TENNESSEE-AMERICAN WATER COMPANY, INC.

DOCKET NO. 24-00032

DIRECT TESTIMONY

OF

KEVIN KRUCHINSKI

ON

TAWC'S CAPITAL INVESTMENT PLANNING & GOVERNANCE PROCESS, DESCRIPTION OF PLANT ADDITIONS AND RISKS FACING WATER UTILITIES

SPONSORING PETITIONER'S EXHIBITS:

Exhibit KK-1

DIRECT TESTIMONY
KEVIN KRUCHINSKI
TENNESSEE AMERICAN WATER COMPANY
DOCKET NO. 24-XXXXXX

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I. INTRODUCTION

Q. PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.

A. My name is Kevin Kruchinski and my business address is 1500 Riverside Drive, Chattanooga, Tennessee 37406.

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

A. I am employed by Tennessee American Water Company ("TAWC" or "Company") in the role of Manager of Engineering.

Q. PLEASE STATE YOUR PROFESSIONAL AND EDUCATIONAL BACKGROUND?

A. Upon graduation from the University of Kentucky with a B.S. degree in Natural Resource Conservation and Management, I went to work for a medium sized municipal government in Danville, KY. I reported to the City Engineer and developed the City of Danville's first Geographic Information System (GIS) for the water, wastewater and stormwater networks. Upon project completion, I accepted a role at the water treatment facility where I earned my grade IVA and IV water treatment and distribution licenses. I was promoted to assistant superintendent after successfully completing my licensing and learning the system. I accepted a position with Kentucky-American Water Company ("KAWC") in 2006, where I was promoted to positions of increasing responsibility over the next ten (10) years. While working at KAWC, I returned to school to earn my MBA from Sullivan University. At KAWC, I served as the liaison between operations and engineering throughout design, construction and startup of American Water's largest capital project ($163 million in 2010) which included a new treatment plant, 31 miles of large diameter transmission main, a water storage tank and a large pumping station. I accepted an interim role with Indiana

American Water ("IAWC"), serving as Senior Manager of Operations in Gary, Indiana. From Indiana, I transferred to TAWC in 2015 as the Director of Operations. In 2019, I resigned from TAWC to accept a new role as General Manager with North West Utility District (NWUD) in Hamilton, Bledsoe and Sequatchie Counties. I proceeded to accept a role as a Senior Project Manager with Gresham Smith but soon missed the work associated with working at a water and wastewater utility. In 2023, I returned to TAWC as the Engineering Manager.

Q. WHAT ARE YOUR DUTIES AS MANAGER OF ENGINEERING FOR TENNESSEE-AMERICAN?

A. I am responsible for the coordination and administration of the TAWC Engineering Department. This includes the planning, development, and implementation of all aspects of construction projects. My responsibilities include working with developers for all new main extensions, replacement of existing mains, water treatment plant upgrades and modifications, new construction and improvement to network facilities. I also coordinate technical assistance to all other TAWC departments as needed and oversee the capital budget development and implementation. I report directly to the President of TAWC.

Q. HAVE YOU PREVIOUSLY SUBMITTED TESTIMONY BEFORE THE TENNESSEE PUBLIC UTILITY COMMISSION?

A. No.

Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY?

A. I will first explain TAWC's capital investment planning process, and then describe the Company's capital investments in water utility plant and equipment that has or will occur from January 1, 2024, through December 31, 2025, highlighting the significant capital

projects during that time period. I will also discuss the emerging risks associated with furnishing public water service. Company witness Ms. Bulkley discusses why investors' perceptions of such risks should be considered in establishing a reasonable rate of return on equity for the Company in this case.

Q. ARE YOU SPONSORING ANY EXHIBITS WITH YOUR TESTIMONY?

A. Yes, I am sponsoring Exhibit KK-1, which lists the Investment Projects that will go into service during the period of January 1, 2024 through December 31, 2025.

II. TAWC'S CAPITAL INVESTMENT PLANNING & GOVERNANCE PROCESS

Q. PLEASE EXPLAIN THE COMPANY'S CAPITAL INVESTMENT AND GOVERNANCE PROCESS.

A. TAWC uses a standardized Capital Investment Program Management ("CPM") process to manage its capital investments and to formulate its short-term and long-term capital planning needs. As part of the CPM process, TAWC conducts planning studies to assess and make investment recommendations, to evaluate capital needs on an ongoing basis, and to ensure that appropriate projects are being prioritized. Capital investment projects are prioritized within an overall strategic planning process utilizing drivers associated with various asset investment strategies (such as safety, regulatory compliance, capacity, customer satisfaction, etc.), to formulate a five-year capital investment plan, referred to as the Strategic Capital Expenditure Plan ("SCEP"). More detailed design engineering is conducted and implementation plans are developed for those projects that are contained in the five-year capital investment plan. The Company's annual capital construction plan is based upon projects and programs contained in the SCEP. Also on an annual basis, main replacement projects are prioritized and included in the Company's annual capital

construction plan. Numerous factors are considered when determining funding allocations for infrastructure investment, such as current and future service needs, assessments of the physical condition of existing plant, economic and risk factors, performance characteristics, regulatory compliance, and the potential to coordinate with municipalities and other utilities in joint improvement projects. The CPM governance process provides for formal approvals and consistent controls that optimize the effectiveness of asset investment. By having a good project planning, budget and ongoing review process, TAWC is able to manage a broad scope of projects within the overall cost of its plant construction budget.

Q. HOW DOES THE COMPANY DEVELOP THE SCEP?

A. The SCEP, which, again, is the Company's five-year capital investment plan, is developed and periodically updated to address priorities identified in the Company's comprehensive planning studies in an appropriate time frame. Key inputs to the Company's SCEP include the evaluations and inputs from the comprehensive planning studies and the planning study identification of capital investment priorities and corresponding capital investment projects. These capital investment projects are developed from the previously described analysis and evaluation of demand projections, regulatory requirements, asset service reliability and quality, replacement of poor condition infrastructure, asset impacts on safety and efficiency, public fire protection, and environmental sustainability. Additional key inputs include the prioritization of significant and recurring capital investment projects aligned with asset investment strategy considerations of safety, regulatory compliance, capacity and growth, infrastructure renewal, efficiency, resiliency, impacts resulting from failure of critical assets, reliability, quality of service, and sustainability of service. For

example, infrastructure capacity expansion investment projects are scheduled based on when demand projections indicate the capacity will be needed. Capital investment projects to meet environmental or water quality regulations are scheduled for completion before compliance deadlines while allowing adequate time for testing and operational performance monitoring of new assets ahead of key regulatory dates to help ensure compliance, and to ensure necessary process adjustments can be successfully implemented through varying operating conditions. Rehabilitation projects for service reliability are scheduled with consideration of existing asset characteristics, and risks and impacts of failure on service quality.

Q. PLEASE DECRIBE HOW THE COMPANY DEVELOPS A BUDGET FOR ITS CAPITAL INVESTMENT PLANS.

A. TAWC develops a proposed five-year capital budget as part of its SCEP. TAWC's Engineering Department develops its proposed capital budget with input from Operations Supervisors and Project Managers. The proposed capital budget is then presented to TAWC's President and Vice President of Operations for their review and approval. The proposed capital budget is also shared with the American Water Works Service Company ("Service Company") for review of the reasonableness of the projects proposed and their forecasted costs.

Q. HOW DOES TAWC FOCUS ON CONTROLLING THE COSTS OF CAPITAL EXPENDITURES IN ITS NORMAL DAY-TO-DAY ACTIVITIES?

A. All significant construction work is performed by independent contractors and some significant purchases are completed pursuant to a bid solicitation process. TAWC maintains a list of qualified bidders and bids project work to ensure that construction costs

are kept reasonable. Service Company annually takes competitive bids for materials and supplies, such as pipe, valves, fittings, meters, chemicals and other commodity items that are either manufactured or distributed regionally and nationally through its centralized procurement group. Through the size and breadth of American Water, TAWC has the advantage of being able to purchase these materials and supplies on an as-needed basis at favorable prices. Service Company has also undertaken procurement initiatives for services and materials to reduce costs through either streamlined selection or utilization of large volume purchasing power. Among the initiatives that have directly impacted capital expenditures are the use of master services agreements with pre-qualified engineering consultants, national vehicle fleet procurement, and national preferred vendor identification.

Q. PLEASE DESCRIBE THE GENERAL PROJECT CATEGORIES IN THE COMPANY'S SCEP.

A. The Company's SCEP can be divided into two distinct areas: recurring projects ("RPs") and investment projects ("IPs"). RPs are designated as such because they are capital projects that the Company undertakes on a frequent and regular basis, require less long-term financial and capital planning than an IP, and can be performed with the Company's current workforce or existing contractors. IPs, on the other hand, are typically projects that require an investment of $250,000 or greater and need significant planning. I will discuss RPs and IPs in more detail later in my testimony. Whether RPs or IPs, all aspects of the Company's capital program aid in providing safe, reliable, and adequate service to TAWC's customers and support the long-term viability and resiliency of the Company's water systems.

Q. PLEASE DESCRIBE SOME KEY OBJECTIVES OF THE COMPANY'S SCEP.

A. The capital investment projects that the Company undertakes are designed to achieve multiple goals and are essential for TAWC to continue to provide safe and reliable water service to our customers. For example, projects described later in my testimony are designed to improve resiliency and reliability in the distribution system. In each instance, these projects support the Company's continued provision of safe and reliable service to customers.

Q. HOW DOES THE COMPANY'S CONSTRUCTION PLANNING PROCESS IMPACT ITS REQUEST FOR PLANT ADDITIONS IN THIS RATE CASE?

A. In addition to seeking recovery of the portion of its capital investments made by the Company since its last rate case through December 31, 2023, that has not been recovered through a rider, the Company's plant additions include the projects scheduled for completion during the 12-month periods ending December 31, 2024 and December 31, 2025. The overwhelming majority of the Company's projects will be constructed and completed as planned; however, some projects may be substituted for others initially included in the SCEP due to unanticipated events requiring an immediate capital addition, such as plant or equipment that has experienced failure and needs to be replaced or a delay in permitting of a specific project. In general, the overall cost of plant construction will be consistent with the values filed.

Q. CAN YOU ELABORATE ON YOUR REFERENCE TO SOME CAPITAL INVESTMENTS THAT HAVE ALREADY BEEN RECOVERED BY RIDERS?

A. Yes. As permitted under Tenn. Code Ann. § 65-5-103 *et seq*., the Commission approved four (4) alternative regulatory mechanisms proposed by TAWC in 2014 in TPUC Docket

No. 13-000130. The four (4) mechanisms are a Qualified Infrastructure Investment Program Rider ("QIIP"), an Economic Development Investment Rider ("EDI"), a Safety and Environmental Compliant Rider ("SEC") and a Production Costs and Other Pass-Throughs Rider (PCOP). The QIPP, EDI and SEC Riders are commonly referred to as the Capital Recovery Riders. One of the primary regulatory concepts underlying the Capital Recovery Riders and PCOP was to allow--with the requisite safeguards to serve the public interest--smaller, gradual increases in rates and thereby lessen the occurrence of "rate shock." In sum, the Riders are streamlined alternative regulatory mechanisms, with appropriate safeguards, designed to lessen traditional regulatory lag and rate shock associated with capital investments and expenses that are essential for the provision of safe and reliable water. Any investments and expenses already recovered by the Company pursuant to these Riders are not a part of this proposed rate increase.

Q. HOW ARE THE RIDERS PROPOSED TO BE TREATED IN THIS RATE CASE?

A. As explained in Company Witness Robert Lane's Direct Testimony, the base rate case will reset the Rider-surcharges to zero because the investment currently recovered in the Riders will be moved into base rates when the new base rates take effect. The streamlined recovery under the riders means that even as the millions in investment from the Riders is moved into base rates customers will not experience a large rate shock, thus achieving one of the goals of the Rider surcharges.

III. <u>DESCRIPTION OF PLANT ADDITIONS</u>

Q. WHAT LEVEL OF CAPITAL INVESTMENT IS TAWC SEEKING TO RECOVER RELATED TO PLANT ADDITIONS MADE BETWEEN JANUARY 1, 2024 THROUGH DECEMBER 31, 2025?

A. TAWC is seeking to recover approximately $71.3 million in gross capital investment for plant additions made or to be made from January 1, 2024 through December 31, 2025. Company Witness Dominic DeGrazia describes how plant additions are reflected in rate base in his Direct Testimony.

Q. PLEASE DESCRIBE THE TYPES OF PROJECTS THAT ARE INCLUDED IN TAWC'S PLANT ADDITIONS FOR THE PERIOD JANUARY 1, 2024 THROUGH DECEMBER 31, 2025.

A. The majority of projects that comprise the Company's plant additions in this timeframe are RPs (i.e., routine, recurring projects) and IPs (i.e., discrete investment projects), which collectively make up approximately $64.4 million of the Company's overall plant additions included in this case. The Company has also invested or plans to invest approximately $3.2 million in Enterprise Solutions projects, which include upgrades and enhancements to our foundational technology, as well as customer facing platforms, among others, to continue to provide safe, reliable and efficient service to customers. Company Witness Grady Stout's Direct Testimony describes some of the systems and applications, such as MapCall, GIS, Work1View, MyWater, among others, that are supported by this investment. The entirety of our capital expenditures support the Company's continued provision of safe, reliable and affordable service over the long-term. My Direct Testimony focuses on the RP and IP plant additions placed in service between January 1, 2024 and December 31, 2025.

Q. PLEASE FURTHER DESCRIBE THE COMPANY'S INVESTMENT IN RPs.

A. Approximately $40.2 million of the Company's capital investment from January 1, 2024 through December 31, 2025 pertains to RPs, which include projects like main replacements

generally 12 inch and smaller, reinforcement and replacement of service line and meter setting installations, meter purchases, projects to replace and maintain treatment equipment, vehicle replacements, and to a lesser extent the purchase of tools, furniture and equipment.

Included in the $40.2 million in RP investments is approximately $20.6 million pertaining to replacement of water infrastructure (mains, services, meters and valves) that are near the end of their useful lives and are also classified as RPs. And approximately $8 million in new water infrastructure (mains, services, and valves) as a result of the need to add hydraulic improvements, reliability and redundancy in addition to new customer growth. This construction is being done for a variety of reasons, including improving flow capabilities, preventing water quality degradation, systematically replacing aging distribution system infrastructure, enhancing system reliability, and minimizing service disruptions to customers caused by main breaks. From the perspective of providing long-term, sustainable customer service and maintaining affordable water rates, replacing mains that are near the end of their useful life in a proactive, systematic, responsible manner will result in lower costs to customers over time as compared with deferring such replacements and addressing problems, such as leaks and main breaks, as they arise. Planned main replacements are much less costly on a unit cost basis than addressing main breaks on an ad hoc basis, which can result in service disruptions, property damage, health risks from potential drinking water contamination, and the steep increase in future main replacements resulting from prior deferrals.

As noted above, RPs go beyond pipe replacement. For example, in this case the Company is also investing approximately $3.4 million in plant facilities and equipment

that support the continued provision of safe and reliable service that complies with state and federal water quality standards. Approximately another $3 million dollars is planned to rehabilitate water storage tanks to ensure safe and reliable water service. Such investments include the installation of water quality instruments, chemical feed and supply tanks, along with pumps and motors. The remaining RPs include investments such as meter replacements that support timely and accurate billing to our customers and investments for SCADA and security systems to maintain the integrity and safety of our water and wastewater operations.

Q. PLEASE DESCRIBE THE COMPANY'S INVESTMENTS IN IPs.

A. Approximately $24.2 million of the Company's capital investment pertains to IPs that have or are planned to be placed into service between January 1, 2024 and December 31, 2025. The projects are central to maintaining and enhancing the reliability and resiliency of the Company's systems, to continuing to provide the high quality and reliable water service to customers, and to supporting the long-term viability and resiliency of the Company's water and systems.

Q. PLEASE DESCRIBE THE IPs THAT HAVE OR ARE PLANNED TO BE PLACED INTO SERVICE BETWEEN JANUARY 1, 2024 THROUGH DECEMBER 31, 2025.

A. Below, I present the IPs projected to be placed into service between January 1, 2024 through December 31, 2025. For each IP, I provide a brief description of the project, its actual or projected in-service dates and the amount of associated capital investment.

Raw Water Intake Improvements Phase 2

This project was placed in service in July, 2023 but a portion of the project cost is booked in 2024. The title transfer associated with the property carried over into 2024 resulting in

spend this year (approximately $75,000). The project involved the replacement of motors and electrical gear responsible for delivering water from the Sequatchie River to the treatment plant in Whitwell which replaced the previous equipment.

Lookout Valley Redundancy – Booster Station

The Lookout Valley Redundancy- Booster Station is the installation of a new pumping station that provides redundancy and added reliability to the Lookout Valley portion of our service territory. Not only will this station improve TAWC's ability to serve Lookout Valley, but it will also allow for the existing St. Elmo / Lookout Mountain Booster station to be replaced with a new and more efficient booster station in the future. The project was placed in service in December of 2023 after the prefabricated system was delivered and connected to the water system, however work related to building a roof over the emergency generator was pushed until 2024 . The cost for this project was approximately $2,660,000.

Rolling Acres / Maple Hill Land Purchase

This site will serve as the future site of the new Cummins Highway Booster which will replace the aging Maple Hill and Rolling Acres pump stations. This location allows the Company to effectively replace two pump stations with one pump station. The estimated in-service date is April 2024 with an estimated cost of $575,000.

The Bend Phase 1 – Main Extension

The Bend Phase I is an economic development project endorsed by the Chattanooga Mayor's office as it is intended to bring jobs to the Chattanooga area. The project involves the installation of additional water lines to the area known as the Bend. The first phase of the project is expected to be in service in approximately July 2024 with a phase 1 estimated cost of $337,000.

Chattanooga Ops Center Land Purchase

This project involves a land acquisition that will allow for the expansion of the existing distribution operations center. TAWC has been exploring options to expand its operating center for several years and recently an adjacent piece of property has become available for purchase. The primary benefit relates to pending water quality regulations are going to require plant improvements at the Citico water treatment plant potentially necessitating administrative personnel to move off of the site in an effort to expand treatment capabilities. The land purchase is expected to close by December of 2024 for approximately $2,065,000.

Lookout Valley Redundancy – River Crossing

The River Crossing project involves the installation of several thousand feet of sixteen-inch ductile iron water line including parallel sixteen-inch water lines traversing the Tennessee River near Moccasin Bend. The installation of these new lines will add reliability and redundancy to the Lookout Valley portion of TAWC's service territory. Originally scheduled for completion in 2023, this project was delayed due to permitting which required a new alignment. The project is scheduled to be completed by December 2024 with an estimated cost of $4,718,967.

Whitwell Clearwell

The Whitwell Clearwell project involves the design and construction of a clearwell and pumpstation to replace the existing and aged clearwell and pumpstation. This clearwell provides temporary storage of finished drinking water prior to being pumped to the distribution storage tanks and water system. The primary benefits of this project involve plant reliability due to the separation of the clearwell and pumps from the existing plant's

footprint and allowing room for future rehabilitation projects. This project is scheduled to go in service in December of 2024 with an estimated cost of $2,408,000.

Aetna Mtn Development Year 1

This Aetna Mountain project will allow for the design and construction of a transmission main to transport water across the top of the mountain and supply the future Aetna Mountain Storage Tank. The primary benefits of this project is to provide adequate fire flows and storage for the residents in this portion of the system. The transmission main will consist of 16" ductile iron water main and is scheduled to be placed in service in July of 2025 with an estimated cost of $2,275,111.

Replace Elder Mtn Transmission Main

The Elder Mountain Transmission Main project involves the replacement of the transmission main that transports water to the top of Elder Mountain within the Lookout Valley pressure zone. The existing main is at end of life and has encountered several significant breaks resulting in a temporary loss of service to the customers on the mountain. The existing main is coated in a material that makes the repairs more difficult to manage. The new water line will be a ductile iron water line which will add greater reliability to the water system on the mountain. The project is scheduled to be completed in August of 2025 with an estimated cost of $2,519,000.

Lookout Redundancy – Citico Tank

The Citico Tank project is required to provide additional storage capacity within the Citico pressure gradient as well as provide additional supply for the booster station to provide water into the Lookout Valley zone. This additional storage adds reliability and redundancy to both the Lookout Valley and Citico zones of the system improving system performance

and resiliency. The project is currently scheduled to be placed in service in September 2025 with an estimated cost of $4,624,000.

Cummins Hwy Booster

The Cummins Highway Booster will ultimately replace the existing Maple Hills and Rolling Acres boosters. Both stations are beyond the end of their useful lives and have been identified as safety risks to continue maintaining. The new station will improve safety, as well as reliability and redundance for the customers downstream from these stations due to redundant booster pumps and an emergency power generator. The station is scheduled to be completed in October of 2025 with an anticipated cost of $838,874.

Lookout Valley Redundancy – Lookout Valley Tank

This project will provide an additional elevated storage tank in the Lookout Valley section of our service territory. The additional storage will improve reliability and redundancy within this part of the system. This project, when completed, will also allow for the existing elevated storage tank in Lookout Valley to be rehabilitated. The design portion of the project was bid out in the spring of 2024 and the project is anticipated to go in service in December 2025 with a cost of approximately $3,361,000.

Whitwell Distribution Tanks

The Whitwell Distribution Tanks are the primary water storage tanks that provide pressure and supply to the main pressure zone in Whitwell. These tanks are at the end of their useful life. Due to how the system was designed and grown over time, the tanks cannot be safely and efficiently removed from service until the Whitwell Clearwell project is completed. The budget is estimated at $1,479,000 and expected to go in service in December of 2025.

Replace Switch Gear – Citico

The switch gear project involves replacement of the main electrical gear at the Citico treatment plant. The existing gear is built around an obsolete voltage (2400 volt) and the equipment is at the end of its life. The project will replace the gear from the tie in with the electrical utility to the lines that feed the motors and equipment at the high/low service pumpstation. The project will also allow for a safe and reliable connection to emergency power generation equipment in the event of an electrical emergency. The project is scheduled to be complete by December of 2025 with an estimated cost of $8,624,000.

IV. RISKS FACING WATER UTILITIES

Q. ARE THERE RISKS THAT THE COMPANY FACES THAT ARE UNIQUE TO WATER UTILITIES?

A. Nationally, there has been a strong trend toward increased and tougher regulations affecting water utilities. Examples include more stringent water quality regulations of finished water, homeland security issues related to treatment chemicals, the Environmental Protection Agency's ("EPA") Long Term 2 Enhanced Surface Water Treatment Rule (LT2) Standard for cryptosporidium and additional regulation of treatment plant residuals, increased frequency of required water quality monitoring, the identification of emerging contaminants as part of unregulated contaminant monitoring (UCMR5), the proposed EPA's regulation of PFAS and PFOA[1] in source water, the EPA's Revised Lead and Copper Rule, which among other things, requires a service line inventory, and more

[1] Per- and polyfluoroalkyl substances (PFAS) are manufactured chemicals historically used in many household products including nonstick cookware, stain repellants, and waterproofing. They are or were also used in industrial applications such as in firefighting foams and electronics production. There are thousands of PFAS chemicals, and they persist in the environment. Perfluorooctanoic Acid ("PFOA") is one well-known PFAS chemical.

extensive environmental laws affecting new construction and source development. Typically, new regulations are passed down from the federal to the state level to be incorporated as state laws, and the State of Tennessee has primary enforcement responsibility (primacy) over drinking water regulations. States often pass additional legislation to address issues specific to their individual circumstances, and those requirements can be more stringent than federal laws. Even absent new regulations, national events can precipitate changes in the industry.

The EPA has proposed further revisions to its Lead and Copper Rule.[2] This rulemaking will impact the Company's approach and investment in line replacement necessary to maintain compliance and to continue to address the changing regulatory landscape in this area. As discussed by Company Witness Grady Stout in Direct Testimony, the existing Lead and Copper Rule Revisions require the identification of the materials of service lines of unknown material and an inventory of all lead service lines. This inventory must identify the material of not only the company-owned portion of the service line, but also the customer-owned portion of the service line. This inventory requires extensive customer engagement, a thorough review of company records, and various methods to identify the material of all of the Company and customer service lines.

The EPA has also proposed a National Primary Drinking Water Regulation establishing maximum contaminant level (MCL) standards for six per- and polyfluoroalkyl substances ("PFAS") in drinking water. While the Company has been anticipating the

[2] On December 6, 2023, the US EPA published proposed revisions to the National Primary Drinking Water Regulations for lead and copper under the Safe Drinking Water Act. The new proposed rules will strengthen and build on the 2021 Lead and Copper Rule Revisions and the original 1991 Lead and Cooper Rule. *See* https://www.federalregister.gov/documents/2023/12/06/2023-26148/national-primary-drinking-water-regulations-for-lead-and-copper-improvements-lcri.

rulemaking, the Company is carefully reviewing the final regulation to assess the MCLs actually included in the regulation, including the four parts per trillion requirements for PFAS. TAWC may need to employ additional treatment technologies at existing water treatment facilities. The Company is evaluating the estimated capital expenditures for additional treatment, including additional estimated operating expenses. A determination of what technologies to employ if PFAS compounds are present will require a review of the effectiveness of each technology and an analysis of the costs and operational feasibility for each location.

Q. DOES CLIMATE VARIABILITY POSE ADDITIONAL RISKS FOR WATER UTILITIES, SUCH AS TAWC?

A. Yes, whatever the debate may be concerning the causes of climate change, water utilities face the reality of changing climatic conditions and the accompanying stresses on water resources. "Extreme rainfall events have increased in frequency and intensity in the Southeast, and there is *high confidence* they will continue to increase in the future."[3] That means we can expect more frequent and intense high-precipitation events and floods, along with high damaging storm events – which impact water facilities.

Water supply systems are fundamentally resource-dependent and, therefore, the effects of climate variability pose a significant on-going risk and complicate efforts to maintain a reliable water supply during the full range of potential future conditions, including even what might be assumed to be "normal" periods. While droughts are the major challenge for water supply systems, heavy precipitation and high-flow events are also of concern to water systems for two reasons: (1) they can have a direct impact on the

[3] Fourth National Climate Assessment, Ch. 19 – Southeast, available at http://nca2018.globalchange.gov/.

reliability of the water system; and (2) they can have an impact on the quality of the water supply. While high-flow events and floods can affect the water supply, they can also affect distribution systems.

V. CONCLUSION

Q. DOES THIS CONCLUDE YOUR DIRECT TESTIMONY?

A. Yes, it does.

Tennessee American Water Company **Exhibit KK 1**
Investment Project Plant Additions
January 1, 2024 through December 31, 2025

Project Description (Reference K. Kruchinski Direct Testimony)	**In Service Date**	**Estimated Cost**
Replace Elder Mt Transmission Main	October 2025	2,519,703
Replace Switch Gear - Citico	December 2025	8,624,428
Lookout Valley Redun - River Crossing	December 2024	4,718,967
The Bend Phase 1 - Main Ext	December 2024	337,469
Whitwell Clearwell	December 2024	2,408,389
Rolling Hills/Maple Hill Land Purchase	February 2024	575,113
Cummings Hwy Booster	October 2025	838,874
Whitwell Dist Tanks	December 2025	1,479,643
Chattanooga Ops Center Land Purchase	December 2024	2,065,439
Aetna Mtn Development Yr 1	December 2024	2,275,111

BEFORE THE TENNESSEE PUBLIC UTILITY COMMISSION
NASHVILLE, TENNESSEE

PETITION OF TENNESSEE-AMERICAN WATER COMPANY TO CHANGE AND INCREASE CERTAIN RATES AND CHARGES	))))	**DOCKET NO. 24-_____**

VERIFICATION

STATE OF Tennessee)
)
COUNTY OF Hamilton)

I, KEVIN KRUCHINSKI, being duly sworn, state that I am authorized to testify on behalf of Tennessee-American Water Company in the above-referenced docket, that if present before the Commission and duly sworn, my testimony would be as set forth in my pre-filed testimony in this matter, and that my testimony herein is true and correct to the best of my knowledge, information, and belief.

R. K. K.
KEVIN KRUCHINSKI

Sworn to and subscribed before me
this 25th day of April, 2024.

Notary Public

My Commission Expires: 2-28-28

TARA WATSON
STATE OF TENNESSEE NOTARY PUBLIC
HAMILTON COUNTY