

BUTLER | SNOW

Filed Electronically in TRA Docket Room

December 20, 2016

VIA ELECTRONIC FILING

Hon. David Jones, Chairman
c/o Sharla Dillon
Tennessee Regulatory Authority
502 Deaderick Street, 4th Floor
Nashville, TN 37243

RE: Petition of Tennessee-American Water Company Regarding The 2016 Investment and Related Expenses Under The Qualified Infrastructure Investment Program Rider, The Economic Development Investment Rider, and The Safety and Environmental Compliance Rider, TRA Docket No. 16-00126

Dear Chairman Jones:

Attached for filing please find *Tennessee-American Water Company's Responses to First Discovery Requests of the Consumer Protection and Advocate Division* 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

Enclosure

cc: Valoria Armstrong, President, Tennessee-American Water Company
Daniel Wittaker, Assistant Attorney General, Consumer Protection and Advocate Division
Wayne Irvin, Assistant Attorney General, Consumer Protection and Advocate Division
Vance Broemel, Assistant Attorney General, Consumer Protection and Advocate Division

*The Pinnacle at Symphony Place
150 3rd Avenue South, Suite 1600
Nashville, TN 37201*

MELVIN J. MALONE
615.651.6705
melvin.malone@butlersnow.com

T 615.651.6700
F 615.651.6701
www.butlersnow.com

34418835v1

BUTLER SNOW LLP

**PETITION OF TENNESSEE-
AMERICAN WATER COMPANY
REGARDING 2016 INVESTMENT AND
RELATED EXPENSES UNDER THE
QUALIFIED INFRASTRUCTURE
INVESTMENT PROGRAM RIDER,
THE ECONOMIC DEVELOPMENT
INVESTMENT RIDER, AND THE
SAFETY AND ENVIRONMENTAL
COMPLIANCE RIDER**

))))))))))

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

GENERAL OBJECTIONS

- 34418137v1

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, 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.

RESPONSES TO DISCOVERY REQUESTS

1. Please provide a complete copy of the BP2017-2021 Strategic Capital Expenditure Plan (the five-year plan) including all workpapers that is referred to in the “EXH 2017 SCEP” tab of the “TAW_APP_SCH1_2017” spreadsheet included with the Company’s filing.

RESPONSE:

2. Refer to the “TAW_APP_SCH1_2017” spreadsheet included with the Company’s filing. Identify all formula changes included in this spreadsheet that were modified from the Company’s filing in TRA Docket 15-00111. In addition, provide an explanation of the rationale for these formula changes.

RESPONSE:

3. Refer to the “TAW_APP_SCH1_2017” spreadsheet included with the Company’s filing. Specifically refer to the “EXH 2017 SCEP” tab of this spreadsheet. Please provide the source and support for all the hard-coded numbers included on this spreadsheet.

RESPONSE:

4. Refer to the “TAW_APP_SCH1_2017” spreadsheet included with the Company’s filing. Specifically refer to the “WKP 2016 In-Serviced SCEP Proof” tab of this spreadsheet. Finally, refer to Cells S15..U17 which are titled as the November and December 2015 spending amounts for Business Unit DV.

a. Please provide the source and support for these hard-coded numbers.

b. Refer to Attachment 1 to this data request which is a pivot table summary of the 2015 actual spending amounts for all Business Units that were included by the Company in the “WKP 2015 PIVOT ACTUALS” tab to its workpapers in the 2016 Capital Rider Reconciliation in Docket 16-00022 and note that these actual amounts do not tie to the Company’s current filing

here for November and December in Business Unit DV. If the Company believes that its current filing was compiled in error, then please provide an updated filing calculation. If the Company believes that its current filing was not compiled in error, then please provide a complete explanation as to why.

RESPONSE:

5. Refer to the “TAW_APP_SCH1_2017” spreadsheet included with the Company’s filing. Specifically refer to the “WKP 2016 In-Serviced SCEP Proof” tab of this spreadsheet. Finally, refer to Cells S19..U19 which are titled as the November and December 2015 spending amounts for Business Unit A.

a. Please provide the source and support for these hard-coded numbers.

b. Refer to Attachment 1 to this data request which is a pivot table summary of the 2015 actual spending amounts for all Business Units that were included by the Company in the “WKP 2015 PIVOT ACTUALS” tab to its workpapers in the 2016 Capital Rider Reconciliation in Docket 16-00022 and note that these actual amounts do not tie to the Company’s current filing here for November and December in Business Unit A. If the Company believes that its current filing was compiled in error, then please provide an updated filing calculation. If the Company believes that its current filing was not compiled in error, then please provide a complete explanation as to why.

RESPONSE:

6. Refer to the “TAW_APP_SCH1_2017” spreadsheet included with the Company’s filing. Specifically refer to the “WKP 2016 In-Serviced SCEP Proof” tab of this spreadsheet. Finally, refer to Cells S23..U25 which are titled as the November and December 2015 spending amounts for Business Unit B.

- a. Please provide the source and support for these hard-coded numbers.
- b. Refer to Attachment 1 to this data request which is a pivot table summary of the 2015 actual spending amounts for all Business Units that were included by the Company in the “WKP 2015 PIVOT ACTUALS” tab to its workpapers in the 2016 Capital Rider Reconciliation in Docket 16-00022 and note that these actual amounts do not tie to the Company’s current filing here for November and December in Business Unit B. If the Company believes that its current filing was compiled in error, then please provide an updated filing calculation. If the Company believes that its current filing was not compiled in error, then please provide a complete explanation as to why.

RESPONSE:

7. Refer to the “TAW_APP_SCH1_2017” spreadsheet included with the Company’s filing. Specifically refer to the “WKP 2016 In-Serviced SCEP Proof” tab of this spreadsheet. Finally, refer to Cells S27..U27 which are titled as the November and December 2015 spending amounts for Business Unit C.

- a. Please provide the source and support for these hard-coded numbers.
- b. Refer to Attachment 1 to this data request which is a pivot table summary of the 2015 actual spending amounts for all Business Units that were included by the Company in the “WKP 2015 PIVOT ACTUALS” tab to its workpapers in the 2016 Capital Rider Reconciliation in Docket 16-00022 and note that these actual amounts do not tie to the Company’s current filing here for November and December in Business Unit C. If the Company believes that its current filing was compiled in error, then please provide an updated filing calculation. If the Company believes that its current filing was not compiled in error, then please provide a complete explanation as to why.

RESPONSE:

8. Refer to the “TAW_APP_SCH1_2017” spreadsheet included with the Company’s filing. Specifically refer to the “WKP 2016 In-Serviced SCEP Proof” tab of this spreadsheet. Finally, refer to Cells S29..U31 which are titled as the November and December 2015 spending amounts for Business Unit D.

a. Please provide the source and support for these hard-coded numbers.

b. Refer to Attachment 1 to this data request which is a pivot table summary of the 2015 actual spending amounts for all Business Units that were included by the Company in the “WKP 2015 PIVOT ACTUALS” tab to its workpapers in the 2016 Capital Rider Reconciliation in Docket 16-00022 and note that these actual amounts do not tie to the Company’s current filing here for November and December in Business Unit D. If the Company believes that its current filing was compiled in error, then please provide an updated filing calculation. If the Company believes that its current filing was not compiled in error, then please provide a complete explanation as to why.

RESPONSE:

9. Refer to the “TAW_APP_SCH1_2017” spreadsheet included with the Company’s filing. Specifically refer to the “WKP 2016 In-Serviced SCEP Proof” tab of this spreadsheet. Finally, refer to Cell U110 which is labeled as “inception to date spend” and answer the following:

a. What is the Company’s rationale for adjusting the 2016 budget data for this item?

b. Was this \$1.6 million actually spent or does it just represent budget dollars that were originally placed in the “2015 SCEP” and never spent?

c. If this \$1.6 million in budget dollars were included in the “2015 SCEP” and never spent, then provide the details for the other projects that they were diverted to?

d. If this \$1.6 million in budget dollars were included in the “2015 SCEP” and never spent, then explain why the Company now anticipates that they will be spent in 2017?

RESPONSE:

10. Refer to the “TAW_APP_SCH1_2017” spreadsheet included with the Company’s filing. Specifically refer to the “WKP 2016 In-Serviced SCEP Proof” tab of this spreadsheet. Finally, refer to Cells W113 and W117 that make an adjustment of \$300,000 to transfer funds between Project I26-020038 and I26-020032. Provide the source, support and rationale for this budget change. In addition, provide the section in the Company’s testimony where this change was discussed.

RESPONSE: In addition to its General Objections, TAWC objects to this Request on the grounds that it is overbroad and unduly burdensome. TAWC further objects to this Request to the extent that it seeks information that is equally obtainable by the CPAD from public or other sources or through some other means of discovery that is more convenient, less burdensome, or less expensive. TAWC reserves the right to supplement this response as information becomes available during the course of discovery, document review and investigation. Subject to and without waiving the foregoing objections, TAWC states as follows:

TWAC refers the CPAD to the Supplemental Testimony of Linda C. Bridwell in this matter.

11. Refer to the “TAW_APP_SCH1_2017” spreadsheet included with the Company’s filing. Specifically refer to the “WKP 2016 In-Serviced SCEP Proof” tab of this spreadsheet. Finally, refer to Cell M77 which allocates 57.6% of estimated budget dollars in Business Unit Q to Account 320100. In previous filings, this allocation was made to Account 320200. Please provide the source, support and rationale for this change. If the Company believes that its current

filing was compiled in error, then please provide an updated filing calculation. If the Company believes that its current filing was not compiled in error, then please provide a complete explanation as to why.

RESPONSE:

12. Refer to the “TAW_APP_SCH1_2017” spreadsheet included with the Company’s filing. Specifically refer to the “WKP 2017 In-Serviced SCEP Proof” tab of this spreadsheet. Finally, refer to Cell BA116 which contains the Company’s average plant in service calculation of \$153,978 for Investment Project I26-020034. The Company’s calculation appears to only be based on the projected cumulative plant in service balance at December 31, 2017 rather than an average of the individual cumulative monthly balances during 2017 as shown on Cells I43..R43 of the “EXH 2017 SCEP” tab of this same spreadsheet. If the Company believes that its current filing was compiled in error, then please provide an updated filing calculation. If the Company believes that its current filing was not compiled in error, then please provide a complete explanation as to why and provide the citation where this change in calculation methodology was discussed in the Company’s testimony.

RESPONSE:

13. Refer to the “TAW_APP_SCH1_2017” spreadsheet included with the Company’s filing. Specifically refer to the “WKP 2017 In-Serviced SCEP Proof” tab of this spreadsheet. Finally, refer to Cell AY110 which contains the “QIIP” surcharge classification for Investment Project I26-020038. In previous filings, this investment project was classified as “SEC”. If the Company believes that its current filing was compiled in error, then please provide an updated filing calculation. If the Company believes that its current filing was not compiled in error, then please

provide a complete explanation as to why and provide the citation where this change in calculation methodology was discussed in the Company's testimony.

RESPONSE:

14. Please identify each person who you expect to call as an expert witness at the hearing on the merits in this docket, and for each such expert witness:

- (a) Identify the field in which the witness is to be offered as an expert;
- (b) Provide complete background information, including the witness's current employer, as well as his or her educational, professional and employment history, and qualifications within the field in which the witness is expected to testify;
- (c) Identify all publications written or presentations presented in whole or in part by the witness, including either a copy of all such publications and presentations or a reference to where such publications and presentations may be publicly obtained;
- (d) Provide the grounds for the opinions to which the witness is expected to testify, and provide a summary of the grounds for each such opinion;
- (e) Identify any matter in which the expert has testified (through deposition or otherwise) by specifying the name, docket number and forum of each case, the dates of the prior testimony and the subject of the prior testimony, and identify the transcripts of any such testimony;
- (f) Identify the terms of the retention or engagement of each expert including but not limited to the terms of any retention or engagement letters or agreements relating to his/her engagement, testimony, and opinions as well as the compensation to be paid for the testimony and opinions;
- (g) Identify any exhibits to be used as a summary of or support for the testimony or opinions provided by the expert; and
- (h) Please produce copies of all documents, summaries, charts, trade articles, journals, treatises, publications, workpapers, file notes, chart notes, tests, test results, interview notes, and consultation notes provided to, reviewed by, utilized by, relied upon, created by, or produced by any proposed expert witness in evaluating, reaching conclusions or formulating an opinion in this matter.

RESPONSE:

In addition to its General Objections, TAWC objects to this Request on the grounds that it is overbroad, unduly burdensome, unrestricted in time and scope, and seeks information that is

neither relevant nor reasonably calculated to lead to the discovery of admissible evidence. TAWC further objects to this Request on the grounds that it seeks the production of information that is protected from disclosure by the attorney-client privilege, the work product immunity, or any other applicable privileges, immunities, and/or doctrines of state law. TAWC reserves the right to supplement this response as information becomes available during the course of discovery, document review and investigation. Subject to and without waiving the foregoing objections, TAWC states as follows:

This Response will be supplemented at a later date, if appropriate, in accordance with the Tennessee Rules of Civil Procedure and any Scheduling Order. However, at this time, TAWC does not expect to call any witnesses at the hearing not already identified and refers the CPAD to the Pre-filed Testimony of Linda C. Bridwell and Brent E. O'Neil, the Petition, and all supporting documentation, including responses to discovery, data requests, and the record in TRA Docket No. 13-00130. TAWC also refers to and incorporates herein its responses to Request Nos. 16, 17, and 18.

15. Please identify all persons having knowledge of discoverable matters in this case.

RESPONSE: In addition to its General Objections, TAWC objects to this Request on the grounds that it is overbroad, unduly burdensome, unrestricted in scope, and seeks information that is neither relevant nor reasonably calculated to lead to the discovery of admissible evidence. TAWC further objects to this Request to the extent that it seeks information that is equally obtainable by the CPAD from public or other sources or through some other means of discovery that is more convenient, less burdensome, or less expensive. TAWC reserves the right to supplement this response as information becomes available during the course of discovery,

document review and investigation. Subject to and without waiving the foregoing objections, TAWC states as follows:

The following persons have some knowledge of discoverable matters in this case: Linda C. Bridwell and Brent E. O'Neill. In addition to the Pre-filed Testimony in this matter, TAWC will identify responsible persons for each discovery request in this matter on an ongoing basis, if appropriate.

16. Please produce copies of all documents referred to or relied upon in responding to these discovery requests.

RESPONSE: In addition to its General Objections, TAWC objects to this Request on the grounds that it is overbroad, unduly burdensome, and duplicative. TAWC further objects to this Request to the extent that it seeks information that is equally obtainable by the CPAD from public or other sources or through some other means of discovery that is more convenient, less burdensome, or less expensive. Subject to and without waiving the foregoing objections, TAWC states as follows:

Any documents relied upon in responding to these discovery requests have been included as attachments to specific requests. TAWC also refers the CPAD to all documents filed previously in this matter, including the Pre-filed Testimony of Linda C. Bridwell and Brent E. O'Neil, the Petition, and all supporting documentation, responses to discovery and data requests, and the record in TRA Docket No. 13-00130, Docket No. 14-00121, and Docket No. 15-00111. TAWC reserves the right to supplement this response as information becomes available during the course of discovery, document review and investigation.

17. Please produce copies of all hearing exhibits that you plan to introduce, use, or reference at the hearing on the merits in this docket.

RESPONSE: In addition to its General Objections, TAWC objects to this Request on the grounds that it is overbroad, unduly burdensome, and duplicative. TAWC further objects to this Request to the extent that it seeks information that is equally obtainable by the CPAD from public or other sources or through some other means of discovery that is more convenient, less burdensome, or less expensive. Subject to and without waiving the foregoing objections, TAWC states as follows:

TAWC refers the CPAD to all documents filed previously in this matter, and it anticipates that all documents submitted in this matter will be introduced into evidence. TAWC also refers the CPAD to all documents filed in this matter subsequent to the issuance of these responses, including, but not limited to, future responses to discovery requests and/or TRA data requests. TAWC reserves the right to supplement this response as information becomes available during the course of discovery, document review and investigation.

18. Please produce copies of all documents -- including, without limitation, work papers, spreadsheets, summaries, charts, notes, exhibits, articles, journals, treatises, periodicals, publications, reports, records, statements, Internet web pages, or financial information -- relied upon by any of your witnesses in evaluating, reaching conclusions, or formulating an opinion in this matter.

RESPONSE: In addition to its General Objections, TAWC objects to this Request on the grounds that it is overbroad, unduly burdensome, duplicative, and seeks information that is neither relevant nor reasonably calculated to lead to the discovery of admissible evidence. TAWC further objects to this Request to the extent that it seeks information that is equally obtainable by the CPAD from public or other sources or through some other means of discovery

that is more convenient, less burdensome, or less expensive. Subject to and without waiving the foregoing objections, TAWC states as follows:

TAWC refers the CPAD to the following previously filed documents in this matter: TAWC's Petition and supporting documentation, including, but not limited to: the Pre-Filed Testimony of Linda C. Bridwell, work papers, spreadsheets and exhibits. TAWC also refers and incorporates herein its objections and responses to Request Nos. 3, 4, 5, 6, 7, 8, 10, 11, and 17 as well as the record in TRA Docket No. 13-00130, Docket No. 14-00121, and Docket No. 15-00111. TAWC reserves the right to supplement this response as information becomes available during the course of discovery, document review and investigation.

19. Identify all information, documents and things filed in the present docket record, including all responses to discovery of the parties and data request from the TRA Staff, which TAWC produced in this docket and does not agree to stipulate to the authenticity of such information, documents and things in this proceeding. For each separate piece of information, documents and things which TAWC produced in this docket and TAWC contends is not admissible as evidence describe in specific detail any objection(s) TAWC claims as to admissibility into the evidentiary record in this docket.

RESPONSE: In addition to its General Objections, TAWC objects to this Request on the grounds that it is overbroad, unduly burdensome, vague, confusing, and ambiguous. Subject to and without waiving the foregoing objections, TAWC states as follows:

At this time, only with respect to such information submitted by TAWC, TAWC has no intention of challenging the authenticity or admissibility of such information. TAWC also has no objection to the submission into evidence of such information submitted by TAWC. It is customary for the agency to move all discovery into evidence. TAWC reserves the right to

supplement this response as information becomes available during the course of discovery,
document review and investigation.

**TENNESSEE AMERICAN WATER COMPANY
DOCKET NO. 16-00126
FIRST DISCOVERY REQUEST OF THE
CONSUMER PROTECTION AND ADVOCATE DIVISION**

Responsible Person: Brent O'Neill

Question:

1. Please provide a complete copy of the BP2017-2021 Strategic Capital Expenditure Plan (the five-year plan) including all workpapers that is referred to in the "EXH 2017 SCEP" tab of the "TAW_APP_SCH1_2017" spreadsheet included with the Company's filing.

Response:

Attached please find the TN BP 2017-2021 SCEP that is referred to in the EXH 2017 SCEP as attachment "TAW_R_CPADDR1_001_122016_Attachment".

[illegible]

STRATEGIC CAPITAL EXPENDITURE PLAN																		
PROGRAM																		
Business Unit			Tennessee															
Revision Date			June 21, 2016															
Description			TN BP 2017-2021 SCEP															
Business Unit	Rider	Business Unit No.	Project Title		2017	Period 1	2	3	4	5	6	7	8	9	10	11	12	
RECURRING PROJECTS																		
Tennessee	None	DV	Projects Funded by Others															
Tennessee	EDI	A	Mains - New				\$10,000.00	\$10,000.00	\$50,000.00	\$80,000.00	\$150,000.00	\$150,000.00	\$90,000.00	\$80,000.00	\$80,000.00	\$80,000.00	\$120,000.00	\$100,000.00
Tennessee	QIIP	B	Mains - Replaced / Restored				\$55,000.00	\$125,000.00	\$105,000.00	\$25,000.00								
Tennessee	QIIP	C	Mains - Unscheduled				\$158,367.08	\$158,367.08	\$253,367.08	\$300,867.08	\$300,867.08	\$300,867.08	\$300,867.08	\$300,867.08	\$218,109.58	\$110,867.08	\$110,867.08	\$105,974.58
Tennessee	QIIP	D	Mains - Relocated				\$165,931.58	\$171,242.11	\$80,000.00	\$37,173.68	\$42,484.21	\$74,347.37	\$75,000.00	\$75,000.00	\$45,000.00	\$47,231.58	\$84,968.42	\$110,621.05
Tennessee	EDI	E	Hydrants, Valves, and Manholes - New					\$3,936.51	\$6,560.85	\$5,248.68	\$7,873.02	\$6,560.85	\$8,791.53	\$11,153.44	\$11,153.44	\$9,185.19	\$3,936.51	
Tennessee	QIIP	F	Hydrants, Valves, and Manholes - Replaced					\$10,000.00	\$20,000.00	\$35,000.00	\$30,000.00	\$39,500.00	\$39,600.00	\$55,000.00	\$50,000.00	\$49,100.00	\$30,000.00	\$15,900.00
Tennessee	None	G	Services and Laterals - New				\$38,750.46	\$48,500.55	\$71,750.82	\$79,500.92	\$87,251.01	\$103,751.19	\$102,751.19	\$74,001.10	\$72,990.84	\$64,000.73	\$56,250.64	\$46,500.55
Tennessee	QIIP	H	Services and Laterals - Replaced				\$9,900.62	\$19,801.24	\$29,701.86	\$41,602.48	\$41,602.48	\$52,503.11	\$51,503.11	\$41,602.48	\$24,751.55	\$34,652.17	\$29,701.86	\$21,177.02
Tennessee	None	I	Meters - New					\$10,101.50	\$15,152.25	\$22,223.30	\$22,223.30	\$34,345.09	\$30,304.49	\$24,243.60	\$15,152.25	\$10,101.50	\$10,000.48	
Tennessee	QIIP	J	Meters - Replaced				\$92,115.38	\$92,115.38	\$122,715.65	\$122,715.65	\$183,916.18	\$183,916.18	\$183,916.18	\$183,916.18	\$180,141.18	\$127,526.01	\$122,715.65	\$92,115.38
Tennessee	None	K	ITS Equipment and Systems				\$94,985.00	\$144,308.05	\$105,065.00	\$149,882.04	\$71,233.00	\$116,937.00	\$145,591.00	\$229,637.91	\$93,191.00	\$71,233.00	\$71,233.00	\$235,664.00
Tennessee	SEC	L	SCADA Equipment and Systems							\$58,333.33	\$58,333.33							
Tennessee	SEC	M	Security Equipment and Systems							\$25,000.00	\$25,000.00			\$10,000.00	\$35,555.56	\$30,555.56	\$13,888.89	
Tennessee	None	N	Offices and Operations Centers					\$5,000.00				\$5,000.00			\$5,000.00			
Tennessee	None	O	Vehicles							\$101,250.00	\$101,250.00		\$101,250.00	\$221,250.00				
Tennessee	None	P	Tools and Equipment				\$12,083.33	\$12,083.33	\$12,083.33	\$24,166.67	\$17,083.33	\$16,166.67	\$15,083.33	\$14,500.00	\$2,416.67	\$9,666.67	\$4,833.33	\$4,833.33
Tennessee	SEC	Q	Process Plant Facilities and Equipment					\$18,113.21	\$32,377.36	\$62,566.04	\$68,603.77	\$26,339.62	\$38,415.09	\$20,301.89	\$92,754.72	\$65,584.91	\$62,566.04	\$32,377.36
Tennessee	QIIP	R	Capitalized Tank Rehabilitation/Painting												\$295,629.76	\$430,832.08	\$383,663.16	
Tennessee	None	S	Engineering Studies					\$5,000.00	\$5,000.00	\$5,000.00	\$5,000.00	\$5,000.00	\$5,000.00	\$5,000.00	\$5,000.00	\$5,000.00	\$5,000.00	
Total Recurring Projects Less K3																		
Total Recurring Projects						\$627,133.45	\$818,568.96	\$863,774.20	\$994,279.86	\$1,096,054.05	\$1,158,150.82	\$1,141,406.35	\$1,292,029.23	\$846,216.78	\$918,718.23	\$1,023,006	\$1,058,827	
INVESTMENT PROJECTS																		
			Expected In Service Date															
Tennessee	QIIP	126-020041	Electrical - Breakers and Relays (\$0.6)	12/31/2017										\$16,549.73	\$21,166.07	\$110,564.92	\$149,930.67	\$132,000.00
Tennessee	SEC	126-020042	Pumping Auxiliary Power (\$1.4)	6/30/2018									\$19,159.07	\$16,874.86	\$99,595.59	\$138,731.52	\$206,614.83	\$202,188.84
Tennessee	QIIP	126-020043	Energy Reduction and Efficiency (\$0.87)	12/31/2020														
Tennessee	SEC	126-020027	Construct 1.0MG Tank & 2500-16" ER (\$1.5)	7/31/2019														
Tennessee	QIIP	126-020034	Tennessee River Crossing (\$2.5)	11/30/2017			\$16,545.00	\$126,937.00	\$166,237.00	\$222,293.00	\$223,499.00	\$224,706.00	\$225,913.00	\$227,119.00	\$283,477.00	\$284,985.00		
Tennessee	SEC	126-020044	New Raw Water Intake Cflco (\$13)	6/30/2022														
Tennessee	SEC	126-050001	Raw Water Intake Improvements Whitwell (\$2)	12/31/2021														
Tennessee	SEC	126-020038	Retire Basin 1 (\$0.6)	12/31/2020														
Tennessee	QIIP	126-020039	Basin 2 Tube Settlers (\$3.5)	12/31/2019														
Tennessee	SEC	126-020040	Chlorine Gas Conversion (\$4.5)	4/1/2020														
Tennessee	QIIP	126-020045	Renovate Filter Bldg 3 (\$0.75)	6/30/2018										\$5,515.00	\$16,575.00	\$23,726.00	\$21,664.00	
Tennessee	None	126-020046	New Field Services Facility (\$4.5)	12/31/2020														
Tennessee	SEC	126-050002	Facility Upgrades at Whitwell WTP (\$0.3) 1/3 in 2018	4/30/2018									\$5,515.00	\$11,060.00	\$38,696.00	\$41,998.00	\$72,390.00	
Tennessee	SEC	126-050003	Replace 0.5 MG Storage Tanks at Whitwell (\$5.5)	12/31/2021														
Tennessee	SEC	126-050004	Replace 0.1 MG Storage Tank at Whitwell (\$0.3) 1/3 in 18	4/30/2018									\$5,515.00	\$11,060.00	\$18,782.00	\$43,847.00	\$83,330.00	
Tennessee	No	126-000002	Post Acquisition BD Capex									\$250,000.00						
Total Investment Projects							\$16,545.00	\$126,937.00	\$166,237.00	\$222,293.00	\$492,658.07	\$269,160.59	\$374,309.66	\$550,468.44	\$749,593.50	\$796,557.84		
Total Investment and Centrally Sponsored Projects							\$16,545.00	\$126,937.00	\$166,237.00	\$222,293.00	\$492,658.07	\$269,160.59	\$374,309.66	\$550,468.44	\$749,593.50	\$796,557.84		
Contributions							-\$20,000.00	-\$20,000.00	-\$20,000.00	-\$20,000.00	-\$20,000.00	-\$20,000.00	-\$20,000.00	-\$20,000.00	-\$20,000.00	-\$20,000.00	-\$20,000.00	-\$20,000.00
Advances							-\$58,333.33	-\$58,333.33	-\$58,333.33	-\$58,333.33	-\$58,333.33	-\$58,333.33	-\$58,333.33	-\$58,333.33	-\$58,333.33	-\$58,333.33	-\$58,333.33	-\$58,333.33
Total Refunds							\$29,166.67	\$29,166.67	\$29,166.67	\$29,166.67	\$29,166.67	\$29,166.67	\$29,166.67	\$29,166.67	\$29,166.67	\$29,166.67	\$29,166.67	\$29,166.67
Gross minus BT						\$637,133.45	\$828,568.96	\$930,319.20	\$1,201,216.86	\$1,412,291.05	\$1,530,443.82	\$1,724,064.42	\$1,641,189.82	\$1,300,526.44	\$1,549,186.67	\$1,892,599.61	\$1,955,384.75	
						-\$49,166.67	-\$49,166.67	-\$49,166.67	-\$49,166.67	-\$49,166.67	-\$49,166.67	-\$49,166.67	-\$49,166.67	-\$49,166.67	-\$49,166.67	-\$49,166.67	-\$49,166.67	-\$49,166.67
Net minus BT						\$587,966.78	\$779,402.29	\$881,152.53	\$1,152,050.20	\$1,363,124.38	\$1,481,277.16	\$1,674,897.75	\$1,592,023.15	\$1,251,359.77	\$1,500,020.00	\$1,843,432.95	\$1,906,218.09	
Gross plus BT						\$637,133.45	\$828,568.96	\$930,319.20	\$1,201,216.86	\$1,412,291.05	\$1,530,443.82	\$1,724,064.42	\$1,641,189.82	\$1,300,526.44	\$1,549,186.67	\$1,892,599.61	\$1,955,384.75	
						-\$49,166.67	-\$49,166.67	-\$49,166.67	-\$49,166.67	-\$49,166.67	-\$49,166.67	-\$49,166.67	-\$49,166.67	-\$49,166.67	-\$49,166.67	-\$49,166.67	-\$49,166.67	-\$49,166.67
Net plus BT						\$587,966.78	\$779,402.29	\$881,152.53	\$1,152,050.20	\$1,363,124.38	\$1,481,277.16	\$1,674,897.75	\$1,592,023.15	\$1,251,359.77	\$1,500,020.00	\$1,843,432.95	\$1,906,218.09	

STRATEGIC CAPITAL EXPENDITURE PLAN								
PROGRAM								
Business Unit			Tennessee					
Revision Date			June 21, 2016					
Description			TN BP 2017-2021 SCEP					
				U.S. \$	U.S. \$	U.S. \$	U.S. \$	U.S. \$
Business Unit	Rider	Business Unit No.	Project Title	Total 2017	Total 2018	Total 2019	Total 2020	Total 2021
RECURRING PROJECTS				Profile	Profile			
Tennessee	None	DV	Projects Funded by Others	\$1,000,000.00	\$1,000,000.00	\$1,000,000.00	\$1,000,000.00	\$1,000,000.00
Tennessee	EDI	A	Mains - New	\$310,000.00	\$30,000.00	\$200,000.00	\$240,000.00	\$200,000.00
Tennessee	QIIP	B	Mains - Replaced / Restored	\$2,620,254.96	\$2,214,000.00	\$1,805,000.00	\$2,135,000.00	\$2,385,000.00
Tennessee	QIIP	C	Mains - Unscheduled	\$1,009,000.00	\$1,028,000.00	\$1,055,000.00	\$1,060,000.00	\$1,080,000.00
Tennessee	QIIP	D	Mains - Relocated	\$100,000.00	\$300,000.00	\$350,000.00	\$350,000.00	\$350,000.00
Tennessee	EDI	E	Hydrants, Valves, and Manholes - New	\$74,400.00	\$72,600.00	\$70,100.00	\$70,200.00	\$69,200.00
Tennessee	QIIP	F	Hydrants, Valves, and Manholes - Replaced	\$374,100.00	\$394,100.00	\$389,100.00	\$381,700.00	\$404,200.00
Tennessee	None	G	Services and Laterals - New	\$846,000.00	\$910,250.00	\$932,400.00	\$932,400.00	\$948,200.00
Tennessee	QIIP	H	Services and Laterals - Replaced	\$398,500.00	\$464,750.00	\$473,000.00	\$473,000.00	\$479,250.00
Tennessee	None	I	Meters - New	\$209,000.00	\$218,500.00	\$220,400.00	\$220,400.00	\$224,200.00
Tennessee	QIIP	J	Meters - Replaced	\$1,687,825.00	\$2,248,070.00	\$2,004,465.00	\$1,459,025.00	\$1,151,125.00
Tennessee	None	K	ITS Equipment and Systems	\$1,529,960.00	\$1,253,427.00	\$1,198,697.00	\$1,246,015.00	\$1,375,607.00
Tennessee	SEC	L	SCADA Equipment and Systems	\$175,000.00	\$100,000.00	\$60,000.00	\$85,000.00	\$125,000.00
Tennessee	SEC	M	Security Equipment and Systems	\$140,000.00	\$120,000.00	\$75,000.00	\$75,000.00	\$75,000.00
Tennessee	None	N	Offices and Operations Centers	\$15,000.00	\$15,000.00	\$15,000.00	\$15,000.00	\$15,000.00
Tennessee	None	O	Vehicles	\$525,000.00	\$394,000.00	\$338,000.00	\$558,000.00	\$427,000.00
Tennessee	None	P	Tools and Equipment	\$145,000.00	\$65,000.00	\$65,000.00	\$65,000.00	\$65,000.00
Tennessee	SEC	Q	Process Plant Facilities and Equipment	\$520,000.00	\$1,535,000.00	\$755,000.00	\$1,125,000.00	\$825,000.00
Tennessee	QIIP	R	Capitalized Tank Rehabilitation/Painting	\$1,110,125.00	\$975,000.00	\$600,000.00	\$1,106,250.00	\$1,106,250.00
Tennessee	None	S	Engineering Studies	\$50,000.00	\$50,000.00	\$50,000.00	\$50,000.00	\$50,000.00
			Total Recurring Projects Less K3	\$10,610,569	\$11,298,650	\$9,591,777	\$10,577,124	\$10,281,512
			Total Recurring Projects	\$11,838,165	\$12,387,697	\$10,656,162	\$11,646,990	\$11,355,032
INVESTMENT PROJECTS								
Tennessee	QIIP	126-020041	Electrical - Breakers and Relays (\$0.6)	\$430,211.39				
Tennessee	SEC	126-020042	Pumping Auxiliary Power (\$1.4)	\$683,164.71	\$589,257.03			
Tennessee	QIIP	126-020043	Energy Reduction and Efficiency (\$0.87)				\$831,485.00	
Tennessee	SEC	126-020027	Construct 1 OMG Tank & 2500-16" ER (\$1.5)		\$1,199,687.00	\$299,017.00		
Tennessee	QIIP	126-020034	Tennessee River Crossing (\$2.5)	\$2,001,711.00	\$348,668.00			
Tennessee	SEC	126-020044	New Raw Water Intake Clitico (\$13)				\$498,740.00	\$2,684,560.83
Tennessee	SEC	126-050001	Raw Water Intake Improvements Whitwell (\$2)				\$400,705.00	\$1,392,734.00
Tennessee	SEC	126-020038	Retire Basin 1 (\$0.6)				\$299,113.00	
Tennessee	QIIP	126-020039	Basin 2 Tube Settlers (\$3.5)		\$1,152,510.00	\$2,001,007.00		
Tennessee	SEC	126-020040	Chlorine Gas Conversion (\$4.5)		\$974,190.00	\$3,022,614.60	\$503,697.00	
Tennessee	QIIP	126-020045	Renovate Filter Bldg 3 (\$0.75)	\$67,480.00	\$83,250.84			
Tennessee	None	126-020046	New Field Services Facility (\$4.5)			\$1,859,070.12	\$2,641,259.81	
Tennessee	SEC	126-050002	Facility Upgrades at Whitwell WTP (\$0.3) 1/3 in 2018	\$169,659.00	\$101,836.00			
Tennessee	SEC	126-050003	Replace 0.5 MG Storage Tanks at Whitwell (\$.5)					\$450,489.00
Tennessee	SEC	126-050004	Replace 0.1 MG Storage Tank at Whitwell (\$0.3) 1/3 in 18	\$162,534.00	\$88,569.00			
Tennessee	No	126-000002	Post Acquisition BD Capex	\$250,000.00		\$250,000.00		\$250,000.00
			Total Investment Projects	\$3,764,760.10	\$4,537,967.87	\$7,431,708.72	\$5,174,999.81	\$4,777,783.83
			Total Investment and Centrally Sponsored Project:	\$3,764,760.10	\$4,537,967.87	\$7,431,708.72	\$5,174,999.81	\$4,777,783.83
Contributions				-\$240,000.00	-\$240,000.00	-\$240,000.00	-\$240,000.00	-\$240,000.00
Advances				-\$700,000.00	-\$700,000.00	-\$700,000.00	-\$700,000.00	-\$700,000.00
Total Refunds				\$350,000.00	\$350,000.00	\$350,000.00	\$350,000.00	\$350,000.00
			Gross minus BT	\$16,602,925.05	\$17,925,664.88	\$19,087,870.72	\$17,821,989.81	\$17,132,815.83
				-\$590,000.00	-\$590,000.00	-\$590,000.00	-\$590,000.00	-\$590,000.00
			Net minus BT	\$16,012,925.05	\$17,335,664.88	\$18,497,870.72	\$17,231,989.81	\$16,542,815.83
			Gross plus BT	\$16,602,925.05	\$17,925,664.88	\$19,087,870.72	\$17,821,989.81	\$17,132,815.83
				-\$590,000.00	-\$590,000.00	-\$590,000.00	-\$590,000.00	-\$590,000.00
			Net plus BT	\$16,012,925.05	\$17,335,664.88	\$18,497,870.72	\$17,231,989.81	\$16,542,815.83

Tennessee
May 15, 2016
TN BP 2017-2021 SCEP

Business Unit No.	Recurring Project Title	1	2	3	4	5	6	7	8	9	10	11	12	Total 2017
D26-0201	Projects Funded by Others	10,000.00	10,000.00	50,000.00	80,000.00	150,000.00	150,000.00	90,000.00	80,000.00	80,000.00	80,000.00	120,000.00	100,000.00	1,000,000.00
DV-2603-1	Projects Funded by Others													0.00
DV-2604-1	Projects Funded by Others													0.00
	TOTAL: Projects Funded by Others	10,000.00	10,000.00	50,000.00	80,000.00	150,000.00	150,000.00	90,000.00	80,000.00	80,000.00	80,000.00	120,000.00	100,000.00	1,000,000.00
RP-2602-A1	Mains - New	30,000.00	50,000.00	30,000.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	110,000.00
RP-2603-A1	Mains - New													0.00
RP-2604-A1	Mains - New													0.00
RP-2605-A1	Mains - New	25,000.00	75,000.00	75,000.00	25,000.00									200,000.00
A	Mains - New													0.00
	TOTAL: Mains - New	55,000.00	125,000.00	105,000.00	25,000.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	310,000.00
RP-2602-B1	Mains - Replaced / Restored	158,367.08	158,367.08	253,367.08	300,867.08	300,867.08	300,867.08	300,867.08	300,867.08	218,109.58	110,867.08	110,867.08	105,974.58	2,620,254.96
RP-2603-B1	Mains - Replaced / Restored													0.00
RP-2604-B1	Mains - Replaced / Restored													0.00
RP-2605-B1	Mains - Replaced / Restored													0.00
	TOTAL: Mains - Replaced / Restored	158,367.08	158,367.08	253,367.08	300,867.08	300,867.08	300,867.08	300,867.08	300,867.08	218,109.58	110,867.08	110,867.08	105,974.58	2,620,254.96
RP-2602-C1	Mains - Unscheduled	150,000.00	150,000.00	80,000.00	37,173.68	42,484.21	74,347.37	75,000.00	75,000.00	45,000.00	47,231.58	74,347.37	100,000.00	950,584.21
RP-2603-C1	Mains - Unscheduled	5,310.53												5,310.53
RP-2604-C1	Mains - Unscheduled													0.00
RP-2605-C1	Mains - Unscheduled	10,621.05	21,242.11									10,621.05	10,621.05	53,105.26
C	Mains - Unscheduled													0.00
	TOTAL: Mains - Unscheduled	165,931.58	171,242.11	80,000.00	37,173.68	42,484.21	74,347.37	75,000.00	75,000.00	45,000.00	47,231.58	84,968.42	110,621.05	1,009,000.00
RP-2602-D1	Mains - Relocated	0.00	0.00	0.00	0.00	33,333.33	33,333.33	33,333.34	0.00	0.00	0	0	0	100,000.00
RP-2603-D1	Mains - Relocated													0.00
RP-2604-D1	Mains - Relocated													0.00
RP-2605-D1	Mains - Relocated													0.00
D	Mains - Relocated													0.00
	TOTAL: Mains - Relocated	0.00	0.00	0.00	0.00	33,333.33	33,333.33	33,333.34	0.00	0.00	0.00	0.00	0.00	100,000.00
RP-2602-E1	Hydrants, Valves, and Manholes - New	0.00	3,936.51	6,560.85	5,248.68	6,560.85	6,560.85	6,560.85	9,841.27	9,841.27	7,873.02	3,936.51	0.00	66,920.63
RP-2603-E1	Hydrants, Valves, and Manholes - New													0.00
RP-2604-E1	Hydrants, Valves, and Manholes - New													0.00
RP-2605-E1	Hydrants, Valves, and Manholes - New					1,312.17		2,230.69	1,312.17	1,312.17	1,312.17			7,479.37
E	Hydrants, Valves, and Manholes - New													0.00
	TOTAL: Hydrants, Valves, and Manholes	0.00	3,936.51	6,560.85	5,248.68	7,873.02	6,560.85	8,791.53	11,153.44	11,153.44	9,185.19	3,936.51	0.00	74,400.00
RP-2602-F1	Hydrants, Valves, and Manholes - Replaced	0.00	10,000.00	20,000.00	30,000.00	30,000.00	39,500.00	39,600.00	50,000.00	50,000.00	40,000.00	30,000.00	15,900.00	355,000.00
RP-2603-F1	Hydrants, Valves, and Manholes - Replaced													0.00
RP-2604-F1	Hydrants, Valves, and Manholes - Replaced													0.00
RP-2605-F1	Hydrants, Valves, and Manholes - Replaced				5,000.00				5,000.00		9,100.00			19,100.00
	TOTAL: Hydrants, Valves, and Manholes	0.00	10,000.00	20,000.00	35,000.00	30,000.00	39,500.00	39,600.00	55,000.00	50,000.00	49,100.00	30,000.00	15,900.00	374,100.00
RP-2602-G1	Services and Laterals - New	38,750.46	46,500.55	69,750.82	77,500.92	85,251.01	100,751.19	100,751.19	72,001.10	70,990.84	62,000.73	54,250.64	46,500.55	825,000.00
RP-2603-G1	Services and Laterals - New						1,000.00							1,000.00
RP-2604-G1	Services and Laterals - New													0.00
RP-2605-G1	Services and Laterals - New		2,000.00	2,000.00	2,000.00	2,000.00	2,000.00	2,000.00	2,000.00	2,000.00	2,000.00	2,000.00		20,000.00
	TOTAL: Services and Laterals - New	38,750.46	48,500.55	71,750.82	79,500.92	87,251.01	103,751.19	102,751.19	74,001.10	72,990.84	64,000.73	56,250.64	46,500.55	846,000.00
RP-2602-H1	Services and Laterals - Replaced	9,900.62	19,801.24	29,701.86	39,602.48	39,602.48	49,503.11	49,503.11	39,602.48	24,751.55	34,652.17	29,701.86	21,177.02	387,500.00
RP-2603-H1	Services and Laterals - Replaced						1,000.00							1,000.00
RP-2604-H1	Services and Laterals - Replaced													0.00
RP-2605-H1	Services and Laterals - Replaced				2,000.00	2,000.00	2,000.00	2,000.00	2,000.00					10,000.00
	TOTAL: Services and Laterals - Replaced	9,900.62	19,801.24	29,701.86	41,602.48	41,602.48	52,503.11	51,503.11	41,602.48	24,751.55	34,652.17	29,701.86	21,177.02	398,500.00
RP-2602-I1	Meters - New		10,101.50	15,152.25	22,223.30	22,223.30	34,345.09	30,304.49	24,243.60	15,152.25	15,152.25	10,101.50	10,000.48	209,000.00
RP-2603-I1	Meters - New													0.00
RP-2604-I1	Meters - New													0.00
RP-2605-I1	Meters - New													0.00
	TOTAL: Meters - New	0.00	10,101.50	15,152.25	22,223.30	22,223.30	34,345.09	30,304.49	24,243.60	15,152.25	15,152.25	10,101.50	10,000.48	209,000.00
RP-2602-J1	Meters - Replaced	91,800.80	91,800.80	122,401.06	122,401.06	183,601.60	183,601.60	183,601.60	183,601.60	179,826.60	127,211.43	122,401.06	91,800.80	1,684,050.00
RP-2603-J1	Meters - Replaced													0.00
RP-2604-J1	Meters - Replaced													0.00
RP-2605-J1	Meters - Replaced	314.58	314.58	314.58	314.58	314.58	314.58	314.58	314.58	314.58	314.58	314.58	314.58	3,775.00
	TOTAL: Meters - Replaced	92,115.38	92,115.38	122,715.65	122,715.65	183,916.18	183,916.18	183,916.18	183,916.18	180,141.18	127,526.01	122,715.65	92,115.38	1,687,825.00
RP-2602-K1	ITS Equipment and Systems		61,197.05		78,649.04				146,526.91					286,373.00
RP-2601-K3	ITS Equipment and Systems	94,985.00	83,111.00	105,065.00	71,233.00	71,233.00	116,937.00	130,600.00	83,111.00	93,191.00	71,233.00	71,233.00	235,664.00	1,227,596.00
RP-2603-K1	ITS Equipment and Systems													0.00
RP-2604-K1	ITS Equipment and Systems													0.00
RP-2605-K1	ITS Equipment and Systems							14,991.00						14,991.00
	TOTAL: ITS Equipment and Systems	94,985.00	144,308.05	105,065.00	149,882.04	71,233.00	116,937.00	145,591.00	229,637.91	93,191.00	71,233.00	71,233.00	235,664.00	1,528,960.00

Tennessee
May 15, 2016
TN BP 2017-2021 SCEP

Business Unit No.	Recurring Project Title	1	2	3	4	5	6	7	8	9	10	11	12	Total 2017
RP-2602-L1	SCADA Equipment and Systems				20,000.00	20,000.00	20,000.00							60,000.00
RP-2603-L1	SCADA Equipment and Systems				16,666.67	16,666.67	16,666.67							50,000.00
RP-2604-L1	SCADA Equipment and Systems													0.00
RP-2605-L1	SCADA Equipment and Systems				21,666.67	21,666.67	21,666.67							65,000.00
L	SCADA Equipment and Systems													0.00
	TOTAL: SCADA Equipment and Systems	0.00	0.00	0.00	58,333.33	58,333.33	58,333.33	0.00	0.00	0.00	0.00	0.00	0.00	175,000.00
RP-2602-M1	Security Equipment and Systems								30,555.56	30,555.56	13,888.89			75,000.00
RP-2603-M1	Security Equipment and Systems				25,000.00	25,000.00								50,000.00
RP-2604-M1	Security Equipment and Systems													0.00
RP-2605-M1	Security Equipment and Systems							10,000.00	5,000.00					15,000.00
	Security Equipment and Systems													0.00
	TOTAL: Security Equipment and Systems	0.00	0.00	0.00	25,000.00	25,000.00	0.00	10,000.00	35,555.56	30,555.56	13,888.89	0.00	0.00	140,000.00
RP-2602-N1	Offices and Operations Centers													0.00
RP-2603-N1	Offices and Operations Centers													0.00
RP-2604-N1	Offices and Operations Centers													0.00
RP-2605-N1	Offices and Operations Centers			5000			5000			5,000.00				15,000.00
	TOTAL: Offices and Operations Centers	0.00	0.00	5,000.00	0.00	0.00	5,000.00	0.00	0.00	5,000.00	0.00	0.00	0.00	15,000.00
RP-2602-O1	Vehicles					101,250.00	101,250.00	101,250.00	101,250.00					405,000.00
RP-2602-O2	Vehicles - EDI													0.00
RP-2603-O1	Vehicles													0.00
RP-2604-O1	Vehicles													0.00
RP-2605-O1	Vehicles													0.00
	TOTAL: Vehicles	0.00	0.00	0.00	0.00	101,250.00	101,250.00	101,250.00	221,250.00	0.00	0.00	0.00	0.00	525,000.00
RP-2602-P1	Tools and Equipment	12,083.33	12,083.33	12,083.33	24,166.67	12,083.33	16,166.67	15,083.33	14,500.00	2,416.67	9,666.67	4,833.33	4,833.33	140,000.00
RP-2603-P1	Tools and Equipment													0.00
RP-2604-P1	Tools and Equipment													0.00
RP-2605-P1	Tools and Equipment													0.00
P	Tools and Equipment					5,000.00								5,000.00
	TOTAL: Tools and Equipment	12,083.33	12,083.33	12,083.33	24,166.67	17,083.33	16,166.67	15,083.33	14,500.00	2,416.67	9,666.67	4,833.33	4,833.33	145,000.00
RP-2602-Q1	Process Plant Facilities and Equipment		18,113.21	32,377.36	62,566.04	68,603.77	26,339.62	8,226.42	20,301.89	92,754.72	65,584.91	62,566.04	32,377.36	489,811.32
RP-2603-Q1	Process Plant Facilities and Equipment													0.00
RP-2604-Q1	Process Plant Facilities and Equipment													0.00
RP-2605-Q1	Process Plant Facilities and Equipment							30,188.68						30,188.68
Q	Process Plant Facilities and Equipment													0.00
	TOTAL: Process Plant Facilities and Equipment	0.00	18,113.21	32,377.36	62,566.04	68,603.77	26,339.62	38,415.09	20,301.89	92,754.72	65,584.91	62,566.04	32,377.36	520,000.00
RP-2602-R1	Capitalized Tank Rehabilitation/Painting										195,629.76	255,832.08	283,663.16	735,125.00
RP-2603-R1	Capitalized Tank Rehabilitation/Painting													0.00
RP-2604-R1	Capitalized Tank Rehabilitation/Painting													0.00
RP-2605-R1	Capitalized Tank Rehabilitation/Painting										100,000.00	175,000.00	100,000.00	375,000.00
	TOTAL: Capitalized Tank Rehabilitation/Painting	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	295,629.76	430,832.08	383,663.16	1,110,125.00
RP-2602-S1	Engineering Studies	0	5000	5000	5000	5,000.00	5,000.00	5,000.00	5,000.00	5,000.00	5,000.00	5,000.00	0.00	50,000.00
RP-2603-S1	Engineering Studies													0.00
RP-2604-S1	Engineering Studies													0.00
RP-2605-S1	Engineering Studies													0.00
S	Engineering Studies													0.00
	TOTAL: Engineering Studies	0.00	5,000.00	5,000.00	5,000.00	5,000.00	5,000.00	5,000.00	5,000.00	5,000.00	5,000.00	5,000.00	0.00	50,000.00
	TOTAL - DV & RP	637,133.45	828,568.96	913,774.20	1,074,279.86	1,246,054.05	1,308,150.82	1,231,406.35	1,372,029.23	926,216.78	998,718.23	1,143,006.11	1,158,826.91	12,838,164.95

Business Unit No.	Recurring Project Title	1	2	3	4	5	6	7	8	9	10	11	12	Total 2018
D26-0201	Projects Funded by Others	10,000.00	10,000.00	50,000.00	80,000.00	150,000.00	150,000.00	90,000.00	80,000.00	80,000.00	80,000.00	120,000.00	100,000.00	1,000,000.00
DV-2603-1	Projects Funded by Others													0.00
DV-2604-1	Projects Funded by Others													0.00
	TOTAL: Projects Funded by Others	10,000.00	10,000.00	50,000.00	80,000.00	150,000.00	150,000.00	90,000.00	80,000.00	80,000.00	80,000.00	120,000.00	100,000.00	1,000,000.00
RP-2602-A1	Mains - New	0.00	0.00	0.00										0.00
RP-2603-A1	Mains - New													0.00
RP-2604-A1	Mains - New													0.00
RP-2605-A1	Mains - New								30,000.00					30,000.00
A	Mains - New													0.00
	TOTAL: Mains - New	0.00	0.00	0.00	0.00	0.00	0.00	0.00	30,000.00	0.00	0.00	0.00	0.00	30,000.00
RP-2602-B1	Mains - Replaced / Restored	71,250.00	71,250.00	190,000.00	237,500.00	237,500.00	285,000.00	285,000.00	190,000.00	178,450.00	94,192.50	71,250.00	42,607.50	1,954,000.00
RP-2603-B1	Mains - Replaced / Restored													0.00
RP-2604-B1	Mains - Replaced / Restored													0.00
RP-2605-B1	Mains - Replaced / Restored							100,000.00	100,000.00	60,000.00				260,000.00
	TOTAL: Mains - Replaced / Restored	71,250.00	71,250.00	190,000.00	237,500.00	237,500.00	285,000.00	385,000.00	290,000.00	238,450.00	94,192.50	71,250.00	42,607.50	2,214,000.00
RP-2602-C1	Mains - Unscheduled	152,824.50	152,824.50	81,506.40	37,873.66	43,284.19	75,747.33	76,412.25	76,412.25	45,847.35	48,120.95	75,747.33	101,883.50	968,484.21
RP-2603-C1	Mains - Unscheduled	5,410.53												5,410.53
RP-2604-C1	Mains - Unscheduled													0.00
RP-2605-C1	Mains - Unscheduled	10,821.05	21,642.11									10,821.05	10,821.05	54,105.26
C	Mains - Unscheduled													0.00
	TOTAL: Mains - Unscheduled	169,056.08	174,466.61	81,506.40	37,873.66	43,284.19	75,747.33	76,412.25	76,412.25	45,847.35	48,120.95	86,568.38	112,704.55	1,028,000.00
RP-2602-D1	Mains - Relocated	0.00	0.00	5,000.00	40,000.00	100,000.00	100,000.00	50,000.00	5,000.00	0.00	0	0	0	300,000.00
RP-2603-D1	Mains - Relocated													0.00
RP-2604-D1	Mains - Relocated													0.00
RP-2605-D1	Mains - Relocated													0.00
D	Mains - Relocated													0.00
	TOTAL: Mains - Relocated	0.00	0.00	5,000.00	40,000.00	100,000.00	100,000.00	50,000.00	5,000.00	0.00	0.00	0.00	0.00	300,000.00
RP-2602-E1	Hydrants, Valves, and Manholes - New	0.00	3,841.27	6,402.12	5,121.69	6,402.12	6,402.12	6,402.12	9,603.17	9,603.17	7,682.54	3,841.27	0.00	65,301.59
RP-2603-E1	Hydrants, Valves, and Manholes - New													0.00
RP-2604-E1	Hydrants, Valves, and Manholes - New													0.00
RP-2605-E1	Hydrants, Valves, and Manholes - New					1,280.42		2,176.72	1,280.42	1,280.42	1,280.42			7,298.41
E	Hydrants, Valves, and Manholes - New													0.00
	TOTAL: Hydrants, Valves, and Manholes	0.00	3,841.27	6,402.12	5,121.69	7,682.54	6,402.12	8,578.84	10,883.60	10,883.60	8,962.96	3,841.27	0.00	72,600.00
RP-2602-F1	Hydrants, Valves, and Manholes - Replaced	0.00	10,534.62	21,069.23	31,603.85	31,603.85	41,611.73	41,717.08	52,673.08	52,673.08	42,138.47	32,000.00	17,375.01	375,000.00
RP-2603-F1	Hydrants, Valves, and Manholes - Replaced													0.00
RP-2604-F1	Hydrants, Valves, and Manholes - Replaced													0.00
RP-2605-F1	Hydrants, Valves, and Manholes - Replaced				5,000.00				4,500.00		9,600.00			19,100.00
	TOTAL: Hydrants, Valves, and Manholes	0.00	10,534.62	21,069.23	36,603.85	31,603.85	41,611.73	41,717.08	57,173.08	52,673.08	51,738.47	32,000.00	17,375.01	394,100.00
RP-2602-G1	Services and Laterals - New	41,693.39	50,032.06	75,048.09	83,386.77	91,725.45	108,402.80	108,402.80	91,725.45	76,382.28	66,709.42	58,370.74	39,370.74	891,250.00
RP-2603-G1	Services and Laterals - New							1,000.00						1,000.00
RP-2604-G1	Services and Laterals - New													0.00
RP-2605-G1	Services and Laterals - New			2,000.00	2,000.00	2,000.00	2,000.00	2,000.00	2,000.00	2,000.00	2,000.00	2,000.00		18,000.00
	TOTAL: Services and Laterals - New	41,693.39	50,032.06	77,048.09	85,386.77	93,725.45	110,402.80	111,402.80	93,725.45	78,382.28	68,709.42	60,370.74	39,370.74	910,250.00
RP-2602-H1	Services and Laterals - Replaced	11,546.58	23,093.17	34,639.75	46,186.34	46,186.34	57,732.92	57,732.92	46,186.34	28,866.46	40,413.04	34,639.75	26,526.40	453,750.00
RP-2603-H1	Services and Laterals - Replaced							1,000.00						1,000.00
RP-2604-H1	Services and Laterals - Replaced													0.00
RP-2605-H1	Services and Laterals - Replaced				2,000.00	2,000.00	2,000.00	2,000.00	2,000.00					10,000.00
	TOTAL: Services and Laterals - Replaced	11,546.58	23,093.17	34,639.75	48,186.34	48,186.34	59,732.92	60,732.92	48,186.34	28,866.46	40,413.04	34,639.75	26,526.40	464,750.00
RP-2602-I1	Meters - New		10,560.66	15,840.99	23,233.45	23,233.45	35,906.23	31,681.97	25,345.58	15,840.99	15,840.99	10,560.66	10,455.05	218,500.00
RP-2603-I1	Meters - New													0.00
RP-2604-I1	Meters - New													0.00
RP-2605-I1	Meters - New													0.00
	TOTAL: Meters - New	0.00	10,560.66	15,840.99	23,233.45	23,233.45	35,906.23	31,681.97	25,345.58	15,840.99	15,840.99	10,560.66	10,455.05	218,500.00
RP-2602-J1	Meters - Replaced	122,272.52	122,272.52	163,030.03	163,030.03	244,545.05	244,545.05	244,545.05	244,545.05	240,770.05	169,437.11	163,030.03	122,272.52	2,244,295.00
RP-2603-J1	Meters - Replaced													0.00
RP-2604-J1	Meters - Replaced													0.00
RP-2605-J1	Meters - Replaced	314.58	314.58	314.58	314.58	314.58	314.58	314.58	314.58	314.58	314.58	314.58	314.58	3,775.00
	TOTAL: Meters - Replaced	122,587.11	122,587.11	163,344.61	163,344.61	244,859.63	244,859.63	244,859.63	244,859.63	241,084.63	169,751.69	163,344.61	122,587.11	2,248,070.00
RP-2602-K1	ITS Equipment and Systems		33,380.14		42,899.38				85,319.68					161,599.20
RP-2601-K3	ITS Equipment and Systems	83,900.00	73,413.00	93,980.00	62,921.00	62,921.00	104,465.00	115,363.00	73,413.00	83,493.00	62,921.00	62,921.00	209,336.00	1,089,047.00
RP-2603-K1	ITS Equipment and Systems													0.00
RP-2604-K1	ITS Equipment and Systems													0.00
RP-2605-K1	ITS Equipment and Systems								2,780.80					2,780.80
	TOTAL: ITS Equipment and Systems	83,900.00	106,793.14	93,980.00	105,820.38	62,921.00	104,465.00	115,363.00	161,513.48	83,493.00	62,921.00	62,921.00	209,336.00	1,253,427.00

Tennessee
May 15, 2016
TN BP 2017-2021 SCEP

Business Unit No.	Recurring Project Title	1	2	3	4	5	6	7	8	9	10	11	12	Total 2018
RP-2602-L1	SCADA Equipment and Systems				16,250.00	16,250.00	16,250.00	16,250.00						65,000.00
RP-2603-L1	SCADA Equipment and Systems				0.00	0.00	0.00	0.00						0.00
RP-2604-L1	SCADA Equipment and Systems													0.00
RP-2605-L1	SCADA Equipment and Systems				11,666.67	11,666.67	11,666.67							35,000.00
L	SCADA Equipment and Systems													0.00
	TOTAL: SCADA Equipment and Systems	0.00	0.00	0.00	27,916.67	27,916.67	27,916.67	16,250.00	0.00	0.00	0.00	0.00	0.00	100,000.00
RP-2602-M1	Security Equipment and Systems			15,000.00	15,000.00	15,000.00	15,000.00	15,000.00	15,000.00	15,000.00	15,000.00			120,000.00
RP-2603-M1	Security Equipment and Systems													0.00
RP-2604-M1	Security Equipment and Systems													0.00
RP-2605-M1	Security Equipment and Systems													0.00
	Security Equipment and Systems													0.00
	TOTAL: Security Equipment and Systems	0.00	0.00	15,000.00	15,000.00	15,000.00	15,000.00	15,000.00	15,000.00	15,000.00	15,000.00	0.00	0.00	120,000.00
RP-2602-N1	Offices and Operations Centers													0.00
RP-2603-N1	Offices and Operations Centers													0.00
RP-2604-N1	Offices and Operations Centers													0.00
RP-2605-N1	Offices and Operations Centers			5,000.00			5,000.00			5,000.00				15,000.00
	TOTAL: Offices and Operations Centers	0.00	0.00	5,000.00	0.00	0.00	5,000.00	0.00	0.00	5,000.00	0.00	0.00	0.00	15,000.00
RP-2602-O1	Vehicles					79,750.00	79,750.00	79,750.00	79,750.00					319,000.00
RP-2602-O2	Vehicles - EDI													0.00
RP-2603-O1	Vehicles													0.00
RP-2604-O1	Vehicles													0.00
RP-2605-O1	Vehicles				35,000.00					40,000.00				75,000.00
	TOTAL: Vehicles	0.00	0.00	0.00	35,000.00	79,750.00	79,750.00	79,750.00	79,750.00	40,000.00	0.00	0.00	0.00	394,000.00
RP-2602-P1	Tools and Equipment	5,000.00	5,000.00	5,000.00	10,000.00	5,000.00	10,000.00	5,000.00	6,000.00	1,000.00	4,000.00	2,000.00	2,000.00	60,000.00
RP-2603-P1	Tools and Equipment													0.00
RP-2604-P1	Tools and Equipment													0.00
RP-2605-P1	Tools and Equipment						5,000.00							5,000.00
P	Tools and Equipment													0.00
	TOTAL: Tools and Equipment	5,000.00	5,000.00	5,000.00	10,000.00	5,000.00	15,000.00	5,000.00	6,000.00	1,000.00	4,000.00	2,000.00	2,000.00	65,000.00
RP-2602-Q1	Process Plant Facilities and Equipment		38,313.72	107,215.68	156,431.37	166,274.51	117,137.25	81,019.61	105,098.04	249,568.63	195,392.16	189,372.55	129,176.47	1,535,000.00
RP-2603-Q1	Process Plant Facilities and Equipment													0.00
RP-2604-Q1	Process Plant Facilities and Equipment													0.00
RP-2605-Q1	Process Plant Facilities and Equipment													0.00
Q	Process Plant Facilities and Equipment													0.00
	TOTAL: Process Plant Facilities and Equipment	0.00	38,313.72	107,215.68	156,431.37	166,274.51	117,137.25	81,019.61	105,098.04	249,568.63	195,392.16	189,372.55	129,176.47	1,535,000.00
RP-2602-R1	Capitalized Tank Rehabilitation/Painting										150,000.00	300,000.00	150,000.00	600,000.00
RP-2603-R1	Capitalized Tank Rehabilitation/Painting													0.00
RP-2604-R1	Capitalized Tank Rehabilitation/Painting													0.00
RP-2605-R1	Capitalized Tank Rehabilitation/Painting										100,000.00	175,000.00	100,000.00	375,000.00
	TOTAL: Capitalized Tank Rehabilitation/Painting	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	250,000.00	475,000.00	250,000.00	975,000.00
RP-2602-S1	Engineering Studies	0	5000	5000	5000	5,000.00	5,000.00	5,000.00	5,000.00	5,000.00	5,000.00	5,000.00	0.00	50,000.00
RP-2603-S1	Engineering Studies													0.00
RP-2604-S1	Engineering Studies													0.00
RP-2605-S1	Engineering Studies													0.00
S	Engineering Studies													0.00
	TOTAL: Engineering Studies	0.00	5,000.00	5,000.00	5,000.00	5,000.00	5,000.00	5,000.00	5,000.00	5,000.00	5,000.00	5,000.00	0.00	50,000.00
	TOTAL - DV & RP	515,033.15	631,472.35	876,046.88	1,112,418.79	1,341,937.62	1,478,931.69	1,417,768.10	1,333,947.44	1,191,090.01	1,110,043.18	1,316,868.96	1,062,138.83	13,387,697.01

**TENNESSEE AMERICAN WATER COMPANY
DOCKET NO. 16-00126
FIRST DISCOVERY REQUEST OF THE
CONSUMER PROTECTION AND ADVOCATE DIVISION**

Responsible Person: Linda C. Bridwell

Question:

2. Refer to the "TAW_APP_SCH1_2017" spreadsheet included with the Company's filing. Identify all formula changes included in this spreadsheet that were modified from the Company's filing in TRA Docket 15-00111. In addition, provide an explanation of the rationale for these formula changes.

Response:

Tennessee American Water Company believes that all material changes to the spreadsheet were addressed in the pre-filed Direct Testimony and Supplemental Testimony of Linda C. Bridwell in this Docket. With the addition of 2017, there are now four years of plant additions instead of three, which is reflected in tax depreciation calculations, however, this is to be expected and TAWC does not consider this a formula change to the spreadsheet. TAWC believes there are no other material changes to the methodology of the revenue requirement calculation presented in this docket that has not already been discussed in prior dockets including, but not limited to, Docket No. 16-00022 and Docket No. 15-00111.

**TENNESSEE AMERICAN WATER COMPANY
DOCKET NO. 16-00126
FIRST DISCOVERY REQUEST OF THE
CONSUMER PROTECTION AND ADVOCATE DIVISION**

Responsible Person: Brent E. O'Neill

Question:

3. Refer to the "TAW_APP_SCH1_2017" spreadsheet included with the Company's filing. Specifically refer to the "EXH 2017 SCEP" tab of this spreadsheet. Please provide the source and support for all the hard-coded numbers included on this spreadsheet.

Response:

Please see the attachment "TAW_R_CPADDR1_001_122016_Attachment" that was included in response to Item 1 of this same discovery request.

The source of the hard coded numbers is the TN BP 2017-2021 SCEP that is shown in the previously mentioned attachment. The SCEP is transcribed into Company's accounting system and allows the information to be used by reports and spreadsheets developed for the filing.

As has been indicated in Brent O'Neill's testimony, TAWC's Engineering Department develops a proposed capital budget with input by Operations Supervisors and Project Managers. The source of this input is the development of the Recurring Project (RP) Summary Workbook that is provided as attachment "TAW_R_CPADDR1_003_122016_Attachment1.xlsx". This provides the Operations Supervisors and Project Managers expectation of the amount of work necessary in 2017 based on historical and best management techniques. The workbook also provides a projected expectation for the period of 2018 to 2021 in most of the RP budget lines. This document is provided in both excel and pdf format.

These estimates are used to populate the TN BP 2017-2021 SCEP following the review by the TAWC's Engineering Department. This plan is then shared with TAWC President and the TAWC Director of Operations for their review and approval.

The Investment Projects included in the TN BP 2017-2021 SCEP is developed through Project Justifications and Engineering analysis of the problem. For the 2017 SCEP, one project is included in the SCEP, the Tennessee River Crossing (I26-020034) and is scheduled to be completed in 2017. The project was included in the SCEP by the review of the project scope and analysis that is included within attachment "TAW_R_CPADDR1_003_122016_Attachment2".

INSTRUCTIONS AND USE OF THIS WORKBOOK

A General

- 1 This workbook is designed to capture RP Work Order level details for each RP Funding Project by Profit Center (or District).
- 2 Blue tabs allow for data entry for the individual RP Line Items A through S. Orange tabs provide a total RP SUMMARY by RP Line Item (1st summary tab) and by District (2nd summary tab). Gray tabs provide information only, including RP GUIDANCE and RP CATEGORY definitions.
- 3 Cells in which information can be entered are unlocked. All other cells are locked. **Protection can be turned off on each worksheet without the need for a password.** NOTE: Additional columns for data entry of Business Plan Outer Years for 5-Year Business Plan development (includes 4 years beyond the current Business Plan Year) are "Grouped" and can either be displayed or collapsed depending upon the user's needs in the business planning process. The RP Workbook will be issued with the Outer Years collapsed. **To ungroup or display the Outer Years data entry columns, the Protection on the worksheet must be turned OFF.**
- 4 One workbook is required for each Operating Unit (or State). The workbook includes one tab for each of the RP Line Items (A through S). A description of the RP Line Items is provided on the RP CATEGORIES tab. Asset Investment Strategy (i.e., Prioritization) guidance as it relates to RP Line Items is provided on the RP GUIDANCE tab. NOTE: The guidance for Prioritization listed in the RP GUIDANCE tab, directly correlates to the "Justification" columns on the Blue tabs for most RP Line Items (exception of Lines B and C). For Line B, the Prioritization Model has been removed from this RP workbook, and could be used separately to determine Line B Prioritization, as outlined in the RP GUIDANCE tab. For Line C, all project work is Priority A.
- 5 Each RP worksheet (Blue tab) has a 'BUDGET LEVEL' defined in cell B5. This is either at a 'Project' level or 'District' level. For RP Line Items A, D and K through S, the line items will be budgeted based on 'Project' level data for a particular project. For RP Line Items, B, C and E through J, the line items will be budgeted at the 'District' level.
- 6 A summary of all RP Line Items is displayed in text format on the RP SUMMARY tab. Unit costs are not rolled up for Line Items which do not have units (Line C - Mains - Unscheduled) OR do not have like units (ex., Line K - ITS Equipment).
- 7 Two hidden tabs called LOOKUP TABLE 1 and LOOKUP TABLE 2 are provided as the source for many of the pull-down menus on the individual Line Item tabs. District names are also provided at the bottom of each individual Line Item (Blue) tab in Rows 607 through 841 and are hidden.
- 8 **Do NOT delete or add any rows OR columns on any worksheet tab. Doing so will cause the calculations to fail.** Each RP Line Item tab can accommodate up to 600 projects or district-level data.

B Set Up and Use

- 9 To begin using the worksheet, on the RP SUMMARY tab, **enter the current date in cell D1, then select the Operating Unit in Cell B4 and enter the current Business Plan Year in Cell C4.** This information will then be displayed on all of the individual Line Item worksheets (Blue tabs), and set-up the drop-down lists for the appropriate Profit Centers (Districts) on each of the data entry tabs (Blue tabs).
- 10 For each RP Line Item tab, in the PROJECT INFORMATION section, the Profit Center (District) can be selected from the drop down list in Column A.
- 11 Also in the PROJECT INFORMATION section, Column B allows for the identification of the project funds as Budget, Budget Reserve, or Overprogram. Budget means it is to be included in the budget. Budget Reserve means it is also to be included in the budget, but that it is a lower priority project that can be deferred until later in the year and delivered quickly should those funds instead be needed for emerging needs as the year progresses. Overprogram means that the project is not included in the budget, but if additional funds should become available, it can be delivered quickly.
- 12 Lastly in the PROJECT INFORMATION section, the PRIORITY Column allows for the top down prioritization of the project (Priority A, Priority B, or Priority C). This prioritization is aligned with the company's Asset Investment Strategies outlined in the RP GUIDANCE tab. As stated above, the guidance listed in the RP GUIDANCE tab, directly correlates to the "Justification" Column dropdown selections on the Blue tabs for the RP Line Items (exception of Lines B and C). In order for the Project to have an assigned Priority (A, B or C), a selection from the "Justification" dropdown list must be made for each Project line. For Line C - Unscheduled Mains, all of the project work should be categorized as 'Priority A' (no other Priority assignment can be selected).

C Lines A, and D through J

- 13 Select Budget, Budget Reserve or Overprogram from Column B for each Project line item. This selection is mandatory, as a non-selection will not allow the project/line item to be captured in the total project cost summary.
- 14 In the UNITS, UNIT COST and PROJECT COST sections, fill in the UNITS and UNIT COST for each Project-level and/or District-level line item. The PROJECT COST will be automatically calculated based on these entries. These sections are also available for data entry in the four (4) outer years (may be collapsed, and can be displayed by unclicking the 'Grouped' (+) button at the top of each worksheet.
- 15 Select the appropriate project JUSTIFICATION from the 'Justification' Column, as this will assign a Priority (A, B or C) automatically. This selection is mandatory, as a non-selection will not allow the project/line item to be captured in the total project cost summary. Any additional information or justification can be added to the 'Comments' section which is available on each data entry tab.
- 16 **Lines A and D only:** Select the pipe diameter (the diameter that encompasses the majority of the main project) from the 'Predominant Pipe Diameter' Column dropdown list and also indicate the number of ESTIMATED services in the 'Estimated No. of Services' Column.
- 17 **Lines E and F only:** Select the equipment type (Hydrant, Valve or Manhole) from the dropdown list in the 'Hydrant, Valve OR Manhole' column. Do not combine different equipment types on one project/district line item. Also, for example, if budgeting for a hydrant valve, use the 'Hydrant' dropdown selection, as this type of valve is normally considered part of a Hydrant. The 'Valve' selection is meant to encompass isolation valves (gate valves, etc.) within the main project. Multiple rows can be used to budget each equipment type for a single District.
- 18 **Lines G and H only:** Select the equipment type (Service or Lateral) from the dropdown list in the 'Service or Lateral' Column.
- 19 **Lines I and J only:** Select the meter type (Residential or Commercial) from the dropdown list in the 'Meter Type' Column, and select a meter diameter from the dropdown list in the 'Diameter' Column. Multiple rows can be used to budget each meter type and/or diameter for a single District.

D Line B Specifics

- 20 Same procedures as items 13, 14 and 15 (above). Line items will be budgeted at the District or Profit Center level. Select each Profit Center (District) from the dropdown list, as historical data (Total Main, Break Rate and NRW) for the prior year for each District will be displayed. Please select ALL Districts even if there are no plans for main replacement in the current Budget Year. The total footage of pipe for the State will then be utilized to calculate the overall planned Main Replacement Rate that is built into the worksheet in Cell K5. The individual District-level pipe replacement rates will also be calculated for each line item and are displayed in Column K. Also, if there is a potential for Main Rehabilitation, as opposed to Main Replacement, please indicate this in the 'Comments' field in Column K. NOTE: The Line B Prioritization Model has been removed from this RP workbook, and could be used separately.

E **Line C Specifics**

- 21 Same procedures as item 13 (above). Line items will be budgeted at the District or Profit Center level. Select each Profit Center (District) from the dropdown list. The Columns C, D and E will be used to populate District-level historical Line C spend data for the past three (3) years. ***This data will be provided by the States OR, as needed, provided separately by the corporate Business Services - Engineering Capital Planning group (in the future, it will be pre-loaded into the RP Workbook for each Profit Center).*** Please select ALL Districts, even if there are no plans for Line C in the current Budget Year. Select 'Priority A' from the 'Priority' Column. ALL Line C Unscheduled Main replacement will have a 'Priority A' indicator.

END

Engineering
Network

RP CATEGORIES (A thru S)

NOTE: All RP categories are set up for ownership and accountability purposes, and not by asset type. For example, if a new main is being installed under Line Item A, the valves and hydrants being installed on that project can also be budgeted under Line Item A and should not be put under Line Item E.

		*** Work Order	
<u>Line Item</u>	<u>Category</u>	<u>Maximum Amount</u>	<u>Additional Explanation</u>
A	Mains - New	\$500,000	New main extensions not funded via Advances.
B	Mains - Replaced / Restored	\$1,500,000	Replacement or restoration of existing mains.
C	Mains - Unscheduled	\$1,000,000	Capitalized main repairs where 1 foot or more of existing pipe is replaced (can only include emergency work which cannot be scheduled or anticipated in advance).
D	Mains - Relocated	\$1,500,000	Relocation of existing mains.
E	Hydrants, Valves, and Manholes - New	\$250,000	For individual installations that are not part of a main project.
F	Hydrants, Valves, and Manholes - Replaced	\$250,000	For individual installations that are not part of a main project.
G	Services and Laterals - New	\$250,000	For individual installations that are not part of a main project.
H	Services and Laterals - Replaced	\$250,000	For individual installations that are not part of a main project.
I	Meters - New	\$250,000	
J	Meters - Replaced	\$250,000	
K	ITS Equipment and Systems	\$500,000	Both new and replacement.
L	SCADA Equipment and Systems	\$250,000	Both new and replacement.
M	Security Equipment and Systems	\$250,000	Both new and replacement.
N	Offices and Operations Centers	\$250,000	Both new and replacement.
O	Vehicles	\$250,000	Both new and replacement.
P	Tools and Equipment	\$250,000	Both new and replacement.
Q	Process Plant Facilities and Equipment	\$250,000	Both new and replacement.
		\$1,500,000	For filter media replacement ONLY.
R	Capitalized Tank Rehabilitation / Painting	\$250,000	Where allowable per State utility commission approval.
		\$1,500,000	For tank painting ONLY.
S	Engineering Studies	\$250,000	For both Comprehensive Planning Studies as well as individual projects which need additional planning prior to request for release of initial funds. Non-CPS costs to either be transferred into the ultimate project or written off and expensed.
*** Does Not Apply to Blanket Work Orders			

RP GUIDANCE

A

Line Item	RP Description	"A" First Priority Projects (per Asset Investment Strategy)
A	Mains - New	Provide service to new customers within existing franchise area.
		Required to comply with regulations.
B	Mains - Replaced / Restored	Critical customer impact; no longer providing expected level of service
C	Mains - Unscheduled	All - based on history.
D	Mains - Relocated	Project is known and defined and expected to proceed.
E	Hydrants, Valves, and Manholes - New	Required to comply with regulations.
		Requested by local government.
F	Hydrants, Valves, and Manholes - Replaced	Physically fails and not repairable, or in imminent danger of failure.
		Hydraulically inadequate.
G	Services and Laterals - New	Provide service to new customers.
H	Services and Laterals - Replaced	Physically fails and materials are known to be prone to failure.
		Required to comply with regulations.
I	Meters - New	Provide service to new customers.
J	Meters - Replaced	Required to comply with regulations.
		Meter stops or registers inaccurately.
K	ITS Equipment and Systems	To support new (additional) employees.
		Equipment still needed and currently not supported by the vendor.
		Required to comply with regulations.
		Physically fails and not repairable, or in imminent danger of failure.
L	SCADA Equipment and Systems	Equipment still needed and currently not supported by the vendor.
		Required to comply with regulations.
		Physically fails and not repairable, or in imminent danger of failure.
M	Security Equipment and Systems	Minimum level of health and safety risk reduction not in place.
		Equipment still needed and currently not supported by the vendor.
		Required to comply with regulations.
		Physically fails and not repairable, or in imminent danger of failure
N	Offices and Operations Centers	For new (additional) employees, equipment, or vehicles.
		Required to comply with regulations.
		Addresses imminent health and/or safety issues.
		Physically fails and not repairable, or in imminent danger of failure.
O	Vehicles	For new (additional) employees.
		Required to comply with regulations.
		Addresses imminent health and/or safety issues.
		Physically fails and not repairable, or in imminent danger of failure.
P	Tools and Equipment	For new (additional) employees.
		Required to comply with regulations.
		Addresses imminent health and/or safety issues.
		Physically fails and not repairable, or in imminent danger of failure.
Q	Process Plant Facilities and Equipment	Equipment still needed and currently not supported by the vendor.
		Required to comply with regulations.
		Addresses imminent health and/or safety issues.
		Physically fails and not repairable, or in imminent danger of failure.
R	Capitalized Tank Rehabilitation / Painting	Physically fails or in imminent danger of failure.
		Required to comply with regulations.
		Addresses imminent health and/or safety issues.
S	Engineering Studies	As necessary to provide regulatory support for future capital improvements.
		Demands of existing system are at 90% or greater of capacity.
		System is experiencing significant growth.
		Required to comply with regulations.
		Addresses imminent health and/or safety issues.

RP GUIDANCE**B**

Line Item	RP Description	"B" Second Priority Projects (per Asset Investment Strategy)
A	Mains - New	Provide service to new customers beyond existing franchise area.
		Address near term regulatory hydraulic issues (e.g. pressure below min required).
		Hydraulic improvement resulting in immediate improvement to service (e.g. loop dead end mains).
		Address to meet AW goals for fire flow and specific requests of local fire districts.
B	Mains - Replaced / Restored	No longer providing expected level of service
		Coordination with others (e.g., road is being repaved)
C	Mains - Unscheduled	n/a
D	Mains - Relocated	Project is tentative.
E	Hydrants, Valves, and Manholes - New	Address significant operational issues.
F	Hydrants, Valves, and Manholes - Replaced	Poor condition and spare parts no longer available.
G	Services and Laterals - New	n/a
H	Services and Laterals - Replaced	Physically fails and materials are not known to be prone to failure.
I	Meters - New	n/a
J	Meters - Replaced	No regulatory requirement and has been in service beyond expected life.
		New technology that results in operational improvement and/or savings.
K	ITS Equipment and Systems	Has reached the end of its expected life.
		Provides a hard payback <3 years.
		Equipment still needed and soon to no longer be supported by the vendor.
		New equipment that improves productivity.
L	SCADA Equipment and Systems	Has reached the end of its expected life.
		Provides a hard payback <3 years.
		Equipment still needed and soon to no longer be supported by the vendor.
		New equipment that improves productivity.
M	Security Equipment and Systems	Has reached the end of its expected life.
		Provides a hard payback <3 years.
		Equipment still needed and soon to no longer be supported by the vendor.
N	Offices and Operations Centers	Has reached the end of its expected life.
		Provides a hard payback <3 years.
O	Vehicles	Has reached the end of its expected life.
		Provides a hard payback <3 years.
P	Tools and Equipment	Has reached the end of its expected life.
		Provides a hard payback <3 years.
		New tool / equipment that improves productivity.
Q	Process Plant Facilities and Equipment	Provides increased reliability or operating flexibility of critical assets.
		Has reached the end of its expected life.
		Provides a hard payback <3 years.
R	Capitalized Tank Rehabilitation / Painting	Has reached the end of its expected life.
S	Engineering Studies	Existing study is 10 years or older.

RP GUIDANCE**C**

Line Item	RP Description	"C" Third Priority Projects (per Asset Investment Strategy)
A	Mains - New	Address long term regulatory hydraulic issues (e.g. pressure below min required).
		Proactive hydraulic improvement resulting in future improvement to service (e.g. loop dead end mains).
		To enhance fire flows above AW minimum goals and up to full ISO recommended flows.
B	Mains - Replaced / Restored	Proactive replacement based on performance of similar cohorts
C	Mains - Unscheduled	n/a
D	Mains - Relocated	Project is speculative.
E	Hydrants, Valves, and Manholes - New	Proactive improvement resulting in future improvement to operations.
F	Hydrants, Valves, and Manholes - Replaced	Proactive replacement based on age or condition.
G	Services and Laterals - New	n/a
H	Services and Laterals - Replaced	Proactive replacement of materials known to be prone to failure.
I	Meters - New	n/a
J	Meters - Replaced	No regulatory requirement and has been in service for less than its expected lifespan.
K	ITS Equipment and Systems	Proactive replacement based on condition or new technology.
L	SCADA Equipment and Systems	Proactive replacement based on age, condition, or new technology.
M	Security Equipment and Systems	Proactive replacement based on age, condition, or new technology.
N	Offices and Operations Centers	Proactive replacement based on age, condition, or new technology.
O	Vehicles	Proactive replacement based on age, condition, or new technology. Provides environmental benefits.
P	Tools and Equipment	Proactive replacement based on age, condition, or new technology.
Q	Process Plant Facilities and Equipment	Proactive replacement based on age, condition, or new technology. To meet non-mandatory water quality goals.
R	Capitalized Tank Rehabilitation / Painting	Proactive replacement based on age, condition, or new technology.
S	Engineering Studies	Existing study is 5-10 years old.

RP SUMMARY		Date Prepared:	April 18, 2016														
Line Item	OPERATING UNIT	CURRENT BP YEAR	2017		2018		2019		2020		2021						
	26-Tennessee	2017	Total Qty	Avg Unit Cost	Total Cost	Total Qty	Avg Unit Cost	Total Cost	Total Qty	Avg Unit Cost	Total Cost	Total Qty	Avg Unit Cost	Total Cost			
TOTAL	Priority A				\$5,372,825			\$5,707,070			\$5,092,765			\$4,944,825			
	Priority B				\$1,641,264			\$2,372,480			\$1,473,912			\$2,105,849			
	Priority C				\$3,596,480			\$3,219,100			\$3,025,100			\$3,526,450			
	Total				\$10,610,569			\$11,298,650			\$9,591,777			\$10,577,123			
A	Priority A		4,200	\$74	\$310,000	0	\$0	\$0	0	\$0	\$0	0	\$0	\$0			
	Priority B		0	\$0	\$0	0	\$0	\$0	0	\$0	\$0	0	\$0	\$0			
	Priority C		0	\$0	\$0	300	\$100	\$300,000	2,000	\$100	\$200,000	2,400	\$100	\$240,000			
	Total		4,200	\$74	\$310,000	300	\$100	\$300,000	2,000	\$100	\$200,000	2,400	\$100	\$240,000			
B	Priority A		0	\$0	\$0	0	\$0	\$0	0	\$0	\$0	0	\$0	\$0			
	Priority B		0	\$0	\$0	0	\$0	\$0	0	\$0	\$0	0	\$0	\$0			
	Priority C		25,540	\$103	\$2,620,255	20,585	\$108	\$2,214,000	16,000	\$113	\$1,805,000	18,000	\$119	\$2,135,000			
	Total		25,540	\$103	\$2,620,255	20,585	\$108	\$2,214,000	16,000	\$113	\$1,805,000	18,000	\$119	\$2,135,000			
C	Priority A				\$1,009,000			\$1,028,000			\$1,055,000			\$1,060,000			
	Priority B - N/A																
	Priority C - N/A																
	Total				\$1,009,000			\$1,028,000			\$1,055,000			\$1,060,000			
D	Priority A		0	\$0	\$0	0	\$0	\$0	0	\$0	\$0	0	\$0	\$0			
	Priority B		0	\$0	\$0	0	\$0	\$0	0	\$0	\$0	0	\$0	\$0			
	Priority C		800	\$125	\$100,000	2,400	\$125	\$300,000	2,800	\$125	\$350,000	2,800	\$125	\$350,000			
	Total		800	\$125	\$100,000	2,400	\$125	\$300,000	2,800	\$125	\$350,000	2,800	\$125	\$350,000			
E	Priority A		20	3,000	60,000	20	3,000	60,000	20	3,000	60,000	20	3,000	60,000			
	Priority B		4	1,225	4,900	3	1,367	4,100	2	800	1,600	2	850	1,700			
	Priority C		8	1,188	9,500	7	1,214	8,500	7	1,214	8,500	6	1,250	7,500			
	Total		32	2,325	74,400	30	2,420	72,600	29	2,417	70,100	28	2,471	69,200			
F	Priority A		34	\$4,926	\$167,500	34	\$4,926	\$167,500	32	\$5,078	\$162,500	29	\$5,345	\$155,000			
	Priority B		17	\$11,765	\$200,000	18	\$12,222	\$220,000	18	\$12,222	\$220,000	20	\$12,125	\$242,500			
	Priority C		4	\$1,650	\$6,600	4	\$1,650	\$6,600	4	\$1,650	\$6,600	4	\$1,675	\$6,700			
	Total		55	\$6,802	\$374,100	56	\$7,038	\$394,100	54	\$7,206	\$389,100	51	\$7,484	\$381,700			
G	Priority A		571	1,482	846,000	594	1,532	910,250	596	1,564	932,400	596	1,564	932,400			
	Priority B		0	\$0	\$0	0	\$0	\$0	0	\$0	\$0	0	\$0	\$0			
	Priority C		0	\$0	\$0	0	\$0	\$0	0	\$0	\$0	0	\$0	\$0			
	Total		571	1,482	846,000	594	1,532	910,250	596	1,564	932,400	596	1,564	932,400			
H	Priority A		186	\$2,142	\$398,500	221	\$2,103	\$464,750	228	\$2,075	\$473,000	228	\$2,075	\$473,000			
	Priority B		0	\$0	\$0	0	\$0	\$0	0	\$0	\$0	0	\$0	\$0			
	Priority C		0	\$0	\$0	0	\$0	\$0	0	\$0	\$0	0	\$0	\$0			
	Total		186	\$2,142	\$398,500	221	\$2,103	\$464,750	228	\$2,075	\$473,000	228	\$2,075	\$473,000			
I	Priority A		550	\$380	\$209,000	575	\$380	\$218,500	580	\$380	\$220,400	580	\$380	\$220,400			
	Priority B		0	\$0	\$0	0	\$0	\$0	0	\$0	\$0	0	\$0	\$0			
	Priority C		0	\$0	\$0	0	\$0	\$0	0	\$0	\$0	0	\$0	\$0			
	Total		550	\$380	\$209,000	575	\$380	\$218,500	580	\$380	\$220,400	580	\$380	\$220,400			
J	Priority A		9,978	\$169	\$1,687,825	13,557	\$166	\$2,248,070	11,587	\$173	\$2,004,465	8,233	\$177	\$1,459,025			
	Priority B		0	\$0	\$0	0	\$0	\$0	0	\$0	\$0	0	\$0	\$0			
	Priority C		0	\$0	\$0	0	\$0	\$0	0	\$0	\$0	0	\$0	\$0			
	Total		9,978	\$169	\$1,687,825	13,557	\$166	\$2,248,070	11,587	\$173	\$2,004,465	8,233	\$177	\$1,459,025			
K	Priority A				\$301,364			\$164,380			\$134,312			\$176,149			
	Priority B				\$0			\$0			\$0			\$0			
	Priority C				\$0			\$0			\$0			\$0			
	Total				\$301,364			\$164,380			\$134,312			\$176,149			
L	Priority A				\$145,000			\$65,000			\$60,000			\$85,000			
	Priority B				\$30,000			\$35,000			\$0			\$125,000			
	Priority C				\$0			\$0			\$0			\$0			
	Total				\$175,000			\$100,000			\$60,000			\$85,000			
M	Priority A				\$140,000			\$120,000			\$75,000			\$75,000			
	Priority B				\$0			\$0			\$0			\$0			
	Priority C				\$0			\$0			\$0			\$0			
	Total				\$140,000			\$120,000			\$75,000			\$75,000			
N	Priority A				\$0			\$0			\$0			\$0			
	Priority B				\$0			\$0			\$0			\$0			
	Priority C				\$15,000			\$15,000			\$15,000			\$15,000			
	Total				\$15,000			\$15,000			\$15,000			\$15,000			
O	Priority A				\$0			\$0			\$0			\$0			
	Priority B				\$525,000			\$354,000			\$303,000			\$523,000			
	Priority C				\$0			\$0			\$0			\$0			
	Total				\$525,000			\$354,000			\$303,000			\$523,000			
P	Priority A				\$0			\$0			\$0			\$0			
	Priority B				\$60,000			\$60,000			\$60,000			\$60,000			
	Priority C				\$85,000			\$5,000			\$5,000			\$5,000			
	Total				\$145,000			\$65,000			\$65,000			\$65,000			
Q	Priority A				\$0			\$0			\$0			\$0			
	Priority B				\$520,000			\$1,535,000			\$755,000			\$1,125,000			
	Priority C				\$0			\$0			\$0			\$0			
	Total				\$520,000			\$1,535,000			\$755,000			\$1,125,000			
R	Priority A				\$350,000			\$375,000			\$0			\$375,000			
	Priority B				\$0			\$0			\$0			\$0			
	Priority C				\$760,125			\$600,000			\$600,000			\$731,250			
	Total				\$1,110,125			\$975,000			\$600,000			\$1,106,250			
S	Priority A				\$50,000			\$50,000			\$50,000			\$50,000			
	Priority B				\$0			\$0			\$0			\$0			
	Priority C				\$0			\$0			\$0			\$0			
	Total				\$50,000			\$50,000			\$50,000			\$50,000			

Page 8 of 60

2019			2020			2021						
TOTAL QTY	AVG UNIT COST	TOTAL COST	TOTAL QTY	AVG UNIT COST	TOTAL COST	TOTAL QTY	AVG UNIT COST	TOTAL COST				
0	\$0	\$0	0	\$0	\$0	0	\$0	\$0				
0	\$0	\$0	0	\$0	\$0	0	\$0	\$0				
2,000	\$100	\$200,000	2,400	\$100	\$240,000	2,000	\$100	\$200,000				
2,000	\$100	\$200,000	2,400	\$100	\$240,000	2,000	\$100	\$200,000				
UNITS	UNIT COST	PROJ. COST	UNITS	UNIT COST	PROJ. COST	UNITS	UNIT COST	PROJ. COST	COMMENTS	SUBTOTAL BY DISTRICT	2017	
Estimated Quantity (feet)	Estimated Unit Cost (\$/foot)	Estimated Cost (dollars)	Estimated Quantity (feet)	Estimated Unit Cost (\$/foot)	Estimated Cost (dollars)	Estimated Quantity (feet)	Estimated Unit Cost (\$/foot)	Estimated Cost (dollars)	As Needed (Optional)	District	Estimated Quantity (feet)	Estimated Cost (dollars)
-	\$0.00	\$0	-	\$0.00	\$0	-	\$0.00	\$0		2600-TN-Cap Growth Budget	-	\$0
-	\$0.00	\$0	-	\$0.00	\$0	-	\$0.00	\$0		2601-TN-Corporate	-	\$0
-	\$0.00	\$0	-	\$0.00	\$0	-	\$0.00	\$0		2602-TN-Chattanooga	1,000	\$110,000
-	\$0.00	\$0	-	\$0.00	\$0	-	\$0.00	\$0		2603-TN-Suck Creek	-	\$0
-	\$0.00	\$0	-	\$0.00	\$0	-	\$0.00	\$0		2604-TN-Lone Oak	-	\$0
2,000	\$100.00	\$200,000	-	\$0.00	\$0	-	\$0.00	\$0		2605-TN-Sequatchie Valley	3,200	\$200,000
		\$0	2,400	\$100.00	\$240,000	-	\$0.00	\$0		0		
		\$0			\$0	12,000	\$100.00	\$1,200,000		0		
		\$0			\$0	3,000	\$100.00	\$300,000		0		
		\$0			\$0	3,482	\$100.00	\$348,200		0		
		\$0			\$0	5,000	\$100.00	\$500,000		0		
		\$0			\$0	900	\$100.00	\$90,000		0		
		\$0			\$0	1,100	\$100.00	\$110,000		0		
-	\$0.00	\$0	-	\$0.00	\$0	-	\$0.00	\$0		0		
-	\$0.00	\$0	-	\$0.00	\$0	-	\$0.00	\$0		0		
-	\$0.00	\$0	-	\$0.00	\$0	-	\$0.00	\$0		0		
-	\$0.00	\$0	-	\$0.00	\$0	-	\$0.00	\$0		0		
-	\$0.00	\$0	-	\$0.00	\$0	-	\$0.00	\$0		0		
-	\$0.00	\$0	-	\$0.00	\$0	-	\$0.00	\$0		0		
-	\$0.00	\$0	-	\$0.00	\$0	-	\$0.00	\$0		0		
-	\$0.00	\$0	-	\$0.00	\$0	-	\$0.00	\$0		0		
-	\$0.00	\$0	-	\$0.00	\$0	-	\$0.00	\$0		0		
-	\$0.00	\$0	-	\$0.00	\$0	-	\$0.00	\$0		0		
-	\$0.00	\$0	-	\$0.00	\$0	-	\$0.00	\$0		0		
-	\$0.00	\$0	-	\$0.00	\$0	-	\$0.00	\$0		0		

MAINS - REPLACED / RESTORED				CURRENT BUSINESS PLAN YEAR - 2017			PRIORITY	2017 TOTAL QTY AVG UNIT COST TOTAL COST			2017 REPL RATE	2018 TOTAL QTY AVG UNIT COST	
Operating Unit	26-Tennessee	B	Budget		\$2,620,255	Priority A	0	\$0	\$0			0	\$0
Business Plan Year	2017		Budget Reserve		\$0	Priority B	0	\$0	\$0			0	\$0
Date Prepared	April 18, 2016		Total Budget		\$2,620,255	Priority C	25,540	\$103	\$2,620,255			20,585	\$108
Budget Level	District		Overprogram		\$589,590	Total	25,540	\$103	\$2,620,255	0.0001		20,585	\$108
PROJECT INFORMATION													
Profit Center	Budget Budget Reserve Overprogram	2015 Total Pipe in District (feet)	2015 Break Rate (breaks / mile)	2015 NRW (10,000 gal/day/mile)	Estimated No. of Services	Justification	Priority	UNITS Estimated Quantity (feet)	UNIT COST Estimated Unit Cost (\$/foot)	PROJ. COST Estimated Cost (dollars)	Replacement Rate (%)	UNITS Estimated Quantity (feet)	UNIT COST Estimated Unit Cost (\$/foot)
2602-TN-Chattanooga	Budget	6,728,832	0.25	0.61	28	Proactive replacement based on performance of similar cohorts	Priority C	1,800	\$99	\$178,524	0.00027		
2602-TN-Chattanooga	Budget	6,728,832	0.25	0.61	33	Proactive replacement based on performance of similar cohorts	Priority C	1,100	\$121	\$132,781	0.00016		
2602-TN-Chattanooga	Budget	6,728,832	0.25	0.61	62	Proactive replacement based on performance of similar cohorts	Priority C	1,900	\$121	\$229,349	0.00028		
2602-TN-Chattanooga	Budget	6,728,832	0.25	0.61	5	Proactive replacement based on performance of similar cohorts	Priority C	300	\$99	\$29,754	0.00004		
2602-TN-Chattanooga	Budget	6,728,832	0.25	0.61	12	Proactive replacement based on performance of similar cohorts	Priority C	1,500	\$99	\$148,770	0.00022		
2602-TN-Chattanooga	Budget	6,728,832	0.25	0.61	35	Proactive replacement based on performance of similar cohorts	Priority C	4,900	\$102	\$501,054	0.00073		
2602-TN-Chattanooga	Budget	6,728,832	0.25	0.61		Proactive replacement based on performance of similar cohorts	Priority C	1,440	\$99	\$142,819	0.00021		
2602-TN-Chattanooga	Budget	6,728,832	0.25	0.61	38	Proactive replacement based on performance of similar cohorts	Priority C	1,250	\$99	\$123,975	0.00019		
2602-TN-Chattanooga	Budget	6,728,832	0.25	0.61	43	Proactive replacement based on performance of similar cohorts	Priority C	1,500	\$99	\$148,770	0.00022		
2602-TN-Chattanooga	Budget	6,728,832	0.25	0.61	36	Proactive replacement based on performance of similar cohorts	Priority C	2,600	\$99	\$257,868	0.00039		
2602-TN-Chattanooga	Budget	6,728,832	0.25	0.61	32	Proactive replacement based on performance of similar cohorts	Priority C	1,800	\$99	\$178,524	0.00027		
2602-TN-Chattanooga	Budget	6,728,832	0.25	0.61	29	Proactive replacement based on performance of similar cohorts	Priority C	1,500	\$99	\$148,770	0.00022		
2602-TN-Chattanooga	Budget	6,728,832	0.25	0.61	29	Proactive replacement based on performance of similar cohorts	Priority C	1,850	\$103	\$191,018	0.00027		
2602-TN-Chattanooga	Budget	6,728,832	0.25	0.61	45	Proactive replacement based on performance of similar cohorts	Priority C	1,200	\$99	\$119,016	0.00018		
2605-TN-Sequitah Valley	Budget	1,054,944	0.09	0.23	5	Proactive replacement based on performance of similar cohorts	Priority C	900	\$99	\$89,262	0.00085		
2602-TN-Chattanooga	Overprogram	6,728,832	0.25	0.61	9	Proactive replacement based on performance of similar cohorts	Priority C	500	\$99	\$49,590	0.00007		
2602-TN-Chattanooga	Overprogram	6,728,832	0.25	0.61	32	Proactive replacement based on performance of similar cohorts	Priority C	1,300	\$100	\$130,000	0.00019		
2602-TN-Chattanooga	Overprogram	6,728,832	0.25	0.61	40	Proactive replacement based on performance of similar cohorts	Priority C	2,600	\$100	\$260,000	0.00039		
2605-TN-Sequitah Valley	Overprogram	1,054,944	0.09	0.23	4	Proactive replacement based on performance of similar cohorts	Priority C	1,500	\$100	\$150,000	0.00142		
2602-TN-Chattanooga	Budget	6,728,832	0.25	0.61	105	Proactive replacement based on performance of similar cohorts	Priority C					4,500	\$108
2602-TN-Chattanooga	Budget	6,728,832	0.25	0.61	15	Proactive replacement based on performance of similar cohorts	Priority C					975	\$108
2602-TN-Chattanooga	Budget	6,728,832	0.25	0.61	25	Proactive replacement based on performance of similar cohorts	Priority C					1,700	\$108
2602-TN-Chattanooga	Budget	6,728,832	0.25	0.61	20	Proactive replacement based on performance of similar cohorts	Priority C					1,100	\$108
2602-TN-Chattanooga	Budget	6,728,832	0.25	0.61	15	Proactive replacement based on performance of similar cohorts	Priority C					560	\$108
2602-TN-Chattanooga	Budget	6,728,832	0.25	0.61	31	Proactive replacement based on performance of similar cohorts	Priority C					1,250	\$108
2602-TN-Chattanooga	Budget	6,728,832	0.25	0.61	10	Proactive replacement based on performance of similar cohorts	Priority C					830	\$108
2602-TN-Chattanooga	Budget	6,728,832	0.25	0.61	16	Proactive replacement based on performance of similar cohorts	Priority C					2,300	\$108
2602-TN-Chattanooga	Budget	6,728,832	0.25	0.61	15	Proactive replacement based on performance of similar cohorts	Priority C					1,650	\$108
2602-TN-Chattanooga	Budget	6,728,832	0.25	0.61	12	Proactive replacement based on performance of similar cohorts	Priority C					520	\$108
2602-TN-Chattanooga	Budget	6,728,832	0.25	0.61	10	Proactive replacement based on performance of similar cohorts	Priority C					300	\$108
2602-TN-Chattanooga	Budget	6,728,832	0.25	0.61	38	Proactive replacement based on performance of similar cohorts	Priority C					2,300	\$108
2605-TN-Sequitah Valley	Budget	1,054,944	0.09	0.23	10	Proactive replacement based on performance of similar cohorts	Priority C					2,600	\$108
2602-TN-Chattanooga	Overprogram	6,728,832	0.25	0.61	44	Proactive replacement based on performance of similar cohorts	Priority C					2,000	\$108
2602-TN-Chattanooga	Overprogram	6,728,832	0.25	0.61	40	Proactive replacement based on performance of similar cohorts	Priority C					1,700	\$108
2602-TN-Chattanooga	Overprogram	6,728,832	0.25	0.61	30	Proactive replacement based on performance of similar cohorts	Priority C					1,600	\$108
2602-TN-Chattanooga	Overprogram	6,728,832	0.25	0.61	16	Proactive replacement based on performance of similar cohorts	Priority C					850	\$108
2605-TN-Sequitah Valley	Overprogram	1,054,944	0.09	0.23	8	Proactive replacement based on performance of similar cohorts	Priority C					500	\$108
2602-TN-Chattanooga	Budget	6,728,832	0.25	0.61		Proactive replacement based on performance of similar cohorts	Priority C						
2605-TN-Sequitah Valley	Overprogram	1,054,944	0.09	0.23	5	Proactive replacement based on performance of similar cohorts	Priority C						
2605-TN-Sequitah Valley	Overprogram	1,054,944	0.09	0.23	13	Proactive replacement based on performance of similar cohorts	Priority C						
2605-TN-Sequitah Valley	Overprogram	1,054,944	0.09	0.23	5	Proactive replacement based on performance of similar cohorts	Priority C						
2602-TN-Chattanooga	Budget	6,728,832	0.25	0.61		Proactive replacement based on performance of similar cohorts	Priority C						
2605-TN-Sequitah Valley	Overprogram	1,054,944	0.09	0.23	8	Proactive replacement based on performance of similar cohorts	Priority C						
2605-TN-Sequitah Valley	Overprogram	1,054,944	0.09	0.23	8	Proactive replacement based on performance of similar cohorts	Priority C						
2605-TN-Sequitah Valley	Overprogram	1,054,944	0.09	0.23	14	Proactive replacement based on performance of similar cohorts	Priority C						
2602-TN-Chattanooga	Budget	6,728,832	0.25	0.61		Proactive replacement based on performance of similar cohorts	Priority C						
2605-TN-Sequitah Valley	Overprogram	1,054,944	0.09	0.23	15	Proactive replacement based on performance of similar cohorts	Priority C						
2605-TN-Sequitah Valley	Overprogram	1,054,944	0.09	0.23	4	Proactive replacement based on performance of similar cohorts	Priority C						
2605-TN-Sequitah Valley	Overprogram	1,054,944	0.09	0.23	5	Proactive replacement based on performance of similar cohorts	Priority C						

Page 12 of 60

Page 13 of 60

TOTAL COST	2019			2020			2021						
	TOTAL QTY	AVG UNIT COST	TOTAL COST	TOTAL QTY	AVG UNIT COST	TOTAL COST	TOTAL QTY	AVG UNIT COST	TOTAL COST				
\$0	0	\$0	\$0	0	\$0	\$0	0	\$0	\$0				
\$0	0	\$0	\$0	0	\$0	\$0	0	\$0	\$0				
\$300,000	2,800	\$125	\$350,000	2,800	\$125	\$350,000	2,800	\$125	\$350,000				
\$300,000	2,800	\$125	\$350,000	2,800	\$125	\$350,000	2,800	\$125	\$350,000				
PROJ. COST	UNITS	UNIT COST	PROJ. COST	UNITS	UNIT COST	PROJ. COST	UNITS	UNIT COST	PROJ. COST	COMMENTS	SUBTOTAL BY DISTRICT	2017	
Estimated Cost (dollars)	Estimated Quantity (feet)	Estimated Unit Cost (\$/foot)	Estimated Cost (dollars)	Estimated Quantity (feet)	Estimated Unit Cost (\$/foot)	Estimated Cost (dollars)	Estimated Quantity (feet)	Estimated Unit Cost (\$/foot)	Estimated Cost (dollars)	As Needed (Optional)	District	Estimated Quantity (feet)	Estimated Cost (dollars)
\$0	-	\$0.00	\$0	-	\$0.00	\$0	-	\$0.00	\$0		2600-TN-Cap Growth Budget	-	\$0
\$0	-	\$0.00	\$0	-	\$0.00	\$0	-	\$0.00	\$0	Possible 27 Widening/Improvements	2601-TN-Corporate	-	\$0
-	-	\$0.00	\$0	-	\$0.00	\$0	-	\$0.00	\$0		2602-TN-Chattanooga	800	\$100,000
200,000	-	\$0.00	\$0	-	\$0.00	\$0	-	\$0.00	\$0		2603-TN-Suck Creek	-	\$0
\$100,000	-	\$0.00	\$0	-	\$0.00	\$0	-	\$0.00	\$0	Possible 27 Widening/Improvements	2604-TN-Lone Oak	-	\$0
\$0	-	-	\$0	-	-	-	-	-	\$0		2605-TN-Sequatchie Valley	-	\$0
\$0	2,000	125	\$250,000	2,000	125	250,000	2,000	125	\$250,000		0		
\$0	800	125	\$100,000	800	125	100,000	800	125	\$100,000	Possible 27 Widening/Improvements	0		
\$0	-	-	\$0	-	-	-	-	-	\$0		0		
\$0	-	\$0.00	\$0	-	\$0.00	\$0	-	\$0.00	\$0		0		
\$0	-	\$0.00	\$0	-	\$0.00	\$0	-	\$0.00	\$0		0		
\$0	-	\$0.00	\$0	-	\$0.00	\$0	-	\$0.00	\$0		0		
\$0	-	\$0.00	\$0	-	\$0.00	\$0	-	\$0.00	\$0		0		
\$0	-	\$0.00	\$0	-	\$0.00	\$0	-	\$0.00	\$0		0		
\$0	-	\$0.00	\$0	-	\$0.00	\$0	-	\$0.00	\$0		0		
\$0	-	\$0.00	\$0	-	\$0.00	\$0	-	\$0.00	\$0		0		
\$0	-	\$0.00	\$0	-	\$0.00	\$0	-	\$0.00	\$0		0		
\$0	-	\$0.00	\$0	-	\$0.00	\$0	-	\$0.00	\$0		0		
\$0	-	\$0.00	\$0	-	\$0.00	\$0	-	\$0.00	\$0		0		
\$0	-	\$0.00	\$0	-	\$0.00	\$0	-	\$0.00	\$0		0		
\$0	-	\$0.00	\$0	-	\$0.00	\$0	-	\$0.00	\$0		0		
\$0	-	\$0.00	\$0	-	\$0.00	\$0	-	\$0.00	\$0		0		
\$0	-	\$0.00	\$0	-	\$0.00	\$0	-	\$0.00	\$0		0		
\$0	-	\$0.00	\$0	-	\$0.00	\$0	-	\$0.00	\$0		0		
\$0	-	\$0.00	\$0	-	\$0.00	\$0	-	\$0.00	\$0		0		
\$0	-	\$0.00	\$0	-	\$0.00	\$0	-	\$0.00	\$0		0		

HYDRANTS, VALVES and MANHOLES - NEW				CURRENT BUSINESS PLAN YEAR - 2017		PRIORITY	2017			2018	
Operating Unit	26-Tennessee	E	Budget	\$74,400	Priority A	TOTAL QTY	AVG UNIT COST	TOTAL COST	TOTAL QTY	AVG UNIT COST	
Business Plan Year	2017		Budget Reserve	\$0	Priority B	20	\$3,000	\$60,000	20	\$3,000	
Date Prepared	April 18, 2016		Total Budget	\$74,400	Priority C	4	\$1,225	\$4,900	3	\$1,367	
Budget Level	District		Overprogram	\$0	Total	8	\$1,188	\$9,500	7	\$1,214	
						32	\$2,325	\$74,400	30	\$2,420	
PROJECT INFORMATION						UNITS	UNIT COST	PROJ. COST	UNITS	UNIT COST	
Profit Center	Budget Budget Reserve Overprogram	Hydrant, Valve OR Manhole	Justification	Priority	Estimated Quantity (each)	Estimated Unit Cost (\$/unit)	Estimated Cost (dollars)	Estimated Quantity (each)	Estimated Unit Cost (\$/unit)		
2602-TN-Chattanooga	Budget	Hydrant(s)	Requested by local government	Priority A	20	\$3,000.00	\$60,000	-	\$0.00		
2602-TN-Chattanooga	Budget	Valve(s)	Proactive improvement resulting in future improvement to operations	Priority C	7	\$1,000.00	\$7,000	-	\$0.00		
2602-TN-Chattanooga	Budget	Hydrant(s)	Requested by local government	Priority A	-	\$0.00	\$0	20	\$3,000.00		
2602-TN-Chattanooga	Budget	Valve(s)	Proactive improvement resulting in future improvement to operations	Priority C	-	\$0.00	\$0	6	\$1,000.00		
2602-TN-Chattanooga	Budget	Hydrant(s)	Requested by local government	Priority A	-	\$0.00	\$0	-	\$0.00		
2602-TN-Chattanooga	Budget	Valve(s)	Proactive improvement resulting in future improvement to operations	Priority C	-	\$0.00	\$0	-	\$0.00		
2602-TN-Chattanooga	Budget	Hydrant(s)	Requested by local government	Priority A	-	\$0.00	\$0	-	\$0.00		
2602-TN-Chattanooga	Budget	Valve(s)	Proactive improvement resulting in future improvement to operations	Priority C	-	\$0.00	\$0	-	\$0.00		
2602-TN-Chattanooga	Budget	Hydrant(s)	Requested by local government	Priority A	-	\$0.00	\$0	-	\$0.00		
2602-TN-Chattanooga	Budget	Valve(s)	Proactive improvement resulting in future improvement to operations	Priority C	-	\$0.00	\$0	-	\$0.00		
					-	\$0.00	\$0	-	\$0.00		
					-	\$0.00	\$0	-	\$0.00		
2605-TN-Sequatchie Valley	Budget	Hydrant(s)	Proactive improvement resulting in future improvement to operations	Priority C	1	\$2,500.00	\$2,500	1	\$2,500.00		
2605-TN-Sequatchie Valley	Budget	Valve(s)	Address significant operational issues	Priority B	2	\$800.00	\$1,600	2	\$800.00		
2603-TN-Suck Creek	Budget	Hydrant(s)	Address significant operational issues	Priority B	1	\$2,500.00	\$2,500	1	\$2,500.00		
2603-TN-Suck Creek	Budget	Valve(s)	Address significant operational issues	Priority B	1	\$800.00	\$800	-	\$0.00		
					-	\$0.00	\$0	-	\$0.00		
					-	\$0.00	\$0	-	\$0.00		
					-	\$0.00	\$0	-	\$0.00		
					-	\$0.00	\$0	-	\$0.00		
					-	\$0.00	\$0	-	\$0.00		
					-	\$0.00	\$0	-	\$0.00		
					-	\$0.00	\$0	-	\$0.00		
					-	\$0.00	\$0	-	\$0.00		

TOTAL COST	2019			2020			2021			
	TOTAL QTY	AVG UNIT COST	TOTAL COST	TOTAL QTY	AVG UNIT COST	TOTAL COST	TOTAL QTY	AVG UNIT COST	TOTAL COST	
\$60,000	20	\$3,000	\$60,000	20	\$3,000	\$60,000	20	\$3,000	\$60,000	
\$4,100	2	\$800	\$1,600	2	\$850	\$1,700	2	\$850	\$1,700	
\$8,500	7	\$1,214	\$8,500	7	\$1,214	\$8,500	6	\$1,250	\$7,500	
\$72,600	29	\$2,417	\$70,100	29	\$2,421	\$70,200	28	\$2,471	\$69,200	
PROJ. COST	UNITS	UNIT COST	PROJ. COST	UNITS	UNIT COST	PROJ. COST	UNITS	UNIT COST	PROJ. COST	COMMENTS
Estimated Cost (dollars)	Estimated Quantity (each)	Estimated Unit Cost (\$/unit)	Estimated Cost (dollars)	Estimated Quantity (each)	Estimated Unit Cost (\$/unit)	Estimated Cost (dollars)	Estimated Quantity (each)	Estimated Unit Cost (\$/unit)	Estimated Cost (dollars)	As Needed (Optional)
\$0	-	\$0.00	\$0	-	\$0.00	\$0	-	\$0.00	\$0	HYDRANTS: Agreement with City of Chattanooga that allows the City to request up to 20 hydrants annually. Not always used, but seeing an increase in usage.
\$0	-	\$0.00	\$0	-	\$0.00	\$0	-	\$0.00	\$0	VALVES: Increased focus on adding valves during emergency repairs for system improvement (Will hit line C). Potential for more valves than estimated, but ability to pull from hydrant budget if city does not request all 20 hydrants.
\$60,000	-	\$0.00	\$0	-	\$0.00	\$0	-	\$0.00	\$0	
\$6,000	-	\$0.00	\$0	-	\$0.00	\$0	-	\$0.00	\$0	
\$0	20	\$3,000.00	\$60,000	-	\$0.00	\$0	-	\$0.00	\$0	
\$0	6	\$1,000.00	\$6,000	-	\$0.00	\$0	-	\$0.00	\$0	
\$0	-	\$0.00	\$0	20	\$3,000.00	\$60,000	-	\$0.00	\$0	
\$0	-	\$0.00	\$0	6	\$1,000.00	\$6,000	-	\$0.00	\$0	
\$0	-	\$0.00	\$0	-	\$0.00	\$0	20	\$3,000.00	\$60,000	
\$0	-	\$0.00	\$0	-	\$0.00	\$0	5	\$1,000.00	\$5,000	
\$0	-	\$0.00	\$0	-	\$0.00	\$0	-	\$0.00	\$0	
\$0	-	\$0.00	\$0	-	\$0.00	\$0	-	\$0.00	\$0	
\$2,500	1	\$2,500.00	\$2,500	1	\$2,500.00	\$2,500	1	\$2,500.00	\$2,500	
\$1,600	2	\$800.00	\$1,600	2	\$850.00	\$1,700	2	\$850.00	\$1,700	
\$2,500	-	\$0.00	\$0	-	\$0.00	\$0	-	\$0.00	\$0	
\$0	-	\$0.00	\$0	-	\$0.00	\$0	-	\$0.00	\$0	
\$0	-	\$0.00	\$0	-	\$0.00	\$0	-	\$0.00	\$0	
\$0	-	\$0.00	\$0	-	\$0.00	\$0	-	\$0.00	\$0	
\$0	-	\$0.00	\$0	-	\$0.00	\$0	-	\$0.00	\$0	
\$0	-	\$0.00	\$0	-	\$0.00	\$0	-	\$0.00	\$0	
\$0	-	\$0.00	\$0	-	\$0.00	\$0	-	\$0.00	\$0	
\$0	-	\$0.00	\$0	-	\$0.00	\$0	-	\$0.00	\$0	
\$0	-	\$0.00	\$0	-	\$0.00	\$0	-	\$0.00	\$0	
\$0	-	\$0.00	\$0	-	\$0.00	\$0	-	\$0.00	\$0	
\$0	-	\$0.00	\$0	-	\$0.00	\$0	-	\$0.00	\$0	

SUBTOTAL BY DISTRICT	2017		2018			2019			2020			2021		
District	Estimated Quantity (each)	Estimated Cost (dollars)	Estimated Quantity (each)	Estimated Unit Cost (\$/unit)	Estimated Cost (dollars)	Estimated Quantity (each)	Estimated Unit Cost (\$/unit)	Estimated Cost (dollars)	Estimated Quantity (each)	Estimated Unit Cost (\$/unit)	Estimated Cost (dollars)	Estimated Quantity (each)	Estimated Unit Cost (\$/unit)	Estimated Cost (dollars)
2600-TN-Cap Growth Budget	-	\$0	-	\$0	\$0	-	\$0	\$0	-	\$0	\$0	-	\$0	\$0
2601-TN-Corporate	-	\$0	-	\$0	\$0	-	\$0	\$0	-	\$0	\$0	-	\$0	\$0
2602-TN-Chattanooga	27	\$67,000	26	\$4,000	\$66,000	26	\$4,000	\$66,000	26	\$4,000	\$66,000	25	\$4,000	\$65,000
2603-TN-Suck Creek	2	\$3,300	1	\$2,500	\$2,500	-	\$0	\$0	-	\$0	\$0	-	\$0	\$0
2604-TN-Lone Oak	-	\$0	-	\$0	\$0	-	\$0	\$0	-	\$0	\$0	-	\$0	\$0
2605-TN-Sequatchie Valley	3	\$4,100	3	\$3,300	\$4,100	3	\$3,300	\$4,100	3	\$3,350	\$4,200	3	\$3,350	\$4,200
0														
0														
2017														
2017														
2017														
2017														
2017														
2017														
2017														
2017														
2017														
2017														
2017														
2017														
2017														
2017														
2017														
2017														

HYDRANTS, VALVES and MANHOLES - REPLACED				CURRENT BUSINESS PLAN YEAR - 2017	PRIORITY	2017			2018	
Operating Unit	26-Tennessee	F	Budget	\$374,100	Priority A	TOTAL QTY	AVG UNIT COST	TOTAL COST	TOTAL QTY	AVG UNIT COST
Business Plan Year	2017		Budget Reserve	\$0	Priority B	34	\$4,926	\$167,500	34	\$4,926
Date Prepared	April 18, 2016		Total Budget	\$374,100	Priority C	17	\$11,765	\$200,000	18	\$12,222
Budget Level	District		Overprogram	\$0	Total	4	\$1,650	\$6,600	4	\$1,650
PROJECT INFORMATION						55	\$6,802	\$374,100	56	\$7,038
Profit Center	Budget Budget Reserve Overprogram	Hydrant, Valve OR Manhole	Justification	Priority	UNITS Estimated Quantity (each)	UNIT COST Estimated Unit Cost (\$/unit)	PROJ. COST Estimated Cost (dollars)	UNITS Estimated Quantity (each)	UNIT COST Estimated Unit Cost (\$/unit)	
2602-TN-Chattanooga	Budget	Valve(s)	Physically fails, not repairable, or in imminent danger of failure	Priority A	4	\$20,000.00	\$80,000	-	\$0.00	
2602-TN-Chattanooga	Budget	Valve(s)	Poor condition and spare parts no longer available	Priority B	9	\$20,000.00	\$180,000	-	\$0.00	
2602-TN-Chattanooga	Budget	Hydrant(s)	Physically fails, not repairable, or in imminent danger of failure	Priority A	25	\$3,000.00	\$75,000	-	\$0.00	
2602-TN-Chattanooga	Budget	Hydrant(s)	Poor condition and spare parts no longer available	Priority B	8	\$2,500.00	\$20,000	-	\$0.00	
2602-TN-Chattanooga	Budget	Valve(s)	Physically fails, not repairable, or in imminent danger of failure	Priority A	-	\$0.00	\$0	4	\$20,000.00	
2602-TN-Chattanooga	Budget	Valve(s)	Poor condition and spare parts no longer available	Priority B	-	\$0.00	\$0	10	\$20,000.00	
2602-TN-Chattanooga	Budget	Hydrant(s)	Physically fails, not repairable, or in imminent danger of failure	Priority A	-	\$0.00	\$0	25	\$3,000.00	
2602-TN-Chattanooga	Budget	Hydrant(s)	Poor condition and spare parts no longer available	Priority B	-	\$0.00	\$0	8	\$2,500.00	
2602-TN-Chattanooga	Budget	Valve(s)	Physically fails, not repairable, or in imminent danger of failure	Priority A	-	\$0.00	\$0	-	\$0.00	
2602-TN-Chattanooga	Budget	Valve(s)	Poor condition and spare parts no longer available	Priority B	-	\$0.00	\$0	-	\$0.00	
2602-TN-Chattanooga	Budget	Hydrant(s)	Physically fails, not repairable, or in imminent danger of failure	Priority A	-	\$0.00	\$0	-	\$0.00	
2602-TN-Chattanooga	Budget	Hydrant(s)	Poor condition and spare parts no longer available	Priority B	-	\$0.00	\$0	-	\$0.00	
2602-TN-Chattanooga	Budget	Valve(s)	Physically fails, not repairable, or in imminent danger of failure	Priority A	-	\$0.00	\$0	-	\$0.00	
2602-TN-Chattanooga	Budget	Valve(s)	Poor condition and spare parts no longer available	Priority B	-	\$0.00	\$0	-	\$0.00	
2602-TN-Chattanooga	Budget	Hydrant(s)	Physically fails, not repairable, or in imminent danger of failure	Priority A	-	\$0.00	\$0	-	\$0.00	
2602-TN-Chattanooga	Budget	Hydrant(s)	Poor condition and spare parts no longer available	Priority B	-	\$0.00	\$0	-	\$0.00	
2602-TN-Chattanooga	Budget	Valve(s)	Physically fails, not repairable, or in imminent danger of failure	Priority A	-	\$0.00	\$0	-	\$0.00	
2602-TN-Chattanooga	Budget	Valve(s)	Poor condition and spare parts no longer available	Priority B	-	\$0.00	\$0	-	\$0.00	
2602-TN-Chattanooga	Budget	Hydrant(s)	Physically fails, not repairable, or in imminent danger of failure	Priority A	-	\$0.00	\$0	-	\$0.00	
2602-TN-Chattanooga	Budget	Hydrant(s)	Poor condition and spare parts no longer available	Priority B	-	\$0.00	\$0	-	\$0.00	
2605-TN-Sequatchie Valley	Budget	Hydrant(s)	Hydraulically inadequate	Priority A	5	\$2,500.00	\$12,500	5	\$2,500.00	
2605-TN-Sequatchie Valley	Budget	Valve(s)	Proactive replacement based on age or condition	Priority C	2	\$800.00	\$1,600	2	\$800.00	
2605-TN-Sequatchie Valley	Budget	Hydrant(s)	Proactive replacement based on age or condition	Priority C	2	\$2,500.00	\$5,000	2	\$2,500.00	
					-	\$0.00	\$0	-	\$0.00	
					-	\$0.00	\$0	-	\$0.00	
					-	\$0.00	\$0	-	\$0.00	
					-	\$0.00	\$0	-	\$0.00	
					-	\$0.00	\$0	-	\$0.00	

TOTAL COST	2019			2020			2021			
	TOTAL QTY	AVG UNIT COST	TOTAL COST	TOTAL QTY	AVG UNIT COST	TOTAL COST	TOTAL QTY	AVG UNIT COST	TOTAL COST	
\$167,500	32	\$5,078	\$162,500	29	\$5,345	\$155,000	29	\$5,345	\$155,000	
\$220,000	18	\$12,222	\$220,000	18	\$12,222	\$220,000	20	\$12,125	\$242,500	
\$6,600	4	\$1,650	\$6,600	4	\$1,675	\$6,700	4	\$1,675	\$6,700	
\$394,100	54	\$7,206	\$389,100	51	\$7,484	\$381,700	53	\$7,626	\$404,200	
PROJ. COST	UNITS	UNIT COST	PROJ. COST	UNITS	UNIT COST	PROJ. COST	UNITS	UNIT COST	PROJ. COST	COMMENTS
Estimated Cost (dollars)	Estimated Quantity (each)	Estimated Unit Cost (\$/unit)	Estimated Cost (dollars)	Estimated Quantity (each)	Estimated Unit Cost (\$/unit)	Estimated Cost (dollars)	Estimated Quantity (each)	Estimated Unit Cost (\$/unit)	Estimated Cost (dollars)	As Needed (Optional)
\$0	-	\$0.00	\$0	-	\$0.00	\$0	-	\$0.00	\$0	As Needed on Emergency Basis
\$0	-	\$0.00	\$0	-	\$0.00	\$0	-	\$0.00	\$0	V7660 - 16", V77814 - 24", V30021 - 8", HV10892 - 6", V4249 - 4", V18755 - 2", V7213 - 2", (2 Misc Valves)
\$0	-	\$0.00	\$0	-	\$0.00	\$0	-	\$0.00	\$0	Replace as needed
\$0	-	\$0.00	\$0	-	\$0.00	\$0	-	\$0.00	\$0	Replace as needed
\$80,000	-	\$0.00	\$0	-	\$0.00	\$0	-	\$0.00	\$0	As Needed on Emergency Basis
\$200,000	-	\$0.00	\$0	-	\$0.00	\$0	-	\$0.00	\$0	V5443 - 24", V7155 - 12", V16310 - 8", V17944 - 8", V18767 - 8", V14543 - 6", V13546 - 6", V21590 - 2", (2 Misc Valves)
\$75,000	-	\$0.00	\$0	-	\$0.00	\$0	-	\$0.00	\$0	Replace as needed
\$20,000	-	\$0.00	\$0	-	\$0.00	\$0	-	\$0.00	\$0	Replace as needed
\$0	4	\$20,000.00	\$80,000	-	\$0.00	\$0	-	\$0.00	\$0	As Needed on Emergency Basis
\$0	10	\$20,000.00	\$200,000	-	\$0.00	\$0	-	\$0.00	\$0	V22600 - 8", V21132 - 8", V885 - 8", V17396 - 6", V6711 - 6", HV3784 - 6", V6527 - 2", V18929 - 2", (2 Misc Valves)
\$0	25	\$3,000.00	\$75,000	-	\$0.00	\$0	-	\$0.00	\$0	Replace as needed
\$0	8	\$2,500.00	\$20,000	-	\$0.00	\$0	-	\$0.00	\$0	Replace as needed
\$0	-	\$0.00	\$0	4	\$20,000.00	\$80,000	-	\$0.00	\$0	As Needed on Emergency Basis
\$0	-	\$0.00	\$0	10	\$20,000.00	\$200,000	-	\$0.00	\$0	V8794 - 8", V10768 - 8", V10757 - 8", V3782 - 8", HV7774 - 6", V10995 - 6", HV4557 - 6", V18921 - 2" (2 Misc Valves)
\$0	-	\$0.00	\$0	25	\$3,000.00	\$75,000	-	\$0.00	\$0	Replace as needed
\$0	-	\$0.00	\$0	8	\$2,500.00	\$20,000	-	\$0.00	\$0	Replace as needed
\$0	-	\$0.00	\$0	-	\$0.00	\$0	4	\$20,000.00	\$80,000	As Needed on Emergency Basis
\$0	-	\$0.00	\$0	-	\$0.00	\$0	11	\$20,000.00	\$220,000	HV3760 - 8", HV7774 - 6", V10995 - 6", HV4557 - 6", V11614 - 2.5" (Remaining MIS Valves and Additions from future years).
\$0	-	\$0.00	\$0	-	\$0.00	\$0	25	\$3,000.00	\$75,000	Replace as needed
\$0	-	\$0.00	\$0	-	\$0.00	\$0	9	\$2,500.00	\$22,500	Replace as needed
\$0	-	\$0.00	\$0	-	\$0.00	\$0	-	\$0.00	\$0	
\$0	-	\$0.00	\$0	-	\$0.00	\$0	-	\$0.00	\$0	
\$0	-	\$0.00	\$0	-	\$0.00	\$0	-	\$0.00	\$0	
\$0	-	\$0.00	\$0	-	\$0.00	\$0	-	\$0.00	\$0	
\$12,500	3	\$2,500.00	\$7,500	-	\$0.00	\$0	-	\$0.00	\$0	
\$1,600	2	\$800.00	\$1,600	2	\$850.00	\$1,700	2	\$850.00	\$1,700	
\$5,000	2	\$2,500.00	\$5,000	2	\$2,500.00	\$5,000	2	\$2,500.00	\$5,000	
\$0	-	\$0.00	\$0	-	\$0.00	\$0	-	\$0.00	\$0	
\$0	-	\$0.00	\$0	-	\$0.00	\$0	-	\$0.00	\$0	
\$0	-	\$0.00	\$0	-	\$0.00	\$0	-	\$0.00	\$0	
\$0	-	\$0.00	\$0	-	\$0.00	\$0	-	\$0.00	\$0	
\$0	-	\$0.00	\$0	-	\$0.00	\$0	-	\$0.00	\$0	

[illegible]

Page 22 of 60

TOTAL COST	2019			2020			2021			
	TOTAL QTY	AVG UNIT COST	TOTAL COST	TOTAL QTY	AVG UNIT COST	TOTAL COST	TOTAL QTY	AVG UNIT COST	TOTAL COST	
\$910,250	596	\$1,564	\$932,400	596	\$1,564	\$932,400	606	\$1,565	\$948,200	
\$0	0	\$0	\$0	0	\$0	\$0	0	\$0	\$0	
\$0	0	\$0	\$0	0	\$0	\$0	0	\$0	\$0	
\$910,250	596	\$1,564	\$932,400	596	\$1,564	\$932,400	606	\$1,565	\$948,200	
PROJ. COST	UNITS	UNIT COST	PROJ. COST	UNITS	UNIT COST	PROJ. COST	UNITS	UNIT COST	PROJ. COST	COMMENTS
Estimated Cost (dollars)	Estimated Quantity (each)	Estimated Unit Cost (\$/unit)	Estimated Cost (dollars)	Estimated Quantity (each)	Estimated Unit Cost (\$/unit)	Estimated Cost (dollars)	Estimated Quantity (each)	Estimated Unit Cost (\$/unit)	Estimated Cost (dollars)	As Needed (Optional)
\$891,250	580	\$1,580.00	\$916,400	580	\$1,580.00	\$916,400	590	\$1,580.00	\$932,200	On track for substantial growth in 2016. Unit Cost increased based on 3 year average cost per service.
\$0	-	\$0.00	\$0	-	\$0.00	\$0	-	\$0.00	\$0	
\$18,000	15	\$1,000.00	\$15,000	15	\$1,000.00	\$15,000	15	\$1,000.00	\$15,000	
\$1,000	1	\$1,000.00	\$1,000	1	\$1,000.00	\$1,000	1	\$1,000.00	\$1,000	
\$0	-	\$0.00	\$0	-	\$0.00	\$0	-	\$0.00	\$0	
\$0	-	\$0.00	\$0	-	\$0.00	\$0	-	\$0.00	\$0	
\$0	-	\$0.00	\$0	-	\$0.00	\$0	-	\$0.00	\$0	
\$0	-	\$0.00	\$0	-	\$0.00	\$0	-	\$0.00	\$0	
\$0	-	\$0.00	\$0	-	\$0.00	\$0	-	\$0.00	\$0	
\$0	-	\$0.00	\$0	-	\$0.00	\$0	-	\$0.00	\$0	
\$0	-	\$0.00	\$0	-	\$0.00	\$0	-	\$0.00	\$0	
\$0	-	\$0.00	\$0	-	\$0.00	\$0	-	\$0.00	\$0	
\$0	-	\$0.00	\$0	-	\$0.00	\$0	-	\$0.00	\$0	
\$0	-	\$0.00	\$0	-	\$0.00	\$0	-	\$0.00	\$0	
\$0	-	\$0.00	\$0	-	\$0.00	\$0	-	\$0.00	\$0	
\$0	-	\$0.00	\$0	-	\$0.00	\$0	-	\$0.00	\$0	
\$0	-	\$0.00	\$0	-	\$0.00	\$0	-	\$0.00	\$0	
\$0	-	\$0.00	\$0	-	\$0.00	\$0	-	\$0.00	\$0	
\$0	-	\$0.00	\$0	-	\$0.00	\$0	-	\$0.00	\$0	
\$0	-	\$0.00	\$0	-	\$0.00	\$0	-	\$0.00	\$0	
\$0	-	\$0.00	\$0	-	\$0.00	\$0	-	\$0.00	\$0	
\$0	-	\$0.00	\$0	-	\$0.00	\$0	-	\$0.00	\$0	

[illegible]

Page 25 of 60

TAW_R_CPADDR1_003_122016_Attachment1
Page 26 of 60

[illegible]

Page 28 of 60

Page 29 of 60

[illegible]

Page 31 of 60

2018		2019			2020			2021			
AVG UNIT COST	TOTAL COST	TOTAL QTY	AVG UNIT COST	TOTAL COST	TOTAL QTY	AVG UNIT COST	TOTAL COST	TOTAL QTY	AVG UNIT COST	TOTAL COST	
\$166	\$2,248,070	11,587	\$173	\$2,004,465	8,233	\$177	\$1,459,025	6,163	\$187	\$1,151,125	
\$0	\$0	0	\$0	\$0	0	\$0	\$0	0	\$0	\$0	
\$0	\$0	0	\$0	\$0	0	\$0	\$0	0	\$0	\$0	
\$166	\$2,248,070	11,587	\$173	\$2,004,465	8,233	\$177	\$1,459,025	6,163	\$187	\$1,151,125	
UNIT COST	PROJ. COST	UNITS	UNIT COST	PROJ. COST	UNITS	UNIT COST	PROJ. COST	UNITS	UNIT COST	PROJ. COST	COMMENTS
Estimated Unit Cost (\$/unit)	Estimated Cost (dollars)	Estimated Quantity (each)	Estimated Unit Cost (\$/unit)	Estimated Cost (dollars)	Estimated Quantity (each)	Estimated Unit Cost (\$/unit)	Estimated Cost (dollars)	Estimated Quantity (each)	Estimated Unit Cost (\$/unit)	Estimated Cost (dollars)	As Needed (Optional)
\$155.00	\$1,975,320	10,674	\$160.00	\$1,707,840	7,500	\$160.00	\$1,200,000	5,500	\$165.00	\$907,500	2017 accounts for catching up on the back log. Remaining years are based on current LOS plan and meter pricing. Labor calculated at \$20 addition / meter.
\$175.00	\$8,750	50	\$180.00	\$9,000	50	\$180.00	\$9,000	50	\$180.00	\$9,000	
\$210.00	\$63,000	400	\$215.00	\$86,000	220	\$220.00	\$48,400	150	\$220.00	\$33,000	
\$375.00	\$46,875	125	\$380.00	\$47,500	125	\$380.00	\$47,500	125	\$380.00	\$47,500	
\$485.00	\$150,350	310	\$485.00	\$150,350	310	\$485.00	\$150,350	310	\$485.00	\$150,350	
\$0.00	\$0	-	\$0.00	\$0	-	\$0.00	\$0	-	\$0.00	\$0	
\$0.00	\$0	-	\$0.00	\$0	-	\$0.00	\$0	-	\$0.00	\$0	
\$70.00	\$1,400	20	\$70.00	\$1,400	20	\$70.00	\$1,400	20	\$70.00	\$1,400	
\$115.00	\$575	5	\$115.00	\$575	5	\$115.00	\$575	5	\$115.00	\$575	
\$600.00	\$600	1	\$600.00	\$600	1	\$600.00	\$600	1	\$600.00	\$600	
\$600.00	\$1,200	2	\$600.00	\$1,200	2	\$600.00	\$1,200	2	\$600.00	\$1,200	
\$0.00	\$0	-	\$0.00	\$0	-	\$0.00	\$0	-	\$0.00	\$0	
\$0.00	\$0	-	\$0.00	\$0	-	\$0.00	\$0	-	\$0.00	\$0	
\$0.00	\$0	-	\$0.00	\$0	-	\$0.00	\$0	-	\$0.00	\$0	
\$0.00	\$0	-	\$0.00	\$0	-	\$0.00	\$0	-	\$0.00	\$0	
\$0.00	\$0	-	\$0.00	\$0	-	\$0.00	\$0	-	\$0.00	\$0	
\$0.00	\$0	-	\$0.00	\$0	-	\$0.00	\$0	-	\$0.00	\$0	
\$0.00	\$0	-	\$0.00	\$0	-	\$0.00	\$0	-	\$0.00	\$0	
\$0.00	\$0	-	\$0.00	\$0	-	\$0.00	\$0	-	\$0.00	\$0	
\$0.00	\$0	-	\$0.00	\$0	-	\$0.00	\$0	-	\$0.00	\$0	
\$0.00	\$0	-	\$0.00	\$0	-	\$0.00	\$0	-	\$0.00	\$0	
\$0.00	\$0	-	\$0.00	\$0	-	\$0.00	\$0	-	\$0.00	\$0	
\$0.00	\$0	-	\$0.00	\$0	-	\$0.00	\$0	-	\$0.00	\$0	
\$0.00	\$0	-	\$0.00	\$0	-	\$0.00	\$0	-	\$0.00	\$0	
\$0.00	\$0	-	\$0.00	\$0	-	\$0.00	\$0	-	\$0.00	\$0	
\$0.00	\$0	-	\$0.00	\$0	-	\$0.00	\$0	-	\$0.00	\$0	

Page 33 of 60

ITS EQUIPMENT and SYSTEMS				CURRENT BUSINESS PLAN YEAR - 2017		PRIORITY	2017			TOTAL QTY
Operating Unit	26-Tennessee	K	Budget	\$301,364	Priority A	0	\$0	\$0	0	
Business Plan Year	2017		Budget Reserve	\$0	Priority B	92	\$3,276	\$301,364	96	
Date Prepared	April 18, 2016		Total Budget	\$301,364	Priority C	0	\$0	\$0	0	
Budget Level	Project		Overprogram	\$0	Total	92	\$3,276	\$301,364	96	
PROJECT INFORMATION						UNITS		UNIT COST	PROJ. COST	UNITS
Profit Center	Budget Budget Reserve Overprogram	Project Title	Justification	Priority	Estimated Quantity (each)	Estimated Unit Cost (\$/unit)	Estimated Cost (dollars)	Estimated Quantity (each)		
2602-TN-Chattanooga	Budget	Routers	Has reached the end of its expected life	Priority B	2	\$16,198.60	\$32,397	-		
2602-TN-Chattanooga	Budget	Out-of-Band Devices	Has reached the end of its expected life	Priority B	2	\$1,970.10	\$3,940	-		
2602-TN-Chattanooga	Budget	Computers	Has reached the end of its expected life	Priority B	29	\$2,449.82	\$71,045	19		
2602-TN-Chattanooga	Budget	Toughbooks/Tablets	Has reached the end of its expected life	Priority B	37	\$3,864.30	\$142,979	8		
2602-TN-Chattanooga	Budget	Wireless	Has reached the end of its expected life	Priority B	8	\$1,089.00	\$8,712	-		
2602-TN-Chattanooga	Budget	Infrastructure Upgrade	Has reached the end of its expected life	Priority B	1	\$12,375.00	\$12,375	1		
2602-TN-Chattanooga	Budget	UPS	Has reached the end of its expected life	Priority B	6	\$1,989.17	\$11,935	-		
2602-TN-Chattanooga	Budget	Projectors	Has reached the end of its expected life	Priority B	2	\$1,494.90	\$2,990	-		
2602-TN-Chattanooga	Budget	Servers	Has reached the end of its expected life	Priority B	-	\$0.00	\$0	1		
2602-TN-Chattanooga	Budget	Switches	Has reached the end of its expected life	Priority B	-	\$0.00	\$0	-		
2602-TN-Chattanooga	Budget	Phones	Has reached the end of its expected life	Priority B	-	\$0.00	\$0	65		
2602-TN-Chattanooga	Budget	Video Conferencing	Has reached the end of its expected life	Priority B	-	\$0.00	\$0	1		
2602-TN-Chattanooga	Budget	Splash TVs	Has reached the end of its expected life	Priority B	-	\$0.00	\$0	-		
2602-TN-Chattanooga	Budget	Displays	Has reached the end of its expected life	Priority B	-	\$0.00	\$0	-		
2602-TN-Chattanooga	Budget	MultiFunction Devices	Has reached the end of its expected life	Priority B	-	\$0.00	\$0	-		
2602-TN-Chattanooga	Budget	KRONOS	Has reached the end of its expected life	Priority B	-	\$0.00	\$0	-		
					-	\$0.00	\$0	-		
					-	\$0.00	\$0	-		
2605-TN-Sequatchie Valley	Budget	Computers	Has reached the end of its expected life	Priority B	1	\$2,148.30	\$2,148	1		
2605-TN-Sequatchie Valley	Budget	Toughbooks/Tablets	Has reached the end of its expected life	Priority B	3	\$3,864.30	\$11,593	-		
2605-TN-Sequatchie Valley	Budget	UPS	Has reached the end of its expected life	Priority B	1	\$1,249.60	\$1,250	-		
2605-TN-Sequatchie Valley	Budget	Splash TVs	Has reached the end of its expected life	Priority B	-	\$0.00	\$0	-		
2605-TN-Sequatchie Valley	Budget	Out-of-Band Devices	Has reached the end of its expected life	Priority B	-	\$0.00	\$0	-		

2018		2019			2020			2021			COMMENTS
AVG UNIT COST	TOTAL COST	TOTAL QTY	AVG UNIT COST	TOTAL COST	TOTAL QTY	AVG UNIT COST	TOTAL COST	TOTAL QTY	AVG UNIT COST	TOTAL COST	
\$0	\$0	0	\$0	\$0	0	\$0	\$0	0	\$0	\$0	
\$1,712	\$164,380	27	\$4,975	\$134,312	32	\$5,505	\$176,149	92	\$3,284	\$302,087	
\$0	\$0	0	\$0	\$0	0	\$0	\$0	0	\$0	\$0	As Needed (Optional)
\$1,712	\$164,380	27	\$4,975	\$134,312	32	\$5,505	\$176,149	92	\$3,284	\$302,087	
UNIT COST	PROJ. COST	UNITS	UNIT COST	PROJ. COST	UNITS	UNIT COST	PROJ. COST	UNITS	UNIT COST	PROJ. COST	
Estimated Unit Cost (\$/unit)	Estimated Cost (dollars)	Estimated Quantity (each)	Estimated Unit Cost (\$/unit)	Estimated Cost (dollars)	Estimated Quantity (each)	Estimated Unit Cost (\$/unit)	Estimated Cost (dollars)	Estimated Quantity (each)	Estimated Unit Cost (\$/unit)	Estimated Cost (dollars)	
\$0.00	\$0	-	\$0.00	\$0	-	\$0.00	\$0	2	\$16,198.60	\$32,397	
\$0.00	\$0	-	\$0.00	\$0	1	\$1,970.10	\$1,970	2	\$1,970.10	\$3,940	
\$2,713.59	\$51,558	5	\$2,497.44	\$12,487	4	\$2,885.30	\$11,541	29	\$2,449.82	\$71,045	
\$3,864.30	\$30,914	3	\$3,864.30	\$11,593	-	\$0.00	\$0	37	\$3,864.30	\$142,979	
\$0.00	\$0	2	\$1,089.00	\$2,178	1	\$1,089.00	\$1,089	8	\$1,089.00	\$8,712	
\$12,375.00	\$12,375	1	\$12,375.00	\$12,375	1	\$12,375.00	\$12,375	1	\$12,375.00	\$12,375	
\$0.00	\$0	1	\$2,022.90	\$2,023	3	\$1,989.17	\$5,968	6	\$1,989.17	\$11,935	
\$0.00	\$0	-	\$0.00	\$0	-	\$0.00	\$0	2	\$1,494.90	\$2,990	
\$16,054.50	\$16,055	-	\$0.00	\$0	-	\$0.00	\$0	-	\$0.00	\$0	
\$0.00	\$0	6	\$9,520.50	\$57,123	5	\$9,286.20	\$46,431	-	\$0.00	\$0	
\$627.00	\$40,755	-	\$0.00	\$0	-	\$0.00	\$0	-	\$0.00	\$0	
\$9,941.80	\$9,942	1	\$18,669.20	\$18,669	-	\$0.00	\$0	-	\$0.00	\$0	
\$0.00	\$0	5	\$2,108.70	\$10,544	-	\$0.00	\$0	-	\$0.00	\$0	
\$0.00	\$0	1	\$1,347.50	\$1,348	-	\$0.00	\$0	-	\$0.00	\$0	
\$0.00	\$0	-	\$0.00	\$0	8	\$9,023.58	\$72,189	-	\$0.00	\$0	
\$0.00	\$0	-	\$0.00	\$0	6	\$2,200.00	\$13,200	-	\$0.00	\$0	
\$0.00	\$0	-	\$0.00	\$0	-	\$0.00	\$0	-	\$0.00	\$0	
\$0.00	\$0	-	\$0.00	\$0	-	\$0.00	\$0	-	\$0.00	\$0	
\$2,780.80	\$2,781	-	\$0.00	\$0	-	\$0.00	\$0	1	\$2,148.30	\$2,148	
\$0.00	\$0	1	\$3,864.30	\$3,864	-	\$0.00	\$0	3	\$3,864.30	\$11,593	
\$0.00	\$0	-	\$0.00	\$0	-	\$0.00	\$0	1	\$1,972.30	\$1,972	
\$0.00	\$0	1	\$2,108.70	\$2,109	-	\$0.00	\$0	-	\$0.00	\$0	
\$0.00	\$0	-	\$0.00	\$0	1	\$1,970.10	\$1,970	-	\$0.00	\$0	

Page 36 of 60

Page 37 of 60

[illegible]

2021						
TOTAL QTY	AVG UNIT COST	TOTAL COST				
0	\$0	\$0				
1	\$125,000	\$125,000				
0	\$0	\$0				
1	\$125,000	\$125,000				
UNITS	UNIT COST	PROJ. COST	COMMENTS	SUBTOTAL BY DISTRICT	2017	
Estimated Quantity (each)	Estimated Unit Cost (\$/unit)	Estimated Cost (dollars)	As Needed (Optional)	District	Estimated Quantity (each)	Estimated Cost (dollars)
-	\$0.00	\$0		2600-TN-Cap Growth Budget	-	\$0
-	\$0.00	\$0		2601-TN-Corporate	-	\$0
-	\$0.00	\$0		2602-TN-Chattanooga	1	\$60,000
-	\$0.00	\$0		2603-TN-Suck Creek	1	\$50,000
-	\$0.00	\$0		2604-TN-Lone Oak	-	\$0
-	\$0.00	\$0		2605-TN-Sequatchie Valley	2	\$65,000
-	\$0.00	\$0		0		
-	\$0.00	\$0		0		
-	\$0.00	\$0		0		
-	\$0.00	\$0		0		
1	\$125,000.00	\$125,000		0		
-	\$0.00	\$0		0		
-	\$0.00	\$0		0		
-	\$0.00	\$0		0		
-	\$0.00	\$0		0		
-	\$0.00	\$0		0		
-	\$0.00	\$0		0		
-	\$0.00	\$0		0		
-	\$0.00	\$0		0		
-	\$0.00	\$0		0		
-	\$0.00	\$0		0		
-	\$0.00	\$0		0		
-	\$0.00	\$0		0		
-	\$0.00	\$0		0		
-	\$0.00	\$0		0		
-	\$0.00	\$0		0		
-	\$0.00	\$0		0		
-	\$0.00	\$0		0		
-	\$0.00	\$0		0		
-	\$0.00	\$0		0		


SECURITY EQUIPMENT and SYSTEMS				CURRENT BUSINESS PLAN YEAR - 2017		PRIORITY	2017			TOTAL QTY			
Operating Unit	26-Tennessee	M	Budget		\$140,000	Priority A	3	AVG UNIT COST	\$46,667	TOTAL COST	\$140,000	TOTAL QTY	8
Business Plan Year	2017		Budget Reserve		\$0	Priority B	0		\$0		\$0	0	
Date Prepared	April 18, 2016		Total Budget		\$140,000	Priority C	0		\$0		\$0	0	
Budget Level	Project		Overprogram		\$0	Total	3		\$46,667		\$140,000	8	
PROJECT INFORMATION							UNITS	UNIT COST	PROJ. COST	UNITS			
Profit Center	Budget Budget Reserve Overprogram	Project Title		Justification		Priority	Estimated Quantity (each)	Estimated Unit Cost (\$/unit)	Estimated Cost (dollars)	Estimated Quantity (each)			
2603-TN-Suck Creek	Budget	Suck Creek Camera upgrade/BA upgrade		Physically fails and not repairable, or in imminent danger of failure		Priority A	1	\$50,000.00	\$50,000	-			
2602-TN-Chattanooga	Budget	CITICO Camera upgrades		Physically fails and not repairable, or in imminent danger of failure		Priority A	1	\$75,000.00	\$75,000	-			
2602-TN-Chattanooga	Budget	Riverside Drive Distribution Bldg/Engineering bldg		Minimum level of health and safety risk reduction not in place		Priority A	-	\$200,000.00	\$0	-			
2605-TN-Sequatchie Valley	Budget	Whitwell security upgrade		Physically fails and not repairable, or in imminent danger of failure		Priority A	1	\$15,000.00	\$15,000	-			
2602-TN-Chattanooga	Budget	Tier 3 Signal Mountain Tank Site		Minimum level of health and safety risk reduction not in place		Priority A	-	\$0.00	\$0	1			
2602-TN-Chattanooga	Budget	Tier 3 East Brainerd Tank Site		Minimum level of health and safety risk reduction not in place		Priority A	-	\$0.00	\$0	1			
2602-TN-Chattanooga	Budget	Tier 3 Red Bank Tank Site		Minimum level of health and safety risk reduction not in place		Priority A	-	\$0.00	\$0	1			
2602-TN-Chattanooga	Budget	Tier 3 St Elmo Tank Site		Minimum level of health and safety risk reduction not in place		Priority A	-	\$0.00	\$0	1			
2602-TN-Chattanooga	Budget	Tier 3 South Mission Ridge Tank Site		Minimum level of health and safety risk reduction not in place		Priority A	-	\$0.00	\$0	1			
2602-TN-Chattanooga	Budget	Tier 3 South End Tank Site		Minimum level of health and safety risk reduction not in place		Priority A	-	\$0.00	\$0	1			
2602-TN-Chattanooga	Budget	Tier 3 Lookout Mountain Tank Site		Minimum level of health and safety risk reduction not in place		Priority A	-	\$0.00	\$0	1			
2602-TN-Chattanooga	Budget	Tier 3 Elder Mountain Tank Site		Minimum level of health and safety risk reduction not in place		Priority A	-	\$0.00	\$0	-			
2602-TN-Chattanooga	Budget	Tier 3 Mission Ridge II Tank Site		Minimum level of health and safety risk reduction not in place		Priority A	-	\$0.00	\$0	-			
2602-TN-Chattanooga	Budget	Tier 3 Ryall Springs Tank Site		Minimum level of health and safety risk reduction not in place		Priority A	-	\$0.00	\$0	-			
2602-TN-Chattanooga	Budget	Tier 3 Jenkins Rd Tank Site		Minimum level of health and safety risk reduction not in place		Priority A	-	\$0.00	\$0	-			
2603-TN-Suck Creek	Budget	Tier 3 Suck Creek Tank Site		Minimum level of health and safety risk reduction not in place		Priority A	-	\$0.00	\$0	-			
2602-TN-Chattanooga	Budget	Tier 3 White Oak Tank Site		Minimum level of health and safety risk reduction not in place		Priority A	-	\$0.00	\$0	1			
2602-TN-Chattanooga	Budget	Future Security Upgrades		Minimum level of health and safety risk reduction not in place		Priority A	-	\$0.00	\$0	-			
2602-TN-Chattanooga	Budget	Future Security Upgrades		Minimum level of health and safety risk reduction not in place		Priority A	-	\$0.00	\$0	-			
							-	\$0.00	\$0	-			
							-	\$0.00	\$0	-			
							-	\$0.00	\$0	-			
							-	\$0.00	\$0	-			
							-	\$0.00	\$0	-			
							-	\$0.00	\$0	-			
							-	\$0.00	\$0	-			
							-	\$0.00	\$0	-			
							-	\$0.00	\$0	-			
							-	\$0.00	\$0	-			
							-	\$0.00	\$0	-			
							-	\$0.00	\$0	-			
							-	\$0.00	\$0	-			
							-	\$0.00	\$0	-			
							-	\$0.00	\$0	-			
							-	\$0.00	\$0	-			
							-	\$0.00	\$0	-			
							-	\$0.00	\$0	-			
							-	\$0.00	\$0	-			
							-	\$0.00	\$0	-			
							-	\$0.00	\$0	-			
							-	\$0.00	\$0	-			
							-	\$0.00	\$0	-			
							-	\$0.00	\$0	-			
							-	\$0.00	\$0	-			
							-	\$0.00	\$0	-			
							-	\$0.00	\$0	-			
							-	\$0.00	\$0	-			
							-	\$0.00	\$0	-			
							-	\$0.00	\$0	-			
							-	\$0.00	\$0	-			
							-	\$0.00	\$0	-			
							-	\$0.00	\$0	-			
							-	\$0.00	\$0	-			
							-	\$0.00	\$0	-			
							-	\$0.00	\$0	-			
							-	\$0.00	\$0	-			
							-	\$0.00	\$0	-			
							-	\$0.00	\$0	-			
							-	\$0.00	\$0	-			
							-	\$0.00	\$0	-			
							-	\$0.00	\$0	-			
							-	\$0.00	\$0	-			
							-	\$0.00	\$0	-			
							-	\$0.00	\$0	-			
							-	\$0.00	\$0	-			
							-	\$0.00	\$0	-			
							-	\$0.00	\$0	-			
							-	\$0.00	\$0	-			
							-	\$0.00	\$0				

Page 41 of 60

Page 43 of 60

Page 44 of 60

Page 45 of 60

VEHICLES				CURRENT BUSINESS PLAN YEAR - 2017		PRIORITY	2017 TOTAL QTY AVG UNIT COST TOTAL COST		
Operating Unit	26-Tennessee		Budget	\$525,000	Priority A	0	\$0	\$0	
Business Plan Year	2017		Budget Reserve	\$0	Priority B	10	\$52,500	\$525,000	
Date Prepared	April 18, 2016		Total Budget	\$525,000	Priority C	0	\$0	\$0	
Budget Level	Project		Overprogram	\$0	Total	10	\$52,500	\$525,000	
PROJECT INFORMATION							UNITS	UNIT COST	PROJ. COST
Profit Center	Budget Budget Reserve Overprogram	Project Title	Vehicle Type (Class)	Justification	Priority	Estimated Quantity (each)	Estimated Unit Cost (\$/unit)	Estimated Cost (dollars)	
2602-TN-Chattanooga	Budget	1GCEK19V27Z137743 2007 Silverado 71114 (112,000) DIST	Pickup	Has reached the end of its expected life	Priority B	1	\$35,000.00	\$35,000	
2602-TN-Chattanooga	Budget	1GCEK19V97Z142793 2007 Silverado 71112 (129758) Dist New Service	Pickup	Has reached the end of its expected life	Priority B	1	\$35,000.00	\$35,000	
2602-TN-Chattanooga	Budget	1FDAF56P66EB71878 Valve Truck	Medium Truck	Has reached the end of its expected life	Priority B	1	\$140,000.00	\$140,000	
2602-TN-Chattanooga	Budget	1GCEK19VX7Z129731 2007 Silverado 71113 Dist	Pickup	Has reached the end of its expected life	Priority B	1	\$35,000.00	\$35,000	
2602-TN-Chattanooga	Budget	3GCEK14X97G199164 2007 Chev Silverado 71124 (105,960)	Pickup	Has reached the end of its expected life	Priority B	1	\$35,000.00	\$35,000	
2602-TN-Chattanooga	Budget	1D7HA16K28J238958 Meter Shop Dodge - Need To Replace	Pickup	Has reached the end of its expected life	Priority B	1	\$30,000.00	\$30,000	
2602-TN-Chattanooga	Budget	1GCEC14X97Z122730 2007 Chevy Silverado - Meter Shop	Pickup	Has reached the end of its expected life	Priority B	1	\$30,000.00	\$30,000	
2602-TN-Chattanooga	Budget	1GCEC14X17Z126514 2007 Chevy Silv Meter Shop	Pickup	Has reached the end of its expected life	Priority B	1	\$30,000.00	\$30,000	
2602-TN-Chattanooga	Budget	1FTNF21F1XEE73468 1999 Ford 250 Production	Pickup	Has reached the end of its expected life	Priority B	1	\$35,000.00	\$35,000	
2602-TN-Chattanooga	Budget	2CNDL23F076022274 2007 Equinox - Prod 59,000 Miles	SUV	Has reached the end of its expected life	Priority B	-	\$0.00	\$0	
2602-TN-Chattanooga	Budget	2CNDL23F976043527 2007 Equinox - Meter 46,666	SUV	Has reached the end of its expected life	Priority B	-	\$0.00	\$0	
2602-TN-Chattanooga	Budget	1GCEK19V45Z285924 2005 Chevy Silverado - Dist Needs Rpl	Pickup	Has reached the end of its expected life	Priority B	-	\$0.00	\$0	
2602-TN-Chattanooga	Budget	1HTMMAAM57H536292 Danny Dump	Medium Truck	Has reached the end of its expected life	Priority B	-	\$0.00	\$0	
2602-TN-Chattanooga	Budget	1HTMMAAM37H536291 ELI dump	Medium Truck	Has reached the end of its expected life	Priority B	-	\$0.00	\$0	
2602-TN-Chattanooga	Budget	1D7HE22K48S638272 Dodge Dakota? Meter Shop	Pickup	Has reached the end of its expected life	Priority B	-	\$0.00	\$0	
2602-TN-Chattanooga	Budget	5TFUJ4EN5DX084038 Production - Low Miles	Pickup	Has reached the end of its expected life	Priority B	-	\$0.00	\$0	
2602-TN-Chattanooga	Budget	1GBJC34U25E272574 2005 Silverado	Pickup	Has reached the end of its expected life	Priority B	-	\$0.00	\$0	
2602-TN-Chattanooga	Budget	1GCEK19V75Z142742 2005 Silverado	Pickup	Has reached the end of its expected life	Priority B	-	\$0.00	\$0	
2602-TN-Chattanooga	Budget	1VWAP7A34CC007454 VW Passatt - Safety	Car	Has reached the end of its expected life	Priority B	-	\$0.00	\$0	
2602-TN-Chattanooga	Budget	1GC3KVBG3AF131341 David McBay	Pickup	Has reached the end of its expected life	Priority B	-	\$0.00	\$0	
2602-TN-Chattanooga	Budget	1GCCSBDE6A8144132 Colorado Meter Shop	Pickup	Has reached the end of its expected life	Priority B	-	\$0.00	\$0	
2602-TN-Chattanooga	Budget	1GCCSBDE5A8142582 Colorado Meter Shop	Pickup	Has reached the end of its expected life	Priority B	-	\$0.00	\$0	
2602-TN-Chattanooga	Budget	1G1ZS52855F202976 2005 Malibu	Car	Has reached the end of its expected life	Priority B	-	\$0.00	\$0	
2602-TN-Chattanooga	Budget	1GC5KVBG3AZ184600 2010 Pickup - Production	Pickup	Has reached the end of its expected life	Priority B	-	\$0.00	\$0	
2602-TN-Chattanooga	Budget	1FTMF1EW7AKE34439 Ford FSR	Pickup	Has reached the end of its expected life	Priority B	-	\$0.00	\$0	
2602-TN-Chattanooga	Budget	NM0LS6AN5DT156914 Transit	Cargo Van	Has reached the end of its expected life	Priority B	-	\$0.00	\$0	
2602-TN-Chattanooga	Budget	NM0LS6ANXDT141776 Transit	Cargo Van	Has reached the end of its expected life	Priority B	-	\$0.00	\$0	
2602-TN-Chattanooga	Budget	NM0LS6AN8DT160688 Transit	Cargo Van	Has reached the end of its expected life	Priority B	-	\$0.00	\$0	
2602-TN-Chattanooga	Budget	3D6WG46D98G243007 2008 Dodge - Meter Shop	Pickup	Has reached the end of its expected life	Priority B	-	\$0.00	\$0	
2602-TN-Chattanooga	Budget	5TFUJ4EN1DX083663 Toyota Meter Shop	Pickup	Has reached the end of its expected life	Priority B	-	\$0.00	\$0	
2602-TN-Chattanooga	Budget	NM0LS6BN4DT143425 Transit	Cargo Van	Has reached the end of its expected life	Priority B	-	\$0.00	\$0	
2602-TN-Chattanooga	Budget	1FDUF5GT18ED06011 Valve	Medium Truck	Has reached the end of its expected life	Priority B	-	\$0.00	\$0	
2602-TN-Chattanooga	Budget	3D7KS26D98G247961 Ram	Pickup	Has reached the end of its expected life	Priority B	-	\$0.00	\$0	
2602-TN-Chattanooga	Budget	1FDUF5GT1CEA60871 Valve	Medium Truck	Has reached the end of its expected life	Priority B	-	\$0.00	\$0	
2602-TN-Chattanooga	Budget	1GCDT19E978128701 Production Colorado	Pickup	Has reached the end of its expected life	Priority B	-	\$0.00	\$0	
2602-TN-Chattanooga	Budget	1HTMMAAM89H141493 Crew Truck	Medium Truck	Has reached the end of its expected life	Priority B	-	\$0.00	\$0	
2602-TN-Chattanooga	Budget	2C4RVAAG5CR120302 VW Van	Pickup	Has reached the end of its expected life	Priority B	-	\$0.00	\$0	
2602-TN-Chattanooga	Budget	1FTRF12W46NA11527 Whitwell	Pickup	Has reached the end of its expected life	Priority B	-	\$0.00	\$0	
2602-TN-Chattanooga	Budget	5TFUM5F1DX049058 DIST Tundra	Pickup	Has reached the end of its expected life	Priority B	-	\$0.00	\$0	
2602-TN-Chattanooga	Budget	1B3LC46K68N296050 Avenger	Car	Has reached the end of its expected life	Priority B	-	\$0.00	\$0	
2602-TN-Chattanooga	Budget	3FRWF7FL8DV784320	Medium Truck	Has reached the end of its expected life	Priority B	-	\$0.00	\$0	
2602-TN-Chattanooga	Budget	3C7WRSAL7DG579416 Hydrant Truck	Pickup	Has reached the end of its expected life	Priority B	-	\$0.00	\$0	
2602-TN-Chattanooga	Budget	1G1ZS52855F203108 2005 Malibu 50808 32727 Miles	Car	Has reached the end of its expected life	Priority B	-	\$0.00	\$0	
2602-TN-Chattanooga	Budget	1GCHK24U07E101591 2007 Chevy Silverado - DIST	Pickup	Has reached the end of its expected life	Priority B	-	\$0.00	\$0	
						-	\$0.00	\$0	
2605-TN-Sequatchie Valley	Budget	Dump truck	Heavy Truck	Has reached the end of its expected life	Priority B	1	\$120,000.00	\$120,000	
2603-TN-Suck Creek	Budget		Medium Truck	Proactive replacement based on age, condition or new technology	Priority C	-	\$0.00	\$0	
2605-TN-Sequatchie Valley	Budget		Pickup	Has reached the end of its expected life	Priority B	-	\$0.00	\$0	
2605-TN-Sequatchie Valley	Budget		Pickup	Proactive replacement based on age, condition or new technology	Priority C	-	\$0.00	\$0	
2605-TN-Sequatchie Valley	Budget		Pickup	Proactive replacement based on age, condition or new technology	Priority C	-	\$0.00	\$0	
2605-TN-Sequatchie Valley	Budget		Pickup	Proactive replacement based on age, condition or new technology	Priority C	-	\$0.00	\$0	

Page 47 of 60

Page 49 of 60

Page 50 of 60

[illegible]

PROCESS PLANT FACILITIES and EQUIPMENT				CURRENT BUSINESS PLAN YEAR - 2017		PRIORITY	2017			2018		
Operating Unit	26-Tennessee	Q	Budget	\$455,000	Priority A	0	\$0	\$0	0	\$0	\$0	
Business Plan Year	2017		Budget Reserve	\$65,000	Priority B	11	\$47,273	\$520,000	12	\$127,917	\$1,535,000	
Date Prepared	April 18, 2016		Total Budget	\$520,000	Priority C	0	\$0	\$0	0	\$0	\$0	
Budget Level	Project		Overprogram	\$0	Total	11	\$47,273	\$520,000	12	\$127,917	\$1,535,000	
PROJECT INFORMATION						UNITS	UNIT COST	PROJ. COST	UNITS	UNIT COST	PROJ. COST	
Profit Center	Budget Budget Reserve Overprogram	Project Title	Justification	Priority	Estimated Quantity (each)	Estimated Unit Cost (\$/unit)	Estimated Cost (dollars)	Estimated Quantity (each)	Estimated Unit Cost (\$/unit)	Estimated Cost (dollars)		
2602-TN-Chattanooga	Budget	Construct Citico High Service Bypass	Provides increased reliability or operating	Priority B	-	\$350,000.00	\$0	1	\$350,000.00	\$350,000		
2602-TN-Chattanooga	Budget	Replace Rotating Element #12 Low Service	Provides increased reliability or operating	Priority B	1	\$60,000.00	\$60,000	-	\$0.00	\$0		
2602-TN-Chattanooga	Budget	Replace Caustic Soda Day Tank	Provides increased reliability or operating	Priority B	1	\$15,000.00	\$15,000	-	\$0.00	\$0		
2602-TN-Chattanooga	Budget	Install Flow Meter #8 Hill City	Provides increased reliability or operating	Priority B	-	\$0	\$0	-	\$0.00	\$0		
2602-TN-Chattanooga	Budget	Repair/Replace Low Service Intake Valve	Provides increased reliability or operating	Priority B	1	\$30,000.00	\$30,000	-	\$0.00	\$0		
2602-TN-Chattanooga	Budget	Replace #11 SMR Starter	Provides increased reliability or operating	Priority B	1	\$15,000.00	\$15,000	-	\$0.00	\$0		
2602-TN-Chattanooga	Budget	Install Docking Station for Generator @ Hillpointe	Provides increased reliability or operating	Priority B	-	\$0	\$0	-	\$0.00	\$0		
2602-TN-Chattanooga	Budget	Install Docking Station for Generator @ Panorama	Provides increased reliability or operating	Priority B	-	\$0	\$0	-	\$0.00	\$0		
2602-TN-Chattanooga	Budget	Replace #3 Hill City with larger pumping unit and VFD	Provides increased reliability or operating	Priority B	1	\$200,000.00	\$200,000	-	\$0.00	\$0		
2602-TN-Chattanooga	Budget	Replace #3 Mission Ridge with larger Pumping Unit and VFD	Provides increased reliability or operating	Priority B	-	\$0	\$0	-	\$0.00	\$0		
2602-TN-Chattanooga	Budget						\$0	-	\$0.00	\$0		
2602-TN-Chattanooga	Budget	Replace #6 Lkt Mtn. Motor	Provides increased reliability or operating	Priority B	1	\$70,000.00	\$70,000	-	\$70,000.00	\$0		
2602-TN-Chattanooga	Budget	Replace Underdrains 10,12,13,14,15,16,17,18,19,20 in FH2	Provides increased reliability or operating	Priority B	-	\$0.00	\$0	4	\$195,000.00	\$780,000		
2602-TN-Chattanooga	Budget				-	\$0.00	\$0	-	\$0.00	\$0		
2602-TN-Chattanooga	Budget	Replace #4 Lkt. Mtn. Motor	Provides increased reliability or operating	Priority B	-	\$0.00	\$0	1	\$70,000.00	\$70,000		
2602-TN-Chattanooga	Budget	Replace PACL DC Drives	Provides increased reliability or operating	Priority B	-	\$0.00	\$0	1	\$20,000.00	\$20,000		
2602-TN-Chattanooga	Budget	Replace #11 High Service Cone Valve	Provides increased reliability or operating	Priority B	-	\$0.00	\$0	1	\$90,000.00	\$90,000		
2602-TN-Chattanooga	Budget	Replace # 16 High Service Cone Valve	Provides increased reliability or operating	Priority B	-	\$0.00	\$0	1	\$90,000.00	\$90,000		
2602-TN-Chattanooga	Budget	Remove Abandoned Altitude Valve @2 Plant Wash Water Vault and Replace with sect	Provides increased reliability or operating	Priority B	-	\$0.00	\$0	1	\$20,000.00	\$20,000		
2602-TN-Chattanooga	Budget	Replace Backwash Valve #1 Aldrich Unit	Provides increased reliability or operating	Priority B	-	\$0.00	\$0	1	\$40,000.00	\$40,000		
2602-TN-Chattanooga	Budget	Replace Freight Elevator @ Chemical Building	Provides increased reliability or operating	Priority B	-	\$0.00	\$0	1	\$75,000.00	\$75,000		
2602-TN-Chattanooga	Budget				-	\$0.00	\$0			\$0		
2602-TN-Chattanooga	Budget	Replace #4 Mission Ridge Pump with larger unit and VFD	Provides increased reliability or operating	Priority B	-	\$0.00	\$0	-	\$0.00	\$0		
2602-TN-Chattanooga	Budget	Replace Fluorinde Bulk Tank	Provides increased reliability or operating	Priority B	-	\$0.00	\$0	-	\$0.00	\$0		
2602-TN-Chattanooga	Budget	Replace 2 High Service Valves @ Citico	Provides increased reliability or operating	Priority B	-	\$0.00	\$0	-	\$0.00	\$0		
2602-TN-Chattanooga	Budget	Replace Starter Panel @ Elmendorf Station	Provides increased reliability or operating	Priority B	-	\$0.00	\$0	-	\$0.00	\$0		
2602-TN-Chattanooga	Budget	Replace #7 Hill City Starter	Provides increased reliability or operating	Priority B	-	\$0.00	\$0	-	\$0.00	\$0		
2602-TN-Chattanooga	Budget	Replace #1 Elder Mtn. Starter	Provides increased reliability or operating	Priority B	-	\$0.00	\$0	-	\$0.00	\$0		
2602-TN-Chattanooga	Budget	Replace #2 Elder Mtn. Starter	Provides increased reliability or operating	Priority B	-	\$0.00	\$0	-	\$0.00	\$0		
2602-TN-Chattanooga	Budget	Replace Elevator in Citico Pump Station	Provides increased reliability or operating	Priority B	-	\$0.00	\$0	-	\$0.00	\$0		
2602-TN-Chattanooga	Budget	Replace Rotating Element #11 High Service	Provides increased reliability or operating	Priority B	-	\$0.00	\$0	-	\$0.00	\$0		
2602-TN-Chattanooga	Budget				-	\$0.00	\$0	-	\$0.00	\$0		
2602-TN-Chattanooga	Budget	Replace Broken Separation Valve in Screen House	Provides increased reliability or operating	Priority B	-	\$0.00	\$0	-	\$0.00	\$0		
2602-TN-Chattanooga	Budget	Replace Siding on Chemical Building	Provides increased reliability or operating	Priority B	-	\$0.00	\$0	-	\$0.00	\$0		
2602-TN-Chattanooga	Budget	Replace Maple Hill Booster/Rolling Acres with one Station?	Provides increased reliability or operating	Priority B	-	\$0.00	\$0	-	\$0.00	\$0		
2602-TN-Chattanooga	Budget	Replace Carbon Slurry Feed Pump System	Provides increased reliability or operating	Priority B	-	\$0.00	\$0	-	\$0.00	\$0		
2602-TN-Chattanooga	Budget	Replace Pumps Crestview Booster Station	Provides increased reliability or operating	Priority B	-	\$0.00	\$0	-	\$0.00	\$0		
2602-TN-Chattanooga	Budget	Replace Starters Crestview Booster Station	Provides increased reliability or operating	Priority B	-	\$0.00	\$0	-	\$0.00	\$0		
2602-TN-Chattanooga	Budget	Replace #13 Low Service Soft Starter	Provides increased reliability or operating	Priority B	-	\$0.00	\$0	-	\$0.00	\$0		
2602-TN-Chattanooga	Budget	Replace Starter #7 East Ridge	Provides increased reliability or operating	Priority B	-	\$0.00	\$0	-	\$0.00	\$0		
2602-TN-Chattanooga	Budget				-	\$0.00	\$0	-	\$0.00	\$0		
2602-TN-Chattanooga	Budget	Replace Starter #5 St. Elmo	Provides increased reliability or operating	Priority B	-	\$0.00	\$0	-	\$0.00	\$0		
2602-TN-Chattanooga	Budget	Replace Starter #6 St. Elmo	Provides increased reliability or operating	Priority B	-	\$0.00	\$0	-	\$0.00	\$0		
2602-TN-Chattanooga	Budget	Replace Starter #6 Lkt. Mtn.	Provides increased reliability or operating	Priority B	-	\$0.00	\$0	-	\$0.00	\$0		
2602-TN-Chattanooga	Budget	Replace Starter #8 Lkt. Mtn.	Provides increased reliability or operating	Priority B	-	\$0.00	\$0	-	\$0.00	\$0		
2602-TN-Chattanooga	Budget	Replace Battery Rack and Charger System @ Citico	Provides increased reliability or operating	Priority B	-	\$0.00	\$0	-	\$0.00	\$0		
2602-TN-Chattanooga	Budget	Replace 2 High Service Gate Valves @ Citico	Provides increased reliability or operating	Priority B	-	\$0.00	\$0	-	\$0.00	\$0		
2602-TN-Chattanooga	Budget	Replace Pump and Pump Bowl #3 Ryall Springs	Provides increased reliability or operating	Priority B	-	\$0.00	\$0	-	\$0.00	\$0		
2602-TN-Chattanooga	Budget	Replace North Travelling Screen	Provides increased reliability or operating	Priority B	-	\$0.00	\$0	-	\$0.00	\$0		
2602-TN-Chattanooga	Budget	Replace Intake Valves in Screen House	Provides increased reliability or operating	Priority B	-	\$0.00	\$0	-	\$0.00	\$0		
2602-TN-Chattanooga	Budget				-	\$0.00	\$0	-	\$0.00	\$0		
2605-TN-Sequatchie Valley	Budget Reserve	Replace Plant Roof	Has reached the end of its expected life	Priority B	1	\$25,000.00	\$25,000	-	\$0.00	\$0		
2605-TN-Sequatchie Valley	Budget Reserve	Replace Plant Backwash Valve	Has reached the end of its expected life	Priority B	1	\$25,000.00	\$25,000	-	\$0.00	\$0		
2605-TN-Sequatchie Valley					-	\$0.00	\$0	-	\$0.00	\$0		
2605-TN-Sequatchie Valley	Budget Reserve	Surface Wash Supply Piping	Has reached the end of its expected life	Priority B	1	\$15,000.00	\$15,000	-	\$0.00	\$0		
2605-TN-Sequatchie Valley					-	\$0.00	\$0	-	\$0.00	\$0		
2605-TN-Sequatchie Valley	Budget	VFD Install on River Pumps	Provides increased reliability or operating	Priority B	1	\$15,000.00	\$15,000	-	\$0.00	\$0		
2605-TN-Sequatchie Valley	Budget	Sludge Removal Box	Provides a hard payback <3 years	Priority B	1	\$50,000.00	\$50,000	-	\$0.00	\$0		

Page 53 of 60

[illegible]

CAPITAL TANK REHABILITATION OR PAINTING			CURRENT BUSINESS PLAN YEAR - 2017	
Operating Unit	26-Tennessee	R	Budget	\$1,110,125
Business Plan Year	2017		Budget Reserve	\$0
Date Prepared	April 18, 2016		Total Budget	\$1,110,125
Budget Level	Project		Overprogram	\$0
PROJECT INFORMATION				
Profit Center	Budget Budget Reserve Overprogram	Project Title	Project Type	Justification
2602-TN-Chattanooga	Budget	Mission Ridge 2 Standpipe	Rehab. and Painting	Required to comply with regulations
2602-TN-Chattanooga	Budget	Paint Aldridge Unit #5	Rehab. and Painting	Proactive replacement based on age, condition, or new technology
2602-TN-Chattanooga	Budget	Paint Aldridge Unit #6	Rehab. and Painting	Proactive replacement based on age, condition, or new technology
2602-TN-Chattanooga	Budget	Storage Tank Painting and Rehab - Tanks not identified at this time	Rehab. and Painting	Proactive replacement based on age, condition, or new technology
2602-TN-Chattanooga	Budget	South End Tank Rehab	Rehab. and Painting	Proactive replacement based on age, condition, or new technology
2602-TN-Chattanooga	Budget	Mission Ridge Reservoir 2	Rehab. and Painting	Proactive replacement based on age, condition, or new technology
2602-TN-Chattanooga	Budget	Mission Ridge Reservoir 1	Rehab. and Painting	Proactive replacement based on age, condition, or new technology
2602-TN-Chattanooga	Budget	Lookout Mountain 2	Rehab. and Painting	Proactive replacement based on age, condition, or new technology
2602-TN-Chattanooga	Budget	Lookout Mountain 3	Rehab. and Painting	Proactive replacement based on age, condition, or new technology
2605-TN-Sequatchie Valley	Budget			Required to comply with regulations
2605-TN-Sequatchie Valley	Budget			Required to comply with regulations
2605-TN-Sequatchie Valley	Budget			Required to comply with regulations
2605-TN-Sequatchie Valley	Budget			Required to comply with regulations
2605-TN-Sequatchie Valley	Budget			Required to comply with regulations

PRIORITY	2017			2018			2019			2020	
	TOTAL QTY	AVG UNIT COST	TOTAL COST	TOTAL QTY	AVG UNIT COST	TOTAL COST	TOTAL QTY	AVG UNIT COST	TOTAL COST	TOTAL QTY	AVG UNIT COST
Priority A	1	\$350,000	\$350,000	1	\$375,000	\$375,000	0	\$0	\$0	1	\$375,000
Priority B	0	\$0	\$0	0	\$0	\$0	0	\$0	\$0	0	\$0
Priority C	1	\$760,125	\$760,125	1	\$600,000	\$600,000	1	\$600,000	\$600,000	1	\$731,250
Total	2	\$555,063	\$1,110,125	2	\$487,500	\$975,000	1	\$600,000	\$600,000	2	\$553,125
Priority	UNITS	UNIT COST	PROJ. COST	UNITS	UNIT COST	PROJ. COST	UNITS	UNIT COST	PROJ. COST	UNITS	UNIT COST
	Estimated Quantity (each)	Estimated Unit Cost (\$/unit)	Estimated Cost (dollars)	Estimated Quantity (each)	Estimated Unit Cost (\$/unit)	Estimated Cost (dollars)	Estimated Quantity (each)	Estimated Unit Cost (\$/unit)	Estimated Cost (dollars)	Estimated Quantity (each)	Estimated Unit Cost (\$/unit)
Priority A	1	\$350,000.00	\$350,000	-	\$0.00	\$0	-	\$0.00	\$0	-	\$0.00
	-	\$0.00	\$0	-	\$0.00	\$0	-	\$0.00	\$0	-	\$0.00
Priority C	-	\$0.00	\$0	1	\$600,000.00	\$600,000	-	\$0.00	\$0	-	\$0.00
Priority C	-	\$0.00	\$0	-	\$0.00	\$0	1	\$600,000.00	\$600,000	-	\$0.00
Priority C	-	\$0.00	\$0	-	\$0.00	\$0	-	\$0.00	\$0	-	\$0.00
	-	\$0.00	\$0	-	\$0.00	\$0	-	\$0.00	\$0	-	\$0.00
Priority C	1	\$760,125.00	\$760,125	-	\$0.00	\$0	-	\$0.00	\$0	-	\$0.00
	-	\$0.00	\$0	-	\$0.00	\$0	-	\$0.00	\$0	-	\$0.00
Priority C	-	\$0.00	\$0	-	\$0.00	\$0	-	\$731,250.00	\$0	1	\$731,250.00
	-	\$0.00	\$0	-	\$0.00	\$0	-	\$0.00	\$0	-	\$0.00
Priority C	-	\$0.00	\$0	-	\$0.00	\$0	-	\$0.00	\$0	-	\$731,250.00
	-	\$0.00	\$0	-	\$0.00	\$0	-	\$0.00	\$0	-	\$0.00
Priority C	-	\$0.00	\$0	-	\$0.00	\$0	-	\$0.00	\$0	-	\$0.00
Priority C	-	\$0.00	\$0	-	\$0.00	\$0	-	\$0.00	\$0	-	\$0.00
	-	\$0.00	\$0	-	\$0.00	\$0	-	\$0.00	\$0	-	\$0.00
Priority A	-	\$375,000.00	\$0	-	\$0.00	\$0	-	\$0.00	\$0	-	\$0.00
Priority A	-	\$0.00	\$0	1	\$375,000.00	\$375,000	-	\$0.00	\$0	-	\$0.00
Priority A	-	\$0.00	\$0	-	\$0.00	\$0	-	\$375,000.00	\$0	1	\$375,000.00
Priority A	-	\$0.00	\$0	-	\$0.00	\$0	-	\$0.00	\$0	-	\$375,000.00
Priority A	-	\$0.00	\$0	-	\$0.00	\$0	-	\$0.00	\$0	-	\$0.00

2021							
TOTAL COST	TOTAL QTY	AVG UNIT COST	TOTAL COST				
\$375,000	1	\$375,000	\$375,000				
\$0	0	\$0	\$0				
\$731,250	1	\$731,250	\$731,250				
\$1,106,250	2	\$553,125	\$1,106,250				
PROJ. COST	UNITS	UNIT COST	PROJ. COST	COMMENTS	SUBTOTAL BY DISTRICT	2017	
Estimated Cost (dollars)	Estimated Quantity (each)	Estimated Unit Cost (\$/unit)	Estimated Cost (dollars)	As Needed (Optional)	District	Estimated Quantity (each)	Estimated Cost (dollars)
\$0	-	\$0.00	\$0		2600-TN-Cap Growth Budget	-	\$0
\$0	-	\$0.00	\$0		2601-TN-Corporate	-	\$0
\$0	-	\$0.00	\$0		2602-TN-Chattanooga	2	\$1,110,125
\$0	-	\$0.00	\$0		2603-TN-Suck Creek	-	\$0
\$0	-	\$0.00	\$0		2604-TN-Lone Oak	-	\$0
\$0	-	\$0.00	\$0		2605-TN-Sequatchie Valley	-	\$0
\$0	-	\$0.00	\$0		0		
\$0	-	\$0.00	\$0		0		
\$731,250	-	\$0.00	\$0		0		
\$0	-	\$0.00	\$0		0		
\$0	1	\$731,250.00	\$731,250		0		
\$0	-	\$0.00	\$0		0		
\$0	-	\$270,000.00	\$0		0		
\$0	-	\$483,750.00	\$0		0		
\$0	-	\$0.00	\$0		0		
\$0	-	\$0.00	\$0		0		
\$0	-	\$0.00	\$0		0		
\$375,000	-	\$0.00	\$0		0		
\$0	1	\$375,000.00	\$375,000		0		
\$0	-	\$375,000.00	\$0		0		

Page 58 of 60

2017			2018			2019			2020			2021	
TOTAL QTY	AVG UNIT COST	TOTAL COST	TOTAL QTY	AVG UNIT COST	TOTAL COST	TOTAL QTY	AVG UNIT COST	TOTAL COST	TOTAL QTY	AVG UNIT COST	TOTAL COST	TOTAL QTY	AVG UNIT COST
1	\$50,000	\$50,000	1	\$50,000	\$50,000	1	\$50,000	\$50,000	1	\$50,000	\$50,000	1	\$50,000
0	\$0	\$0	0	\$0	\$0	0	\$0	\$0	0	\$0	\$0	0	\$0
0	\$0	\$0	0	\$0	\$0	0	\$0	\$0	0	\$0	\$0	0	\$0
1	\$50,000	\$50,000	1	\$50,000	\$50,000	1	\$50,000	\$50,000	1	\$50,000	\$50,000	1	\$50,000
UNITS	UNIT COST	PROJ. COST	UNITS	UNIT COST	PROJ. COST	UNITS	UNIT COST	PROJ. COST	UNITS	UNIT COST	PROJ. COST	UNITS	UNIT COST
Estimated Quantity (each)	Estimated Unit Cost (\$/unit)	Estimated Cost (dollars)	Estimated Quantity (each)	Estimated Unit Cost (\$/unit)	Estimated Cost (dollars)	Estimated Quantity (each)	Estimated Unit Cost (\$/unit)	Estimated Cost (dollars)	Estimated Quantity (each)	Estimated Unit Cost (\$/unit)	Estimated Cost (dollars)	Estimated Quantity (each)	Estimated Unit Cost (\$/unit)
1	\$50,000.00	\$50,000	1	\$50,000.00	\$50,000	1	\$50,000.00	\$50,000	1	\$50,000.00	\$50,000	1	\$50,000.00
-	\$0.00	\$0	-	\$0.00	\$0	-	\$0.00	\$0	-	\$0.00	\$0	-	\$0.00
-	\$0.00	\$0	-	\$0.00	\$0	-	\$0.00	\$0	-	\$0.00	\$0	-	\$0.00
-	\$0.00	\$0	-	\$0.00	\$0	-	\$0.00	\$0	-	\$0.00	\$0	-	\$0.00
-	\$0.00	\$0	-	\$0.00	\$0	-	\$0.00	\$0	-	\$0.00	\$0	-	\$0.00
-	\$0.00	\$0	-	\$0.00	\$0	-	\$0.00	\$0	-	\$0.00	\$0	-	\$0.00
-	\$0.00	\$0	-	\$0.00	\$0	-	\$0.00	\$0	-	\$0.00	\$0	-	\$0.00
-	\$0.00	\$0	-	\$0.00	\$0	-	\$0.00	\$0	-	\$0.00	\$0	-	\$0.00
-	\$0.00	\$0	-	\$0.00	\$0	-	\$0.00	\$0	-	\$0.00	\$0	-	\$0.00
-	\$0.00	\$0	-	\$0.00	\$0	-	\$0.00	\$0	-	\$0.00	\$0	-	\$0.00
-	\$0.00	\$0	-	\$0.00	\$0	-	\$0.00	\$0	-	\$0.00	\$0	-	\$0.00
-	\$0.00	\$0	-	\$0.00	\$0	-	\$0.00	\$0	-	\$0.00	\$0	-	\$0.00
-	\$0.00	\$0	-	\$0.00	\$0	-	\$0.00	\$0	-	\$0.00	\$0	-	\$0.00
-	\$0.00	\$0	-	\$0.00	\$0	-	\$0.00	\$0	-	\$0.00	\$0	-	\$0.00

TOTAL COST				
\$50,000				
\$0				
\$0				
\$50,000				
PROJ. COST	COMMENTS	SUBTOTAL BY DISTRICT	2017	
Estimated Cost (dollars)	As Needed (Optional)	District	Estimated Quantity (each)	Estimated Cost (dollars)
\$50,000		2600-TN-Cap Growth Budget	-	\$0
\$0		2601-TN-Corporate	-	\$0
\$0		2602-TN-Chattanooga	1	\$50,000
\$0		2603-TN-Suck Creek	-	\$0
\$0		2604-TN-Lone Oak	-	\$0
\$0		2605-TN-Sequatchie Valley	-	\$0
\$0		0		
\$0		0		
\$0		0		
\$0		0		
\$0		0		
\$0		0		
\$0		0		
\$0		0		

Justification Forms

Company Name	Tennessee-American Water	FP Number:	I26-020034
District	TN-Chattanooga	FP Description	Tennessee River Crossing
		Project Manager	Taylor, Randal D.

REQUEST SUMMARY**Project Funding Status**

Requested Stage	PRELIMINARY	001	Requested Amount	2,500,000.00	Form Status	DRAFT
Authorized Stage		000	Authorized Amount	0.00	Authorized Date	

Scope Summary

Is this a change to the project scope?

☐

Improved service reliability is needed to the area north of the Tennessee River in the event of a critical failure on the existing 30-inch river crossing. The new river crossing will improve reliability in the event of a critical main break on the existing 30-inch main. It provides complete redundancy and allows for serving future growth in this area of the system.

Schedule Status

	Latest Authorized	Request Authorization
Estimated In-Service:		11/30/2017
Project Completion		12/29/2017

Is this a change to the project Schedule?

☐ NO

Cost Summary

Annual Estimate	Latest Authorized	Requested Change
Priors	0.00	0.00
This Year	0.00	0.00
Year 2	0.00	2,001,711.00
Year 3	0.00	0.00
Balance Years	0.00	498,289.00
TOTAL	0.00	2,500,000.00

Is this a change in Annual Expenditure? **Detailed Estimate**

Additions	0.00	2,234,621.00
Removals	0.00	0.00
AFUDC	0.00	56,879.00
Indirect Overhead	0.00	208,500.00
Contributions/advances	0.00	0.00
SUBTOTAL	0.00	2,500,000.00
O&C	0.00	0.00
TOTAL	0.00	2,500,000.00

Is this a change in total project estimate? What is the anticipated Rate Impact? Is project eligible for DSIC-type recovery? If forward looking state, what is approved rate? Will project impact Operating Costs?

Justification Forms

Company Name	Tennessee-American Water	FP Number:	I26-020034
District	TN-Chattanooga	FP Description	Tennessee River Crossing
		Project Manager	Taylor, Randal D.

SCOPE**Project Basis**

Basis of Recommendation:		Initial Estimate:	1,500,000.00
Study Title and Year:		Initial Estimate Year:	2015
Study Project No. :		Add Study Hyperlink	

PROJECT ASSETS AND PURPOSE CODES

Asset Owner: TO BE DETERMINED

ASSET CODE	PERCENT	PURPOSE CODE	PERCENT
331 - TRANS & DISTRIBUTION MAINS	100.00	GROWTH/CAP IN FRANCHISE <3 YRS	100.00
	0.00		0.00
	0.00		0.00
	0.00		
		TOTAL	100%
TOTAL	100%		

PROBLEM OR OPPORTUNITY

Improved service reliability is needed to the area north of the Tennessee River in the event of a critical failure on the existing 30-inch river crossing.

INVESTIGATED OPTIONS

Other options have been evaluated by TNAW, including installing two or more pipelines across the Olgiati Bridge. Because of pipeline diameter limitations on the bridge, and the high estimated cost, this is no longer an option. Directional drilling under the river appears to be the most feasible option, though other cost effective options should be considered.

RECOMMENDED SOLUTION

Company has decided to install a 24-inch diameter main under the Tennessee River using directional drilling or open cut method, located parallel to the existing 30-inch main extending north from the Citico WTP. This is an alternative to the Project Description that proposes a 30 inch crossing.

MEASURABLE BENEFITS

Quantity:

Units:

☒ X

The new river crossing will improve reliability in the event of a critical main break on the existing 30-inch main. It provides complete redundancy and allows for serving future growth in this area of the system.

RETIREMENT INFORMATION**PROJECT DELIVERY - Preliminary Stage Deliverable:**

Impl. Delivery Method:

Project Delivery Risks:

PROJECT RISKS DETAILS:

Ability to obtain a permit to install the main under the river.

Justification Forms

Company Name	Tennessee-American Water	FP Number:	I26-020034
District	TN-Chattanooga	FP Description	Tennessee River Crossing
		Project Manager	Taylor, Randal D.

IMPACTS & SCHEDULE

Project Impacts & Recovery

What is the anticipated Rate Impact?	0.1
If forward looking rate state, what is the approved rate?	8.7
Is project eligible for DSIC-type recovery?	YES
Is Project Expected to Impact Operating Expenses?	NO

OPEX Discussion:

Schedule Status

	Project Start Date	Implementation Start Date	In-Service Date	Completion Date	Critical Date	Reason for Critical Date
Forecast	01/03/2017		11/30/2017	12/29/2017		
Authorize						
Prior						

Schedule Comments

Justification Forms

Company Name

Tennessee-American Water

FP Number:

I26-020034

District

TN-Chattanooga

FP Description

Tennessee River Crossing

Project Manager

Taylor, Randal D.

COST

DETAILED ESTIMATE Additions

Latest
Forecast

Latest
Authorized

000

000

000

Planning Summary

0.00

0.00

0.00

0.00

0.00

Preliminary Summary

0.00

0.00

0.00

0.00

0.00

Implementation Summary

2,234,621.00

0.00

0.00

0.00

0.00

Planning Detail

AW SUPERVISION

0.00

0.00

0.00

0.00

0.00

CAPITAL PURCHASES

0.00

0.00

0.00

0.00

0.00

CONSTRUCTION COSTS

0.00

0.00

0.00

0.00

0.00

LABOR COSTS

0.00

0.00

0.00

0.00

0.00

OTHER COSTS

0.00

0.00

0.00

0.00

0.00

PROFESSIONAL SERVICES

0.00

0.00

0.00

0.00

0.00

Preliminary Detail

AW SUPERVISION

0.00

0.00

0.00

0.00

0.00

CAPITAL PURCHASES

0.00

0.00

0.00

0.00

0.00

CONSTRUCTION COSTS

0.00

0.00

0.00

0.00

0.00

LABOR COSTS

0.00

0.00

0.00

0.00

0.00

OTHER COSTS

0.00

0.00

0.00

0.00

0.00

PROFESSIONAL SERVICES

0.00

0.00

0.00

0.00

0.00

Implementation Detail

AW SUPERVISION

0.00

0.00

0.00

0.00

0.00

CAPITAL PURCHASES

0.00

0.00

0.00

0.00

0.00

CONSTRUCTION COSTS

0.00

0.00

0.00

0.00

0.00

LABOR COSTS

0.00

0.00

0.00

0.00

0.00

OTHER COSTS

2,234,621.00

0.00

0.00

0.00

0.00

PROFESSIONAL SERVICES

0.00

0.00

0.00

0.00

0.00

Removals

0.00

0.00

0.00

0.00

0.00

AFUDC

56,879.00

0.00

0.00

0.00

0.00

Indirect Overhead	208,500.00	0.00	0.00	0.00	0.00
Contributions/ Advances	0.00	0.00	0.00	0.00	0.00
O&C	0.00	0.00	0.00	0.00	0.00
TOTAL	2,500,000.00	0.00	0.00	0.00	0.00
Annual Estimate					
Priors	0.00	0.00			
This Year	0.00	0.00			
This Year	2,001,711.00	0.00			
Balance Years	498,289.00	0.00			
TOTAL	2,500,000.00	0.00			

**TENNESSEE AMERICAN WATER
CHATTANOOGA**

Project B-1	
INSTALL 30-INCH RIVER CROSSING FROM WTP	
Design and Permitting: 12 months Construction: 6 Months	Project Cost: \$2,500,000

Need for Project:

Improved service reliability is needed to the area north of the Tennessee River in the event of a critical failure on the existing 30-inch river crossing.

Background:

The area north of the Tennessee River is currently supplied through a 30-inch main and a 16-inch main crossing the river. The 30-inch concrete main was installed with directional drilling under the river, extending directly north from the Citico WTP. The 16-inch steel main is hung below the Walnut Street Bridge.

In the event of a critical failure on the 30-inch main, the available flows to the area north of the river would be limited by the capacity of the 16-inch main. The average and maximum day demands to this area through 2030 are approximately 5.5 mgd and 8 mgd, respectively. Model simulation was performed with the 30-inch main out of service during an average day and maximum day scenario.

For the maximum day scenario, the velocity reaches 8.7 ft/sec with a flow of nearly 8 mgd through the 16-inch main. The high headloss across the main results in pressures less than 20 psi in a few areas within the Citico gradient north of the river. Discharge pressures of nearly 100 psi are shown at the Citico WTP in order to deliver the water through the single 16-inch main.

For the average day scenario, with a flow of approximately 5.6 mgd through the 16-inch main, the velocity is approximately 6.2 ft/sec. Again, the high headloss across the main results in pressures less than 20 psi in a few areas within the Citico gradient, and discharge pressures from the Citico WTP are approximately 90 psi.

Model simulation indicates that the pressures remain above 20 psi when the flow through the 16-inch main is limited to approximately 4.6 mgd, at a velocity of 5.1 ft/sec. Therefore, it is apparent that the full average day demand of approximately 5.5 mgd could not be met in the

area north of the river in the event that the 30-inch main is out of service. For planning purposes, and in order to provide slightly higher service pressures, it is estimated that approximately 4 mgd can be supplied through the 16-inch main if the 30-inch main is out of service. This results in average and maximum day deficits of approximately 1.5 mgd and 4 mgd, respectively.

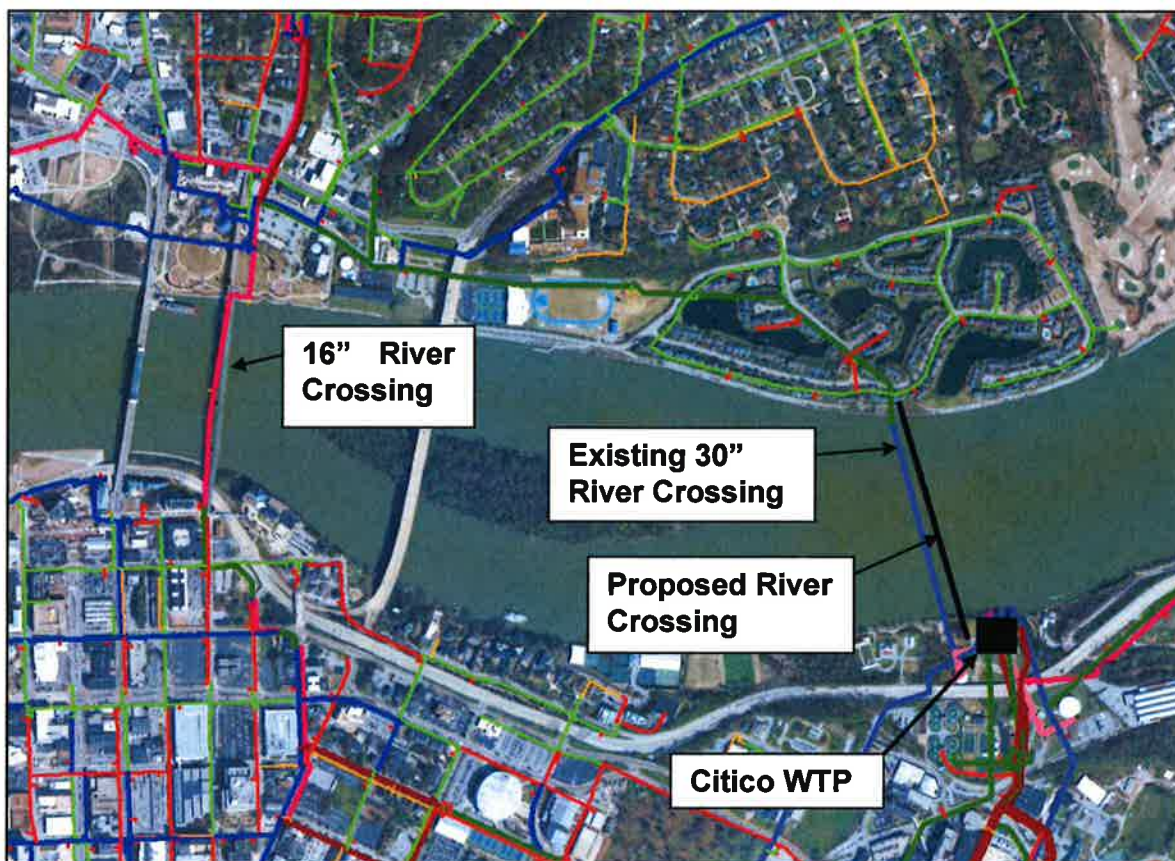
If a new main is installed across the river, it should be designed for meeting the long-term demands beyond 2030, some of which are currently unknown. This could include some additional build out growth beyond 2030 within the TNAW service area north of the river, or the potential for growth through wholesale water contracts. The main should be designed to accommodate realistic growth potential.

A potential build out maximum day demand of 10 mgd may be realistic for the area. It is also possible that wholesale water delivery may be requested from TNAW at some point in the future. Designing for a potential wholesale demand of approximately 5 mgd is used for planning purposes. With a total design demand of 15 mgd, and assuming approximately 4 mgd can be delivered through the 16-inch main, the new main should have a carrying capacity of at least 11 mgd. A 24-inch main is limited to approximately 10 mgd at a headloss gradient of 3 ft/1000 ft, so this would provide slightly less than the projected design capacity. A 30-inch main provides the projected design capacity. It also provides complete redundancy for the existing 30-inch main.

Recommended Solution:

Install a 30-inch diameter main under the Tennessee River using directional drilling, located parallel to the existing 30-inch main extending north from the Citico WTP, as shown in the exhibit on the following page.

It is noted that other options have been evaluated by TNAW, including installing two or more pipelines across the Olgiati Bridge. Because of pipeline diameter limitations on the bridge, and the high estimated cost, this is no longer an option. Directional drilling under the river appears to be the most feasible option, though other cost effective options should be considered.



Output and Benefits:

The new river crossing will improve reliability in the event of a critical main break on the existing 30-inch main. It provides complete redundancy and allows for serving future growth in this area of the system.

Options:

A 24-inch diameter main can be considered if it is significantly less costly.

Emergency interconnections can also be considered from either the Hixson UD or the Walden's Ridge UD, to provide enough supply capacity to supplement the available flow through the single 16-inch main.

Budget Discussion:

The project is estimated at a cost \$2.5 million, based on conceptual cost estimates that were prepared at an earlier stage in the river crossing evaluation.

Risks:

The primary risk of not doing the project is the inability to provide adequate levels of service in the event of a critical loss of the existing 30-inch main. At normal demands, service pressures would drop down below 20 psi in some areas of the system. Demands would need to be curtailed in order to maintain adequate service pressures. This may not be feasible with a prolonged outage caused by a critical break.

Purpose Codes and Drivers:

Asset Code	Purpose Code
331 – Trans & Distribution Mains	Rel/Qual customer (pres taste etc.)

**TENNESSEE AMERICAN WATER COMPANY
DOCKET NO. 16-00126
FIRST DISCOVERY REQUEST OF THE
CONSUMER PROTECTION AND ADVOCATE DIVISION**

Responsible Person: Linda C. Bridwell

Question:

4. Refer to the "TAW_APP_SCH1_2017" spreadsheet included with the Company's filing. Specifically refer to the "WKP 2016 In-Serviced SCEP Proof" tab of this spreadsheet. Finally, refer to Cells S15..U17 which are titled as the November and December 2015 spending amounts for Business Unit DV.
 - a. Please provide the source and support for these hard-coded numbers.
 - b. Refer to Attachment 1 to this data request which is a pivot table summary of the 2015 actual spending amounts for all Business Units that were included by the Company in the "WKP 2015 PIVOT ACTUALS" tab to its workpapers in the 2016 Capital Rider Reconciliation in Docket 16- 00022 and note that these actual amounts do not tie to the Company's current filing here for November and December in Business Unit DV. If the Company believes that its current filing was compiled in error, then please provide an updated filing calculation. If the Company believes that its current filing was not compiled in error, then please provide a complete explanation as to why.

Response:

- a. Please refer to attachment. The attachment provides, from the company accounting records, the detail related to the actual construction expenditure amounts in November and December 2015. The attachment reflects the amount incurred in Construction Work in Progress (CWIP) for project lines DV, A, B, C, & D for the specified periods. These construction expenditure amounts are utilized with the placed in-service factor in column O to calculate the estimated plant additions in January and February of 2016.
- b. As explained further below, the filing was not compiled in error. Attachment 1 provided by the CPAD refers to the actual construction expenditures that were placed in-serviced in 2015, only for the Business Unit lines that were determined as eligible for one of the three Capital Recovery Riders. If the Business Unit line was not eligible, as the DV line is not, the WKP 2015 PIVOT ACTUALS" tab did not reflect any in-serviced amount. The amounts for November and December 2015 construction amounts should differ from the amount of construction expenditures that were placed in-service in any given month, as projects frequently

will extend multiple months. For additional information, please also refer to TAWC's response to Item 8 of the CPAD's First Discovery Request in Docket No. 15-00111 and TAWC's response to Item 8 of the CPAD's Second Discovery Request in Docket No. 15-00111.

Tennessee-American Water Company
Response to CPADR1-004
Construction Spend from November & December 2015 for DV, A, B, C, & D

Docket No. 16-00126

Sum of amount		external_gl_account	Months	charge_mo_yr
		10700000		10700000 Total
project type	charge_type	Nov	Dec	
DV	AFUDC Debt	(72.69)	3.62	(69.07)
	AFUDC Equity	(65.84)	51.32	(14.52)
	Contracted Services	9,084.35	36,648.42	45,732.77
	CWIP Accrual	(4,092.40)	(4,069.80)	(8,162.20)
	Labor	322.23	3,181.93	3,504.16
	Labor Overhead	172.46	1,557.79	1,730.25
	Licenses, Permits & Misc Fees	1,028.95	200.00	1,228.95
	Materials & Supplies	13,795.44	(6,456.26)	7,339.18
	Other	15,977.34	17,180.96	33,158.30
	Overhead	918.58	4,368.12	5,286.70
DV Total		37,068.42	52,666.10	89,734.52
A	AFUDC Debt	472.59	395.54	868.13
	AFUDC Equity	428.07	358.27	786.34
	Contracted Services	792.00	22,254.30	23,046.30
	CWIP Accrual	30,776.49	(23,208.47)	7,568.02
	Labor	1,352.04	(90.58)	1,261.46
	Labor Overhead	648.68	(54.11)	594.57
	Materials & Supplies	1,068.66	2,097.33	3,165.99
	Other	108.71	7,901.61	8,010.32
	Overhead	331.50	1,089.32	1,420.82
A Total		35,978.74	10,743.21	46,721.95
B	AFUDC Debt	858.30	674.16	1,532.46
	AFUDC Equity	777.43	610.96	1,388.39
	Contracted Services	149,814.82	60,922.48	210,737.30
	CWIP Accrual	(168,496.31)	(40,712.70)	(209,209.01)
	Labor	2,689.77	1,076.66	3,766.43
	Labor Overhead	1,465.69	391.55	1,857.24
	Licenses, Permits & Misc Fees		1,051.99	1,051.99
	Materials & Supplies	2,206.86	48,643.59	50,850.45
	Other	98,534.10	18,682.61	117,216.71
	Overhead	21,268.39	1,000.04	22,268.43
B Total		109,119.05	92,341.34	201,460.39
C	Contracted Services	619.49	5,361.10	5,980.59
	CWIP Accrual	7,491.87	(10,183.91)	(2,692.04)
	Labor	36,546.54	40,391.30	76,937.84
	Labor Overhead	18,889.17	19,323.85	38,213.02
	Licenses, Permits & Misc Fees	4,803.46	2,094.29	6,897.75
	Materials & Supplies	66.21	10,173.90	10,240.11
	Other	28,080.06	37,939.21	66,019.27
	Overhead	7,431.90	4,543.84	11,975.74
C Total		103,928.70	109,643.58	213,572.28
D	AFUDC Debt	3,218.82	2,047.12	5,265.94
	AFUDC Equity	2,915.57	1,854.26	4,769.83
	Contracted Services	14,115.27	44,513.91	58,629.18
	CWIP Accrual	(13,794.83)	(49,860.86)	(63,655.69)
	Labor	2,587.64	64.25	2,651.89
	Labor Overhead	1,264.95	(8.47)	1,256.48
	Materials & Supplies		836.71	836.71
	Other	208.06	62,532.46	62,740.52
	Overhead	1,517.68	2,699.48	4,217.16
D Total		12,033.16	64,678.86	76,712.02
Grand Total		298,128.07	330,073.09	628,201.16

company_c	work_order_number	charge_type	external_co	cost_element	charge_mo_yr
1026-Tennessee American Water Co	D26-0201-P-0495	Contracted Services	53150000	Contr Svc-Other	November-15
1026-Tennessee American Water Co	R26-02D1.11-P-0001	Contracted Services	53150000	Contr Svc-Other	December-15
1026-Tennessee American Water Co	R26-02D1.11-P-0001	Other	55000100	Trans Cap Credits	November-15
1026-Tennessee American Water Co	D26-0201-P-0499	Other	55000100	Trans Cap Credits	November-15
1026-Tennessee American Water Co	D26-0201-P-0500	Other	55000100	Trans Cap Credits	November-15
1026-Tennessee American Water Co	D26-0201-P-0501	Other	55000100	Trans Cap Credits	December-15
1026-Tennessee American Water Co	D26-0201-P-0498	Other	55000100	Trans Cap Credits	November-15
1026-Tennessee American Water Co	R26-05C1.15-P-0001	Other	55000100	Trans Cap Credits	December-15
1026-Tennessee American Water Co	R26-02B1.15-P-0014	Other	55000100	Trans Cap Credits	December-15
1026-Tennessee American Water Co	D26-0201-P-0501	Other	55720100	Ins W/C Cap Credits	December-15
1026-Tennessee American Water Co	R26-02C1.15-P-0001	Other	55720100	Ins W/C Cap Credits	December-15
1026-Tennessee American Water Co	D26-0201-P-0493	Overhead	52801100	Indirect OH Clearing	November-15
1026-Tennessee American Water Co	D26-0201-P-0491	Overhead	52801100	Indirect OH Clearing	November-15
1026-Tennessee American Water Co	D26-0201-P-0501	Overhead	52801100	Indirect OH Clearing	December-15
1026-Tennessee American Water Co	D26-0201-P-0491	Overhead	52801100	Indirect OH Clearing	December-15
1026-Tennessee American Water Co	R26-02A1.15-P-0002	Overhead	52801100	Indirect OH Clearing	November-15
1026-Tennessee American Water Co	R26-05C1.15-P-0001	Overhead	52801100	Indirect OH Clearing	November-15
1026-Tennessee American Water Co	D26-0201-P-0489	Overhead	52801100	Indirect OH Clearing	November-15
1026-Tennessee American Water Co	R26-02B1.15-P-0001	Overhead	52801100	Indirect OH Clearing	December-15
1026-Tennessee American Water Co	R26-02B1.15-P-0007	Overhead	52801100	Indirect OH Clearing	December-15
1026-Tennessee American Water Co	R26-02C1.07-P-0007	Overhead	52801100	Indirect OH Clearing	December-15
1026-Tennessee American Water Co	D26-0201-P-0471	Contracted Services	53110000	Contr Svc-Eng	December-15
1026-Tennessee American Water Co	R26-02C1.15-P-0001	Other	62520700	Misc Main Pvg/Bckfl	December-15
1026-Tennessee American Water Co	R26-02B1.15-P-0007	Other	62520700	Misc Main Pvg/Bckfl	November-15
1026-Tennessee American Water Co	R26-02B1.15-P-0014	AFUDC Equity	70510000	AFUDC-Equity	November-15
1026-Tennessee American Water Co	D26-0201-P-0491	CWIP Accrual	52801200	Capital Acc Clearing	November-15
1026-Tennessee American Water Co	R26-05A1.15-P-0002	CWIP Accrual	52801200	Capital Acc Clearing	November-15
1026-Tennessee American Water Co	R26-02B1.15-P-0015	CWIP Accrual	52801200	Capital Acc Clearing	December-15
1026-Tennessee American Water Co	D26-0201-P-0485	CWIP Accrual	52801200	Capital Acc Clearing	December-15
1026-Tennessee American Water Co	D26-0201-P-0471	CWIP Accrual	52801200	Capital Acc Clearing	December-15
1026-Tennessee American Water Co	R26-02B1.15-P-0007	CWIP Accrual	52801200	Capital Acc Clearing	November-15
1026-Tennessee American Water Co	R26-05C1.15-P-0001	Labor Overhead	68533100	FICA Cap Credits	November-15
1026-Tennessee American Water Co	R26-02A1.15-P-0002	Labor Overhead	68533100	FICA Cap Credits	December-15
1026-Tennessee American Water Co	R26-02A1.15-P-0005	Labor	50109900	Labor Cap Credits	December-15
1026-Tennessee American Water Co	R26-02D1.09-P-0006	Labor	50109900	Labor Cap Credits	December-15
1026-Tennessee American Water Co	R26-02B1.15-P-0007	Labor	50109900	Labor Cap Credits	November-15
1026-Tennessee American Water Co	R26-02B1.15-P-0014	Labor	50109900	Labor Cap Credits	November-15
1026-Tennessee American Water Co	R26-02C1.15-P-0001	Labor	50109900	Labor Cap Credits	December-15
1026-Tennessee American Water Co	R26-02A1.15-P-0002	Labor Overhead	50421100	401k Exp Cap Credits	December-15
1026-Tennessee American Water Co	R26-02B1.15-P-0014	Labor Overhead	50421100	401k Exp Cap Credits	December-15
1026-Tennessee American Water Co	D26-0201-P-0498	Labor Overhead	50421100	401k Exp Cap Credits	December-15
1026-Tennessee American Water Co	R26-02A1.15-P-0002	Labor Overhead	50422100	DCP Exp Cap Credits	December-15
1026-Tennessee American Water Co	R26-02D1.09-P-0006	Labor Overhead	50426100	Retiree Med Cap Cr	December-15
1026-Tennessee American Water Co	R26-02D1.11-P-0001	Labor Overhead	50510100	PBOP Cap Credits	November-15
1026-Tennessee American Water Co	D26-0201-P-0501	Labor Overhead	50510100	PBOP Cap Credits	December-15
1026-Tennessee American Water Co	D26-0201-P-0499	Labor Overhead	50510100	PBOP Cap Credits	December-15
1026-Tennessee American Water Co	R26-02B1.15-P-0014	Labor Overhead	50510100	PBOP Cap Credits	December-15
1026-Tennessee American Water Co	R26-02C1.14-P-0001	Labor Overhead	50510100	PBOP Cap Credits	December-15
1026-Tennessee American Water Co	R26-02B1.15-P-0015	Labor Overhead	50550100	Group Ins Cap Credits	December-15
1026-Tennessee American Water Co	R26-02C1.14-P-0001	Labor Overhead	50550100	Group Ins Cap Credits	November-15
1026-Tennessee American Water Co	R26-02A1.15-P-0002	Labor Overhead	50550100	Group Ins Cap Credits	November-15
1026-Tennessee American Water Co	R26-02C1.14-P-0001	Labor Overhead	50610100	Pension Cap Credits	November-15
1026-Tennessee American Water Co	R26-02B1.15-P-0014	Labor Overhead	50610100	Pension Cap Credits	December-15
1026-Tennessee American Water Co	D26-0201-P-0498	Labor Overhead	50610100	Pension Cap Credits	December-15
1026-Tennessee American Water Co	R26-02C1.15-P-0001	Labor Overhead	50610100	Pension Cap Credits	December-15
1026-Tennessee American Water Co	R26-02C1.15-P-0001	Materials & Supplies	52000000	M&S Natural Account	December-15
1026-Tennessee American Water Co	D26-0201-P-0471	Materials & Supplies	52000000	M&S Natural Account	December-15
1026-Tennessee American Water Co	D26-0201-P-0498	Materials & Supplies	52000000	M&S Natural Account	November-15
1026-Tennessee American Water Co	R26-02C1.15-P-0001	Materials & Supplies	52000000	M&S Natural Account	December-15
1026-Tennessee American Water Co	R26-02B1.15-P-0007	Materials & Supplies	52000000	M&S Natural Account	December-15
1026-Tennessee American Water Co	R26-02C1.15-P-0001	Other	52500000	MiscExp Natural Acct	November-15
1026-Tennessee American Water Co	R26-02B1.15-P-0015	AFUDC Debt	85000000	AFUDC Debt	December-15
1026-Tennessee American Water Co	R26-02A1.15-P-0005	AFUDC Debt	85000000	AFUDC Debt	December-15
1026-Tennessee American Water Co	R26-02A1.15-P-0002	Contracted Services	53150000	Contr Svc-Other	December-15
1026-Tennessee American Water Co	D26-0201-P-0498	Contracted Services	53150000	Contr Svc-Other	December-15
1026-Tennessee American Water Co	R26-02D1.11-P-0001	Other	55000100	Trans Cap Credits	December-15
1026-Tennessee American Water Co	R26-02B1.15-P-0002	Other	55000100	Trans Cap Credits	December-15
1026-Tennessee American Water Co	R26-02B1.15-P-0014	Other	55000100	Trans Cap Credits	November-15
1026-Tennessee American Water Co	D26-0201-P-0500	Other	55720100	Ins W/C Cap Credits	November-15
1026-Tennessee American Water Co	D26-0201-P-0499	Other	55720100	Ins W/C Cap Credits	November-15
1026-Tennessee American Water Co	D26-0201-P-0485	Overhead	52801100	Indirect OH Clearing	November-15
1026-Tennessee American Water Co	D26-0201-P-0499	Overhead	52801100	Indirect OH Clearing	November-15
1026-Tennessee American Water Co	D26-0201-P-0471	Overhead	52801100	Indirect OH Clearing	December-15
1026-Tennessee American Water Co	D26-0201-P-0495	Overhead	52801100	Indirect OH Clearing	December-15
1026-Tennessee American Water Co	R26-05A1.14-P-0002	Overhead	52801100	Indirect OH Clearing	December-15
1026-Tennessee American Water Co	R26-02B1.15-P-0007	Overhead	52801100	Indirect OH Clearing	November-15
1026-Tennessee American Water Co	R26-02A1.15-P-0002	Overhead	52801100	Indirect OH Clearing	December-15
1026-Tennessee American Water Co	D26-0201-P-0498	Overhead	52801100	Indirect OH Clearing	December-15
1026-Tennessee American Water Co	R26-02A1.15-P-0002	Overhead	52801100	Indirect OH Clearing	December-15

1026-Tennessee American Water Co	R26-02C1.15-P-0001	Overhead	52801100	Indirect OH Clearing	December-15
1026-Tennessee American Water Co	R26-02B1.15-P-0014	Contracted Services	53110000	Contr Svc-Eng	November-15
1026-Tennessee American Water Co	D26-0201-P-0498	Contracted Services	53110000	Contr Svc-Eng	December-15
1026-Tennessee American Water Co	D26-0201-P-0495	Other	62520700	Misc Main Pvg/Bckfl	November-15
1026-Tennessee American Water Co	R26-02D1.11-P-0001	Other	62520700	Misc Main Pvg/Bckfl	December-15
1026-Tennessee American Water Co	R26-05A1.14-P-0002	AFUDC Equity	70510000	AFUDC-Equity	November-15
1026-Tennessee American Water Co	D26-0201-P-0496	CWIP Accrual	52801200	Capital Acc Clearing	December-15
1026-Tennessee American Water Co	R26-02C1.15-P-0001	CWIP Accrual	52801200	Capital Acc Clearing	November-15
1026-Tennessee American Water Co	R26-02B1.15-P-0007	CWIP Accrual	52801200	Capital Acc Clearing	December-15
1026-Tennessee American Water Co	R26-02C1.15-P-0001	CWIP Accrual	52801200	Capital Acc Clearing	December-15
1026-Tennessee American Water Co	D26-0201-P-0501	Labor Overhead	68533100	FICA Cap Credits	December-15
1026-Tennessee American Water Co	R26-02A1.15-P-0005	Labor Overhead	68533100	FICA Cap Credits	December-15
1026-Tennessee American Water Co	R26-02D1.09-P-0006	Labor Overhead	68533100	FICA Cap Credits	November-15
1026-Tennessee American Water Co	R26-02B1.15-P-0007	Labor Overhead	68533100	FICA Cap Credits	November-15
1026-Tennessee American Water Co	D26-0201-P-0499	Labor	50109900	Labor Cap Credits	November-15
1026-Tennessee American Water Co	R26-02D1.11-P-0001	Labor Overhead	50421100	401k Exp Cap Credits	November-15
1026-Tennessee American Water Co	R26-02B1.15-P-0014	Labor Overhead	50421100	401k Exp Cap Credits	November-15
1026-Tennessee American Water Co	R26-05C1.15-P-0001	Labor Overhead	50421100	401k Exp Cap Credits	December-15
1026-Tennessee American Water Co	R26-02B1.15-P-0002	Labor Overhead	50422100	DCP Exp Cap Credits	November-15
1026-Tennessee American Water Co	D26-0201-P-0500	Labor Overhead	50422100	DCP Exp Cap Credits	December-15
1026-Tennessee American Water Co	R26-02B1.15-P-0015	Labor Overhead	50422100	DCP Exp Cap Credits	December-15
1026-Tennessee American Water Co	R26-02A1.15-P-0002	Labor Overhead	50422100	DCP Exp Cap Credits	November-15
1026-Tennessee American Water Co	R26-05C1.15-P-0001	Labor Overhead	50422100	DCP Exp Cap Credits	December-15
1026-Tennessee American Water Co	R26-02B1.15-P-0007	Labor Overhead	50510100	PBOP Cap Credits	November-15
1026-Tennessee American Water Co	D26-0201-P-0498	Labor Overhead	50510100	PBOP Cap Credits	December-15
1026-Tennessee American Water Co	R26-02D1.11-P-0001	Labor Overhead	50550100	Group Ins Cap Credits	December-15
1026-Tennessee American Water Co	D26-0201-P-0496	Materials & Supplies	52000000	M&S Natural Account	December-15
1026-Tennessee American Water Co	R26-02B1.15-P-0002	AFUDC Debt	85000000	AFUDC Debt	December-15
1026-Tennessee American Water Co	R26-02A1.15-P-0004	AFUDC Debt	85000000	AFUDC Debt	December-15
1026-Tennessee American Water Co	R26-02D1.14-P-0001	AFUDC Debt	85000000	AFUDC Debt	November-15
1026-Tennessee American Water Co	R26-02B1.15-P-0014	AFUDC Debt	85000000	AFUDC Debt	December-15
1026-Tennessee American Water Co	R26-02B1.15-P-0014	Contracted Services	53150000	Contr Svc-Other	December-15
1026-Tennessee American Water Co	D26-0201-P-0499	Other	55000100	Trans Cap Credits	December-15
1026-Tennessee American Water Co	R26-02C1.14-P-0001	Other	55000100	Trans Cap Credits	November-15
1026-Tennessee American Water Co	R26-02C1.15-P-0001	Other	55000100	Trans Cap Credits	November-15
1026-Tennessee American Water Co	R26-02A1.15-P-0002	Other	55000100	Trans Cap Credits	December-15
1026-Tennessee American Water Co	R26-02B1.15-P-0002	Other	55720100	Ins W/C Cap Credits	November-15
1026-Tennessee American Water Co	R26-02B1.15-P-0002	Other	55720100	Ins W/C Cap Credits	December-15
1026-Tennessee American Water Co	R26-02D1.09-P-0006	Other	55720100	Ins W/C Cap Credits	November-15
1026-Tennessee American Water Co	R26-02C1.14-P-0001	Other	55720100	Ins W/C Cap Credits	November-15
1026-Tennessee American Water Co	R26-02B1.15-P-0014	Other	55720100	Ins W/C Cap Credits	November-15
1026-Tennessee American Water Co	R26-05C1.15-P-0001	Other	55720100	Ins W/C Cap Credits	December-15
1026-Tennessee American Water Co	D26-0201-P-0471	Overhead	52801100	Indirect OH Clearing	November-15
1026-Tennessee American Water Co	D26-0201-P-0488	Overhead	52801100	Indirect OH Clearing	December-15
1026-Tennessee American Water Co	R26-02D1.09-P-0006	Overhead	52801100	Indirect OH Clearing	November-15
1026-Tennessee American Water Co	R26-05C1.15-P-0001	Overhead	52801100	Indirect OH Clearing	December-15
1026-Tennessee American Water Co	R26-02D1.11-P-0001	Contracted Services	53110000	Contr Svc-Eng	December-15
1026-Tennessee American Water Co	R26-02D1.09-P-0006	Contracted Services	53110000	Contr Svc-Eng	November-15
1026-Tennessee American Water Co	R26-02D1.14-P-0009	Contracted Services	53110000	Contr Svc-Eng	December-15
1026-Tennessee American Water Co	R26-02B1.15-P-0007	Contracted Services	53110000	Contr Svc-Eng	December-15
1026-Tennessee American Water Co	R26-02D1.14-P-0001	Other	62520700	Misc Main Pvg/Bckfl	December-15
1026-Tennessee American Water Co	D26-0201-P-0498	Other	62520700	Misc Main Pvg/Bckfl	December-15
1026-Tennessee American Water Co	D26-0201-P-0499	Licenses, Permits & Misc Fees	62520800	Misc Maint Permits	November-15
1026-Tennessee American Water Co	D26-0201-P-0493	AFUDC Equity	70510000	AFUDC-Equity	November-15
1026-Tennessee American Water Co	R26-02B1.15-P-0015	AFUDC Equity	70510000	AFUDC-Equity	November-15
1026-Tennessee American Water Co	R26-05A1.15-P-0003	AFUDC Equity	70510000	AFUDC-Equity	December-15
1026-Tennessee American Water Co	D26-0201-P-0493	AFUDC Equity	70510000	AFUDC-Equity	December-15
1026-Tennessee American Water Co	R26-02B1.15-P-0002	AFUDC Equity	70510000	AFUDC-Equity	December-15
1026-Tennessee American Water Co	R26-02B1.15-P-0007	AFUDC Equity	70510000	AFUDC-Equity	November-15
1026-Tennessee American Water Co	R26-02B1.15-P-0008	CWIP Accrual	52801200	Capital Acc Clearing	November-15
1026-Tennessee American Water Co	D26-0201-P-0471	CWIP Accrual	52801200	Capital Acc Clearing	November-15
1026-Tennessee American Water Co	D26-0201-P-0488	CWIP Accrual	52801200	Capital Acc Clearing	December-15
1026-Tennessee American Water Co	D26-0201-P-0498	CWIP Accrual	52801200	Capital Acc Clearing	December-15
1026-Tennessee American Water Co	R26-02A1.15-P-0005	CWIP Accrual	52801200	Capital Acc Clearing	December-15
1026-Tennessee American Water Co	R26-02D1.11-P-0001	CWIP Accrual	52801200	Capital Acc Clearing	December-15
1026-Tennessee American Water Co	R26-02B1.15-P-0002	Labor Overhead	68533100	FICA Cap Credits	December-15
1026-Tennessee American Water Co	R26-02B1.15-P-0015	Labor Overhead	68533100	FICA Cap Credits	December-15
1026-Tennessee American Water Co	R26-02C1.14-P-0001	Labor Overhead	68533100	FICA Cap Credits	November-15
1026-Tennessee American Water Co	R26-02C1.15-P-0001	Labor Overhead	68533100	FICA Cap Credits	November-15
1026-Tennessee American Water Co	R26-02B1.15-P-0014	Labor Overhead	68533100	FICA Cap Credits	November-15
1026-Tennessee American Water Co	D26-0201-P-0498	Labor Overhead	68533100	FICA Cap Credits	December-15
1026-Tennessee American Water Co	R26-02B1.15-P-0002	Labor	50109900	Labor Cap Credits	December-15
1026-Tennessee American Water Co	D26-0201-P-0498	Labor	50109900	Labor Cap Credits	November-15
1026-Tennessee American Water Co	R26-05C1.15-P-0001	Labor	50109900	Labor Cap Credits	December-15
1026-Tennessee American Water Co	R26-02D1.11-P-0001	Labor	50119900	LaborNSOT CapCredits	November-15
1026-Tennessee American Water Co	D26-0201-P-0500	Labor Overhead	50421100	401k Exp Cap Credits	November-15
1026-Tennessee American Water Co	R26-02C1.14-P-0001	Labor Overhead	50421100	401k Exp Cap Credits	December-15
1026-Tennessee American Water Co	R26-02C1.14-P-0001	Labor Overhead	50422100	DCP Exp Cap Credits	November-15
1026-Tennessee American Water Co	R26-02D1.11-P-0001	Labor Overhead	50426100	Retiree Med Cap Cr	November-15
1026-Tennessee American Water Co	R26-02D1.09-P-0006	Labor Overhead	50426100	Retiree Med Cap Cr	November-15

1026-Tennessee American Water Co	D26-0201-P-0500	Labor Overhead	50510100	PBOP Cap Credits	November-15
1026-Tennessee American Water Co	R26-02B1.15-P-0015	Labor Overhead	50510100	PBOP Cap Credits	December-15
1026-Tennessee American Water Co	R26-02C1.14-P-0001	Labor Overhead	50510100	PBOP Cap Credits	November-15
1026-Tennessee American Water Co	R26-02B1.15-P-0002	Labor Overhead	50550100	Group Ins Cap Credits	December-15
1026-Tennessee American Water Co	R26-02B1.15-P-0014	Labor Overhead	50550100	Group Ins Cap Credits	November-15
1026-Tennessee American Water Co	R26-02A1.15-P-0002	Labor Overhead	50550100	Group Ins Cap Credits	December-15
1026-Tennessee American Water Co	R26-02B1.15-P-0014	Labor Overhead	50550100	Group Ins Cap Credits	December-15
1026-Tennessee American Water Co	R26-02D1.09-P-0006	Labor Overhead	50610100	Pension Cap Credits	November-15
1026-Tennessee American Water Co	R26-02B1.15-P-0014	Labor Overhead	50610100	Pension Cap Credits	November-15
1026-Tennessee American Water Co	R26-02B1.15-P-0002	Materials & Supplies	52000000	M&S Natural Account	December-15
1026-Tennessee American Water Co	R26-02D1.11-P-0001	Materials & Supplies	52000000	M&S Natural Account	December-15
1026-Tennessee American Water Co	D26-0201-P-0498	Materials & Supplies	52000000	M&S Natural Account	December-15
1026-Tennessee American Water Co	R26-02B1.15-P-0002	AFUDC Debt	85000000	AFUDC Debt	November-15
1026-Tennessee American Water Co	R26-05A1.15-P-0003	AFUDC Debt	85000000	AFUDC Debt	November-15
1026-Tennessee American Water Co	R26-05A1.15-P-0002	AFUDC Debt	85000000	AFUDC Debt	November-15
1026-Tennessee American Water Co	R26-05A1.15-P-0003	AFUDC Debt	85000000	AFUDC Debt	December-15
1026-Tennessee American Water Co	D26-0201-P-0493	AFUDC Debt	85000000	AFUDC Debt	December-15
1026-Tennessee American Water Co	R26-02B1.15-P-0014	AFUDC Debt	85000000	AFUDC Debt	November-15
1026-Tennessee American Water Co	D26-0201-P-0491	Contracted Services	53150000	Contr Svc-Other	December-15
1026-Tennessee American Water Co	R26-02A1.15-P-0002	Other	55000100	Trans Cap Credits	November-15
1026-Tennessee American Water Co	R26-02B1.15-P-0007	Other	55000100	Trans Cap Credits	November-15
1026-Tennessee American Water Co	R26-02D1.11-P-0001	Other	55720100	Ins W/C Cap Credits	November-15
1026-Tennessee American Water Co	R26-02B1.15-P-0015	Other	55720100	Ins W/C Cap Credits	December-15
1026-Tennessee American Water Co	R26-05C1.15-P-0001	Other	55720100	Ins W/C Cap Credits	November-15
1026-Tennessee American Water Co	R26-02B1.15-P-0002	Overhead	52801100	Indirect OH Clearing	November-15
1026-Tennessee American Water Co	R26-05A1.15-P-0003	Overhead	52801100	Indirect OH Clearing	December-15
1026-Tennessee American Water Co	R26-02C1.15-P-0001	Overhead	52801100	Indirect OH Clearing	December-15
1026-Tennessee American Water Co	R26-02D1.09-P-0006	Overhead	52801100	Indirect OH Clearing	December-15
1026-Tennessee American Water Co	R26-02C1.15-P-0001	Overhead	52801100	Indirect OH Clearing	November-15
1026-Tennessee American Water Co	D26-0201-P-0486	Overhead	52801100	Indirect OH Clearing	November-15
1026-Tennessee American Water Co	D26-0201-P-0487	Overhead	52801100	Indirect OH Clearing	November-15
1026-Tennessee American Water Co	D26-0201-P-0498	Overhead	52801100	Indirect OH Clearing	November-15
1026-Tennessee American Water Co	R26-02B1.12-P-0019	Overhead	52801100	Indirect OH Clearing	December-15
1026-Tennessee American Water Co	R26-02C1.14-P-0001	Overhead	52801100	Indirect OH Clearing	December-15
1026-Tennessee American Water Co	R26-02D1.14-P-0009	Overhead	52801100	Indirect OH Clearing	December-15
1026-Tennessee American Water Co	R26-02C1.14-P-0001	Overhead	52801100	Indirect OH Clearing	December-15
1026-Tennessee American Water Co	D26-0201-P-0491	Contracted Services	53110000	Contr Svc-Eng	November-15
1026-Tennessee American Water Co	R26-02B1.15-P-0002	Contracted Services	53110000	Contr Svc-Eng	November-15
1026-Tennessee American Water Co	D26-0201-P-0495	Contracted Services	53110000	Contr Svc-Eng	December-15
1026-Tennessee American Water Co	D26-0201-P-0489	Contracted Services	53110000	Contr Svc-Eng	November-15
1026-Tennessee American Water Co	D26-0201-P-0499	Other	62520700	Misc Main Pvg/Bckfl	December-15
1026-Tennessee American Water Co	R26-05A1.15-P-0003	Other	62520700	Misc Main Pvg/Bckfl	December-15
1026-Tennessee American Water Co	R26-02C1.16-P-0001	Other	62520700	Misc Main Pvg/Bckfl	December-15
1026-Tennessee American Water Co	D26-0201-P-0500	Licenses, Permits & Misc Fees	62520800	Misc Maint Permits	November-15
1026-Tennessee American Water Co	D26-0201-P-0503	Licenses, Permits & Misc Fees	62520800	Misc Maint Permits	December-15
1026-Tennessee American Water Co	R26-02D1.09-P-0006	AFUDC Equity	70510000	AFUDC-Equity	November-15
1026-Tennessee American Water Co	R26-02A1.13-P-0006	AFUDC Equity	70510000	AFUDC-Equity	November-15
1026-Tennessee American Water Co	R26-05A1.14-P-0002	AFUDC Equity	70510000	AFUDC-Equity	December-15
1026-Tennessee American Water Co	R26-02A1.15-P-0002	AFUDC Equity	70510000	AFUDC-Equity	November-15
1026-Tennessee American Water Co	R26-02D1.11-P-0001	CWIP Accrual	52801200	Capital Acc Clearing	November-15
1026-Tennessee American Water Co	R26-05A1.15-P-0003	CWIP Accrual	52801200	Capital Acc Clearing	November-15
1026-Tennessee American Water Co	D26-0201-P-0485	CWIP Accrual	52801200	Capital Acc Clearing	November-15
1026-Tennessee American Water Co	D26-0201-P-0496	CWIP Accrual	52801200	Capital Acc Clearing	November-15
1026-Tennessee American Water Co	R26-02A1.15-P-0002	CWIP Accrual	52801200	Capital Acc Clearing	December-15
1026-Tennessee American Water Co	R26-02B1.15-P-0014	CWIP Accrual	52801200	Capital Acc Clearing	November-15
1026-Tennessee American Water Co	D26-0201-P-0487	CWIP Accrual	52801200	Capital Acc Clearing	November-15
1026-Tennessee American Water Co	D26-0201-P-0500	Labor Overhead	68533100	FICA Cap Credits	November-15
1026-Tennessee American Water Co	R26-02C1.14-P-0001	Labor Overhead	68533100	FICA Cap Credits	December-15
1026-Tennessee American Water Co	R26-02C1.15-P-0001	Labor Overhead	68535100	SUTA Cap Credits	December-15
1026-Tennessee American Water Co	R26-02D1.11-P-0001	Labor	50109900	Labor Cap Credits	November-15
1026-Tennessee American Water Co	D26-0201-P-0500	Labor	50109900	Labor Cap Credits	November-15
1026-Tennessee American Water Co	D26-0201-P-0500	Labor	50109900	Labor Cap Credits	December-15
1026-Tennessee American Water Co	R26-02B1.15-P-0015	Labor	50109900	Labor Cap Credits	December-15
1026-Tennessee American Water Co	R26-02B1.15-P-0014	Labor	50119900	LaborNSOT CapCredits	November-15
1026-Tennessee American Water Co	R26-05C1.15-P-0001	Labor	50119900	LaborNSOT CapCredits	November-15
1026-Tennessee American Water Co	D26-0201-P-0499	Labor Overhead	50421100	401k Exp Cap Credits	November-15
1026-Tennessee American Water Co	D26-0201-P-0499	Labor Overhead	50421100	401k Exp Cap Credits	December-15
1026-Tennessee American Water Co	R26-02C1.15-P-0001	Labor Overhead	50421100	401k Exp Cap Credits	November-15
1026-Tennessee American Water Co	R26-05C1.15-P-0001	Labor Overhead	50421100	401k Exp Cap Credits	November-15
1026-Tennessee American Water Co	D26-0201-P-0498	Labor Overhead	50421100	401k Exp Cap Credits	November-15
1026-Tennessee American Water Co	R26-02B1.15-P-0002	Labor Overhead	50422100	DCP Exp Cap Credits	December-15
1026-Tennessee American Water Co	R26-02D1.11-P-0001	Labor Overhead	50422100	DCP Exp Cap Credits	December-15
1026-Tennessee American Water Co	D26-0201-P-0498	Labor Overhead	50422100	DCP Exp Cap Credits	December-15
1026-Tennessee American Water Co	R26-02D1.11-P-0001	Labor Overhead	50426100	Retiree Med Cap Cr	December-15
1026-Tennessee American Water Co	R26-02C1.15-P-0001	Labor Overhead	50426100	Retiree Med Cap Cr	November-15
1026-Tennessee American Water Co	R26-02A1.15-P-0002	Labor Overhead	50426100	Retiree Med Cap Cr	November-15
1026-Tennessee American Water Co	R26-02C1.15-P-0001	Labor Overhead	50426100	Retiree Med Cap Cr	December-15
1026-Tennessee American Water Co	R26-02A1.15-P-0002	Labor Overhead	50426100	Retiree Med Cap Cr	December-15
1026-Tennessee American Water Co	R26-02D1.11-P-0001	Labor Overhead	50510100	PBOP Cap Credits	December-15

1026-Tennessee American Water Co	R26-02D1.09-P-0006	Labor Overhead	50510100	PBOP Cap Credits	November-15
1026-Tennessee American Water Co	R26-02A1.15-P-0002	Labor Overhead	50510100	PBOP Cap Credits	November-15
1026-Tennessee American Water Co	R26-02B1.15-P-0002	Labor Overhead	50550100	Group Ins Cap Credits	November-15
1026-Tennessee American Water Co	R26-02B1.15-P-0007	Labor Overhead	50550100	Group Ins Cap Credits	November-15
1026-Tennessee American Water Co	R26-02C1.15-P-0001	Labor Overhead	50550100	Group Ins Cap Credits	December-15
1026-Tennessee American Water Co	R26-02C1.14-P-0001	Labor Overhead	50550100	Group Ins Cap Credits	December-15
1026-Tennessee American Water Co	D26-0201-P-0499	Labor Overhead	50610100	Pension Cap Credits	November-15
1026-Tennessee American Water Co	D26-0201-P-0500	Labor Overhead	50610100	Pension Cap Credits	December-15
1026-Tennessee American Water Co	R26-02A1.15-P-0005	Labor Overhead	50610100	Pension Cap Credits	December-15
1026-Tennessee American Water Co	D26-0201-P-0499	Labor Overhead	50610100	Pension Cap Credits	December-15
1026-Tennessee American Water Co	R26-02D1.09-P-0006	Labor Overhead	50610100	Pension Cap Credits	December-15
1026-Tennessee American Water Co	R26-02A1.15-P-0002	Labor Overhead	50610100	Pension Cap Credits	November-15
1026-Tennessee American Water Co	R26-05C1.15-P-0001	Labor Overhead	50610100	Pension Cap Credits	November-15
1026-Tennessee American Water Co	R26-02A1.15-P-0002	Labor Overhead	50610100	Pension Cap Credits	December-15
1026-Tennessee American Water Co	R26-05C1.16-P-0001	Materials & Supplies	52000000	M&S Natural Account	December-15
1026-Tennessee American Water Co	R26-02C1.16-P-0001	Materials & Supplies	52000000	M&S Natural Account	December-15
1026-Tennessee American Water Co	R26-02B1.15-P-0001	Materials & Supplies	52000000	M&S Natural Account	December-15
1026-Tennessee American Water Co	R26-05A1.15-P-0002	AFUDC Debt	85000000	AFUDC Debt	December-15
1026-Tennessee American Water Co	R26-02D1.11-P-0001	AFUDC Debt	85000000	AFUDC Debt	December-15
1026-Tennessee American Water Co	R26-02A1.13-P-0006	AFUDC Debt	85000000	AFUDC Debt	December-15
1026-Tennessee American Water Co	R26-02D1.14-P-0001	AFUDC Debt	85000000	AFUDC Debt	December-15
1026-Tennessee American Water Co	D26-0201-P-0499	Contracted Services	53150000	Contr Svc-Other	December-15
1026-Tennessee American Water Co	R26-02B1.15-P-0014	Contracted Services	53150000	Contr Svc-Other	November-15
1026-Tennessee American Water Co	R26-02B1.15-P-0007	Contracted Services	53150000	Contr Svc-Other	November-15
1026-Tennessee American Water Co	R26-02C1.15-P-0001	Other	52554500	Lab Supplies	November-15
1026-Tennessee American Water Co	R26-02B1.15-P-0015	Other	55000100	Trans Cap Credits	December-15
1026-Tennessee American Water Co	D26-0201-P-0500	Other	55720100	Ins W/C Cap Credits	December-15
1026-Tennessee American Water Co	R26-02A1.15-P-0002	Other	55720100	Ins W/C Cap Credits	November-15
1026-Tennessee American Water Co	R26-02C1.14-P-0001	Other	55720100	Ins W/C Cap Credits	December-15
1026-Tennessee American Water Co	R26-02B1.15-P-0002	Overhead	52801100	Indirect OH Clearing	December-15
1026-Tennessee American Water Co	R26-02D1.11-P-0001	Overhead	52801100	Indirect OH Clearing	December-15
1026-Tennessee American Water Co	R26-02B1.15-P-0007	Overhead	52801100	Indirect OH Clearing	December-15
1026-Tennessee American Water Co	R26-02B1.15-P-0014	Overhead	52801100	Indirect OH Clearing	December-15
1026-Tennessee American Water Co	R26-02C1.13-P-0001	Overhead	52801100	Indirect OH Clearing	December-15
1026-Tennessee American Water Co	R26-02C1.07-P-0005	Overhead	52801100	Indirect OH Clearing	December-15
1026-Tennessee American Water Co	D26-0201-P-0491	Other	62520700	Misc Main Pvg/Bckfl	December-15
1026-Tennessee American Water Co	D26-0201-P-0488	Other	62520700	Misc Main Pvg/Bckfl	December-15
1026-Tennessee American Water Co	R26-02A1.15-P-0002	Other	62520700	Misc Main Pvg/Bckfl	December-15
1026-Tennessee American Water Co	R26-02B1.15-P-0015	Licenses, Permits & Misc Fees	62520800	Misc Maint Permits	December-15
1026-Tennessee American Water Co	D26-0201-P-0501	Licenses, Permits & Misc Fees	62520800	Misc Maint Permits	December-15
1026-Tennessee American Water Co	R26-02C1.15-P-0001	Licenses, Permits & Misc Fees	62520800	Misc Maint Permits	November-15
1026-Tennessee American Water Co	D26-0201-P-0498	Licenses, Permits & Misc Fees	62520800	Misc Maint Permits	November-15
1026-Tennessee American Water Co	R26-05A1.15-P-0002	AFUDC Equity	70510000	AFUDC-Equity	December-15
1026-Tennessee American Water Co	R26-02A1.15-P-0005	AFUDC Equity	70510000	AFUDC-Equity	December-15
1026-Tennessee American Water Co	R26-02A1.15-P-0004	AFUDC Equity	70510000	AFUDC-Equity	November-15
1026-Tennessee American Water Co	R26-02A1.15-P-0004	AFUDC Equity	70510000	AFUDC-Equity	December-15
1026-Tennessee American Water Co	R26-02D1.09-P-0006	AFUDC Equity	70510000	AFUDC-Equity	December-15
1026-Tennessee American Water Co	R26-02A1.13-P-0006	AFUDC Equity	70510000	AFUDC-Equity	December-15
1026-Tennessee American Water Co	R26-02B1.15-P-0015	CWIP Accrual	52801200	Capital Acc Clearing	November-15
1026-Tennessee American Water Co	R26-02B1.15-P-0008	CWIP Accrual	52801200	Capital Acc Clearing	December-15
1026-Tennessee American Water Co	R26-02B1.15-P-0014	CWIP Accrual	52801200	Capital Acc Clearing	December-15
1026-Tennessee American Water Co	D26-0201-P-0487	CWIP Accrual	52801200	Capital Acc Clearing	December-15
1026-Tennessee American Water Co	D26-0201-P-0499	Labor Overhead	68533100	FICA Cap Credits	November-15
1026-Tennessee American Water Co	R26-02D1.11-P-0001	Labor Overhead	68533100	FICA Cap Credits	November-15
1026-Tennessee American Water Co	R26-02D1.11-P-0001	Labor Overhead	68533100	FICA Cap Credits	December-15
1026-Tennessee American Water Co	R26-02C1.15-P-0001	Labor Overhead	68533100	FICA Cap Credits	December-15
1026-Tennessee American Water Co	R26-02B1.15-P-0014	Labor Overhead	68533100	FICA Cap Credits	December-15
1026-Tennessee American Water Co	R26-02D1.09-P-0006	Labor	50109900	Labor Cap Credits	November-15
1026-Tennessee American Water Co	R26-02A1.15-P-0002	Labor	50109900	Labor Cap Credits	December-15
1026-Tennessee American Water Co	R26-02D1.11-P-0001	Labor Overhead	50421100	401k Exp Cap Credits	December-15
1026-Tennessee American Water Co	R26-02B1.15-P-0002	Labor Overhead	50421100	401k Exp Cap Credits	December-15
1026-Tennessee American Water Co	R26-02B1.15-P-0015	Labor Overhead	50421100	401k Exp Cap Credits	December-15
1026-Tennessee American Water Co	R26-02A1.15-P-0005	Labor Overhead	50421100	401k Exp Cap Credits	December-15
1026-Tennessee American Water Co	R26-02D1.11-P-0001	Labor Overhead	50422100	DCP Exp Cap Credits	November-15
1026-Tennessee American Water Co	D26-0201-P-0499	Labor Overhead	50422100	DCP Exp Cap Credits	November-15
1026-Tennessee American Water Co	D26-0201-P-0499	Labor Overhead	50422100	DCP Exp Cap Credits	December-15
1026-Tennessee American Water Co	R26-02B1.15-P-0007	Labor Overhead	50422100	DCP Exp Cap Credits	November-15
1026-Tennessee American Water Co	R26-05C1.15-P-0001	Labor Overhead	50422100	DCP Exp Cap Credits	November-15
1026-Tennessee American Water Co	R26-02C1.14-P-0001	Labor Overhead	50422100	DCP Exp Cap Credits	December-15
1026-Tennessee American Water Co	R26-02A1.15-P-0005	Labor Overhead	50510100	PBOP Cap Credits	December-15
1026-Tennessee American Water Co	R26-02B1.15-P-0002	Labor Overhead	50510100	PBOP Cap Credits	December-15
1026-Tennessee American Water Co	R26-02C1.15-P-0001	Labor Overhead	50510100	PBOP Cap Credits	November-15
1026-Tennessee American Water Co	D26-0201-P-0501	Labor Overhead	50550100	Group Ins Cap Credits	December-15
1026-Tennessee American Water Co	R26-02D1.09-P-0006	Labor Overhead	50550100	Group Ins Cap Credits	November-15
1026-Tennessee American Water Co	R26-02D1.09-P-0006	Labor Overhead	50550100	Group Ins Cap Credits	December-15
1026-Tennessee American Water Co	R26-05C1.15-P-0001	Labor Overhead	50550100	Group Ins Cap Credits	November-15
1026-Tennessee American Water Co	R26-02B1.15-P-0002	Labor Overhead	50610100	Pension Cap Credits	November-15
1026-Tennessee American Water Co	R26-02B1.15-P-0002	Labor Overhead	50610100	Pension Cap Credits	December-15
1026-Tennessee American Water Co	R26-05C1.15-P-0001	Labor Overhead	50610100	Pension Cap Credits	December-15
1026-Tennessee American Water Co	D26-0201-P-0486	Materials & Supplies	52000000	M&S Natural Account	November-15

1026-Tennessee American Water Co	R26-02A1.15-P-0002	Materials & Supplies	52000000	M&S Natural Account	November-15
1026-Tennessee American Water Co	R26-05C1.15-P-0001	Materials & Supplies	52000000	M&S Natural Account	November-15
1026-Tennessee American Water Co	R26-02B1.15-P-0014	Materials & Supplies	52000000	M&S Natural Account	December-15
1026-Tennessee American Water Co	R26-02A1.13-P-0006	AFUDC Debt	85000000	AFUDC Debt	November-15
1026-Tennessee American Water Co	R26-05A1.14-P-0002	AFUDC Debt	85000000	AFUDC Debt	November-15
1026-Tennessee American Water Co	R26-02A1.15-P-0004	AFUDC Debt	85000000	AFUDC Debt	November-15
1026-Tennessee American Water Co	R26-05A1.15-P-0002	Contracted Services	53150000	Contr Svc-Other	November-15
1026-Tennessee American Water Co	R26-05A1.15-P-0003	Contracted Services	53150000	Contr Svc-Other	December-15
1026-Tennessee American Water Co	R26-02C1.15-P-0001	Contracted Services	53150000	Contr Svc-Other	December-15
1026-Tennessee American Water Co	R26-02B1.12-P-0019	Contracted Services	53150000	Contr Svc-Other	December-15
1026-Tennessee American Water Co	D26-0201-P-0499	Other	55720100	Ins W/C Cap Credits	December-15
1026-Tennessee American Water Co	R26-02D1.09-P-0006	Other	55720100	Ins W/C Cap Credits	December-15
1026-Tennessee American Water Co	R26-02C1.15-P-0001	Other	55720100	Ins W/C Cap Credits	November-15
1026-Tennessee American Water Co	R26-02A1.15-P-0002	Other	55720100	Ins W/C Cap Credits	December-15
1026-Tennessee American Water Co	R26-05A1.15-P-0002	Overhead	52801100	Indirect OH Clearing	November-15
1026-Tennessee American Water Co	R26-02B1.15-P-0015	Overhead	52801100	Indirect OH Clearing	December-15
1026-Tennessee American Water Co	R26-02C1.15-P-0001	Overhead	52801100	Indirect OH Clearing	December-15
1026-Tennessee American Water Co	R26-02A1.15-P-0005	Overhead	52801100	Indirect OH Clearing	December-15
1026-Tennessee American Water Co	D26-0201-P-0500	Overhead	52801100	Indirect OH Clearing	December-15
1026-Tennessee American Water Co	R26-02B1.15-P-0014	Overhead	52801100	Indirect OH Clearing	November-15
1026-Tennessee American Water Co	D26-0201-P-0464	Overhead	52801100	Indirect OH Clearing	November-15
1026-Tennessee American Water Co	D26-0201-P-0496	Overhead	52801100	Indirect OH Clearing	December-15
1026-Tennessee American Water Co	R26-02B1.14-P-0001	Overhead	52801100	Indirect OH Clearing	December-15
1026-Tennessee American Water Co	D26-0201-P-0471	Contracted Services	53110000	Contr Svc-Eng	November-15
1026-Tennessee American Water Co	R26-02D1.11-P-0001	Contracted Services	53110000	Contr Svc-Eng	November-15
1026-Tennessee American Water Co	D26-0201-P-0487	Contracted Services	53110000	Contr Svc-Eng	November-15
1026-Tennessee American Water Co	D26-0201-P-0464	Contracted Services	53110000	Contr Svc-Eng	November-15
1026-Tennessee American Water Co	D26-0201-P-0487	Contracted Services	53110000	Contr Svc-Eng	December-15
1026-Tennessee American Water Co	R26-02A1.15-P-0002	Contracted Services	53110000	Contr Svc-Eng	December-15
1026-Tennessee American Water Co	R26-02C1.15-P-0001	Other	62520700	Misc Main Pvg/Bckfil	December-15
1026-Tennessee American Water Co	R26-02C1.14-P-0001	Other	62520700	Misc Main Pvg/Bckfil	December-15
1026-Tennessee American Water Co	R26-05A1.15-P-0003	AFUDC Equity	70510000	AFUDC-Equity	November-15
1026-Tennessee American Water Co	R26-02B1.15-P-0015	AFUDC Equity	70510000	AFUDC-Equity	December-15
1026-Tennessee American Water Co	R26-02B1.13-P-0006	AFUDC Equity	70510000	AFUDC-Equity	December-15
1026-Tennessee American Water Co	R26-02D1.14-P-0001	AFUDC Equity	70510000	AFUDC-Equity	November-15
1026-Tennessee American Water Co	R26-02D1.14-P-0001	AFUDC Equity	70510000	AFUDC-Equity	December-15
1026-Tennessee American Water Co	D26-0201-P-0464	AFUDC Equity	70510000	AFUDC-Equity	December-15
1026-Tennessee American Water Co	D26-0201-P-0498	CWIP Accrual	52801200	Capital Acc Clearing	November-15
1026-Tennessee American Water Co	D26-0201-P-0495	CWIP Accrual	52801200	Capital Acc Clearing	November-15
1026-Tennessee American Water Co	R26-02B1.15-P-0002	CWIP Accrual	52801200	Capital Acc Clearing	November-15
1026-Tennessee American Water Co	R26-05A1.15-P-0003	CWIP Accrual	52801200	Capital Acc Clearing	December-15
1026-Tennessee American Water Co	R26-02C1.15-P-0001	CWIP Accrual	52801200	Capital Acc Clearing	December-15
1026-Tennessee American Water Co	D26-0201-P-0489	CWIP Accrual	52801200	Capital Acc Clearing	December-15
1026-Tennessee American Water Co	R26-02A1.15-P-0002	Labor Overhead	68533100	FICA Cap Credits	November-15
1026-Tennessee American Water Co	R26-02C1.15-P-0001	Labor	50109900	Labor Cap Credits	November-15
1026-Tennessee American Water Co	R26-02A1.15-P-0002	Labor	50109900	Labor Cap Credits	November-15
1026-Tennessee American Water Co	R26-02D1.11-P-0001	Labor	50119900	LaborNSOT CapCredits	December-15
1026-Tennessee American Water Co	R26-02C1.15-P-0001	Labor	50119900	LaborNSOT CapCredits	December-15
1026-Tennessee American Water Co	R26-02B1.15-P-0002	Labor Overhead	50421100	401k Exp Cap Credits	November-15
1026-Tennessee American Water Co	R26-02D1.09-P-0006	Labor Overhead	50421100	401k Exp Cap Credits	December-15
1026-Tennessee American Water Co	R26-02C1.14-P-0001	Labor Overhead	50421100	401k Exp Cap Credits	November-15
1026-Tennessee American Water Co	R26-02C1.15-P-0001	Labor Overhead	50421100	401k Exp Cap Credits	December-15
1026-Tennessee American Water Co	R26-02D1.09-P-0006	Labor Overhead	50422100	DCP Exp Cap Credits	December-15
1026-Tennessee American Water Co	R26-02C1.15-P-0001	Labor Overhead	50422100	DCP Exp Cap Credits	November-15
1026-Tennessee American Water Co	R26-02B1.15-P-0014	Labor Overhead	50422100	DCP Exp Cap Credits	December-15
1026-Tennessee American Water Co	D26-0201-P-0499	Labor Overhead	50426100	Retiree Med Cap Cr	December-15
1026-Tennessee American Water Co	D26-0201-P-0500	Labor Overhead	50510100	PBOP Cap Credits	December-15
1026-Tennessee American Water Co	R26-05C1.15-P-0001	Labor Overhead	50510100	PBOP Cap Credits	December-15
1026-Tennessee American Water Co	R26-02D1.11-P-0001	Labor Overhead	50550100	Group Ins Cap Credits	November-15
1026-Tennessee American Water Co	D26-0201-P-0499	Labor Overhead	50550100	Group Ins Cap Credits	December-15
1026-Tennessee American Water Co	R26-05C1.15-P-0001	Labor Overhead	50550100	Group Ins Cap Credits	December-15
1026-Tennessee American Water Co	D26-0201-P-0498	Labor Overhead	50550100	Group Ins Cap Credits	December-15
1026-Tennessee American Water Co	R26-02D1.11-P-0001	Labor Overhead	50610100	Pension Cap Credits	December-15
1026-Tennessee American Water Co	D26-0201-P-0501	Labor Overhead	50610100	Pension Cap Credits	December-15
1026-Tennessee American Water Co	R26-05A1.15-P-0002	Materials & Supplies	52000000	M&S Natural Account	November-15
1026-Tennessee American Water Co	D26-0201-P-0499	Materials & Supplies	52000000	M&S Natural Account	December-15
1026-Tennessee American Water Co	R26-02B1.15-P-0015	Materials & Supplies	52000000	M&S Natural Account	December-15
1026-Tennessee American Water Co	R26-02B1.15-P-0015	AFUDC Debt	85000000	AFUDC Debt	November-15
1026-Tennessee American Water Co	R26-02D1.09-P-0006	AFUDC Debt	85000000	AFUDC Debt	November-15
1026-Tennessee American Water Co	R26-05A1.14-P-0002	AFUDC Debt	85000000	AFUDC Debt	December-15
1026-Tennessee American Water Co	R26-02A1.15-P-0002	AFUDC Debt	85000000	AFUDC Debt	November-15
1026-Tennessee American Water Co	R26-02C1.15-P-0001	Contracted Services	53150000	Contr Svc-Other	November-15
1026-Tennessee American Water Co	R26-02B1.15-P-0002	Other	55000100	Trans Cap Credits	November-15
1026-Tennessee American Water Co	D26-0201-P-0500	Other	55000100	Trans Cap Credits	December-15
1026-Tennessee American Water Co	R26-02D1.09-P-0006	Other	55000100	Trans Cap Credits	November-15
1026-Tennessee American Water Co	R26-05C1.15-P-0001	Other	55000100	Trans Cap Credits	November-15
1026-Tennessee American Water Co	D26-0201-P-0498	Other	55000100	Trans Cap Credits	December-15
1026-Tennessee American Water Co	R26-02C1.14-P-0001	Other	55000100	Trans Cap Credits	December-15
1026-Tennessee American Water Co	R26-02A1.15-P-0005	Other	55720100	Ins W/C Cap Credits	December-15
1026-Tennessee American Water Co	D26-0201-P-0498	Other	55720100	Ins W/C Cap Credits	December-15

1026-Tennessee American Water Co	R26-02D1.11-P-0001	Overhead	52801100	Indirect OH Clearing	November-15
1026-Tennessee American Water Co	D26-0201-P-0500	Overhead	52801100	Indirect OH Clearing	November-15
1026-Tennessee American Water Co	D26-0201-P-0499	Overhead	52801100	Indirect OH Clearing	December-15
1026-Tennessee American Water Co	R26-02C1.14-P-0001	Overhead	52801100	Indirect OH Clearing	November-15
1026-Tennessee American Water Co	R26-02B1.15-P-0014	Overhead	52801100	Indirect OH Clearing	December-15
1026-Tennessee American Water Co	R26-02D1.14-P-0001	Overhead	52801100	Indirect OH Clearing	December-15
1026-Tennessee American Water Co	R26-05C1.15-P-0001	Overhead	52801100	Indirect OH Clearing	December-15
1026-Tennessee American Water Co	R26-02D1.14-P-0009	Overhead	52801100	Indirect OH Clearing	December-15
1026-Tennessee American Water Co	R26-02C1.16-P-0001	Overhead	52801100	Indirect OH Clearing	December-15
1026-Tennessee American Water Co	R26-02D1.09-P-0006	Contracted Services	53110000	Contr Svc-Eng	December-15
1026-Tennessee American Water Co	R26-02B1.15-P-0014	Other	62520700	Misc Main Pvg/Bckfl	November-15
1026-Tennessee American Water Co	R26-02B1.15-P-0014	Other	62520700	Misc Main Pvg/Bckfl	December-15
1026-Tennessee American Water Co	R26-02C1.15-P-0001	Licenses, Permits & Misc Fees	62520800	Misc Maint Permits	December-15
1026-Tennessee American Water Co	R26-02B1.15-P-0002	AFUDC Equity	70510000	AFUDC-Equity	November-15
1026-Tennessee American Water Co	R26-02D1.11-P-0001	AFUDC Equity	70510000	AFUDC-Equity	November-15
1026-Tennessee American Water Co	D26-0201-P-0464	AFUDC Equity	70510000	AFUDC-Equity	November-15
1026-Tennessee American Water Co	R26-02A1.15-P-0002	AFUDC Equity	70510000	AFUDC-Equity	December-15
1026-Tennessee American Water Co	R26-02A1.15-P-0002	CWIP Accrual	52801200	Capital Acc Clearing	November-15
1026-Tennessee American Water Co	D26-0201-P-0489	CWIP Accrual	52801200	Capital Acc Clearing	November-15
1026-Tennessee American Water Co	D26-0201-P-0495	CWIP Accrual	52801200	Capital Acc Clearing	December-15
1026-Tennessee American Water Co	R26-02D1.09-P-0006	CWIP Accrual	52801200	Capital Acc Clearing	November-15
1026-Tennessee American Water Co	R26-05C1.15-P-0001	Labor Overhead	68533100	FICA Cap Credits	December-15
1026-Tennessee American Water Co	R26-02B1.15-P-0002	Labor	50109900	Labor Cap Credits	November-15
1026-Tennessee American Water Co	R26-02D1.11-P-0001	Labor	50109900	Labor Cap Credits	December-15
1026-Tennessee American Water Co	D26-0201-P-0499	Labor	50109900	Labor Cap Credits	December-15
1026-Tennessee American Water Co	R26-02C1.14-P-0001	Labor	50109900	Labor Cap Credits	November-15
1026-Tennessee American Water Co	R26-05C1.15-P-0001	Labor	50109900	Labor Cap Credits	November-15
1026-Tennessee American Water Co	D26-0201-P-0498	Labor	50109900	Labor Cap Credits	December-15
1026-Tennessee American Water Co	R26-02C1.14-P-0001	Labor	50109900	Labor Cap Credits	December-15
1026-Tennessee American Water Co	D26-0201-P-0501	Labor Overhead	50421100	401k Exp Cap Credits	December-15
1026-Tennessee American Water Co	D26-0201-P-0500	Labor Overhead	50421100	401k Exp Cap Credits	December-15
1026-Tennessee American Water Co	R26-02A1.15-P-0002	Labor Overhead	50421100	401k Exp Cap Credits	November-15
1026-Tennessee American Water Co	R26-02D1.09-P-0006	Labor Overhead	50422100	DCP Exp Cap Credits	November-15
1026-Tennessee American Water Co	D26-0201-P-0500	Labor Overhead	50426100	Retiree Med Cap Cr	December-15
1026-Tennessee American Water Co	R26-02B1.15-P-0014	Labor Overhead	50426100	Retiree Med Cap Cr	November-15
1026-Tennessee American Water Co	R26-02B1.15-P-0002	Labor Overhead	50510100	PBOP Cap Credits	November-15
1026-Tennessee American Water Co	R26-02D1.09-P-0006	Labor Overhead	50510100	PBOP Cap Credits	December-15
1026-Tennessee American Water Co	R26-05C1.15-P-0001	Labor Overhead	50510100	PBOP Cap Credits	November-15
1026-Tennessee American Water Co	D26-0201-P-0498	Labor Overhead	50510100	PBOP Cap Credits	November-15
1026-Tennessee American Water Co	R26-02B1.15-P-0014	Labor Overhead	50510100	PBOP Cap Credits	November-15
1026-Tennessee American Water Co	R26-02C1.15-P-0001	Labor Overhead	50510100	PBOP Cap Credits	December-15
1026-Tennessee American Water Co	D26-0201-P-0499	Labor Overhead	50550100	Group Ins Cap Credits	November-15
1026-Tennessee American Water Co	D26-0201-P-0500	Labor Overhead	50550100	Group Ins Cap Credits	December-15
1026-Tennessee American Water Co	R26-02C1.15-P-0001	Labor Overhead	50550100	Group Ins Cap Credits	November-15
1026-Tennessee American Water Co	D26-0201-P-0498	Labor Overhead	50550100	Group Ins Cap Credits	November-15
1026-Tennessee American Water Co	R26-02D1.11-P-0001	Labor Overhead	50610100	Pension Cap Credits	November-15
1026-Tennessee American Water Co	D26-0201-P-0498	Labor Overhead	50610100	Pension Cap Credits	November-15
1026-Tennessee American Water Co	R26-02C1.15-P-0001	Labor Overhead	50610100	Pension Cap Credits	November-15
1026-Tennessee American Water Co	R26-02B1.15-P-0007	Labor Overhead	50610100	Pension Cap Credits	November-15
1026-Tennessee American Water Co	D26-0201-P-0485	Materials & Supplies	52000000	M&S Natural Account	November-15
1026-Tennessee American Water Co	R26-02A1.15-P-0005	Materials & Supplies	52000000	M&S Natural Account	December-15
1026-Tennessee American Water Co	R26-05A1.15-P-0003	Materials & Supplies	52000000	M&S Natural Account	December-15
1026-Tennessee American Water Co	D26-0201-P-0495	Materials & Supplies	52000000	M&S Natural Account	December-15
1026-Tennessee American Water Co	R26-02C1.15-P-0001	Other	52500000	MiscExp Natural Acct	December-15
1026-Tennessee American Water Co	D26-0201-P-0493	AFUDC Debt	85000000	AFUDC Debt	November-15
1026-Tennessee American Water Co	R26-02D1.09-P-0006	AFUDC Debt	85000000	AFUDC Debt	December-15
1026-Tennessee American Water Co	R26-02A1.15-P-0002	AFUDC Debt	85000000	AFUDC Debt	December-15
1026-Tennessee American Water Co	R26-02C1.15-P-0001	Other	52554500	Lab Supplies	December-15
1026-Tennessee American Water Co	R26-02A1.15-P-0005	Other	55000100	Trans Cap Credits	December-15
1026-Tennessee American Water Co	R26-02D1.09-P-0006	Other	55000100	Trans Cap Credits	December-15
1026-Tennessee American Water Co	R26-02C1.15-P-0001	Other	55000100	Trans Cap Credits	December-15
1026-Tennessee American Water Co	D26-0201-P-0498	Other	55720100	Ins W/C Cap Credits	November-15
1026-Tennessee American Water Co	R26-02B1.15-P-0007	Other	55720100	Ins W/C Cap Credits	November-15
1026-Tennessee American Water Co	R26-02B1.15-P-0014	Other	55720100	Ins W/C Cap Credits	December-15
1026-Tennessee American Water Co	R26-02D1.11-P-0001	Overhead	52801100	Indirect OH Clearing	December-15
1026-Tennessee American Water Co	R26-05A1.15-P-0002	Overhead	52801100	Indirect OH Clearing	December-15
1026-Tennessee American Water Co	D26-0201-P-0503	Overhead	52801100	Indirect OH Clearing	December-15
1026-Tennessee American Water Co	R26-05A1.15-P-0003	Overhead	52801100	Indirect OH Clearing	December-15
1026-Tennessee American Water Co	R26-02B1.15-P-0001	Overhead	52801100	Indirect OH Clearing	December-15
1026-Tennessee American Water Co	D26-0201-P-0487	Overhead	52801100	Indirect OH Clearing	December-15
1026-Tennessee American Water Co	R26-02B1.15-P-0007	Contracted Services	53110000	Contr Svc-Eng	November-15
1026-Tennessee American Water Co	R26-02B1.15-P-0014	Contracted Services	53110000	Contr Svc-Eng	December-15
1026-Tennessee American Water Co	R26-02C1.15-P-0001	Other	62520700	Misc Main Pvg/Bckfl	November-15
1026-Tennessee American Water Co	R26-05A1.15-P-0002	AFUDC Equity	70510000	AFUDC-Equity	November-15
1026-Tennessee American Water Co	R26-02D1.11-P-0001	AFUDC Equity	70510000	AFUDC-Equity	December-15
1026-Tennessee American Water Co	R26-02B1.15-P-0014	AFUDC Equity	70510000	AFUDC-Equity	December-15
1026-Tennessee American Water Co	D26-0201-P-0488	CWIP Accrual	52801200	Capital Acc Clearing	November-15
1026-Tennessee American Water Co	D26-0201-P-0491	CWIP Accrual	52801200	Capital Acc Clearing	December-15
1026-Tennessee American Water Co	D26-0201-P-0499	CWIP Accrual	52801200	Capital Acc Clearing	December-15
1026-Tennessee American Water Co	R26-02D1.09-P-0006	CWIP Accrual	52801200	Capital Acc Clearing	December-15

1026-Tennessee American Water Co	R26-02D1.14-P-0009	CWIP Accrual	52801200	Capital Acc Clearing	November-15
1026-Tennessee American Water Co	R26-02B1.15-P-0002	Labor Overhead	68533100	FICA Cap Credits	November-15
1026-Tennessee American Water Co	D26-0201-P-0500	Labor Overhead	68533100	FICA Cap Credits	December-15
1026-Tennessee American Water Co	D26-0201-P-0499	Labor Overhead	68533100	FICA Cap Credits	December-15
1026-Tennessee American Water Co	R26-02D1.09-P-0006	Labor Overhead	68533100	FICA Cap Credits	December-15
1026-Tennessee American Water Co	D26-0201-P-0498	Labor Overhead	68533100	FICA Cap Credits	November-15
1026-Tennessee American Water Co	D26-0201-P-0501	Labor	50109900	Labor Cap Credits	December-15
1026-Tennessee American Water Co	R26-02B1.15-P-0014	Labor	50109900	Labor Cap Credits	December-15
1026-Tennessee American Water Co	R26-02C1.15-P-0001	Labor	50119900	LaborNSOT CapCredits	November-15
1026-Tennessee American Water Co	D26-0201-P-0500	Labor	50129900	Labor OT Cap Credits	December-15
1026-Tennessee American Water Co	R26-02C1.15-P-0001	Labor	50129900	Labor OT Cap Credits	December-15
1026-Tennessee American Water Co	R26-02D1.09-P-0006	Labor Overhead	50421100	401k Exp Cap Credits	November-15
1026-Tennessee American Water Co	R26-02B1.15-P-0007	Labor Overhead	50421100	401k Exp Cap Credits	November-15
1026-Tennessee American Water Co	R26-02B1.15-P-0014	Labor Overhead	50422100	DCP Exp Cap Credits	November-15
1026-Tennessee American Water Co	R26-02C1.15-P-0001	Labor Overhead	50422100	DCP Exp Cap Credits	December-15
1026-Tennessee American Water Co	R26-02B1.15-P-0014	Labor Overhead	50426100	Retiree Med Cap Cr	December-15
1026-Tennessee American Water Co	D26-0201-P-0499	Labor Overhead	50510100	PBOP Cap Credits	November-15
1026-Tennessee American Water Co	R26-02A1.15-P-0002	Labor Overhead	50510100	PBOP Cap Credits	December-15
1026-Tennessee American Water Co	D26-0201-P-0500	Labor Overhead	50550100	Group Ins Cap Credits	November-15
1026-Tennessee American Water Co	R26-02A1.15-P-0005	Labor Overhead	50550100	Group Ins Cap Credits	December-15
1026-Tennessee American Water Co	D26-0201-P-0500	Labor Overhead	50610100	Pension Cap Credits	November-15
1026-Tennessee American Water Co	R26-02B1.15-P-0015	Labor Overhead	50610100	Pension Cap Credits	December-15
1026-Tennessee American Water Co	R26-02C1.14-P-0001	Labor Overhead	50610100	Pension Cap Credits	December-15
1026-Tennessee American Water Co	D26-0201-P-0493	Materials & Supplies	52000000	M&S Natural Account	November-15
1026-Tennessee American Water Co	R26-02C1.15-P-0001	Materials & Supplies	52000000	M&S Natural Account	December-15
1026-Tennessee American Water Co	R26-02B1.15-P-0014	Materials & Supplies	52000000	M&S Natural Account	November-15
1026-Tennessee American Water Co	R26-05C1.15-P-0001	Materials & Supplies	52000000	M&S Natural Account	December-15
1026-Tennessee American Water Co	R26-05C1.15-P-0001	Materials & Supplies	52000000	M&S Natural Account	December-15
1026-Tennessee American Water Co	R26-02D1.11-P-0001	AFUDC Debt	85000000	AFUDC Debt	November-15
1026-Tennessee American Water Co	R26-02B1.15-P-0007	AFUDC Debt	85000000	AFUDC Debt	November-15
1026-Tennessee American Water Co	D26-0201-P-0464	AFUDC Debt	85000000	AFUDC Debt	November-15

external_gl	work_order	amount	project type
10700000	Kinsey Drive	7,882.68	DV
10700000	US27 BTN R	26,525.12	D
10700000	US27 BTN R	108.54	D
10700000	3100 St Elm	9.57	DV
10700000	Molly Lane 1	6.66	DV
10700000	Baylor Scho	5.71	DV
10700000	Jenkins Mill	3.34	DV
10700000	Work Order	22.94	C
10700000	Fairy Trail M	(19.94)	B
10700000	Baylor Scho	1.85	DV
10700000	Work Order	787.66	C
10700000	Pan Gap Fir	(112.27)	DV
10700000	Stockton Pla	35.39	DV
10700000	Baylor Scho	20.30	DV
10700000	Stockton Pla	1,174.79	DV
10700000	Obey Street	246.81	A
10700000	Work Order	(4.93)	C
10700000	2628 Broad	81.24	DV
10700000	Work Order	9.70	B
10700000	Signal View	134.54	B
10700000	Unsch Main	(1.79)	C
10700000	Cameron Ha	288.75	DV
10700000	Work Order	(981.56)	C
10700000	Signal View	41,789.55	B
10700000	Fairy Trail M	418.04	B
10700000	Stockton Pla	(423.80)	DV
10700000	Whitwell / C	(222.31)	A
10700000	Dayton Blvd	4,785.10	B
10700000	The Ridges	(5,740.25)	DV
10700000	Cameron Ha	(288.75)	DV
10700000	Signal View	(22,707.68)	B
10700000	Work Order	(4.42)	C
10700000	Obey Street	(8.45)	A
10700000	Dayton Blvd	12.37	A
10700000	ENG FEES FC	263.06	D
10700000	Signal View	26.41	B
10700000	Fairy Trail M	1,738.10	B
10700000	Work Order	28,007.55	C
10700000	Obey Street	1.15	A
10700000	Fairy Trail M	(1.69)	B
10700000	Jenkins Mill	17.18	DV
10700000	Obey Street	1.85	A
10700000	ENG FEES FC	(0.38)	D
10700000	US27 BTN R	247.66	D
10700000	Baylor Scho	13.03	DV
10700000	3100 St Elm	188.62	DV
10700000	Fairy Trail M	(45.50)	B
10700000	Mains-Unscl	(1.37)	C
10700000	Dayton Blvd	27.73	B
10700000	Mains-Unscl	2.78	C
10700000	Obey Street	195.16	A
10700000	Mains-Unscl	2.24	C
10700000	Fairy Trail M	(18.23)	B
10700000	Jenkins Mill	23.20	DV
10700000	Work Order	2,222.10	C
10700000	Work Order	(1,034.48)	C
10700000	Cameron Ha	(7,802.13)	DV
10700000	Jenkins Mill	15,484.92	DV
10700000	Work Order	9,385.72	C
10700000	Signal View	481.20	B
10700000	Work Order	1,426.48	C
10700000	Dayton Blvd	55.47	B
10700000	Dayton Blvd	2.46	A
10700000	Obey Street	15,547.00	A
10700000	Jenkins Mill	18,100.30	DV
10700000	US27 BTN R	(12.07)	D
10700000	Stuart Heigh	72.02	B
10700000	Fairy Trail M	137.14	B
10700000	Molly Lane 1	2.16	DV
10700000	3100 St Elm	3.10	DV
10700000	The Ridges	(6.85)	DV
10700000	3100 St Elm	72.32	DV
10700000	Cameron Ha	(627.37)	DV
10700000	Kinsey Drive	(42.06)	DV
10700000	Whitwell- D	(9.03)	A
10700000	Signal View	4,213.74	B
10700000	Obey Street	(752.56)	A
10700000	Jenkins Mill	1,519.11	DV
10700000	Obey Street	2,019.22	A

10700000	Work Order	901,884.90	C
10700000	Fairy Trail M	4,545.97	B
10700000	Jenkins Mill	712.55	DV
10700000	Kinsey Drive	15,951.43	DV
10700000	US27 BTN R	62,618.10	D
10700000	Whitwell- D	159.78	A
10700000	Bridgeview I	(166.25)	DV
10700000	Work Order	7,491.87	C
10700000	Signal View	(653.77)	B
10700000	Work Order	(34,698.62)	C
10700000	Baylor Scho	6.97	DV
10700000	Dayton Blvd	0.90	A
10700000	ENG FEES FC	59.36	D
10700000	Signal View	1.98	B
10700000	3100 St Elm	157.63	DV
10700000	US27 BTN R	39.39	D
10700000	Fairy Trail M	54.36	B
10700000	Work Order	13.94	C
10700000	Stuart Heigh	21.24	B
10700000	Molly Lane 1	43.80	DV
10700000	Dayton Blvd	9.62	B
10700000	Obey Street	50.45	A
10700000	Work Order	20.15	C
10700000	Signal View	3.66	B
10700000	Jenkins Mill	57.89	DV
10700000	US27 BTN R	(67.65)	D
10700000	Bridgeview I	168.22	DV
10700000	Stuart Heigh	149.88	B
10700000	Hamilton Av	3.31	A
10700000	Work Order	0.34	D
10700000	Fairy Trail M	468.81	B
10700000	Fairy Trail M	43,390.82	B
10700000	3100 St Elm	82.66	DV
10700000	Mains-Unscl	2.45	C
10700000	Work Order	2,220.59	C
10700000	Obey Street	(6.25)	A
10700000	Stuart Heigh	7.96	B
10700000	Stuart Heigh	23.34	B
10700000	ENG FEES FC	15.75	D
10700000	Mains-Unscl	0.80	C
10700000	Fairy Trail M	44.45	B
10700000	Work Order	7.44	C
10700000	Cameron Ha	21.47	DV
10700000	Walnut St Fi	82.21	DV
10700000	ENG FEES FC	1,089.86	D
10700000	Work Order	71.69	C
10700000	US27 BTN R	174.50	D
10700000	ENG FEES FC	11,802.80	D
10700000	Calhoun Ave	203.19	D
10700000	Signal View	653.77	B
10700000	Work Order	(90.80)	D
10700000	Jenkins Mill	1,938.15	DV
10700000	3100 St Elm	615.00	DV
10700000	Pan Gap Fire	8.60	DV
10700000	Dayton Blvd	0.30	B
10700000	Hwy 27 6" N	5.19	A
10700000	Pan Gap Fire	3.28	DV
10700000	Stuart Heigh	135.76	B
10700000	Signal View	262.28	B
10700000	Centro St M	0.00	B
10700000	Cameron Ha	579.95	DV
10700000	Walnut St Fi	(861.52)	DV
10700000	Jenkins Mill	(8,624.50)	DV
10700000	Dayton Blvd	750.00	A
10700000	US27 BTN R	(52,249.76)	D
10700000	Stuart Heigh	88.97	B
10700000	Dayton Blvd	16.34	B
10700000	Mains-Unscl	3.06	C
10700000	Work Order	2,673.24	C
10700000	Fairy Trail M	165.15	B
10700000	Jenkins Mill	31.44	DV
10700000	Stuart Heigh	1,186.09	B
10700000	Jenkins Mill	54.97	DV
10700000	Work Order	377.80	C
10700000	US27 BTN R	798.94	D
10700000	Molly Lane 1	2.75	DV
10700000	Mains-Unscl	(0.40)	C
10700000	Mains-Unscl	2.13	C
10700000	US27 BTN R	4.68	D
10700000	ENG FEES FC	1.01	D

10700000	Molly Lane 1	15.19	DV
10700000	Dayton Blvd	30.34	B
10700000	Mains-Unscl	5.59	C
10700000	Stuart Heigh	123.21	B
10700000	Fairy Trail M	495.29	B
10700000	Obey Street	(35.19)	A
10700000	Fairy Trail M	(146.82)	B
10700000	ENG FEES FC	44.42	D
10700000	Fairy Trail M	125.41	B
10700000	Stuart Heigh	17,533.38	B
10700000	US27 BTN R	836.71	D
10700000	Jenkins Mill	(3,199.23)	DV
10700000	Stuart Heigh	106.88	B
10700000	Hwy 27 6" N	0.34	A
10700000	Whitwell / C	143.38	A
10700000	Hwy 27 6" N	5.73	A
10700000	Pan Gap Fire	3.62	DV
10700000	Fairy Trail M	461.53	B
10700000	Stockton Pla	7,924.90	DV
10700000	Obey Street	82.10	A
10700000	Signal View	1.61	B
10700000	US27 BTN R	35.18	D
10700000	US27 BTN R	(3.92)	D
10700000	Dayton Blvd	4.30	B
10700000	Work Order	(1.27)	C
10700000	Stuart Heigh	447.51	B
10700000	Hwy 27 6" N	(134.23)	A
10700000	Work Order	9,443.11	C
10700000	ENG FEES FC	850.64	D
10700000	Work Order	7,431.75	C
10700000	TN Plywood	(21.95)	DV
10700000	Speedway N	14.74	DV
10700000	Jenkins Mill	1,326.79	DV
10700000	12TH ST MA	111.82	B
10700000	Mains-Unscl	32.31	C
10700000	Calhoun Ave	16.97	D
10700000	Mains-Unscl	(783,741.70)	C
10700000	Stockton Pla	423.80	DV
10700000	Stuart Heigh	4,735.75	B
10700000	Kinsey Drive	3,357.57	DV
10700000	2628 Broad	972.90	DV
10700000	3100 St Elm	7,857.90	DV
10700000	Hwy 27 6" N	848.25	A
10700000	Work Order	1,218.01	C
10700000	Molly Lane 1	98.95	DV
10700000	Lifecare Cen	100.00	DV
10700000	ENG FEES FC	533.34	D
10700000	Mack Smith	63.54	A
10700000	Whitwell- D	160.74	A
10700000	Obey Street	71.59	A
10700000	US27 BTN R	(975.78)	D
10700000	Hwy 27 6" N	9,450.00	A
10700000	The Ridges z	0.00	DV
10700000	Bridgeview I	0.00	DV
10700000	Obey Street	(18,520.25)	A
10700000	Fairy Trail M	(143,203.03)	B
10700000	Speedway N	441.86	DV
10700000	Molly Lane 1	7.93	DV
10700000	Mains-Unscl	(0.76)	C
10700000	Work Order	0.44	C
10700000	US27 BTN R	988.54	D
10700000	Molly Lane 1	109.63	DV
10700000	Molly Lane 1	108.64	DV
10700000	Dayton Blvd	218.96	B
10700000	Fairy Trail M	520.59	B
10700000	Work Order	170.47	C
10700000	3100 St Elm	5.12	DV
10700000	3100 St Elm	22.12	DV
10700000	Work Order	817.79	C
10700000	Work Order	(0.76)	C
10700000	Jenkins Mill	1.37	DV
10700000	Stuart Heigh	57.37	B
10700000	US27 BTN R	3.36	D
10700000	Jenkins Mill	23.50	DV
10700000	US27 BTN R	(1.75)	D
10700000	Work Order	138.69	C
10700000	Obey Street	1.01	A
10700000	Work Order	144.12	C
10700000	Obey Street	(0.38)	A
10700000	US27 BTN R	(27.54)	D

10700000	ENG FEES FC	110.86	D
10700000	Obey Street	187.33	A
10700000	Stuart Heigh	39.99	B
10700000	Signal View	2.64	B
10700000	Work Order	6,268.13	C
10700000	Mains-Unscl	(0.17)	C
10700000	3100 St Elm	8.75	DV
10700000	Molly Lane T	72.66	DV
10700000	Dayton Blvd	0.69	A
10700000	3100 St Elm	75.58	DV
10700000	ENG FEES FC	14.61	D
10700000	Obey Street	75.07	A
10700000	Work Order	(3.59)	C
10700000	Obey Street	(5.72)	A
10700000	Work Order	64.98	C
10700000	Work Order	3,831.99	C
10700000	Work Order	(476.28)	B
10700000	Whitwell / C	72.99	A
10700000	US27 BTN R	1,406.43	D
10700000	Mack Smith	70.58	A
10700000	Work Order	(4.89)	D
10700000	3100 St Elm	5,986.00	DV
10700000	Fairy Trail M	131,899.38	B
10700000	Signal View	3,712.93	B
10700000	Work Order	380.59	C
10700000	Dayton Blvd	13.29	B
10700000	Molly Lane T	25.75	DV
10700000	Obey Street	26.61	A
10700000	Mains-Unscl	(0.19)	C
10700000	Stuart Heigh	1,111.69	B
10700000	US27 BTN R	7,499.96	D
10700000	Signal View	(1,542.47)	B
10700000	Fairy Trail M	6,457.36	B
10700000	Mains - Uns	(150,137.38)	C
10700000	Unschedule	31,995.97	C
10700000	Stockton Pla	6,144.50	DV
10700000	Walnut St Fi	984.59	DV
10700000	Obey Street	7,060.65	A
10700000	Dayton Blvd	1,051.99	B
10700000	Baylor Scho	100.00	DV
10700000	Work Order	4,803.46	C
10700000	Jenkins Mill	315.00	DV
10700000	Whitwell / C	66.12	A
10700000	Dayton Blvd	2.23	A
10700000	Hamilton Av	2.98	A
10700000	Hamilton Av	2.99	A
10700000	ENG FEES FC	584.76	D
10700000	Mack Smith	63.93	A
10700000	Dayton Blvd	2,150.15	B
10700000	Centro St M	(1,894.62)	B
10700000	Fairy Trail M	(42,949.41)	B
10700000	Speedway R	(278.32)	DV
10700000	3100 St Elm	11.64	DV
10700000	US27 BTN R	131.99	D
10700000	US27 BTN R	(15.78)	D
10700000	Work Order	2,805.94	C
10700000	Fairy Trail M	(26.79)	B
10700000	ENG FEES FC	800.16	D
10700000	Obey Street	(102.95)	A
10700000	US27 BTN R	0.67	D
10700000	Stuart Heigh	45.09	B
10700000	Dayton Blvd	8.23	B
10700000	Dayton Blvd	0.31	A
10700000	US27 BTN R	45.06	D
10700000	3100 St Elm	4.11	DV
10700000	3100 St Elm	43.18	DV
10700000	Signal View	1.39	B
10700000	Work Order	3.36	C
10700000	Mains-Unscl	(0.52)	C
10700000	Dayton Blvd	1.71	A
10700000	Stuart Heigh	164.34	B
10700000	Work Order	5,066.89	C
10700000	Baylor Scho	14.89	DV
10700000	ENG FEES FC	124.21	D
10700000	ENG FEES FC	7.21	D
10700000	Work Order	(40.96)	C
10700000	Stuart Heigh	22.47	B
10700000	Stuart Heigh	65.85	B
10700000	Work Order	20.97	C
10700000	TN Plywood	(262.92)	DV

10700000	Obey Street	846.35	A
10700000	Work Order	66.21	C
10700000	Fairy Trail M	321.68	B
10700000	Mack Smith	70.15	A
10700000	Whitwell- D	176.40	A
10700000	Hamilton Av	3.29	A
10700000	Whitwell / C	792.00	A
10700000	Hwy 27 6" N	4,960.50	A
10700000	Work Order	5,361.10	C
10700000	12TH ST MA	1,240.27	B
10700000	3100 St Elm	26.79	DV
10700000	ENG FEES FC	5.18	D
10700000	Work Order	719.71	C
10700000	Obey Street	(2.03)	A
10700000	Whitwell / C	84.69	A
10700000	Dayton Blvd	2,029.20	B
10700000	Work Order	(4,760.55)	C
10700000	Dayton Blvd	90.78	A
10700000	Molly Lane T	170.97	DV
10700000	Fairy Trail M	16,607.14	B
10700000	CITY OF CHA	(515.56)	DV
10700000	Bridgeview I	14.05	DV
10700000	Work Order	(1,327.28)	B
10700000	Cameron Ha	257.10	DV
10700000	US27 BTN R	2,312.47	D
10700000	Speedway N	176.52	DV
10700000	CITY OF CHA	(628.65)	DV
10700000	Speedway N	278.35	DV
10700000	Obey Street	1,746.80	A
10700000	Work Order	33,627.93	C
10700000	Mains-Unscl	546.11	C
10700000	Hwy 27 6" N	0.31	A
10700000	Dayton Blvd	50.25	B
10700000	10TH AVE 5	0.30	B
10700000	Work Order	0.31	D
10700000	Work Order	(4.43)	D
10700000	CITY OF CHA	48.04	DV
10700000	Jenkins Mill	17,214.75	DV
10700000	Kinsey Drive	(21,793.78)	DV
10700000	Stuart Heigh	(4,735.75)	B
10700000	Hwy 27 6" N	(5,438.22)	A
10700000	Work Order	24,514.71	C
10700000	2628 Broad	0.00	DV
10700000	Obey Street	100.55	A
10700000	Work Order	28,604.97	C
10700000	Obey Street	1,352.04	A
10700000	US27 BTN R	159.64	D
10700000	Work Order	10,885.85	C
10700000	Stuart Heigh	16.23	B
10700000	ENG FEES FC	15.28	D
10700000	Mains-Unscl	1.48	C
10700000	Work Order	898.00	C
10700000	ENG FEES FC	19.14	D
10700000	Work Order	1,267.15	C
10700000	Fairy Trail M	(13.58)	B
10700000	3100 St Elm	3.46	DV
10700000	Molly Lane T	181.32	DV
10700000	Work Order	52.34	C
10700000	US27 BTN R	311.95	D
10700000	3100 St Elm	259.80	DV
10700000	Work Order	96.26	C
10700000	Jenkins Mill	36.50	DV
10700000	US27 BTN R	(11.04)	D
10700000	Baylor Scho	5.22	DV
10700000	Whitwell / C	222.31	A
10700000	3100 St Elm	8,238.21	DV
10700000	Dayton Blvd	30,783.61	B
10700000	Dayton Blvd	0.33	B
10700000	ENG FEES FC	588.81	D
10700000	Whitwell- D	177.46	A
10700000	Obey Street	79.03	A
10700000	Work Order	619.49	C
10700000	Stuart Heigh	24.56	B
10700000	Molly Lane T	79.47	DV
10700000	ENG FEES FC	48.59	D
10700000	Work Order	(3.93)	C
10700000	Jenkins Mill	25.37	DV
10700000	Mains-Unscl	(0.60)	C
10700000	Dayton Blvd	0.24	A
10700000	Jenkins Mill	8.22	DV

10700000	US27 BTN R	427.82	D
10700000	Molly Lane T	23.26	DV
10700000	3100 St Elm	2,024.53	DV
10700000	Mains-Unscl	5.08	C
10700000	Fairy Trail M	(5,905.79)	B
10700000	Work Order	(6.50)	D
10700000	Work Order	(148.91)	C
10700000	Calhoun Ave	(4.14)	D
10700000	Work Order	(93.81)	C
10700000	ENG FEES FC	17,611.10	D
10700000	Fairy Trail M	56,528.31	B
10700000	Fairy Trail M	18,596.06	B
10700000	Work Order	2,094.29	C
10700000	Stuart Heigh	96.81	B
10700000	US27 BTN R	2,381.92	D
10700000	CITY OF CHA	(74.44)	DV
10700000	Obey Street	57.07	A
10700000	Obey Street	21,548.80	A
10700000	2628 Broad	(972.90)	DV
10700000	Kinsey Drive	2,762.53	DV
10700000	ENG FEES FC	(11,802.80)	D
10700000	Work Order	24.34	C
10700000	Stuart Heigh	404.67	B
10700000	US27 BTN R	(358.45)	D
10700000	3100 St Elm	1,361.36	DV
10700000	Mains-Unscl	40.34	C
10700000	Work Order	(235.14)	C
10700000	Jenkins Mill	417.85	DV
10700000	Mains-Unscl	(9.88)	C
10700000	Baylor Scho	1.41	DV
10700000	Molly Lane T	19.18	DV
10700000	Obey Street	39.11	A
10700000	ENG FEES FC	26.66	D
10700000	Molly Lane T	7.60	DV
10700000	Fairy Trail M	12.33	B
10700000	Stuart Heigh	56.07	B
10700000	ENG FEES FC	36.45	D
10700000	Work Order	(8.96)	C
10700000	Jenkins Mill	7.62	DV
10700000	Fairy Trail M	312.95	B
10700000	Work Order	5,545.23	C
10700000	3100 St Elm	29.38	DV
10700000	Molly Lane T	203.58	DV
10700000	Work Order	6,933.05	C
10700000	Jenkins Mill	14.38	DV
10700000	US27 BTN R	99.24	D
10700000	Jenkins Mill	3.05	DV
10700000	Work Order	2,030.41	C
10700000	Signal View	1.47	B
10700000	The Ridges a	(82.05)	DV
10700000	Dayton Blvd	1,417.86	A
10700000	Hwy 27 6" N	679.47	A
10700000	Kinsey Drive	(3,861.33)	DV
10700000	Work Order	84.60	C
10700000	Pan Gap Fir	9.49	DV
10700000	ENG FEES FC	645.58	D
10700000	Obey Street	63.01	A
10700000	Work Order	196.65	C
10700000	Dayton Blvd	0.75	A
10700000	ENG FEES FC	15.97	D
10700000	Work Order	2,430.22	C
10700000	Jenkins Mill	1.08	DV
10700000	Signal View	0.52	B
10700000	Fairy Trail M	(6.46)	B
10700000	US27 BTN R	(5,657.45)	D
10700000	Whitwell / C	(666.63)	A
10700000	Lifecare Cen	8.35	DV
10700000	Hwy 27 6" N	541.77	A
10700000	Work Order	(78.73)	B
10700000	Speedway N	23.24	DV
10700000	Signal View	4,920.79	B
10700000	Fairy Trail M	15,637.62	B
10700000	Work Order	23,334.64	C
10700000	Whitwell / C	129.87	A
10700000	US27 BTN R	1,273.93	D
10700000	Fairy Trail M	424.65	B
10700000	Walnut St Fi	861.52	DV
10700000	Stockton Pla	(20,233.75)	DV
10700000	3100 St Elm	29,361.01	DV
10700000	ENG FEES FC	2,388.90	D

10700000	Calhoun Ave	(1,016.25)	D
10700000	Stuart Heigh	30.38	B
10700000	Molly Lane 1	105.48	DV
10700000	3100 St Elm	100.18	DV
10700000	ENG FEES FC	18.95	D
10700000	Jenkins Mill	4.00	DV
10700000	Baylor Scho	94.01	DV
10700000	Fairy Trail M	(328.39)	B
10700000	Work Order	7,965.90	C
10700000	Molly Lane 1	1,200.07	DV
10700000	Work Order	1,129.98	C
10700000	ENG FEES FC	18.46	D
10700000	Signal View	1.06	B
10700000	Fairy Trail M	101.62	B
10700000	Work Order	1,215.66	C
10700000	Fairy Trail M	(5.09)	B
10700000	3100 St Elm	21.84	DV
10700000	Obey Street	(14.26)	A
10700000	Molly Lane 1	29.24	DV
10700000	Dayton Blvd	3.28	A
10700000	Molly Lane 1	6.09	DV
10700000	Dayton Blvd	12.16	B
10700000	Mains-Unscl	(0.55)	C
10700000	Pan Gap Fire	(1,344.51)	DV
10700000	Work Order	(2,074.31)	C
10700000	Fairy Trail M	2,206.86	B
10700000	Work Order	(64.98)	C
10700000	Work Order	64.98	C
10700000	US27 BTN R	2,629.67	D
10700000	Signal View	289.56	B
10700000	CITY OF CHA	(82.18)	DV

**TENNESSEE AMERICAN WATER COMPANY
DOCKET NO. 16-00126
FIRST DISCOVERY REQUEST OF THE
CONSUMER PROTECTION AND ADVOCATE DIVISION**

Responsible Person: Linda C. Bridwell

Question:

5. Refer to the "TAW_APP_SCH1_2017" spreadsheet included with the Company's filing. Specifically refer to the "WKP 2016 In-Serviced SCEP Proof" tab of this spreadsheet. Finally, refer to Cells S19..U19 which are titled as the November and December 2015 spending amounts for Business Unit A.
 - a. Please provide the source and support for these hard-coded numbers.
 - b. Refer to Attachment 1 to this data request which is a pivot table summary of the 2015 actual spending amounts for all Business Units that were included by the Company in the "WKP 2015 PIVOT ACTUALS" tab to its workpapers in the 2016 Capital Rider Reconciliation in Docket 16-00022 and note that these actual amounts do not tie to the Company's current filing here for November and December in Business Unit A. If the Company believes that its current filing was compiled in error, then please provide an updated filing calculation. If the Company believes that its current filing was not compiled in error, then please provide a complete explanation as to why.

Response:

- a. Please refer to attachment to the response to Item 4 of this same discovery request. The source of the numbers is the Company's accounting records. The attachment provides the detail related to the actual construction expenditure amounts in November and December 2015. The attachment reflects the amount incurred in Construction Work in Progress (CWIP) for project lines DV, A, B, C, & D for the specified periods. These construction expenditure amounts are utilized with the placed in-service factor in column O to calculate the estimated plant additions in January and February of 2016.
- b. As explained further below, the filing was not compiled in error. Attachment 1 provided by the CPAD refers to the actual construction expenditures that were placed in-serviced in 2015, only for the Business Unit lines that were determined as eligible for one of the three Capital Recovery Riders. If the Business Unit line was not eligible, the WKP 2015 PIVOT ACTUALS" tab did not reflect any in-serviced amount. The amounts for November and December 2015 construction amounts should differ from the amount of construction expenditures that were

placed in-service in any given month, as projects frequently will extend multiple months. For additional information, please also refer to TAWC's response to Item 8 of the CPAD's First Discovery Request in Docket No. 15-00111 and TAWC's response to Item 8 of the CPAD's Second Discovery Request in Docket No. 15-00111.

**TENNESSEE AMERICAN WATER COMPANY
DOCKET NO. 16-00126
FIRST DISCOVERY REQUEST OF THE
CONSUMER PROTECTION AND ADVOCATE DIVISION**

Responsible Person: Linda C. Bridwell

Question:

6. Refer to the "TAW_APP_SCH1_2017" spreadsheet included with the Company's filing. Specifically refer to the "WKP 2016 In-Serviced SCEP Proof" tab of this spreadsheet. Finally, refer to Cells S23..U25 which are titled as the November and December 2015 spending amounts for Business Unit B.
 - a. Please provide the source and support for these hard-coded numbers.
 - b. Refer to Attachment 1 to this data request which is a pivot table summary of the 2015 actual spending amounts for all Business Units that were included by the Company in the "WKP 2015 PIVOT ACTUALS" tab to its workpapers in the 2016 Capital Rider Reconciliation in Docket 16- 00022 and note that these actual amounts do not tie to the Company's current filing here for November and December in Business Unit B. If the Company believes that its current filing was compiled in error, then please provide an updated filing calculation. If the Company believes that its current filing was not compiled in error, then please provide a complete explanation as to why.

Response:

- a. Please refer to attachment to the response to Item 4 of this same discovery request. The source of the numbers is the Company's accounting records. The attachment provides the detail related to the actual construction expenditure amounts in November and December 2015. The attachment reflects the amount incurred in Construction Work in Progress (CWIP) for project lines DV, A, B, C, & D for the specified periods. These construction expenditure amounts are utilized with the placed in-service factor in column O to calculate the estimated plant additions in January and February of 2016.
- b. As explained further below, the filing was not compiled in error. Attachment 1 provided by the CPAD refers to the actual construction expenditures that were placed in-serviced in 2015, only for the Business Unit lines that were determined as eligible for one of the three Capital Recovery Riders. If the Business Unit line was not eligible, the WKP 2015 PIVOT ACTUALS" tab did not reflect any in-serviced amount. The amounts for November and December 2015 construction amounts should differ from the amount of construction expenditures that were placed in-service in any given month, as projects frequently will extend multiple

months. For additional information, please also refer to TAWC's response to Item 8 of the CPAD's First Discovery Request in Docket No. 15-00111 and TAWC's response to Item 8 of the CPAD's Second Discovery Request in Docket No. 15-00111.

**TENNESSEE AMERICAN WATER COMPANY
DOCKET NO. 16-00126
FIRST DISCOVERY REQUEST OF THE
CONSUMER PROTECTION AND ADVOCATE DIVISION**

Responsible Person: Linda C. Bridwell

Question:

7. Refer to the "TAW_APP_SCH1_2017" spreadsheet included with the Company's filing. Specifically refer to the "WKP 2016 In-Serviced SCEP Proof" tab of this spreadsheet. Finally, refer to Cells S27..U27 which are titled as the November and December 2015 spending amounts for Business Unit C.
 - a. Please provide the source and support for these hard-coded numbers.
 - b. Refer to Attachment 1 to this data request which is a pivot table summary of the 2015 actual spending amounts for all Business Units that were included by the Company in the "WKP 2015 PIVOT ACTUALS" tab to its workpapers in the 2016 Capital Rider Reconciliation in Docket 16-00022 and note that these actual amounts do not tie to the Company's current filing here for November and December in Business Unit C. If the Company believes that its current filing was compiled in error, then please provide an updated filing calculation. If the Company believes that its current filing was not compiled in error, then please provide a complete explanation as to why.

Response:

- a. Please refer to attachment to the response to Item 4 of this same discovery request. The source of the numbers is the Company's accounting records. The attachment provides the detail related to the actual construction expenditure amounts in November and December 2015. The attachment reflects the amount incurred in Construction Work in Progress (CWIP) for project lines DV, A, B, C, & D for the specified periods. These construction expenditure amounts are utilized with the placed in-service factor in column O to calculate the estimated plant additions in January and February of 2016.
- b. As explained further below, the filing was not compiled in error. Attachment 1 provided by the CPAD refers to the actual construction expenditures that were placed in-serviced in 2015, only for the Business Unit lines that were determined as eligible for one of the three Capital Recovery Riders. If the Business Unit line was not eligible, the WKP 2015 PIVOT ACTUALS" tab did not reflect any in-serviced amount. The amounts for November and December 2015 construction amounts should differ from the amount of construction expenditures that were

placed in-service in any given month, as projects frequently will extend multiple months. For additional information, please also refer to TAWC's response to Item 8 of the CPAD's First Discovery Request in Docket No. 15-00111 and TAWC's response to Item 8 of the CPAD's Second Discovery Request in Docket No. 15-00111.

**TENNESSEE AMERICAN WATER COMPANY
DOCKET NO. 16-00126
FIRST DISCOVERY REQUEST OF THE
CONSUMER PROTECTION AND ADVOCATE DIVISION**

Responsible Person: Linda C. Bridwell

Question:

8. Refer to the "TAW_APP_SCH1_2017" spreadsheet included with the Company's filing. Specifically refer to the "WKP 2016 In-Serviced SCEP Proof" tab of this spreadsheet. Finally, refer to Cells S29..U31 which are titled as the November and December 2015 spending amounts for Business Unit D.
 - a. Please provide the source and support for these hard-coded numbers.
 - b. Refer to Attachment 1 to this data request which is a pivot table summary of the 2015 actual spending amounts for all Business Units that were included by the Company in the "WKP 2015 PIVOT ACTUALS" tab to its workpapers in the 2016 Capital Rider Reconciliation in Docket 16- 00022 and note that these actual amounts do not tie to the Company's current filing here for November and December in Business Unit D. If the Company believes that its current filing was compiled in error, then please provide an updated filing calculation. If the Company believes that its current filing was not compiled in error, then please provide a complete explanation as to why.

Response:

- a. Please refer to attachment to the response to Item 4 of this same discovery request. The source of the numbers is the Company's accounting records. The attachment provides the detail related to the actual construction expenditure amounts in November and December 2015. The attachment reflects the amount incurred in Construction Work in Progress (CWIP) for project lines DV, A, B, C, & D for the specified periods. These construction expenditure amounts are utilized with the placed in-service factor in column O to calculate the estimated plant additions in January and February of 2016.
- b. As explained further below, the filing was not compiled in error. Attachment 1 provided by the CPAD refers to the actual construction expenditures that were placed in-serviced in 2015, only for the Business Unit lines that were determined as eligible for one of the three Capital Recovery Riders. If the Business Unit line was not eligible, the WKP 2015 PIVOT ACTUALS" tab did not reflect any in-serviced amount. The amounts for November and December 2015 construction amounts should differ from the amount of construction expenditures that were placed in-service in any given month, as projects frequently will extend multiple

months. For additional information, please also refer to TAWC's response to Item 8 of the CPAD's First Discovery Request in Docket No. 15-00111 and TAWC's response to Item 8 of the CPAD's Second Discovery Request in Docket No. 15-00111.

**TENNESSEE AMERICAN WATER COMPANY
DOCKET NO. 16-00126
FIRST DISCOVERY REQUEST OF THE
CONSUMER PROTECTION AND ADVOCATE DIVISION**

Responsible Person: Linda C. Bridwell

Question:

9. Refer to the "TAW_APP_SCH1_2017" spreadsheet included with the Company's filing. Specifically refer to the "WKP 2016 In-Serviced SCEP Proof" tab of this spreadsheet. Finally, refer to Cell U110 which is labeled as "inception to date spend" and answer the following:
- a. What is the Company's rationale for adjusting the 2016 budget data for this item?
 - b. Was this \$1.6 million actually spent or does it just represent budget dollars that were originally placed in the "2015 SCEP" and never spent?
 - c. If this \$1.6 million in budget dollars were included in the "2015 SCEP" and never spent, then provide the details for the other projects that they were diverted to?
 - d. If this \$1.6 million in budget dollars were included in the "2015 SCEP" and never spent, then explain why the Company now anticipates that they will be spent in 2017?

Response:

- a. Tennessee American Water Company did not adjust the 2016 budget data for this item. Cell U110 is merely adding the amount budgeted in 2015 with the amount budgeted in 2016. This project timeline spanned multiple years with a forecasted in-service date of 06/01/2016. The cumulative project costs were forecasted to be placed in-service and become plant additions in June 2016.
- b. It represents dollars budgeted in 2015 for this project which were forecasted to be spent through 12/31/2015. Those capital expenditures carried forward for the project balance into 2016.
- c. The budget dollars were spent on this project. Please refer to the response to part b above.
- d. N/A. The project was placed in service during 2016, with capital expenditures from before 2016. In order to calculate the 2017 Capital Recovery Rider' revenue

requirement, Tennessee American rolls forward those plant additions from 2016 reflected in Docket #15-00111, as well as prior years. This is reflected in Row 110 of the tab "WKP 2017 In-Serviced SCEP".

**TENNESSEE AMERICAN WATER COMPANY
DOCKET NO. 16-00126
FIRST DISCOVERY REQUEST OF THE
CONSUMER PROTECTION AND ADVOCATE DIVISION**

Responsible Person: Linda C. Bridwell

Question:

10. Refer to the "TAW_APP_SCH1_2017" spreadsheet included with the Company's filing. Specifically refer to the "WKP 2016 In-Serviced SCEP Proof" tab of this spreadsheet. Finally, refer to Cells W113 and W117 that make an adjustment of \$300,000 to transfer funds between Project I26-020038 and I26-020032. Provide the source, support and rationale for this budget change. In addition, provide the section in the Company's testimony where this change was discussed.

Response:

Please refer to the Supplemental Testimony provided by Ms. Linda Bridwell in this Docket on December 5, 2016.

**TENNESSEE AMERICAN WATER COMPANY
DOCKET NO. 16-00126
FIRST DISCOVERY REQUEST OF THE
CONSUMER PROTECTION AND ADVOCATE DIVISION**

Responsible Person: Linda C. Bridwell

Question:

11. Refer to the "TAW_APP_SCH1_2017" spreadsheet included with the Company's filing. Specifically refer to the "WKP 2016 In-Serviced SCEP Proof" tab of this spreadsheet. Finally, refer to Cell M77 which allocates 57.6% of estimated budget dollars in Business Unit Q to Account 320100. In previous filings, this allocation was made to Account 320200. Please provide the source, support and rationale for this change. If the Company believes that its current filing was compiled in error, then please provide an updated filing calculation. If the Company believes that its current filing was not compiled in error, then please provide a complete explanation as to why.

Response:

As explained further below, the filing was not compiled in error. In Docket No. 15-00111, Tennessee American responded to Item 14 of the CPAD's Second Discovery Request Account with regard to the rationale for utilizing the different account. Tennessee American realized in preparing the filing for the previous docket, that the Business Unit Q account 320100 reflects the routinely unitized property units from the budgeted dollars spent on line Business Unit Q. Account 320100 is assigned a depreciation rate of 1.09% which conservatively estimates the recovery period for these type of assets that is simply the cost allocation over the economic life in proportion to the consumption of service potential. This, in turn, reduces the revenue requirement related to Business Unit Q to a proper level while the customers receive the benefit of safety and reliability component from these timely capital investments. Tennessee American does not consider this a change in methodology, since it had been discussed in Docket No. 15-00111. There is no additional source or support for this aside from the discussion in the Docket No. 15-00111.

**TENNESSEE AMERICAN WATER COMPANY
DOCKET NO. 16-00126
FIRST DISCOVERY REQUEST OF THE
CONSUMER PROTECTION AND ADVOCATE DIVISION**

Responsible Person: Linda C. Bridwell

Question:

12. Refer to the "TAW_APP_SCH1_2017" spreadsheet included with the Company's filing. Specifically refer to the "WKP 2017 In-Serviced SCEP Proof" tab of this spreadsheet. Finally, refer to Cell BA116 which contains the Company's average plant in service calculation of \$153,978 for Investment Project I26-020034. The Company's calculation appears to only be based on the projected cumulative plant in service balance at December 31, 2017 rather than an average of the individual cumulative monthly balances during 2017 as shown on Cells I43..R43 of the "EXH 2017 SCEP" tab of this same spreadsheet. If the Company believes that its current filing was compiled in error, then please provide an updated filing calculation. If the Company believes that its current filing was not compiled in error, then please provide a complete explanation as to why and provide the citation where this change in calculation methodology was discussed in the Company's testimony.

Response:

As explained further below, the filing was not compiled in error. The "EXH 2017 SCEP" tab are monthly construction expenditure amounts that are forecasted for 2017. However, the Capital Recovery Riders program is based on the plant additions that are placed in-service, or included in Utility Plant In Service (UPIS). Until the capital expenditures are placed in-service, the balance is held in the Construction Work In Progress account, which is not included in the Capital Recovery Riders surcharge. The "WKP 2017 In-Serviced" tab translates those monthly capital expenditure amounts into cumulative plant addition amounts (UPIS). For large Investment Projects, the cumulative plant addition monthly amount will be reflected as a zero until the project is placed in-service in its entirety, and then the average will be taken to reflect the 13-month average of the plant addition, or UPIS amount. Project I26-020034 has a cumulative project amount of 2,001,711 with a projected in-service date of 11/30/2017 meaning it essentially is only included as a plant addition for December. $(\$2,001,711)/(13 \text{ months}) = \$153,978$. This is the same calculation methodology that has been used in each Capital Recovery Riders surcharge filing since its inception in Docket No. 13-00130 as discussed in Linda Bridwell's testimony in each filing, and not a change. The 13-month average was utilized for forecasted capital additions in Docket Nos. 14-00121, 15-00111 and 16-00126, rather than a 12-month average for the plant additions that was used in Docket No. 13-00130. This was the subject of discussion in Docket No. 16-00022 in Ms. Bridwell's Supplemental Rebuttal testimony, and Tennessee American does not consider this a

change, although it was discussed on page Ms. Bridwell's direct testimony in this case, beginning at page 16, line 12.

**TENNESSEE AMERICAN WATER COMPANY
DOCKET NO. 16-00126
FIRST DISCOVERY REQUEST OF THE
CONSUMER PROTECTION AND ADVOCATE DIVISION**

Responsible Person: Brent E. O'Neill

Question:

13. Refer to the "TAW_APP_SCH1_2017" spreadsheet included with the Company's filing. Specifically refer to the "WKP 2017 In-Serviced SCEP Proof" tab of this spreadsheet. Finally, refer to Cell AY110 which contains the "QIIP" surcharge classification for Investment Project I26-020038. In previous filings, this investment project was classified as "SEC". If the Company believes that its current filing was compiled in error, then please provide an updated filing calculation. If the Company believes that its current filing was not compiled in error, then please provide a complete explanation as to why and provide the citation where this change in calculation methodology was discussed in the Company's testimony.

Response:

As explained further below, the filing was not compiled in error. Cell AY110 on WKP 2017 In-Serviced SCEP Proof in TAW_APP_SCH1_2017 is classifying Investment Project I26-020028, which is the Citico Plant Improvements Phase 1B and not Investment Project I26-020038, which is the Retire Basin 1 and is referenced in this CPAD 01-013 question above. In Docket No. 15-00111 and Docket No. 14-00121, Investment Project I26-020038, Retire Basin 1, was included in SEC and is included in the SEC Rider in this filing. Investment Project I26-020028, the Citico Plant Improvement Phase 1B is included in QIIP in this filing and was included in the QIIP in Docket No. 15-00111. In Docket No. 14-00121, the project was classified as SEC eligible on the WKP 2015 In-Service SCEP tab, but because it was not to be in-service during 2015 it was not part of the overall Capital Recovery Riders additions in Docket No. 14-00121. Once closer to initiation of the project, Tennessee American decided that it would be more appropriately classified under the QIIP Capital Recovery Riders. Tennessee American explained the reclassification of this project in response to Item 20 of the CPAD's First Discovery Request in Docket No. 15-00111. Because this change in classification of project I26-020028 was included and explained in the previous Docket No. 15-00111, Tennessee American did not consider it a change in the calculation methodology in this filing and therefore did not include it in the Company's testimony.

**TENNESSEE AMERICAN WATER COMPANY
DOCKET NO. 16-00126
FIRST DISCOVERY REQUEST OF THE
CONSUMER PROTECTION AND ADVOCATE DIVISION**

Responsible Person: Linda C. Bridwell

Question:

14. Please identify each person who you expect to call as an expert witness at the hearing on the merits in this docket, and for each such expert witness:
- (a) Identify the field in which the witness is to be offered as an expert;
 - (b) Provide complete background information, including the witness's current employer, as well as his or her educational, professional and employment history, and qualifications within the field in which the witness is expected to testify;
 - (c) Identify all publications written or presentations presented in whole or in part by the witness, including either a copy of all such publications and presentations or a reference to where such publications and presentations may be publicly obtained;
 - (d) Provide the grounds for the opinions to which the witness is expected to testify, and provide a summary of the grounds for each such opinion;
 - (e) Identify any matter in which the expert has testified (through deposition or otherwise) by specifying the name, docket number and forum of each case, the dates of the prior testimony and the subject of the prior testimony, and identify the transcripts of any such testimony;
 - (f) Identify the terms of the retention or engagement of each expert including but not limited to the terms of any retention or engagement letters or agreements relating to his/her engagement, testimony, and opinions as well as the compensation to be paid for the testimony and opinions;
 - (g) Identify any exhibits to be used as a summary of or support for the testimony or opinions provided by the expert; and
 - (h) Please produce copies of all documents, summaries, charts, trade articles, journals, treatises, publications, workpapers, file notes, chart notes, tests, test results, interview notes, and consultation notes provided to, reviewed by, utilized by, relied upon, created by, or produced by any proposed expert witness in evaluating, reaching conclusions or formulating an opinion in this matter.

Response:

This Response will be supplemented at a later date, if appropriate, in accordance with the Tennessee Rules of Civil Procedure and any Scheduling Order. However, at this time, TAWC does not expect to call any witnesses at the hearing not already identified and refers the CPAD to the Pre-filed Testimony of Linda C. Bridwell and Brent E. O'Neil, the Petition, and all supporting documentation, including responses to discovery, data requests, and the record in TRA Docket No. 13-00130. TAWC also refers to and incorporates herein its responses to Request Nos. 16, 17, and 18.

**TENNESSEE AMERICAN WATER COMPANY
DOCKET NO. 16-00126
FIRST DISCOVERY REQUEST OF THE
CONSUMER PROTECTION AND ADVOCATE DIVISION**

Responsible Person: Linda C. Bridwell

Question:

15. Please identify all persons having knowledge of discoverable matters in this case.

Response:

The following persons have some knowledge of discoverable matters in this case: Linda C. Bridwell and Brent E. O'Neill. In addition to the Pre-filed Testimony in this matter, TAWC will identify responsible persons for each discovery request in this matter on an ongoing basis, if appropriate.

**TENNESSEE AMERICAN WATER COMPANY
DOCKET NO. 16-00126
FIRST DISCOVERY REQUEST OF THE
CONSUMER PROTECTION AND ADVOCATE DIVISION**

Responsible Person: Linda C. Bridwell

Question:

16. Please produce copies of all documents referred to or relied upon in responding to these discovery requests.

Response:

Any documents relied upon in responding to these discovery requests have been included as attachments to specific requests. TAWC also refers the CPAD to all documents filed previously in this matter, including the Pre-filed Testimony of Linda C. Bridwell and Brent E. O'Neil, the Petition, and all supporting documentation, responses to discovery and data requests, and the record in TRA Docket No. 13-00130, Docket No. 14-00121, and Docket No. 15-00111. TAWC reserves the right to supplement this response as information becomes available during the course of discovery, document review and investigation.

**TENNESSEE AMERICAN WATER COMPANY
DOCKET NO. 16-00126
FIRST DISCOVERY REQUEST OF THE
CONSUMER PROTECTION AND ADVOCATE DIVISION**

Responsible Person: Linda C. Bridwell

Question:

17. Please produce copies of all hearing exhibits that you plan to introduce, use, or reference at the hearing on the merits in this docket.

Response:

TAWC refers the CPAD to all documents filed previously in this matter, and it anticipates that all documents submitted in this matter will be introduced into evidence. TAWC also refers the CPAD to all documents filed in this matter subsequent to the issuance of these responses, including, but not limited to, future responses to discovery requests and/or TRA data requests. TAWC reserves the right to supplement this response as information becomes available during the course of discovery, document review and investigation.

**TENNESSEE AMERICAN WATER COMPANY
DOCKET NO. 16-00126
FIRST DISCOVERY REQUEST OF THE
CONSUMER PROTECTION AND ADVOCATE DIVISION**

Responsible Person: Linda C. Bridwell

Question:

18. Please produce copies of all documents -- including, without limitation, work papers, spreadsheets, summaries, charts, notes, exhibits, articles, journals, treatises, periodicals, publications, reports, records, statements, Internet web pages, or financial information - - relied upon by any of your witnesses in evaluating, reaching conclusions, or formulating an opinion in this matter.

Response:

TAWC refers the CPAD to the following previously filed documents in this matter: TAWC's Petition and supporting documentation, including, but not limited to: the Pre-Filed Testimony of Linda C. Bridwell, work papers, spreadsheets and exhibits. TAWC also refers and incorporates herein its objections and responses to Request Nos. 3, 4, 5, 6, 7, 8, 10, 11, and 17 as well as the record in TRA Docket No. 13-00130, Docket No. 14-00121, and Docket No. 15-00111. TAWC reserves the right to supplement this response as information becomes available during the course of discovery, document review and investigation.

**TENNESSEE AMERICAN WATER COMPANY
DOCKET NO. 16-00126
FIRST DISCOVERY REQUEST OF THE
CONSUMER PROTECTION AND ADVOCATE DIVISION**

Responsible Person: Linda C. Bridwell

Question:

19. Identify all information, documents and things filed in the present docket record, including all responses to discovery of the parties and data request from the TRA Staff, which TAWC produced in this docket and does not agree to stipulate to the authenticity of such information, documents and things in this proceeding. For each separate piece of information, documents and things which TAWC produced in this docket and TAWC contends is not admissible as evidence describe in specific detail any objection(s) TAWC claims as to admissibility into the evidentiary record in this docket.

Response:

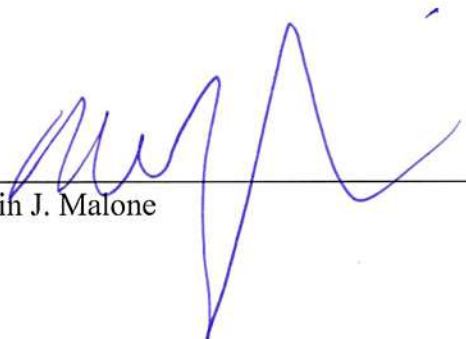
At this time, only with respect to such information submitted by TAWC, TAWC has no intention of challenging the authenticity or admissibility of such information. TAWC also has no objection to the submission into evidence of such information submitted by TAWC. It is customary for the agency to move all discovery into evidence. TAWC reserves the right to supplement this response as information becomes available during the course of discovery, document review and investigation.

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 Wittaker, Esq.
Assistant Attorney General
Office of the Tennessee Attorney General
Consumer Protection and Advocate Division
P.O. Box 20207
Nashville, Tennessee 37202-0207

This the 20th day of December, 2016.



Melvin J. Malone