TENNESSEE-AMERICAN WATER COMPANY, INC

TRA DOCKET NO. 14-00121

REBUTTAL TESTIMONY

OF

BRENT E O'NEILL, P.E.

ON

CHANGES TO THE QUALIFIED INFRASTRUCTURE INVESTMENT PROGRAM RIDER, THE ECONOMIC DEVELOPMENT INVESTMENT RIDER, AND THE SAFETY AND ENVIRONMENTAL COMPLIANCE RIDER

SPONSORING

PETITIONER'S REBUTTAL EXHIBIT 1 –
CITY OF CHATTANOOGA CONSENT DECREE

AND

PETITIONER'S REBUTTAL EXHIBIT 2 –
CITY OF CHATTANOOGA DISCHARGE PERMIT

Q. PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.

A. My name is Brent E. O'Neill and my business address is 2300 Richmond Road, Lexington, Kentucky 40502.

Q. DID YOU FILE DIRECT TESTIMONY IN THIS CASE?

A. Yes. I submitted pre-filed direct testimony in this docket on October 29, 2014, on behalf of Tennessee-American Water Company (the "Company" or "TAWC").

Q. WHAT IS THE PURPOSED OF YOUR REBUTTAL TESTIMONY?

A. The purpose of my rebuttal testimony is to respond to the pre-filed testimony submitted by the City of Chattanooga in this docket on April 6, 2015.

Q. WHAT ARE THE PRIMARY ISSUES THAT YOU WILL BE ADDRESSING IN YOUR REBUTTAL TESTIMONY?

A. The primary issues that I will be addressing are: 1) Requirement for TAWC Process Wastewater Improvement Project due to the state and federal regulations; and 2) The option Tennessee American Water chose to comply with the City Wastewater Discharge Standards. I may address other issues as well.

Q. IS THE CITY OF CHATTANOOGA UNDER A CONSENT DECREE ISSUED BY THE UNITED STATES ENVIRONMENTAL PROTECTION AGENCY ("EPA")?

A. Yes, The City of Chattanooga entered into a consent decree, Case: No. 1:12-cv-00245, with the EPA, the State of Tennessee and the Tennessee Clean Water Network (TCWN) on April 24, 2013. The agreement was to significantly reduce, and where possible eliminate, sanitary sewer overflows and improve the overall operations of Chattanooga's sewer system. I have attached a copy of the Consent Decree and labelled it at Petitioner's Rebuttal Exhibit 1 – City of Chattanooga Consent Decree.

Q. DOES THIS CONSENT DECREE OR OTHER STATE OR FEDERAL STANDARDS OR REGULATIONS HAVE ANY RELEVANCE OR IMPACT TO THE CITY OF CHATTANOOGA'S PRE-FILED TESTIMONY?

A. Yes. City of Chattanooga Witness Mr. Norris indicated that "the City wastewater discharge standards are established by the City to permit it to efficiently operate its POTW (public operated treatment works) in compliance with the discharge permit issued by the State of Tennessee". The discharge is controlled by the Clean Water Act which is administered by both the Federal Environmental Protection Agency and the Tennessee Department of Environment and Conservation. Specifically the discharge must meet the standards as set forth in the Clean Water Act (CWA); Criteria for Classification of Solid Waste Disposal Facilities and Practices (40 CFR, Part 257). Section 257.3-3 Surface Water, paragraph b indicates that section 404 of the Clean Water Act must be followed. The EPA states that one of the goals of the Section 404 enforcement program is to protect the environment and human health and safety.

Q. **DOES THE CITY OF CHATTANOOGA ISSUE WASTEWATER DISCHARGE PERMITS?**

A. Yes, In accordance with the Chattanooga City Code, Part II, Article III "Industrial Waste," Section 31-50 the city requires wastewater discharge permits for all significant industrial users of the of the wastewater system prior to discharging non-domestic waste into the sewer system.

Q. WHAT FEDERAL OR STATE REGULATIONS DOES THE CITY OF CHATTANOOGA "INDUSTRIAL WASTE" SECTION INDICATE IS A BASIS FOR THE DISCHARGE PERMIT?

A. The City of Chattanooga has an "Approved POTW Pretreatment Program" as defined in Code of Federal Regulations, Title 40 Section 403.3(d), and any permits issued hereunder to industrial users who are subject to or who become subject to a "National Categorical Pretreatment Standard" as that term is defined in 40 CFR 403.3(j) shall be conditioned upon the industrial user also complying with all applicable substantive and procedural requirements promulgated by the Environmental Protection Agency or the State of Tennessee.

Q. IS TAWC CONSIDERED AN INDUSTRIAL USER?

A. Yes. The TAWC water treatment plant backwash water and sludge from the removal of sediment and particles from the river is why TAWC is considered an industrial user.

Q. HAS THE CITY OF CHATTANOOGA ISSUED ANY SUCH WASTEWATER DISCHARGE PERMITS TO TAWC?

A. Yes. The City of Chattanooga has issued a Wastewater Discharge Permit to TAWC for the discharge of the TAWC water treatment plant's backwash water and sludge from the removal of sediment and particles from the river. The most recent permit was the Wastewater Discharge Permit No. 0074 issued May 15, 2013.

Q. CAN TAWC OPERATE WITHOUT A WASTEWATER DISCHARGE PERMIT?

A. No. Since the TAWC water treatment plant backwash water and sludge from the removal of sediment and particles from the river requires it to be an industrial user, it must comply with the City Pretreatment Program and follow the requirements as outlined in the Wastewater Discharge Permit No. 0074. If the Company does not obtain a discharge permit or comply with the Pretreatment Program, its discharge would be

considered an illegal discharge and be subject to enforcement action by the city, the state and the federal government.

Q. WHAT STATE OR FEDERAL GOVERNMENT STANDARDS ARE INDICATED IN THE CITY OF CHATTANOOGA'S DISCHARGE PERMIT NO. 0074 TO TAWC?

A. As indicated in on page 19 of my October 29th pre-filed direct testimony, the May 15, 2013 issuance of the Wastewater Discharge Permit No. 74 outlined the requirement for TAWC to design and construct a new pretreatment system to lower the concentrations of regulated metals due to the EPA Consent Decree issued to the City of Chattanooga and to ensure the City's continued compliance with EPA 40 CFR Part 503 – Standards For the Use Or Disposal of Sewage Sludge regarding biosolids being land applied. A copy of the May 15, 2013 Letter and Permit are attached as Petitioner's Rebuttal Exhibit 2 – City of Chattanooga Discharge Permit.

Q. DID THE CITY OF CHATTANOOGA'S ABOVE REFERENCED MAY 15, 2013 COMMUNICATION TO TAWC PROVIDE THAT THE REQUIREMENTS OUTLINED THEREIN WERE DUE, IN PART, TO ASSIST THE CITY IN MEETING FEDERAL REGULATIONS?

A. Yes. The permit indicated that the pretreatment system requirement was necessary to ensure the City's continued compliance with EPA 40 CFR Part 503 – Standards for the Use or Disposal of Sewage Sludge regarding biosolids.

Q. WHAT OTHER STANDARDS OR REGULATIONS HAVE BEEN COMMUNICATED TO TAWC BY THE CITY OF CHATTANOOGA AS A REQUIREMENT FOR THE PRETREATMENT PROGRAM?

A. The May 15, 2013 letter and permit also included a one page Pretreatment Facts message from the City of Chattanooga that explains the benefits of the City's Pretreatment Program. The one page Pretreatment Facts message indicated that the Pretreatment Program that the TAWC Wastewater Discharge Permit is a part of is mandated by the EPA through the National Pollutant Discharge Elimination System (NPDES) permit issued to the City of Chattanooga's Moccasin Bend Wastewater Treatment Plant (MBWT).

Q. **WHAT IS THE NPDES?**

A. The National Pollutant Discharge Elimination System (NPDES) permit program controls water pollution by regulating point sources that discharge pollutants into waters of the United States as authorized by the Clean Water Act.

Q. WHAT IS A POINT SOURCE AS REFERRED TO IN THE NPDES PERMIT?

A. The EPA defines point source as any single identifiable source of discharge entering the Waters of the United States which may contain pollutants. In this case, the regulated point source is the discharge from the City of Chattanooga MBWT.

Q. **HOW DOES THE NPDES PERMIT APPLY HERE?**

A. The discharge of the City of Chattanooga's MBWT is required to have a NPDES Permit since it has a distinct discharge into the waters of the United States. The NPDES Permit sets limits and requirements that the discharge from the MBWT must meet before it can discharge into the Tennessee River.

Q. WHAT IS THE RELATION BETWEEN CITY OF CHATTANOOGA MBWT AND TAWC WATER TREATMENT PLANT?

A. Like residents, businesses and manufacturers in the City, the TAWC Water Treatment Plant has a liquid product left over from its activities/ processes that is considered wastewater discharge. The TAWC wastewater discharge is produced from the treatment of the water that the Company obtains from the Tennessee River. During the water treatment process the sediment and particles from the river are removed. These sediments and other particles are collected and sent to the City of Chattanooga MBWT through the city sewer system. This wastewater discharge from the TAWC Water Treatment Plant combines with other wastewater discharges from residents, businesses and manufacturers within the city until it arrives to the MBWT. At the MBWT the wastewater discharges from the residents, businesses and manufacturers is treated to meet Federal and State Regulations. Upon meeting these standards the resulting water from the MBWT is discharged into the Tennessee River. This discharge is the point source referred to the NPDES Permit.

Q. ARE THE STANDARDS AND REGULATIONS INDICATED ABOVE CONSIDERED SAFETY STANDARDS IMPOSED BY THE STATE OR FEDERAL GOVERNMENT?

A. Yes. As explained in the Direct Testimony of Gary VerDouw in TRA Docket No. 13-00130, page 34, lines 18 and 19, "Tennessee American believes that environmental compliance investments are specifically related to the safety of the drinking water and in the public interest." In addition, as stated in the March 25, 2015, response to Question No. 37 of TAWC's Responses to the Discovery Request by the City of Chattanooga, the

wastewater discharge from the TAWC water treatment plant must meet the standards as set forth in the Clean Water Act (CWA); Criteria for Classification of Solid Waste Disposal Facilities and Practices (40 CFR, Part 257). Specifically, TAWC's discharge must meet the standards as set forth in the Clean Water Act (CWA); Criteria for Classification of Solid Waste Disposal Facilities and Practices (40 CFR, Part 257). Section 257.3-3 Surface Water, paragraph b indicates that section 404 of the Clean Water Act must be followed. By meeting these standards the discharge by TAWC will allow the City of Chattanooga MBWT to be in compliance with their NPDES Permit No. TN0024210.

Q. WHY IS IT IMPORTANT TO MEET THESE STANDARDS AND REGULATIONS?

A. By meeting these standards and regulations and by partnering with the City of Chattanooga to ensure that they can meet applicable state and federal standards, TAWC achieves the three (3) goals that EPA's Section 404 enforcement program has of 1) protection of the environment and human health and safety, 2) deter violations, and 3) treat the regulated community fairly and equitably.

Q. IS TAWC'S WASTEWATER DISCHARGE FROM THE COMPANY'S WATER TREATMENT PLANT IN COMPLIANCE WITH THE WASTEWATER DISCHARGE PERMIT?

A. Yes. Currently, TAWC is in compliance with the Wastewater Discharge Permit No. 0074 as issued on May 15, 2013.

Q. IS THERE A CHANGE IN THE PERMIT LIMITS THAT WILL MAKE THE WASTEWATER DISCHARGE FROM THE COMPANY'S WATER

TREATMENT PLANT BE OUT OF COMPLIANCE WITH THE DISCHARGE LIMITS INDICATED IN THE WASTEWATER DICHARGE PERMIT?

A. Yes. Tennessee American Water Company had been granted an "Exception to Wastewater Strength Standard" for arsenic, chromium, copper, and zinc. The May 15, 2013 Wastewater Discharge Permit No. 0074 indicated that this "Exception to Wastewater Strength Standard" would expire during the two-year term of the permit. With the removal of the exception, the wastewater discharge from the TAWC water treatment plant will exceed the Zinc level indicated in the permit.

Q. WHAT HAPPENS IF TAWC CAN NOT MEET THE ZINC LEVEL INDICATED IN THE PERMIT?

A. If TAWC cannot meet the Zinc level of 0.5 mg/L as indicated in Permit No. 0074, the Company will receive a Notice of Violation from the City of Chattanooga. In addition, as indicated in the May 15, 2013 Permit if TAWC cannot meet the indicated zinc level, the City may not be able to meet the requirements of the EPA Consent Decree for the MBWT and or comply with EPA 40 CFR Part 503 – Standards For the Use Or Disposal of Sewage Sludge regarding biosolids being land applied from the MBWT.

Q. WHAT KEEPS THE TAWC WASTEWATER DISCHARGE FROM COMPLYING WITH THE CITY WASTEWATER DISCHARGE STANDARDS?

A. Wastewater Discharge Permit No. 0074 provides a list of parameters that the discharge shall not exceed. The primary parameter that from time to time the TAWC water treatment plant's wastewater discharge exceeds is the 5 mg/L limit for zinc. Tennessee American Testing indicates that zinc concentrations in the river sediments can at times be as high as 400 mg/L.

Q. WHAT HAPPENS IF THE TAWC WASTEWATER DISCHARGE CAN NOT MEET THE DISCHARGE STANDARDS?

A. TAWC will be issued a Notice of Violation (NOV) for not meeting the discharge standards and be required to become back into compliance with the standards. If compliance is not obtained in a reasonable time frame then the NOV can become an Enforcement Action.

Q. WHY DOES TAWC NOT WANT TO OBTAIN A NOV?

A. TAWC believes it is very important to meet the regulatory requirements during the treatment of water and to ensure a product that is safe for its customers and that its process is safe for the environment and specifically public health. To TAWC the receipt of a NOV means the Company has failed to meet its primary mission of protecting its customers, public health, and the environment. Every process used in the treatment of water is designed to ensure that limits can be met to reduce the likelihood of a NOV. Every employee watches over the process and equipment and ensures that they are working properly to meet regulatory requirement and protect our customers and the environment.

Q. ARE YOU AWARE OF THE COMPANY RECEIVING A NOV IN THE TREATMENT OF WATER?

A. No, I am not aware of TAWC receiving a NOV in the treatment of water.

Q. WHERE DOES THE ZINC COME FROM THAT IS IN THE WASTEWATER DISCHARGE?

A. The zinc that is in the wastewater discharge is primarily naturally occurring from the river water used to create the drinking water for the Tennessee American Water

customers. The zinc is in the sediment and is mainly due to previous mining operations and other natural occurrence within the river watershed. The zinc is found in the river sediment that is suspended in the river by the action of water flowing over the riverbed. This results in suspended particles in the raw water obtained by TAWC being contaminated from the zinc that is attached to the river sediment.

Q. WHY IS THE SEDIMENT FROM THE RIVER IN THE WASTEWATER DISCHARGE?

A. In order to produce clean drinking water, the TAWC water treatment process removes the suspended particles by settling the water in the Company's sedimentation basins and further removal occurring in its filters. The suspended particles that are settled out are periodically removed from the basins to allow for the continuous production of clean water. The draining of the basins produce sludge that contains the settled particles that is discharged from the TAWC water treatment facility as wastewater.

Q. WHAT IS YOUR UNDERSTANDING OF THE WHY THE PERMIT REQUIREMENTS WERE CHANGED?

A. The Wastewater Discharge Permit No. 74 indicated that lowering the concentrations of regulated metals was necessary due to the federal Environmental Protection Agency (EPA) Consent Decree issued to the City of Chattanooga and to ensure the City's continued compliance with EPA 40 CFR Part 503 – Standards For the Use Or Disposal of Sewage Sludge regarding biosolids being land applied. In addition, during a meeting with the City of Chattanooga on March 27, 2013 it was indicated that TAWC was the only company that had received an exemption for zinc from the City.

Q. HOW IS ZINC REMOVED FROM THE WASTEWATER DISCHARGE?

A. There are no processes that TAWC is aware of that will selectively remove zinc from the suspended solids. As a result, in order to address zinc in the wastewater and achieve the 5 mg/L permit limit, you have to remove the sludge and suspended particles that contain the zinc from the wastewater discharge.

Q. **CAN THE ZINC LEVEL BE REDUCED TO MEET THE CITY WASTEWATER DISCHARGE STANDARD?**

A. There are no processes that TAWC is aware of that can be employed to only partially reduce the amount of zinc in the sediment. At this time there is no testing device that can measure the level of zinc in the sediment on a continuous basis that would allow the Company to determine the amount of sludge to remove from the wastewater discharge that would make the discharge just meet the 5 mg/L limit.

Q. **WHY IS A CONTINUOUS TESTING DEVICE NECESSARY TO ALLOW THE DISCHARGE TO ONLY MEET THE LIMIT?**

A. A continuously testing device would be needed to allow for the measurement of the amount of zinc in the sludge as it is removed from the sedimentation basins. If the testing device indicates that the zinc level in the sludge exceeds the 5 mg/L limit, then based on the amount of zinc the device measures you could determine the precise amount of sludge to remove to allow it to be in compliance before it is discharged to the city. Unfortunately this type of device is not available.

Q. **HOW IS THE LEVEL OF ZINC CURRENTLY DETERMINED?**

A. Currently the only way to measure the amount of zinc in the sediment is to take a sample and send it to an offsite lab to dry the sample and perform tests with specialized equipment to determine the amount of zinc. This process can take several days. This

delay would make it difficult to determine the precise amount of sludge to remove to meet the limit since the level of zinc in the sludge is changing constantly due to the amount of sediment in the river changing continuously. Not being able to determine the amount of sludge to remove may result in the discharge containing too much zinc than the required limit, resulting in an inadvertent violation of the required standards that may lead to a NOV.

Q. IS THERE ANY OTHER WAY THAT TAWC COULD USE TO DETERMINE THE AMOUNT OF ZINC TO REMOVE TO ONLY MEET THE LIMIT?

A. Yes, there is another way that TAWC could employ to only meet the 5mg/L limit. The Company could determine the worst case of zinc level in the sediment that it has recorded and determine the percent of sludge to remove to ensure that the 5mg/L limit can be met during the worst case. TAWC has recorded levels of zinc as high as 400 mg/L in the sediment from the river. This would require TAWC to remove approximately 98 percent of the sludge to ensure that it could only meet the 5mg/L during the worst case. As previously discussed, since there is no technology to continuously determine the amount of zinc present in the sludge the Company would need to remove 98 percent of the sludge at all times since it would not know when the high level of zinc is present.

Q. **HOW IS TAWC PROPOSING TO REMOVE THE ZINC IN THE DISCHARGE TO COMPLY WITH THE CITY WASTEWATER DISCHARGE STANDARDS?**

A. The only way to ensure that TAWC can meet the zinc limit of 5 mg/L is to remove a majority of the sludge for the wastewater discharge prior to sending it to the city. Since there currently is no technology to continuously determine the amount of zinc present in the sludge the Company has chosen to remove as much of the sludge as possible. By

removing a majority of the sludge, TAWC will be able to meet zinc discharge limits if they are reduced by future regulations that reduce the limit of zinc below 5 mg/L without the need to make additional investment.

Q. WHAT OPTIONS WERE REVIEWED TO COMPLY WITH THE CITY WASTEWATER DISCHARGE STANDARDS?

A. TAWC reviewed three options for meeting the permit requirement. These options were: 1) direct discharge of the wastewater to the river; 2) continue to transmit the wastewater to the City; or 3) pre-sedimentation ahead of the treatment process.

Q. WHAT OPTION WAS NOT CONSIDERED DUE TO ITS EXPECTED EXPENSE?

A. The construction of pre-sedimentation is inherently more expensive than the dewatering process that is associated with the other two options. The reason for this is that a pre-sedimentation process would have to treat up to 65 million gallons of water a day since the pre-sedimentation process takes place before to the water treatment process. The other two options, on the other hand, treat the sludge after the water treatment process, leaving a relatively smaller volume of sludge to treat.

Q. HOW DO THE REMAINING TWO OPTIONS WORK TO REDUCE ZINC?

A. The remaining two options - 1) wastewater discharge to the City via the discharge permit or 2) discharge to the river via an NPDES permit - both treat the sludge contained in the wastewater discharge that comes from the water treatment process. In both options the sludge and suspended particles that contain the zinc that is removed during the water treatment process are sent to a thickener that consolidates the sludge. This process makes the sludge thicker and reduces the amount of water contained in the sludge. After the

sludge is thickened it is pumped to a dewatering process that removes as much water from the sludge as would be removed through either pressing the sludge between two belts or spinning the sludge similar to a washing machines spin cycle. The dry sludge is then place in trucks where it is either landfilled or used to supplement soil.

Q. WHAT IS THE DIFFERENCE BETWEEN THE TWO REMAINING OPTIONS?

A. There is very little difference between the options with exception of where the water removed from the sludge dewatering process is discharged. The wastewater removed from the sludge is discharged either to the city wastewater system or the river upon TAWC obtaining an NPDES permit or can be recycled back to the water treatment process.

Q. DOES THE WASTEWATER CONTAIN ZINC?

A. Yes, the wastewater will still have a very small amount of zinc remaining. But the majority of the zinc containing sediment particles will have been removed. The wastewater will be able to meet the 5mg/L limit.

Q. DO THE REMAINING TWO OPTIONS HAVE THE SAME LEVEL OF INVESTMENT?

A. Yes. Both of the options would require the same type of facilities and require the same level of investment.

Q. WHAT IMPROVEMENTS ARE REQUIRED IN EACH OPTION?

A. Both options would include the modification of the existing Thickener No. 1 to receive a portion of the sediment and sludge from a portion of the water treatment plant. A thickened sludge transfer pump station will be added to transfer material from Thickener No. 1 to the new dewatering facilities. The project will add a sludge storage tank to

receive thickened sludge from Thickener No. 1 prior to polymer addition and dewatering and reducing the potential operational challenges caused by the new transfer pump station. A second thickener will be added to operate in parallel with Thickener No. 1 and serve the sediment and sludge from the remaining portion of the water treatment plant, and to provide a measure of redundancy for sludge thickening when maintenance is required on either thickener. A concrete tank structure with a fixed weir and adjustable weir will be constructed to split the sedimentation and sludge discharge from the water treatment plant between the two thickeners to ensure optimal operation of the thickeners. A filter backwash equalization and decant tank will be constructed with a volume of 200,000 gallons to allow for the handling of backwash activities and will work in parallel with the existing backwash equalization tank to allow the thickeners to operate efficiently and produce consistent thickened sludge. The major component added with the project will be a mechanical centrifuge dewatering equipment and a building to house the two (2) centrifuge dewatering units, polymer storage and feed system, dewatered sludge conveyance equipment and truck loading area. The building will also house the needed electrical and control equipment for dewatering equipment installed with the project.

Q. WHY DID TAWC CHOOSE THE OPTION IT IS CONSTRUCTING?

A. TAWC chose to continue to transmit the wastewater from the sludge dewatering process to the City Wastewater System to allow for a partnership with the city to ensure safe discharge to the river and protection of the environment. The connection to the city's wastewater system also provides a redundancy since it allows for an emergency discharge of the sludge to the city if the dewatering facility were to experience difficulties.

Q. IS IT TAWC'S OPINION THAT THE OPTION SELECTED IS THE OPTIMUM OPTION?

A. Yes, it is TAWC's opinion that the option selected is the optimum option in ensuring it can meet the 5mg/L zinc level requirement and based on the number of facilities needed to remove the sludge on the congested TAWC Water Treatment Plant site.

Q. DID TAWC COMMUNICATE WITH THE CITY ON THE OPTION AND LEVEL OF INVESTMENT REQUIRED TO MEET THE WASTEWATER DISCHARGE PERMIT?

A. Yes. TAWC representatives have had at least five (5) meetings since May 2013 with City of Chattanooga personnel to discuss the compliance with the permit requirements and to provide information on the level of improvements, the level of investment and the schedule that was required to be in compliance with the permit. In addition, several progress reports as required by the permit have been submitted to the city.

Q. WILL THIS OPTION ALLOW THE COMPANY TO MEET THE REQUIREMENTS OF THE CITY WASTEWATER DISCHARGE PERMIT NO. 0074?

A. Yes, this option will allow the Company to remove the zinc that is contained in the sludge from the wastewater discharge. Through the removal of a majority of the zinc containing sediment, the Company will meet the requirements of the Permit No. 074 and allow the city to be compliant the EPA Consent Decree and ensure their continued compliance with EPA 40 CFR Part 503- Standards for the Use Or Disposal of Sewage Sludge regarding biosolids currently being land applied.

Q. HAS THE COMPANY HAD ONGOING CONVERSATIONS REGARDING THIS PROJECT AND OTHER CAPITAL INVESTMENTS DURING 2014?

A. Yes. TAWC values the cooperative working relationship that has been built with the City of Chattanooga and has ongoing communications at all levels of the two organizations. I am aware of being involved in at least 11 opportunities where meetings or correspondence with the city have occurred on this project or other investments being made by TAWC. The Company is fully committed to communicating with the city and is willing to answer questions, provide more information, or provide different information as requested by the city.

Q. HAS THE COMPANY IMPLEMENTED ANY ADDITIONAL TYPES OF COMMUNICATIONS OR MEETINGS THAT WILL IMPROVE ON DISCUSSIONS REGARDING CAPITAL INVESTMENTS BY THE COMPANY?

A. Yes. During its October 22, 2014 meeting with the city, TAWC proposed the establishment of a quarterly utility coordination meeting between the Company and the City to allow for discussions regarding capital investments by TAWC. The first meeting was held on December 10, 2014 and allowed the company to communicate with the city on the anticipated 2015 capital investments by TAWC. The second quarterly meeting was held with City of Chattanooga personnel on March 11, 2015.

Q. WHAT IS THE PURPOSE OF THE UTILITY COORDINATION MEETINGS?

A. The Utility Coordination meetings are intended to allow for an ongoing discussion between the City and TAWC to allow both entities the opportunity to share construction plans. The meetings allow the Company the opportunity to inform City personnel of upcoming projects and any changes that occur in the anticipated 2015 capital

investments. The meetings will also be an opportunity to make the City of aware of level of investment being made by TAWC such as the number of hydrants and valves being replaced and coordinating between the two organizations. Conversely, the meetings allow City personnel to share construction plans with the Company, which may result in opportunities to coordinate construction projects, saving both entities money and time.

Q. WILL THE LEVEL OF UNDERSTANDING BETWEEN THE CITY AND THE COMPANY BE IMPROVED?

A. Yes. I believe the utility coordination meetings will allow for a better understanding of what each organizations is investing in within the community.

Q. DO YOU BELIEVE THIS LEVEL OF UNDERSTANDING WAS NOT PRESENT PRIOR TO THESE MEETINGS?

A. Even though there have been communications occurring throughout different levels of the organizations, there has not been a meeting to allow for all the departments in the Company or City to coordinate on projects. In addition, the level of investment by TAWC on various projects has not been fully understood. For example, during the past four years, TAWC has had a robust valve and hydrant replacement program. During this period the Company replaced nine 16-inch valves, three 20-inch valves, four 24 inch valves and two 30 inch valves, along with 69 other small valves and 74 hydrants, with a total investment in the community of $1.9 million to address its aging infrastructure. This level of effort has not been fully recognized in the past, and the Utility Coordination meetings should allow the Company to communicate these types of investments in a timely manner and to a broader group within the City.

Q. DOES THIS CONCLUDE YOUR REBUTTAL TESTIMONY?

A. Yes.