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January 17, 2020

VIA ELECTRONIC FILING

TPUC.DocketRoom@tn.gov

Hon. Robin L. Morrison, Chairman
c/o Ectory Lawless, Docket Room Manager
Tennessee Public Utility Commission
502 Deaderick Street, 4th Floor
Nashville, TN 37243

RE: *Petition of Tennessee-American Water Company Regarding the 2020 Investment and Related Expenses Under the Qualified Infrastructure Investment Program Rider, the Economic Development Investment Rider and the Safety and Environmental Compliance Rider, TPUC Docket No. 19-00105*

Dear Chairman Morrison:

Attached for filing please find *Tennessee American Water Company's Responses to First Discovery Requests of the Consumer Advocate* in the above-captioned matter.

As required, an original of this filing, along with four (4) hard copies, will follow. Should you have any questions concerning this filing, or require additional information, please do not hesitate to contact me.

Very truly yours,

BUTLER SNOW LLP


Melvin J. Malone

clw

Attachments

cc: Elaine Chambers, TAWC
Daniel P. Whitaker III, Consumer Advocate Unit

**BEFORE THE TENNESSEE PUBLIC UTILITY COMMISSION
NASHVILLE, TENNESSEE**

**PETITION OF TENNESSEE-AMERICAN)
WATER COMPANY REGARDING THE)
2020 INVESTMENT AND RELATED)
EXPENSES UNDER THE QUALIFIED)
INFRASTRUCTURE INVESTMENT)
PROGRAM RIDER, THE ECONOMIC)
DEVELOPMENT INVESTMENT RIDER)
AND THE SAFETY AND)
ENVIRONMENTAL COMPLIANCE)
RIDER)**

DOCKET NO. 19-00105

**TENNESSEE-AMERICAN WATER COMPANY'S RESPONSES
TO FIRST DISCOVERY REQUESTS OF
THE CONSUMER ADVOCATE**

Tennessee-American Water Company ("TAWC"), by and through counsel, hereby submits its Responses to the First Discovery Requests propounded by the Consumer Advocate Unit in the Financial Division of the Attorney General's Office ("Consumer Advocate").

GENERAL OBJECTIONS

1. TAWC objects to all requests that seek information protected by the attorney-client privilege, the work-product doctrine and/or any other applicable privilege or restriction on disclosure.

2. TAWC objects to the definitions and instructions accompanying the requests to the extent the definitions and instructions contradict, are inconsistent with, or impose any obligations beyond those required by applicable provisions of the Tennessee Rules of Civil Procedure or the rules, regulations, or orders of the Tennessee Public Utility Commission ("TPUC" or "Authority").

3. The specific responses set forth below are based on information now available to TAWC, and TAWC reserves the right at any time to revise, correct, add to or clarify the objections or responses and supplement the information produced.

4. TAWC objects to each request to the extent that it is unreasonably cumulative or duplicative, speculative, unduly burdensome, irrelevant or seeks information obtainable from some other source that is more convenient, less burdensome or less expensive.

5. TAWC objects to each request to the extent it seeks information outside TAWC's custody or control.

6. TAWC's decision, now or in the future, to provide information or documents notwithstanding the objectionable nature of any of the definitions or instructions, or the requests themselves, should not be construed as: (a) a stipulation that the material is relevant or admissible, (b) a waiver of TAWC's General Objections or the objections asserted in response to specific discovery requests, or (c) an agreement that requests for similar information will be treated in a similar manner.

7. TAWC objects to those requests that seek the identification of "any" or "all" documents or witnesses (or similar language) related to a particular subject matter on the grounds that they are overbroad and unduly burdensome, and exceed the scope of permissible discovery.

8. TAWC objects to those requests that constitute a "fishing expedition," seeking information that is not relevant or reasonably calculated to lead to the discovery of admissible evidence and is not limited to this matter.

9. TAWC does not waive any previously submitted objections to the Consumer Advocate's supplemental discovery requests.

**TENNESSEE AMERICAN WATER COMPANY
DOCKET NO. 19-00105
FIRST DISCOVERY REQUEST OF THE
CONSUMER ADVOCATE AND PROTECTION DIVISION**

Responsible Witness: Kurt Stafford

Question:

1. On pages 3 and 4 of his testimony, Mr. Stafford describes the internal approval process associated with its Capital Investment Plan and concludes that TAWC ultimately determines the Plan. Mr. Stafford also indicates that the Service Company may make suggestions with respect to the budget. With respect to these statements, respond to the following:
 - a. Does the actual amount of budget embedded within the Capital Investment Plan require the written approval of anyone outside of the Tennessee-American organization? If so, identify the individuals and their titles outside of TAWC that approved the budget amount (distinct from approving individual projects) contained within the Capital Investment Plan; and
 - b. Are the funds used within the Capital Investment Plan provided by TAWC, or are such funds provided by affiliates of TAWC? If the latter is indicated, identify the individuals and their titles outside of TAWC that approve the advancement of funds to TAWC in order to finance TAWC operations, including the funding for the Capital Investment Plan.

Response:

- A. No. The Capital Investment Plan is determined by TAWC in an effort to ensure that it will continue to provide safe, adequate and reliable water service to its Customers. The TAWC Engineering group works with the TAWC President, Director of Operations, Project Managers and Operations Supervisors to develop the budget for the Capital Investment Plan. TAWC identifies projects and determines the priority of the projects by utilizing factors associated with various asset investment strategies (such as regulatory compliance, capacity, customer satisfaction, etc.) within an overall strategic planning process. Service Company provides guidance and support, when needed, but the ultimate budget for the Capital Investment Plan is determined by TAWC.
- B. TAWC's financing decisions are made by TAWC. The Company's determination of whether to issue equity or debt, and the type of debt, is made by TAWC based on its capital structure objectives and on capital market conditions at the time the security is to be issued.

TAWC issues its own debt and common stock and, therefore, has an independently-determined capital structure. TAWC considers the appropriate mix of debt, preferred stock and common equity appropriate for its capital structure. TAWC is able to obtain long-term debt through American Water Capital Corp, an affiliate of TAWC, or directly from outside investors, thus obtaining the most favorable financing terms possible.

With respect to equity capital, TAWC retains a significant portion of its earnings in its business, with the remainder paid as dividends to its parent company. At the same time, a portion of those dividends is returned to TAWC periodically in the form of capital infusions by its parent company. As with long-term debt, the level of equity funding that the Company requests from its parent company is determined by TAWC.

**TENNESSEE AMERICAN WATER COMPANY
DOCKET NO. 19-00105
FIRST DISCOVERY REQUEST OF THE
CONSUMER ADVOCATE AND PROTECTION DIVISION**

Responsible Witness: Kurt Stafford

Question:

2. On page 4 of Mr. Stafford's testimony, he indicates that the "... identified work will enable TAWC to provide safe, adequate and reliable service to its Customers to meet their domestic, commercial and industrial needs" With regard to this statement, what measurement tools or metrics can be used to measure the Company's success in providing:

a) safe service, b) adequate service and c) reliable service?

Response:

- A. Safe service means that the water delivered to each Customer meets all applicable TPUC, state and federal water quality standards. This is achieved by rigorous testing and monitoring to ensure compliance with applicable standards.
- B. Adequate service means that the amount of water required to meet systems demands in the distribution systems are met. This entails meeting pressure and flow expectations within the water distribution system. Metrics include pressure and flow at Customer meters and connections.
- C. Reliable service refers to the consistency of adequate service provided to Customers. Metrics for reliable service include the amount of time system demand is met.

**TENNESSEE AMERICAN WATER COMPANY
DOCKET NO. 19-00105
FIRST DISCOVERY REQUEST OF THE
CONSUMER ADVOCATE AND PROTECTION DIVISION**

Responsible Witness: Kurt Stafford

Question:

3. Provide the estimated capital expenditures of TAWC that will be made in 2020 that are not subject to the Capital Riders request.

Response:

There is approximately \$2.8M included in the 2020 Capital Investment Plan that is not subject to the Capital Rider request.

**TENNESSEE AMERICAN WATER COMPANY
DOCKET NO. 19-00105
FIRST DISCOVERY REQUEST OF THE
CONSUMER ADVOCATE AND PROTECTION DIVISION**

Responsible Witness: Elaine K. Chambers

Question:

4. On page 29, line 20 of her testimony, Ms. Chambers states that without the Capital Recovery Riders, TAWC would be preparing another general rate case. Is it the position of TAWC that it would have an annual rate case in lieu of the annual Capital Rider filing if that mechanism were not available?

Response:

No. Please refer to the detailed rate case discussion on page 6, lines 16 to 19 and page 7, lines 1 to 7 of Ms. Chambers' direct testimony, which is restated below.

"The difference between the new riders and the future test year regulatory approach that has been used by TAWC in rate cases is largely in the method and procedure of filing, the deferral of full rate cases and the lessening of rate shock, and the multiple benefits of the streamlined alternative mechanisms. If it were not for the new alternative regulatory methods available to the Commission and the regulated community, TAWC would likely have had to file a rate case in 2019 or earlier. These new methods have deferred the need to file a full rate case, at least in the short term. These petitions make the regulatory process much more streamlined and less burdensome, without reducing effective and meaningful regulatory oversight. As intended under the statute and approved by the Commission, the whole process is more efficient, timely and much less expensive. There is no doubt but that the alternative rate adjustment methods are working."

**TENNESSEE AMERICAN WATER COMPANY
DOCKET NO. 19-00105
FIRST DISCOVERY REQUEST OF THE
CONSUMER ADVOCATE AND PROTECTION DIVISION**

Responsible Witness: Kurt Stafford

Question:

5. On page 30 of Ms. Chamber's testimony, she indicates that "a substantial portion of TAWC's distribution infrastructure is between 50 and 100 years old, and TAWC needs to continue to invest in replacing its infrastructure in order to meet its obligation to provide safe, reliable drinking water to its customers." With respect to this statement, please provide the following:
- a. Identify the miles of i) Distribution Main, ii) Transmission Main, and iii) listing of Other Distribution Infrastructure (specify) which are in excess of 50 years old;
 - b. Identify the miles of i) Distribution Main, ii) Transmission Main, and iii) listing of Other Distribution Infrastructure (specify) which are less than 50 years old;
 - c. Identify the miles of i) Distribution Main, ii) Transmission Main, and iii) Other Distribution Infrastructure (specify) in excess of 50 years old that have been replaced in each year for the 2016 - 2018 period; and
 - d. Identify the miles of i) Distribution Main, ii) Transmission Main, and iii) Other Distribution Infrastructure (specify) in excess of 50 years old targeted for replacement within the Capital Investment Plan in 2020.

Response:

This information is summarized in the table below for distribution mains, transmission mains, valves and hydrants using the criteria outlined in a – d.

Category	A. In excess of 50 years old	B. Less than 50 years old	C. In excess of 50 years old and replaced between 2016-2018	D. In excess of 50 years old and planned to be replaced in 2020
i. Distribution Main (Miles)	570.4	624.5	8.4	5.2
ii. Transmission Main * (Miles)	46.8	34.8	0.1	0
iii. Hydrants	1,586	3,750	89	35
iii. Valves	10,179	8,209	187	75

** Transmission mains are considered to be 16-inch diameter or larger mains*

**TENNESSEE AMERICAN WATER COMPANY
DOCKET NO. 19-00105
FIRST DISCOVERY REQUEST OF THE
CONSUMER ADVOCATE AND PROTECTION DIVISION**

Responsible Witness: Kurt Stafford

Question:

6. Identify the estimated a) Cost of Mains and b) Miles of Main contained in the 2020 forecasted plant contained in this filing.

Response:

- A. The total estimated cost for main replacement covered under Budget Line B – Mains Replaced is \$3,152,532.
- B. In 2020, approximately 5.2 miles of water mains will be replaced.

**TENNESSEE AMERICAN WATER COMPANY
DOCKET NO. 19-00105
FIRST DISCOVERY REQUEST OF THE
CONSUMER ADVOCATE AND PROTECTION DIVISION**

Responsible Witness: Elaine K. Chambers

Question:

7. Regarding Exhibit EKC-Average Impact, provide the following information:
- a. Provide all underlying support for the calculation of the 6.62% TCJA Credit as reflected on this schedule;
 - b. Provide an explanation of how this credit is incorporated into the requested surcharge rates contained in this case; and
 - c. Identify the date the 6.62% TCJA tax credit began to be reflected in customer bills.

Response:

7. Please refer to the responses below:
- a. Attached, please find the support for the calculation of the 6.62% TCJA tax expense credit as submitted and approved in the TPUC Docket No. 18-00120. Docket No. 18-00120 was impacted by the Stipulation and Settlement Agreement Regarding Phase One Issues submitted in Docket No. 18-00039. Attachment file is titled "TAW_R_CADDR1_NUM007_011620_Attachment".
 - b. Per the Stipulation and Settlement agreement regarding Phase One Issues in TPUC Docket No. 18-00039, Items 20 – 25, the base rates tax expense savings shall be an offset against TAWC's annual Capital Recovery Riders surcharge mechanism until the Company's next base rate case.
 - c. The TCJA tax expense credit began to be reflected on customer bills as of the service date 9/1/2019.

Electronically Filed In TPUC Docket Room on August 1, 2019 at 4:30 p.m.

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August 1, 2019

VIA ELECTRONIC FILING

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Hon. Robin L. Morrison, Chairman
c/o Ectory Lawless, Docket Room Manager
Tennessee Public Utility Commission
502 Deaderick Street, 4th Floor
Nashville, TN 37243

RE: *Petition of Tennessee-American Water Company Regarding the 2019 Investment and Related Expenses Under the Qualified Infrastructure Investment Program Rider, the Economic Development Investment Rider and the Safety and Environmental Compliance Rider, TPUC Docket No. 18-00120*

Dear Chairman Morrison:

On July 24, 2019, Tennessee-American Water Company ("TAWC") and the Attorney General's Office, Financial Division, Consumer Advocate Unit, submitted a Stipulation and Settlement Agreement Regarding Phase One Issues in TPUC Docket No. 18-00039. On July 31, 2019, TAWC submitted updates in the above-captioned matter to the schedules previously submitted in Docket No. 18-00120 that are impacted by the Stipulation and Settlement Agreement submitted in Docket No. 18-00039. At the request of the Commission, enclosed is the workpaper in support of Petitioner's Exhibit - Summary - Revised 7 31 19 - EKC, which exhibit was part of TAWC's July 31, 2019, filing in this matter.

As required, an original of this filing, along with four (4) hard copies, will follow. Should you have any questions concerning this filing, or require additional information, please do not hesitate to contact me.

Very truly yours,

BUTLER SNOW LLP


Melvin J. Malone

Attachment

cc: Elaine K. Chambers, Tennessee-American Water Company
Vance Broemel, Assistant Attorney General, Financial Division, Consumer Advocate Unit
Daniel Whitaker, Assistant Attorney General, Financial Division, Consumer Advocate Unit

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Tennessee American Water Company
Workpaper to Support Petitioner's Exhibit - Summary - Revised 7_31_19 - EKC
Docket No. 18-00120

	<u>Amount</u>	<u>Source</u>
Estimated Balance of Deferred Income Tax Expense Savings - January 1, 2018 to August 31, 2019		Docket #18-00039 - Per Stipulation & Settlement on (\$3,237,169) July 24th, 2019
Amortization Period in Years	<u>3</u>	
Annual Amortization of Deferred Income Tax Expense Savings	(1,079,056)	
Annual Income Tax Expense Savings - Gross of Tax		Docket #18-00039 - Per Stipulation & Settlement on (2,035,031) July 24th, 2019
Annual TCJA Income Tax Expense Savings	<u>(\$3,114,087)</u>	
Service Charge and Volumetric Revenues as Per Docket No. 12-00049	<u>\$47,073,724</u>	
TCJA Offset Percentage to Apply to Bill	<u>-6.62%</u>	

**TENNESSEE AMERICAN WATER COMPANY
DOCKET NO. 19-00105
FIRST DISCOVERY REQUEST OF THE
CONSUMER ADVOCATE AND PROTECTION DIVISION**

Responsible Witness: Elaine K. Chambers

Question:

8. Describe in detail the billing cycles used by TAWC to measure usage. In circumstances when customer usage is measured throughout the month, how does the company reflect a change in its rates occurring in the middle of a given billing cycle?

Response:

8. TAWC implements a change in its rates through effective service dates. During a given billing cycle with multiple effective service dates, a proration of the number of days will occur based on these effective service dates. The percentages will be applied to the total monthly usage, dividing the usage amount between the effective service date periods. The usage amount for each service date period will then be applied in chronological order to each block and effective service class rate structure. See below for a basic usage proration example:

Billing
Cycle

from 8/8/19 to 9/9/19

33 Days

Usage - 8,041 (100 Gallons)

						Block in 100 Gallons	Block in 100 Gallons
Start Service Date	End Service Date	# of Service Days	Usage in 100 Gallons	Block	Usage From	Usage To	
8/8/2019	8/31/2019	24	30	1	0	30	
8/8/2019	8/31/2019	24	456	2	30	486	
8/8/2019	8/31/2019	24	3,254	3	486	3,740	
8/8/2019	8/31/2019	24	2,108	4	3,740	37,400	
9/1/2019	9/9/2019	9	2,193	4	3,740	37,400	
		33	8,041				

**TENNESSEE AMERICAN WATER COMPANY
DOCKET NO. 19-00105
FIRST DISCOVERY REQUEST OF THE
CONSUMER ADVOCATE AND PROTECTION DIVISION**

Responsible Witness: Elaine K. Chambers

Question:

9. In Ms. Chamber's rebuttal testimony in Docket No. 19-00031, she indicated, with respect to the September 12, 2019 main break, that the Company needed more information to learn of the cause of the event to better recommend appropriate accounting treatment. Previously published reports indicated that the Company had hired a third-party investigator to assess the reason for the main break. With respect to the cause of the main break on September 12, 2019, provide the following:
- a. A copy of the report of findings of the third-party investigator. If such report is not complete, identify the estimated date such report will be completed;
 - b. All documents and internal information identifying the reason for the main break; and
 - c. All pleadings and other court filings associated with the class action lawsuit filed in Hamilton County Circuit Court.

Response:

- a. TAWC objects to subsection (a) of this Request on the grounds that it is overbroad and unduly burdensome and seeks information that is not relevant. TAWC further objects under the grounds that the analysis is being undertaken, and the report and its contents are being prepared, under the attorney-client privilege in anticipation of litigation and are protected by the attorney-client privilege and the work product doctrine. Subject to and without waiving the foregoing objections, TAWC states as follows: At this time, TAWC is unable to estimate such a date.
- b. TAWC objects to subsection (b) of this Request on the grounds that it is overbroad and unduly burdensome, and seeks information that is not relevant. TAWC further objects to this Request to the extent it seeks the production of information that is protected from disclosure by the attorney-client privilege, the work product doctrine, or any other applicable privilege, immunities, and/or doctrines of state law.
- c. TAWC objects to subsection (c) of this Request on the grounds that it seeks information that is not relevant. TAWC further objects to this Request to the extent that it seeks information that is equally obtainable by the Consumer Advocate from public or other sources or through some other means of discovery that is more convenient, less burdensome, or less expensive.

**TENNESSEE AMERICAN WATER COMPANY
DOCKET NO. 19-00105
FIRST DISCOVERY REQUEST OF THE
CONSUMER ADVOCATE AND PROTECTION DIVISION**

Responsible Witness: Kurt Stafford

Question:

10. With respect to the testimony of Mr. Stafford regarding the impact of the Paving and Right of Way Ordinance respond to the following:
- a. On lines 235 - 237, Mr. Stafford references the costs associated with this ordinance being incurred by TAWC customers located within the city limits. Confirm that in the manner in which the Capital Riders are currently computed, all customers of TAWC would pay the increased ordinance costs, not just those residing within the city limits of Chattanooga. If this is not confirmed, explain how the increased costs of the ordinance are recovered exclusively from Chattanooga residents; and
 - b. Provide an explanation of how the new ordinance increased costs to TAWC compared with the requirements which existed prior to the new ordinance.

Response:

- A. The way the Capital Riders are calculated, all TAWC customers would pay the increased ordinance costs.
- B. The changes in the ordinance were discussed in docket 19-00105, Stafford Direct Testimony, pages 11 and 12. For further clarification, please see attached letter sent to the City of Chattanooga outlining TAWC's concerns with the revised ordinance.



October 24, 2018

Mark Heinzer
City Transportation Engineer
1250 Market Street, Suite 3030
Chattanooga, TN 37402-2713

Mr. Heinzer,

The letter serves as comments to the City's revised ordinance for Excavations and Restoration of Paving (Ordinance 12337) as well as recommended changes. The ordinance was revised in late 2017, but utility providers serving areas within the City of Chattanooga only became aware of these changes in late May 2018 when City Inspectors notified providers that they were starting to implement the requirements of the revised ordinance on June 1, 2018. After reading through the changes, several impacted utilities became concerned about the potential financial burden caused by the additional requirements outlined in the revised ordinance. The cost to comply with the new specifications is quite significant and would result in either delaying critical infrastructure replacement projects or increasing customer rates. Tennessee American Water reviewed their 2017 projects and concluded that the new changes would have added over 2 million dollars of additional cost to these projects. In some cases, the additional paving required by the revised ordinance increases the total project cost by three or four times its actual 2017 cost solely based on paving.

A group of impacted utility providers met with CDOT representatives to discuss our concerns and ask why changes were being implemented without first notifying us and asking for our input. Obviously, it is in the best interest of the City and utility providers to work together and understand potential issues facing CDOT. During the meeting CDOT officials essentially stated that utility providers as a group weren't causing paving problems and that the new requirements would make the pavement restoration process more streamlined and uniform for inspectors while also improving the drivability or smoothness of impacted roadways. CDOT officials stated they would be willing to consider modifications. It should be pointed out that the revised ordinance does not substantially modify the structural portion of the backfill requirements for excavations in the right-of-way, but it does significantly increase the amount of paving required around the excavation on portions of the roadway not impacted by construction. Tennessee American already spends a considerable amount of money to backfill excavations with flowable fill in order to prevent structural issues.

Utility providers noted during the meeting that we are the entities most financially impacted by the ordinance revisions since they do the most work within the City right-of-way. Utility providers are now left with the option of either paying exponentially more for paving and replacing less aging assets or passing along additional paving costs to their customers. It should be remembered that City of Chattanooga residents are also rate payers for utility providers. Utility providers would be willing to back changes to the paving ordinance if they were convinced there was an actual problem with the previous version. To date, there is no indication that the revisions are a solution to any known problem. Informing providers of the changes at mid-year creates a budgetary problem since most utilities work off a set fiscal year budget and were given no advance warning to prepare for additional costs.

We have taken an in-depth review of the changes to the revised ordinance and believe they are not sustainable in their current form. Below are comments and changes we propose. Aside from the comments listed below, we also noted that definitions and detailed drawings needed to be updated or included. For example, it appears that some of the City's Right-of-Way Repair Detail Drawings date back to 1999 and likely do not illustrate current conditions.

We request that CDOT review these proposed changes and schedule a meeting with utility providers to discuss the request. We appreciate your time and consideration in this matter.

Sincerely,

A handwritten signature in black ink that reads "Kurt Stafford". The signature is written in a cursive, flowing style.

Kurt Stafford
Engineering Manager

Comments and Proposed Recommendations to Specific Ordinance Sections

Section 32-64 (e)

- (e) Additionally, work zone permits are required for Work that limits public access to the full right-of-way, such as those requiring closure of a street or sidewalk or the temporary use of a curb-side parking space. Additional work zone permit fees may apply based on impact to the general public.

32-64 (e) Comments – This section implies but does not spell out or reference existing fees for work zone permits. Therefore, it appears to be open to interpretation. There are already fees for any sidewalk, curb or pavement cuts.

Recommendations: Removal of last sentence or insert a reference to existing fees.

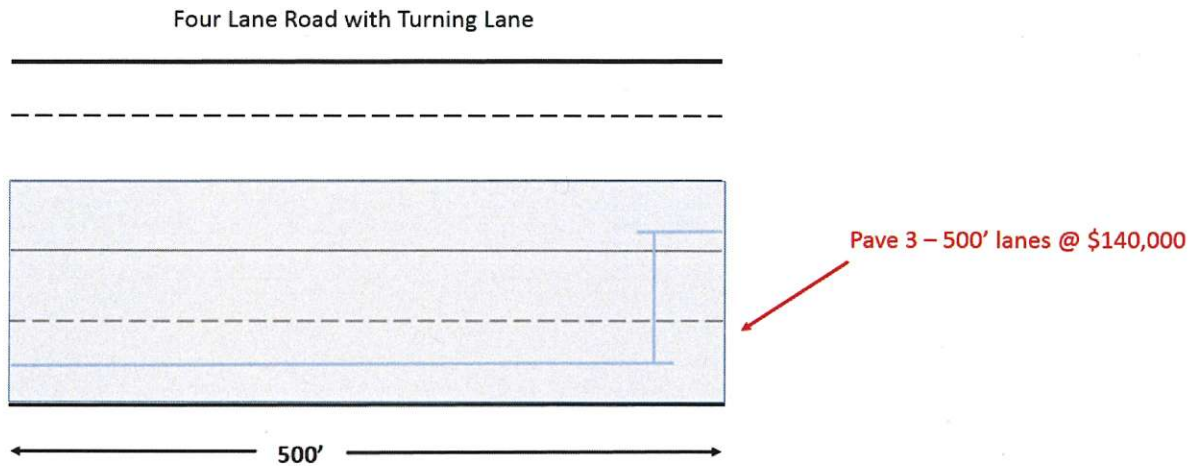
Section 32-64 (g)

- (g) *No more than five (5) multiple cuts, each not exceeding twenty-five (25) square feet in area, when required in a single block or within a work zone distance of two hundred fifty (250) feet as part of a single project, are considered as one (1) cut. Permit and fee will be required for a single cut under these conditions. If the cut exceeds two hundred fifty (250) feet, or multiple cuts within a block or a work zone greater than two hundred fifty (250) feet, or the number of cuts within two hundred fifty (250) exceeds five (5), then all lanes that are disturbed by construction shall be repaved from intersection to intersection.*

Cuts within any intersection of a City street require repavement of the entire intersection including marked crosswalks. For stamped or concrete crosswalks, replacement of the crosswalk is not required unless the cut includes the pavement of the crosswalk itself.

32-64 (g) Comments on paving of all disturbed lanes - The requirement to pave all disturbed lanes triggers excessive costs, which outweigh benefits to drivers, pedestrians or utility ratepayers. The benefits of this modification have not been clearly demonstrated. The previous version of the ordinance allowed for potential lane paving on a lane-by-lane basis. Under the changes in the new ordinance, if an existing 500' utility line were replaced by open cut in a single lane of a four lane road and the work required reconnecting to an existing line across 2 lanes of traffic; the new ordinance would require all 3 lanes to be paved in effect tripling the paving cost (see Figure 1).

Figure 1

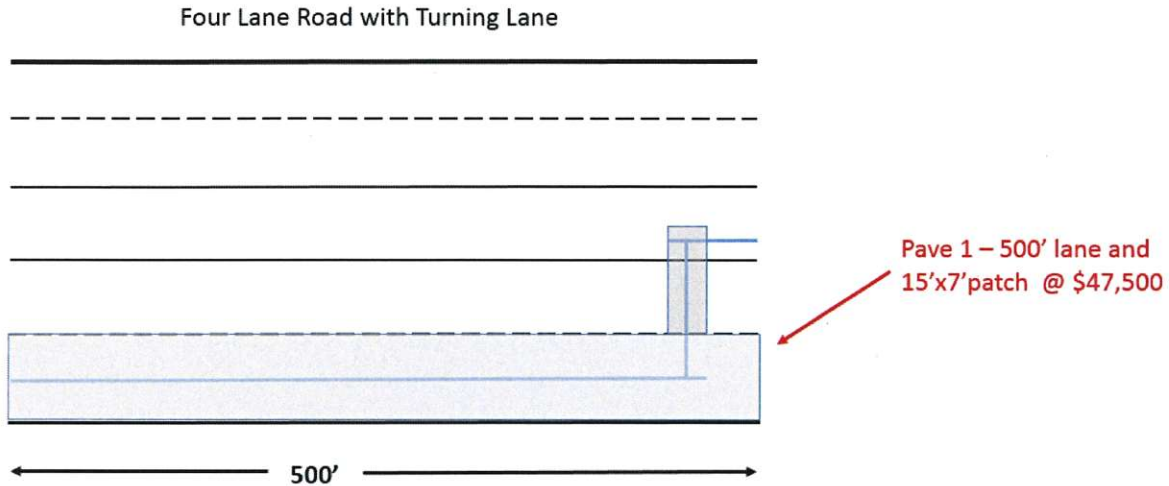


Previously, a typical water main installation cost might run \$100 per foot which would make this example approximately a \$50,000 project. However, estimating repaving costs at \$70 per square yard, the cost now includes \$140,000 in paving costs and a \$50,000 project becomes a \$200,000 project.

32-64 (g) Comments on “intersection to intersection” paving – The Figure 1 example does not take into account this section’s requirement to pave from “intersection to intersection.” Once you move outside the City’s denser downtown area, distances between intersections can be several thousand feet. An example would be Shallowford Road between Airport and N. Moore. The requirements of this section, if applied literally, would require repavement of about 3,500 feet of full lane width paving at \$327,000 per lane impacted “if a cut exceeds 250 feet, or multiple cuts within a block or a work zone greater than two hundred fifty (250) feet, or the number of cuts within two hundred fifty (250) exceeds five (5)”.

32-64 (g) Recommended practices: The repaving distance should be measured from the end of the outer cuts rather than defined as intersection to intersection distance. A review of current Knoxville, Memphis and Nashville ordinances shows that cutbacks from saw cut excavations range from 18 to 24 inches. Based on practices within the other three metropolitan cities in Tennessee, paving should extend no more than 24 inches beyond the edges of the excavation unless lane paving is triggered on a lane-by-lane basis. Under this scenario, the paving for the Figure 1 example would be illustrated in Figure 2. In lanes where lane paving is not triggered, paving cutbacks should extend no further than 24 inches outside the edge of excavation.

Figure 2



32-64 (g) Comments on paving requirements for intersection cuts - Additionally, the new requirement for intersection paving is extremely excessive. Intersection cuts should be covered as stand alone cuts described in 32-67(g). If a valve box had to be adjusted in an intersection along MLK, 4th, Broad or Market, this new requirement would trigger approximately 1,300 to 1,400 square yards of paving and potentially the replacement of specialty crosswalks. In actuality, this valve box adjustment might consist of a 2 foot by 2 foot asphalt cut immediately around a valve box. Using a repaving cost of \$70 per square yard, this work would cost approximately \$100,000 in paving expenses alone excluding possible additional costs related to striping and specialty finishes such as stamped concrete or brick.

32-64 (g) Recommendations: Below is the proposed language on revising section 32-64 (g) to avoid excessive costs to City residents.

No more than five (5) multiple cuts, each not exceeding twenty-five (25) square feet in area, when required in a single block or within a work zone distance of two hundred fifty (250) feet as part of a single project, are considered as one (1) cut. Permit and fee will be required for a single cut under these conditions. If the cut exceeds two hundred fifty (250) feet, or multiple cuts within a block or a work zone greater than two hundred fifty (250) feet, or the number of cuts within two hundred fifty (250) exceeds five (5), then lanes that are disturbed by construction shall be repaved from the outside edge of the furthest excavations. Lanes will be evaluated on a lane-by-lane basis.

Cuts within any intersection of a City street require repavement under section 32-67 (g). For stamped or concrete crosswalks, replacement of the crosswalk is not required unless the cut includes the pavement of the crosswalk itself.

Section 32-67 (g)

(g) Any perpendicular cut in a roadway must be repaved no less than the full width of the travel lane(s) that it cuts, and a minimum of ten (10) feet on each side of the centerline of the excavation. Any longitudinal cut must be repaved no less than the full width of the travel lane(s) that it cuts extended no less than ten (10) feet beyond the beginning and end of the cuts being made.

32-67 (g) Comments – Measuring a repaving distance from the centerline of an excavation does not work for every job site since excavation sizes vary depending on a number of conditions. This section also conflicts with the triggers for lane paving outlined in section 32-64(g). A 5 foot by 5 foot cut in the road now requires a patch covering 12 feet by 25 feet and is about 6 times more expensive to pave. Further, it is open to interpretation what constitutes a perpendicular versus a longitudinal cut.

Many cities have special designations for utility projects, which handle main lines and laterals or service lines separately. The requirement to pave 10 feet on either side of a cut does not demonstrate an apparent benefit to either the structural integrity of the pavement repair or drivers. Peer cities Knoxville, Memphis and Nashville do not have this requirement.

All cuts should require no more than 24 inch cutbacks from the edge of the excavation unless lane paving is required on a lane-by-lane basis.

32-67 (g) Recommendations: Below is the proposed language on revising section 32-67 (g) to avoid excessive costs to City residents.

Any cut in a roadway must be repaved no less than 24-inches from the saw cut edge of the excavation unless full lane paving is required as described in section 32-64 (g).

Section 32-68 (b)

- (b) *If a contractor, utility, or other entity makes one (1) cut or excavation within one (1) street segment within the City right-of-way, causing disruption to any part of the pavement within one (1) year after said right-of-way has been resurfaced or constructed, said contractor, utility, or other entity shall repave the entire street segment. If a contractor, utility, or other entity makes two (2) cuts or excavations within one (1) street segment within the City right-of-way, causing disruption to any part of the pavement within two (2) years after said right-of-way has been resurfaced or constructed, said contractor, utility, or other entity shall repave the entire street segment. If a contractor, utility, or other entity makes three (3) or more cuts or excavations within one (1) street segment within the City right-of-way, causing disruption to any part of the pavement within five (5) years after said right-of-way has been resurfaced or constructed, said contractor, utility, or other entity shall repave the entire street segment.***

Section 32-68 (b) Comments – The intent of this section is to keep entities from cutting relatively new pavement, which is understandable and reasonable when possible. However, there are several issues with the way it is currently written. The requirements of this section are unprecedented in any peer cities. Utilities make every effort to coordinate planned work with City projects. However, emergency work such as main breaks or requests for new service are not controllable. It appears that the intent of entities having to cut in the right-of-way have not been taken into consideration.

For example, Tennessee American has installed a requested new service on Beck Avenue. Per our tariff, the entity requesting water service pays \$25 for a new connection. Under the previous ordinance, if the actual work requires excavation in the right-of-way, the cost would be approximately \$1,200. Since Beck Avenue has recently been paved, the City is requesting we repave an entire section, which is estimated to cost \$38,000 in paving.

If an entity cuts into a newly paved road as part of planned project, there may be reason to make the entity repave larger sections of a roadway. On the other hand, if a developer or resident requests a new service along a recently repaved sections of city streets, the costs are potentially excessive. For example, a new service for a residence or business on newly paved Martin Luther King Boulevard could potentially cost hundreds of thousands of dollars if long stretches of repaving were required. This would essentially mean that residents have paid for the road twice, once through their taxes and again through the costs of the new ordinance requirements.

Section 32-68 (b) Recommendations: We recommend this section be removed or rewritten in a way that takes into account the intent of excavations or provides definitions for the types of excavations that may take place. This would provide certainty and uniformity as the ordinance is implemented.

**TENNESSEE AMERICAN WATER COMPANY
DOCKET NO. 19-00105
FIRST DISCOVERY REQUEST OF THE
CONSUMER ADVOCATE AND PROTECTION DIVISION**

Responsible Witness: Elaine K. Chambers

Question:

11. Identify the budgeted Capital Rider qualifying capital expenditures anticipated in 2020 within the Whitwell system.

Response:

The anticipated 2020 Capital Rider qualifying capital expenditures for the Whitwell system are approximately \$2M.

**TENNESSEE AMERICAN WATER COMPANY
DOCKET NO. 19-00105
FIRST DISCOVERY REQUEST OF THE
CONSUMER ADVOCATE AND PROTECTION DIVISION**

Responsible Witness: Kurt Stafford

Question:

12. Identify the miles of distribution and transmission main within the Whitwell system split into the following age categories: 0-10, 11-20, 21-30, 31-40, 41-50, and >50.

Response:

The largest main in the Whitwell system is 12-inch, which is smaller than the typically 16-inch diameter threshold used to distinguish transmission mains. Therefore, all the mains have been placed into one group. The water distribution mains within the Whitwell system fall into the following age categories:

Whitwell System Mains By Age

Age of Water Mains (Yrs)	Miles of Water Main
0-10	7.4
11-20	12.34
21-30	31.81
31-40	3.04
41-50	63.15
50+	3.47

TENNESSEE AMERICAN WATER COMPANY
DOCKET NO. 19-00105
FIRST DISCOVERY REQUEST OF THE
CONSUMER ADVOCATE AND PROTECTION DIVISION

Responsible Witness: Kurt Stafford

Question:

13. On page 13 and 14 of Mr. Stafford's testimony, he lists a series of projects whereby 2" diameter pipe is being replaced with 8" diameter pipe. With respect to the increase in diameter pipe, please respond to the following:
- a. Does the Company believe that the incremental costs associated with the increased (8" vs. 2") diameter pipe are necessarily recoverable within the Capital Riders? If so, provide the basis for the argument that the increased costs associated with the increased capacity is required to be recovered in the Capital Riders;
 - b. Provide an explanation of the impact on O&M costs associated with the increased diameter pipe; and
 - c. Provide a comprehensive explanation for the Company's determination that an 8" diameter pipe is required for the Addison, Carrol Lane, and Dodds projects, compared with other pipe diameters.

Response:

- A. Yes. It is important to recognize that these pipes are being replaced because they rank high on the replacement priority list due to ranking criteria such as age, leak history, etc. As part of the design process for each project, it is critical to consider current conditions and Customer needs. The changes in diameter are related to current conditions when the pipe is replaced. When the pipe was installed, a 2-inch diameter pipe met the needs of Customers in the area. Current conditions require larger diameter mains for things such as fire flow, size consistency with pipes that the new mains are being connected to, Customer demand, system hydraulics, etc. The incremental cost to transition from a 2-inch pipe to an 8-inch pipe is minimal. A majority of the cost to replace a water main comes from service reconnections, potential paving costs, backfill and restoration which would be incurred with any size pipe replacement. Each project is looked at on an individual basis to ensure that the most efficient size pipe is chosen to be installed. In summary, current conditions can necessitate replacement with a different diameter pipe to ensure the mains continue to provide safe, adequate and reliable service to Customers.
- B. Larger diameter pipes decrease the frictional forces affecting water flow. Decreasing these frictional forces allows greater pumping efficiency throughout the system, reducing O&M costs. Larger diameter pipes also increase fire flows in a given area.
- C. Addison Road, Carroll Lane and Dodds Avenue are all being replaced with 8-inch pipe because of the proximity of 8-inch pipe around the project areas. Additionally, this will allow hydrants to be installed on the new lines.

**TENNESSEE AMERICAN WATER COMPANY
DOCKET NO. 19-00105
FIRST DISCOVERY REQUEST OF THE
CONSUMER ADVOCATE AND PROTECTION DIVISION**

Responsible Witness: Kurt Stafford

Question:

14. On page 15, lines 332 - 348 of Mr. Stafford's testimony, he identifies various ratios demonstrating a decrease in Main breaks over various time periods. Provide all internal documents which support these references.

Response:

The following three tables summarizes the information for the various ratios. The tables were prepared based on the data in the attachment labelled as TAW_R_CADDR1_NUM014_011620 Attachment.

Ten-Year Main Break Averages

Time Period	Ten-Year Main Break Total	Ten-Year Yearly Main Break Average
2008-2017	4,050	405
2009-2018	3,945	395

Main Break Reductions as Compared to Ten-Year Averages

Time Period	Actual No of Main Breaks	Projected at Year End	Percent Reduction as Compared to Ten-Year Average
Through Sept 2018 *	243	324	20%
Through Sept 2019	211	281	29%

* The January main break total for 2018 was 96 due to abnormally cold weather. For this comparison, the January total was reduced to the 10-year January average of 58 to reduce the weather impact.

Percentage of Cast Iron and Galvanized Main Breaks

Time Period	Total Breaks	Breaks with Pipe Material Identified	Breaks on Cast Iron or Galvanized Mains	Percentage of Breaks on Cast Iron or Galvanized Mains
Jan 2010 - Sept 2017	3,132	2,951	2,606	88%
Jan 2019 - Sept 2019	211	211	167	79%

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**TENNESSEE AMERICAN WATER COMPANY
DOCKET NO. 19-00105
FIRST DISCOVERY REQUEST OF THE
CONSUMER ADVOCATE AND PROTECTION DIVISION**

Responsible Witness: Kurt Stafford

Question:

15. Regarding Mr. Stafford's testimony on page 23, provide the internal estimate of O&M savings that was estimated to be generated at the onset of the AMR investment and which supported the TAWC decision to initially transition to AMR? Provide all support documents.

Response:

The transition to AMR is intended to better serve TAWC Customers. Meter reading staff will be redeployed to more efficiently respond to Customers inquiries and maintain AMR technology. TAWC does not foresee utilizing any less staff. The transition to AMR will allow TAWC to better serve customers by increasing Customer confidence in bill reads and allowing the meter reading staff to more quickly address billing concerns and questions.

**TENNESSEE AMERICAN WATER COMPANY
DOCKET NO. 19-00105
FIRST DISCOVERY REQUEST OF THE
CONSUMER ADVOCATE AND PROTECTION DIVISION**

Responsible Witness: Kurt Stafford

Question:

16. On page 31 of Mr. Stafford's testimony, he references the EDI rider allowing the installation of essential infrastructure associated with the Coca Cola bottling facility:
- a. It is the Company's position that, without the EDI rider, such infrastructure would not have been installed and the facility would have been forced to locate outside the TAWC service territory?
 - b. Is it the position of TAWC that absent the rider, such investment by the Company would have been discretionary and that it would not have been required to make such investment? If so, highlight the tariff provisions which the Company believes would give it the discretion to not make the investment.

Response:

- A. As discussed in TPUC Docket 13-0013, Verdouw Direct Testimony, pages 23-25, the EDI rider provides the Chattanooga community a competitive advantage for economic development projects which provide job creation. Without its existence, more pressure would be placed on economic development projects within TAWC's service area and some projects could be lost to other communities. Many of these projects investigate multiple locations prior to deciding on a given location. This includes many site visits and due diligence from companies looking to locate new facilities and projects. Cost of construction and siting is a large factor in the decision making process which determines where economic development projects are ultimately sited. It would be the Company's position that the EDI rider continues to provide a competitive advantage to the TAWC service area, its Customers and the community by helping support economic development and job creation.
- B. No. Absent the rider, the investment of the water infrastructure would have to be funded completely by the economic development project. It would not have been discretionary. It is very important to note here that the Tennessee General Assembly developed the economic development support concept and in doing so has provided a pathway for public utilities to support economic development with tools like the Commission-approved EDI rider. The EDI rider provides a competitive advantage that would otherwise not exist. These benefits are discussed more in-depth in TPUC Docket 13-0013, Verdouw Direct Testimony, pages 23-25.

**TENNESSEE AMERICAN WATER COMPANY
DOCKET NO. 19-00105
FIRST DISCOVERY REQUEST OF THE
CONSUMER ADVOCATE AND PROTECTION DIVISION**

Responsible Witness: Kurt Stafford

Question:

17. Refer to the "WKP 2020 COR" tab within the filing summary Excel file. In column AC, there are two cost of removal line items within 2019 that are identified as "Chlorine Gas Conversion" (\$50k) and "Remove Filter Building 3" (\$1.0m). Provide a comprehensive explanation supporting these hard-coded numbers, including an explanation why such data is not subject to the same type of calculation as are other cost of removal estimates.

Response:

The cost of removal for Investment Projects are developed based on site specific conditions and are unique to each project. This is the reason they are hard-coded. The removal costs for IPs are estimated based on project location and proximity to other existing assets. The cost of removal estimate takes into account engineering designs, cost estimates and plans specific to the project. In the case of the two projects noted, the \$1M estimate for the removal of filter building 3 was based on demolition estimates to completely remove the building and foundation. For the Chlorine Gas Conversion, the \$50k removal estimate consists of the retirement of existing piping around the perimeter of the proposed chlorine building.

**TENNESSEE AMERICAN WATER COMPANY
DOCKET NO. 19-00105
FIRST DISCOVERY REQUEST OF THE
CONSUMER ADVOCATE AND PROTECTION DIVISION**

Responsible Witness: Kurt Stafford

Question:

18. Refer to the "WKP 2020 COR" tab within the filing summary Excel file. In column AE, there are two cost of removal line items within 2020 that are identified as "Repl Basin 1 & Plate Settlers" (\$1.5m) and "Retire Basin 2" (\$1.0m). Provide a comprehensive explanation supporting these hard-coded numbers, including an explanation why such data is not subject to the same type of calculation as are other cost of removal estimates.

Response:

Please see TAWC's response to question 17. The two projects referenced here are also Investment Projects or IPs.

TENNESSEE AMERICAN WATER COMPANY
DOCKET NO. 19-00105
FIRST DISCOVERY REQUEST OF THE
CONSUMER ADVOCATE AND PROTECTION DIVISION

Responsible Witness: Kurt Stafford

Question:

19. Provide the actual 2019 cost of removal through October 2019 (or November 2019 if information is available) for those projects whose removal costs were estimated to be \$2,572,116 as reflected on WKP 2020 COR.

Response:

19. Please refer to the table below for the actual cost of removal less salvage through November 2019 for those projects whose removal costs were estimated to be \$2,572,116 as reflected on WKP 2020 COR.

Cost of Removal less Salvage

			Docket 19-00105	
Project Type	Project Title	Rider	Estimated 2019	Actual YTD November 2019
B	Mains - Replaced / Restored	QIIP	\$58,245	\$377,200
C	Mains - Unscheduled	QIIP	186,315	284,745
D	Mains - Relocated	QIIP	5,514	42,974
F	Hydrants, Valves, and Manholes - Replaced	QIIP	52,569	98,846
H	Services and Laterals - Replaced	QIIP	79,308	82,297
J	Meters - Replaced	QIIP	680,326	699,229
R	Capitalized Tank Rehabilitation/Painting	QIIP	172,009	769,480
I26-020045	Remove Filter Bldg. 3	QIIP	1,000,000	1,003,136
	Total QIIP		2,234,286	3,357,907
L	SCADA Equipment and Systems	SEC	18,210	2,089
M	Security Equipment and Systems	SEC	4,873	14,743
Q	Process Plant Facilities and Equipment	SEC	238,647	297,284
I26-020040	Chlorine Gas Conversion	SEC	50,000	0
I26-050004	Replace 0.1 MG Storage Tank at Whitwell	SEC	26,100	26,108
	Total SEC		337,830	340,224
Total Cost of Removal Less Salvage			\$2,572,116	\$3,698,131

STATE OF Kentucky)
COUNTY OF Fayette)

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

She is appearing as a witness on behalf of Tennessee-American Water Company before the Tennessee Public Utility Commission, and duly sworn, verifies that the data requests and discovery responses are accurate to the best of her knowledge.

Elaine K Chambers
Elaine K. Chambers

Sworn to and subscribed before me
this 15th day of January, 2020.

Sharon Miller
Notary Public

My Commission expires: 7-25-2020

CERTIFICATE OF SERVICE

I hereby certify that a true and correct copy of the foregoing was served via U.S. Mail or electronic mail upon:

Daniel P. Whitaker III
Assistant Attorney General
Office of the Tennessee Attorney General
Consumer Advocate Unit, Financial Division
P.O. Box 20207
Nashville, TN 37202-0207
Daniel.Whitaker@ag.tn.gov

This the 17th day of January, 2020.



Melvin J. Malone