PETITIONER'S EXHIBIT KNR-1

TENNESSEE-AMERICAN WATER COMPANY, INC.

CASE NO. _____

DIRECT TESTIMONY

OF

KEVIN N. ROGERS

ON

WATER SAFETY AND IMPROVEMENTS, ORGANIZATIONAL STRUCTURE, UPGRADES TO THE VALVE PROGRAM, NON-REVENUE WATER, DETERIORATING INFRASTRUCTURE

SPONSORING PETITIONER'S EXHIBITS:

OPS-1-ORGANIZATIONAL STRUCTURE- KNR,
OPS-2-CUSTOMER SERVICE- KNR

Q. Please state your name and business address.

A. My name is Kevin N. Rogers and my address is 1101 Broad Street, Chattanooga, Tennessee 37402.

Q. By whom are you employed and what is your position?

A. I am Operations Manager of Tennessee-American Water Company ("TAWC" or the "Company").

Q. How long have you held this position?

A. I have held this position since August 22, 2011.

Q. Please outline your educational background and business experience.

I received a Bachelor of Science degree in Accounting from Freed-Hardeman University and a Masters of Business Administration from the University of Tennessee at Chattanooga. I also have an active Certified Public Accounting license in the State of Tennessee. In 2010 I attended the American Water Rate School and in 2011 I attended the Institute For Public Utilities NARUC Rate School.

I began my career in 1977 as a cost accountant for Concrete Forms Corporation and was promoted into management in 1983 as the Cost Accounting Manager and then on to Chief Accountant in 1985. In 1986 I went to work for Burner Systems International as Accounting Manager and served in that capacity until late 1988 when I moved to Rubbermaid Commercial Products as Manager of Finance/MIS for the Cleveland, TN plant. In 2002 I began serving as Operations Controller for the Rubbermaid Cleaning Division overseeing the financial operations for plants in Tennessee, North Carolina and Mexico. In 2003 I was promoted into general management as Senior Operations Manager for the plant in Cleveland, TN. In 2006 I became Vice President of Finance for Crescent,

Inc. in Niota, TN and later that year responsibility for operations was added and I served as Executive Vice President of Finance and Operations. In late 2008 I began work as a financial and operations consultant for a number of regional businesses in the textile, metal/wood fabrication and defense industry. I began my career with TAWC in 2009 serving as the Finance Manager and in August of 2011 I took on the role as Operations Manager.

Q. Have you previously testified before this or any other regulatory agencies?

A. No.

Q. What are your duties and responsibilities as operations manager of TAWC?

A. I direct the management, and operation of the facilities and personnel engaged in the operations functional areas of Production, Field Services, and Customer Field Services. This includes: ensuring operational integrity is maintained (water quality, environment, reliability, health, safety and security); preparing and managing operations within established budgets; implementing standards, targets and policies to ensure continuing and increasing operational efficiency; developing cost effective solutions to meet customers' expectations and technical requirements; and encouraging best practices and innovation throughout all operational areas. In this capacity, I report to the TAWC President.

Q. What is the purpose of your testimony in this proceeding?

A. My testimony will address (1) water safety and improvements, (2) organizational structure, (3) upgrades to our valve maintenance program, (4) non-revenue water, and (5) deteriorating infrastructure.

Q. How would you describe the Company's focus and commitment to providing quality water and service to its customers?

A. Our vision is to be the trusted steward of your precious resource – water. This vision statement encompasses our commitment to providing outstanding service and water quality to our customers and we are proud to have been providing safe drinking water and fire protection to this community since 1887. We have demonstrated this commitment during our 125 years of service by continually investing in our system to provide reliable service.

Water is the most critical of all the community utilities as it is the only utility whose product is ingested. Our commitment to water quality is paramount to us and we have demonstrated that we are an organization that exceeds expectations and not just meets minimum standards. We are a proud member of the Partnership for Safe Water, a joint effort of the United State Environmental Protection Agency (USEPA) and the American Water Works Association (AWWA), the nation's largest independent water organization. This partnership encourages utilities to surpass minimum standards and provide best in class water. The USEPA sets the minimum standard for water turbidity (water clarity) at not more than 1.0 NTU (nephelometric turbidity units) at the plant outlet and all samples for turbidity must be less than or equal to 0.3 NTU for at least 95 percent of the samples in any month. The voluntary Partnership For Safe Drinking Water tightens that standard to 0.1 NTU for at least 95 percent of the samples in any month. The Company is proud to have received the Ten Year Directors Award from the Partnership recognizing us as being one of only 132 surface water treatment plants nationwide attaining this milestone. Furthermore, the Company has *never* received a USEPA notice of violation of any type (water quality or documentation) in its 125 year history.

Q. Has the organizational structure of TAWC changed in the last two years?

A. Yes. Businesses and organizations live in an ever changing environment which demands focus on the needs of customers and other stakeholders. Like other businesses, TAWC and American Water continuously review its business for ways to improve customer satisfaction through delivering better service, greater efficiencies, or providing more information. The company conducted an extensive internal review to determine the organizational structure that would better serve the interests of both the shareholders and its customers. This review encompassed an examination of all roles and levels of the organization.

Q. What were the major needs identified in the review and the resulting organizational structural changes?

A. As we looked at our current work and the work that was coming in the future we realized we needed to adjust both our resources as well as the way we address our customers' needs.

With infrastructure improvement needs increasing along with replacement and upgrade costs, we recognized that our capital investment needed to be focused on the most critical areas. Further, existing assets had to be properly maintained in order to maximize service lives. We saw a need for a Computerized Maintenance Management System (CMMS) that would help us proactively manage our maintenance processes and that would allow us to capture massive amounts of technical data on our equipment and processes and upload it into new software. We recognized that we did not have the allocated resources needed to develop and maintain this information in an electronic format.

We saw the need for a more robust Geographic Information System (GIS) that would empower our organization to respond faster to customer needs and emergencies,

more readily identify the location of our network assets and improve customer service through faster response time. We saw that we did not have the allocated resources needed to develop and maintain this information. We realized that we did not have the resources in place to optimize information analysis for focusing capital investment. For example, main breaks and water quality issues can be tracked in GIS, so replacement projects can be identified quickly and prioritized for problem areas in a systematic approach. We also recognized the need for additional engineering support to design and plan the increased level of infrastructure replacement that is needed for us to sustain a reliable system in the future.

We found some areas of management that had few direct reporting personnel and responsibilities resulting in a very narrow span of control. In other areas, we had too many direct reporting personnel resulting in spans of control that were too wide. Some areas of our organization were staffed year round to handle seasonal or inconsistent conditions or work.

As a result, we looked at our organization and shifted resources and responsibilities accordingly. To speed communication and increase the management span of control, we eliminated the superintendent level of management. We combined three supervisors' positions in production and water quality into two supervisors' roles. We created a new supervisory position in the customer field services department of field services to enable more efficient administrative and management duties. We eliminated a supervisory role in the field services department to balance workforce reporting and share duties more evenly among the supervisors. We eliminated a field service administrative role whose duties could be absorbed by two other existing positions or eliminated through the upcoming new

business transformation process. The Operational Risk Management and Engineering Inspector positions were consolidated into one full time and one contract part-time role in order to more efficiently staff the work requirement. In engineering we created two new roles to support the new technology and information requirements for CMMS and GIS and two Engineers On Call roles that would support the increased design and planning for our infrastructure replacement. These positions would also rotate through the field services on call rotation to improve our cross training and resources to support the field service supervisors. The net result of these moves resulted in no overall change in our headcount, but we believe the changes to the organizational structure will allow us to focus our resources where they are needed most and greatly enhance our ability to meet the current and future needs of the business. These changes are summarized in Exhibit OPS-1-Organizational Structure-KNR to my testimony.

Q. What is one area of operations that TAWC decided to focus on for improvement in 2012?

A. One area we chose to improve upon was our valve maintenance program which is an American Water Works Association recommended best practice (AWWA Standard G200-09). Operating a valve (also known as turning or exercising) is a key component of a preventative maintenance program. Upon examination of our valve maintenance program we determined, because of the age of our system and the unique topography of our system, that it is critical for us to develop a program that would result in exceeding the AWWA best practice expectations in this area. We currently have over 12,000 valves in our transmission and distribution system which are comprised of valves of various types, sizes

(2" – 36"), and applications (mains, pump stations and storage tanks). We have consistently set and achieved targets within the guidelines of AWWA's best practice.

Q. Why is this level of maintenance necessary if it goes beyond the AWWA best practice guidelines?

A. Part of being able to provide safe, reliable drinking water is to be able to isolate breaks and repair them quickly. Because of the mountains surrounding Chattanooga, even with our redundancy, a main break in a critical area can drain the system quickly and put our customers at risk for microbial contaminants. Additionally, because of the dramatic difference in hydraulic pressures, a main break in a lower elevation can cause tremendous damage. Being able to isolate a main break helps maintain system pressures in other areas, and is critical to minimizing the damage that can occur from a main break. Knowing where the valves are, and being able to properly operate them is the key in isolating main breaks. We believe an enhanced valve operation process is the only way that we can continue to maintain our system safely and reliably as we have historically done. Exercising a valve is a key function of our preventative maintenance program and specifically helps to ensure system functionality and longevity through a number of ways.

First, exercising a valve can help clear the gears and valve action of any foreign matter or tuberculation in the pipe that can accumulate time and compromise or prevent valve operation. Timely exercising a valve will help to keep those areas clear and promote a longer operational life.

Second, exercising a valve within a robust preventative maintenance approach can identify potential valve problems in a controlled situation. It is far better to discover an existing problem or have a valve problem develop during a preventative action than during

an emergency situation. Valve problems discovered during a preventative maintenance program can be scheduled for timely repair and predefined plans for emergency response can be developed until the repairs can be completed. If an emergency does occur in a service area involving a valve with known compromised function, alternate valves can be operated without spending time on a known low-functioning or non-functioning valve.

Q. Will this program guarantee no future valve failure during an emergency situation?

A. No. Not even the most robust of preventative maintenance programs will be a 100% guarantee that a recently exercised valve will not break or fail while being turned in an emergency. A valve is a mechanical item and there is a certain amount of risk of failure each time a valve is exercised.

Also, it is important to note that emergency situations can add variables to the valve environment that will not be present during a preventative maintenance exercise. For example, during a significant main break there will often be an interruption in the flow of a loop distribution system resulting in reduced pressure. As a valve is turned in this situation, particularly in a high pressure zone commonly required in our hilly and mountainous service area, pressure will build on the flow side of the valve as it is closed and thereby system pressure is increased. This will create a substantial unequal pressure situation on one side of the valve and could lead to failure of the valve action or gears that would not be discovered during a preventative maintenance program when the valve is being operated under an equalized pressure situation. While we can not promise a valve will never break during an emergency, we strongly believe this enhancement will reduce the likelihood of valve failures.

Q. How do you intend to accomplish this process improvement?

A. We decided in 2011 to significantly increase our 2012 valve maintenance goals and invest in two additional valve trucks for our distribution department as well as assign more company resources to the program.

Q. What measurable impact will this have on your valve maintenance program?

A. This additional equipment will allow us to increase our 2012 valve exercising goals to 4400 from 2562. We have proven over the years that we operate a very reliable, safe water supply and system. We believe in the long run this will result in an even more dependable system for our customers.

Q. Is that the only operational efficiency gain?

A. No. Our new valve trucks have an articulating arm with a 15 feet wide range of motion. Thus, the truck does not have to be as precisely aligned over the valve. More efficiency is gained as the arm will potentially cover a 30 foot lateral and 15 foot longitudinal area of an intersection. In an intersection where multiple valves exist, many can be exercised without the driver having to reposition the truck. This feature saves significant time not only during the preventative maintenance program but also in emergency situations when valves are being closed. Each truck is also equipped with a jack hammer so as it is moved down the street operating valves, the operator can also uncover valves that might have been paved over by the municipality.

Q. Is this the only added benefit these trucks offer?

A. No. The articulating arms on the new trucks also have a built in global positioning system that will allow the operator to find valves more readily once the coordinates have been uploaded into our Geographic Information System.

Q. Is there any additional benefit to having these additional trucks during an emergency?

A. Yes, absolutely. In an emergency, the additional trucks can shorten the potential response time to operate valves. We now have vehicles available to work simultaneously to get water turned on or off on three different sides of an effected area.

Q. How are these trucks being staffed and what changes did it have on your operation?

A. The valve trucks are being staffed without having to increase our overall headcount. Instead, we reallocated crew assignments. Our crews now work on a variety of planned activities that can level out the workload over time, increasing our efficiency. We maintain the flexibility to shift resources as needed to changing customer needs.

Q. How does TAWC develop its operation and maintenance expense plan?

A. The Operating & Maintenance ("O&M") plan for the upcoming year is prepared, reviewed, and approved at multiple levels. The O&M Plan is developed utilizing a zero-based approach with reliance on historical cost of service elements, and looks at ways through technology/productivity/value-based management decisions to provide lower costs and maximum value to our customers. The process also includes the Strategic Capital Expenditure Plan, which together with the O&M Plan make up the Annual Business Plan. The Business Plan is prepared utilizing cost center concepts, which allow: 1) specific, proposed expenditures to be reviewed, 2) actual expenditures to be compared to those planned, and 3) the need for particular expenditures to be tested. The plan is forecasted on a monthly basis by supervisors responsible for each business unit and projected expenses are reviewed for known changes in the forecasted year.

Q. How does TAWC then track its operation and maintenance expenses?

A. Each month the Business Plan detail is compared to actual results which permit the Company to monitor and control its costs. As part of the monthly Business Plan review process, results are reviewed relative to current operating conditions and an appropriate forecast is developed for the remainder of the year regarding any expected changes in revenues or expenses.

Additionally, Business Plan operating revenues, which are based upon historic water use and adjusted for known or expected changes, are reviewed each month to determine the causes of variations and to determine the likely level of revenue for the remainder of the year. Changes in revenue usage patterns are also included in the monthly reforecast process so that the Company can adjust its costs and operations accordingly. Similarly, Total Operating Expenses ("TOE") are scrutinized throughout the budget review process and throughout the monthly review of budget to actual variance activity.

The development of the Strategic Capital Expenditure Plan will be discussed by Linda Bridwell in her testimony.

Q. Other than comparing the budget to actual expenditures, how does TAWC determine whether or not it is operating efficiently?

A. Other benchmarks are constantly reviewed by the Company to assure cost control and efficient operations. TOE are extensively reviewed with operating personnel and senior management in an effort to: 1) keep year to year increases at or below the rate of inflation, and 2) ensure that expenses are incurred only when necessary to maintain compliance with all laws, regulations, policies and best practices. TAWC believes these efforts have been successful as, since 2008, our operating and maintenance costs have increased only 1.66%

per year on average, compared to a Consumer Price Index inflation rate of 4.47% during the same timeframe. Another factor making this accomplishment even more impressive is this 1.66% inflation rate includes our ERISA pension cumulative average growth rate of 28.23% for the same period. All other TOE lines have a cumulative average growth rate of only 0.17% for the years of 2008 – 2011 as we have been able to almost offset all cost and inflationary increases for four years.

TAWC continuously strives to utilize technological advances that improve efficiency, improve service and add to the value of the service we provide our customers. For example:

- The Company continues to upgrade and add appertenances to its telemetry system to enhance SCADA operations in the production facilities and the distribution system. These enhancements improve the control and capability of the Company's booster stations, storage tanks and pressure control/monitoring stations.
- The Field Services Department installed laptop computers with wireless communication capabilities to transmit orders to and from field vehicles. These capabilities increase the responsiveness to the external customer. This automated customer order system ("Service Suite v8.1") provides real-time data from the field that permits our operation to respond to customers via the Centralized Call Center while monitoring the progress of field personnel locations to respond to emergency work, ensure their safety, and capture productivity measurements for planning purposes. This equipment

is routinely upgraded to ensure we are leveraging the most currently available technology and software.

- TAWC has been using electronic surveying equipment for leak detection for about 10 years which permits mobile patrolling of the distribution system to detect potential leakage points before the leakage would surface and develop into a main break. As needed, TAWC supplements the electronic system with manual surveys and leak pin-pointing equipment to accurately identify leakage and efficiently repair facilities.
- TAWC employs a web-based tool to review and analyze electric and other utility service billings in order to analyze power usage at our treatment plant and booster stations, as well as at our operations and office facilities. This equipment permits us to develop trends in energy consumption, demand charges, unit costs from the power companies and how demand for water use at each of these locations affects our expenses, and to then make modifications to our operation to improve efficiencies and lower costs.
- The Company implemented a program to install radio-based meters and meter reading equipment to enable automatic meter reading. Currently, 36.8% of the customer meters in service have this technology.
- The Company has recently added web-based access for many basic customer service needs such as bill payment, electronic funds transfer, updating account information, and the turning on/off of service.

Q. Please explain the Company's service order completion metric and the use of Service Suite v8.1 technology.

A. The Company utilizes real-time tracking of customer service order execution through Service Suite v8.1 mobile laptop computers in its service vehicles which allows the Company to monitor customer service response times and allow the Centralized Call Center to have instantaneous feedback on time sensitive customer issues. Service Suite v8.1 is a 2010 upgrade from Service First technology and allows each field service representative (FSR) to see all service requests on their laptops, and as each service request is completed, the Centralized Call Center updates the customer's service record. Service Suite v8.1 mobile technology allows TAWC to determine the location of each FSR along their route so that emergency service orders may be dispatched electronically to the nearest FSR. TAWC also equips each FSR with a cell phone to call within 30 minutes of arriving at the customer's premise in case the customer desires to be on site when the FSR arrives. As each service order is completed, the Service Suite v8.1 technology also allows FSRs to receive their next order from the Field Resource Customer Center if they are progressing quicker than expected, and likewise, orders can be moved to other FSRs if an FSR is delayed. See Exhibit OPS-2-Customer Service-KNR attached. This technology enabled TAWC's FSRs to provide outstanding customer by consistently completing service orders on average above 99% within the scheduled appointment time throughout the years of 2010-2012. This has greatly increased the efficiency of the FSRs and improved the service and convenience to our customers. In addition, this software has reduced or eliminated the use of paper-based service orders that were dispatched and completed by back-office

personnel. This technology and equipment is routinely upgraded through additional capital investments to TAWC's "mobile workforce application."

Q. Please describe the Company's challenges, efforts, successes and efficiencies in cost containment that have arisen since the last rate case.

A. The Company has worked diligently to find cost effective solutions to offset inflationary impacts to expenses while maintaining high service levels and high water quality. As stated earlier in my testimony, we have reviewed our organization anticipating the work that will be needed in the future as well as ways we can be more effective.

Q. What does TAWC do in its day-to-day operations to control costs?

A. In the area of Company labor, the Company has worked both to reduce and to avoid, where possible, work performed on an overtime basis. During the past four years, supervisors have limited the amount of emergency work performed on an overtime basis to work that is necessary to prevent property damage, to avoid the loss of water service, or work needed to prevent drinking water contamination which could violate Tennessee's Safe Water Act. To the extent that a water leak or a main break was only causing low pressure or causing water to escape through storm water drainage, and not otherwise causing a safety issue such as ice forming on streets or sidewalks, then the repair would be deferred until normal working hours. In some cases, this has resulted in non-revenue water loss being greater because the repair of leakage was delayed until normal working hours.

The Company made the difficult choice to selectively not replace employees who left the business in Tennessee during the past twenty-four (24) months, or to not fill vacancies even if those vacancies created more overtime work. In some instances, we rescheduled non-emergency work assigned to a FSR on a given day to minimize overtime

on heavy work load days. Those orders were then re-scheduled to a later date when sufficient personnel were available.

In certain cases the Company sought and was able to obtain temporary work rule changes in the union contract with UWUA in order to work efficiently and balance the work load between departments. These changes allowed for the transfer of employees between departments, such as reassigning Distribution Utility Workers to the Meter Shop to work as FSRs who change meters. We have also worked with the UWUA to obtain a temporary work rule change between job classifications to temporarily balance crew assignments within a department. For example, we recently utilized experienced backhoe operators that are ordinarily in the Utility Worker classification to operate backhoes for a short period of time when several Heavy Equipment Operators were unavailable to work. This temporary assignment allowed us to efficiently staff work crews that maintain our system reliability and continue serving our customers.

Q. What impact did these actions have on service to the customer or water quality?

A. Even during these trying times, we have maintained our focus on providing quality water and service to our customers. During the last two years we have met our scheduled customer appointments over 99% of the time. Our service orders were completed as scheduled over 98.5% of the time. Our actual meter reads were completed over 99% in 2010 with only 0.7% being estimated. The actual meter reads in 2011 was 99.6% but meter reading estimates increased to 3.4%. This increase was driven by two unavoidable extraordinary weather events. The major snowfall of January 2011 lingered on the ground, covering our meters for several days, leaving our meter readers unable to read them. Also, the April 2011 tornadoes significantly impacted our ability to gather actual readings during

the prolonged cleanup. Large amounts of debris and trees were moved to the curb in the weeks and months following the tornadoes and covered many meters. By August the curbs were cleared by the municipalities and our actual meter readings returned back to our normal excellent levels. These changes have not impacted our water quality.

As I discussed previously, TAW has been a proud member of the USEPA Partnership for Safe Drinking Water for over a decade, consistently delivering water that far exceeds the minimum requirements established by regulation.

Q. What other cost saving measures have occurred since the last rate case?

A. Another major event was the October 2011 negotiation of a new labor contratct. TAWC and the International Utility Workers of America, Local 121 which represents approximately 80 members of Tennessee American Water's hourly workforce, successfully renegotiated a labor agreement with a 5 year term which commenced on November 1, 2011 and will expired October 31, 2016.

The contract negotiation went smoothly over a four-day period with both parties negotiating diligently and in good faith. The new contract contains a $1,000 lump sum to be paid in lieu of a wage increase for 2012 and 2% per year wage increases for the four following years of 2013-2016. The cumulative average growth rate for the contract wages over the course of the contract is 1.6%. Another significant change is the addition of a two-tier wage structure. The wages for new employees hired under the contract after November 1, 2011 will start $5.00 per hour below the normal wage and will be increased $1.00 per year until they equal the normal wage.

Additionally, we continue to look for other cost saving opportunities. Business travel for supervisor employees has been carefully reviewed for the value each potential

trip would provide. Where possible, certain meetings and other work–related assignments have been conducted via teleconference. In some cases, training activities have been conducted via webcast or via teleconference using computers and local training facilities in place of on-site training. A great example of this cost effective idea is being utilized in training for our Business Transformation. We will provide over 2,400 hours of training this summer to our employees. We identified three key individuals to attend "Train-The-Trainer" classes in New Jersey, and they are becoming our primary trainers during the initial Business Transformation roll out. Each of our employees will also train via e-learning self-paced classes as well as Webcasts and virtual classes with employees in other states. This training plan will greatly minimize travel costs allowing over 2,000 man hours of our training to be done locally in the Chattanooga offices.

Q. Please describe the Company's non-revenue water program.

A. The Company has operated a non-revenue water (NRW) program for several years. The purpose of the program is to maintain a comprehensive water loss management strategy and implement a plan under which the Company can identify and reduce NRW levels. In the past, this water was frequently referred to as "unaccounted-for water" although some of the water included in that calculation was known and even measured. Even though water loss is part of any water system, it is important to quantify the NRW being used for legitimate purposes and the portion of water loss which is truly unaccounted for. Common examples of legitimate NRW use are annual flushing of mains by the Company, fire fighting, street cleaning, and wastewater system flushing. When water losses are proactively managed, the Company can focus resources and achieve not only a savings in production costs, but potentially a reduction in network operating expenses as well.

The reduction of NRW has not only become the focus of TAWC but also of the water utility industry. The program requires considerable investment in the way of capital investment, manpower, and time. TAWC has adopted water audit methods that have been endorsed by the International Water Association (IWA) and the American Water Works Association (AWWA). This international water loss strategy is relatively new in this country, but TAWC has historically used many of the best practices from this strategy to reduce water losses, address leakage and measure NRW. Utilizing the IWA definitions, the new standards dictate moving away from the old "unaccounted for" water definitions and measures. Instead, the new strategy favors water balance and uniform methods of collecting reliable data which can be benchmarked through a standard method with other utilities around the world.

TAWC has a local NRW team that focuses on water loss management and works to identify and minimize NRW by tracking and implementing plans to address un-metered, unbilled authorized losses including fire hydrant flushing and water main flushing. Leaks from water mains, customer service lines, services replaced, parallel mains retired, and small diameter main replacements have been tracked and are accounted for in the NRW database. These water loss prevention efforts are best practices, but they cannot by themselves fully eliminate NRW. More long-term proactive solutions are still necessary so that the number of leaks can be reduced, including significant additional investment in main and service replacement programs. To that end, TAWC has identified capital investments needed to improve its distribution system. Linda Bridwell will discuss in her testimony the main replacement prioritization program. Additionally, TAWC implemented and maintains a main break analysis database. The database currently requires entering the

data recorded in the field from main breaks into this database. This database will be connected to the GIS system after its implementation.

As for leaks in the system, TAWC currently has two full-time employees dedicated to the leak detection program. The costs of the program include 100% of their time plus fully loaded benefits and leak detection equipment. Using the findings of the leak detection survey, we have begun prioritized replacement of 2-inch and 2-1/2 inch water mains, as well as other mains of a variety of sizes. The leak detection team is also instrumental in testing for leaks in the service lines that run between our distribution water mains and the meter at the customer property. In 2012 we have utilized this team to help pinpoint leaks in a significant number of services that were installed in the early to mid-1980's using black plastic PVC. We have found this material is prone over time to have leaks so we are actively targeting those service lines for renewal. In 2012, we have used the leak detection crew extensively to locate these leaks and we are working weekly to renew those services.

The water main leak database helps the Company assign an estimated water loss value to each leak at the time it is repaired. TAWC will need to increase funding levels of small diameter pipe replacement substantially to address the replacement needs for this type of pipe where the majority of main breaks and leakage occur. The existing small diameter water mains represented on average approximately 70% of the actual water main breaks of TAWC from 1989 through 2006 as identified in a 2007 study. The replacement program would eventually reduce the footage of these types of mains in the future.

Q. What changes have been made since the last case in the NRW reduction program?

A. A new area of focus in 2012 will be the implementation of an audit plan and a major push for upgrading our backflow device/metering program of our fire services. All fire services are required by the Tennessee Department of Environment and Conservation, as well as the National Plumbing Code, to have backflow devices. All new fire services are installed with backflow devices to meet the requirements and meters are installed to reduce the risk of unmetered water usage as well. However, of the 1,248 existing private fire services in the TAWC system, 421 were installed prior to these requirements and do not have backflow devices and/or meters. The unmetered connections present a risk for water loss so this initiative is an important part of our water loss reduction strategy. Upgrading these services is a significant expense for our customers so we will work with them to get this accomplished with the target completion of all upgrades by June 30, 2013. Since this initiative will result in an expense to the impacted customers, we proactively met in March with the Chattanooga City Council and made a presentation on this program to make sure they were informed and aware of the need.

Most of our fire services are in the city but we have reached out to the Hamilton County Commission as well to share the presentation with them but have not yet received a meeting notice. In May 2012 we sent letters to all 421 fire service customers without the backflow and/ or metering devices alerting them of the required upgrades. Customers with multiple services that will be the most significantly impacted (school systems, universities, large facilities) will receive a personal visit.

As was mentioned earlier in my testimony on the organization changes that have taken place since the last rate case, the NRW supervisor role has been absorbed into the

other supervisor roles. This unique role, which had been located in the downtown office, has been eliminated in our new organizational structure with the responsibilities transitioned to supervisory roles within field operations that have the direct resources to do the work. One supervisor in the distribution department of field operations has responsibility for the leak detection crews and system survey work. One supervisor in the commercial department of field operations has responsibility for the large meter installation and repair crew.

We are also in the process of filling the open cross connection position with a Water Quality and Compliance II Specialist, with the intent for this person to have a primary focus on fire service audits as well as teaming with the other Cross Connection Specialist on fire service installations, backflow prevention and training. This transition away from an NRW supervisor role in the downtown office aligns water loss reduction responsibilities in the organization to those supervisors with direct resources to do the work and also provides additional manpower to do the work. Each supervisory position in the Company has ownership in our water loss reduction program as each individual has action steps addressing our water loss reduction program incorporated into their personal performance goals.

The Company has also identified in its program to reduce water loss the need to construct pressure-reducing valve stations and to segregate the distribution system into sub-metering zones. Given the magnitude of the need to replace aged, small diameter mains at TAWC, an alternative method of addressing the capital needs for main replacements would be instrumental in sustaining the infrastructure replacement at the necessary levels. Company witness Gary VerDouw discusses a Distribution System Improvement Charge

program in his testimony that would be one method for addressing the critical replacement funding. Such a program would provide systematic surcharges for infrastructure replacement investments which would provide incentive to water utilities to undertake those costly expenditures and potentially extend the time between costly general rate case filings. TAWC has faced financial difficulties the last three years resulting in a curtailment of main replacement projects. Although main replacements did increase in 2011 we need a sustained increase to the pace of the replacement schedule.

Q. What pressing needs does the Company face with system investment?

A. As Company witness Gary VerDouw references in his testimony, United States water infrastructure is in need of major investment. TAWC has been providing water service in this community since 1887, and we too face increased replacement needs for an aging system and amid rising construction costs.

We have some pipes that are approaching 100 years old and are in serious need of replacement. A prime example of this was the two mains installed in the early 1900's going up the side of Lookout Mountain to serve our customers. These old mains were replaced in 2010 at a cost of $1.6 million, requiring a wide variety of extraordinary methods of construction to hang the new mains on the face of the bluff escarpment. Installation required a large crane on the mountaintop to remove old material, lower new material and manpower over the side of the mountain. Some of the work required workers to rappel to the work site while some materials on the lower sections were required to be brought in by a team of mules to navigate the narrow trails and protect the environment in the areas of the Lookout Mountain Conservancy, as well as the United States National Park Service.

Q. How does the cost of water infrastructure construction compare to other utilities?

A. While the Lookout Mountain main replacement certainly was an unusual and extraordinarily complicated undertaking it is well documented that construction costs of a water distribution system are more expensive than that of the telecommunications, gas or electric industries.

Q. Does this conclude your testimony?

A. Yes, it does.

STATE OF TENNESSEE

COUNTY OF HAMILTON

BEFORE ME, the undersigned authority, duly commissioned and qualified in and for the State and County aforesaid, personally came and appeared Kevin Rogers, being by me first duly sworn deposed and said that:

He is appearing as a witness on behalf of Tennessee-American Water Company before the Tennessee Regulatory Authority, and if present before the Authority and duly sworn, his testimony would set forth in the annexed transcript.

Kevin Rogers

Sworn to and subscribed before me
this 24th day of May, 2012.

Notary Public

VIRGINIA B. SCEALF
STATE OF TENNESSEE NOTARY PUBLIC
HAMILTON COUNTY, TN

115583.142475/4063729.1

Type of Filing: __X__ Original _____ Updated _____ Revised

Line No.	Employee Number	Home Business Unit Name	Job Title	Union/Non Union (Y/N)	Position Impact
1	26000109	CHAT-Production	Chemist II	N	
2	50304317	CHAT-Production	Chemist II	N	
3	26000007	CHAT-Production	Laboratory Worker	U	
4	50555973	CHAT-Production	Laborer/Process Tech Apprentic	U	
5	99999999	CHAT-Production	Laborer/Process Tech Apprentic	U	
6	50412382	CHAT-Production	Laborer/Relief Process Tech	U	
7	50526892	CHAT-Production	Laborer/Relief Process Tech	U	
8	26000164	CHAT-Production	Master M Mechanic	U	
9	26001419	CHAT-Production	Master M Mechanic	U	
10	50069216	CHAT-Production	Master M Mechanic	U	
11	50104651	CHAT-Production	Master M Mechanic	U	
12	50107207	CHAT-Production	Master M Mechanic	U	
13	50193778	CHAT-Production	Master M Mechanic	U	
14	50569414	CHAT-Production	Master M Mechanic	U	
15	26000120	CHAT-Production	Process Technician	U	
16	26000151	CHAT-Production	Process Technician	U	
17	26000162	CHAT-Production	Process Technician	U	
18	50341466	CHAT-Production	Process Technician	U	
19	26000158	CHAT-Production	Production Clerk	U	
20	26000137	CHAT-Production	Sr Spec Cross Connect (N)	N	
21	99999999	CHAT-Production	Sr Spec Cross Connect (N)	N	
22	50390540	CHAT-Production	Supvr Production	N	
	99999999	CHAT-Production	Production Superintendent	N	-1
	99999999	CHAT-Production	Supvr Production Maintenance	N	-1
23	26000186	CHAT-Production	Supvr Wtr Qlty & Envrn Cmpl	N	
24	26000104	CHAT-Customer Service	Field Service Person	U	
25	26000150	CHAT-Customer Service	Field Service Person	U	
26	26000112	CHAT-Customer Service	Field Service Records Speciali	U	
27	26000163	CHAT-Customer Service	Field Service Records Speciali	U	
28	26000056	CHAT-Customer Service	Field Services Representative	U	
29	50066140	CHAT-Customer Service	Field Services Representative	U	
30	50108180	CHAT-Customer Service	Field Services Representative	U	
31	50195340	CHAT-Customer Service	Field Services Representative	U	
32	50226412	CHAT-Customer Service	Field Services Representative	U	
33	50237926	CHAT-Customer Service	Field Services Representative	U	
34	50237996	CHAT-Customer Service	Field Services Representative	U	
35	50238070	CHAT-Customer Service	Field Services Representative	U	
36	50240644	CHAT-Customer Service	Field Services Representative	U	
37	50262066	CHAT-Customer Service	Field Services Representative	U	
38	50315983	CHAT-Customer Service	Field Services Representative	U	
39	50563882	CHAT-Customer Service	Field Services Representative	U	
40	50563884	CHAT-Customer Service	Field Services Representative	U	
41	50563885	CHAT-Customer Service	Field Services Representative	U	
42	50566890	CHAT-Customer Service	Field Services Representative	U	
43	50568169	CHAT-Customer Service	Field Services Representative	U	
44	50569412	CHAT-Customer Service	Field Services Representative	U	
45	99999999	CHAT-Customer Service	Field Services Representative	U	
46	99999999	CHAT-Customer Service	Field Services Representative	U	
47	26000071	CHAT-Customer Service	Meter Reader	U	
48	99999999	CHAT-Customer Service	Meter Reader	U	
49	26000984	CHAT-Customer Service	Meter Repairer	U	
50	50243218	CHAT-Customer Service	Meter Repairer	U	
51	26000028	CHAT-Customer Service	Supvr Field Operations	N	
52	26000078	CHAT-Customer Service	Supvr Field Operations	N	
	99999999	CHAT-Customer Service	Distribution Superintendent	N	-1
	99999999	CHAT-Customer Service	Supvr NRW	N	-1
53	50589485	CHAT-Admin & Gen	Admin Asst - Staff Supp (N)	N	
54	50620090	CHAT-Admin & Gen	Financial Analyst III (FP&A)	N	
55	50543754	CHAT-Admin & Gen	Mgr Govt & Regulatory Affairs	N	
56	99999999	CHAT-Admin & Gen	Spec Ext Affairs (State)	N	
57	50397103	CHAT-Admin & Gen	Specialist Operations (N)	N	
	99999999	CHAT-Customer Service	Specialist Operations (N)	N	-1
58	26000085	CHAT-Field Services	Distribution Clerk	U	
59	26000119	CHAT-Field Services	Distribution Clerk	U	
60	26000083	CHAT-Field Services	Exec Asst (N)	N	
61	18508611	CHAT-Field Services	Heavy Equipment Operator	U	
62	26000039	CHAT-Field Services	Heavy Equipment Operator	U	
63	26000049	CHAT-Field Services	Heavy Equipment Operator	U	
64	50192499	CHAT-Field Services	Heavy Equipment Operator	U	
65	50267313	CHAT-Field Services	Heavy Equipment Operator	U	
66	50270912	CHAT-Field Services	Heavy Equipment Operator	U	

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Line No.	Employee Number	Home Business Unit Name	Job Title	Union/Non Union (Y/N)	Position Impact	
67	50316116	CHAT-Field Services	Heavy Equipment Operator	U		
68	99999999	CHAT-Field Services	Heavy Equipment Operator	U		
69	99999999	CHAT-Field Services	Heavy Equipment Operator	U		
70	50507240	CHAT-Field Services	Mgr Field Operations (Medium)	N		
71	10017486	CHAT-Field Services	President (Medium States)	N		
72	26000182	CHAT-Production	Supvr Field Operations	N	1	
73	26000041	CHAT-Field Services	Supvr Field Operations	N		
74	50564600	CHAT-Field Services	Supvr Field Operations	N		
75	50565847	CHAT-Field Services	Supvr Field Operations	N		
76	26000033	CHAT-Field Services	Truck Driver/Utility Worker	U		
77	26000077	CHAT-Field Services	Truck Driver/Utility Worker	U		
78	26000110	CHAT-Field Services	Truck Driver/Utility Worker	U		
79	26000132	CHAT-Field Services	Truck Driver/Utility Worker	U		
80	26000133	CHAT-Field Services	Truck Driver/Utility Worker	U		
81	26000153	CHAT-Field Services	Truck Driver/Utility Worker	U		
82	26000985	CHAT-Field Services	Truck Driver/Utility Worker	U		
83	50066038	CHAT-Field Services	Truck Driver/Utility Worker	U		
84	50191242	CHAT-Field Services	Truck Driver/Utility Worker	U		
85	50195323	CHAT-Field Services	Truck Driver/Utility Worker	U		
86	50273104	CHAT-Field Services	Truck Driver/Utility Worker	U		
87	50279031	CHAT-Field Services	Truck Driver/Utility Worker	U		
88	50339372	CHAT-Field Services	Truck Driver/Utility Worker	U		
89	50341514	CHAT-Field Services	Truck Driver/Utility Worker	U		
90	50341517	CHAT-Field Services	Truck Driver/Utility Worker	U		
91	50563886	CHAT-Field Services	Truck Driver/Utility Worker	U		
92	50563895	CHAT-Field Services	Truck Driver/Utility Worker	U		
93	50566892	CHAT-Field Services	Truck Driver/Utility Worker	U		
94	50566893	CHAT-Field Services	Truck Driver/Utility Worker	U		
95	50568201	CHAT-Field Services	Truck Driver/Utility Worker	U		
96	50569425	CHAT-Field Services	Truck Driver/Utility Worker	U		
97	99999999	CHAT-Field Services	Truck Driver/Utility Worker	U		
98	99999999	CHAT-Field Services	Inspections/ORM Supervisor	N	0	Title Change, assumed some contractor duties
99	26000171	CHAT-Engineering	CAD Drafter	U		
100	50300097	CHAT-Engineering	Project Manager Engineer	N		
101	26000117	CHAT-Engineering	Engineering Clerk	U		
102	26000152	CHAT-Engineering	Engineering Clerk	U		
103	99999999	CHAT-Engineering	Engineer / On-Call	N	1	
104	99999999	CHAT-Engineering	Engineer / On-Call	N	1	
105	26000121	CHAT-Engineering	SCADA/CMMS Supervisor	N	1	
106	99999999	CHAT-Engineering	GIS Supervisor	N	1	
107	50206915	SCUD-Admin & Gen	Specialist Maint Service (N)	N		
			Net Impact on Positions		0	

Tennessee American Water
Report on Field Service Operations

Service Metric		January	February	March	April	May	June	July	August	September	October	November	December
Number of Service Orders Worked Monthly	2010	6,981	6,535	6,756	6,216	6,234	5,932	6,567	7,604	6,287	5,735	5,505	5,523
	2011	5,259	6,168	6,873	5,494	5,354	5,591	5,918	6,103	6,287	5,735	5,505	5,523
	2012	6,136	6,900	6,882	5,960								
Appointments-% appointment orders on time	2010	99.20%	99.46%	99.50%	99.60%	98.62%	99.75%	97.49%	99.36%	99.51%	99.32%	99.40%	99.13%
	2011	99.38%	99.20%	99.17%	99.23%	99.47%	99.35%	98.98%	99.28%	99.12%	98.92%	99.17%	99.43%
	2012	99.24%	99.65%	99.46%	99.61%								
# appointments missed	2010	56	34	34	25	86	17	165	49	18	23	19	24
	2011	20	27	29	23	18	16	23	19	21	24	18	11
	2012	19	13	16	12								
Total # of Meters in Accounts (Active 1/2010 to present)													
Active in Inactive in Meter in Shop-2005/April 08	2010	73,512	73,713	73,920	73,920	74,147	74,314	75,214	75,263	75,317	75,264	75,103	74,963
	2011	74,789	74,813	74,965	74,807	74,896	75,171	75,316	75,371	75,429	74,685	74,593	75,054
	2012	75,028	75,243	75,515	75,752								
# of meters to read	2010	74,648	59,639	80,641	73,342	71,539	79,318	75,716	78,318	75,119	76,340	72,331	78,988
	2011	62,405	72,972	82,926	72,947	75,337	72,966	68,610	83,567	73,676	77,319	72,551	75,695
	2012	82,145	76,395	76,374	73,645								
# meters estimated	2010	542	2,070	356	400	258	398	330	382	299	353	408	738
	2011	16,323	278	449	371	1,117	3,707	1,485	524	429	503	563	834
	2012	681	335	424	491								
% of meters estimated	2010	0.72%	2.89%	0.44%	0.54%	0.38%	0.50%	0.43%	0.49%	0.40%	0.45%	0.56%	0.93%
	2011	21.29%	0.38%	0.54%	0.50%	1.47%	4.88%	2.10%	0.63%	0.58%	0.64%	0.77%	1.10%
	2012	0.81%	0.44%	0.55%	0.65%								
# of meters not billed	2010	0	0	0	0	0	0	0	0	0	0	0	0
	2011	0	0	0	0	0	0	0	0	0	0	0	0
	2012	0	0	0	0								
for 3 months	2010	0	0	0	0	0	0	0	0	0	0	0	0
	2011	0	0	0	0	0	0	0	0	0	0	0	0
	2012	0	0	0	0								
for 6 months	2010	0	0	0	0	0	0	0	0	0	0	0	0
	2011	0	0	0	0	0	0	0	0	0	0	0	0
	2012	0	0	0	0								
for 12 months	2010	0	0	0	0	0	0	0	0	0	0	0	0
	2011	0	0	0	0	0	0	0	0	0	0	0	0
	2012	0	0	0	0								