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5 TENNESSEE-AMERICAN WATER COMPANY, INC

6  
7 DOCKET NO. 20- 00128

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16 DIRECT TESTIMONY

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18 OF

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20 KURT A. STAFFORD, P.E.

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26 ON

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29 CHANGES TO THE QUALIFIED INFRASTRUCTURE IMPROVEMENT RIDER,  
30 ECONOMIC DEVELOPMENT INVESTMENT RIDER AND SAFETY AND  
31 ENVIRONMENTAL COMPLIANCE RIDER

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38 SPONSORING PETITIONER’S EXHIBITS

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40 PETITIONER’S EXHIBIT 2021 SCEP – KAS  
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1   **Q.     PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.**

2   A.     My name is Kurt A. Stafford and my business address is 2300 Richmond Road, Lexington,  
3         Kentucky 40502.

4   **Q.     BY WHOM ARE YOU EMPLOYED AND IN WHAT CAPACITY?**

5   A.     I am employed by the American Water Works Service Company (“Service Company”) as  
6         Director of Engineering for Tennessee American Water Company (“TAWC” or  
7         “Company”) and Kentucky American Water Company (“KAWC”).

8   **Q.     HAVE YOU PREVIOUSLY FILED TESTIMONY BEFORE THIS OR ANY**  
9         **OTHER COMMISSION?**

10  A.     Yes. I have previously provided written and oral testimony before the Tennessee Public  
11         Utility Commission (“TPUC” or “Commission”) in TPUC Docket No 18-00120 and  
12         written testimony in TPUC Docket Nos 19-00031, 19-00105, 20-00028. I have also  
13         provided written and oral testimony before the Kentucky Public Service Commission in  
14         Case No 2020-00027.

15  **Q.     PLEASE STATE YOUR EDUCATIONAL AND PROFESSIONAL**  
16         **BACKGROUND.**

17  A.     I received a B.S. degree in Civil Engineering from the University of Tennessee in  
18         Knoxville, Tennessee in 2000. I have also completed a Masters of Urban and Regional  
19         Planning from the University of Tennessee in 2004, as well as a Masters of Business  
20         Administration from Tennessee Tech University in Cookeville, Tennessee in 2012. I am a  
21         registered Professional Engineer in the State of Tennessee and the Commonwealth of  
22         Virginia.

1 I have been employed by Service Company in my current role since September 2019. Prior  
2 to that, I served as Engineering Manager for TAWC from April 2016 to September 2019.  
3 I began my career as a Consulting Engineer in the utility and environmental remediation  
4 fields working for engineering firms in Knoxville, Tennessee and Lexington, Kentucky.  
5 In June 2004, I accepted a role as a Staff Engineer at the Virginia Department of  
6 Environmental Quality in Richmond, Virginia. In January 2007, I began working for the  
7 Knoxville Utilities Board (“KUB”) as a Project Engineer managing wastewater  
8 construction projects related to KUB’s \$650 million dollar Wastewater Consent Decree  
9 Program. In 2010, I was promoted to Team Leader at KUB where I managed an  
10 engineering team working on construction projects for KUB’s Wastewater Consent Decree  
11 Program. In 2012, I was assigned as Team Leader for an engineering team that managed  
12 construction and planning projects for KUB’s water distribution system. Additionally, I  
13 served as a certified Level II Erosion Control Inspector responsible for managing erosion  
14 control inspections and ensuring construction projects for all four of KUB’s utilities (gas,  
15 water, wastewater and electric) conformed to local, state and federal requirements. I also  
16 served as the main point of contact for both Water and Wastewater Engineering in regard  
17 to new service requests and projects. I am an active member of the American Water Works  
18 Association (AWWA) and the Tennessee Society of Professional Engineers (TSPE).

19 **Q. WHAT ARE YOUR DUTIES AS DIRECTOR OF ENGINEERING?**

20 A. I am responsible for the coordination of the Engineering Departments for both TAWC and  
21 KAWC, which includes the planning, development, and implementation of all aspects of  
22 construction projects. I also coordinate technical assistance to other Company departments  
23 as needed and oversee the development and implementation of the capital budgets. I report

1 to the Presidents of TAWC and KAWC. I am located in Kentucky, but work very closely  
2 with the TAWC staff in Tennessee.

3 **Q. ARE YOU SPONSORING ANY EXHIBITS?**

4 A.Yes, as set forth below, I am sponsoring one exhibit.

5  
6 **Q.WAS THE PETITIONER’S EXHIBIT THAT YOU ARE SPONSORING PREPARED**  
7 **BY YOU OR UNDER YOUR DIRECTION AND SUPERVISION?**

8  
9 A,Yes.

10  
11 **Q.WHAT WERE THE SOURCES OF THE DATA USED TO PREPARE THE**  
12 **PETITIONER’S EXHIBITS LISTED ABOVE?**

13  
14 A.The data used to prepare the exhibits was acquired from the books of account and business  
15 records of Tennessee American and other internal sources, which I examined in the course of my  
16 investigation of the matters addressed in this testimony.

17  
18 **Q. WHAT TOPICS WILL YOUR TESTIMONY ADDRESS?**

19 A. In addition to describing TAWC’s Capital Investment Plan, I will present the planned  
20 investment for the Economic Development Investment (“EDI”) Rider and the Safety and  
21 Environmental Compliance (“SEC”) Rider for 2021.

22 **Q. PLEASE DESCRIBE TAWC CAPITAL INVESTMENT PLAN FOR THE**  
23 **FORECAST PERIOD?**

24 A. The Company’s Capital Investment Plan can be divided into two distinct areas: 1)  
25 Recurring Projects (“RP”) and 2) Major Projects identified as Investment Projects (“IP”).  
26 Typically, Major Projects are those having a Company investment of \$250,000 or greater.  
27 A copy of the 2021 Strategic Capital Expenditures Plan (“SCEP”) is attached to my  
28 testimony as **Petitioner’s Exhibit 2021 SCEP – KAS.**

1   **Q.     HOW IS THE CAPITAL INVESTMENT PLAN DEVELOPED?**

2   A.     Capital planning needs are addressed in both the short term (one year) and longer term (five  
3           years). Projects are prioritized using objective criteria that validate the need for a project  
4           and assess the risk of not performing the project. A key component of this planning  
5           technique is that it is flexible and can be adjusted when required to address new needs,  
6           such as unplanned equipment failures, large or sudden growth of a service area, or new  
7           regulatory requirements. TAWC's Engineering Department develops a proposed capital  
8           budget with input from Operations Supervisors and Project Managers and then shares the  
9           plan with the TAWC President and the TAWC Director of Operations for their review and  
10          approval. The proposed capital budget is also shared with the Service Company for review  
11          of the reasonableness of the projects proposed and their forecasted costs. Although the  
12          Service Company may make suggestions with respect to that budget, TAWC ultimately  
13          determines the Capital Investment Plan and approves the plan. This process is the basis  
14          for the capital expenditures reflected in the Company's Investment Plan.

15   **Q.     PLEASE DESCRIBE THE RECURRING PROJECTS THAT ARE INCLUDED**  
16          **WITHIN THE COMPANY'S CAPITAL INVESTMENT PLAN AS IT RELATES**  
17          **TO THE QIIP, EDI AND SEC PROGRAMS?**

18   A.     The Recurring Projects that are included within the Company's Capital Investment Plan  
19          and are related to the riders includes smaller main projects for reinforcement and  
20          replacement, replacement of hydrants and valves, service line and meter setting  
21          replacements, security improvements, plant control improvements, projects to replace and  
22          maintain treatment facilities and equipment and new mains, hydrants and valves to assist  
23          with economic development.

1 **Q. PLEASE DESCRIBE THE FACTORS USED IN THE PREPARATION OF THE**  
2 **FORECAST PERIOD AS IT RELATES TO THE RECURRING PROJECTS THAT**  
3 **ARE INCLUDED WITHIN THE COMPANY’S CAPITAL INVESTMENT PLAN?**

4 A. TAWC uses engineering criteria based on accepted engineering standards and practices to  
5 determine the amount of work needed on the distribution system or the treatment facilities  
6 that provide adequate capacity and appropriate levels of reliability. The identified work  
7 will enable TAWC to provide safe, adequate and reliable service to its Customers to meet  
8 their domestic, commercial and industrial needs; provide flows adequate for fire protection;  
9 and satisfy all regulatory and safety requirements. The criteria for evaluating the need for  
10 the recurring projects are engineering requirements; consideration of national, state and  
11 local trends; environmental impact evaluations; and water resource management. The  
12 criteria are developed from regulations, professional standards and TAWC engineering  
13 policies and procedures.

14 Main replacement projects or new main installations are designed to meet two conditions  
15 of service. They are expected to deliver projected peak hour Customer demands while  
16 maintaining system pressures at 25 psi or greater in accordance with TPUC pressure  
17 requirements (Chapter 1220-4-3.41) and to provide adequate fire flow identified by the  
18 Insurance Services Office (ISO) while maintaining distribution system pressure at 20 psi  
19 or greater.

20 TAWC utilizes historical and forecasted data to develop the program costs based on the  
21 determined level of work for each RP line.

1 **Q. PLEASE DESCRIBE HOW INVESTMENT PROJECTS ARE INCLUDED**  
2 **WITHIN THE COMPANY’S CAPITAL INVESTMENT PLAN?**

3 A. Investment Projects (IP) are typically projects greater than \$250,000 that the Company  
4 describes as Major Projects. These projects represent investments that are needed to meet  
5 environmental or water quality regulations, infrastructure capacity expansion or  
6 rehabilitation and to ensure a safe working environment. These projects allow the  
7 Company to ensure that they are able to meet the service demands of the community, ensure  
8 regulatory compliance and ensure the reduction of asset failure.

9 This determination of including an IP within the investment plan starts with a process that  
10 begins with the development of the anticipated demand projections of the system, the  
11 identification of improvements needed to meet those demands and a review of the current  
12 facilities located in the system. This process is documented through the Comprehensive  
13 Planning Study (“CPS”) and is the basis for the development of IPs. TAWC utilizes the  
14 CPS study along with a review of changes in the needs of the system that may have  
15 occurred since the development of the CPS and develops the schedule of projects within  
16 the Capital Investment Plan. TAWC plans these to bring about the correct prioritization  
17 and distribution of capital spending for the various needs of the business.

18 **Q. IN DEVELOPING ITS CAPITAL INVESTMENT PLAN, DOES THE COMPANY**  
19 **CONSIDER CUSTOMER IMPACT IN ADDITION TO CUSTOMER BENEFIT?**

20 A. Yes. The Capital Investment Plan takes into account historical spending as well as proposed  
21 improvements as documented through the CPS and knowledge of other current system  
22 needs. During the planning process, projects are strategically staggered over a five-year  
23 period to balance spending and ensure TAWC continues to provide safe, adequate and

reliable service to its Customers. Projects are chosen and scheduled in a prudent manner in order to balance the critical need for replacing aging infrastructure with system safety and reliability as well as Customer impact.

**Q. PLEASE DESCRIBE THE COMPANY'S RECENT PERFORMANCE FOR ITS CAPITAL INVESTMENT PLAN DURING THE USE OF QIIP, EDI AND SEC PROGRAMS?**

A. TAWC is projecting to deliver its capital investment plan with the QIIP, EDI and SEC programs during the period of 2014 to 2020 by slightly exceeding the budget by 2.88% on a cumulative basis over the period. Net capital rider investment budgets, actual capital investment deliveries, and variances to budgets by year are shown in the table below.

| TAWC Net Rider Budget vs Actual Rider Capex for 2014 through 2020 |               |               |             |        |
|-------------------------------------------------------------------|---------------|---------------|-------------|--------|
| Year                                                              | Budget        | Actual        | Variance    |        |
| 2014                                                              | \$18,337,559  | \$18,205,874  | (\$131,685) | -0.72% |
| 2015                                                              | \$17,539,272  | \$19,160,770  | \$1,621,498 | 9.24%  |
| 2016                                                              | \$12,429,427  | \$12,940,387  | \$510,960   | 4.11%  |
| 2017                                                              | \$12,033,965  | \$12,323,574  | \$289,609   | 2.41%  |
| 2018                                                              | \$13,053,960  | \$13,546,799  | \$492,839   | 3.78%  |
| 2019                                                              | \$19,285,896  | \$18,843,693  | (\$442,203) | -2.35% |
| 2020*                                                             | \$23,205,517  | \$24,096,259  | \$890,742   | 3.70%  |
| Cumulative                                                        | \$115,885,596 | \$119,117,356 | \$2,783,221 | 2.88%  |
| * Current Year End Projection as of September 2020                |               |               |             |        |

Since the inception of the Capital Riders, over 119 million dollars have been spent on critical water infrastructure projects which support the safety and reliability of the TAWC treatment and distribution systems for its Customers. The Capital Riders have also assisted the Company in achieving regulatory compliance with zero notices of violation. For example, during 2014 and 2015, the Company constructed a dewatering facility to ensure regulatory compliance with revised wastewater effluent standards under the City of

1 Chattanooga's EPA Wastewater Consent Decree. The new facility reduced naturally  
2 occurring levels of zinc in the Citico Plant's effluent to ensure the City and the Company  
3 achieved compliance with pretreatment standards under the Wastewater Consent Decree.  
4 Strict adherence to capital management processes have allowed the Company to manage  
5 this budget very closely to the yearly net rider budget and minimize deviations in the capital  
6 investment plan for the QIIP, EDI and SEC programs. This shows that the capital riders  
7 are working as intended for the benefit of the Company's Customers.

8 **Q. CAN YOU ELABORATE ON THE YEARLY VARIANCES BETWEEN THE NET**  
9 **RIDER BUDGET AND THE NET RIDER ACTUAL?**

10 A. Certainly. Since 2014, the Company has been able to successfully manage rider eligible  
11 projects to within 2.88% of budgeted costs on a cumulative basis. These variances have  
12 been kept very low because the Company uses a highly structured program to monitor  
13 project progress and spend. Countless variables can impact the cost and progress of capital  
14 projects. These variables include, but are not limited to, weather, fluctuations in material  
15 costs, special permitting requirements, site conditions and availability of construction  
16 crews. During the year, capital expenditures are closely managed to ensure estimated  
17 project costs and schedules are met. Closely monitoring these project costs and schedules  
18 has allowed the Company to very accurately deliver the capital budgets it has proposed.

19 **Q. HOW DOES THE RIDER SPEND PROPOSED FOR 2021 COMPARE TO PRIOR**  
20 **YEARS?**

21 A. On a net basis, the budgeted rider spend for 2021 is estimated to be approximately \$16.7M.  
22 This is about \$6.5M less than the budgeted amount for 2020 and \$2.1M less than the actual  
23 spend in 2019. It is also slightly less than the average yearly net rider spend from 2014

through 2020, which is approximately \$16.9M. See the table below for historical net rider spend since 2014.

| TAWC Net Rider Capex 2014 - 2021 |              |              |
|----------------------------------|--------------|--------------|
| Year                             | Budgeted     | Actual       |
| 2014                             |              | \$18,205,874 |
| 2015                             |              | \$19,160,770 |
| 2016                             |              | \$12,940,387 |
| 2017                             |              | \$12,323,574 |
| 2018                             |              | \$13,546,799 |
| 2019                             |              | \$18,843,693 |
| 2020                             | \$23,205,517 |              |
| 2021                             | \$16,699,656 |              |

**Q. THE PROPOSED SURCHARGE ADJUSTMENT FOR 2021 IS 5.88%. WHAT CONTRIBUTES TO THIS PROPOSED ADJUSTMENT?**

A. As mentioned in my testimony above, the proposed 2021 capital rider spend is slightly less than the 2014-2020 average yearly net rider spend. However, several significant projects went in-service in the later part of 2020 and are therefore included in the 13-month average for 2021. This roll forward effect from 2020 has a significant impact on the percentage of the overall proposed surcharge for 2021.

**Q. WHAT 2020 PROJECTS ARE HAVING A SIGNIFICANT IMPACT ON THE 2021 PROPOSED SURCHARGE?**

A. The most significant of these projects is the Replace Basin 2 and Plate Settlers Investment Project. This project consisted of replacing a century year old concrete sedimentation basin and greatly increased the treatment capacity of the basin by using newer treatment technology. The efficiencies gained by this new basin will allow TAWC to improve both treatment resiliency and operational efficiency. The improved treatment capacity of the

1 new basin will also allow TAWC to take another existing sedimentation basin out of  
2 service rather than replace it, thereby saving Customers the cost of an additional basin  
3 replacement project. Other significant 2020 projects that impact the 2021 proposed  
4 surcharge include increased spending on several reoccurring projects or RP budget lines  
5 including Budget Line B – Mains Replaced.

6 **Q. WILL THESE PROJECTS IMPACT FUTURE YEARS?**

7 A. No. These projects will roll off the 13-month average in 2021.

8 **Q. WHAT IS THE TOTAL ROLL FORWARD AMOUNT FOR ALL OF THE**  
9 **PROJECTS PLACED IN-SERVICE DURING THE LATER PART OF 2020 THAT**  
10 **ARE INCLUDED IN THE 13-MONTH AVERAGE FOR 2021?**

11 A. \$12,270,690.00.

12  
13 **Q. CAN YOU DESCRIBE HOW THE CAPITAL INVESTMENT PLAN IS**  
14 **MONITORED DURING THE YEAR?**

15 A. Since 2003, the entire American Water system has used a process for the development and  
16 review of capital expenditures that has incorporated industry best practices. TAWC, like  
17 its sister companies, has benefitted from that process. The process includes a regional  
18 Capital Investment Management Committee (“CIMC”) to ensure capital investment plans  
19 meet the strategic intent of the business. In turn, this ensures that capital investment plans  
20 are integrated with operating expense plans, and provides more effective controls on  
21 budgets and individual capital projects.

22 The CIMC includes the TAWC President, Director of Operations, Engineering  
23 Project Managers, Engineering Manager, Financial Analyst, and Capital Coordinator. The  
24 CIMC meets monthly. The CIMC receives capital expenditure plans from project

1 managers and approves them as required by the process. Once budgets are approved, the  
2 CIMC meets monthly to review capital expenditures compared to budgeted levels.  
3 Discussions are held on variances to budgets that include the reason for the variance and  
4 suggestions to bring the budget lines back in line with the approved budget.

5 If changes in the budgets are required due to changes in priorities or unexpected  
6 expenditures, then the CIMC reviews the request for changes and approves the movement  
7 of available capital from other budget lines to offset the changes in the capital spend. All  
8 projects, including normal recurring items, have an identified project manager responsible  
9 for processing the stages of the project. The focus of the CIMC, along with the monthly  
10 meetings, has allowed TAWC to be more flexible with changes that inevitably occur during  
11 the course of implementation of projects while providing oversight on capital expenditures.

### 12 13 **ECONOMIC DEVELOPMENT INVESTMENT PROGRAM**

#### 14 **Q. WHAT IS THE ECONOMIC DEVELOPMENT INVESTMENT RIDER?**

15 A. This rider provides a mechanism to recover the operational expenses, capital costs or both  
16 related to the expansion of infrastructure for the purpose of economic development. With  
17 economic development opportunities being limited and the competition for each  
18 development fierce, the rider allows infrastructure to be expanded or enhanced to respond  
19 quickly and equitably to economic development that will benefit all of the consumers.

#### 20 **Q. WHAT ARE THE BUDGET LINES THAT ARE INCLUDED UNDER THE** 21 **ECONOMIC DEVELOPMENT INVESTMENT RIDER?**

22 A. The budget lines that are included in the Economic Development Investment Rider are  
23 Line A - Mains New and Line E - Hydrants and Valves New. These budget lines support

1 the economic development of the community and place the distribution system in a position  
2 to aid new development within the service area.

3 **Q. WHAT WORK IS ASSOCIATED WITH MAINS NEW - LINE A AND WHY IS**  
4 **THIS APPROPRIATE FOR THE EDI RIDER?**

5 **A.** This line item includes new water mains, valves, and other appurtenances that are necessary  
6 to perform the work that assist with the economic growth of the community. This work  
7 includes the installation of new infrastructure to expand or extend the distribution system  
8 that supports economic growth in the community and is appropriate to be included within  
9 the EDI Rider.

10 **Q. WHAT OTHER WORK IS ASSOCIATED WITH MAIN NEW – LINE A AND**  
11 **WHY IS THIS ADDITIONAL WORK APPROPRIATE FOR THE EDI RIDER?**

12 **A.** In addition to the extension or expansion of the distribution system to assist with an  
13 economic development project, Line A work can also be related to the extension or  
14 expansion of new mains that position the distribution system to be able to support future  
15 growth of the community. In addition, Line A work includes new mains that provide new  
16 transmission capacity, provide reliability, or establish an additional pressure gradient. This  
17 work is considered appropriate for the EDI Rider because it enhances the distribution  
18 system and allows it to respond quickly to future growth of the community. These types  
19 of projects promote growth and are designed to accommodate future growth in the  
20 surrounding areas. Among other ways, the Customer benefits from these projects through  
21 their enhancement of the distribution system and improvement in reliability.

22 **Q. WHAT IS THE PROPOSED INVESTMENT ANTICIPATED FOR NEW WATER**  
23 **MAIN ASSOCIATED WITH LINE A.**

1 A. TAWC plans to spend approximately \$275,616 on various size water mains within the  
2 distribution system that are associated with eliminating dead ends or positioning the  
3 distribution system for future development. At this time, the Company has identified one  
4 new main project. In Chattanooga, a 2,300 lineal foot 12-inch extension along Cummings  
5 Road is needed to provide a secondary feed into an area on the western end of the system.  
6 This project was initially projected to be completed in 2020. However, another project to  
7 supply water to a new development in East Ridge took precedence. Therefore, the  
8 Cummings Road Project was designed in 2020 and construction is slated to occur in 2021.  
9 The historical five-year average spend for 2015 to 2019 for new mains is \$437,594 per  
10 year. The Company believes that the Cumming Road project is important to ensure  
11 capacity and the continued reliability of our system.

12 **Q. WHAT WORK IS ASSOCIATED WITH NEW HYDRANTS AND VALVES – LINE**  
13 **E AND WHY IS THIS APPROPRIATE FOR THE EDI RIDER?**

14 A. This investment plan item includes the installation of new hydrants, including hydrant  
15 assemblies and valves that are installed on existing mains or installed in conjunction with  
16 main extension projects, which are Company funded. This item generally includes all  
17 public hydrants. This work is associated with the installation of new infrastructure to foster  
18 economic development by providing new fire protection or enhancing fire protection in  
19 currently served areas. Improved infrastructure in existing older service areas, including  
20 fire protection, is a key to redevelopment in economic growth and is appropriate to be  
21 included within the EDI Rider.

22 **Q. WHAT IS THE PROPOSED SCHEDULE FOR NEW HYDRANTS AND VALVES?**

1 A. TAWC plans to spend approximately \$124,499 on a combination of 22 new hydrants and  
2 9 valves. This is a slight increase over the five-year average between 2015 and 2019 of  
3 \$101,581. TAWC believes that with the improving economic health of the communities  
4 served the level of investment will increase to serve the growing economic development.

5 **Q. ARE THERE ANY CAPITAL INVESTMENT PROJECTS (IP) INCLUDED UNDER**  
6 **THE ECONOMIC DEVELOPMENT RIDER?**

7 A. No. There are no additional qualifying projects.

8 **SAFETY AND ENVIRONMENTAL COMPLIANCE RIDER**

9 **Q. WHAT IS THE SAFETY AND ENVIORNMENTAL COMPLAINCE RIDER?**

10 A. In addition to the need for capital investment for replacement of aging infrastructure, and  
11 the need for investment in infrastructure for economic development, water and wastewater  
12 utilities are continually faced with the additional infrastructure investment requirements to  
13 meet safety and environmental compliance mandates from state and federal government.  
14 The United States Environmental Protection Agency is continually increasing water quality  
15 standards for potable drinking water and discharge requirements for wastewater facilities.  
16 Other regulatory agencies from time to time change safety and environmental compliance  
17 requirements that lead to the need for further infrastructure investment. TAWC believes  
18 that environmental compliance investments are specifically related to the safety of the  
19 drinking water and in the public interest.

20 **Q. WHAT ARE THE BUDGET LINES THAT ARE INCLUDED UNDER THE**  
21 **SAFETY AND ENVIRONMENTAL COMPLIANCE PROGRAM RIDER?**

22 A. The budget lines that are included in the Safety and Environmental Compliance Rider are  
23 Line L - SCADA Equipment and Systems, Line M - Security Equipment and Systems and

Line Q - Process Plant Facilities and Equipment. These budget lines support the improvement of safety and enhances the environmental compliance of the system.

**Q. WHAT WORK IS ASSOCIATED WITH SCADA EQUIPMENT AND SYSTEMS - LINE L AND HOW IS IT RELATED TO THE SEC?**

A. This investment item is for the installation or replacement of existing SCADA Equipment and Systems. The acronym SCADA can be defined in several slightly different ways. However, TAWC generally prefers the definition as System Control and Data Acquisition, which is the computerized system for monitoring and operating the treatment plants and network facilities. By making investment in the monitoring and control system for the treatment plants and the network facilities, TAWC is able to ensure that the operation of the system is meeting safety and environmental requirements and is appropriate to be included in the SEC.

**Q. WHAT IS THE PROPOSED INVESTMENT ANTICIPATED TO SCADA ASSOCIATED WITH LINE L?**

A. TAWC plans to spend approximately \$160,000 on various SCADA improvements throughout the system. A majority of the spending will be associated with replacement work at remote sites. In addition, some licensing fees are required to maintain SCADA (supervisory control and data acquisition) software. This matches up to the five-year average spend of 176,967 for the years between 2015 and 2019.

**Q. WHAT WORK IS ASSOCIATED WITH SECURITY EQUIPMENT AND SYSTEMS - LINE M AND HOW IS IT RELATED TO THE SEC?**

A. This investment item is associated with the security equipment and systems that are employed at the TAWC facilities. This may include fencing, alarm systems, cameras,

1 barricades, electronic detection or locking systems, software, or other assets related directly  
2 to security. These improvements allow TAWC to maintain its security system and follow  
3 the Homeland Security Directive 9 to *“develop robust, comprehensive, and fully*  
4 *coordinated surveillance and monitoring systems.”* TAWC believes it is paramount to  
5 ensure that its facilities are monitored actively. These improvements will maintain the  
6 equipment and ensure current technology is employed to provide safe drinking water and  
7 protect its infrastructure and are appropriate to be included in the SEC.

8  
9 **Q. WHAT IS THE PROPOSED SCHEDULE FOR SECURITY EQUIPMENT AND**  
10 **SYSTEMS?**

11 A. TAWC plans to spend approximately \$154,800 on a combination of upgrades to existing  
12 security systems to improve the security of the existing facilities. TAWC believes this  
13 level of spend on the installation and enhancement of the facility security systems will  
14 ensure a sufficient level of health and safety risk reduction for the Company’s employees.

15 **Q. WHAT WORK IS ASSOCIATED WITH PROCESS PLANT FACILITIES AND**  
16 **EQUIPMENT – LINE Q AND HOW IS IT RELATED TO THE SEC?**

17 A. This investment line item is for the new purchase or replacement of existing components  
18 of water supply, water treatment, water pumping, water storage, and water pressure  
19 regulation facilities, including associated building components and equipment.  
20 Replacements may be planned or made because of failure or may include improvements.  
21 Through the investment in the improvements associated with this spending line, TAWC is  
22 able to ensure compliance with federal and state safety and environmental compliance  
23 requirements that will ensure safe drinking water. By ensuring compliance with federal  
24 and state requirements, these investments are appropriate to be included in the SEC.

1 **Q. WHAT IS THE PROPOSED SCHEDULE FOR PROCESS PLANT FACILITIES**  
2 **AND EQUIPMENT IMPROVEMENTS WITHIN LINE Q?**

3 A. TAWC plans to spend approximately \$1,615,000 within the Process Plant Facilities and  
4 Equipment Improvements within Line Q. This level of investment is a slight increase in  
5 the line compared with the five-year average spending of \$1,394,595 over the period of  
6 2015 to 2019. Larger items projected for 2021 include a pump, drive and starter at  
7 Missionary Ridge Station as well as a valve associated with the high service pumps at the  
8 Citico Plant.

9 **Q. BESIDES THE REPLACEMENT OF PROCESS PLANT FACILITIES AND**  
10 **EQUIPMENT DUE TO A FACILITY OR PIECE OF EQUIPEMENT BEING AT**  
11 **THE END OF ITS USEFUL LIFE, WHAT BENEFITS DOES WORK**  
12 **PERFORMED UNDER LINE Q PROVIDES?**

13 A. A majority of the work performed by TAWC within Line Q is the replacement of older  
14 equipment with new equipment that is far more efficient than the original equipment. This  
15 allows TAWC to produce water more efficiently and use less electricity and allows the  
16 Company to take a leadership role in reducing its carbon footprint. TAWC has elected to  
17 include both replacement and new items in this line specifically that are critically necessary  
18 to continue to meet water quality regulations.

19 **Q. ARE THERE ANY SEC IP PROJECTS THAT WILL START IN 2021 THAT WILL**  
20 **GO IN TO SERVICE IN FUTURE YEARS AFTER 2021?**

21 A. Yes. Some projects can span multiple years from the design and planning phase to the end  
22 of construction. TAWC plans to spend an estimated \$502,663 for design, planning,  
23 permitting and construction on one IP project that will go in to service after 2021.

1    **Q.     DOES THIS CONCLUDE YOUR DIRECT TESTIMONY?**

2    A.     Yes.

STRATEGIC CAPITAL EXPENDITURE PLAN  
PROGRAM

Petitioner's Exhibit - 2020 SCEP - KAS  
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|               |                      |
|---------------|----------------------|
| Business Unit | Tennessee            |
| Revision Date | November 19, 2020    |
| Description   | TN BP 2021-2025 SCEP |

2020

| Business Unit                                               | Rider | Business Unit No. | Project Title                                 |            |  | 1         | 2           | 3           | 4           | 5           | 6           |
|-------------------------------------------------------------|-------|-------------------|-----------------------------------------------|------------|--|-----------|-------------|-------------|-------------|-------------|-------------|
| Tennessee                                                   | None  | DV                | Projects Funded by Others                     |            |  | \$10,000  | \$10,000    | \$50,000    | \$80,000    | \$150,000   | \$150,000   |
| Tennessee                                                   | EDI   | A                 | Mains - New                                   |            |  | 0         | 31,880      | 55,013      | 84,713      | 87,533      | 11,525      |
| Tennessee                                                   | QIIP  | B                 | Mains - Replaced / Restored                   |            |  | 75,000    | 75,000      | 115,000     | 216,590     | 240,783     | 250,000     |
| Tennessee                                                   | QIIP  | C                 | Mains - Unscheduled                           |            |  | 164,182   | 173,645     | 161,217     | 119,254     | 115,554     | 105,187     |
| Tennessee                                                   | QIIP  | D                 | Mains - Relocated                             |            |  | 10,627    | 16,567      | 26,008      | 26,823      | 27,324      | 24,481      |
| Tennessee                                                   | EDI   | E                 | Hydrants, Valves, and Manholes - New          |            |  | 6,110     | 7,268       | 8,206       | 12,695      | 13,411      | 13,803      |
| Tennessee                                                   | QIIP  | F                 | Hydrants, Valves, and Manholes - Replaced     |            |  | 23,113    | 29,258      | 33,010      | 44,858      | 43,532      | 49,395      |
| Tennessee                                                   | None  | G                 | Services and Laterals - New                   |            |  | 89,105    | 96,006      | 100,853     | 109,475     | 112,126     | 111,167     |
| Tennessee                                                   | QIIP  | H                 | Services and Laterals - Replaced              |            |  | 16,126    | 23,000      | 23,604      | 35,000      | 41,000      | 44,596      |
| Tennessee                                                   | None  | I                 | Meters - New                                  |            |  | 11,025    | 12,738      | 13,477      | 15,720      | 21,163      | 24,349      |
| Tennessee                                                   | QIIP  | J                 | Meters - Replaced                             |            |  | 32,411    | 39,875      | 43,469      | 43,876      | 108,987     | 141,000     |
| Tennessee                                                   | None  | K                 | ITS Equipment and Systems                     |            |  | 187,500   | 215,661     | 214,665     | 218,825     | 216,700     | 218,857     |
| Tennessee                                                   | SEC   | L                 | SCADA Equipment and Systems                   |            |  | 0         | 0           | 0           | 0           | 0           | 0           |
| Tennessee                                                   | SEC   | M                 | Security Equipment and Systems                |            |  | 6,376     | 7,815       | 10,379      | 11,098      | 14,443      | 14,662      |
| Tennessee                                                   | None  | N                 | Offices and Operations Centers                |            |  | 0         | 0           | 4,569       | 269         | 269         | 4,569       |
| Tennessee                                                   | None  | O                 | Vehicles                                      |            |  | 0         | 0           | 157,275     | 9,275       | 9,275       | 201,999     |
| Tennessee                                                   | None  | P                 | Tools and Equipment                           |            |  | 3,718     | 3,939       | 20,895      | 5,145       | 5,145       | 23,020      |
| Tennessee                                                   | SEC   | Q                 | Process Plant Facilities and Equipment        |            |  | 75,000    | 75,000      | 75,000      | 75,000      | 75,000      | 75,000      |
| Tennessee                                                   | QIIP  | R                 | Capitalized Tank Rehabilitation/Painting      |            |  | 0         | 0           | 0           | 0           | 0           | 0           |
| Tennessee                                                   | None  | S                 | Engineering Studies                           |            |  | 5,646     | 5,979       | 11,293      | 11,586      | 11,880      | 11,880      |
| Total Recurring Projects                                    |       |                   |                                               |            |  | 705,939   | 813,630     | 1,073,935   | 1,040,203   | 1,144,127   | 1,325,492   |
| ACQUISITIONS                                                |       |                   |                                               |            |  |           |             |             |             |             |             |
| Total Acquisitions                                          |       |                   |                                               |            |  | 0         | 0           | 0           | 0           | 0           | 0           |
| INVESTMENT PROJECTS                                         |       |                   |                                               |            |  |           |             |             |             |             |             |
| Total                                                       |       |                   |                                               |            |  |           |             |             |             |             |             |
| In Service Date                                             |       |                   |                                               |            |  |           |             |             |             |             |             |
| Tennessee                                                   | QIIP  | I26-020039        | Basin 2 & Plate Settlers                      | 10/31/2020 |  | 126,548   | 125,476     | 126,280     | 0           | 0           | 0           |
| Tennessee                                                   | SEC   | I26-020044        | New Raw Water Intake - Citico                 | 12/1/2023  |  | 0         | 0           | 0           | 0           | 0           | 0           |
| Tennessee                                                   | QIIP  | I26-020048        | Replace Elder Mt Transmission Main            | 10/31/2023 |  | 0         | 0           | 0           | 0           | 0           | 0           |
| Tennessee                                                   | SEC   | I26-020051        | Replace Switch Gear - Citico                  | 10/31/2022 |  | 0         | 0           | 48,405      | 48,697      | 48,991      | 49,286      |
| Tennessee                                                   | QIIP  | I26-020055        | Lookout Valley Redun - St Elmo Booster Imprv  | 9/30/2024  |  | 0         | 0           | 0           | 0           | 0           | 0           |
| Tennessee                                                   | SEC   | I26-020058        | New Low Service Pump Station - Citico         | 12/1/2026  |  | 0         | 0           | 0           | 0           | 0           | 0           |
| Tennessee                                                   | QIIP  | I26-020060        | Replace High Service Header Valve - Citico    | 10/1/2021  |  | 970       | 101,013     | 102,015     | 103,313     | 207,200     | 1,079,744   |
| Tennessee                                                   | QIIP  | I26-020062        | Filter House #2 Rehab                         | 1/15/2022  |  | 6,025     | 11,403      | 153,500     | 153,500     | 153,500     | 142,635     |
| Tennessee                                                   | QIIP  | I26-02xxxx        | Lookout Valley Redun - Piping Upgrade/Booster | 11/30/2022 |  | 25,852    | 25,972      | 26,129      | 26,286      | 26,444      | 26,604      |
| Tennessee                                                   | QIIP  | I26-02xxxx        | Lookout Valley Redun - River Crossing         | 10/30/2022 |  | 0         | 26,892      | 27,054      | 27,217      | 27,381      | 27,546      |
| Tennessee                                                   | QIIP  | I26-02xxxx        | Lookout Valley Redun - Citico Tank            | 12/30/2021 |  | 34,959    | 35,170      | 35,382      | 35,595      | 35,810      | 36,026      |
| Tennessee                                                   | QIIP  | I26-02xxxx        | Lookout Valley Redun - Lookout Valley Tank    | 12/31/2024 |  | 0         | 0           | 0           | 0           | 0           | 0           |
| Tennessee                                                   | None  | I26-02xxxx        | Chattanooga Ops Center                        | 11/1/2022  |  | 0         | 0           | 107,567     | 108,216     | 108,868     | 109,524     |
| Tennessee                                                   | SEC   | I26-050001        | Raw Water Intake Improvements - Whitwell      | 11/1/2022  |  | 0         | 0           | 0           | 0           | 0           | 0           |
| Tennessee                                                   | QIIP  | I26-050003        | Replace Two 0.5 MG Storage Tanks (Seq Valley) | 8/30/2022  |  | 0         | 0           | 0           | 0           | 0           | 0           |
| Tennessee                                                   | QIIP  | I26-05xxxx        | Francis Springs Rd (Sequatchie Valley)        | 10/31/2023 |  | 0         | 0           | 0           | 0           | 0           | 0           |
| Tennessee                                                   | None  | I26-xxxxxx        | GIS Project                                   | 9/30/2021  |  | 89,639    | 90,179      | 90,723      | 91,270      | 91,820      | 92,374      |
| Tennessee                                                   | None  | I26-000002        | Post Acquisition BD Capex                     |            |  |           |             |             |             |             |             |
| Total Investment Projects                                   |       |                   |                                               |            |  | \$283,993 | \$416,105   | \$717,054   | \$594,093   | \$700,014   | \$1,563,739 |
| Contributions                                               |       |                   |                                               |            |  | (20,000)  | (20,000)    | (20,000)    | (20,000)    | (20,000)    | (20,000)    |
| Advances                                                    |       |                   |                                               |            |  | (58,333)  | (58,333)    | (58,333)    | (58,333)    | (58,333)    | (58,333)    |
| Total Refunds                                               |       |                   |                                               |            |  | 29,167    | 29,167      | 29,167      | 29,167      | 29,167      | 29,167      |
| Gross                                                       |       |                   |                                               |            |  | \$999,932 | \$1,239,735 | \$1,840,989 | \$1,714,296 | \$1,994,140 | \$3,039,231 |
| *Dollar amounts from TAWC's Annual Capital Planning Process |       |                   |                                               |            |  | (49,167)  | (49,167)    | (49,167)    | (49,167)    | (49,167)    | (49,167)    |
| Net                                                         |       |                   |                                               |            |  | \$950,765 | \$1,190,569 | \$1,791,822 | \$1,665,130 | \$1,944,974 | \$2,990,064 |
| Gross minus Post Acq                                        |       |                   |                                               |            |  | \$999,932 | \$1,239,735 | \$1,840,989 | \$1,714,296 | \$1,994,140 | \$3,039,231 |
| Net minus Post Acq                                          |       |                   |                                               |            |  | (49,167)  | (49,167)    | (49,167)    | (49,167)    | (49,167)    | (49,167)    |
|                                                             |       |                   |                                               |            |  | \$950,765 | \$1,190,569 | \$1,791,822 | \$1,665,130 | \$1,944,974 | \$2,990,064 |

**STRATEGIC CAPITAL EXPENDITURE PLAN  
PROGRAM**

Petitioner's Exhibit - 2020 SCEP - KAS  
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|               |                      |
|---------------|----------------------|
| Business Unit | Tennessee            |
| Revision Date | November 19, 2020    |
| Description   | TN BP 2021-2025 SCEP |

| U.S. \$                          |       |                   |                                               |                    |                    |                    |                    |                    |                    |                     |
|----------------------------------|-------|-------------------|-----------------------------------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|---------------------|
| Business Unit                    | Rider | Business Unit No. | Project Title                                 | 7                  | 8                  | 9                  | 10                 | 11                 | 12                 | Total 2020          |
| Tennessee                        | None  | DV                | Projects Funded by Others                     | \$90,000           | \$80,000           | \$80,000           | \$80,000           | \$120,000          | \$100,000          | \$1,000,000         |
| Tennessee                        | EDI   | A                 | Mains - New                                   | 4,825              | 125                | 0                  | 0                  | 0                  | 0                  | 275,616             |
| Tennessee                        | QIIP  | B                 | Mains - Replaced / Restored                   | 275,000            | 260,426            | 252,890            | 228,503            | 201,683            | 192,349            | 2,383,224           |
| Tennessee                        | QIIP  | C                 | Mains - Unscheduled                           | 103,389            | 108,154            | 108,389            | 108,742            | 116,143            | 181,143            | 1,565,000           |
| Tennessee                        | QIIP  | D                 | Mains - Relocated                             | 23,968             | 25,906             | 26,011             | 5,574              | 1,545              | 166                | 215,000             |
| Tennessee                        | EDI   | E                 | Hydrants, Valves, and Manholes - New          | 13,812             | 13,945             | 10,498             | 9,933              | 8,311              | 6,508              | 124,499             |
| Tennessee                        | QIIP  | F                 | Hydrants, Valves, and Manholes - Replaced     | 49,583             | 52,708             | 50,593             | 45,577             | 32,467             | 31,906             | 486,000             |
| Tennessee                        | None  | G                 | Services and Laterals - New                   | 121,324            | 121,242            | 121,114            | 121,077            | 120,256            | 97,504             | 1,321,250           |
| Tennessee                        | QIIP  | H                 | Services and Laterals - Replaced              | 50,000             | 41,230             | 41,000             | 40,000             | 35,000             | 35,000             | 425,557             |
| Tennessee                        | None  | I                 | Meters - New                                  | 26,331             | 26,582             | 23,121             | 19,023             | 16,435             | 16,033             | 225,999             |
| Tennessee                        | QIIP  | J                 | Meters - Replaced                             | 148,000            | 148,000            | 231,000            | 200,000            | 125,000            | 80,000             | 1,341,618           |
| Tennessee                        | None  | K                 | ITS Equipment and Systems                     | 216,200            | 218,825            | 216,700            | 219,211            | 217,643            | 213,874            | 2,574,660           |
| Tennessee                        | SEC   | L                 | SCADA Equipment and Systems                   | 0                  | 0                  | 0                  | 53,333             | 53,333             | 53,334             | 160,000             |
| Tennessee                        | SEC   | M                 | Security Equipment and Systems                | 20,163             | 20,477             | 15,477             | 15,125             | 11,128             | 7,657              | 154,800             |
| Tennessee                        | None  | N                 | Offices and Operations Centers                | 269                | 269                | 4,569              | 269                | 269                | 4,675              | 20,000              |
| Tennessee                        | None  | O                 | Vehicles                                      | 11,912             | 11,912             | 157,275            | 9,275              | 162,751            | 9,051              | 739,999             |
| Tennessee                        | None  | P                 | Tools and Equipment                           | 5,270              | 5,270              | 24,174             | 5,338              | 5,338              | 22,746             | 130,000             |
| Tennessee                        | SEC   | Q                 | Process Plant Facilities and Equipment        | 75,000             | 125,000            | 125,000            | 100,000            | 100,000            | 50,000             | 1,025,000           |
| Tennessee                        | QIIP  | R                 | Capitalized Tank Rehabilitation/Painting      | 0                  | 250,000            | 250,000            | 250,000            | 250,000            | 26,210             | 1,026,210           |
| Tennessee                        | None  | S                 | Engineering Studies                           | 11,880             | 11,880             | 11,880             | 11,880             | 11,880             | 7,336              | 125,000             |
| <b>Total Recurring Projects</b>  |       |                   |                                               | <b>1,156,927</b>   | <b>1,441,951</b>   | <b>1,669,692</b>   | <b>1,442,860</b>   | <b>1,469,184</b>   | <b>1,035,493</b>   | <b>15,319,432</b>   |
| <b>ACQUISITIONS</b>              |       |                   |                                               |                    |                    |                    |                    |                    |                    | 0                   |
| <b>Total Acquisitions</b>        |       |                   |                                               | <b>0</b>           | <b>0</b>           | <b>0</b>           | <b>0</b>           | <b>0</b>           | <b>0</b>           | <b>0</b>            |
| <b>INVESTMENT PROJECTS</b>       |       |                   |                                               |                    |                    |                    |                    |                    |                    |                     |
| Tennessee                        | QIIP  | I26-020039        | Basin 2 & Plate Settlers                      | 0                  | 0                  | 0                  | 0                  | 0                  | 0                  | 378,303             |
| Tennessee                        | SEC   | I26-020044        | New Raw Water Intake - Citico                 | 0                  | 0                  | 0                  | 0                  | 0                  | 0                  | 0                   |
| Tennessee                        | QIIP  | I26-020048        | Replace Elder Mt Transmission Main            | 0                  | 0                  | 0                  | 0                  | 0                  | 0                  | 0                   |
| Tennessee                        | SEC   | I26-020051        | Replace Switch Gear - Citico                  | 49,583             | 49,882             | 50,183             | 50,485             | 52,817             | 54,335             | 502,663             |
| Tennessee                        | QIIP  | I26-020055        | Lookout Valley Redun - St Elmo Booster Imprv  | 0                  | 0                  | 0                  | 0                  | 0                  | 0                  | 0                   |
| Tennessee                        | SEC   | I26-020058        | New Low Service Pump Station - Citico         | 0                  | 0                  | 0                  | 0                  | 0                  | 0                  | 0                   |
| Tennessee                        | QIIP  | I26-020060        | Replace High Service Header Valve - Citico    | 268,741            | 220,880            | 53,622             | 0                  | 0                  | 0                  | 2,137,498           |
| Tennessee                        | QIIP  | I26-020062        | Filter House #2 Rehab                         | 140,946            | 215,781            | 215,781            | 116,819            | 81,322             | 81,322             | 1,472,534           |
| Tennessee                        | QIIP  | I26-02xxxx        | Lookout Valley Redun - Piping Upgrade/Booster | 26,764             | 26,926             | 27,088             | 1,435              | 1,444              | 0                  | 240,943             |
| Tennessee                        | QIIP  | I26-02xxxx        | Lookout Valley Redun - River Crossing         | 27,712             | 27,879             | 28,047             | 28,216             | 28,386             | 28,558             | 304,889             |
| Tennessee                        | QIIP  | I26-02xxxx        | Lookout Valley Redun - Citico Tank            | 318,607            | 379,690            | 418,697            | 384,502            | 413,712            | 352,152            | 2,480,302           |
| Tennessee                        | QIIP  | I26-02xxxx        | Lookout Valley Redun - Lookout Valley Tank    | 0                  | 0                  | 0                  | 0                  | 0                  | 0                  | 0                   |
| Tennessee                        | None  | I26-02xxxx        | Chattanooga Ops Center                        | 110,184            | 110,849            | 192,192            | 208,267            | 221,498            | 222,833            | 1,500,000           |
| Tennessee                        | SEC   | I26-050001        | Raw Water Intake Improvements - Whitwell      | 0                  | 0                  | 0                  | 0                  | 0                  | 0                  | 0                   |
| Tennessee                        | QIIP  | I26-050003        | Replace Two 0.5 MG Storage Tanks (Seq Valley) | 0                  | 39,557             | 39,795             | 40,035             | 40,276             | 962                | 160,626             |
| Tennessee                        | QIIP  | I26-05xxxx        | Francis Springs Rd (Sequatchie Valley)        | 0                  | 0                  | 0                  | 0                  | 0                  | 0                  | 0                   |
| Tennessee                        | None  | I26-xxxxxx        | GIS Project                                   | 92,930             | 93,491             | 94,054             | 0                  | 0                  | 0                  | 826,480             |
| Tennessee                        | None  | I26-000002        | Post Acquisition BD Capex                     |                    |                    |                    |                    |                    |                    |                     |
| <b>Total Investment Projects</b> |       |                   |                                               | <b>\$1,035,469</b> | <b>\$1,164,934</b> | <b>\$1,119,459</b> | <b>\$829,761</b>   | <b>\$839,456</b>   | <b>\$740,162</b>   | <b>\$10,004,239</b> |
| <b>Contributions</b>             |       |                   |                                               | <b>(20,000)</b>    | <b>(20,000)</b>    | <b>(20,000)</b>    | <b>(20,000)</b>    | <b>(20,000)</b>    | <b>(20,000)</b>    | <b>(240,000)</b>    |
| <b>Advances</b>                  |       |                   |                                               | <b>(58,333)</b>    | <b>(58,333)</b>    | <b>(58,333)</b>    | <b>(58,333)</b>    | <b>(58,333)</b>    | <b>(58,333)</b>    | <b>(700,000)</b>    |
| <b>Total Refunds</b>             |       |                   |                                               | <b>29,167</b>      | <b>29,167</b>      | <b>29,167</b>      | <b>29,167</b>      | <b>29,167</b>      | <b>29,167</b>      | <b>350,000</b>      |
|                                  |       |                   |                                               |                    |                    |                    |                    |                    |                    |                     |
| <b>Gross</b>                     |       |                   |                                               | <b>\$2,282,396</b> | <b>\$2,686,885</b> | <b>\$2,869,151</b> | <b>\$2,352,621</b> | <b>\$2,428,640</b> | <b>\$1,875,655</b> | <b>\$25,323,671</b> |
|                                  |       |                   |                                               | <b>(49,167)</b>    | <b>(49,167)</b>    | <b>(49,167)</b>    | <b>(49,167)</b>    | <b>(49,167)</b>    | <b>(49,167)</b>    | <b>(590,000)</b>    |
| <b>Net</b>                       |       |                   |                                               | <b>\$2,233,230</b> | <b>\$2,637,718</b> | <b>\$2,819,984</b> | <b>\$2,303,454</b> | <b>\$2,379,473</b> | <b>\$1,826,488</b> | <b>\$24,733,671</b> |
|                                  |       |                   |                                               |                    |                    |                    |                    |                    |                    |                     |
| <b>Gross minus Post Acq</b>      |       |                   |                                               | <b>\$2,282,396</b> | <b>\$2,686,885</b> | <b>\$2,869,151</b> | <b>\$2,352,621</b> | <b>\$2,428,640</b> | <b>\$1,875,655</b> | <b>\$25,323,671</b> |
|                                  |       |                   |                                               | <b>(49,167)</b>    | <b>(49,167)</b>    | <b>(49,167)</b>    | <b>(49,167)</b>    | <b>(49,167)</b>    | <b>(49,167)</b>    | <b>(590,000)</b>    |
| <b>Net minus Post Acq</b>        |       |                   |                                               | <b>\$2,233,230</b> | <b>\$2,637,718</b> | <b>\$2,819,984</b> | <b>\$2,303,454</b> | <b>\$2,379,473</b> | <b>\$1,826,488</b> | <b>\$24,733,671</b> |

\*Dollar amounts from TAWC's Annual Capital Planning Process

STATE OF Kentucky )  
COUNTY OF Fayette )

BEFORE ME, the undersigned authority, duly commissioned and qualified in and for the State and County aforesaid, personally came and appeared Kurt A. Stafford, being by me first duly sworn depose and said that:

He is appearing as a witness on behalf of Tennessee-American Water Company before the Tennessee Public Utility Commission, and if present before the Commission and duly sworn, his testimony would be as set forth in his pre-filed testimony in this matter.

*Kurt Stafford*

Kurt A. Stafford

Sworn to and subscribed before me  
this 23<sup>rd</sup> day of November, 2020.

*Sharon Miller*  
Notary Public ID # KYNP9273

My Commission Expires: 7/25/24