | | | | |
| TDOT reimbursement | | | 189,190 | | | | |
| uncategorized income--property tax transfer from West Property | | | 80,000 | | | | |
| new interest expense for 2012 project-estimated after 2012 | | | (8,600) | (17,013) | (17,013) | (17,013) | (17,013) |
| interest expense from page 57 of 2011 audit | (26,221) | (25,597) | (25,583) | (25,244) | (24,891) | (24,522) | (24,138) |
| Total nonoperating revenues (expenses) | (3,842) | (16,317) | 309,216 | (33,048) | (32,695) | (32,326) | (31,942) |
| Change in Net Assets | (26,740) | (62,833) | 84,015 | (25,788) | 2,995 | 11,718 | 11,240 |

Rossville Water and Sewer review

2012

rates

per page 60 of the year ending June 30, 2011 audit.

Water Rates

First 1,000 gallons (Minimum Bill)

Next 2,000 gallons

Next 4,000 gallons

Over 7,000 gallons

Example C monthly base bill (no volumes included)

Uniform cost per 1,000 gallons used

Current Rates

\$3.75

\$1.25

\$0.75

\$0.67

Example E

Oct. 2012 Example B

\$6.00

\$2.00

\$1.20

\$1.07

July 2013 Example B

\$9.00

\$3.00

\$1.80

\$1.61

July 2014 Example B

\$9.27

\$3.09

\$1.85

\$1.66

Oct. 2012 Example C

\$9.00

\$2.15

July 2014 Example C

\$9.27

\$2.21

Sewer Rates

First 13,500 gallons (Minimum Bill)

Next 1,500 gallons

Next 85,000 gallons

Next 100,000 gallons

Example C monthly base bill (no volumes included)

Uniform cost per 1,000 gallons used

\$9.00

\$0.29

\$0.26

\$0.23

\$14.40

\$0.46

\$0.42

\$0.37

\$21.60

\$0.70

\$0.62

\$0.55

\$22.25

\$0.72

\$0.64

\$0.57

\$9.00

\$1.50

\$9.27

\$1.55

These rates do not apply to Kellogg.

Estimated number of water and sewer customers is 350.

WATER AND WASTEWATER FINANCING BOARD
Case Study

Case: Town of Oneida, Scott County
Mayor: Jack Lay
Customers: 4,341 water, 1,857 sewer
Water loss: 27.6%

The Town of Oneida has been experiencing a negative change in net assets in its water and sewer system for the last two fiscal years according to the information contained in audited financial statements for June 30, 2009, 2010 *and 2011*. The financial and rate history is reflected on the attached sheet.

The loss of one customer, Armstrong Flooring, and a major cutback at Barna Log Homes resulted in a monthly revenue decrease of \$10,000. *A few months ago, the staff was told the local hospital closed.*

The last rate increase in the City utility department was in 2001. However, a \$3.50 monthly surcharge was put in place during 2008 and 2009. In 2010, there was no surcharge. In January 2011 the City Council adopted a \$4.50 monthly surcharge which is projected to generate approximately \$243,000 annually. That amount does not appear to be sufficient to solve the financial woes of the utility. Actual year-to-date financials through April 30, 2011, appear to reflect that the financial condition is worsening. Using a year to date comparison, as of April 30, the positive change in net assets dropped from \$110,552 in 2010 to \$23,952 in 2011. Those amounts, however, did not include depreciation. The inclusion of depreciation resulted in a negative change in net assets for 2010 and a projected negative change for 2011.

The City has written policies in place for the operation of the utility system. The debt management policy is also in place.

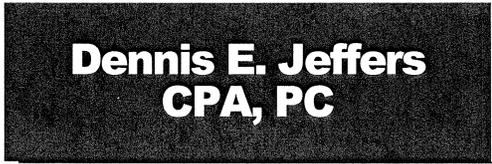
In mid-February 2011, the water manager wrote a personal check to the water department funds in order to pay bills of the department. That money was repaid to the manager in March 2012. The transaction took place without the authorization of the City officials.

The information in italics is new information for the Board, but the basic case study is from November 2011. The information submitted by the City for the July meeting is included in the packet at the request of the Board members.

**TOWN OF ONEIDA
HISTORY FILE**

| | Audited 2008 | Audited 2009 | Audited 2010 | Audited 2011 | |
|-----------------------------------|-------------------------|-------------------------|-------------------------|-------------------------|----------|
| Fiscal Year 6/30 | | | | | |
| Water and sewer revenues | \$ 2,072,861 | \$ 2,041,863 | \$ 1,894,599 | \$ 1,859,888 | |
| Other revenues | \$ 182,120 | \$ 175,353 | \$ 152,677 | \$ 170,815 | |
| Contributed Capital | \$ 559,628 | \$ 74,740 | \$ 255,453 | \$ 483,659 | |
| Total Operating Revenues | \$ 2,814,609 | \$ 2,291,956 | \$ 2,302,729 | \$ 2,514,362 | |
| Total Operating Expenses | \$ 2,600,584 | \$ 2,398,526 | \$ 2,369,120 | \$ 2,440,393 | |
| Operating Income | \$ 214,025 | \$ (106,570) | \$ (66,391) | \$ 73,969 | |
| Interest Expense | \$ 169,874 | \$ 157,556 | \$ 153,661 | \$ 152,084 | |
| Change in Net Assets | \$ 44,151 | \$ (264,126) | \$ (220,052) | \$ (78,115) | |
| <u>Supplemental Information</u> | | | | | |
| Principal payment | \$ 380,993 | \$ 72,754 | \$ 75,625 | \$ 78,221 | |
| Depreciation | \$ 479,923 | \$ 547,087 | \$ 547,145 | \$ 542,670 | |
| <u>Water Rates</u> | | | | | |
| <u>Inside rates</u> | | | | | 1/1/2012 |
| First 2,000 gallons | \$ 8.65 | \$ 8.65 | \$ 8.65 | \$ 8.65 | \$ 12.11 |
| 2,001 - 10,000 gallons | \$ 3.25 | \$ 3.25 | \$ 3.25 | \$ 3.25 | |
| All over | \$ 2.93 | \$ 2.93 | \$ 2.93 | \$ 2.93 | \$ 4.55 |
| <u>Outside rates</u> | | | | | |
| First 2,000 gallons | \$ 12.70 | \$ 12.70 | \$ 12.70 | \$ 12.70 | \$ 17.78 |
| 2,001 - 10,000 gallons | \$ 5.06 | \$ 5.06 | \$ 5.06 | \$ 5.06 | |
| All over | \$ 4.95 | \$ 4.95 | \$ 4.95 | \$ 4.95 | \$ 7.00 |
| Water customers | 4,418 | 4,389 | 4,341 | 4,347 | |
| Water Loss | 25.26% | 19.00% | 27.60% | 31.40% | |
| <u>Sewer Rates</u> | | | | | |
| <u>Inside rates</u> | | | | | |
| Minimum bill | \$ 12.00 | \$ 12.00 | \$ 12.00 | \$ 12.00 | \$ 16.80 |
| Per 1,000 gallons | \$ 6.00 | \$ 6.00 | \$ 6.00 | \$ 6.00 | \$ 8.40 |
| <u>Outside rates</u> | | | | | |
| Minimum bill | \$ 12.72 | \$ 12.72 | \$ 12.72 | \$ 12.72 | \$ 17.81 |
| Per 1,000 gallons | \$ 6.36 | \$ 6.36 | \$ 6.36 | \$ 6.36 | \$ 8.90 |
| Sewer customers | 1,777 | 1,857 | 1,857 | 1,823 | |
| Monthly customer surcharge | \$ 3.50 | \$ 3.50 | | \$ 4.50 | |

18707 Alberta Ave
Oneida, TN 37841
Phone:423-569-6969
Phone:423-569-2629
Fax:423-569-2842



Ms. Joyce Welborn
Comptroller of the Treasury

To: Division of Local Government Audit
Suite 1500, James K. Polk Bldg.
505 Deaderick Street
Nashville, TN 37243-1402

From: Dennis E. Jeffers CPA, PC

Email: Joyce.Welborn@cot.tn.gov

Pages: 11 including cover

Phone: 615-401-7865

Date: June 27, 2012

Fax; 615-741-6216

Phone: 423-569-6969

Town of Oneida
Water and Sewer Department
Re: Projected Financial Statements as of
June 30, 2012

Fax: 423-569-2842

| | | | | |
|---------------|-------------------|-----------------------|---------------------|-----------------------|
| Urgent | For Review | Please Comment | Please Reply | Please Recycle |
|---------------|-------------------|-----------------------|---------------------|-----------------------|

● **Comments:**

Ms. Welborn,

Please find attached the projected financial statements as of June 30, 2012 for the Town of Oneida, TN Water and Sewer Department. We have included the accounts payable aging schedule. The accounts receivable aging schedule final page included with this email because it is 68 pages long. We will provide the entire schedule upon your request. If you have any questions or need anything else, please feel free to contact me.

Sincerely,
Dennis E. Jeffers, CPA

TOWN OF ONEIDA
WATER AND SEWER DEPARTMENT
PROJECTED FINANCIAL STATEMENTS

June 30, 2012

Dennis E. Jeffers CPA, PC

Member of Tennessee Society of Certified Public Accounts

18707 Alberta Street
Oneida, Tennessee 37841
(423) 569-6969 Phone
(423) 569-2842 Fax

To the Board of Commissioners
Town of Oneida, Tennessee
Water and Sewer Department
Oneida, Tennessee 37841

We have compiled the accompanying projected statement of net assets, statements of revenues, expenses and changes in net assets, and cash flows of the Town of Oneida, Tennessee, Water and Sewer Department as of June 30, 2012, and for the year then ending, in accordance with attestation standards established by the American Institute of Certified Public Accountants. The accompanying projection was prepared for the State of Tennessee, Water and Wastewater Financing Board.

A compilation is limited to presenting in the form of projection information that is the representation of management and does not include evaluation of the support for the assumptions underlying the projection. We have not examined the projection and, accordingly, do not express an opinion or any form of assurance on the accompanying statements or assumptions. Furthermore, there will usually be differences between the projected and actual results, because events and circumstances frequently do not occur as expected, and those differences may be material. We have no responsibility to update this report for events and circumstances occurring after the date of this report.

Management has elected to omit the summary of significant accounting policies required by the guidelines for presentation of a forecast established by the American Institute of Certified Public Accountants. If the omitted disclosures were included in the projection, they might influence the user's conclusions about the Organization's financial position, changes in net assets, and cash flows for the projected period. Accordingly, this projection is not designed for those who are not informed about such matters.

Dennis E. Jeffers, CPA, PC

June 26, 2012

**TOWN OF ONEIDA, TENNESSEE
WATER AND SEWER DEPARTMENT
PROJECTED STATEMENT OF NET ASSETS
June 30. 2012**

Business-Type Activities-Enterprise Funds

ASSETS

Current Assets:

| | | | |
|---|----|---------|-------------------|
| Cash on hand and in banks | \$ | 223,515 | |
| Accounts Receivable | | | |
| <i>Net of allowance for doubtful accounts</i> | | 382,752 | |
| Equipment and utility deposits | | 1,665 | |
| Inventory | | 219,578 | |
| Total Current Assets | | | \$ 827,510 |

Capital Assets:

| | | | |
|---|----|--------------|-------------------|
| Land | \$ | 279,938 | |
| Buildings and Systems | | 26,437,859 | |
| Improvements other than buildings | | 52,184 | |
| Equipment | | 1,182,593 | |
| Total capital assets | | 27,952,574 | |
| Less: accumulated depreciation | | (10,056,497) | |
| Total capital assets (net of accumulated depreciation) | | | 17,896,077 |

| | | | |
|--------------------------------|--|--|-------------------|
| Total noncurrent assets | | | 17,896,077 |
|--------------------------------|--|--|-------------------|

| | | | |
|---------------------|--|--|----------------------|
| Total Assets | | | \$ 18,723,587 |
|---------------------|--|--|----------------------|

See accountants' compilation report

**TOWN OF ONEIDA, TENNESSEE
WATER AND SEWER DEPARTMENT
PROJECTED STATEMENT OF NET ASSETS
June 30, 2012**

Current Liabilities

| | | | |
|--------------------------------------|----|--------|-------------------|
| Current maturities of long-term debt | \$ | 79,773 | |
| Accounts Payable | | 77,053 | |
| TN Sales Payable | | 12,000 | |
| Accrued Salaries | | 12,189 | |
| Accrued compensated absences | | 30,349 | |
| Accrued Interest | | 5,722 | |
| Customer Deposits | | 35,510 | |
| Total Current Liabilities | | | <u>\$ 252,596</u> |

Long Term Debt

| | | | |
|-----------------------------|----|-----------|---------------------|
| Bonds payable | \$ | 3,243,216 | |
| Less Current maturities | | (79,773) | |
| Total Long-Term Debt | | | <u>\$ 3,163,443</u> |

TOTAL LIABILITIES **3,416,039**

Net Assets

| | | | |
|---|--|------------|-------------------|
| Investment in Capital Assets net of related debt | | 14,652,861 | |
| Unrestricted Net Assets | | 654,687 | |
| Total Net Assets | | | <u>15,307,548</u> |

TOTAL LIABILITIES AND NET ASSETS \$ 18,723,587

See accountants' compilation report

WATER AND SEWER DEPARTMENT
PROJECTED STATEMENT OF REVENUES, EXPENSES AND CHANGES IN NET ASSETS
For the Year Ended June 30, 2012

OPERATING REVENUES

| | | |
|---------------------------------|--------------|---------------------|
| Water usage charges | \$ 1,427,910 | |
| Sewer usage charges | 758,891 | |
| Water tap fees | 9,750 | |
| Sewer tap fees | 2,600 | |
| Installation charges | 33,651 | |
| Sale of materials and supplies | 18,268 | |
| Miscellaneous income | 51,178 | |
| Penalties | 44,984 | |
| TOTAL OPERATING REVENUES | | \$ 2,347,232 |

OPERATING EXPENSES

Procurement, Treatment and Supply

| | | |
|--|-----------|-------------------|
| Chemicals | \$ 94,653 | |
| Power | 143,265 | |
| Labor | 113,830 | |
| Repairs | 5,319 | |
| Equipment maintenance and repair | 8,652 | |
| State maintenance | 3,335 | |
| Materials and Supplies | 16,999 | |
| Water samples and testing | 6,143 | |
| Schools | 330 | |
| Utilities | 4,680 | |
| Miscellaneous | 4,237 | |
| Total Procurement, Treatment and Supply | | \$ 401,443 |

Transmission and distribution

| | | |
|--|-----------|-------------------|
| Power | \$ 24,850 | |
| Materials and supplies | 52,944 | |
| Labor | 234,570 | |
| Repairs | 8,241 | |
| Miscellaneous | 655 | |
| School | 355 | |
| State Maintenance Fees | 3,335 | |
| Total Transmission and distribution | | \$ 324,950 |

See accountants' compilation report

**TOWN OF ONEIDA, TENNESSEE
WATER AND SEWER DEPARTMENT
PROJECTED STATEMENT OF REVENUES, EXPENSES AND CHANGES IN NET ASSETS
For the Year Ended June 30, 2012**

Sewer Treatment

| | | |
|------------------------------|-----------|-------------------|
| Chemicals | \$ 33,350 | |
| Materials and Supplies | 12,269 | |
| Labor | 116,311 | |
| Repairs and Maintenance | 15,499 | |
| Equipment | 1,419 | |
| State maintenance fees | 4,460 | |
| Sludge Disposal | 4,497 | |
| Lab testing | 9,442 | |
| Other | 2,467 | |
| School | 110 | |
| Utilities | 85,493 | |
| Total Sewer Treatment | | \$ 285,317 |

Sewer Collection

| | | |
|--------------------------------|-----------|-------------------|
| Power | \$ 33,108 | |
| Materials and Supplies | 10,672 | |
| Labor | 59,508 | |
| Repairs and Maintenance | 72,127 | |
| State Maintenance Fee | 3,960 | |
| Total Sewer Collections | | \$ 179,375 |

Administrative and general

| | | |
|---|-----------|-------------------|
| Salary | \$ 92,044 | |
| Telephone | 11,802 | |
| Insurance Casualty, theft, liability | 76,162 | |
| Insurance Life and Employee | 259,918 | |
| Office Supplies | 5,339 | |
| Postage | 18,496 | |
| Meter Reading | 20,168 | |
| Employee education | 2,840 | |
| Dues and subscriptions | 4,247 | |
| Payroll tax | 52,636 | |
| Bank Charges | 2,317 | |
| Retirement | 57,127 | |
| Engineering | 16,005 | |
| Travel | 1,438 | |
| Computer | 3,969 | |
| Other | 1,714 | |
| Audit | 10,200 | |
| Employee relations | 4,768 | |
| Total Administrative and General | | \$ 641,190 |

See accountants' compilation report

**TOWN OF ONEIDA, TENNESSEE
WATER AND SEWER DEPARTMENT
PROJECTED STATEMENT OF REVENUES, EXPENSES AND CHANGES IN NET ASSETS
For the Year Ended June 30, 2012**

| | | |
|---|---------------------|-----------------------------|
| Motor pool | | |
| Gas, oil and diesel | \$ 37,575 | |
| Repairs & Maintenance | <u>9,797</u> | |
| Total Motor Pool | | <u>\$ 47,372</u> |
| TOTAL OPERATING EXPENSE | | <u>1,879,647</u> |
| Operating income before depreciation | | <u>467,585</u> |
| DEPRECIATION | | |
| Depreciation expense | | <u>564,969</u> |
| Net Income from operating activities | | (97,384) |
| OTHER INCOME (EXPENSE) | | |
| Interest expense | <u>\$ (149,991)</u> | |
| Total Other Income (Expense) | | <u>(149,991)</u> |
| NET INCOME | | (247,375) |
| Net Assets , July 1, 2011 | | <u>15,554,923</u> |
| Net Assets, June 30, 2012 | | <u><u>\$ 15,307,548</u></u> |

See accountants' compilation report

**TOWN OF ONEIDA, TENNESSEE
WATER AND SEWER DEPARTMENT
PROJECTED STATEMENT OF CASH FLOWS
For the Year Ended June 30, 2012**

| | |
|--|---------------------------------|
| Cash Flows from Operating Activities | |
| Cash Received from Customers | \$ 2,338,390 |
| Cash Paid to Employees | (636,431) |
| Cash Paid to Suppliers and Vendors | <u>(1,303,061)</u> |
| Cash Flows from Operating Activities | 398,898 |
| | |
| Cash Flows from Non-Capital and Related Financing Activities | |
| Increase (Decrease) in Customer Deposits | <u>(9,020)</u> |
| Total Cash Flows from Non-Capital and Related Financing Activities | (9,020) |
| | |
| Cash Flows from Capital and Related Financing Activities | |
| Principal decrease in bonds and Notes Payable | (74,041) |
| Interest Paid | <u>(151,485)</u> |
| Total Cash Flows from Capital and Related Financing Activities | (225,526) |
| | |
| Cash Flows from investing activities: | <u> </u> |
| Total Cash Flows from investing activities | <u>-</u> |
| | |
| Net Increase (Decrease) in Cash | 164,352 |
| | |
| Cash, June 30, 2011 | <u>59,163</u> |
| | |
| Cash, June 30, 2012 | <u><u>\$ 223,515</u></u> |
| | |
| Reconciliation of Operating Income to Cash provided by Operating Activities: | |
| Operating Income | <u>\$ (97,384)</u> |
| Adjustments to Reconcile Net Operating Income to Net Cash provided by Operating Activities: | |
| Depreciation | 564,969 |
| Increase (Decrease) in Accrued wages and compensated absences | 465 |
| Increase (Decrease) in Accounts Payable | (63,807) |
| Increase (Decrease) in Taxes Payable | 3,497 |
| (Increase) Decrease in Accounts Receivable | <u>(8,842)</u> |
| Total Adjustments | <u>496,282</u> |
| | |
| Net Cash provided by Operating Activities | <u><u>\$ 398,898</u></u> |

See accountants' compilation report

**Oneida Water & Wastewater
 Projected Accounts Payable and Aging Report
 June 30, 2012**

| <u>Vendor</u> | <u>Voucher Date</u> | <u>Current</u> | <u>60 days</u> | <u>90 days</u> | <u>Total</u> |
|-------------------------------------|-------------------------|------------------|----------------|----------------|------------------|
| Wascon, Inc. | 6/18/2012 | 612.39 | 0 | 0 | 612.39 |
| Burns Mailing & Printing | 6/25/2012 | 589.02 | 0 | 0 | 589.02 |
| Plateau Electric Coop | 6/18/2012 | 1,620.25 | 0 | 0 | 1,620.25 |
| Plateau Electric Coop | 6/18/2012 | 17,808.47 | 0 | 0 | 17,808.47 |
| Hach Co. | 6/18/2012 | 881.73 | 0 | 0 | 881.73 |
| Hach Co. | 6/25/2012 | 553.25 | 0 | 0 | 553.25 |
| Fast Change Lube & Oil | 6/18/2012 | 42.37 | 0 | 0 | 42.37 |
| Blue Cross Blue Shield | 6/25/2012 | 14,873.93 | 0 | 0 | 14,873.93 |
| Walmart Community | 6/15/2012 | 507.79 | 0 | 0 | 507.79 |
| Cintas First Aid & Safety | 6/18/2012 | 50.09 | 0 | 0 | 50.09 |
| Environmental Science | 6/25/2012 | 119.50 | 0 | 0 | 119.50 |
| Brenntag Mid South | 6/4/2012 | 1,998.05 | 0 | 0 | 1,998.05 |
| Brenntag Mid South | 6/18/2012 | 1,387.65 | 0 | 0 | 1,387.65 |
| Itron, Inc. | 6/18/2012 | 804.74 | 0 | 0 | 804.74 |
| Town of Oneida | 6/1/2012 | 29.85 | 0 | 0 | 29.85 |
| Treasurer, State of TN, Division of | 6/15/2012 | 500.00 | 0 | 0 | 500.00 |
| Treasurer, State of TN, Division of | 6/15/2012 | 500.00 | 0 | 0 | 500.00 |
| Treasurer, State of TN, Division of | 6/15/2012 | 500.00 | 0 | 0 | 500.00 |
| Treasurer, State of TN, Division of | 6/15/2012 | 500.00 | 0 | 0 | 500.00 |
| Treasurer, State of TN, Division of | 6/15/2012 | 500.00 | 0 | 0 | 500.00 |
| TML Risk Management Pool | 6/11/2012 | 6,547.25 | 0 | 0 | 6,547.25 |
| TML Risk Management Pool | 6/11/2012 | 5,667.75 | 0 | 0 | 5,667.75 |
| TML Risk Management Pool | 6/11/2012 | 6,109.75 | 0 | 0 | 6,109.75 |
| Sam's Club | 6/18/2012 | 175.00 | 0 | 0 | 175.00 |
| Myron Corp. | 6/25/2012 | 1,748.99 | 0 | 0 | 1,748.99 |
| Conseco Health Insurance | 6/30/2012 | 287.56 | 0 | 0 | 287.56 |
| Debra A. Lane | 6/25/2012 | 13.56 | 0 | 0 | 13.56 |
| Donna Ferguson | 6/25/2012 | 30.58 | 0 | 0 | 30.58 |
| Jason Jackson | 6/25/2012 | 27.98 | 0 | 0 | 27.98 |
| Kimberly Foster | 6/25/2012 | 19.97 | 0 | 0 | 19.97 |
| Shafer & Shafer Welding | 6/12/2012 | 335.30 | 0 | 0 | 335.30 |
| American Development | 6/12/2012 | 1,719.00 | 0 | 0 | 1,719.00 |
| Standard Dental Insurance | 6/1/2012 | 1,004.64 | 0 | 0 | 1,004.64 |
| Tele-Page, Inc. | 6/1/2012 | 36.00 | 0 | 0 | 36.00 |
| Standard Insurance Company | 6/1/2012 | 1,239.15 | 0 | 0 | 1,239.15 |
| Southern Pipe and Supply | 6/4/2012 | 2,568.62 | 0 | 0 | 2,568.62 |
| Morgan White Administrators, Inc. | 6/18/2012 | 4,360.16 | 0 | 0 | 4,360.16 |
| Liberty National Life Insurance | 6/25/2012 | 418.80 | 0 | 0 | 418.80 |
| James E. Smith | 6/12/2012 | 177.60 | 0 | 0 | 177.60 |
| Lakeside Equipment Corp. | 6/18/2012 | 186.00 | 0 | 0 | 186.00 |
| | | <u>77,052.74</u> | <u>-</u> | <u>-</u> | <u>77,052.74</u> |

| Service | Cyc | Last Pmt | Current | Period 1 | Period 2 | Period 3 | Balance | Unapplied Cash |
|-----------------------------------|-----|----------|----------|----------|----------|----------|----------|----------------|
| 0018-01744-001 Kenny's Apt/Office | 1 | 05/15/12 | \$17.81 | \$0.00 | \$0.00 | \$0.00 | \$17.81 | \$0.00 |
| 0018-01746-001 Kenny's Rowboat | 1 | 05/15/12 | \$17.81 | \$0.00 | \$0.00 | \$0.00 | \$17.81 | \$0.00 |
| 0018-01754-001 Levi Burchfield | 1 | 05/09/12 | \$17.81 | \$0.00 | \$0.00 | \$0.00 | \$17.81 | \$0.00 |
| 0018-01761-002 Wanda Sue Goodr | 1 | 03/22/12 | \$17.81 | \$19.59 | \$38.19 | \$0.00 | \$75.59 | \$0.00 |
| 0018-01770-002 Misfits Bar | 1 | 05/03/12 | \$132.62 | \$0.00 | \$0.00 | \$0.00 | \$132.62 | \$0.00 |
| 0018-01790-001 Anna Phillips | 1 | 04/20/12 | \$90.79 | \$64.63 | \$3.27 | \$0.00 | \$158.69 | \$0.00 |
| 0018-01791-008 Carmen Slaven | 1 | 05/17/12 | \$17.81 | \$0.00 | \$0.00 | \$0.00 | \$17.81 | \$0.00 |

Route 18 Totals

| | | | | | | |
|----------------|----------|---------|---------|--------|-------------------------|----------|
| Winfield Sewer | \$390.80 | \$84.22 | \$41.46 | \$0.00 | \$516.48 | \$0.00 |
| | \$390.80 | \$84.22 | \$41.46 | \$0.00 | \$516.48 | \$0.00 |
| | | | | | NetBalance: | \$516.48 |
| | | | | | Total Customers: | 9 |

Report Totals

| | | | | | | |
|---------------------|--------------|-------------|------------|------------|-------------------------|--------------|
| WATER | \$106,593.66 | \$14,902.77 | \$4,519.05 | \$2,594.11 | \$128,609.59 | \$0.00 |
| SEWER | \$47,789.29 | \$4,477.32 | \$1,596.10 | \$1,210.49 | \$55,073.20 | \$0.00 |
| Winfield Sewer | \$4,461.54 | \$933.41 | \$222.72 | \$38.11 | \$5,655.78 | \$0.00 |
| Customer Unapp Cash | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | (\$2,729.72) |
| | \$158,844.49 | \$20,313.50 | \$6,337.87 | \$3,842.71 | \$189,338.57 | (\$2,729.72) |
| | | | | | NetBalance: | \$186,608.85 |
| | | | | | Total Customers: | 3,534 |

WATER AND WASTEWATER FINANCING BOARD
Case Study

Case: City of Grand Junction, Hardeman County
Mayor: Curtis Lane
Customers: 481 water, 219 sewer
Water loss: 45.55%

The City of Grand Junction has been experiencing a negative change in net assets in its water and sewer system since the fiscal year ending June 30, 2008 according to the information contained in audited financial statements.

Mayor Lane appeared before the Board at its May 12, 2011, meeting. Staff recommended the City increase its rates by 36%. However, the Board voted to:

1. Allow the City to implement an annual rate increase of 12% beginning July 1, 2011, 2012 and 2013;
2. Endorse a meter change out program in which 100 meters are replaced annually;
3. Require the City to more closely watch the water usage by farmers;
4. Require the City to replace or recalibrate the large meters within the system; and,
5. Request the City investigate the purchase and implementation of updated billing software.

The City was to report to the Board six months after the implementation of the first rate increase (approximately March 2012) to ensure the actions approved by the Board have been effective. That plan was to include projections that will result in financial compliance, evidence of a reduced water loss, the adoption of a debt management policy and the status of the meter change replacement plan.

Due to a death in the family, the City was granted a postponement until July 12, 2012.

It appears that water loss has decreased from 63.39% in FY 09 to 43.23% for FY 12, there is still much more improvement that needs to be made.

As of June 26, 2012, the only information submitted by the City has been water loss percentage changes during FY 10 – FY 12. Staff recommends the Board require the Mayor to attend the next meeting of the Water and Wastewater Financing Board to provide current information within the water and sewer systems of the City of Grand Junction.

| CITY OF GRAND JUNCTION | | | | | |
|---------------------------------|-------------------|--------------------|--------------------|--------------------|--------------------|
| HISTORY FILE | | | | | |
| | Audited | Audited | Audited | Audited | Audited |
| Fiscal Year 6/30 | 2007 | 2008 | 2009 | 2010 | 2011 |
| Water and sewer revenues | \$ 204,039 | \$ 213,768 | \$ 197,020 | \$ 188,031 | \$ 185,608 |
| Other revenues | \$ 11,508 | \$ 15,273 | \$ 14,858 | \$ 23,824 | \$ 14,568 |
| Capital Contributions | \$ 83,422 | \$ 2,469 | | | |
| Total Operating Revenues | \$ 298,969 | \$ 231,510 | \$ 211,878 | \$ 211,855 | \$ 200,176 |
| Total Operating Expenses | \$ 238,658 | \$ 232,889 | \$ 222,191 | \$ 239,949 | \$ 211,379 |
| Operating Income | \$ 60,311 | \$ (1,379) | \$ (10,313) | \$ (28,094) | \$ (11,203) |
| Interest Expense | \$ 20,370 | \$ 19,211 | \$ 18,033 | \$ 16,567 | \$ 16,328 |
| Transfer | \$ - | \$ - | \$ - | \$ - | \$ - |
| Change in Net Assets | \$ 39,941 | \$ (20,590) | \$ (28,346) | \$ (44,661) | \$ (27,531) |
| <u>Supplemental Information</u> | | | | | |
| Principal payment | \$ 44,535 | \$ 43,582 | \$ 42,549 | \$ 33,191 | \$ 21,096 |
| Depreciation | \$ 63,600 | \$ 64,240 | \$ 61,809 | \$ 60,872 | \$ 60,694 |
| <u>Water rates</u> | | | | | |
| Inside | | | | | |
| First 2,000 gallons | \$ 9.70 | \$ 9.70 | \$ 9.70 | \$ 9.70 | \$ 9.70 |
| All over | \$ 1.75 | \$ 1.75 | \$ 1.75 | \$ 1.75 | \$ 1.75 |
| Outside | | | | | |
| First 2,000 gallons | \$ 14.60 | \$ 14.60 | \$ 14.60 | \$ 14.60 | \$ 14.60 |
| All over | \$ 2.70 | \$ 2.70 | \$ 2.70 | \$ 2.70 | \$ 2.70 |
| <u>Sewer rates</u> | 100% | 100% | 100% | 100% | 100% |
| Water customers | 477 | 428 | 478 | 481 | 466 |
| Sewer customers | 215 | 190 | 218 | 219 | 214 |
| Water loss | | | 63.39% | 45.55% | |

July 17, 2012

RETURN RECEIPT REQUESTED

Mayor Curtis Lane
City of Grand Junction
P. O. Box 129
Grand Junction, TN 38039-0129

Dear Mayor Lane:

The Water and Wastewater Financing Board (WWFB) met on July 12, 2012, in part, to discuss the financially distressed situation of the City of Grand Junction, as well as excessive water loss. The Board voted to require the Mayor to attend the November 8, 2012, meeting of the WWFB. The attendance is not required if the information requested by the WWFB at its May 12, 2011, meeting is received by October 8, 2012. That information is as follows:

1. Verification that the meter replacement program in which 100 meters are replaced annually has been implemented and followed;
2. Verification that the non-metered water usage by farmers is being monitored;
3. Verification that the large meters in the system have been replaced or recalibrated;
4. Verification that the City investigated the purchase and implementation of updated billing software; and,
5. Financial projections that the steps adopted by the City will result in compliance.

Mike Bryan has already submitted evidence of water loss reduction and stated that the meter replacement goal is behind schedule with only 72 of the 100 promised meters being replaced. He also provided a debt management policy, but there was no evidence the policy had been adopted.

If you need further assistance, please contact me at (615) 401-7864 or Joyce.Welborn@cot.tn.gov.

Sincerely,

Joyce Welborn
Board Coordinator

City of Grand Junction

150 Tippah Street
P.O.Box 129
Grand Junction, TN 38039

Phone 731-764-2871
Fax 731-764-6222

Curtis Lane, Mayor

September 21, 2012

OCT 02 2012

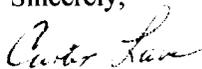
Ms. Joyce Welborn, Board Coordinator
Water and Wastewater Financing Board
505 Deaderick Street, Suite 1600
James K. Polk State Office Bldg.
Nashville, TN 37243-1402

Dear Ms. Welborn:

The Water Department of the City of Grand Junction is responding to your letter dated July 17, 2012 and would like to submit the following answers and information requested by your office. In regards to the meter replacement program, I'm attaching a list of meters replaced along with the serial numbers assigned to the new meters. We have in place a policy agreement between bulk sales customers and the water department that all bulk water will go through an assigned meter (serial # 30007180). Meter readings will verify water purchases by farmers. Enclosed is a copy of our agreement. The large meters have been tested and it has been determined that instead of recalibrating the large meters, we will replace them with one inch meters and the six large meters should be replaced by year end. Per our conversation on August 20, 2012, regarding the updated billing software, we looked into different software systems and decide to keep our existing Easy-bill software and add the latest update release 2012.4.8. Regarding our financial projections, I've enclosed an unaudited 2011-2012 complete fiscal year budget along with our 2012-2013 budget. There are a couple of adjustments on the 2012-2013 budget that were added and noted as we discussed at your visit. I believe you have received via fax, the adopted debt management policy, but if you need additional information I will be glad to send you what you need.

Thank you for your help and for your consideration.

Sincerely,



Curtis Lane
Mayor

Click to access definition

Water Audit Report for: **Grand Junction**
 Reporting Year: **2012** **7/2012 - 3/2012**

Please enter data in the table cells below. Where available, metered values should be used; if metered values are unavailable please estimate a value. Indicate your confidence in the accuracy of the input data by grading each component (1-10) using the drop-down list to the left of the input cell. Hover the mouse over the cell to obtain a description of the grades.
All volumes to be entered are: MILLION GALLONS (US) PER YEAR

WATER SUPPLIED << Enter grading in column 'E'

| | | | |
|---|----------------------------------|-------------------------------------|---------------------------------|
| Value from own sources: | <input type="text" value="7"/> | <input type="text" value="50.805"/> | Million gallons (US)/yr (MG/yr) |
| Master meter error adjustment (enter positive value): | <input type="text" value="3"/> | <input type="text" value="0.508"/> | under-registered MG/yr |
| Water imported: | <input type="text" value="n/a"/> | <input type="text" value="0.000"/> | MG/yr |
| Water exported: | <input type="text" value="n/a"/> | <input type="text" value="0.000"/> | MG/yr |
| WATER SUPPLIED: | | <input type="text" value="51.313"/> | MG/yr |

AUTHORIZED CONSUMPTION

| | | | |
|--------------------------------|----------------------------------|-------------------------------------|-------|
| Billed metered: | <input type="text" value="7"/> | <input type="text" value="24.540"/> | MG/yr |
| Billed unmetered: | <input type="text" value="10"/> | <input type="text" value="0.072"/> | MG/yr |
| Unbilled metered: | <input type="text" value="n/a"/> | <input type="text" value="0.641"/> | MG/yr |
| Unbilled unmetered: | <input type="text" value="n/a"/> | <input type="text" value="0.641"/> | MG/yr |
| AUTHORIZED CONSUMPTION: | | <input type="text" value="25.253"/> | MG/yr |

Default option selected for Unbilled unmetered - a grading of 5 is applied but not displayed

WATER LOSSES (Water Supplied - Authorized Consumption) MG/yr

Apparent Losses

| | | | |
|----------------------------------|--------------------------------|------------------------------------|-------|
| Unauthorized consumption: | <input type="text" value="5"/> | <input type="text" value="0.128"/> | MG/yr |
| Customer metering inaccuracies: | <input type="text" value="7"/> | <input type="text" value="1.292"/> | MG/yr |
| Systematic data handling errors: | <input type="text" value="6"/> | <input type="text" value="4.154"/> | MG/yr |
| Apparent Losses: | | <input type="text" value="5.574"/> | |

Default option selected for unauthorized consumption - a grading of 5 is applied but not displayed

Real Losses (Current Annual Real Losses or CARL)

| | | |
|---|-------------------------------------|-------|
| Real Losses = Water Losses - Apparent Losses: | <input type="text" value="20.486"/> | MG/yr |
| WATER LOSSES: | <input type="text" value="26.060"/> | MG/yr |

NON-REVENUE WATER

| | | |
|---------------------------|-------------------------------------|-------|
| NON-REVENUE WATER: | <input type="text" value="26.701"/> | MG/yr |
|---------------------------|-------------------------------------|-------|

= Total Water Loss + Unbilled Metered + Unbilled Unmetered

SYSTEM DATA

| | | | |
|--|---------------------------------|-----------------------------------|---|
| Length of mains: | <input type="text" value="6"/> | <input type="text" value="17.0"/> | miles |
| Number of active AND inactive service connections: | <input type="text" value="6"/> | <input type="text" value="478"/> | |
| Connection density: | <input type="text" value="10"/> | <input type="text" value="28"/> | conn./mile main |
| Average length of customer service line: | <input type="text" value="7"/> | <input type="text" value="0.0"/> | ft (pipe length between curbstop and customer meter or property boundary) |
| Average operating pressure: | <input type="text" value="3"/> | <input type="text" value="48.0"/> | psi |

COST DATA

| | | | |
|---|---------------------------------|--|----------------------|
| Total Annual cost of operating water system: | <input type="text" value="10"/> | <input type="text" value="\$171,013"/> | \$/Year |
| Customer retail unit cost (applied to Apparent Losses): | <input type="text" value="8"/> | <input type="text" value="\$6.39"/> | \$/1000 gallons (US) |
| Variable production cost (applied to Real Losses): | <input type="text" value="10"/> | <input type="text" value="\$418.95"/> | \$/Million gallons |

PERFORMANCE INDICATORS

Financial Indicators

| | |
|---|---------------------------------------|
| Non-revenue water as percent by volume of Water Supplied: | <input type="text" value="52.04"/> |
| Non-revenue water as percent by cost of operating system: | <input type="text" value="26.04"/> |
| Annual cost of Apparent Losses: | <input type="text" value="\$35,617"/> |
| Annual Cost of Real Losses: | <input type="text" value="\$8,593"/> |

Operational Efficiency Indicators

| | | |
|--|--|----------------------------|
| Apparent Losses per service connection per day: | <input type="text" value="31.95"/> | gallons/connection/day |
| Real Losses per service connection per day*: | <input type="text" value="N/A"/> | gallons/connection/day |
| Real Losses per length of main per day*: | <input type="text" value="3,301.50"/> | gallons/mile/day |
| Real Losses per service connection per day per psi pressure: | <input type="text" value="Not Valid"/> | gallons/connection/day/psi |

*** UARL cannot be calculated as either average pressure, number of connections or length of mains is too small: SEE UARL DEFINITION ***

From Above, Real Losses = Current Annual Real Losses (CARL):

Infrastructure Leakage Index (ILI) [CARL/UARL]:

* only the most applicable of these two indicators will be calculated

WATER AUDIT DATA VALIDITY SCORE:

***** YOUR SCORE IS: 71 out of 100 *****

A weighted scale for the components of consumption and water loss is included in the calculation of the Water Audit Data Validity Score

PRIORITY AREAS FOR ATTENTION:

Based on the information provided, audit accuracy can be improved by addressing the following components:

| |
|----------------------------------|
| 1: Volume from own sources |
| 2: Master meter error adjustment |
| 3: Billed metered |

For more information, click here to see the Grading Matrix worksheet

GRAND JUNCTION WATER DEPARTMENT
METER REPLACEMENT 2011-2012

| | DATE | METER # | ADDRESS |
|----|------------|----------|----------------------|
| 1 | 1/31/2011 | 20164980 | 511 WASHINGTON |
| 2 | 2/28/2011 | 20164994 | 110 JOY |
| 3 | 3/3/2011 | 20164989 | 465 OLD MICHIGAN |
| 4 | 3/4/2011 | 20164970 | 222 S. TIPPAH |
| 5 | 3/11/2011 | 20164994 | 280 OLD MICHIGAN |
| 6 | 3/14/2011 | 20164965 | 398 RAILROAD ST |
| 7 | 3/25/2011 | 20164966 | 125 PEARL |
| 8 | 3/31/2011 | 20164968 | 160 SMITH RD |
| 9 | 3/31/2011 | 20164967 | 155 PEARL |
| 10 | 4/4/2011 | 20164971 | 262 RAILROAD ST |
| 11 | 5/10/2011 | 20164976 | 835 HWY 835 |
| 12 | 6/25/2011 | 20164972 | 2515 HWY 57 |
| 13 | 6/28/2011 | 20164973 | 496 N. TIPPAH |
| 14 | 8/8/2011 | 20164974 | 50 SMITH RD |
| 15 | 9/29/2011 | 21023841 | 755 COLLEGE ST |
| 16 | 10/25/2011 | 21023838 | 130 MAIN |
| 17 | 10/30/2011 | 21048365 | 133 MADISON |
| 18 | 12/13/2011 | 21023839 | 140 JOY ST |
| 19 | 12/30/2011 | 21048364 | 327 JEFFERSON |
| 20 | 12/30/2011 | 21023836 | 505 JEFFERSON |
| 21 | 12/30/2011 | 21023837 | 312 WASHINGTON |
| 22 | 12/30/2011 | 21023840 | 25805 HWY 57 |
| 23 | 12/30/2011 | 21048363 | 599 HWY 57 |
| 24 | 12/30/2011 | 21048368 | 3195 HWY 57 |
| 25 | 12/30/2011 | 21048366 | 1860 HWY 57 |
| 26 | 12/30/2011 | 21048370 | 190 OLD MICHIGAN |
| 27 | 12/30/2011 | 21048367 | 3155 HWY 57 |
| 28 | 1/5/2012 | 21064969 | 324 RAILROAD ST |
| 29 | 1/26/2012 | 21048373 | 150 JOY ST |
| 30 | 1/26/2012 | 21048369 | HESS BLDG |
| 31 | 1/26/2012 | 21048374 | HESS BLDG |
| 32 | 1/30/2012 | 21048371 | 110 JOY ST |
| 33 | 2/29/2012 | 22185158 | 602 WASHINGTON |
| 34 | 4/5/2012 | 21303495 | 510 PEARL RD |
| 35 | 4/5/2012 | 21303494 | 60 SWAN LN |
| 36 | 4/25/2012 | 21303493 | BLAND PARK TIPPAH ST |
| 37 | 5/31/2012 | 21303496 | 1345 MS ROAD |
| 38 | 6/4/2012 | 22164999 | HEAD START-MADISON |
| 39 | 6/4/2012 | 22165002 | JOHN WOLDER-TIPPAH |
| 40 | 6/4/2012 | 22164998 | 131 TIPPAH ST |
| 41 | 6/4/2012 | 22165001 | 115 WASHINGTON |
| 42 | 6/4/2012 | 22164997 | 133 WASHINGTON |

| | DATE | METER # | ADDRESS |
|----|-----------|----------|--------------------|
| 43 | 6/4/2012 | 22165000 | 530 WASHINGTON |
| 44 | 6/4/2012 | 22164994 | 601 WASHINGTON |
| 45 | 6/4/2012 | 22164991 | 161 SUMMIT |
| 46 | 6/4/2012 | 22164995 | 159 SUMMIT |
| 47 | 6/4/2012 | 22164992 | 164 SUMMIT |
| 48 | 6/5/2012 | 22164996 | 145 JOY ST |
| 49 | 6/18/2012 | 21303492 | 105 BUCK FALLS |
| 50 | 6/19/2012 | 21048372 | 90 ZINNA LN |
| 51 | 6/19/2012 | 21303497 | 255 ZINNA LN |
| 52 | 6/21/2012 | 22185192 | 85 ZINNA |
| 53 | 6/22/2012 | 21048375 | 750 COLLEGE ST |
| 54 | 6/23/2012 | 21048380 | 740 COLLEGE ST |
| 55 | 6/28/2012 | 22185159 | 316 HARDEMAN |
| 56 | 6/28/2012 | 22185155 | 329 MADISON |
| 57 | 6/28/2012 | 22185157 | 409 MADISON |
| 58 | 6/29/2012 | 22185154 | 160 FLETCHER |
| 59 | 6/29/2012 | 21048379 | 235 FLETCHER |
| 60 | 6/29/2012 | 21048376 | 240 PUGH RD |
| 61 | 6/29/2012 | 21048378 | 450 JENKINS |
| 62 | 6/29/2012 | 22185156 | 336 MADISON |
| 63 | 6/29/2012 | 22185191 | 512 HWY 368 |
| 64 | 6/29/2012 | 22185195 | 147 SUMMIT |
| 65 | 6/29/2012 | 22185194 | 145 SUMMIT |
| 66 | 6/29/2012 | 22185193 | 398 TIPPAH |
| 67 | 7/1/2012 | 22165023 | 200 GREENFIELD |
| 68 | 7/2/2012 | 21364091 | 2310 HWY 57 |
| 69 | 7/2/2012 | 21364088 | 2312 HWY 57 |
| 70 | 7/2/2012 | 21364086 | 2160 HWY 57 |
| 71 | 7/2/2012 | 21364087 | 2165 HWY 57 |
| 72 | 7/6/2012 | 22185099 | 84 CHURCH ST |
| 73 | 7/6/2012 | 22185098 | 240 CHARLESTON ROW |
| 74 | 7/6/2012 | 22185097 | 243 HWY 57 |
| 75 | 7/6/2012 | 22185094 | 498 HWY 368 |
| 76 | 7/6/2012 | 22185095 | 153 CHARLESTON ROW |
| 77 | 7/6/2012 | 22185096 | 148 CHARLESTON ROW |
| 78 | 7/9/2012 | 22185227 | 410 GREENFIELD |
| 79 | 7/9/2012 | 22185226 | 131 COLLEGE ST |
| 80 | 7/9/2012 | 22185231 | 120 COLLEGE ST |
| 81 | 7/9/2012 | 22185230 | 45 VAN BUREN |
| 82 | 7/9/2012 | 22185228 | 3070 HWY 57 |
| 83 | 7/9/2012 | 22185229 | 3092 HWY 57 |
| 84 | 7/13/2012 | 22165022 | 215 GREENFIELD |
| 85 | 7/13/2012 | 22165025 | 250 GREENFIELD |
| 86 | 7/13/2012 | 22165024 | 898 S. PLEDGE |
| 87 | 7/13/2012 | 22165021 | 867 S. PLEDGE |
| 88 | 7/13/2012 | 22165016 | 141 MAIN ST |

| | DATE | METER # | ADDRESS |
|-----|-----------|----------|-----------------|
| 89 | 7/13/2012 | 22165017 | 165 GREENFIELD |
| 90 | 7/13/2012 | 22165020 | 186 GREENFIELD |
| 91 | 7/13/2012 | 22165026 | 220 GREENFIELD |
| 92 | 8/6/2012 | 21048377 | 3858 BUCK FALLS |
| 93 | 8/17/2012 | 22164993 | 339 JEFFERSON |
| 94 | 8/17/2012 | 22165019 | 229 PLEDGE |
| 95 | 8/17/2012 | 22165015 | 706 W. MADISON |
| 96 | 8/17/2012 | 22165018 | 410 ADAMS |
| 97 | 8/17/2012 | 21363965 | 408 ADAMS |
| 98 | 8/17/2012 | 21363962 | 36 VIRGINIA ST |
| 99 | 8/17/2012 | 21363964 | 439 WASHINGTON |
| 100 | 8/17/2012 | 21363963 | 245 WASHINGTON |
| 101 | 8/17/2012 | 21363960 | 227 WASHINGTON |
| 102 | 8/17/2012 | 21363961 | 413 WASHINGTON |
| 103 | | | |
| 104 | | | |
| 105 | | | |
| 106 | | | |
| 107 | | | |
| 108 | | | |
| 109 | | | |
| 110 | | | |

INVOICE

G & C SUPPLY CO., Inc.

WATER, SEWER & GAS DIVISION
 SIGNS & SAFETY DIVISION
 FIRE, RESCUE AND SAFETY EQUIPMENT
 P.O. Drawer 459—1105 Hwy 77
 Atwood, TN 38220
 (731)662-7193 or (800)238-3836
 Fax: (731)662-7219

| | |
|--------------------|--------|
| INVOICE | |
| 6470032 | |
| Invoice Date | Page |
| 7/31/2012 11:48:41 | 2 of 2 |
| ORDER NUMBER | |
| 1485966 | |

| Quantities | | | Status Key | Item ID | Unit | Unit Price | Extended Price |
|------------------------|---------|-----------|--|--|------|------------|----------------|
| Ordered | Shipped | Remaining | B = Backorder D = Direct C = Canceled P = In Production | Item Description | | | |
| PJCTS X PJCTS (311712) | | | | | | | |
| 6 | 6 | 0 | | C700-POLY-0607 5/8X3/4 AMCO POLY WATER METER US GALLONS SERIAL# | EA | 31.5000 | 189.00 |
| 25 | 25 | 0 | | NG-D4 3/4 CTS FORD PACK JOINT ASSEMBLY | EA | 5.4200 | 135.50 |

Total Lines: 9

Total Freight In: 0.00

Total Freight Out: 30.00

SUB-TOTAL: 1,003.18

TOTAL FREIGHT: 30.00

TAX: 0.00

AMOUNT DUE: 1,033.18

Thank You!! We Really Appreciate Your Business! FED. I. D. 620912993

To Better Serve You - We Now Accept Visa, MasterCard, American Express, Discover and Debit Cards

ORIGINAL

All returns may be subject to a manufacturers re -stocking charge. All custom or non-stock items are non-returnable.

INVOICE

G & C

SUPPLY CO., Inc.

WATER, SEWER & GAS DIVISION
 SIGNS & SAFETY DIVISION
 FIRE, RESCUE AND SAFETY EQUIPMENT
 P.O. Drawer 459—1105 Hwy 77
 Atwood, TN 38220
 (731)662-7193 or (800)238-3836
 Fax: (731)662-7219

*Entered 6/29/12
 CR# 7810*

| | |
|--------------------|--------|
| INVOICE | |
| 6465412 | |
| Invoice Date | Page |
| 6/21/2012 14:54:19 | 1 of 1 |
| ORDER NUMBER | |
| 1481264 | |

Bill To:

GRAND JUNCTION WATER DEPT.
 P.O. BOX 129
 GRAND JUNCTION, TN 38039

Ship To:

GRAND JUNCTION WATER DEPT.
 150 TIPPAH STREET
 GRAND JUNCTION, TN 38039

Customer ID: 1495

| PO Number | Term Description | Net Due Date | Disc Due Date | Discount Amount |
|-----------|------------------|--------------|---------------|-----------------|
| | Net 30 | 7/21/2012 | 7/21/2012 | 0.00 |

| Order Date | Pick Ticket No | Primary Salesrep Name | Taker |
|--------------------|----------------|-----------------------|-----------|
| 6/19/2012 11:58:35 | 3485247 | Tom Shaw | CMCCADAMS |

| Quantities | | | Status Key | Item ID | Unit | Unit Price | Extended Price |
|------------|---------|-----------|--|------------------|------|------------|----------------|
| Ordered | Shipped | Remaining | B = Backorder D = Direct C = Canceled P = In Production | Item Description | | | |

Carrier: UPS GROUND

Tracking #: 1ZX373190374258426

| | | | | | | | |
|----|----|---|--|--|----|---------|--------|
| 24 | 24 | 0 | | C700-POLY-0607 5/8X3/4 AMCO POLY WATER METER US GALLONS SERIAL# _____ | EA | 31.5000 | 756.00 |
|----|----|---|--|--|----|---------|--------|

Total Lines: 1

SUB-TOTAL: 756.00

Total Freight In: 0.00

Total Freight Out: 32.84

TOTAL FREIGHT: 32.84

TAX: 0.00

Thank You!! We Really Appreciate Your Business! FED. I. D. 620912993

AMOUNT DUE: 788.84

To Better Serve You - We Now Accept Visa, MasterCard, American Express, Discover and Debit Cards

INVOICE

G & C SUPPLY CO., Inc.

WATER, SEWER & GAS DIVISION
 SIGNS & SAFETY DIVISION
 FIRE, RESCUE AND SAFETY EQUIPMENT

P.O. Drawer 459—1105 Hwy 77
 Atwood, TN 38220
 (731)662-7193 or (800)238-3836
 Fax: (731)662-7219

| | |
|--------------------|--------|
| INVOICE | |
| 6460842 | |
| Invoice Date | Page |
| 5/14/2012 09:50:19 | 1 of 1 |
| ORDER NUMBER | |
| 1476611 | |

Bill To:
 GRAND JUNCTION WATER DEPT.
 P.O. BOX 129
 GRAND JUNCTION, TN 38039

Ship To:
 GRAND JUNCTION WATER DEPT.
 150 TIPPAH STREET
 GRAND JUNCTION, TN 38039

Customer ID: 1495

| PO Number | Term Description | Net Due Date | Disc Due Date | Discount Amount |
|-----------|------------------|--------------|---------------|-----------------|
| | Net 30 | 6/13/2012 | 6/13/2012 | 0.00 |

| Order Date | Pick Ticket No | Primary Salesrep Name | Taker |
|--------------------|----------------|-----------------------|-----------|
| 5/11/2012 14:09:36 | 3480578 | Tom Shaw | JWILLIAMS |

| Quantities | | | Status Key | Item ID | Unit | Unit Price | Extended Price |
|------------|---------|-----------|--|------------------|------|------------|----------------|
| Ordered | Shipped | Remaining | B = Backorder D = Direct C = Canceled P = In Production | Item Description | | | |

Carrier: UPS GROUND

Tracking #: 1ZX373190374610606

| | | | | | | | |
|----|----|---|--|---|----|---------|--------|
| 24 | 24 | 0 | | C7BPUPP-0607 5/8X3/4 AMCO WATER METER - US GAL POLY TOP- POLY BTM SERIAL # _____ | EA | 31.5000 | 756.00 |
|----|----|---|--|---|----|---------|--------|

Total Lines: 1

SUB-TOTAL: 756.00

Total Freight In: 0.00

Total Freight Out: 36.90

TOTAL FREIGHT: 36.90

TAX: 0.00

Thank You!! We Really Appreciate Your Business! FED. I. D. 620912993

AMOUNT DUE: 792.90

To Better Serve You - We Now Accept Visa, MasterCard, American Express, Discover and Debit Cards

INVOICE



SUPPLY CO., Inc.

WATER, SEWER & GAS DIVISION
 SIGNS & SAFETY DIVISION
 FIRE, RESCUE AND SAFETY EQUIPMENT
 P.O. Drawer 459—1105 Hwy 77
 Atwood, TN 38220
 (731)662-7193 or (800)238-3836
 Fax: (731)662-7219

| | |
|--------------------|--------|
| INVOICE | |
| 6447077 | |
| Invoice Date | Page |
| 1/11/2012 14:13:17 | 1 of 1 |
| ORDER NUMBER | |
| 1460454 | |

Bill To:
 GRAND JUNCTION WATER DEPT.
 P.O. BOX 129
 GRAND JUNCTION, TN 38039

Ship To:
 GRAND JUNCTION WATER DEPT.
 150 TIPPAH STREET
 GRAND JUNCTION, TN 38039

Customer ID: 1495

| PO Number | Terms Description | Net Due Date | Tracking Number |
|-----------|-------------------|--------------|-----------------|
| | Net 30 | 02/10/12 | |

| Order Date | Pick Ticket No | Primary Salesrep Name | Taker |
|-------------------|----------------|-----------------------|-----------|
| 1/6/2012 08:29:48 | 3465470 | Tom Shaw | CMCCADAMS |

| Quantities | | | Status Key | Item ID Item Description | Unit | Unit Price | Extended Price |
|------------|---------|-----------|---|-----------------------------|------|------------|----------------|
| Ordered | Shipped | Remaining | B = Backorder D = Direct C = Canceled P = In Production Status of Balance | | | | |

Carrier: OUR TRUCK

Tracking #:

| | | | | | | | |
|--------------------------|-----|---|--------|--|----|---------|--------|
| 6 | 6 | 0 | | C7BPUPP-0607 5/8X3/4 AMCO WATER METER - US GAL POLY TOP- POLY BTM SERIAL # | EA | 31.5000 | 189.00 |
| 2 | 2 | 0 | | BR1015-12 12 PLASTIC METER BOX KIT | EA | 17.9500 | 35.90 |
| Level: | | | 1 EA | BR1015-12B | | | |
| Qty Per Assembly: | | | 1.0000 | 12 PLASTIC METER BOX L/LID | EA | | |
| Total Qty.: | | | 2.0000 | | | | |
| Level: | | | 2 NC | BR1015-CIR | | | |
| Qty Per Assembly: | | | 1.0000 | BROOKS PLA. LID ONLY W/CI FLIP | NC | | |
| Total Qty.: | | | 2.0000 | | | | |
| 100 | 100 | 0 | | PS4011 3/4X1/8 RUBBER METER WASHER | EA | 0.0950 | 9.50 |

Total Lines: 3

| | |
|-----------------------|--------|
| SUB-TOTAL: | 234.40 |
| TOTAL FREIGHT: | 30.00 |
| TAX: | 0.00 |
| AMOUNT DUE: | 264.40 |

Thank You!! We Really Appreciate Your Business! FED. I. D. 620912993

To Better Serve You - We Now Accept Visa, MasterCard, American Express, Discover and Debit

INVOICE

G & C **SUPPLY CO., Inc.**

WATER, SEWER & GAS DIVISION
 SIGNS & SAFETY DIVISION
 FIRE, RESCUE AND SAFETY EQUIPMENT
 P.O. Drawer 459—1105 Hwy 77
 Atwood, TN 38220
 (731)662-7193 or (800)238-3836
 Fax: (731)662-7219

| | |
|--------------------|--------|
| INVOICE | |
| 6450348 | |
| Invoice Date | Page |
| 2/10/2012 13:51:27 | 1 of 1 |
| ORDER NUMBER | |
| 1464956 | |

Bill To:

GRAND JUNCTION WATER DEPT.
 P.O. BOX 129
 GRAND JUNCTION, TN 38039

Ship To:

GRAND JUNCTION WATER DEPT.
 150 TIPPAH STREET
 GRAND JUNCTION, TN 38039

Customer ID: 1495

| PO Number | | Terms Description | Net Due Date | Tracking Number | | |
|-------------------|----------------|-----------------------|-----------------------------|-----------------|------------|----------------|
| | | Net 30 | 03/11/12 | | | |
| Order Date | Pick Ticket No | Primary Salesrep Name | | Taker | | |
| 2/9/2012 09:42:25 | 3469462 | Tom Shaw | | CMCCADAMS | | |
| Quantities | | | Item ID Item Description | Unit | Unit Price | Extended Price |
| Ordered | Shipped | Remaining | | | | |

Status Key
 B = Backorder
 D = Direct
 C = Canceled
 P = In Production
 Status of Balance

Carrier: UPS GROUND

Tracking #: 1ZX373190374050935

| | | | | | | |
|-----------------------------------|----|---|--------------|----|---------|--------|
| 12 | 12 | 0 | C7BPUPP-0607 | EA | 31.5000 | 378.00 |
| 5/8X3/4 AMCO WATER METER - US GAL | | | | | | |
| POLY TOP- POLY BTM SERIAL | | | | | | |
| # | | | | | | |

Total Lines: 1

SUB-TOTAL: 378.00
TOTAL FREIGHT: 18.30
TAX: 0.00
AMOUNT DUE: 396.30

Thank You!! We Really Appreciate Your Business! FED. I. D. 620912993

Better Serve You - We Now Accept Visa, MasterCard, American Express, Discover and Debit

INVOICE

G & C SUPPLY CO., Inc.

WATER, SEWER & GAS DIVISION
 SIGNS & SAFETY DIVISION
 FIRE, RESCUE AND SAFETY EQUIPMENT
 P.O. Drawer 459—1105 Hwy 77
 Atwood, TN 38220
 (731)662-7193 or (900)238-3836
 Fax: (731)662-7219

| | |
|--------------------|--------|
| INVOICE | |
| 6428201 | |
| Invoice Date | Page |
| 7/22/2011 14:07:29 | 1 of 1 |
| ORDER NUMBER | |
| 1440537 | |

Bill To:

GRAND JUNCTION WATER DEPT.
 P.O. BOX 129
 GRAND JUNCTION, TN 38039

Ship To:

GRAND JUNCTION WATER DEPT.
 150 TIPPAH STREET
 GRAND JUNCTION, TN 38039

Customer ID: 1495

| PO Number | | Terms Description | Net Due Date | Tracking Number | | |
|--------------------|----------------|-----------------------|---|-----------------|------------|----------------|
| | | Net 30 | 08/21/11 | | | |
| Order Date | Pick Ticket No | Primary Salesrep Name | | Taker | | |
| 7/21/2011 13:41:57 | 3445899 | Tom Shaw | | CMCCADAMS | | |
| Quantities | | | Item ID Item Description | Unit | Unit Price | Extended Price |
| Ordered | Shipped | Remaining | | | | |
| 18 | 18 | 0 | C7BPUPP-0607 5/8X3/4 AMCO WATER METER - US GAL POLY TOP- POLY BTM SERIAL # | EA | 31.5000 | 567.00 |

Carrier: UPS GROUND Tracking #: 1ZX373190374041767

Total Lines: 1

SUB-TOTAL: 567.00
TOTAL FREIGHT: 31.10
TAX: 0.00
AMOUNT DUE: 598.10

Thank You!! We Really Appreciate Your Business! FED. I. D. 620912993

To Better Serve You - We Now Accept Visa, MasterCard, American Express, Discover and Debit

INVOICE



SUPPLY CO., Inc.

WATER, SEWER & GAS DIVISION
 SIGNS & SAFETY DIVISION
 FIRE, RESCUE AND SAFETY EQUIPMENT
 P.O. Drawer 459—1105 Hwy 77
 Atwood, TN 38220
 (731)662-7193 or (800)238-3836
 Fax: (731)662-7219

| | |
|--------------------|--------|
| INVOICE | |
| 6418184 | |
| Invoice Date | Page |
| 4/25/2011 13:25:31 | 1 of 1 |
| ORDER NUMBER | |
| 1429640 | |

Bill To:

GRAND JUNCTION WATER DEPT.
 P.O. BOX 129
 GRAND JUNCTION, TN 38039

Ship To:

GRAND JUNCTION WATER DEPT.
 150 TIPPAH STREET
 GRAND JUNCTION, TN 38039

Customer ID: 1495

| PO Number | | | Terms Description | Net Due Date | Tracking Number | | |
|--------------------|----------------|-----------------------|--|--------------|-----------------|----------------|--|
| | | | Net 30 | 05/25/11 | | | |
| Order Date | Pick Ticket No | Primary Salesrep Name | | | Taker | | |
| 4/21/2011 09:04:24 | 3435484 | Jimmy Halford | | | CMCCADAMS | | |
| Quantities | | | Item ID Item Description | Unit | Unit Price | Extended Price | |
| Ordered | Shipped | Remaining | | | | | |
| | | | <small>Status Key B = Backorder D = Direct C = Canceled P = In Production Status of Balance</small> | | | | |

Carrier: UPS GROUND

Tracking #: 1ZX373190374058571

| | | | | | | |
|-----|-----|---|--|----|---------|--------|
| 6 | 6 | 0 | C7BPUPP-0607 5/8X3/4 AMCO WATER METER - US GAL POLY TOP- POLY BTM SERIAL # | EA | 31.5000 | 189.00 |
| 100 | 100 | 0 | PS4011 3/4X1/8 RUBBER METER WASHER | EA | 0.0950 | 9.50 |
| 4 | 4 | 0 | 244-008803 3/4CTSX3 FULL CIRCLE REDI-CLAMPS | EA | 27.5000 | 110.00 |

Total Lines: 3

SUB-TOTAL: 308.50
TOTAL FREIGHT: 13.68
TAX: 0.00

Thank You!! We Really Appreciate Your Business! FED. I. D. 620912993

AMOUNT DUE: 322.18

To Better Serve You - We Now Accept Visa, MasterCard, American Express, Discover and Debit

All returns may be subject to a manufacturers re-stocking charge. All custom or non-stock items are non-returnable.

City of Grand Junction - Water Department

150 Tippah Street
P.O.Box 129
Grand Junction, TN 38039

Phone 731-764-2871
Fax 731-764-6222

Curtis Lane, Mayor

BULK WATER SALES AGREEMENT

I, _____ agree to the terms and conditions of bulk water sales at a rate of \$15.09 for the first 2000 gallons(minimum) and \$0.28 per 100 gallons over minimum. Contact of the Water Department is required prior to any water disbursement and all bulk water will be registered through a metered hydrant located at 150 N. Tippah Street. Bulk water sales will be billed and payment is due upon receipt.

Contact Name: _____ Phone # _____

Company Name: _____

Address: _____

City, State, Zip _____

Signature: _____ Date: _____

Water Dept. Signature: _____ Date: _____

| | 2010/2011 LAST FISCAL YR TOTALS | ACTUAL YTD 7/1/11- 6/30/2012 | PROJ BUDGET FOR 7/1/2012- 6/30/2013 | ADJUSTED PROJ BUDGET FOR 7/1/2012- 6/30/2013 |
|-----------------------|--|------------------------------------|--|--|
| INCOME | | | | |
| HOOK-UP FEES | 1,325.00 | 1,454.00 | 1,500.00 | 1,500.00 |
| INTEREST INCOME | 1,600.00 | 11.00 | 1,600.00 | 1,600.00 |
| LATE CHARGES | 7,109.00 | 7,775.00 | 7,000.00 | 7,000.00 |
| METER FEE COL | 2,745.00 | 1,875.00 | 2,000.00 | 2,000.00 |
| MISC INC | 489.00 | 753.00 | 1,200.00 | 1,200.00 |
| RECONNECT FEE COL | 2,573.00 | 2,186.00 | 2,000.00 | 2,000.00 |
| SEWER FEES COL | 52,628.00 | 54,556.00 | 59,000.00 | 61,000.00 |
| WATER FEES COL | 134,817.00 | 140,503.00 | 151,000.00 | 157,363.00 |
| TOTAL INCOME | 203,286.00 | 209,113.00 | 225,300.00 | 233,663.00 |
| | | | | |
| EXPENSES | | | | |
| ADVERTISING & DUES | 2,377.00 | 1,371.00 | 1,800.00 | 1,800.00 |
| CHRISTMAS CLUB | 720.00 | 740.00 | 750.00 | 750.00 |
| DEBT REPAYMENT | 21,096.00 | 21,096.00 | 21,096.00 | 21,096.00 |
| EMPLOYEE HEALTH INS | 1,134.00 | 8,085.00 | 8,000.00 | 8,000.00 |
| FIXED ASSETS | 1,000.00 | 2,779.00 | 3,000.00 | 3,000.00 |
| FUEL | 2,394.00 | 3,475.00 | 3,000.00 | 3,000.00 |
| GAS & ELECTRIC | 16,897.00 | 20,585.00 | 17,000.00 | 17,000.00 |
| INSURANCE | 2,607.00 | 2,448.00 | 2,316.00 | 2,316.00 |
| MILEAGE | 728.00 | - | - | - |
| MISC EXP | 1,053.00 | 622.00 | 1,000.00 | 1,000.00 |
| OFFICE & PHONE | 2,929.00 | 2,612.00 | 3,000.00 | 3,000.00 |
| PAYROLL | 69,478.00 | 80,894.00 | 70,000.00 | 60,000.00 |
| PROF & TECH | 7,224.00 | 9,642.00 | 9,000.00 | 9,000.00 |
| RENT | 18,000.00 | 19,500.00 | 18,000.00 | 18,000.00 |
| REPAIR & MAINT | 18,770.00 | 36,022.00 | 30,000.00 | 30,000.00 |
| RETIREMNT EXP | 208.00 | - | - | - |
| SS MED EXP | 4,362.00 | 6,754.00 | 5,500.00 | 4,500.00 |
| WATER DEP REFUND | | 120.00 | 100.00 | 100.00 |
| TOTAL EXPENSES | 170,977.00 | 216,745.00 | 193,562.00 | 182,562.00 |
| | | | | |
| OVERALL TOTAL | 32,309.00 | (7,632.00) | 31,738.00 | 51,101.00 |

12% X ACTUAL
12% X ACTUAL

SALARY ADJMT

SALARY ADJMT



Unaccounted For Water Worksheet

Copyright © 2009, Tennessee Association of Utility Districts. All Rights Reserved

| | |
|-----------------------------|------------------------|
| Starting Month: <u>July</u> | End Month: <u>June</u> |
| Starting Year: <u>2011</u> | End Year: <u>2012</u> |

Utility Name: Grand Junction Water Dept

| | | | | | |
|---------|----------|-----------|---------|----------|----------|
| January | February | March | April | May | June |
| July | August | September | October | November | December |

Report for Year



Tennessee Association
of Utility Districts

Grand Junction Water Dept
 Schedule of Unaccounted For Water
 January

Return to Main
Next Month
 (All amounts in gallons)

| | | |
|---|-----------|-----------|
| A Water Treated and Purchased | | |
| B Water Pumped (potable) | 4,327,000 | |
| C Water Purchased | 0 | |
| D Total Water Treated and Purchased | | 4,327,000 |
| (Sum Lines B and C) | | |
| E Accounted for Water: | | |
| F Water Sold | 1,812,800 | |
| G Metered for Consumption (in house usage) | 0 | |
| H Fire Department(s) Usage | 5,500 | |
| I Flushing | 0 | |
| J Tank Cleaning/Filling | 0 | |
| K Street Cleaning | 0 | |
| L Bulk Sales | 0 | |
| M Water Bill Adjustments (+/-) | 11,500 | |
| N Total Accounted for Water | | 1,829,800 |
| (Sum Lines F thru M) | | |
| O Unaccounted for Water | | 2,497,200 |
| (Line D minus Line N) | | |
| P Percent Unaccounted for Water | | 57.712% |
| (Line O divided by Line D times 100) | | |

Q Other (explain) See Below

Explain Other:

All amounts included in this schedule are supported by documentation on file at the water system. If no support is on file for a line item or if line item is not applicable, a "0" is shown.

Grand Junction Water Dept
 Schedule of Unaccounted For Water
 February

Previous Month
Return to Main
Next Month

(All amounts in gallons)

| | | |
|---|-----------|-----------|
| A Water Treated and Purchased | | |
| B Water Pumped (potable) | 4,618,000 | |
| C Water Purchased | 0 | |
| D Total Water Treated and Purchased | | 4,618,000 |
| (Sum Lines B and C) | | |
| E Accounted for Water: | | |
| F Water Sold | 2,225,400 | |
| G Metered for Consumption (in house usage) | 0 | |
| H Fire Department(s) Usage | 2,000 | |
| I Flushing | 20,019 | |
| J Tank Cleaning/Filling | 0 | |
| K Street Cleaning | 0 | |
| L Bulk Sales | 21,000 | |
| M Water Bill Adjustments (+/-) | 28,300 | |
| N Total Accounted for Water | | 2,296,719 |
| (Sum Lines F thru M) | | |
| O Unaccounted for Water | | 2,321,281 |
| (Line D minus Line N) | | |
| P Percent Unaccounted for Water | | 50.266% |
| (Line O divided by Line D times 100) | | |

Q Other (explain) See Below

Explain Other:

All amounts included in this schedule are supported by documentation on file at the water system. If no support is on file for a line item or if line item is not applicable, a "0" is shown.

Grand Junction Water Dept
Schedule of Unaccounted For Water

March

Previous Month
Return to Main
Next Month

(All amounts in gallons)

| | | |
|--|-----------|-----------|
| A Water Treated and Purchased | | |
| B Water Pumped (potable) | 4,016,000 | |
| C Water Purchased | 0 | |
| D Total Water Treated and Purchased | | 4,016,000 |
| (Sum Lines B and C) | | |
| E Accounted for Water: | | |
| F Water Sold | 1,824,900 | |
| G Metered for Consumption (in house usage) | 0 | |
| H Fire Department(s) Usage | 1,500 | |
| I Flushing | 0 | |
| J Tank Cleaning/Filling | 0 | |
| K Street Cleaning | 0 | |
| L Bulk Sales | 9,800 | |
| M Water Bill Adjustments (+/-) | 7,000 | |
| N Total Accounted for Water | | 1,843,200 |
| (Sum Lines F thru M) | | |
| O Unaccounted for Water | | 2,172,800 |
| (Line D minus Line N) | | |
| P Percent Unaccounted for Water | | 54.104% |
| (Line O divided by Line D times 100) | | |

Q Other (explain)

See Below

Explain Other:

All amounts included in this schedule are supported by documentation on file at the water system. If no support is on file for a line item or if line item is not applicable, a "0" is shown.

Grand Junction Water Dept
Schedule of Unaccounted For Water

April

| | | |
|-----------------------|-----------------------|-------------------|
| <i>Previous Month</i> | <i>Return to Main</i> | <i>Next Month</i> |
|-----------------------|-----------------------|-------------------|

(All amounts in gallons)

| | | |
|--|-----------|-----------|
| A Water Treated and Purchased | | |
| B Water Pumped (potable) | 3,464,000 | |
| C Water Purchased | 0 | |
| D Total Water Treated and Purchased (Sum Lines B and C) | | 3,464,000 |
| E Accounted for Water: | | |
| F Water Sold | 1,873,760 | |
| G Metered for Consumption (in house usage) | 0 | |
| H Fire Department(s) Usage | 0 | |
| I Flushing | 0 | |
| J Tank Cleaning/Filling | 0 | |
| K Street Cleaning | 0 | |
| L Bulk Sales | 10,000 | |
| M Water Bill Adjustments (+/-) | 0 | |
| N Total Accounted for Water (Sum Lines F thru M) | | 1,883,760 |
| O Unaccounted for Water (Line D minus Line N) | | 1,580,240 |
| P Percent Unaccounted for Water (Line O divided by Line D times 100) | | 45.619% |

Q Other (explain) See Below

Explain Other:

All amounts included in this schedule are supported by documentation on file at the water system. If no support is on file for a line item or if line item is not applicable, a "0" is shown.

Grand Junction Water Dept
Schedule of Unaccounted For Water

May

| | | |
|-----------------------|-----------------------|-------------------|
| <i>Previous Month</i> | <i>Return to Main</i> | <i>Next Month</i> |
|-----------------------|-----------------------|-------------------|

(All amounts in gallons)

| | | |
|--|-----------|-----------|
| A Water Treated and Purchased | | |
| B Water Pumped (potable) | 3,773,000 | |
| C Water Purchased | 0 | |
| D Total Water Treated and Purchased | | 3,773,000 |
| (Sum Lines B and C) | | |
| E Accounted for Water: | | |
| F Water Sold | 1,774,529 | |
| G Metered for Consumption (in house usage) | 0 | |
| H Fire Department(s) Usage | 3,500 | |
| I Flushing | 904 | |
| J Tank Cleaning/Filling | 0 | |
| K Street Cleaning | 0 | |
| L Bulk Sales | 0 | |
| M Water Bill Adjustments (+/-) | 0 | |
| N Total Accounted for Water | | 1,778,933 |
| (Sum Lines F thru M) | | |
| O Unaccounted for Water | | 1,994,067 |
| (Line D minus Line N) | | |
| P Percent Unaccounted for Water | | 52.851% |
| (Line O divided by Line D times 100) | | |

Q Other (explain) See Below

Explain Other:

All amounts included in this schedule are supported by documentation on file at the water system. If no support is on file for a line item or if line item is not applicable, a "0" is shown.

Grand Junction Water Dept
Schedule of Unaccounted For Water

June

| | | |
|-----------------------|-----------------------|-------------------|
| <i>Previous Month</i> | <i>Return to Main</i> | <i>Next Month</i> |
|-----------------------|-----------------------|-------------------|

(All amounts in gallons)

| | | |
|--|-----------|-----------|
| A Water Treated and Purchased | | |
| B Water Pumped (potable) | 3,635,000 | |
| C Water Purchased | 0 | |
| D Total Water Treated and Purchased | 3,635,000 | 3,635,000 |
| (Sum Lines B and C) | | |
| E Accounted for Water: | | |
| F Water Sold | 2,040,690 | |
| G Metered for Consumption (in house usage) | 0 | |
| H Fire Department(s) Usage | 0 | |
| I Flushing | 0 | |
| J Tank Cleaning/Filling | 0 | |
| K Street Cleaning | 0 | |
| L Bulk Sales | 0 | |
| M Water Bill Adjustments (+/-) | 30,000 | |
| N Total Accounted for Water | 2,070,690 | 2,070,690 |
| (Sum Lines F thru M) | | |
| O Unaccounted for Water | 1,564,310 | 1,564,310 |
| (Line D minus Line N) | | |
| P Percent Unaccounted for Water | 43.035% | 43.035% |
| (Line O divided by Line D times 100) | | |

Q Other (explain) See Below

Explain Other:

All amounts included in this schedule are supported by documentation on file at the water system. If no support is on file for a line item or if line item is not applicable, a "0" is shown.

Grand Junction Water Dept
Schedule of Unaccounted For Water

July

| | | |
|-----------------------|-----------------------|-------------------|
| <i>Previous Month</i> | <i>Return to Main</i> | <i>Next Month</i> |
|-----------------------|-----------------------|-------------------|

(All amounts in gallons)

| | | |
|--|-----------|-----------|
| A Water Treated and Purchased | | |
| B Water Pumped (potable) | 4,846,000 | |
| C Water Purchased | 0 | |
| D Total Water Treated and Purchased | | 4,846,000 |
| (Sum Lines B and C) | | |
| E Accounted for Water: | | |
| F Water Sold | 2,394,220 | |
| G Metered for Consumption (in house usage) | 0 | |
| H Fire Department(s) Usage | 6,000 | |
| I Flushing | 0 | |
| J Tank Cleaning/Filling | 0 | |
| K Street Cleaning | 12,000 | |
| L Bulk Sales | 25,900 | |
| M Water Bill Adjustments (+/-) | 0 | |
| N Total Accounted for Water | | 2,438,120 |
| (Sum Lines F thru M) | | |
| O Unaccounted for Water | | 2,407,880 |
| (Line D minus Line N) | | |
| P Percent Unaccounted for Water | | 49.688% |
| (Line O divided by Line D times 100) | | |

Q Other (explain) See Below

Explain Other:

Street cleaning = Culverts cleaned with fire truck.

All amounts included in this schedule are supported by documentation on file at the water system. If no support is on file for a line item or if line item is not applicable, a "0" is shown.

Grand Junction Water Dept
Schedule of Unaccounted For Water

August

Previous Month
Return to Main
Next Month

(All amounts in gallons)

| | | |
|---|-----------|-----------|
| A Water Treated and Purchased | | |
| B Water Pumped (potable) | 4,569,000 | |
| C Water Purchased | 0 | |
| D Total Water Treated and Purchased | | 4,569,000 |
| (Sum Lines B and C) | | |
| E Accounted for Water: | | |
| F Water Sold | 2,359,900 | |
| G Metered for Consumption (in house usage) | 0 | |
| H Fire Department(s) Usage | 3,500 | |
| I Flushing | 0 | |
| J Tank Cleaning/Filling | 0 | |
| K Street Cleaning | 0 | |
| L Bulk Sales | 0 | |
| M Water Bill Adjustments (+/-) | 54,167 | |
| N Total Accounted for Water | | 2,417,567 |
| (Sum Lines F thru M) | | |
| O Unaccounted for Water | | 2,151,433 |
| (Line D minus Line N) | | |
| P Percent Unaccounted for Water | | 47.088% |
| (Line O divided by Line D times 100) | | |

Q Other (explain)

See Below

Explain Other:

All amounts included in this schedule are supported by documentation on file at the water system. If no support is on file for a line item or if line item is not applicable, a "0" is shown.

Grand Junction Water Dept
 Schedule of Unaccounted For Water
 September

Previous Month
 Return to Main
 Next Month
 (All amounts in gallons)

| | | |
|--|-----------|-----------|
| A Water Treated and Purchased | | |
| B Water Pumped (potable) | 4,605,000 | |
| C Water Purchased | 0 | |
| D Total Water Treated and Purchased | | 4,605,000 |
| (Sum Lines B and C) | | |
| E Accounted for Water: | | |
| F Water Sold | 2,287,000 | |
| G Metered for Consumption (in house usage) | 0 | |
| H Fire Department(s) Usage | 500 | |
| I Flushing | 0 | |
| J Tank Cleaning/Filling | 0 | |
| K Street Cleaning | 0 | |
| L Bulk Sales | 5,200 | |
| M Water Bill Adjustments (+/-) | 81,500 | |
| N Total Accounted for Water | | 2,374,200 |
| (Sum Lines F thru M) | | |
| O Unaccounted for Water | | 2,230,800 |
| (Line D minus Line N) | | |
| P Percent Unaccounted for Water | | 48.443% |
| (Line O divided by Line D times 100) | | |

Q Other (explain) See Below

Explain Other:

All amounts included in this schedule are supported by documentation on file at the water system. If no support is on file for a line item or if line item is not applicable, a "0" is shown.

Grand Junction Water Dept
 Schedule of Unaccounted For Water
 October

Previous Month
Return to Main
Next Month
 (All amounts in gallons)

| | | |
|--|-----------|-----------|
| A Water Treated and Purchased | | |
| B Water Pumped (potable) | 4,428,000 | |
| C Water Purchased | 0 | |
| D Total Water Treated and Purchased | | 4,428,000 |
| (Sum Lines B and C) | | |
| E Accounted for Water: | | |
| F Water Sold | 1,920,900 | |
| G Metered for Consumption (in house usage) | 0 | |
| H Fire Department(s) Usage | 5,750 | |
| I Flushing | 0 | |
| J Tank Cleaning/Filling | 0 | |
| K Street Cleaning | 0 | |
| L Bulk Sales | 0 | |
| M Water Bill Adjustments (+/-) | 0 | |
| N Total Accounted for Water | | 1,926,650 |
| (Sum Lines F thru M) | | |
| O Unaccounted for Water | | 2,501,350 |
| (Line D minus Line N) | | |
| P Percent Unaccounted for Water | | 56.489% |
| (Line O divided by Line D times 100) | | |

Q Other (explain) See Below

Explain Other:

All amounts included in this schedule are supported by documentation on file at the water system. If no support is on file for a line item or if line item is not applicable, a "0" is shown.

Grand Junction Water Dept
 Schedule of Unaccounted For Water
 November

Previous Month
Return to Main
Next Month
 (All amounts in gallons)

| | | |
|--|-----------|-----------|
| A Water Treated and Purchased | | |
| B Water Pumped (potable) | 4,205,000 | |
| C Water Purchased | 0 | |
| D Total Water Treated and Purchased | | 4,205,000 |
| (Sum Lines B and C) | | |
| E Accounted for Water: | | |
| F Water Sold | 2,082,700 | |
| G Metered for Consumption (in house usage) | 0 | |
| H Fire Department(s) Usage | 7,350 | |
| I Flushing | 0 | |
| J Tank Cleaning/Filling | 0 | |
| K Street Cleaning | 0 | |
| L Bulk Sales | 0 | |
| M Water Bill Adjustments (+/-) | 87,187 | |
| N Total Accounted for Water | | 2,177,237 |
| (Sum Lines F thru M) | | |
| O Unaccounted for Water | | 2,027,763 |
| (Line D minus Line N) | | |
| P Percent Unaccounted for Water | | 48.223% |
| (Line O divided by Line D times 100) | | |

Q Other (explain) See Below

Explain Other:

All amounts included in this schedule are supported by documentation on file at the water system. If no support is on file for a line item or if line item is not applicable, a "0" is shown.

Grand Junction Water Dept
 Schedule of Unaccounted For Water
 December

Previous Month
Return to Main
 (All amounts in gallons)

| | | |
|---|-----------|------------|
| A Water Treated and Purchased | | |
| B Water Pumped (potable) | 4,319,000 | |
| C Water Purchased | 0 | |
| D Total Water Treated and Purchased | | 4,319,000 |
| (Sum Lines B and C) | | |
| E Accounted for Water: | | |
| F Water Sold | 1,943,200 | |
| G Metered for Consumption (in house usage) | 0 | |
| H Fire Department(s) Usage | 8,500 | |
| I Flushing | 0 | |
| J Tank Cleaning/Filling | 0 | |
| K Street Cleaning | 0 | |
| L Bulk Sales | 0 | |
| M Water Bill Adjustments (+/-) | 3,854,313 | |
| N Total Accounted for Water | | 5,806,013 |
| (Sum Lines F thru M) | | |
| O Unaccounted for Water | | -1,487,013 |
| (Line D minus Line N) | | |
| P Percent Unaccounted for Water | | -34.430% |
| (Line O divided by Line D times 100) | | |

Q Other (explain) See Below

Explain Other:

Misread meters: 3,844,980 to adjustments

All amounts included in this schedule are supported by documentation on file at the water system. If no support is on file for a line item or if line item is not applicable, a "0" is shown.

Grand Junction Water Dept
 Schedule of Unaccounted For Water
 July, 2011 to June, 2012

Return to Main

(All amounts in gallons)

| | | |
|--------------------------------------|--|------------|
| A Water Treated and Purchased | | |
| B | Water Pumped (potable) | 50,805,000 |
| C | Water Purchased | 0 |
| D | Total Water Treated and Purchased | 50,805,000 |
| | (Sum Lines B and C) | |
| E Accounted for Water: | | |
| F | Water Sold | 24,539,999 |
| G | Metered for Consumption (in house usage) | 0 |
| H | Fire Department(s) Usage | 44,100 |
| I | Flushing | 20,923 |
| J | Tank Cleaning/Filling | 0 |
| K | Street Cleaning | 12,000 |
| L | Bulk Sales | 71,900 |
| M | Water Bill Adjustments (+/-) | 4,153,967 |
| N | Total Accounted for Water | 28,842,889 |
| | (Sum Lines F thru M) | |
| O | Unaccounted for Water | 21,962,111 |
| | (Line D minus Line N) | |
| P | Percent Unaccounted for Water | 43.228% |
| | (Line O divided by Line D times 100) | |

Q Other (explain) See Below

Explain Other:

All amounts included in this schedule are supported by documentation on file at the water system. If no support is on file for a line item or if line item is not applicable, a "0" is shown.

LENOIR CITY UTILITIES BOARD
WATER AND SEWER DEPARTMENT
WATER DIVISION

Schedule of Unaccounted for Water

Year Ended June 30, 2011

(All amounts in gallons)

| | | |
|---------------------------------------|--|----------------------|
| A Water Treated and Purchased: | | |
| B | Water Pumped (potable) | <u>697,493,172</u> |
| C | Water Purchased | <u>307,073,900</u> |
| D | Total Water Treated and Purchased (Sum Lines B and C) | <u>1,004,567,072</u> |
| | | |
| E Accounted for Water: | | |
| F | Water Sold | <u>594,755,000</u> |
| G | Metered for Consumption (in house usage) | <u>28,259,283</u> |
| H | Fire Department(s) Usage | <u>217,130</u> |
| I | Flushing | <u>5,237,259</u> |
| J | Tank Cleaning/Filling | <u>0</u> |
| K | Street Cleaning | <u>0</u> |
| L | Bulk Sales | <u>0</u> |
| M | Water Bill Adjustments | <u>(2,589,000)</u> |
| N | Total Accounted for Water (Sum Lines F thru M) | <u>625,879,672</u> |
| O | Unaccounted for Water (Line D minus Line N) | <u>378,687,400</u> |
| P | Percent Unaccounted for Water (Line O divided by Line D times 100) | <u>37.697%</u> |
| | | |
| Q | Other (explain) | See Below |

Explain Other:

| |
|------|
| None |
|------|

All amounts included in this schedule are supported by documentation on file at the water system. If no support is on file for a line item or if line item is not applicable, a "0" is shown.

See independent auditor's report.

LENOIR CITY



UTILITIES BOARD

200 DEPOT STREET
P.O. BOX 449
LENOIR CITY, TENNESSEE 37771
TELEPHONE (865) 986-6591

September 28, 2012

Water and Wastewater Finance Board
Attention Joyce Welborn
James K. Polk State Office Building
505 Deaderick Street
Suite 1500
Nashville, Tennessee 37243-1402

OCT 01 2012

Dear Ms. Welborn:

I am writing this letter in response to the inquiry of the Water & Wastewater Finance Board dated June 22, 2012.

As you know, Lenoir City Utilities Board (LCUB) has exceeded the 35% threshold for non-revenue water for the fiscal year 2011. LCUB is addressing this issue and can report the following:

LCUB has discussed with the Board the need for a meter change out program. Recently, LCUB has discovered the sale of used AMR meters from a large utility in Loudoun, Virginia. LCUB has recently received (5) five AMR meters that will be placed into the LCUB system for analysis. Said meters range from 0 to 6 years of age and \$180.00 per meter. LCUB will be able to purchase them for \$35.00 each. Within a few months, our Board will be approached with the recommendation to purchase ten thousand AMR meters and a plan for financing the purchase and installation. It is our goal, as a part of this program, to not only achieve a few percentages in water loss savings but also achieve an increase in revenue.

LCUB plans to develop a good working model of our system to help us place zone metering throughout the water system. This will allow us to more accurately identify the largest water loss areas. As you know, the purchase and installation of these meters are expensive. It is LCUB's plan to have this infrastructure listed as a capital line item for next year's budget. As we collect and analyze this data, LCUB will be enabled to make wiser decisions where to spend the appropriate funds to battle the aging water infrastructure.

Ms. Joyce Welborn
Page 2
September 28, 2012

LCUB will evaluate types of leak detection equipment that would be beneficial for LCUB to detect system leaks. If leak detection equipment becomes fiscally impossible to purchase, LCUB will contract to provide for a leak survey of the water system.

LCUB will also endeavor to meter all utility owned buildings to capture a true amount of water use.

Lastly, in the short term, LCUB will create a water loss campaign to better equip customers to discover and notify LCUB of a water leak. LCUB customers have historically been proactive in this area, but LCUB can facilitate even better results.

LCUB does not take the unaccounted for water issue lightly. Our plans should meet or exceed the Board's expectations of 35% losses. LCUB will also not lose track that the standards are being lowered in the near future. With the data that is collected and analysis that is performed, it is our desire that LCUB can wisely spend the rate payer's money to meet the objectives.

If you have any questions or should you need additional information, please do not hesitate to contact me at (865) 988-0753.

Sincerely,



M. Shannon Littleton
General Manager

MSL:gv

Initial Check List for Addressing Water Loss

1. Are you billing for all general government water use? All government use is being billed except some utility buildings.
2. Do you account for the water used by the water and/or sewer department? We have water use sheets for the crews to fill out when they use any water for flushing water lines or Jetting sewer lines or washing down streets.
3. Do you periodically check or inspect all 2" and larger meters? All meters are visited on a monthly basis by our meter reading staff and they report any problems they notice. If a leak is on the utilities side they notify the dispatcher.
4. Do you have a recalibration policy and procedure in place? At this time we have an unwritten policy to test meters larger than 2" inch every 3 years. Our procedure is to contract the testing.
5. Do you have a meter replacement policy? We do not at this time have a meter replacement policy based on age or use. We are currently only replacing meters that have stopped registering.
6. Do you have a process to inspect for unauthorized consumption? What are the consequences if unauthorized consumption is discovered? Meter readers are instructed to periodically check meters that are off and locked and to look for signs of someone residing in a residence that has been turned off. Unauthorized use by a customer is documented as thoroughly as possible and billed to the customer with the addition of a \$250.00 tampering fee.
7. Do you have a leak detection program currently in place? We do not at this time have a leak detection program in place. We have however discussed using a contract company to do a leak survey of our entire system.
8. Do you have written policies, including a policy for billing adjustments? Are the written policies followed by all levels of staff? We do not at this time have written policies for our water use. We do however have an unwritten policy that we don't make water adjustments unless the use was a result of a problem with the utilities meter or appurtenances. All levels of staff know the policy and adhere to it.
9. Do you have authorized non-customer users? Do you have a method for the user to report the water usage? Lenoir City Fire Department and Loudon County Fire and Rescue are authorized to use water on our system. Each Department is given reporting sheets to account for the water used.
10. Is your system "zoned" to isolate water loss? Lenoir Cities Utilities Board does maintain a "zoned" system dictated by pressure from tank elevations. The zones however are not metered except at the treatment facilities and master meters.
11. Do you search for leaks at night when there is little traffic or small household use? Owing to the fact that we don't have a leak detection program in place we do not search for leaks at night.

12. Do you or can you control pressure surges? While all hydraulic systems do experience pressure fluctuations we have not been plagued with this problem to the extent that devices are in order.
13. Do you have or have access to leak detection equipment? We currently have hydro-phones on the service trucks that are used to help us pinpoint leaks we are aware of. We do not however possess any equipment made to discover leaks.
14. What is your policy for notifying customers they have a leak? When a meter is read the handheld device shows if a reading is out of range. The customer's door is tagged and they notify the dispatcher so they can attempt to call the customer if we have current contact information.
15. Do you have a public relations program to encourage customers to report leaks? We currently do not have any customer relations program to encourage customers to report leaks.
16. Do you have a policy to prosecute water theft or meter tampering/damage? We bill the customer a tampering fee for water theft and or damage. If further remedy is required we cite the customer to city court.
17. What is the monetary value of the lost water? Wholesale water at Lenoir City Utilities is currently valued at \$2.12 per thousand.
18. Is the cost to repair the leak justified based on the water being lost? The cost to repair a leak immediately is rarely justified when the leak is first discovered owing to the small amount of water being lost. We do investigate every leak. Every leak investigation generates a leak sheet that is put in a queue to be repaired. Each serviceman makes a determination when a leak is investigated as to the timing of the repair. If a leak is reported on the weekend it will not be repaired unless it is a safety issue, is damaging property, causing low pressure problems or is leaking excessively. Leak sheets are queued by date reported and severity.

AWWA WLCC Free Water Audit Software: Reporting Worksheet

Copyright © 2010, American Water Works Association. All Rights Reserved.

WAS v4.2

[Back to Instructions](#)

Water Audit Report for: **Lenoir City Utilities Board**
 Reporting Year: **2011** / **7/2010 - 6/2011**

Please enter data in the white cells below. Where available, metered values should be used; if metered values are unavailable please estimate a value. Indicate your confidence in the accuracy of the input data by grading each component (1-10) using the drop-down list to the left of the input cell. Hover the mouse over the cell to obtain a description of the grades.

All volumes to be entered as: MILLION GALLONS (US) PER YEAR

WATER SUPPLIED

<< Enter grading in column 'E'

| | | | |
|---|--------------------------------|--------------------------------------|---------------------------------|
| Volume from own sources: | <input type="text" value="9"/> | <input type="text" value="697.493"/> | Million gallons (US)/yr (MG/Yr) |
| Master meter error adjustment (enter positive value): | <input type="text" value="3"/> | <input type="text" value="6.970"/> | under-registered MG/Yr |
| Water imported: | <input type="text" value="8"/> | <input type="text" value="307.074"/> | MG/Yr |
| Water exported: | <input type="text" value="4"/> | <input type="text" value="26.963"/> | MG/Yr |
| WATER SUPPLIED: | | <input type="text" value="984.574"/> | MG/Yr |

AUTHORIZED CONSUMPTION

| | | | |
|---------------------|--------------------------------|--------------------------------------|-------|
| Billed metered: | <input type="text" value="5"/> | <input type="text" value="567.792"/> | MG/Yr |
| Billed unmetered: | <input type="text" value="7"/> | <input type="text" value="0.000"/> | MG/Yr |
| Unbilled metered: | <input type="text" value="2"/> | <input type="text" value="2.589"/> | MG/Yr |
| Unbilled unmetered: | <input type="text" value="4"/> | <input type="text" value="17.126"/> | MG/Yr |

Click here: for help using option buttons below

Pcnt: Value:

Use buttons to select percentage of water supplied OR value

AUTHORIZED CONSUMPTION: MG/Yr

WATER LOSSES (Water Supplied - Authorized Consumption) MG/Yr

Apparent Losses

| | | | |
|----------------------------------|--------------------------------|-------------------------------------|-------|
| Unauthorized consumption: | <input type="text" value="5"/> | <input type="text" value="2.461"/> | MG/Yr |
| Customer metering inaccuracies: | <input type="text" value="3"/> | <input type="text" value="30.020"/> | MG/Yr |
| Systematic data handling errors: | <input type="text" value="9"/> | <input type="text" value="0.100"/> | MG/Yr |

Pcnt: Value:

Value:

Choose this option to enter a percentage of billed metered consumption. This is NOT a default value

Apparent Losses:

Real Losses (Current Annual Real Losses or CARL)

Real Losses = Water Losses - Apparent Losses: MG/Yr

WATER LOSSES: MG/Yr

NON-REVENUE WATER

NON-REVENUE WATER: MG/Yr

= Total Water Loss + Unbilled Metered + Unbilled Unmetered

SYSTEM DATA

| | | | |
|--|---------------------------------|------------------------------------|---|
| Length of mains: | <input type="text" value="5"/> | <input type="text" value="165.0"/> | miles |
| Number of active AND inactive service connections: | <input type="text" value="9"/> | <input type="text" value="9,343"/> | |
| Connection density: | | <input type="text" value="57"/> | conn./mile main |
| Average length of customer service line: | <input type="text" value="10"/> | <input type="text" value="0.0"/> | ft (pipe length between curbstop and customer meter or property boundary) |
| Average operating pressure: | <input type="text" value="5"/> | <input type="text" value="80.0"/> | psi |

COST DATA

| | | | |
|---|---------------------------------|--|----------------------|
| Total annual cost of operating water system: | <input type="text" value="10"/> | <input type="text" value="\$2,110,000"/> | \$/Year |
| Customer retail unit cost (applied to Apparent Losses): | <input type="text" value="6"/> | <input type="text" value="\$5.21"/> | \$/1000 gallons (US) |
| Variable production cost (applied to Real Losses): | <input type="text" value="9"/> | <input type="text" value="\$850.00"/> | \$/Million gallons |

PERFORMANCE INDICATORS

Financial Indicators

| | |
|---|--|
| Non-revenue water as percent by volume of Water Supplied: | <input type="text" value="42.3%"/> |
| Non-revenue water as percent by cost of operating system: | <input type="text" value="23.5%"/> |
| Annual cost of Apparent Losses: | <input type="text" value="\$169,750"/> |
| Annual cost of Real Losses: | <input type="text" value="\$309,813"/> |

Operational Efficiency Indicators

| | | |
|--|-------------------------------------|----------------------------|
| Apparent Losses per service connection per day: | <input type="text" value="9.55"/> | gallons/connection/day |
| Real Losses per service connection per day*: | <input type="text" value="106.88"/> | gallons/connection/day |
| Real Losses per length of main per day*: | <input type="text" value="N/A"/> | |
| Real Losses per service connection per day per psi pressure: | <input type="text" value="1.34"/> | gallons/connection/day/psi |
| <input type="text" value="7"/> Unavoidable Annual Real Losses (UARL): | <input type="text" value="66.99"/> | million gallons/year |
| From Above, Real Losses = Current Annual Real Losses (CARL): | <input type="text" value="364.49"/> | million gallons/year |
| <input type="text" value="7"/> Infrastructure Leakage Index (ILI) [CARL/UARL]: | <input type="text" value="5.44"/> | |

* only the most applicable of these two indicators will be calculated

WATER AUDIT DATA VALIDITY SCORE:

***** YOUR SCORE IS: 64 out of 100 *****

A weighted scale for the components of consumption and water loss is included in the calculation of the Water Audit Data Validity Score

PRIORITY AREAS FOR ATTENTION:

Based on the information provided, audit accuracy can be improved by addressing the following components:

- 1: Master meter error adjustment**
- 2: Water exported**
- 3: Unbilled metered**

[For more information, click here to see the Grading Matrix worksheet](#)

Water Loss Plan for City of Watertown, Tennessee

Introduction

Background

The City of Watertown, Tn. Is currently undertaking several major initiatives associated with improving current water operations in the service area. The objective of this report is to develop a plan for subsequent implementation that will reduce water loss from the distribution system, increase the efficiency of the water production versus billing capture process and generally improve overall water operations. The water loss has ramifications for current water production costs and future service capacity. The City of Watertown is under a self imposed mandate to achieve 15% water loss by November 2018.

The City of Watertown provides water services to its citizens within the corporate limits. Currently service is provided to 620 active customer accounts, which includes residential and commercial customers, and 89 fire hydrants. The estimated service population is 1,426 people.

The distribution system is primarily 6 inch diameter with the balance ranging from 2 inch to 8 inch diameter. The East section of town having more galvanized mains in a smaller diameter and The West section of town having more PVC water mains and some galvanized mains.

Another factor for consideration in tracking water loss within the city is the prevailing geology of the area. Karst is found under major portions of the city. Leakage from the mains and services is more likely to flow down into the rock fissures and caves can remain undetected and rather than to surface in the streets and yards and be visible.

The distribution system has approximately 9 miles with 90% being 6 inch diameter or smaller mains. The city has one tank in service with a total storage capacity of .400 mg. The unaccounted water for loss from 25% to 50%. A meter replacement program was recommended to reduce levels by 20% to 25%. Supply and capacity of the existing system of .160 MGD average which was adequate for immediate needs. Distribution improvements are recommended in replacing all galvanized mains to PVC as funds are made available and to upgrade the oldest part of the distribution system.

As a result of the water loss recommendation the city has started meter replacement of residential meters with over 1.5 million gallons or up to 3% per year.

The city's standard meter size is a 5/8 inch meter with 3/4 inch fittings. This size represents the overwhelming majority of meters in the system through out all the customer accounts being residential and commercial. There are only a handful of larger diameter meters which mainly serves the Elementary and High School.

Meters are not routinely bench tested or calibrated as of the preparation of this report. The city can obtain the services from a sister utility to field test residential meters up to 1 inch upon request.

Meter reading and billing is performed on a monthly basis on all accounts commercial and residential. Currently 2 meter readers collect the readings for processing and billing in each monthly cycle in a 1 week period.

In addition to these meter responsibilities, the meter readers also perform additional field tests to support customer service and maintenance functions. These include meter "check" readings where there may be a discrepancy, low pressure complaints, meter leaks and repairs.

The standard water service pipe is ¾ inch diameter. Some of the older services are 1 inch diameter, as those services are more galvanized iron pipe. The meter box is the legal boundary between home owner and city to determine ownership and maintenance responsibility for water leak on the service lines.

The location of the meter is primarily outside near the street and a leak is more likely to occur in older pipes rather than newer pipes. A service leak on the city side found in galvanized pipe generally initiates a replacement of the service from the main to the meter. The majority of the leaks and breaks repaired in the system are on galvanized iron mains and these mains range from 2 to 4 inch in size. The distribution system can be effectively zoned into 10 different zones for leak detection purposes and we are currently leak detecting one street at a time based on weather and time restraints.

Pressure in the distribution system is generally in the range of 65 PSI.

Many of the water services in portions of the system are galvanized iron, as is the corresponding interior piping within the homes. Anecdotal evidence among the maintenance staff indicates the galvanized of iron services and mains are more common in the Eastern portion of the system.

Unbilled, Metered Water Use

There are several city departments and facility locations that are metered but are not invoiced nor is payment made. Three examples that fit this category include: the city's water and wastewater treatment plants and the fire department. In each case those consumption amounts were captured in the "billed" metered "water use category".

Unbilled, Unmetered Water Use

This category includes authorized consumption which is neither billed nor metered. This component typically includes items such as fire fighting, flushing the mains and sewers and storage tank overflows, and other authorized applications of city provided water. The city staff and departments has been informed and directed to document water use in these areas.

Summary

The City of Watertown, Tennessee recognizes and realizes the environmental and financial implications of not maintaining an acceptable, unaccounted for water loss. We are striving under budgetary restraints to provide the necessary funds to implement changes necessary to achieve the acceptable goals set forth by the State of Tennessee Comptroller Office and the city itself. The City of Watertown, Tennessee will continue to improve the water distribution system as funds are made available and allocated.

AWWA WLCC Free Water Audit Software: Reporting Worksheet

Copyright ©2010 American Water Works Association. All Rights Reserved.

AWA 142

[Back to Instructions](#)

[Click to access definition](#)

Water Audit Report for: **City of Watertown**

Reporting Year: **2012** | **12/2011 - 8/2012**

Please enter data in the white cells below. Where available, metered values should be used; if metered values are unavailable please estimate a value. Indicate your confidence in the accuracy of the input data by grading each component (1-10) using the drop-down list to the left of the input cell. Hover the mouse over the cell to obtain a description of the grades.

All volumes to be entered as: **MILLION GALLONS (US) PER YEAR**

WATER SUPPLIED

<< Enter grading in column "G"

| | | |
|--|-------------------------------------|---------------------------------|
| Volume from own sources: | <input type="text" value="48,000"/> | Million gallons (MG)/yr (MG/yr) |
| Master meter error adjustment (enter positive values): | <input type="text" value="0,010"/> | Under-registered MG/yr |
| Water imported: | <input type="text" value="0,220"/> | MG/yr |
| Water exported: | <input type="text" value="0,000"/> | MG/yr |
| WATER SUPPLIED: | <input type="text" value="48,230"/> | MG/yr |

AUTHORIZED CONSUMPTION

| | | |
|--------------------------------|-------------------------------------|-------|
| Billed meters: | <input type="text" value="23,000"/> | MG/yr |
| Billed unmetered: | <input type="text" value="0,000"/> | MG/yr |
| Unbilled meters: | <input type="text" value="3,400"/> | MG/yr |
| Unbilled unmetered: | <input type="text" value="0,600"/> | MG/yr |
| AUTHORIZED CONSUMPTION: | <input type="text" value="26,000"/> | MG/yr |

Click here: [\[?\]](#) for help using option buttons below

Use buttons to select percentage of water supplied

OR value

WATER LOSSES (Water Supplied - Authorized Consumption)

MG/yr

Apparent Losses

| | | |
|----------------------------------|------------------------------------|-------|
| Unauthorized consumption: | <input type="text" value="0,101"/> | MG/yr |
| Customer metering inaccuracies: | <input type="text" value="0,800"/> | MG/yr |
| Systematic data handling errors: | <input type="text" value="1,100"/> | MG/yr |
| Apparent losses: | <input type="text" value="1,991"/> | MG/yr |

Use buttons to select percentage of water supplied

OR value

Choose this option to enter a percentage of billed meters consumption. This is NOT a default value

Real Losses (Current Annual Real Losses or CARL)

| | | |
|---|-------------------------------------|-------|
| Real Losses = Water Losses - Apparent Losses: | <input type="text" value="21,001"/> | MG/yr |
| WATER LOSSES: | <input type="text" value="22,227"/> | MG/yr |

NON-REVENUE WATER

NON-REVENUE WATER: MG/yr

= Total Water Loss + Unbilled Meters + Unbilled Unmetered

SYSTEM DATA

| | | |
|--|-----------------------------------|-----------------|
| Length of mains: | <input type="text" value="9.0"/> | miles |
| Number of active AND inactive service connections: | <input type="text" value="688"/> | |
| Connection density: | <input type="text" value="78"/> | conn./mile main |
| Average length of customer service lines: | <input type="text" value="10.0"/> | ft. |
| Average operating pressure: | <input type="text" value="70.0"/> | psi |

(Input length between curbline and customer meter or property boundary)

COST DATA

| | | |
|---|---------------------------------------|----------------------|
| Total annual cost of operating water system: | <input type="text" value="8425,789"/> | \$/Year |
| Customer retail unit cost (applied to Apparent Losses): | <input type="text" value="89.34"/> | \$/1000 gallons (US) |
| Variable production cost (applied to Real Losses): | <input type="text" value="8250.00"/> | \$/Million gallons |

PERFORMANCE INDICATORS

Financial Indicators

| | |
|---|--------------------------------------|
| Non-revenue water as percent by volume of Water Supplied: | <input type="text" value="52.38"/> |
| Non-revenue water as percent by cost of operating system: | <input type="text" value="3.84"/> |
| Annual cost of Apparent Losses: | <input type="text" value="815,058"/> |
| Annual cost of Real Losses: | <input type="text" value="89,230"/> |

Operational Efficiency Indicators

| | | |
|--|------------------------------------|----------------------------|
| Apparent Losses per service connection per day: | <input type="text" value="4.89"/> | gallons/connection/day |
| Real Losses per service connection per day*: | <input type="text" value="82.65"/> | gallons/connection/day |
| Real Losses per length of main per day*: | <input type="text" value="N/A"/> | |
| Real Losses per service connection per day per psi pressure: | <input type="text" value="1.20"/> | gallons/connection/day/psi |

*** Real Losses can be calculated as (Real Losses per length of main) x (Length of main) in the model has now been updated ***

| | |
|--|-------------------------------------|
| From Above, Real Losses = Current Annual Real Losses (CARL): | <input type="text" value="21,001"/> |
| Infrastructure Leakage Index (ILI) (CARL/URL): | <input type="text" value=""/> |

* only the most applicable of these two indicators will be calculated

WATER AUDIT DATA VALIDITY SCORE:

*** YOUR SCORE IS: 78 out of 100 ***

A weighted scale for the components of consumption and water loss is included in the calculation of the Water Audit Data Validity Score

PRIORITY AREAS FOR ATTENTION:

Based on the information provided, audit accuracy can be improved by addressing the following component(s):

1. Volume from own sources
2. Master meter error adjustment
3. Billed unmetered

For more information, click here to see the Grading Matrix worksheet

MAYOR
Jerry Buchanan

RECORDER
Tara Anglin

Town of Decaturville

P.O. Box 159
Decaturville, TN 38329
Phone (731) 852-2034
Fax (731) 852-4271

ALDERMAN
Betty S. Blankenship
Mike Ferguson
Allen Hayes
Charles James
Chad Keeton
Melvin Taylor

September 18, 2012

SEP 21 2012

State of Tennessee
Joyce Welborn, Board Coordinator
Water and Wastewater Financing Board
Suite 1500 James K. Polk State Office Building
505 Deaderick Street
Nashville, TN 37243

Dear Joyce Welborn:

Please see attached the more detailed answers you requested. Please let me know if there is anything else you need.

Sincerely,


Tara Anglin, City Recorder
Town of Decaturville

1. We plan on putting in our budget beginning 2013-2014 to hire a leak detection company to look at a portion of our line annually.
2. Yes, they are metered, we have always accounted for that water in consumption, and we will start billing city hall and warehouse immediately.
3. We have access to a leak detector from a neighboring utility; we will start using it in FY2013-2014.
4. (a)On No. 3 of previous answers, on first letter, we used the wrong term. This is a proposed zone meter to monitor water flow to areas.
(b)On No. 3 & 4 - we're going to start a written meter change out program and calibration.
(c)On No. 10 – We have discussed talking to engineer about putting in flow monitors to monitor flow pattern for leaks.
(d)On No. 12 – We do not have any pumps on system, no pressure release valves and no pressure reduction vales.
(e)On No. 13 – Would be same answer as No. 3.
5. This is a grant, which if received will be used to replace all the conventional water meters in the system with a “smart metering”. This grant will also include the software and other equipment needed for the “smart meters” application.

The purpose of this grant would be to monitor flow use throughout the system, and hopefully reduce water loss and increase water revenue.

July 18, 2012

Mayor Jerry Buchanan
Town of Decaturville
P. O. Box 159
Decaturville, TN 38329

Dear Mayor Buchanan:

The Water and Wastewater Financing Board (Board) met on July 12, 2012, in part, to discuss the excessive water loss in the Town of Decaturville. The Board voted to request more information as follows:

1. Why do you not have a leak detection program?
2. Why does City Hall and the warehouse not have a water bill? Are they not metered?
3. What is a leak detection meter?
4. You responded "no" to several questions. Please provide detail.
5. Please elaborate on the funding and define for "leaky water meters" described in your letter.

The answers should be in our office no later than October 1, 2012, in order to be presented to the Board at its November meeting.

If you have any questions or need further assistance, please contact me at (615) 401-7864 or Joyce.Welborn@cot.tn.gov.

Sincerely,

Joyce Welborn
Board Coordinator

Town of Decaturville, Tennessee
Schedule of Unaccounted For Water

June 30, 2011
(all amounts in gallons)

| | | |
|--|------------|------------|
| Water Treated and Purchased: | | |
| Water Pumped (potable) | 0 | |
| Water Purchased | 88,460,700 | |
| Total Water Treated and Purchased | | 88,460,700 |
| Accounted for Water: | | |
| Water Sold | 45,734,631 | |
| Metered for Consumption (in house usage) | 2,373,920 | |
| Fire Department Usage | 43,850 | |
| Flushing | 1,635,777 | |
| Tank Cleaning / Filling | 250,000 | |
| Street Cleaning | 0 | |
| Bulk Sales | 0 | |
| Water Bill Adjustments / plus or (minus) | 0 | |
| Total Accounted for Water | | 50,038,178 |
| Unaccounted for Water | | 38,422,522 |
| Percent Unaccounted for Water | | 43.43% |
| Other (explain) | None | |

All amounts included in this schedule are supported by documentation on file at the water system. If no support is on file for a line item or if the line item is not applicable, a "0" is shown.

The accompanying notes are an integral part of these financial statements.

MAYOR
Jerry Buchanan

Town of Decaturville

ALDERMAN
Betty S. Blankenship
Mike Ferguson
Allen Hayes
Charles James
Chad Keeton
Melvin Taylor

RECORDER
Tara Anglin

P.O. Box 159
Decaturville, TN 38329
Phone (731) 852-2034
Fax (731) 852-4271

March 30, 2012

State of Tennessee
Joyce Welborn, Board Coordinator
Water and Wastewater Financing Board
Suite 1500 James K. Polk State Office Building
505 Deaderick Street
Nashville, TN 37243

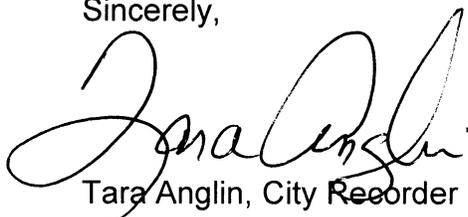
APR 04 2012

Dear Joyce Welborn:

The City has submitted a FY CDBG for the purpose of requesting financial assistance for the evaluation and rehabilitation of the municipal water distribution system in order to reduce the water loss within the system. The city received notice of excessive unaccounted for water from the State of Tennessee Comptroller's office on January 19, 2012. The town has been directed to present a plan to reduce the amount of unaccounted for water to below 35%. With the loss calculated not including flushing water and municipal usages, the unaccounted for water remains an excessive 43.4%. The CDBG application was submitted on February 29, 2012 requesting \$497,920.

In addition to the FY CDBG, the City has submitted a TN Clean Energy Program application for the replacement of leaky water meters. This application was submitted March 30, 2012 to the State of Tennessee Department of Environment and Conservation.

Sincerely,



Tara Anglin, City Recorder
Town of Decaturville

AWWA WLCC Free Water Audit Software: Reporting Worksheet

Copyright © 2010, American Water Works Association. All Rights Reserved

WAS v4.2

[Back to Instructions](#)

[Click to access definition](#)

Water Audit Report for **TOWN OF DECATURVILLE**
 Reporting Year: **2011** / 7/2010 - 6/2011

Please enter data in the white cells below. Where available, metered values should be used. If metered values are unavailable please estimate a value. Indicate your confidence in the accuracy of the input data by grading each component (1-10) using the drop-down list to the left of the input cell. Hover the mouse over the cell to obtain a description of the grades.

All volumes to be entered as: **MILLION GALLONS (US) PER YEAR**

WATER SUPPLIED ** Enter grading in column 'E'

| | | | | |
|---|---|---|---------------|----------------------------------|
| Volume from own sources: | ? | 5 | 0.000 | Million gallons (US) /yr (MG/Yr) |
| Master meter error adjustment (enter positive value): | ? | | 0.000 | MG/Yr |
| Water imported: | ? | 7 | 88.461 | MG/Yr |
| Water exported: | ? | | 0.000 | MG/Yr |
| WATER SUPPLIED: | | | 88.461 | MG/Yr |

AUTHORIZED CONSUMPTION

| | | | | |
|--------------------------------|---|---|---------------|--------------|
| Billed metered: | ? | 5 | 45.735 | MG/Yr |
| Billed unmetered: | ? | | 0.000 | MG/Yr |
| Unbilled metered: | ? | 3 | 2.382 | MG/Yr |
| Unbilled unmetered: | ? | | 1.106 | MG/Yr |
| AUTHORIZED CONSUMPTION: | ? | | 49.222 | MG/Yr |

Default option selected for Unbilled Unmetered - a grading of 5 is applied but not displayed.

Click here: [?](#) for help using option buttons below

Pcnt: Value:

Use buttons to select percentage of water supplied OR value

WATER LOSSES (Water Supplied - Authorized Consumption) **39.238** MG/Yr

Apparent Losses

| | | | | |
|----------------------------------|---|---|--------------|-------|
| Unauthorized consumption: | ? | | 0.221 | MG/Yr |
| Customer metering inaccuracies: | ? | 4 | 2.532 | MG/Yr |
| Systematic data handling errors: | ? | 5 | 2.650 | MG/Yr |
| Apparent Losses: | ? | | 5.404 | |

Default option selected for Unauthorized consumption - a grading of 5 is applied but not displayed.

Pcnt: Value: **5.00%**

Choose this option to enter a percentage of billed metered consumption. This is NOT a default value.

Real Losses (Current Annual Real Losses or CARL)

| | | | | |
|---|---|--|---------------|--------------|
| Real Losses = Water Losses - Apparent Losses: | ? | | 33.835 | MG/Yr |
| WATER LOSSES: | | | 39.238 | MG/Yr |

NON-REVENUE WATER

| | | | | |
|--------------------|---|--|--------|-------|
| NON-REVENUE WATER: | ? | | 42.726 | MG/Yr |
|--------------------|---|--|--------|-------|

= Total Water Loss + Unbilled Metered + Unbilled Unmetered

SYSTEM DATA

| | | | | |
|--|---|---|-------|-----------------|
| Length of mains: | ? | 4 | 68.0 | miles |
| Number of active AND inactive service connections: | ? | 2 | 1,020 | |
| Connection density: | | | 15 | conn./mile main |
| Average length of customer service line: | ? | 2 | 0.0 | ft |
| Average operating pressure: | ? | 1 | 65.0 | psi |

(Pipe length between curbstop and customer meter or property boundary)

COST DATA

| | | | | |
|---|---|----|-----------|----------------------|
| Total annual cost of operating water system: | ? | 10 | \$402,994 | \$/Year |
| Customer retail unit cost (applied to Apparent Losses): | ? | 6 | \$7.34 | \$/1000 gallons (US) |
| Variable production cost (applied to Real Losses): | ? | 3 | \$3.80 | \$/Million gallons |

PERFORMANCE INDICATORS

Financial Indicators

| | |
|---|----------|
| Non-revenue water as percent by volume of Water Supplied: | 48.3% |
| Non-revenue water as percent by cost of operating system: | 9.9% |
| Annual cost of Apparent Losses: | \$39,662 |
| Annual cost of Real Losses: | \$129 |

Operational Efficiency Indicators

| | | |
|--|----------|----------------------------|
| Apparent losses per service connection per day: | 14.51 | gallons/connection/day |
| Real Losses per service connection per day: | N/A | gallons/connection/day |
| Real Losses per length of main per day: | 1,363.20 | gallons/mile/day |
| Real Losses per service connection per day per psi pressure: | | gallons/connection/day/psi |
| Unavoidable Annual Real Losses (UARL): | 12.36 | million gallons/year |
| From Above, Real Losses = Current Annual Real Losses (CARL): | 33.83 | million gallons/year |
| Infrastructure Leakage Index (ILI) (CARL/UARL): | 2.74 | |

only the most applicable of these two indicators will be calculated

WATER AUDIT DATA VALIDITY SCORE:

***** YOUR SCORE IS: 55 out of 100 *****

A weighted scale for the components of consumption and water loss is included in the calculation of the Water Audit Data Validity Score.

PRIORITY AREAS FOR ATTENTION:

Based on the information provided, audit accuracy can be improved by addressing the following components:

- 1: Water imported
- 2: Unbilled metered
- 3: Variable production cost (applied to Real Losses)

[For more information, click here to see the Grading Matrix worksheet](#)

March 20, 2012

State of Tennessee
Joyce Welborn, Board Coordinator
Water and Wastewater Financing Board
Suite 1500 James K. Polk State Office Building
505 Deaderick Street
Nashville, TN 37243

Dear Joyce Welborn:

The Town of Decaturville Mayor and Board of Alderman have addressed the following questions for water loss. The Town has also put in place the needed policies and procedures to help correct some of the water loss. The answers to the initial check list for addressing water loss follows:

1. No (City Hall and Warehouse)
2. Yes, we are accounting for water at the sewer plant; we do not have a water treatment plant.
3. No
4. No
5. No written policy, but implemented some guidelines in the council meeting.
The trigger is based on gallons.
6. No written process. If unauthorized consumption is discovered the meter is locked.
7. No, in the process of installing two leak detection meters.
8. Yes, see attached.
9. Yes, we attempt to. Chief turns in usage monthly.
10. No
11. No, sometimes early in the morning.
12. No
13. No
14. If we suspect a leak we call the customer to inform them.
15. No, but we intend to put on water bills.
16. No
17. \$2.05 gallons based on 2011 audit.
18. No, we are unable to determine until we find our major leaks.

Please see the following policies and procedures the board has put in place.

Sincerely,



Gerald Buchanan, Mayor
Town of Decaturville

TOWN OF DECATURVILLE
WATER AND SEWER POLICY

1. ALL 2" OR LARGER METERS WILL BE INSPECTED ONCE EVERY TWO YEARS BY CITY STAFF.
2. CONTRACT WITH A 3RD PARTY TO CHECK CALIBRATIONS OF LARGE METERS ONCE EVERY TWO YEARS.
3. DECATURVILLE'S WATER METER CHANGE OUT PROGRAM IS TRIGGERED THAT A METER WILL BE CHANGED OUT WHEN IT REACHES ONE MILLION GALLONS OF USE.
4. WHEN METER IS TURNED OFF FOR NON-PAYMENT, THE CITY STAFF WILL CHECK THAT METER WITHIN A WEEK TO SEE IF NOT TURNED BACK ON BY THE CUSTOMER.
(NOTE: THE CITY IS CURRENTLY WORKING ON A PROCEDURE TO CHECK ALL NON ACTIVE METERS ON A REGULAR BASIS).
5. ALL ADJUSTMENTS ARE BASED ON A FORMULA THAT THE TOWN BOARD HAS PUT IN PLACE. SEE ATTACHED FOR WRITTEN FORMULA.
6. IF WE SUSPECT A LEAK ON THE CUSTOMER THE CITY WILL CALL THE CUSTOMER TO INFORM THEM WE SUSPECT A LEAK.
7. THE CITY OF DECATURVILLE, ONCE REALIZES THAT POSSIBLE WATER THEFT OR METER TAMPERING HAS OCCURRED WILL NOTIFY THE APPROPRATE LAW ENFORCEMENT AGENCY TO INVESTIGATE, IF THEFT OR TAMPERING HAS OCCURED THE TOWN WILL TAKE LEGAL STEPS TO RECOOP ALL REVENUE OR DAMAGES INCURRED.

TOWN OF DECATURVILLE
WATER ADJUSTMENT POLICY

1. CHECK TO SEE IF CUSTOMER HAS HAD A WATER ADJUSTMENT IN THE LAST 12 MONTHS.
2. GO TO UTILITY BILLING
3. CLICK ON OTHER FROM THE MENU BAR
4. CLICK ON PERIOD END
5. CLICK ON REPORTS
6. UNDER REPORTS CLICK ON ADJUSTMENT TRANSACATIONS
7. ENTER THE CUSTOMER'S ACCOUNT NUMBER
8. ENTER THROUGH THE REST OF SCREEN
9. CLICK ON UPDATE OR CLICK ON F4

TO FIGURE WATER ADJUSTMENT

1. GO TO UTILITY BILLING
2. CLICK ON OTHER FROM THE MENU BAR
3. CLICK ON REPORTS
4. CLICK ON MISC FROM THE MENU BAR
5. CLICK ON CONSUMPTION TRANSACTIONS
6. ENTER CUSTOMER NUMBER
7. CLICK NEXT UNTIL YOU GET TO BOTTOM OF PAGE
8. TAKE THE LAST SIX MONTHS CONSUMPTION (DO NOT USE CURRENT MONTH THAT IS TO BE ADJUSTED)
9. DIVIDE TOTAL OF LAST SIX MONTHS CONSUMPTION BY SIX TO GET SIX MONTHS AVERAGE
10. SUBSTRACT THE SIX MONTH AVERAGE FROM THE MONTH THAT IS TO BE ADJUSTED.
11. TAKE SIX MONTH AVERAGE MULTIPY BY \$2.28 FOR IN TOWN CUSTOMERS AND \$3.98 FOR OUT OF TOWN CUSTOMERS.
12. MULTIPY BY 9.50% FOR TAX RATE
13. MULTIPY BY \$4.43 IF CUSTOMER HAS SEWER SERVICE
14. SUBSTRACT TOTAL FROM AMOUNT ON WATER BILL THAT IS DUE

August 8, 2012

Mayor James Bellar
Town of Whiteville
P. O. Box 324
Whiteville, TN 38075-0324

Dear Mayor Bellar:

It has come to my attention that officials with the Town of Whiteville reversed the plan previously submitted to *and approved by* the Water and Wastewater Financing Board (WWFB) to eliminate the financially distressed situation of the water and sewer system.

Tennessee Code Annotated 7-34-114 requires, in part *"...rates, fees or charges prescribed shall be such as will produce revenue at least sufficient to pay when due all bonds and interest...including reserves...provide for all expenses of operation and maintenance..."*

Also, Tennessee Code Annotated 9-21-308 requires, in part *"The governing body...shall prescribe and collect reasonable rates, fees or charges...and shall revise such...so that the public works project or projects shall be and always remain self-supporting. The rates, fees or charges prescribed shall be at least sufficient to produce revenue to provide for all expenses of operation and maintenance of the public works project or projects, including reasonable reserves therefor; and pay when due all bonds and notes and interest thereon..."*

Since the actions approved by the WWFB have been reversed by the Town, Town officials are required to appear at the WWFB meeting on November 8, 2012, with an alternative plan. The meeting will begin at 10:00 am in Room 31 of the Legislative Plaza in Nashville, Tennessee.

The alternative plan should clearly demonstrate how the Town will resolve its financially distressed situation. The plan should include any actions taken and the resulting financial impact. The revenues of the system are highly dependent on the local correctional facilities. Therefore, evidence should be presented which reflects the impact on those facilities or any other facility that accounts for a large portion of the revenue. If contracts are to be renegotiated with the facilities, that evidence should also be included. If any portion of the plan is dependent upon reduction of expenses, those should be itemized with the resulting financial impact. Historically, the WWFB has allowed a municipality three fiscal years to resolve the issues. For that reason, the plan should take no longer than three fiscal years to show a positive change in net assets.

The University of Tennessee's Municipal Technical Advisory Service is available to assist you if it is determined you need a complete rate study or many other areas. Please contact them as soon as possible.

If you have any questions or need further assistance, please contact me at (615) 401-7864 or Joyce.Welborn@cot.tn.gov.

Sincerely,

Joyce Welborn
Board Coordinator

| JURISDICTION LIST - WATER & WASTEWATER FINANCING BOARD NOVEMBER 2012 | | | | |
|---|----|-------------------|-------------------|---------------------------|
| SYSTEM | | COUNTY | LAST AUDIT | LAST BD APPEARANCE |
| Town of Alamo | | Crockett | 2011 | Nov-12 |
| Town of Alexandria | | DeKalb | 2011 | Nov-12 |
| City of Allardt | | Fentress | 2011 | Nov-10 |
| Town of Atwood | | Carroll | 2011 | Mar-12 |
| Town of Baileyton | | Greene | 2011 | Nov-11 |
| City of Bartlett | | Shelby | 2011 | Jul-11 |
| Town of Baxter | WL | Putnam | 2011 | Nov-11 |
| City of Bells | | Crockett | 2011 | Nov-12 |
| Town of Big Sandy | | Benton | 2011 | Jul-12 |
| Town of Carthage | | Smith | 2011 | Jul-11 |
| Cheatham County WTA | | Cheatham | 2011 | Jul-12 |
| City of Clarksburg | | Carroll | 2011 | Jul-12 |
| Coffee County WTA | | Coffee | 2011 | Jul-12 |
| City of Columbia | | Maury | 2011 | Jul-12 |
| City of Copperhill | WL | Polk | 2010 | Nov-11 |
| Town of Cumberland Gap | WL | Claiborne | 2011 | Jul-12 |
| Town of Decaturville | WL | Decatur | 2011 | Jul-12 |
| City of Decherd | WL | Franklin | 2011 | Mar-12 |
| Town of Dover | | Stewart | 2011 | Jul-12 |
| Town of Dresden | WL | Weakley | 2011 | Nov-11 |
| Town of Eastview | | McNairy | 2011 | Jul-12 |
| City of Elizabethton | | Carter | 2011 | Jul-11 |
| City of Erin | WL | Houston | 2011 | Jul-12 |
| City of Etowah | | McMinn | 2011 | Nov-11 |
| City of Friendship | | Crockett | 2011 | Nov-09 |
| City of Friendsville | WL | Blount | 2011 | Jul-11 |
| City of Grand Junction | | Fayette | 2011 | Jul-12 |
| Town of Greeneville | | Greene | 2011 | Mar-12 |
| Town of Greenfield | | Weakley | 2011 | Nov-12 |
| City of Harriman | WL | Morgan | 2011 | Nov-11 |
| Town of Henning | | Lauderdale | 2011 | Nov-12 |
| City of Hohenwald | WL | Lewis | 2011 | Nov-11 |
| Humphreys County | | Humphreys | 2011 | Mar-12 |
| Town of Jasper | | Marion | 2011 | Jul-11 |
| City of Jellico | WL | Campbell | 2011 | Nov-11 |
| Town of Jonesborough | | Washington | 2011 | Nov-11 |
| City of Kenton | WL | Gibson/Obion | 2011 | Nov-12 |
| City of Kingsport | WL | Hawkins/Sullivan | 2011 | Jul-12 |
| City of Lake City | WL | Anderson/Campbell | 2011 | Jul-12 |
| City of Lakeland | | Shelby | 2011 | Jul-12 |
| City of LaVergne | | Rutherford | 2011 | Jul-11 |
| Lenior City | WL | Loudon | 2011 | Nov-12 |
| Lincoln County | WL | Lincoln | 2011 | Mar-12 |
| Town of Livingston | WL | Overton | 2011 | Jul-12 |
| City of Lobelville | WL | Perry | 2011 | Jul-12 |
| City of Madisonville | WL | Monroe | 2011 | Jul-12 |
| City of McEwen | | Humphreys | 2011 | May-11 |
| City of McKenzie | WL | Carroll | 2011 | Nov-11 |
| Town of McLemoresville | WL | Carroll | 2011 | Jul-10 |
| City of Michie | | McNairy | 2011 | Mar-12 |
| City of Middleton | | Hardeman | 2011 | Jul-12 |

| | | | | |
|------------------------|----|--------------------|------|--------|
| Town of Moscow | | Fayette | 2011 | Nov-12 |
| Town of Mosheim | | Greene | 2011 | Sep-10 |
| Town of Mountain City | WL | Johnson | 2011 | Nov-11 |
| City of Mount Pleasant | WL | Maury | 2011 | Mar-12 |
| City of Niota | | McMinn | 2010 | May-11 |
| Town of Oliver Springs | WL | Anderson/Morgan/Ro | 2011 | Jul-12 |
| Town of Oneida | | Scott | 2011 | Jul-12 |
| City of Pikeville | WL | Bledsoe | 2011 | Jul-12 |
| City of Puryear | | Henry | 2011 | Nov-10 |
| City of Ramer | | McNairy | 2011 | May-11 |
| City of Rives | | Obion | 2011 | Nov-10 |
| City of Rockwood | | Roane | 2011 | Nov-11 |
| Town of Rossville | | Fayette | 2011 | Nov-12 |
| Town of Sardis | | Henderson | 2011 | Mar-12 |
| City of Savannah | | Hardin | 2011 | Sep-10 |
| Town of Scotts Hill | WL | Henderson | 2011 | Jul-12 |
| Town of Sharon | WL | Weakley | 2011 | Jul-12 |
| City of Spencer | WL | Van Buren | 2011 | Nov-11 |
| City of Springfield | WL | Robertson | 2011 | Mar-12 |
| Town of Tellico Plains | WL | Monroe | 2011 | Nov-11 |
| Town of Trezevant | WL | Carroll | 2011 | Nov-11 |
| Town of Vonore | | Blount/Monroe | 2011 | Mar-12 |
| City of Wartburg | | Morgan | 2011 | Jul-12 |
| Town of Wartrace | WL | Bedford | 2011 | Nov-11 |
| Watauga River Reg WA | WL | Carter | 2011 | Mar-13 |
| City of Watertown | WL | Wilson | 2009 | Nov-12 |
| City of Waverly | | Humphreys | 2011 | Jul-11 |
| City of Westmoreland | WL | Sumner | 2011 | Nov-11 |
| Town of Whiteville | | Hardeman | 2011 | Jul-12 |
| City of Whitwell | WL | Marion | 2011 | Nov-12 |
| Town of Woodbury | WL | Cannon | 2011 | Nov-11 |

| WATER LOSS STATUS | | | | | | |
|--------------------------|----------------------------|-------------------------------------|----------------------------|-------------------------------|----------------------------|-------------------------------|
| <u>Utility system</u> | <u>original referral %</u> | <u>original audit referral date</u> | <u>subsequent review %</u> | <u>subsequent review date</u> | <u>subsequent review %</u> | <u>subsequent review date</u> |
| Alexandria | 37.00% | 6/30/2010 | 50.49% | 6/30/2011 | | |
| Baxter | 38.42% | 6/30/2010 | 41.60% | 6/30/2011 | | |
| Copperhill | 50.35% | 6/30/2009 | 55.12% | 6/30/2011 | | |
| Cumberland Gap | 47.00% | 6/30/2010 | 35.00% | 6/30/2011 | | |
| Decaturville | 35.09% | 6/30/2009 | 34.77% | 6/30/2010 | 43.43% | 6/30/2011 |
| Decherd | 40.935% | 6/30/2010 | 40.50% | 6/30/2011 | | |
| Dresden | 38.859% | 6/30/2010 | 38.87% | 6/30/2011 | | |
| Elizabethton | 49.99% | 6/30/2010 | 54.92% | 6/30/2011 | | |
| Erin | 51.00% | 6/30/2010 | 49.76% | 6/30/2011 | | |
| Friendsville | 40.35% | 6/30/2010 | 38.05% | 6/30/2011 | | |
| Grand Junction | 45.55% | 6/30/2010 | not included | 6/30/2011 | | |
| Harriman | 54.30% | 6/30/2010 | 56.18% | 6/30/2011 | | |
| Henning | 54.584% | 6/30/2010 | 50.50% | 6/30/2011 | | |
| Hohenwald | 46.00% | 6/30/2010 | 36.00% | 6/30/2011 | | |
| Jasper | 43.08% | 4/30/2010 | 35.60% | 6/30/2011 | | |
| Jellico | 43.76% | 6/30/2010 | 40.25% | 6/30/2011 | | |
| Jonesborough | 56.11% | 6/30/2010 | 56.54% | 6/30/2011 | | |
| Kenton | 48.80% | 6/30/2010 | 46.40% | 6/30/2011 | | |
| Kingsport | 36.94% | 6/30/2011 | | | | |
| Lake City | 46.07% | 6/30/2010 | 39.83% | 6/30/2011 | | |
| Lenior City | 34.62% | 6/30/2010 | 37.70% | 6/30/2011 | | |
| Lincoln County | 38.76% | 6/30/2010 | 38.95% | 6/30/2011 | | |
| Livingston | 35.82% | 6/30/2011 | | | | |
| Lobelville | 48.00% | 6/30/2011 | | | | |
| Madisonville | 36.00% | 6/30/2011 | | | | |
| McEwen | 37.76% | 6/30/2009 | 45.15% | 6/30/2010 | 44.22% | 6/30/2011 |
| McKenzie | 54.02% | 6/30/2010 | 53.28% | 6/30/2011 | | |
| McLemoresville | 100.00% | 6/30/2010 | 100.00% | 6/30/2011 | | |
| Michie | 39.00% | 6/30/2010 | 37.00% | 6/30/2011 | | |
| Mountain City | 42.67% | 6/30/2010 | 45.23% | 6/30/2011 | | |

| | | | | | | |
|------------------------|---------|-----------|--------|-----------|--------|-----------|
| Mount Pleasant | 48.00% | 6/30/2010 | 42.00% | 6/30/2011 | | |
| Oliver Springs | 53.364% | 6/30/2010 | 49.56% | 6/30/2011 | | |
| Pikeville | 43.553% | 6/30/2010 | 43.34% | 6/30/2011 | | |
| Puryear | 49.00% | 6/30/2010 | 41.00% | 6/30/2011 | | |
| Rockwood | 37.90% | 6/30/2010 | 43.60% | 6/30/2011 | | |
| Scotts Hill | 34.64% | 6/30/2010 | 39.16% | 6/30/2011 | | |
| Sharon | 32.10% | 6/30/2010 | 47.20% | 6/30/2011 | | |
| Spencer | 39.84% | 6/30/2010 | 41.61% | 6/30/2011 | | |
| Springfield | 38.10% | 6/30/2010 | 38.03% | 6/30/2011 | | |
| Tellico Plains | 52.88% | 6/30/2010 | 51.24% | 6/30/2011 | | |
| Trezevant | 48.30% | 6/30/2007 | 57.41% | 6/30/2010 | 52.82% | 6/30/2011 |
| Wartrace | 44.00% | 6/30/2010 | 48.00% | 6/30/2011 | | |
| Watauga River Regional | 60.07% | 6/30/2009 | 59.47% | 6/30/2010 | 58.43% | 6/30/2011 |
| Watertown | 40.88% | 6/30/2008 | 48.69% | 6/30/2009 | | |
| Waverly | 47.64% | 6/30/2010 | 52.00% | 6/30/2011 | | |
| Westmoreland | 42.00% | 6/30/2010 | 46.00% | 6/30/2011 | | |
| Woodbury | 46.00% | 6/30/2010 | 44.06 | 6/30/2011 | | |