Electronically Filed in TPUC Docket Room February 28, 2020 12:54 p.m.

PETITIONER'S EXHIBIT KAS-1

TENNESSEE-AMERICAN WATER COMPANY, INC

DOCKET NO. 20- 00028

DIRECT TESTIMONY

OF

KURT A. STAFFORD, P.E.

ON

CHANGES TO THE QUALIFIED INFRASTRUCTURE INVESTMENT PROGRAM RIDER, THE ECONOMIC DEVELOPMENT INVESTMENT RIDERS, AND THE SAFETY AND ENVIRONMENTAL COMPLIANCE RIDER AND IN SUPPORT OF THE CALCULATION OF THE 2019 CAPITAL RIDERS RECONCILIATION

SPONSORING PETITIONER'S EXHIBIT:

PETITIONER'S EXHIBIT 2019 SCEP RESULTS - KAS

Q. PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.

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

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

A. I am employed by the American Water Works Service Company ("Service Company") as Director of Engineering for Tennessee American Water Company ("TAWC", or "Company") and Kentucky American Water Company ("KAWC").

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

A. Yes. I have previously provided written and oral testimony before the Tennessee Public Utility Commission ("TPUC" or "Commission") in TPUC Docket Nos 18-00120 and written testimony in TPUC Docket Nos. 19-00031 and 19-00105.

Q. PLEASE STATE YOUR EDUCATIONAL AND PROFESSIONAL BACKGROUND.

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

I have been employed by Service Company in my current role since September 2019. Prior to that, I served as Engineering Manager for TAWC from April 2016 to September 2019. I began my career as a Consulting Engineer in the utility and environmental remediation

fields working for engineering firms in Knoxville, Tennessee and Lexington, Kentucky. In June 2004, I accepted a role as a Staff Engineer at the Virginia Department of Environmental Quality in Richmond, Virginia. In January 2007, I began working for the Knoxville Utilities Board ("KUB") as a Project Engineer managing wastewater construction projects related to KUB's $650 million dollar Wastewater Consent Decree Program. In 2010, I was promoted to Team Leader at KUB where I managed an engineering team working on construction projects for KUB's Wastewater Consent Decree Program. In 2012, I was assigned as Team Leader for an engineering team who managed construction and planning projects for KUB's water distribution system. Additionally, I served as a certified Level II Erosion Control Inspector responsible for managing erosion control inspections and ensuring construction projects for all four of KUB's utilities (gas, water, wastewater and electric) conformed to local, state and federal requirements. I also served as the main point of contact for both Water and Wastewater Engineering in regard to new service requests and projects. I am an active member of the American Water Works Association (AWWA) and the Tennessee Society of Professional Engineers (TSPE).

Q. WHAT ARE YOUR DUTIES AS DIRECTOR OF ENGINEERING?

A. I am responsible for the coordination of the Engineering Departments for both TAWC and KAWC, which includes the planning, development, and implementation of all aspects of construction projects. I also coordinate technical assistance to other Company departments as needed and oversee the development and implementation of the capital budgets. I report to the Presidents of TAWC and KAWC. I am located in Kentucky, but work closely with the TAWC staff in Tennessee.

Q. WHAT TOPICS WILL YOUR TESTIMONY ADDRESS?

A. I will discuss the process for determining TAWC's capital investment plan, the oversight for expenditures and changes to the plan, the level of capital expenditures for 2019, and variances from the projected amounts in Docket No. 18-00120.

Q. ARE YOU SPONSORING ANY EXHIBITS?

A. Yes I am. I am sponsoring the following exhibit:

Petitioner's Exhibit – 2019 SCEP Results - KAS

I will discuss this exhibit in further detail in my testimony below.

Q. WERE THE PETITIONER'S EXHIBITS LISTED ABOVE PREPARED BY YOU OR UNDER YOUR DIRECTION AND SUPERVISION?

A. Yes.

Q. WHAT WERE THE SOURCES OF THE DATA USED TO PREPARE THE PETITIONER'S EXHIBITS LISTED ABOVE?

A. The data used to prepare the exhibits was acquired from the books of account and business records of Tennessee American, the officers and associates of Tennessee American with knowledge of the facts based on their job responsibilities and activities, and other internal sources which I examined in the course of my investigation of the matters addressed in this testimony.

Q. CAN YOU DESCRIBE THE PROCESS FOR DETERMINING THE CAPITAL INVESTMENT PLAN?

Yes. Capital planning needs are addressed in both the short term (one year) and longer term (five years). Projects are prioritized using objective criteria that validate the need for a project and assess the risk of not performing the project. A key component of this

planning technique is that it is flexible and can be adjusted when required to address new needs, such as unplanned equipment failures, large or sudden growth of a service area, or new regulatory requirements. TAWC's Engineering Department develops a proposed capital budget with input from Operations Supervisors and Project Managers and then shares the plan with the TAWC President and the TAWC Director of Operations for their review and approval. The proposed capital budget is also shared with the Service Company for review of the reasonableness of the projects proposed and their forecasted costs. Although the Service Company may make suggestions with respect to that budget, TAWC ultimately determines the Capital Investment Plan and approves the plan. This process is the basis for the capital expenditures reflected in the Company's Investment Plan.

Q. CAN YOU DESCRIBE HOW THE CAPITAL INVESTMENT PLAN IS MONITORED DURING THE YEAR?

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

The CIMC includes the TAWC President, Director of Operations, Engineering Manager, Engineering Project Managers, Financial Analyst, and Capital Coordinator. The CIMC meets monthly. The CIMC receives capital expenditure plans from project managers and approves them as required by the process. Once budgets are approved, the CIMC meets

monthly to review capital expenditures compared to budgeted levels. Discussions are held on variances to budgets that include the reason for the variance and suggestions to bring the budget lines back in line with the approved budget.

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

As an added level of coordination, a Functional Sign-Off ("FSO") Committee meets monthly to sign-off on projects and review spending. This committee includes the TAWC Director of Operations, the TAWC Engineering Manager, TAWC Engineering Project Manager, TAWC Operations Specialist and the appropriate Distribution and Operations supervisors and project managers. The purpose of the committee is to review projects that are moving forward in the next step of approval, or that require a change. This allows the project manager and operational area supervisors to communicate about the project on a monthly basis and help coordinate projects from initial development through in-service as compared to the approved budget and spending plan.

Both of these committees allow a continuous review of capital expenditures as unexpected projects arise or the need to adjust projects to offset delays in other projects. The use of the CIMC and FSO process allows TAWC to immediately address an increase

or decrease in projected spending in each line and make appropriate adjustments to maintain the overall capital spend.

Q. HOW DOES TAWC HIRE CONTRACTORS?

A. All significant construction work done by independent contractors and significant purchases are completed pursuant to a bid solicitation process. We maintain a list of qualified bidders, and we believe that our construction costs are very reasonable. American Water Works (AWW) takes competitive bids for material and supplies that are either manufactured or distributed regionally and nationally through its centralized procurement group. We have the advantage of being able to purchase these materials and supplies on an as-needed basis at favorable prices. In the past ten years, AWW also has undertaken a number of procurement initiatives for services and materials to reduce costs through either streamlined selection or utilization of large volume purchasing power. Some of the initiatives that have directly influenced capital expenditures include the use of master services agreements with pre-qualified engineering consultants, national vehicle fleet procurement, and national preferred vendor identification.

Q. ARE YOU FAMILIAR WITH THE FACILITIES AND ENGINEERING OPERATIONS OF THE COMPANY IN EACH OF ITS SERVICE AREAS?

A. Yes.

Q. WHAT CONTROLS ARE IN PLACE TO REVIEW THE PROGRESS OF A PROJECT?

A. The CIMC and FSO meetings described above are used to oversee the progress of projects from inception to completion. Along with the review of the capital expenditures, the committee also reviews the requirements of an investment project and ensure that the projects meet the business need for expenditure and usefulness. The process includes

five stages of project review: 1) a Preliminary Need Identification defining the project at an early stage; 2) a Project Implementation Proposal that confirms all aspects of the project are in a position to begin work; 3) Project Change Requests, if needed (if the cost changes more than 5% or $100,000); 4) a Post Project Review; and 5) Asset Management. TAWC personnel handle all of the stages, with oversight by the CIMC and FSO Committees.

Q. WHAT CONTROLS ARE IN PLACE TO MAKE SURE PROPOSED PROJECTS ARE IN THE PUBLIC INTEREST?

A. Through the budgeting and planning process a broad and comprehensive review of facility needs is conducted to establish a general guide for needed improvements over a short-term horizon. These improvements are prioritized by TAWC to allow it to: provide safe, adequate, and reliable service to its customers to meet their domestic, commercial, and industrial needs; provide flows adequate for fire protection; satisfy all regulatory requirements; and enhance economic growth. The plan provides a general scope of each project along with a preliminary design. The criteria for evaluating the various system improvements are engineering requirements; consideration of national, state, and local trends; environmental impact evaluations; and water resource management.

The engineering criteria used are accepted engineering standards and practices that provide adequate capacity and appropriate levels of reliability to satisfy residential, commercial, industrial, and public authority needs, and provide flows for fire protection. The criteria are developed from regulations, professional standards, and company engineering policies and procedures.

Q. OVERALL, HOW DID TAWC DO WITH REGARD TO ITS CONSTRUCTION BUDGET COMPARED TO ACTUAL EXPENDITURES?

R. For 2019, TAWC ended the year with a net capital expenditures of $24,489,339 compared to an approved budget of $25,870,678, resulting in a total capital expenditure underspend of $1,381,339 or -5.3% of the originally approved budget. **HOW DID TAWC PERFORM WITH REGARD TO ITS ACTUAL EXPENDITURES COMPARED TO THE BUDGETED CAPITAL EXPENDITURES FOR THE QIIP RIDER AND PROVIDE DETAIL OF ANY VARIANCES?**

The 2019 QIIP Rider expected spend was projected at $12,725,250 with an actual spend of $10,386,885 resulting in a total QIIP expenditure underspend of $2,338,365 or 18.4% less than the originally QIIP anticipated budget. The major variances within the QIIP Rider were related to timing of the Replace Basin 1 & Plate Settlers Project and cost savings realized on the rehabilitation of Aldrich Unit 6 within Budget Line R. The Replace Basin 1 & Plate Settlers Project was not started until November at which time the demolition of the existing basin began. This delay was due to the close proximity of Basin 1 to the Chlorine Gas Conversion Project. It was decided that due to parking constraints, additional construction traffic, as well as potential safety hazards from having two large projects so closely situated, that the basin work should be delayed. The Aldrich Unit 6 project resulted in cost savings, since the rehabilitation of the unit's underdrains were less extensive than originally projected. The Tennessee River Crossing was placed into service in July 2019. This project was intended to be placed into service in late 2018. However, significant amounts of rainfall stopped work on the project from the end of November 2018 until May 2019. During the delay, a dam upstream of the project was continually releasing too much water to allow for divers to safely deploy the pipe at the bottom of the river. These delays

significantly slowed the progress of the Tennessee River Crossing Project and moved the in-service date from December 2018 to July 2019.

Q. HOW DID TAWC DO WITH REGARD TO ITS ACTUAL EXPENDITURES COMPARED TO THE BUDGETED CAPITAL EXPENDITURES FOR THE EDI RIDER AND PROVIDE DETAIL OF ANY VARIANCES?

A. The EDI expected spend was projected at $1,144,000 with an actual spend of $656,227, resulting in a spend of $487,773 or 42.6% under the projected Budget Capital Expenditures. The underspend was mainly due to Highway 283 Investment Project not going into service. This project was estimated at approximately $600,000. It was started in 2019, but not finished and therefore not placed into service. Two borings under the Sequatchie River were required as part of the project. These borings proved more difficult and time consuming than expected, causing a delay of the in-service date of the project into early 2020.

Q. HOW DID TAWC PERFORM WITH REGARD TO ITS ACTUAL EXPENDITURES COMPARED TO THE BUDGETED CAPITAL EXPENDITURES FOR THE SEC RIDER AND PROVIDE DETAIL OF ANY VARIANCES?

A. The original SEC expected spend was projected at 5,416,646 with an actual spend of 7,800,581, resulting in a spend of $2,383,935 or 44.0% over the originally projected amount. The major variance in the SEC Rider was caused by the spend for the Chlorine Conversion Project shifting from 2018 into 2019. The project was delayed for several months due to the demolition of Filter Building 3, which was located in the footprint of the new chlorine building. The foundation of Filter Building 3 was thicker than shown on as-

built drawings, which required more extensive concrete removal as well as a three-foot undercutting of the proposed building pad to ensure adequate backfill and compaction.

Q. CAN YOU PROVIDE SPECIFIC INFORMATION ABOUT THE ACTUAL CAPITAL EXPENDITURES COMPARED TO THE BUDGETED CAPITAL EXPENDITURES?

A. Yes. I have attached to my testimony **Petitioner's Exhibit 2018 SCEP Results – KAS**. This exhibit provides a comparison of the 2019 Strategic Capital Expenditures Plan with Actual Capital Expenditures by recurring project lines and investment project lines.

Q. WHY ARE CERTAIN PROJECTS SOMETIMES DELAYED AND CHANGES OCCUR IN THE ACTUAL CAPITAL EXPENDITURES COMPARED TO THE BUDGETED EXPENDITURES?

A. During any given year, unexpected changes in priorities may occur due to outside influences, or recognition of unfavorable trends, that are occurring and affect the infrastructure or ability to serve the customer. The majority of such unexpected changes are caused by conflicts between the company's infrastructure and outside agencies' projects or changes that occur in the community that effect the schedule or scope of a planned project. In both of these cases, a previously unbudgeted new priority project is initiated to address the need or an existing project effort is increased or decreased. Since these changes were not identified during the original budgeting process, the need to offset the new efforts expected cost is required to ensure that the overall company budget is maintained. As a result, projects that were originally identified within the budget are changed or delayed to make room for the new, unexpected projects or a change in an existing project.

Q. WHAT IS THE PROCESS FOR APPROVING THESE CHANGES?

A. Throughout the year, TAWC actively manages each budget line to ensure that the overall spending is consistent with the approved budget levels. The management of the budget lines is carried out during monthly Capital Investment Management Committee ("CIMC") meetings that compare the current capital expenditures to the budged levels. If changes in the budgets are required due to changes in priorities or unexpected changes in projects, the committee reviews the need for the changes and approves or disapproves, as the case may be, the movement of available capital from other budget lines to offset the changes in capital spend and maintain the overall projected spend for the year.

Q. CAN YOU PROVIDE THE OVERALL AMOUNT OF IN SERVICE PLANT FOR 2019?

A. Yes. TAWC was able to ensure that capital spending on projects led to those projects being implemented and placed in service. TAWC utilized the FSO process to manage projects and make sure that approved capital spending was utilized on projects that would be placed in service in a timely manner. With regard to the Capital Recover Riders and the projected level of expenditures compared to those projects that were implemented and placed in service, the overall variance with projects placed in service compared with the projected spend for all three riders was 3.6% under the expected average year to date spend. This is the cumulative plant additions, and is reflected in **Petitioner's Exhibit Capital Riders Reconciliation**—EKC attached to Ms. Elaine Chambers' testimony.

Q. DOES THIS CONCLUDE YOUR DIRECT TESTIMONY?

A. Yes.

CAPITAL EXPENDITURE PLAN
Actual to Budget
Tennessee 2019
Units = $

Project Code	Brief Description of Proposed Expenditures	Rider	Year to Date Actual (4)	Year to Date Original Budget (3)	Year to Date Original Variance (4-3)
DV	Projects Funded by Others (Contrib. /Adv./ Refunds)	None	935,236	1,000,000	(64,764)
A	Mains - New	EDI	456,612	1,000,000	(543,388)
B	Mains - Replaced / Restored	QIIP	1,626,864	1,875,000	(248,136)
C	Mains - Unscheduled	QIIP	1,513,940	1,755,000	(241,060)
D	Mains - Relocated	QIIP	199,795	275,000	(75,205)
E	Hydrants, Valves, and Manholes - New	EDI	181,053	144,000	37,053
F	Hydrants, Valves, and Manholes - Replaced	QIIP	441,790	442,000	(210)
G	Services and Laterals - New	-	1,304,311	1,133,000	171,311
H	Services and Laterals - Replaced	QIIP	755,492	697,000	58,492
I	Meters - New	-	140,065	269,000	(128,935)
J	Meters - Replaced	QIIP	4,695,313	4,255,000	440,313
K1	ITS Equipment and Systems	-	138,338	156,828	(18,490)
K3	ITS CS Projects	-	(388,700)	2,268,000	(2,656,700)
L	SCADA Equipment and Systems	SEC	121,224	142,000	(20,776)
M	Security Equipment and Systems	SEC	111,707	135,000	(23,293)
N	Offices and Operations Centers	-	22,700	15,000	7,700
O	Vehicles	-	318,291	615,000	(296,709)
P	Tools and Equipment	-	159,176	135,000	24,176
Q	Process Plant Facilities and Equipment	SEC	769,082	1,765,000	(995,918)
R	Capitalized Tank Rehabilitation / Painting	QIIP	690,565	1,125,000	(434,435)
S	Engineering Studies	-	114,663	50,000	64,663
T	Enterprise T&I Solutions	-	2,476,946	0	2,476,946
	TOTAL RECURRING PROJECTS DV - S		**16,784,463**	**19,251,828**	**(2,467,365)**
	TOTAL RECURRING PROJECTS A - S		**15,849,227**	**18,251,828**	**(2,402,601)**
I26-020039	Repl Basin 1 & Plate Settlers	QIIP	312,293	2,301,250	(1,988,957)
I26-020040	Chlorine Gas Conversion: Est In-Service 11/20/209	SEC	5,393,970	3,374,646	2,019,324
I26-020046	New Field Services Facility - Chattanooga	None	0	1,276,268	(1,276,268)
I26-050050	New Operations Center - Whitwell	None	285,982	256,686	29,296
I26-020034	Tennessee River Crossing: In-Service 07/31/2019	QIIP	371,927	0	371,927
I26-020045	Remove Filter Bldg 3: In-Service	QIIP	(221,094)	0	(221,094)
I26-020050	New Operations Facility - Land Purchase	None	42,885	0	42,885
I26-020054	New Field Services Facility - Chattanooga	None	896,090	0	896,090
I26-020059	Citico Yard Piping Bypass	SEC	1,404,598	0	1,404,598
I26-050050	Hwy 283 Project: Est In-Service 12/15/2019	EDI	18,562	0	18,562
	TOTAL INVESTMENT PROJECTS		**8,505,213**	**7,208,850**	**1,296,363**
	Indirect Overhead Clearing Accounts Charges		0	0	0
	TOTAL GROSS		**25,289,676**	**26,460,678**	**(1,171,002)**
	Contributions		(384,151)	(240,000)	(144,151)
	Advances		(734,137)	(700,000)	(34,137)
	Refunds		317,951	350,000	(32,049)
	Net Advances, Refunds, and Contributions		**(800,337)**	**(590,000)**	**(210,337)**
	Net US GAAP		**24,489,339**	**25,870,678**	**(1,381,339)**

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 deposed 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 A. Stafford

Sworn to and subscribed before me
this 28 day of February, 2020.

Notary Public

My Commission Expires: 8/6/2022