

CASE NO. 2020-00160
WATER SERVICE CORPORATION OF KENTUCKY
RESPONSES TO COMMISSION STAFF'S THIRD REQUEST FOR INFORMATION

1. Refer to Water Service Kentucky's response to the Commission Staff's Second Request for Information (Staff's Second Request), Item 10, and the final Order in Case No. 2008-005632.
 - a. Confirm that Utilities, Inc. (Utilities) placed the J.D. Edwards financial software system (J.D. Edwards) into operation on December 3, 2007.
 - b. Confirm that Utilities placed the Oracle Customer Care and Billing System (Oracle) into operation on June 2, 2008.
 - c. Provide the book depreciation life Utilities used for its J.D. Edwards software investment and the date that the investment in the J.D. Edwards software was fully depreciated.
 - d. Provide the book depreciation life Utilities used for its Oracle Software investment and the date that the investment in the Oracle software was fully depreciated.

RESPONSE:

- a. Confirmed.
- b. Confirmed.
- c. The depreciation life for the J.D. Edwards software was 96 months the asset was fully depreciated as of December 2015
- d. The depreciation life for the CC&B Software was 96 months the asset was fully depreciated as of June 2016.

WITNESS: Perry Brown, Senior Financial Analyst

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2. Refer to Water Service Kentucky's response to the Staff's Second Request, Item 11. Water Service Kentucky explains that the corporate services currently being provided by Corix Infrastructure Inc. (Corix) were provided by a number of entities, including parent corporations and, at certain times, employees of Water Service Corporation. For each individual service being provided to Water Service Kentucky by Corix: (1) identify the entity that provided that specific service to Water Service Kentucky prior to Corix providing that service; and (2) include a comparative schedule of the costs incurred by Water Service Kentucky prior to Corix providing those services to the current costs currently being allocated to Water Service Kentucky.

RESPONSE:

A complete response to this question is not possible, as it would require significant time and research regarding historical ownership of Corix Regulated Utilities (US) Inc. (formerly known as Utilities, Inc.). It is overly burdensome, difficult and time consuming to assess services provided when Utilities, Inc. was owned by a foreign publicly traded company and then by an investment fund managed by AIG (e.g., Hydrostar). Executive management, strategic direction, and financial services were provided by parent corporations as strategic directly and financial consolidation services were necessary for the operations of Corix Regulated Utilities (US) Inc. In 2019, centralized HSE services were provided by two entities: Corix Infrastructure Inc. (see response to AG 2-1 for a simplified legal organization chart) and Corix Infrastructure Services (US) Inc. The Director of HSE was an employee of Water Service Corporation but became an employee of Corix Infrastructure Services (US) Inc. in January 2015. Please see the prepared

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testimony of Mr. Baryenbruch and Mr. Elicegui for an explanation of the support services provided by Corix and a justification of the costs associated with such services.

WITNESS:

Shawn Elicegui

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3. Refer to Water Service Kentucky's response to the Staff's Second Request, Item 20. Explain if the Cost Allocation Manual (CAM) provided in this response is on file with this Commission. If the CAM is not on file with the Commission, provide a detailed explanation as to why.

RESPONSE:

The CAM manual provided in response to Staff's Second Request, Item 20 is provided within this docket since this is the first rate case that WSCK is seeking to recover CAM costs.

WITNESS:

Rob Guttormsen

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4. Refer to Water Service Kentucky's response to the Staff's Second Request, Item 26.c. Identify each acquisition project listed on the schedule that occurred in Kentucky. For each successful project that occurred in Kentucky explain if Commission authorization of the acquisition was obtained and quantify the benefit that was derived by the customers of Water Service Kentucky from the acquisition.

RESPONSE:

None of the acquisitions included in the attachment provided in response to Staff's Second Request, Item 26.c were in Kentucky.

WITNESS:

Rob Guttormsen

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5. Refer to Water Service Kentucky's response to the Staff's Second Request, Item 27.

a. If the major construction projects identified in Water Service Kentucky's response were completed without the involvement of either Water Service Corporation's Director of Engineering & Asset Management or Midwest Project Manager, explain why these two positions are required for future construction projects.

b. Quantify the benefits that the Director of Engineering & Asset Management or Midwest Project Manager will provide to the customers of Water Service Kentucky.

RESPONSE:

- a. The Director of Engineering & Asset Management is responsible for all water and wastewater utility construction projects from initial contract negotiations through warranty termination while leading the development and implementation of the asset management plan and capital investment plan. The Director will direct and manage the following activities regarding capital planning and asset management:
 - i. Identify, manage and select consulting engineering services and construction inspectors.
 - ii. Obtain engineering proposals, monitor project budgets, construction activities and coordinate timing with operations.
 - iii. Ensure the success of projects, while remaining in-line with time and budget parameters.

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- iv. Develop and present business cases to support projects utilizing the information from various sources including the input from Operations, Regulatory and Finance.
- v. Lead the development and implementation of the capital plan, including the development of the justification and scope for each project and managing tasks from planning and modeling through final commissioning.
 - a. The Director of Engineering & Asset Management is responsible for all water and wastewater utility construction projects from initial contract negotiations through warranty termination while leading the development and implementation of the asset management plan and capital investment plan. The Director of Engineering & Asset Management manages the following activities regarding capital planning and asset management:
 - a. Identify, manage and select consulting engineering services and construction inspectors;
 - b. Obtain engineering proposals, monitor project budgets, construction activities and coordinate timing with operations;
 - c. Ensure the success of projects, while remaining in-line with time and budget parameters;
 - d. Develop and present business cases to support projects utilizing the information from various sources including the input from Operations, Regulatory and Finance;
 - e. Lead the development and implementation of the capital plan, including the development of the justification and scope for each project and managing tasks from planning and modeling through final commissioning;
 - f. Evaluate the operation of the treatment, distribution and collection systems to provide a high level of efficiency. Seek methods to increase operational efficiencies. Educate and instruct operation staff on the strategies to implement to enhance efficiency.

Without a Director or Manager these tasks would either not be performed or would fall on a local operator, and the Company would rather have the operators

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focus on maintaining and running the water and wastewater systems, and maintaining compliance.

The Director of Engineering & Asset Management position is instrumental to ensuring optimal project planning, compliance, and overall asset management which directly benefits WSCK. The Director of Engineering & Asset Management position has been filled and is actively employed with the Company.

WITNESS:

Steve M. Lubertozi

Steve Lubertozi

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6. Refer to Water Service Kentucky's response to the Staff's Second Request, Item 29. In Case No. 2010-00476 the Commission found that the salary analysis presented by Water Service Kentucky lacked the following: a comparison of the employee wages with local, regional or state trends; the necessity of the 2013 wage increases; and the reasonableness of the wages. Explain how the salary analysis presented by Water Service Kentucky in this instant case provides the information that was lacking in Case No. 2010-00476.

RESPONSE:

The salary analysis presented by Company witness Perry Brown in this case utilizes the same methodology that Company witness Andrian Dmintroko presented in WSCK's last rate case, Case No. 2018-00208. The analysis contains a comparative review of WSCK's salary expenses to other similarly-sized water utilities in the state. In Case No. 2018-00208, the Commission implicitly approved the methodology of the analysis, as the Commission did not criticize the study and it approved recovery of WSCK's salary expense in rates.

WITNESS:

Perry Brown

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7. Refer to Water Service Kentucky's response to the Staff's Second Request, Item 32. Provide a schedule showing the annual accumulation of the Ambleside Hydrant charges until it reached the level of \$53,617.

RESPONSE:

Please see the attached, "Response to Staff DR 3.07 - Hydrant Billing"

WITNESS: Perry Brown, Senior Financial Analyst

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8. Refer to Water Service Kentucky's response to the Staff's Second Request,

Item 38.a. For each employee position listed in the response provide the following:

- a. The year the position was filed;
- b. The total annual salary for each position; and
- c. List separately the salary allocated and directly billed to Water Service

Kentucky for each employee position identified.

RESPONSE:

- a. Compliance Manager – January 9, 2019; GIS Analyst – June 26, 2017; Field Tech – January 2, 2020.
- b. Compliance Manager – \$75,000; GIS Analyst – \$65,000; Field Tech – \$37,095.
- c. Compliance Manager – Direct \$75,000, Allocated - \$10,254; GIS Analyst – Direct \$65,000, Allocated - \$10,254; Field Tech – Direct \$37,095, Allocated \$37,095.

WITNESS:

Perry Brown

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9. Refer to Water Service Kentucky's response to the Staff's Second Request, Item 38.f. Provide a breakdown for this cost increase between the salaries to additional employees and the employee merit increases.

RESPONSE:

Please see the attached file entitled "Response to Staff DR 3.09 - Estimated Breakout of General Salaries 2017-2020" for an estimate of the amount attributable to headcount changes and annual increases.

WITNESS:

Rob Guttormsen

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10. Refer to Water Service Kentucky's response to the Staff's Second Request, Item 38.f. Provide a detailed explanation as to why Water Service Corporation's costs of customer billing were switched from being allocated to being directly charged. Quantify the benefits Water Service Kentucky's customers received from this change.

RESPONSE:

The Company tries to direct assign costs based on cost drivers whenever possible in an effort to collect equitable revenue requirements from customer pools that drive those costs. Billing costs are now being allocated based on number of bills going out for each system. The ERC allocation ignores billings charges for wastewater and trash so WSCK customers are now being more accurately assigned their true costs.

WITNESS:

Perry Brown

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11. Refer to Water Service Kentucky's response to the Staff's Second Request, Item 59. Water Service Kentucky was requested to provide the following: Using Water Service Kentucky's requested revenue requirement and its capital structure, impute Water Service Kentucky's Weighted Cost of Capital (WCC) and Return on Equity (ROE). Provide the calculations as originally requested and in an Excel spreadsheet format with all columns and rows accessible and all formulas unprotected.

RESPONSE: WSCK has not calculated a Weighted Cost of Capital (WCC) and Return on Equity (ROE) based on its requested revenue requirement and capital structure in this case. This information is not relevant to this proceeding because WSCK has proposed rates based on the operating-margin methodology that the Commission encouraged it to use in the final order of Case No. 2008-00563. WSCK has utilized that operating-margin methodology in its rate cases since 2010. Because that information is not relevant to this proceeding, it would be unduly burdensome to produce the requested information that WSCK does not currently possess. For these reasons, WSCK objects to the request.

WITNESS:

Steve M. Lubertozi

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12. Refer to Water Service Kentucky's Response to the June 26, 2020 Order, Appendix B, Item 3, Filing Template Pro Forma, Tab: Sch.D-Rev Req and to Tab: Sch.C- R.B.

a. Confirm that Water Service Kentucky's adjusted test year rate base is \$6,323,972 as calculated on Sch.C-R.B.

b. Using Water Service Kentucky's requested revenue requirement and the test-year adjusted rate base, calculate Water Service Kentucky's return on rate base. Provide the calculations in an Excel spreadsheet format with all columns and rows accessible and all formulas unprotected.

RESPONSE:

a. Confirmed

b. The requested information has previously been provided when Water Service Kentucky's Responses to Item 3 of the Commission's June 26, 2020 Order.

WITNESS:

Steve M. Lubertozzi

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13. Refer to Water Service Kentucky's response to the Staff's Second Request, Item 62. Water Service Kentucky was requested to provide copies of the section of each Order discussing the WCC and ROE. Provide the information as originally requested.

RESPONSE:

Please see attached orders.

WITNESS:

Rob Guttormsen

ORIGINAL

STATE OF INDIANA

[Handwritten signatures]

INDIANA UTILITY REGULATORY COMMISSION

PETITION OF COMMUNITY UTILITIES OF INDIANA,)
INC. FOR (1) AUTHORITY TO INCREASE ITS RATES)
AND CHARGES FOR WATER AND WASTEWATER)
UTILITY SERVICE; (2) APPROVAL OF NEW)
SCHEDULES OF RATES AND CHARGES APPLICABLE)
THERE TO; AND (3) APPROVAL OF NEW)
DEPRECIATION RATES)

CAUSE NO. 44724

APPROVED: JAN 24 2018

ORDER OF THE COMMISSION

Presiding Officers:
Angela Rapp Weber, Commissioner
Lora L. Manion, Administrative Law Judge

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On December 15, 2015, Community Utilities of Indiana, Inc. (“Petitioner” or “Company”) filed its Petition and Submission of Case-in-Chief under Ind. Code § 8-1-2-42.7 and Notice of Intent to File Information Required Under Minimum Standard Filing Requirements. Petitioner requested approval of new uniform schedules of rates and charges applicable to its water and wastewater utility services in two phases. On December 15, 2015, Petitioner filed its case-in-chief, work papers, and information required by the Minimum Standard Filing Requirements at 170 IAC 1-5. Petitioner also filed a Motion for Protective Order regarding work papers with confidential information, and the Motion was granted on January 29, 2016, by the Presiding Officers.

On December 22, 2015, a Petition to Intervene was filed by Lakes of the Four Seasons Property Owners’ Association (“LOFS”). LOFS is a property owners’ association that represents the residents within Lakes of the Four Seasons Subdivision, and the residents and the association are water and wastewater customers of Petitioner. The Presiding Officers subsequently granted the Petition on January 27, 2016.

On January 6, 2016, the Presiding Officers filed a docket entry directing Petitioner to address five deficiencies in its materials submitted pursuant to the Minimum Standard Filing Requirements. On January 12, 2016, Petitioner filed its response.

On February 15, 2016, the Presiding Officers established a procedural schedule for the Cause. On April 22, 2016, the Indiana Office of Utility Consumer Counselor (“OUCC”) and LOFS filed their respective cases-in-chief.

On April 20, 2016, the Presiding Officers filed a docket entry directing Petitioner to provide detailed rate schedules for each of the two proposed phased-rate increases. Petitioner filed its response on April 29, 2016.

On May 13, 2016, Petitioner filed an Unopposed Motion to Vacate Hearing Date and for Modification of Procedural Schedule. On May 31, 2016, Petitioner filed an Unopposed Motion to Suspend Procedural Schedule to permit Petitioner to investigate a potential issue related to its rate base. Both Motions were granted without objection.

On May 24, 2016, the Presiding Officers filed a docket entry requesting clarifications from Petitioner, OUCC, and LOFS regarding their cases-in-chief. Petitioner and OUCC filed their respective responses on June 17, 2016.

On June 27, 2016, Petitioner filed the supplemental direct testimony of witnesses Steven M. Lubertozi, President of Petitioner, and Justin P. Kersey, Vice President of Operations of Utilities, Inc. and its subsidiaries. The OUCC and LOFS filed their respective supplemental testimony on October 24, 2016. Petitioner filed its rebuttal testimony on December 30, 2016.

On July 27, 2016, the Presiding Officers filed a docket entry rescheduling the hearing from August 2, 2016, to October 4, 2016, and requested a procedural schedule going forward in this Cause from the parties.

On August 5, 2016, Petitioner filed its Response to the Commission Docket Entry Dated July 27, 2016, Regarding Procedural Schedule and proposed procedural dates, as agreed to by the

parties. On September 27, 2016, the Presiding Officers granted modifications to the filing and hearing schedules and continued the hearing to January 10, 2017.

On October 3, 2016, the OUCC filed its Motion to Modify Procedural Schedule, and the Motion was granted by the Presiding Officers on October 19, 2016.

On November 21, 2016, Petitioner filed its Unopposed Motion for Extension of Time to extend the due date for its pre-filing of rebuttal testimony to December 7, 2016, and the Presiding Officers granted the Motion on November 23, 2016.

On December 5, 2016, the Presiding Officers granted a request from the parties to extend the rebuttal pre-filing date for Petitioner and to continue the hearing date to February 7, 2017.

On February 2, 2017, the Presiding Officers filed a docket entry requesting written responses from Petitioner to 44 questions at or prior to the February 7, 2017 hearing. On February 3, 2017, the Presiding Officers filed a docket entry requesting written responses from the OUCC to 14 questions at or prior to the February 7, 2017 hearing. Petitioner and OUCC subsequently filed their respective responses.

The Commission conducted a public evidentiary hearing beginning at 9:30 a.m. on February 7, 2017, in Room 222 of the PNC Center, Indianapolis, Indiana. At the hearing, the parties presented their respective evidence and offered witnesses for cross-examination. On April 12, 2017, the Commission conducted a public hearing to ensure that notice was properly published in all counties in which Petitioner serves, at which time the record of the prior hearing was incorporated by reference.

The Commission, based upon the applicable law and the evidence presented, finds as follows:

1. **Notice and Jurisdiction.** Notice of the filing of the Petition was given and published by Petitioner as required by law. Notice was given by Petitioner to its customers summarizing the nature and extent of the proposed changes in its rates and charges for water and wastewater services. Notice of the hearings in this Cause was given and published as required by law. Petitioner is a public utility as defined in Ind. Code § 8-1-2-1(a). Pursuant to Ind. Code §§ 8-1-2-42 and 42.7, the Commission has jurisdiction over Petitioner's rates and charges for utility service.

2. **Petitioner's Organization and Business.** Petitioner is a public utility incorporated under the laws of Indiana with its principal office address located at 2335 Sanders Road, Northbrook, IL 60062.

Petitioner was incorporated in 2015 for implementation of the merger into a single entity of the three wholly-owned subsidiaries of Utilities, Inc. that provide water and wastewater services in Indiana. Those subsidiaries are Twin Lakes Utilities, Inc. ("Twin Lakes"), Water Service Company of Indiana, Inc. ("WSCI"), and Indiana Water Service, Inc. ("IWSI"). The merger was approved by the Commission's July 8, 2015 Order in Cause No. 44587.

Petitioner provides water service to approximately 5,000 customers and wastewater service to approximately 3,300 customers. Petitioner renders water and wastewater service by means of utility plant, property, equipment, and related facilities owned, operated, managed, and controlled by it that are used and useful for the convenience of the public in the provision of water and wastewater service. Petitioner's service area includes portions of Jasper, Lake, Newton, and Porter counties.

3. **Existing Rates.** The basic rates and charges for Petitioner's operating divisions were previously approved in separate rate proceedings for each division. Twin Lakes' basic rates and charges were most recently approved in the Commission's April 23, 2014 Order in Cause No. 44388. WSCI's basic rates and charges were last approved in the Commission's March 27, 2013 Order in Cause No. 44104. IWSI's basic rates and charges were last modified by the Commission's November 7, 2012 Order in Cause No. 44097.

4. **Relief Requested.** Petitioner requested authority to increase its rates and charges for water and wastewater utility service and approval of: (1) new schedules of rates and charges that would provide for uniform water and wastewater rates across all three operating divisions, (2) revised depreciation rates, and (3) any other such relief as may be appropriate and proper. Petitioner requested a 50.09% increase in water rates and charges to produce additional revenues of \$928,932 per year and a 30.71% increase in wastewater rates and charges to produce additional revenues of \$666,033 per year.¹

5. **Test Year and Rate Base Cut-Off.** Petitioner proposed a forward-looking test period using projected data as authorized by Ind. Code § 8-1-2-42.7(d). Petitioner initially proposed Phase I rates based on rate base as of September 30, 2016, and Phase II rates based on rate base as of September 30, 2017. Subsequent to Petitioner's case-in-chief filing, the parties agreed that Phase I rates will be based on actual rate base, as adjusted, at February 29, 2016. Petitioner initially proposed Phase I to be effective on or about October 9, 2016, and Phase II to be made effective on or about October 9, 2017.

However, given the significant delays to the procedural schedule, we find it no longer necessary to process Petitioner's case in two phases. Petitioner's rate base cut-off shall be for utility plant-in-service ("UPIS") as of September 30, 2017. We further find the test year to be used for determining Petitioner's projected operating revenues, expenses, and operating income shall be the 12-month period ending September 30, 2017, subject to the rate base certification process discussed in the section titled Rate Base Update Mechanism.

6. **Rate Design.** Since the Commission's approval of the merger that resulted in the formation of Petitioner in the Commission's July 8, 2015 Order in Cause No. 44587, Petitioner has maintained separate tariffs for each of its water and wastewater operating divisions. In this proceeding, Petitioner proposed to adopt single-tariff pricing for all of its water and wastewater operations. In support of its proposal, Petitioner presented the testimony of Mr. Scott A. Miller, partner in the firm of H.J. Umbaugh & Associates, LLP. Mr. Miller presented a cost-of-service study for each of Petitioner's individual water and wastewater service territories within Indiana as

¹ Petitioner did not provide percentage amounts. The Commission calculated percentages based on the amounts proposed by Petitioner.

well as state-wide consolidated water and wastewater cost-of-service studies. He said these analyses were then used as a basis to make recommendations regarding changes in Petitioner's present schedules of rates and charges for water and wastewater service.

Based on his cost-of-service study, Mr. Miller concluded that consolidated rates appear reasonable for the individual service territories. He said on their own, each service territory is relatively small and lacks the economies of scale that could ultimately result in savings to the customers. He said consolidating the rates mirrors the overall ownership and operation of the different units and more closely matches the allocation of costs to the service areas. He concluded that the consolidated water and wastewater rates proposed in his accounting report are fair, just, non-discriminatory, and reasonable and necessary to meet the projected revenue requirements of Petitioner.

Ms. Margaret Stull, Senior Utility Analyst, on behalf of the OUCC, testified that single-tariff pricing in this case appears reasonable. She described the review and evaluation she performed to reach this conclusion. She stated that in its next base rate case, Petitioner should provide all work papers and schedules both on a combined basis and an individual-company basis. She said this will allow any party to that case to review and determine whether single-tariff pricing continues to be reasonable. Mr. Jerome D. Mierzwa, Principal and Vice President of Exeter Associates, Inc., also testified on behalf of the OUCC and concluded that Petitioner's proposed consolidated rate designs for water and wastewater are reasonable. He suggested that the rates should be proportionately scaled-back if the revenue increase authorized by the Commission is less than Petitioner's proposal.

Based on the evidence presented, the Commission finds Petitioner's proposed move to single-tariff pricing is reasonable and in the public interest. Accordingly, we approve the rate design shown in Petitioner's Exhibit 4, Attachment SAM-1. We further find that if Petitioner proposes a change in its rate design in a future proceeding, it should provide all work papers and schedules both on a combined basis and an individual-company basis to demonstrate whether single-tariff pricing continues to be reasonable.

7. Rate Base.

A. Customer Deposits, Plant Acquisition Adjustment, and RedZone Robotics Invoices.

While the parties presented different amounts for customer deposits in their respective rate base calculations, no testimony was provided to explain the difference. Based on Petitioner's general ledger trial balance as of February 29, 2016, we find customer deposits for the consolidated water operations to be \$37,650 and for the consolidated wastewater operations to be \$23,759. The parties agreed to a plant acquisition adjustment for the consolidated water operations of \$332,047 and to remove RedZone Robotics invoices totaling \$26,555. The remaining rate base issues are discussed below.

B. Ground-Storage Tanks.

1. Petitioner's Evidence. Mr. Steven M. Lubertozi testified regarding the Twin Lakes water system, which includes one 200,000-gallon elevated-storage tank and two 500,000-gallon ground-storage tanks ("North GST" and "South GST").² He testified that Petitioner disassembled the Peabody 500,000-gallon ground-storage tank ("Peabody GST"), and replaced it with the new North GST in 2014-2015.³ He explained that Peabody GST had numerous leaks around the bottom ring of the tank and had needed to be replaced. Mr. Lubertozi testified that North GST provides the necessary storage to meet the needs of the community and it provides redundancy. He testified in his case-in-chief that North GST was constructed at a cost of \$507,443 and placed in service in the fourth quarter of 2015.

Regarding Commission approval and Petitioner's construction of South GST, in the Commission's April 23, 2014 Order in Cause No. 44388, Petitioner was allowed to add to rate base \$650,000, which was Petitioner's proposed cost to construct South GST. That Order also approved a Stipulation and Settlement Agreement between Petitioner, OUCC, and LOFS. Petitioner built South GST during 2013-2014. Accordingly, Petitioner included the actual cost to build South GST in its rate base in this Cause. Petitioner's actual cost exceeded its previously proposed cost, but Petitioner did not offer pre-filed testimony to explain the exceedance. However, as discussed below, the OUCC analyzed the cost to construct South GST and presented evidence regarding the cost.

2. OUCC's Evidence. Mr. James T. Parks, OUCC Utility Analyst II, testified that ratepayers should not be expected to pay for new tanks that are poorly planned, unnecessary, or include inflated costs of construction. Additionally, Mr. Parks said that Petitioner could have discussed with the OUCC why it needed the new North GST.

Mr. Parks testified regarding the representations he believed Petitioner made regarding the scope that was included in the \$650,000 tank project in Cause No. 44388. Mr. Parks testified that the OUCC accepted Petitioner's proposal in Cause No. 44388 to build South GST *and to rehabilitate Peabody GST* for a total of \$650,000. However, Mr. Parks testified that other than listing the project's \$650,000 cost in Cause No. 44388, Petitioner provided no details regarding the costs. Finally, Mr. Parks testified that the plan the OUCC agreed to in Cause No. 44388 was *not* a plan for Petitioner to build South GST and to replace Peabody GST with the new North GST.

Mr. Parks testified regarding the types of planning studies Mr. Parks believed Petitioner should have performed prior to constructing North GST. He testified that Petitioner did not provide studies concerning water consumption, well production, water treatment plant production, high-service pumping, storage amounts, or life-cycle analysis to the OUCC to demonstrate that constructing North GST was prudent. He stated if Petitioner's studies showed additional water storage was in fact needed, alternatives could have included a new tank of a different capacity, type, or location. Mr. Parks testified that even though life-cycle analysis is a long-established engineering practice used by well-managed utilities and it is beneficial for planning major capital

² Mr. Lubertozi adopted the pre-filed testimony originally provided by Mr. Bruce Haas, Pet. Ex. 3 at 10.

³ During cross-examination by the OUCC, Mr. Lubertozi mistakenly identified the new tank in Petitioner's pre-filed testimony in this Cause as South GST.

improvement projects such as water tanks, Petitioner did not provide these types of studies for its capital projects.

Additionally, Mr. Parks stated in his supplemental testimony that Petitioner's justification for replacing Peabody GST with North GST appeared to be limited to a two-hour desktop review that was summarized in a one-page letter dated March 3, 2015, from RHMGE Engineers, Inc. ("RHMGE"). He said RHMGE's letter was submitted only after the OUCC filed its direct testimony recommending the Commission to disallow the construction costs for North GST. The initial February 26, 2015 email from Petitioner to RHMGE requested an opinion on the feasibility of replacement and a project quote, which the OUCC presumed to be a project quote for the design of North GST. Mr. Parks testified that it appeared to him that Petitioner only requested RHMGE's opinion to support the decision Petitioner already made.

Mr. Parks presented data regarding Petitioner's production quantities and demand, and he concluded that the data did not support Petitioner needing to build North GST. Mr. Parks said Petitioner's actual water production dropped to an average of 591,000 gallons per day ("gpd") and a peak-day demand of 1,116,703 gpd. He testified that Petitioner has met peak demand historically even during droughts by using its storage tanks and other water system components including wells, two treatment plants, and high-service pumps with a combined 1,685,000 gpd capacity. Mr. Parks testified that it is good practice to have the water-storage volume recommended by the Ten States Standards, but many utilities do not meet the minimum, including Indianapolis, Shelbyville, and Petitioner's own WSCI division.⁴

Mr. Parks testified that Petitioner hired contractor Central Sewer & Water ("CS&W") to perform construction work on the new North GST and some of the work reportedly performed was never performed and some of the invoice amounts were inflated. He testified that work invoiced by CS&W, which Petitioner alleged was done as directed by Mr. Bob Bakalar, Lake County Building Inspector, was neither required by the Inspector nor actually done. The work Mr. Parks believes was not done totaled \$80,200 and included \$8,500 that CS&W billed on Invoice No. 4093 and 80% of the \$89,500 CS&W billed on Invoice No. 4102. Mr. Parks testified that he spoke directly to Mr. Bakalar who confirmed he made only one inspection of North GST. Mr. Bakalar told Mr. Parks he never ordered additional excavations and ordering more stone did not happen. Mr. Parks also testified that CS&W Invoice Nos. 4084 and 4105 appeared to have inflated costs based on his cost estimations. Mr. Parks eventually proposed that the Commission disallow all costs to construct the new North GST.

Mr. Parks testified that Petitioner hired CS&W to perform construction work on South GST and he believed some of those costs were inflated also. He testified Petitioner paid CS&W nearly \$110,000 on South GST for site restoration, a water line, and a storm sewer, which were built but not on the design drawings. Mr. Parks also alleged that CS&W charged more for some work than typical. Additionally, he stated that Petitioner capitalized 756 hours of employee time equaling \$35,763 to the South GST project. However, since Petitioner did not describe the work performed or why the capitalized time was necessary, it was not possible to verify that the capitalized charges were prudent or should be recoverable.

⁴ *Recommended Standards for Water Works* (commonly known as the Ten States Standards), Great Lakes - Upper Mississippi River Board of State and Provincial Public Health and Environmental Managers, 2012 Edition.

Regarding the cost to construct South GST, Mr. Parks testified that Petitioner should have selected a different contractor, Cady Aquastore, to construct South GST. He said that if Petitioner would have selected Cady Aquastore, Petitioner would have left nearly \$300,000 available for rehabilitating Peabody GST and avoided constructing North GST.

Finally, Mr. Parks recommended that the entire cost of \$543,997 to construct North GST be disallowed for the reasons discussed above, but the \$18,800 cost to dismantle Peabody GST should be allowed. Petitioner's revised North GST cost of \$562,797 less \$18,800 cost to dismantle Peabody GST is \$543,997. Mr. Parks also recommended that the cost for South GST be capped at \$650,000, the same amount that was proposed and approved in Cause No. 44388.

3. Petitioner's Rebuttal. Mr. Kersey responded to the OUCC's position that Petitioner did not follow its plan presented in Cause No. 44388 to construct South GST *and rehabilitate Peabody GST* for \$650,000. Mr. Kersey disputed Mr. Parks's statement that the cost of rehabbing Peabody GST was supposed to be included in the \$650,000 cost. Mr. Kersey stated that the OUCC failed to produce a single document in discovery to support its position that rehabbing Peabody GST was included within Petitioner's \$650,000 plan. Mr. Kersey concluded that Mr. Parks did not correctly interpret Petitioner's position in Cause No. 44388.

Additionally, Petitioner's engineering consultants ultimately recommended replacement, not rehabilitation of Peabody GST. Ms. Marcia McCutchan, P.E., Executive Vice President of RHMGM, stated that based on her personal observations of the condition and continuing corrosion of Peabody GST and discussions regarding the cost of various tank rehabilitation options, RHMGM recommended replacement of Peabody GST.

Regarding the various studies performed during the planning process, Ms. McCutchan stated that RHMGM's involvement with Petitioner's tanks dates back to 1990 and RHMGM has extensive knowledge and experience with Peabody GST and the decision to replace it. Ms. McCutchan said that she was on site in 1992 and assisted with the startup of Peabody GST. Ms. McCutchan testified that she visited the site several times over the past 25 years including numerous times in 2013 and 2014 when she observed the condition and continuing corrosion of Peabody GST.

Ms. McCutchan testified that the decision to replace Peabody GST with the North GST was based on a review of records and information regarding the tank, as well as an evaluation of viable alternatives. The decision was not based on a two-hour desktop review as Mr. Parks suggested. Ms. McCutchan explained during cross-examination that she did not keep records of all of her recommendations to Petitioner and she kept a lot of knowledge in her head. Tr. at C-61, 62. She also said there were additional documents regarding the tanks in her files, not all of which she had provided to Petitioner. *Id.* at C-59.

Ms. McCutchan testified that she conducted an informal engineering analysis of Petitioner's water storage requirements under the Ten States Standards, but she did not create a written copy. *Id.* at C-81, 82. Ms. McCutchan testified that she was not surprised that Petitioner did not perform a life-cycle cost analysis because, based on Petitioner's and RHMGM's experience with alternative water-storage structures for tanks in this volume range, performing a life-cycle

cost analysis was not necessary to determine that a ground-storage tank of steel construction is the recommended alternative.

Mr. Lubertozi responded to Mr. Parks's contention that Petitioner did not conduct proper studies prior to its decision to replace Peabody GST. Mr. Lubertozi stated that Petitioner relied upon the independent assessment of RHMg, and he provided an e-mail from Petitioner's former Area Manager to Ms. McCutchan seeking RHMg's opinion regarding the feasibility of replacement versus rehabilitation of Peabody GST. He said this e-mail showed that there was no doubt that on February 26, 2015, Petitioner's local management was contemplating rehabilitating Peabody GST. Mr. Lubertozi testified that, in his opinion, replacement of Peabody GST was reasonable and prudent.

Mr. Lubertozi replied to the OUCC's contention that North GST was not needed to meet finished-water storage requirements. He testified that after construction of both North GST and South GST, the Twin Lakes service territory still only has 1,200,000 gallons of finished-water storage capacity. He testified that the OUCC supported this level of water capacity in Cause No. 44388. He stated that it is unreasonable for the OUCC to accept a given capacity level in one case, only to reject that capacity level in the next case.

Regarding finished-water storage requirements, Dr. John Norton, PhD, P.E., a project manager for Utilities, Inc., also discussed his concerns regarding the OUCC's calculation of minimum-recommended storage volume using the average-daily demand calculated from a multi-year period. He testified that *average-daily demand* calculated from a multi-year period does not account for seasonal variations, regional weather occurrences, operational upsets, power outages, firefighting demand, or other real factors which affect and impact water plant operations. Instead, Dr. Norton testified that minimum-recommended storage volume should have been calculated based on the *peak-daily flow* determined from daily-flow values measured over a representative period of time, preferably over a multi-year period.

Ms. McCutchan also testified regarding Petitioner's finished-water storage requirements. She testified that for communities similar to the Lakes of the Four Seasons with golf and lake amenities, summer demand levels are typically consistently higher than annual average-day demand and should be the design basis for system storage. She also pointed out that the Lakes of the Four Seasons Fire Department relies on Petitioner as a key source of water for its firefighting needs. Thus, to meet these demands and maintain reliable operations, she testified that RHMg continues to recommend finished-water storage volume *in excess of* 1.0 million gallons.

Responding to Mr. Parks's testimony that Petitioner should have selected Cady Aquastore to construct South GST and used the savings to rehabilitate Peabody GST, Dr. Norton disagreed. He said that Cady Aquastore's quote did not include the entire scope of work to construct South GST. Additionally, he testified that the issues with Peabody GST indicated that replacement was needed, not rehabilitation. Dr. Norton testified that Petitioner consulted with RHMg and an independent tank consulting firm, Tank Industry Consultants, about how to proceed with Peabody GST. Dr. Norton testified that those firms advised that the costs to rehabilitate Peabody GST would have exceeded the cost of replacement. Dr. Norton said that Petitioner reviewed the ongoing issues with Peabody GST and failure of the bottom ring and floor of the tank, and based on the condition

and number of leaks that had occurred, Petitioner agreed that a complete replacement of Peabody GST was appropriate.

Concerning CS&W's invoices, Mr. Lubertozi discussed Invoice No. 4102 for work on North GST, previously addressed by Mr. Parks, and stated that because of the nature of the excavation work contained in that invoice, Petitioner could not physically confirm the work was performed. To minimize controversy, Mr. Lubertozi said that Petitioner would accept Mr. Parks's recommended disallowance of \$71,700 related to the unconfirmed work on North GST.

Regarding CS&W's invoices and the OUCC's proposal to cap construction costs on South GST to \$650,000, Mr. Lubertozi testified that Petitioner does not accept the OUCC's adjustments on the CS&W costs for South GST construction because Petitioner compared CS&W's construction costs on South GST to North GST, and the costs were similar. He stated that based on the similarity of these projects and the nature of the work performed, Petitioner does not believe that a cost cap of \$650,000 is warranted for South GST.

Mr. Lubertozi responded to Mr. Parks's ultimate recommendation that North GST be totally disallowed from rate base. Mr. Lubertozi stated that the capital markets would have a negative reaction to the Commission disallowing the total cost of North GST. Mr. Lubertozi said that if the Commission were to disallow North GST from rate base, Petitioner would be forced to record a net loss of \$562,797 in the year the Commission's Order is finalized. Mr. Lubertozi testified that \$562,797 reflects the net effect of several accounting journal entries, including entries to UPIS and accumulated depreciation. Pet. Ex. R1 at 19. He said this loss would require Petitioner to sell or transfer North GST and then it would not be available to be used by Petitioner's customers. Mr. Lubertozi agreed to only exclude \$71,700 of cost on North GST, which represented unconfirmed CS&W work.

Mr. Kersey responded to the OUCC's ultimate recommendation to limit South GST costs. Mr. Kersey testified that the OUCC proposed a limit of \$650,000 on costs associated with South GST. He testified that Petitioner does not agree with this proposed reduction because, while Petitioner's forecast in Cause No. 44388 consisted of \$650,000 in capital costs, that forecast did not include an estimate for capitalized time and an allowance for funds used during construction ("AFUDC"). He further testified that total costs booked for South GST were \$715,318. He stated that Petitioner agreed to remove AFUDC from South GST project. Finally, Mr. Kersey testified that if the Commission were to limit Petitioner's recovery of South GST project, Petitioner suggested "isolating AFUDC and capitalized time" because these components were not included in the Company's Cause No. 44388 forecast of \$650,000. Pet. Ex. R2 at 42.

4. Commission Discussion and Findings. The OUCC indicated that Petitioner in Cause No. 44388 represented that Petitioner would construct South GST and rehabilitate Peabody GST for \$650,000. However, Petitioner disagreed, saying that it agreed only to construct South GST for \$650,000, not construct South GST *and rehabilitate Peabody GST* for \$650,000. Regarding Petitioner's evidence filed in its case-in-chief under Cause No. 44388, Petitioner listed *Install Additional 500K Gallon Water Storage Tank at WTP1* for \$650,000 in its Summary of Capital Projects, Table 1. Pet. Ex. BTH at 8. WTP1 means Water Treatment Plant One. In that table, there is no reference to Peabody GST. Additionally, Petitioner, in its case-in-chief under Cause No. 44388, explained the tank project in relevant part as follows below:

The addition of a second ground storage tank [South GST] will enable [Petitioner] to continue serving the community potable water without concerns of interruption during these high demand periods. This addition will enable [Petitioner] to service the existing ground storage tank [Peabody GST], while still having the ability of 500K gallons of storage during this process. Pet. Ex. BTH at 9.

We believe that Petitioner was explaining above that adding South GST would *enable* Petitioner to service Peabody GST. We believe that Petitioner was not proposing to construct South GST and also rehabilitate Peabody GST for \$650,000. This position is supported by the fact that there was no mention of Peabody GST in Petitioner's Table 1, Summary of Capital Projects. When Petitioner submitted its case-in-chief in 2013 on Cause No. 44388, it is clear that \$650,000 was for building South GST and rehabilitating Peabody GST was a consideration. However, Petitioner ultimately decided, based on engineering advice from RHMg, to replace Peabody GST. The evidence simply does not support the OUCC's conjecture that \$650,000 included the cost to build South GST and rehabilitate Peabody GST.

Regarding the extent of Petitioner's various studies before constructing North GST, the OUCC testified that Petitioner did not provide evidence of adequate studies being performed, including a life-cycle analysis. Ms. McCutchan provided rebuttal testimony that RHMg had extensive knowledge and experience with the water system going back to 1990. She testified that her recommendation to replace rather than rehabilitate Peabody GST was based on her extensive review of historical records, her personal observations of Peabody GST, and relative cost comparisons. Ms. McCutchan further testified that her personal experience included visiting the site numerous times in 2013 and 2014 and observing the continuing corrosion of Peabody GST. Ms. McCutchan stated there were additional documents regarding the tanks in her files that were not submitted, and she said that she prepared an informal engineering analysis under the Ten States Standard. Ms. McCutchan also explained that based on Petitioner's and RHMg's experience with alternative water storage structures for tanks in this volume range, a life-cycle analysis was not necessary to determine that a steel ground-storage tank was the recommended alternative.

Although Petitioner relied upon the extensive knowledge and experience of RHMg, it is concerning to us that Petitioner did not submit all documents prepared by RHMg and a summary of Ms. McCutchan's review of historical records, personal observations of Peabody GST, and relative cost comparisons. In the future, we expect Petitioner to retain better documentation to more thoroughly demonstrate that capital projects are reasonable and prudent.

Concerning Petitioner's finished-water storage-capacity needs, the OUCC argued that Petitioner should not have replaced the old Peabody GST with the new North GST because this resulted in Petitioner having excess finished-water storage capacity. Petitioner explained that the total finished-water storage capacity after completion of both tanks and removal of Peabody GST is the same total capacity amount that resulted from the construction of South GST in Cause No. 44388. No convincing evidence was presented by the OUCC that there was a change of circumstances to warrant a need for a decrease in the required capacity as compared to the capacity that resulted from the Stipulation and Settlement Agreement under previous Cause No. 44388. Petitioner's evidence regarding peak-daily flow and finished-water storage requirements for areas

with increased summer demand-support the total storage capacity of 1.2 million gallons. The Commission finds there is insufficient evidence to support the OUCC's contention that construction of North GST should not have occurred because it created excess storage capacity.

Regarding Mr. Parks's position that Petitioner should have selected Cady Aquastore's proposal to construct South GST and use the savings to rehabilitate Peabody GST, we do not agree. Because Cady Aquastore's quote was incomplete, it is unclear if there would have been any savings realized by selecting Cady Aquastore. Additionally, Mr. Parks's position is based on the assumption that rehabilitation of Peabody GST would have been prudent. However, Dr. Norton testified that Petitioner consulted with RHMG and Tank Industry Consultants about whether to repair or replace Peabody GST. Dr. Norton testified that those firms advised that the costs to rehabilitate Peabody GST would have exceeded the cost of replacement. Dr. Norton testified that both of those firms and Petitioner's own review of the ongoing problems with the tank, including its condition and leaks, indicated that replacement of Peabody GST was appropriate. Based upon our review of the evidence, we find that the replacement of Peabody GST was reasonable and prudent.

Mr. Parks alleged that Petitioner's contractor CS&W on North GST did not actually perform some work and CS&W's invoices were inflated. Mr. Parks ultimately recommended disallowing all costs to construct North GST. Mr. Lubertozi said that Petitioner would accept a disallowance of \$71,700 on North GST related to excavation work that Petitioner could not physically confirm was performed. The Commission agrees with Petitioner and finds that \$71,700 of costs for unconfirmed work are excluded from revised construction costs for North GST of \$543,997. We discuss the total costs allowed for rate base for North GST in more detail later in this section. Additionally, we identify improvements Petitioner should make regarding its oversight of contractors' invoices, including oversight of CS&W's invoices, in this Order in the section titled Use of Three-Way-Match Process.

Additionally, Mr. Parks testified that Petitioner should have communicated with the OUCC and explained why it needed North GST. Petitioner did not dispute that more communication would have been helpful. In the future, the Commission urges Petitioner to improve its communication with the OUCC regarding significant capital-improvement projects. The OUCC can provide helpful advice to Petitioner about the types of engineering studies that are typically provided by other utilities to support capital projects, and increased communication could ultimately result in increased support for Petitioner's proposed projects.

Regarding total costs for North GST, Mr. Parks recommended that the construction costs on North GST be totally disallowed in rate base. Mr. Lubertozi agreed to eliminate \$71,700 of costs related to a CS&W invoice on North GST discussed above. The Commission is not persuaded by the OUCC's arguments that all North GST costs should be disallowed. We agree that Petitioner should have documented its pre-construction engineering analyses more thoroughly. The current finished-water storage capacity is the same amount considered in the previous Cause No. 44388. No convincing evidence was presented to support the contention that the previously approved capacity is now excess capacity. Petitioner found a need for a capacity of 1.2 million gallons, and it could not prudently rehabilitate Peabody GST. Accordingly, Petitioner built the new North GST with the same storage capacity as the tank it replaced, Peabody GST. We do not believe that there

is a rational basis to disallow the total cost of North GST. The Commission finds that North GST, which is now in service, is used and useful in Petitioner's water system and supports the needs of the community for finished-water storage. The Commission approves the net addition of \$491,097 to rate base for the demolition of Peabody GST and the construction of North GST. For North GST, the calculation of the total approved amount is as follows: Petitioner's revised cost as presented in rebuttal of \$562,797, which includes the \$18,800 for Peabody GST dismantling costs, less a reduction for the CS&W invoice of \$71,700 equals \$491,097.

Concerning total costs for South GST, which was placed in service in 2014 and the proposed cost was included in Cause No. 44388, the OUCC recommended limiting the cost to \$650,000, the amount proposed by Petitioner in that Cause. Mr. Parks also testified about questionable CS&W invoices and a lack of explanation regarding significant capitalized time by Petitioner on South GST. Mr. Lubertozzi testified that the construction costs on South GST were similar to the costs on the new North GST and Petitioner did not accept Mr. Parks's recommendation to limit the cost to \$650,000. Mr. Kersey ultimately said if the Commission were to limit Petitioner's recovery of South GST project, Petitioner suggested isolating cost components that were not included in the Company's Cause No. 44388 forecast of \$650,000.

After reviewing the evidence in this Cause, the Commission is concerned about the OUCC's assertion that some CS&W charges were for work that was not in the original design drawings and some costs seemed inflated. Additionally, the OUCC stated that Petitioner did not provide a detailed explanation of the capitalized time of employees who worked on South GST. Accordingly, the Commission finds that the increase to rate base for construction of South GST is limited to \$650,000, the amount approved in Cause No. 44388. For South GST, the calculation of the total approved amount is as follows: Petitioner's proposed \$715,318 less a reduction of \$65,318 equals \$650,000, the amount approved in Cause No. 44388.

C. Manhole Rehabilitation.

1. OUCC's Evidence. Mr. Parks testified regarding contractors' invoices to Petitioner for manhole rehabilitation work. Mr. Parks testified that Petitioner initiated a confidential investigation into invoices from CS&W that were prepaid by Petitioner. He testified that contractors performed manhole re-inspections and interior lining work in 2016 in response to Petitioner's investigation. He further testified that three to five weeks after Petitioner determined that the manhole work totaling \$80,750 on Invoice No. 4018 was not performed, additional contractor work was performed. All 21 re-inspected manholes and newly located manholes had their interiors lined or were repaired by Spectra-Tech LLC ("Spectra-Tech") at a total cost of \$52,448. Mr. Parks discussed his review of manhole sealing and lining work invoiced by CS&W and Spectra-Tech. He testified that his review indicated that \$149,001 of the \$160,627 paid to CS&W for manhole work was not performed and the costs were in rate base prior to 2015.

Mr. Parks discussed CS&W Invoice Nos. 3114 and 3115 and stated that six manholes that were shown on invoices as being excavated from the outside also showed evidence of interior lining performed by Spectra-Tech. He stated that it does not make financial sense for Petitioner to pay one contractor to excavate and seal manhole exteriors and then pay a second contractor to line the interiors of the same manholes. He further stated that he identified 17 manholes that were

reportedly repaired by CS&W and also lined by Spectra-Tech. He stated that his review of the invoices gave him a negative view of Petitioner's management. Mr. Parks further discussed the costs associated with rehabilitating manholes shown on Invoice Nos. 3111, 3112, 3114, and 3115 and stated that constructing a new manhole would have cost less than the \$13,000 plus of rehabilitation costs paid by Petitioner to seal and line certain manholes. Mr. Parks said that Invoice Nos. 3111, 3112, 3114, and 3115 were dated at year end, and it appeared to him that \$60,490 of the invoiced work was not completed.

Mr. Parks recommended that the Commission continue to require semi-annual reports from Petitioner and order Petitioner to prepare and submit a more comprehensive wastewater lateral and manhole repair tracking form with its semi-annual reports to prevent future issues from occurring. Mr. Parks further recommended that the Commission require a person from upper management to sign the semi-annual reports verifying under oath that the reports had been prepared under their direction or supervision and that the information submitted is, to the best of their knowledge and belief, true, accurate, and complete.

2. Petitioner's Rebuttal. Mr. Lubertozi responded to the OUCC's criticisms related to CS&W invoices. Despite Mr. Parks's contention that no work invoiced on Nos. 3111, 3112, 3114, and 3115 was performed, Mr. Lubertozi testified that Petitioner investigated Invoice Nos. 3114 and 3115. Petitioner obtained four invoices from a restoration contractor showing restoration work was performed. Petitioner's local operating personnel also recalled being at Manhole No. 93 and confirmed that the work was completed. To minimize the contested issues in this Cause, Petitioner agreed to remove \$41,750 of manhole work and accepted the OUCC's adjustments to certain other CS&W invoices.

3. Commission Discussion and Findings. The OUCC recommended disallowance of \$60,490 associated with Invoice Nos. 3111, 3112, 3114, and 3115. In rebuttal, Mr. Lubertozi explained that Petitioner's physical audit reviewed two invoices specifically challenged by the OUCC and determined, in some instances, that the work actually was performed. We note that Petitioner's evidence specific to CS&W's Invoice Nos. 3114 and 3115 was invoices from a third-party contractor and recollections of Petitioner's personnel. We find that the evidence presented by Petitioner to show that some of the work billed by CS&W was actually performed is weak and unconvincing. Accordingly, the Commission accepts the OUCC's recommendation that \$60,490 be removed from rates.

The Commission is also concerned about Petitioner's lack of supervision over contractor work performance and inadequate financial controls over contractor invoices. The Commission notes that Petitioner did not identify that it paid CS&W for manhole work that was not performed until the OUCC identified the errors in its review. Petitioner should have identified the errors during its own review of invoices in the regular course of business. The Commission finds that Petitioner did not properly monitor the work performance of contractors performing manhole work and Petitioner did not maintain adequate financial controls over the invoices of manhole contractors. The Commission will direct Petitioner to improve oversight of projects performed by contractors and improve financial controls over invoices in the section titled Use of Three-Way-Match Process.

Moreover, the Commission is concerned about Petitioner’s lack of technical review over the manhole work by contractors. Based upon the OUCC’s testimony, it is not reasonable for Petitioner’s management to allow contractors to perform external and internal lining of the same manhole because these are redundant activities. Additionally, the OUCC testified that it would have been cheaper for Petitioner to use one contractor for the work and also that construction of a new manhole is sometimes more cost efficient than a repair. The Commission finds in this instance that Petitioner did not properly plan its repairs of manholes and its use of contractors to effectively control costs. To focus Petitioner on improving in these areas, in the section of this Order titled Wastewater and Water Service Quality and Communications with LOFS, we require Petitioner to submit detailed wastewater lateral and manhole repair tracking forms to the Commission on a quarterly basis.

D. Capital Projects.

1. Petitioner’s Evidence. Mr. Lubertozi provided a summary of additional capital improvements Petitioner has invested in already or plans to invest in as part of this Cause.

Petitioner’s Capital Project Descriptions	Estimated Amount
Supervisory Control and Data Acquisition at Water Treatment Plant	\$ 87,170
Second Sludge-Storage Tank at Wastewater Plant	539,159
500,000-Gallon Water-Storage Tank Replacement (North GST)	507,443
Wastewater Treatment Plant Headworks	1,072,503
WSCI Hydro-Tank Replacement at Water Plant	161,211
2015 Sewer Capital Improvement Project	435,775
2016 Sewer Capital Improvement Project	443,202
2017 Sewer Capital Improvement Project	228,112
Total	\$ 3,474,575

Mr. Lubertozi stated that installing Supervisory Control and Data Acquisition (“SCADA”) controls will provide continuous monitoring and automated operations of the water treatment facilities and will allow automatic operations to maintain levels within the distribution system along with the existing ground-storage tanks.⁵

Concerning the Second Sludge-Storage Tank at the wastewater treatment plant (“WWTP”), Mr. Lubertozi stated that Petitioner currently operates with one 400,000-gallon sludge-storage tank. However, with increasingly more stringent phosphorous limits, a second tank is needed. He testified that a second tank will also provide needed additional storage as well as redundancy and allow one tank to be taken out of service for inspection or maintenance.

Regarding the WWTP Headworks Upgrades, he explained that the sewage grinder originally in operation at the headworks structure failed and a manual bar screen is being

⁵ We note that Petitioner’s Exhibit 15 reflects that \$34,539 of the \$87,170 amount for SCADA is allocated to wastewater operations.

temporarily used. He further explained that a new structure will be added to the head of the plant that will use a mechanical step screen to remove the non-biodegradable solids from wastewater. The new structure will also have a grit removal system to remove sand-like debris from wastewater before it enters the plant. Mr. Lubertozi explained that the removal of these two types of solids will allow for more efficient solids removal and reduce future maintenance requirements within the WWTP as well as aid in the reduction of potential blockages and backups within the WWTP.

For the WSCI Hydro-Tank Replacement at the water treatment plant, Mr. Lubertozi testified that Petitioner inspected the existing hydro-tank in 2014 and determined that the tank reached the end of its useful life and posed a safety risk to nearby residents and operations staff. He testified that a new tank was installed and placed in service in October 2015.

Regarding Petitioner's proposed 2015, 2016, and 2017 Sewer Capital Improvement Projects ("SCIP"), Mr. Lubertozi stated that Petitioner is required by the Commission in Cause No. 43128 S1 to clean and televise a minimum of 10% of its sewer collection system each calendar year and to make the necessary repairs and replacements of deficiencies. Mr. Kersey explained in the February 6, 2017 Docket Entry Response 4-40 that \$148,122 of SCIP for 2015 was included in Petitioner's UPIS at February 29, 2016 balance.

2. OUCC's Evidence. Mr. Parks testified regarding Petitioner's plans to install a SCADA communication system at the Twin Lakes water division to link both water treatment plants and the elevated water tower. He testified that he was not able to review project specifics or the reasonableness of the project because Petitioner's case-in-chief did not provide this information. He said that the OUCC requested this information but did not receive it. He recommended that the Commission disallow the SCADA project in its entirety due to lack of information provided by Petitioner for the OUCC to review whether the project is prudent and reasonable.

Regarding Petitioner's proposal to install a Second Sludge-Storage Tank at Petitioner's WWTP, Mr. Parks testified the estimated cost is \$539,150. He further testified that Petitioner completed minimal planning regarding the tank's construction and that he requested additional information regarding project specifics, but he did not receive it. He stated that he did not believe Petitioner needed to construct a second sludge-storage tank in 2017 because the phosphorus limits Petitioner used to justify the project would not take place until 2021. Mr. Parks recommended that the Commission disallow Petitioner's Second Sludge-Storage Tank project in its entirety.

Mr. Parks also testified regarding Petitioner's proposed WWTP Headworks Upgrades. He testified that Petitioner proposed to construct new grit removal, mechanical step screening, and raw sewage odor control in a new Headworks Building. He further discussed the need for the WWTP Headworks project and stated that he requested additional information from Petitioner regarding project specifics, but he did not receive the information. He testified that despite Petitioner's contention that the Headworks Upgrades will benefit ratepayers, the cost savings were not quantified. He recommended that the Commission disallow the Headworks Upgrades in their entirety.

Mr. Parks testified regarding Petitioner's Hydro-Tank Replacement Project at the water treatment plant. Mr. Parks explained generally what a hydro-tank is and explained why Petitioner needed to replace its original hydro-tank. Mr. Parks testified that Petitioner estimated a cost of \$110,000, but based on his review, actual costs associated with the Hydro-Tank Project were \$183,239. Mr. Parks further testified that, while he agreed with Petitioner that the Hydro-Tank Replacement project was needed, he was unable to verify that the higher project cost was reasonable.

The OUCC recommended adjustments to Petitioner's initial SCIP estimates for 2016 and 2017 to remove costs for televising, cleaning, and mapping because those costs are more appropriately classified as operating expenses rather than as capital projects. The OUCC's rate base schedules reflect revised SCIP amounts of \$180,903 for 2016 and \$361,806 for 2017.

3. Petitioner's Rebuttal. Mr. Kersey provided an update on Petitioner's proposed capital projects and responded to the OUCC's suggested adjustments. As shown in Table 7, Petitioner removed the SCADA system for the Water Treatment Plant, Second Sludge-Storage Tank, and WWTP Headworks Upgrade projects from rate base. Pet. Ex. R2 at 31. Mr. Kersey also revised the cost estimates for the remaining capital projects. Petitioner provided a revised Table 7 in its February 6, 2017 Docket Entry Response 4-43 that correctly tabulated its case-in-chief and rebuttal amounts as shown in the table below.

Petitioner's Rebuttal Amounts, Table 7, Adjustments to Forecasted Projects

Petitioner's Revised Capital Project Description Per Rebuttal Testimony	Case-in-Chief	Rebuttal Amount	Change
Supervisory Control and Data Acquisition at Water Treatment Plant	\$ 87,170	N/A	\$ (87,170)
Second Sludge-Storage Tank at Wastewater Plant	539,159	N/A	(539,159)
500,000-Gallon Water-Storage Tank Replacement (North GST)	507,443	\$ 491,097	(16,346)
Wastewater Treatment Plant Headworks	1,072,503	N/A	(1,072,503)
Hydro-Tank Replacement at Water Plant	161,211	184,151	22,940
2015 Sewer Capital Improvement Project	435,775	148,122	(287,653)
2016 Sewer Capital Improvement Project	443,202	180,903	(262,299)
2017 Sewer Capital Improvement Project	228,112	361,806	\$133,694
Total	\$ 3,474,575	\$ 1,366,079	\$(2,108,496)

Regarding the Hydro-Tank Replacement, Mr. Kersey testified that Petitioner does not agree with the OUCC's recommendation to remove the Hydro-Tank Replacement costs from Petitioner's rate base. He testified that despite Mr. Parks agreeing that the Hydro-Tank Project was needed to replace the original hydro-tank, the OUCC proposed limiting project costs to \$110,000. He further testified that the OUCC arrived at the \$110,000 threshold based on a figure that was communicated to Mr. Parks by Mr. Lubertozzi. Mr. Parks admitted he did not know the cost detail used to arrive at the \$110,000. Mr. Kersey testified that the completed project cost was \$184,151; \$155,609 in construction costs for engineering, material, and contract labor, \$20,582 in capitalized

time, and \$7,959 in AFUDC. Petitioner does not agree that any of these costs should be removed from rate base because the OUCC failed to provide which of the higher costs were unreasonable and failed to base its recommendation on costs that are on record in this Cause.

Mr. Lubertozi stated that capitalized time and interest costs during the Hydro-Tank construction were not included in the original \$110,000 estimate communicated to Mr. Parks. Mr. Lubertozi further stated that despite Mr. Parks's contention that he was unable to verify that the higher project costs were reasonable, he admitted that he was able to review project specifics, the reasonableness of the project, and the project costs. Mr. Lubertozi stated that the OUCC was aware that Petitioner's original tank failed inspection and a significant investment would need to be made to replace it. He testified that the OUCC agreed that the project was necessary and did not identify any costs associated with the Hydro-Tank that it believed were imprudent or unreasonable. For these reasons, Mr. Lubertozi recommended that the Commission reject the OUCC's proposed cap of \$110,000 on Petitioner's Hydro-Tank Project.

4. Commission Discussion and Findings. The OUCC identified concerns with several of the forecasted capital projects Petitioner proposed to include in rate base. In rebuttal, Petitioner removed several of those projects. Thus, the only remaining challenged capital projects (excluding North GST, which is discussed separately) are the Hydro-Tank Replacement and SCIP.

For the Hydro-Tank Replacement, the OUCC agreed that this project is necessary but questioned the increase in costs above the preliminary cost estimate provided to the OUCC. The record shows that the preliminary estimate of \$110,000 for the Hydro-Tank Replacement project did not include capitalized time and interest during construction. While the OUCC agreed with Petitioner that the Hydro-Tank Replacement project was needed, Mr. Parks said that he was unable to verify that the higher project cost was reasonable. Because the OUCC did not identify any specific costs which it considered unreasonable or imprudent, we decline to accept the OUCC's position regarding the Hydro-Tank project and accept Petitioner's updated Hydro-Tank Replacement cost of \$184,151.

Regarding SCIP, the Commission finds that Petitioner's rebuttal testimony amount of \$180,903 for 2016, which does not include work scope that is properly classified as operating expense, should be reduced to \$107,404 based on Petitioner's 2017 Monthly Project Update. The Commission finds that 2017 SCIP should be limited to \$180,903, subject to the adjustment in the Rate Base Update Mechanism section. We note that while Petitioner's 2017 SCIP shown in Mr. Kersey's rebuttal testimony agrees with the OUCC's supplemental rate schedules, the \$361,806 included in the OUCC's schedules is inconsistent with Mr. Parks's written testimony and appears to be an error. Further, Petitioner's rebuttal testimony never explains the proposed increase to \$361,806. We note that Petitioner's SCIP 2015 proposed amount of \$148,122 was already included in Petitioner's \$19,091,095 UPIS at February 29, 2016 balance. Accordingly, no amount should be added to rate base for SCIP in 2015.

IURC's Findings: Capital Projects To Be Included in Rate Base	Amount
Hydro-Tank Replacement at Water Plant	\$ 184,151
2016 Sewer Capital Improvement Project	107,404
2017 Sewer Capital Improvement Project	180,903
500,000-Gallon Water-Storage Tank Replacement (North GST)	491,097
Total	\$ 963,555

E. Non-Capital Costs.

1. OUC's Evidence. Ms. Stull expressed concern that Petitioner was excessively capitalizing operating expenses and Petitioner's Capitalized Time Guidelines encouraged this practice. Pub. Ex. 1 at 23. She said Petitioner consistently capitalizes costs such as well cleaning, geographic information system ("GIS") mapping, televising of sewer mains, smoke testing of sewer mains, and other routine maintenance expenses of its water and wastewater systems if that activity led to a capital project. She said in the short run, it may appear to be less expensive to capitalize a cost rather than expense it. She said doing so reduces operating expenses today, but over the long run, ratepayers could pay both a return *on* and a return *of* that cost for 40 to 50 years or longer. Moreover, she stated the return *on* these costs will be grossed up for state and federal taxes. She provided an example of a \$1,000 repair expense and argued that after ten years, ratepayers would pay a higher annual revenue requirement if the item was capitalized versus expensed.

For Petitioner's water utility plant, Ms. Stull proposed to exclude \$171,845 of costs related to maintenance that should have been expensed. Ms. Stull also proposed to exclude \$77,272 of capitalized time, of which \$18,124 was associated with the operational activities identified below.

Well Cleaning Costs	\$	150,235
Filter Media Replacement		2,735
Well Maintenance		15,775
Other Misc. Non-Capital Costs		3,100
TOTAL	\$	171,845

For Petitioner's wastewater plant, Ms. Stull proposed to exclude \$4,222 of costs that were not properly classified. In addition, Ms. Stull also proposed to exclude \$41,405 of capitalized time, of which \$6,052 was associated with the operational activities identified below.

Blower Repair	\$	1,521
Tree Removal		484
NPDES Land App Permit		2,000
Other Plant		217
TOTAL	\$	4,222

Ms. Stull said that to the extent the costs removed should be considered a recurring operating expense and that operating expense is not already included in test year operating expenses, she proposed an upward adjustment to maintenance and repair expense as appropriate. Ms. Stull recommended that Petitioner be required to properly record operating expenses in its

general ledger. More specifically, she said that whether an activity is booked as an operating expense depends on the nature of the activity and not on whether a capital project follows the activity.

Ms. Stull also asserted Petitioner capitalized a disproportionately large percentage of employee time, sometimes 50% - 90% of an employee's time, including the time of high-level managers. She stated that, based on her experience, high-level manager time is not typically capitalized in material amounts. Ms. Stull noted that during January 2011 through September 2015, Petitioner capitalized allocations of \$490,659 to its consolidated water operations, including \$88,599 of capitalized-employee time, which represents 18.0% of total capital additions. Ms. Stull considered that percentage to be high since Petitioner hires contractors to perform all capital work except meter installations. Ms. Stull stated Petitioner's employees do not perform capital work themselves because it is against corporate policy for an employee to enter a trench or confined space. Therefore, Petitioner's employees capitalize time spent supervising contractors, conducting site reviews, working with contractors and engineers during construction, preparing project status updates, ordering materials, obtaining permits, and other similar administrative functions.

As an example, Ms. Stull noted the capitalized time for South GST was \$34,773, representing 756 hours. Five employees capitalized their time to South GST, including 704 hours charged by supervisory and management employees for time spent reviewing sites, making inspections, working with contractors, and attending meetings. One management employee charged 432.5 hours to South GST. The OUCC proposed to reduce excessive capitalization of management's time by \$24,183 for the water operations and \$35,353 for the wastewater operations.

Mr. Parks also expressed concern with Petitioner's tendency to capitalize its staff costs. Mr. Parks noted that capitalized emergency-leak repairs and capitalized time was an issue in the Twin Lakes Distribution System Improvement Charge ("DSIC") application under Cause No. 44646 in 2015. Mr. Parks said capitalized time charges are supposed to be for time spent by Petitioner's staff on capital projects during planning, design, construction, and start-up. Mr. Parks testified costs to acquire and put long-term assets into service are typically considered capital costs, while ongoing costs incurred for daily operations or to maintain the current condition of a long-lived asset are typically expensed. Mr. Parks said it appears Petitioner capitalizes almost every leak repair whether for water-main breaks or service-line leaks, and whenever any length of pipe is replaced instead of using a clamp, the cost is capitalized.

Mr. Parks noted that in Cause No. 44646, Twin Lakes indicated that it cost \$91,161 to replace 124 feet of distribution main as a result of nine main breaks. Mr. Parks noted that more than one-third of the cost was for employee-capitalized time even though the utility's employees do not perform any of the labor on those jobs. Mr. Parks stated that fundamentally, the capitalized time charged by Petitioner was excessive. He explained that the total number of capitalized hours Twin Lakes charged against water main repairs was 801 hours spread primarily among five utility staff members. At a cost of \$43.65 per hour, he said this equates to 89 hours for each of the nine water-main breaks, most of which were completed by the contractor with a three-or four-person crew within one day. He said total crew repair time would range from 18 to 40 hours per leak repair compared to 89 hours per leak repair for capitalized time. Mr. Parks recommended all

reasonable and prudent Petitioner staff time spent addressing water-main breaks and service-line leaks be expensed and not capitalized. The OUCC proposed to disallow \$34,965 for capitalized time associated with DSIC leak repairs, which should have been expensed.

2. Petitioner's Rebuttal. Mr. Kersey explained that the well cleaning costs, filter media replacement, and well maintenance costs the OUCC proposed to disallow from rate base should be set-up as a net-deferred charge component of rate base with a proposed recovery of these costs over a span of three years. Mr. Kersey explained that a three-year amortization period for well cleanings and rehabilitations is appropriate because the three-year period was chosen to reflect the above-normal corrosiveness of the water which requires well reconditioning at an above-normal frequency. Mr. Kersey further explained that without frequent reconditioning of Petitioner's wells, the risk of failure would increase and would result in otherwise unnecessary capital spending in the future. Mr. Kersey explained that Ms. Stull proposed an adjustment of (\$171,845) to operating expense based on the transactions the OUCC proposed to exclude in Public's Exhibit No. 1, Attachment MAS-4. However, no adjustment to operating expense was made. Petitioner recommended \$44,145 remain in rate base and the remaining \$127,700 be amortized through maintenance expense over a three-year period. The total amount of incremental amortization per year would be \$42,567 ($\$127,700 / 3$).

Mr. Lubertozi testified that Ms. Stull's comparison of an annual expense to a capital item only looked at the costs over a ten-year period. He said that if the expense item was truly ongoing, those costs would continue past the ten years and then customers would clearly pay more than what Ms. Stull depicts. Mr. Lubertozi asserted, "[I]t is a commonly understood practice that a regulatory utility should trade expense for capital whenever possible." Pet. Ex. R1 at 27.

With respect to the OUCC's comments regarding capitalized time, Mr. Lubertozi stated Petitioner uses a very straightforward and commonly accepted method when deciding whether to expense or capitalize costs when there is a main break or a leak. He said this method is common in the water and wastewater industry, even in Indiana. Furthermore, he said Petitioner's method is similar to what was discussed in Mr. Parks's testimony. Mr. Lubertozi explained that when there is a leak or main break and Petitioner installs one clamp to repair a leak, those costs are expensed. He said when there is a leak or main break and Petitioner replaces any portion of the transmission or collection system, Petitioner capitalizes all of the costs associated with that replacement. He said Petitioner's approach is consistent with Petitioner's internal policies as well as generally accepted accounting principles and the National Association of Regulatory Utility Commissioners ("NARUC") Uniform System of Accounts ("USoA"), and he identified the specific NARUC USoA instructions that supported Petitioner's approach.

Mr. Kersey also responded to Mr. Parks's testimony and explained how Petitioner distinguishes capital costs from operating costs. He noted that Mr. Parks based his claim on the USoA, but in discovery, Mr. Parks did not offer an opinion on whether the accounting treatment of water main replacement under the USoA is dependent on whether the activity was planned or unplanned, or whether the accounting treatment of water main replacement under the USoA is dependent on the length of the replaced main. He further noted that the OUCC did not propose any rate recovery to implement their recommendation to treat main replacements as an expense. Mr. Kersey identified the annual forecasted expense that would need to be added to Petitioner's

operating expenses if the OUCC's position was adopted. Mr. Kersey explained that \$137,331 should be added to Petitioner's operating expenses, which consists of \$101,777 for pipe, replacement, and site restoration and \$35,554 in capitalized time from Petitioner's operations.

Further, Mr. Kersey explained that although he believes the Company prudently capitalizes time when applicable, to limit the number of contested issues, Petitioner accepts the OUCC's adjustments and has included corresponding adjustments related to capitalized time expense. However, Petitioner did not accept the OUCC's adjustment for capitalized time associated with DSIC leak repairs. Mr. Kersey explained capitalized time for water main leak repairs is still eligible for recovery, per the Company's Settlement with the OUCC in Cause No. 44646. Mr. Kersey opined that if the OUCC proposes that Petitioner cease capitalizing time for water main leak repairs, the OUCC should likewise propose a corresponding adjustment to Petitioner's forecast of capitalized-time expense, similar to the OUCC's proposed adjustments to excessive capitalization of management time and non-capital activities.

3. Commission Discussion and Findings. Under the capitalization policy section of Mr. Lubertozi's rebuttal testimony, he asserted that it is a commonly understood practice that a regulatory utility should trade expense for capital whenever possible. The Commission disagrees with that premise. A regulated utility should follow accounting principles and the NARUC USoA when classifying transactions. The business decision to either capitalize or expense a cost should be based upon the nature of the activity. Instead, Petitioner appears to capitalize its maintenance costs if the activity leads to a capital project and elects to perform a capital activity in lieu of a repair. If a utility were allowed to capitalize expenses, a utility would generate higher costs to ratepayers through an inappropriate return on expenses and an unnecessary increase in state and federal income taxes on the increased return generated by capitalizing expenses. Moreover, capitalizing maintenance expenses would create intergenerational rate inequities because ratepayers in the future would pay for operating costs that occurred in the past.

While the OUCC was critical of Petitioner and provided examples with cost information, the OUCC did not propose adjustments to remove any amount of main repairs from rate base. However, we note that based on Petitioner's 2015 Annual Report for the Twin Lakes water operations (the largest of Petitioner's three divisions), 40 main breaks occurred in that year. It was undisputed that Petitioner averages only one clamp repair annually. However, Petitioner's practice of encouraging capitalization whenever possible appears to have affected Petitioner's decision whether to repair a main leak with a clamp or replace a section of pipe. It seems unreasonable that more than 95% of all main breaks resulted in capital projects.

We find Petitioner's practices of capitalizing maintenance activities and opting for a capital project versus a repair to be inappropriate, and those practices violate proper accounting procedures and the NARUC USoA. Therefore, we direct Petitioner to properly expense maintenance and other operating costs as incurred regardless of the frequency of the occurrence or whether a capital project eventually results from the performance of the maintenance activity. We find that \$171,845 of routine maintenance, which includes well cleanings and maintenance, filter media replacement, and other miscellaneous non-capital items, should be disallowed from Petitioner's consolidated water rate base. An expense adjustment associated with this finding is

explained below. We also find that \$4,222 of non-capital activities identified by the OUCC should be disallowed from Petitioner's consolidated wastewater rate base.

We now address Petitioner's capitalization of labor related to management time and the capitalization of non-capital activities. Ms. Stull provided Petitioner's Capitalized Time Guidelines, which states, in part, the following:

Capitalized time refers to internal labor costs directly related to a capital expenditure or a capital project. The "cost" of your salary and benefits associated with the time you worked on a capital item is allocated to that item and becomes part of its overall cost basis. Capitalized time adds to rate base or our investment basis and improves our net income. Any missed capitalized time artificially inflates our expenses and reduces our rate base. Pub. Ex. 1, Attach. MAS-5.

Ms. Stull and Mr. Parks provided evidence that showed Petitioner capitalized more hours on capital projects than the time spent by contractors performing the actual work. We believe Petitioner's practice led to excessive capitalization of employee time. It is evident from the examples provided by the OUCC, as well as Petitioner's Capitalized Time Guidelines, that employees and management personnel have inappropriately capitalized their time. We find that Petitioner should revise its Capitalized Time Guidelines to avoid inappropriate capitalization of employee time and specifically management time. We also find that Petitioner should implement the related requirements in the section titled Use of Three-Way-Match Process.

Accordingly, we accept the OUCC's adjustments to remove capitalized time associated with non-capital activities, excessive management time, and DSIC leak repairs of \$77,272 from consolidated water rate base and \$41,405 from consolidated wastewater rate base. The impact of these adjustments on Petitioner's pro forma operating expense are explained below.

Finally, we address Mr. Kersey's position that \$137,331 should be added to Petitioner's operating expenses if the Commission disallows it as a capital cost. We agree with Mr. Kersey that a certain level of expense should be allowed given our finding regarding Petitioner's capitalization practices. However, Petitioner provided no supporting evidence for the \$137,331 adjustment. Therefore, we decline to include Petitioner's proposed adjustment. For future cases, we encourage Petitioner to provide adequate support for its proposed adjustments. Additionally, Petitioner might respond to our finding here by initiating a comprehensive main-replacement program, which may reduce the number of emergency-leak repairs, improve service to customers, and if prudently implemented, provide an opportunity to earn a return.

F. Water Service Lines and Wastewater Laterals.

1. OUCC's Evidence. Ms. Stull proposed to exclude capitalized costs incurred to install or replace water service lines and wastewater laterals. She explained that Petitioner installed two water service lines at a total cost of \$19,899 and four wastewater laterals at a total cost of \$50,748. She explained that the service lines and wastewater laterals in question are the property of the customers, not the property of the water and wastewater utilities,

respectively. She explained that the capital costs should not be included in rate base for all customers to pay a return *on* and *of* property the utility does not own.

2. Petitioner's Rebuttal. Mr. Kersey disagreed with the OUCC's proposed service line and wastewater lateral adjustments. He explained that the OUCC neglected to consider whether these costs were associated with bringing service to the customer's property line or if any of the customers made cash contributions consistent with the connection charges in Petitioner's tariffs. Mr. Kersey explained that these costs are investments made by Petitioner for the provision of retail utility service. Because no consideration was given to draw a distinction between Petitioner's and customer's service lines, the OUCC's proposed adjustments should be disallowed.

However, Mr. Kersey explained that if the OUCC's position was adopted, consideration must also be given to offsetting amounts recorded to Petitioner's Contributions in Aid of Construction ("CIAC") accounts. Mr. Kersey explained that for water, certain invoices should not be removed because contributions from the customer were received. Additionally, regarding Invoice No. 4015, extensive work on the Company-owned portion of the line was required to bring service to the customer's property line. Regarding the wastewater operations, Mr. Kersey explained that cash was received from the customer, which was associated with Invoice No. 3190. Regarding Invoice No. 3357, Mr. Kersey explained that although the OUCC considered the pipe as a wastewater lateral, it is actually a pipe that runs between two manholes for which Petitioner is responsible. Thus, he argued that these invoiced costs should not be removed from rate base. With regard to Invoice Nos. 4028 and 4218, he argued that these invoices should also not be removed due to the extensive work on Petitioner's portion of the line that was required to bring service to the customer's property line.

For its water service lines, Petitioner indicated in discovery that it received \$16,184 in contributions, which leaves \$3,715 in water utility plant that Petitioner disputes should be excluded from capital costs. For its wastewater, Petitioner received contributions of \$12,832 for its wastewater laterals, which leaves \$37,916 in wastewater utility plant that Petitioner disagrees should be excluded from capital costs.

3. Commission Discussion and Findings. We agree with the OUCC that service lines and wastewater laterals owned by customers should not be included in rate base. While the Commission concurs with Petitioner's witness Mr. Kersey that consideration needs to be given if costs were associated with bringing service to the customer's property line, Petitioner did not identify which of the costs or how much of those costs were associated with the utility's portion of the service line. A review of Invoice No. 4015 shows that the invoice does not identify which costs are related to Petitioner's portion of the line extension and which costs are related to the customer's portion. Because Petitioner did not adequately support its position, the Commission finds that service lines and wastewater laterals should not be included in rate base.

Further, to the extent the OUCC's proposed plant reductions to rate base were funded by CIAC, a corresponding CIAC reduction should also be made. Thus, the Commission finds that \$19,899 should be disallowed in UPIS for Petitioner's water operations and \$50,748 should be disallowed in UPIS for Petitioner's wastewater operations because those amounts representing

customer-owned property should not have been included in Petitioner's rate base. Additionally, customers made CIAC payments toward the cost of the water service lines and wastewater laterals. Accordingly, based on the OUCC's Cross-Examination Exhibit 22, we also find a reduction of \$16,184 to CIAC for Petitioner's water operations and an \$11,732 reduction to CIAC for Petitioner's wastewater operations should be made.

G. Scrap Value of Retired Meters.

1. OUCC's Evidence. Ms. Stull testified that Petitioner recently stripped metals from meters retired in 2013 and Petitioner received a salvage value for the metals. Ms. Stull proposed a reduction to rate base of \$8,513 to consolidated water operations to reflect this salvage value.

2. Petitioner's Rebuttal. Mr. Kersey indicated he agreed with Ms. Stull's recommendation to remove the proceeds for stripped salvage metals from meters in 2013 from rate base. However, he indicated that the meters were scrapped in multiple installments and the total proceeds in 2013 was \$13,023.

3. Commission Discussion and Findings. Rate base should be reduced by the value of salvaging any items that have been retired. Here, the OUCC found that Petitioner retired meters in 2013 and salvageable metal from the meters was sold. Petitioner initially indicated the proceeds were \$8,513; however, this was revised by Mr. Kersey to \$13,023. The Commission finds that Petitioner's rate base shall be decreased by \$13,023 due to the proceeds from salvaged metal from meters in 2013.

H. General Plant.

1. Petitioner's Evidence. Testimony regarding Petitioner's Phase I and Phase II general plant additions was not provided and was not listed in Petitioner's rate schedules set forth in Petitioner's Exhibit 2, Attachment JPK-1.

2. OUCC's Evidence. The OUCC explained that Petitioner forecasted general rate base additions of \$919,319 for water and \$491,112 for wastewater. In her supplemental testimony, Ms. Stull explained that Phase II general plant additions of \$476,929 for water and \$189,857 for wastewater should be included in rate base. It appears that the OUCC accepted the embedded amount for Phase I plant additions for water and wastewater as of February 29, 2016; however, the OUCC did not reflect in its schedules an amount for Phase I general plant additions.

3. Petitioner's Rebuttal. Mr. Kersey explained that although it appeared that the OUCC had proposed inclusion of general plant additions for Phase II, it did not appear that any consideration was given for general plant additions from March 1, 2016, through September 30, 2016. The OUCC provided no testimony as to why general plant additions recorded from March 1, 2016, through September 30, 2016, should be excluded from its September 30, 2017 updated rate base. Petitioner's Exhibit R2, Attachment JPK-R1 at pages 8 and 17 reflected \$0 for general plant additions to be included in Phase I rates for water and wastewater operations,

respectively. For Phase II, Petitioner proposed \$755,138 (\$278,209 + \$476,929) in general plant additions for water operations and \$300,607 (\$110,750 + \$189,857) for wastewater operations.

4. Commission Discussion and Findings. Petitioner's forecasted general plant for water is \$953,858 per its Supplemental Response to IURC Docket Entry Dated February 2, 2017, and it was not \$919,319 as indicated by the OUCC. On February 6, 2017, Petitioner filed Attachment 4.2 and 4.4 that provided a breakout of Petitioner's forecasted Net Pro Forma Plant, which included \$953,858 for water operations combined and \$379,715 for wastewater operations combined. Petitioner explained that its forecasted \$953,858 included \$476,929 for both Phase I and Phase II for water operations and \$379,715 included \$189,857 for both Phase I and Phase II for wastewater operations. However, when the parties agreed to change the rate base cutoff date for Phase I from September 30, 2015, to February 29, 2016, \$198,720 of the \$953,858 was included in the February 29, 2016 balance for its combined water operations and \$79,107 was included in the February 29, 2016 balance for its combined wastewater operations. We agree with Petitioner that no testimony from the OUCC was provided disputing the general plant amounts proposed by Petitioner. Therefore, we accept Petitioner's proposed general plant rate base additions, with the additions proposed in Phase II being subject to the adjustment described in the Rate Base Update Mechanism section.

I. Allowance for Funds Used During Construction.

1. OUCC's Evidence. Ms. Stull testified that Petitioner used various rates during the period 2013 through 2015 to record AFUDC as follows:

January 2013 – March 2013	8.36%
April 2013 – May 2013	8.15%
June 2013 – December 2015	9.15%

Ms. Stull explained that Petitioner's AFUDC rate should be limited to the weighted costs of capital allowed in Petitioner's most recent rate case. Thus, the appropriate rates for each utility are: (1) Twin Lakes – 8.213% (Cause No. 44388); (2) WSCI – 8.31% (Cause No. 44104); and (3) IWSI – 8.31% (Cause No. 44097). Ms. Stull testified that the AFUDC rates through May 2013 appear reasonable for each utility. However, Petitioner's use of a 9.15% rate used since June 2013 is excessive. The 9.15% rate used is approximately 10% higher than the weighted cost of capital rate approved by the Commission. In supplemental testimony, Ms. Stull ultimately proposed to reduce AFUDC by \$8,426 for water operations and \$1,575 for wastewater operations.

2. Petitioner's Rebuttal. Mr. Kersey explained that Petitioner did not entirely agree with the OUCC's proposed water operations adjustment. Within the proposed adjustment, AFUDC was accrued to project 2013069, which was not closed and placed into service and was not requested in rate base. Therefore, the \$72 in AFUDC associated with this project should not be adjusted from rate base. Petitioner's proposed adjustment to water rate base is \$8,061 (\$8,354 - \$293). Petitioner corrected the AFUDC rate from 9.15% to 8.23%. Pet. Ex. 2R at 40. However, Petitioner accepted the OUCC's wastewater operations adjustment for AFUDC.

3. Commission Discussion and Findings. Petitioner did not disagree with the OUCC's use of Petitioner's weighted cost of capital as allowed in Petitioner's most recent

rate cases. Thus, the Commission finds Petitioner's adjustment to reduce AFUDC by \$8,354, which includes the modification of \$72 associated with project 2013069, for consolidated water operations and the OUCC's reduction of \$1,575 for consolidated wastewater operations are accepted.

J. Utility Plant Retirements.

1. OUCC's Evidence. Ms. Stull explained that Petitioner proposed utility plant retirements through September 30, 2017, consisting of: (1) ground-storage tank (\$212,519), (2) hydro-pneumatic tank (\$19,979), (3) general plant (\$36,298), (4) vehicles (\$44,100), and (5) computers (\$556,877) for a total of \$869,773 for Petitioner's water operations.⁶ Pub. Ex. 1 at 20. For its wastewater operations, Petitioner proposed a total of \$529,873 in retirements for: (1) general plant (\$135,491); (2) vehicles (\$28,940); and (3) computers (\$365,442). Ms. Stull also explained that most of the retirements forecasted by Petitioner had been recorded and are included in its February 29, 2016 general ledger balance. However, \$353,166 for the retirement of computers forecasted by Petitioner for its consolidated water operations had not occurred. Ms. Stull proposed an adjustment to remove \$310,450 for Phase I retirements of computers and \$353,166 for Phase II retirements of computers and vehicles from UPIS and accumulated depreciation as of September 30, 2017, for consolidated water operations. Further, Ms. Stull proposed \$336,538 for Phase I retirements of computers and \$364,570 for Phase II retirements of computers and vehicles from UPIS and accumulated depreciation as of September 30, 2017, for consolidated wastewater operations.

2. Petitioner's Rebuttal. No rebuttal testimony was provided by Petitioner on utility plant retirements. However, Petitioner reflects a removal from rate base of \$514,161 for Phase I retirements and a removal of \$556,877 for Phase II retirements from UPIS and accumulated depreciation for consolidated water operations. Pet. Ex. 2R, Attach. JPK-R1 at 8. Petitioner also reflects a removal of \$336,538 for Phase I retirements and a removal of \$364,570 for Phase II retirements from UPIS and accumulated depreciation for consolidated wastewater operations. Pet. Ex. 2R, Attach. JPK-R1 at 17.

3. Commission Discussion and Findings. Regarding wastewater plant retirements, the parties appear to agree that \$336,538 represents Phase I retirements and \$364,570 represents Phase II retirements. We note that the \$28,032 increase from Phase I to Phase II is associated with vehicle retirements. There is no longer a need to phase-in Petitioner's rates due to the time delays in this case. Therefore, we include \$364,570 in rate base for plant retirements for consolidated wastewater operations.

However, a difference exists for water plant retirements as shown on Petitioner's Exhibit 2R, Attachment JPK-R1 of \$203,711 (\$514,161 less \$310,450 equals \$203,711, and this is the difference between Petitioner's rebuttal and the OUCC's supplemental schedules for Phase I). We note that the difference appears to be related to the OUCC multiplying Petitioner's 60.38% Equivalent Residential Connection ("ERC") factor to the \$514,161 in computer retirements allocated to Petitioner's water operations. Petitioner proposed a total of \$922,319 in retirements

⁶ We note that based on Petitioner's February 6, 2017 Docket Entry response, the \$36,298 general plant retirement is actually associated with Petitioner's SCADA system, which Petitioner removed in rebuttal from its proposed projects to be included in rate base.

for computers, which if one multiplies this amount by Petitioner's ERC allocation factor of 60.38% for its water operations, equates to the \$514,161 Phase I allocation and additional \$42,716 allocation for Phase II. Therefore, we disagree with the OUCC's further allocation of computer retirements because it is not necessary. We find Petitioner's plant retirements for computers of \$514,161 for Phase I and for Phase II for Petitioner's water operations should be approved. We also find the \$42,716 Phase II increase in retirements associated with vehicles should be approved.

Further, we note that in response to the Commission's docket entry questions, Petitioner indicated that \$212,519 in retirements associated with North GST and \$19,979 associated with the Hydro-Tank Replacement were included in its net pro forma plant additions for its water operations, and both projects were approved for recovery in rate base as described above. Thus, these associated retirements should also be reflected in rate base. However, based on the OUCC's docket entry responses submitted at the hearing, Petitioner retired \$59,761 associated with Peabody GST in the February 29, 2016 UPIS balance of \$13,445,342. Thus, the Commission finds further retirements of \$19,979 associated with the replacement of Petitioner's Hydro-Tank and \$152,758 (\$212,519 - \$59,761) associated with the demolition of Peabody GST for North GST construction should be included in rate base. Given there is no longer a need to phase-in Petitioner's rates, we reflect in rate base the retirement of \$729,614 in plant for consolidated water operations.

K. Accumulated Depreciation. Both Petitioner and the OUCC made adjustments to accumulated depreciation based on their respective positions regarding Petitioner's UPIS issues described above. Moreover, we note that both Petitioner and the OUCC included Remaining Phase I Depreciation Expense in the Phase I column of their respective rate schedules. However, the OUCC used a September 30, 2016 cutoff date, which would make such an adjustment necessary, but Petitioner's rebuttal Phase I cutoff date is February 29, 2016. Thus, for Petitioner, any remaining Phase I depreciation after Petitioner's cutoff date is properly reflected in its Phase II accumulated depreciation balance. If there were a need for phased rates, the Commission would have found accumulated depreciation for Phase I and Phase II based on a Phase I cutoff date of February 29, 2016, as follows:

Combined Water Operations		
	Phase I	Phase II
Accumulated Depreciation at 2/29/2016	\$ 2,684,682	\$ 2,684,682
Add: Remaining Phase I Depreciation Expense		148,558
Phase II Depreciation Expense	-	269,886
Less: A/D on Disallowed Capital Costs	12,601	12,601
Retirements	686,898	729,614
Total Accumulated Depreciation	\$ 1,985,183	\$ 2,360,911

Combined Wastewater Operations			
		Phase I	Phase II
Accumulated Depreciation at 2/29/2016		\$ 6,256,180	\$ 6,256,180
Add:	Remaining Phase I Depreciation Expense		270,149
	Phase II Depreciation Expense	-	477,927
Less:	A/D on Disallowed Capital Costs	14,176	14,176
	Retirements	336,538	364,570
Total Accumulated Depreciation		\$ 5,905,466	\$ 6,625,510

However, given the time delays to this Cause, we find the accumulated depreciation for Petitioner's consolidated water and wastewater operations to be \$2,360,911 and \$6,625,510, respectively. These amounts are subject to the Rate Base Update Mechanism described below.

L. Contributions in Aid of Construction.

1. Petitioner's Evidence. Mr. Kersey testified that Petitioner's forecast for amortization of CIAC reflected the removal of Twin Lakes CIAC amortization expenses incorrectly recorded to Petitioner's general ledger during the base period. Mr. Kersey stated that because Petitioner does not amortize Twin Lakes CIAC for ratemaking purposes, it was necessary to reverse these base year transactions. Mr. Kersey also testified that forecasted amortization of CIAC for IWSI and WSCI was annualized based on Petitioner's recommended depreciation rates.

For consolidated water operations, Petitioner forecasted net CIAC of \$2,319,597 as of September 30, 2017. This forecast reflects a decrease of \$16,871 from base year net CIAC of \$2,336,468. Petitioner proposed an increase of \$17,561 to its water net acquisition adjustment to reflect the removal of accumulated amortization of its Twin Lakes CIAC. Petitioner also forecasted a decrease of \$34,432 to reflect additional amortization of WSCI and IWSI CIAC.

For consolidated wastewater operations, Petitioner forecasted net CIAC of \$3,773,299 as of September 30, 2017. This forecast reflects an increase of \$32,657 from base year wastewater net CIAC of \$3,740,642. Petitioner proposed an increase of \$33,342 to wastewater net CIAC to reflect the removal of accumulated amortization of the Twin Lakes CIAC. Petitioner also forecasted a decrease of \$685 to reflect additional amortization of WSCI wastewater CIAC.

2. OUCC's Evidence. Ms. Stull explained that CIAC is a reduction to rate base. Ms. Stull rejected Petitioner's proposed forecasted CIAC because she believes it is not needed and instead used Petitioner's actual CIAC balance as of the general rate base cut-off of February 29, 2016.

3. Petitioner's Rebuttal. Mr. Kersey testified that Petitioner did not agree with the OUCC's removal of the impact of Petitioner's newly recommended depreciation rates on CIAC amortization. Therefore, Petitioner did not agree with the OUCC's proposed CIAC amortization using the Commission's composite-depreciation rates.

4. - Commission Discussion and Findings. In light of our finding below requiring Petitioner to continue using the Commission's composite-depreciation rates, we find the Commission's composite-depreciation rates shall also be used to establish the net CIAC to be included in rate base. Further, similar to the issue described above with regard to accumulated depreciation, based on the use of a Phase I cutoff date of February 29, 2016, any accumulated amortization expense accrued from March 1, 2016, through the end of Petitioner's test period would be recorded in Phase II subject to the Rate Base Update Mechanism.

Net CIAC for Consolidated Water Operations			
		Phase I	Phase II
Contributions in Aid of Construction, net as of 2/29/16		\$ 2,342,255	\$ 2,342,255
Less:	Disallowed Plant	16,184	16,184
	Amortization of CIAC Phase I		8,568
	Amortization of CIAC Phase II	-	14,687
Contributions in Aid of Construction, net		\$ 2,326,071	\$ 2,302,816

Net CIAC for Consolidated Wastewater Operations			
		Phase I	Phase II
Contributions in Aid of Construction, net as of 2/29/16		\$ 3,748,895	\$ 3,748,895
Less:	Disallowed Plant	11,732	11,732
	Amortization of CIAC Phase I		457
	Amortization of CIAC Phase II	-	783
Contributions in Aid of Construction, net		\$ 3,737,163	\$ 3,735,923

However, given the time delays to this Cause, we find net CIAC for Petitioner's consolidated water and wastewater operations to be \$2,302,816 and \$3,735,923, respectively. These amounts are subject to the Rate Base Update Mechanism described below.

M. Accumulated Deferred Income Taxes.

1. Petitioner's Evidence. Petitioner explained that the forecasted changes to accumulated deferred income taxes related to projected differences between book and tax depreciation. Attachment JPK-1, page 6 reflects pro forma proposed combined accumulated deferred income taxes of \$1,313,021.

2. OUC's Evidence. Ms. Stull explained in a footnote that the difference between Petitioner's and OUC's accumulated deferred income taxes was primarily due to the difference between Petitioner's allocation of rate base based on customer counts and the OUC's allocation methodology shown on Attachment MAS-3. Ms. Stull's supplemental testimony reflects the OUC's revised accumulated deferred income tax balances for Phase II of \$1,043,121 for consolidated water operations and \$1,010,994 for consolidated wastewater operations.

3. Petitioner's Rebuttal. No rebuttal testimony was provided regarding this issue. However, in Rebuttal Schedule 8W, Petitioner proposed Phase II accumulated deferred income tax of \$949,410 for consolidated water operations and \$962,307 for consolidated wastewater operations.

4. Commission Discussion and Findings. Accumulated deferred income taxes is the difference between book and tax depreciation for Petitioner's depreciable plant. We also take into consideration our findings regarding total depreciable utility plant. We find accumulated deferred income tax for Petitioner's Phase I rates for its consolidated water operations to be \$944,945 and for Phase II to be \$1,041,204. For Petitioner's consolidated wastewater operations, the Commission finds accumulated deferred income tax to be \$887,594 for Phase I rate base and \$987,305 for Phase II rate base. However, given the delay in this Cause, there is no need to phase-in Petitioner's rates. Therefore, based on our findings for Petitioner's UPIS above, we find accumulated deferred income taxes to be \$1,041,204 for consolidated water operations and \$987,305 for consolidated wastewater operations.

We note that both parties deducted vehicles and computers from their accumulated deferred income tax calculations, but they did not explain why the deduction was made. Based on the work papers filed in Petitioner's rebuttal testimony, vehicles and computers are reflected in Petitioner's general ledger trial balance as of February 29, 2016, which is inconsistent with Mr. Kersey's statement that "computer software and transportation, are held on affiliate books." Pet. Ex. 2R at 24. Vehicles and computers are included in rate base to be depreciated using the Commission's approved composite-depreciation rates as discussed herein. Therefore, for ratemaking purposes, vehicles and computers should be included in Petitioner's accumulated deferred income tax calculations. However, because neither Petitioner nor the OUCC included computers and vehicles in their deferred income tax calculations, we also removed these assets. We find for future rate cases, Petitioner shall describe its deferred income tax calculation in its case-in-chief testimony and provide a supporting rate schedule.

N. Working Capital.

1. Petitioner's Evidence. Mr. Kersey explained that Petitioner's forecasted working capital was calculated based on forecasted operations and maintenance expenses ("O&M") as well as forecasted taxes other than income expense.

2. OUCC's Evidence. Ms. Stull explained that Petitioner used the Federal Energy Regulatory Commission ("FERC") 45-day method to estimate working capital and proposed to earn a return on working capital of \$194,043 for consolidated water operations and \$136,167 for consolidated wastewater operations. Ms. Stull stated that for ratemaking purposes, working capital generally is defined as the average amount of capital provided by investors, over and above the investment in plant, to bridge the gap between the time expenditures are required to provide service and the time collections are received for that service. In other words, working capital is the money a utility needs to provide utility service before it receives payment for that service. She added that while some expenses are paid after the related service revenues have been collected, some expenses are incurred and paid before the related revenues have been collected such as chemical expense, rent, and salaries. She testified that expenses paid in arrears include

taxes, purchased water, and purchased power. She said working capital is the net amount of money needed on an ongoing basis to fund daily utility operations. Working capital is considered the investment necessary for providing utility service and is included in rate base for investor-owned utilities.

Ms. Stull noted that in its calculation of working capital, Petitioner included expenses that are known to be paid in arrears. She identified taxes as well as purchased power and purchased water as items paid at the time or after Petitioner has received revenues from its customers for the utility service provided, noting many taxes are paid on a quarterly basis in arrears and property taxes are paid up to two years in arrears. Therefore, she proposed the exclusion of all taxes as well as purchased power and purchased water expense from the calculation of operating expenses on which the FERC 45-day method is applied. Ms. Stull noted these types of downward operating expense adjustments have been approved by the Commission in previous rate cases involving Twin Lakes, WSCI, and IWSI. Finally, Ms. Stull recommended the Commission require Petitioner to perform a lead-lag study or otherwise support its proposed working capital in its next base rate case.

3. Petitioner's Rebuttal. Mr. Kersey accepted the adjustments proposed by the OUCC and said Petitioner will exclude the suggested expenses paid in arrears to calculate its working capital requirements. However, Mr. Kersey said Petitioner does not agree to perform a lead-lag study, and he proposed to continue using the FERC 45-day method because it is a low-cost calculation and is commonly accepted. He noted the Commission has accepted this method in each of the prior cases for Petitioner's individual territories. However, he added Petitioner would agree to perform and file a lead-lag study if it were to request a working capital allowance greater than 1/8th of its operating expenses.

4. Commission Discussion and Findings. We agree with the OUCC's proposed expense adjustments used under the FERC 45-day method and given the time delay in this Cause, the Commission finds that Petitioner's forecasted working capital for purposes of establishing rate base is as follows:

Consolidated Water Working Capital

				Total
				\$ 918,267
				448,200
Less:	Purchased Water			380,353
	Purchased Power			78,115
	Adjusted Operation & Maintenance Expense			907,999
Times:	45 Day Factor			0.125
	Working Capital Requirement			\$ 113,500

Consolidated Wastewater Working Capital

			Total
Maintenance Expense			\$ 711,329
General Expense			295,327
Less: Purchased Water			-
Purchased Power			214,266
Adjusted Operation & Maintenance Expense			792,390
Times: 45 Day Factor			0.125
Working Capital Requirement			\$ 99,049

Regarding Petitioner's use of the FERC 45-day method to approximate its cash working capital needs, the Commission finds no evidence that would dispute the results as a reasonable approximation of Petitioner's billing and payment practice or Petitioner's actual cash needs. We agree with the OUCC that a lead-lag study provides transparency and precision. However, there is no evidence to suggest that the results of a lead-lag study would support spending the additional cost to perform the study. Thus, we decline to require Petitioner to perform a lead-lag study in its next rate case.

O. Rate Base Determination. Based on the foregoing, the Commission finds Petitioner's rate base for consolidated water operations to be \$7,778,960 as shown below, subject to the Rate Base Update Mechanism. We note that given the context of this Cause and the time delay issue, we included Phase I rate base for the sole purpose of clarity to readers of this Order.

	Do Not Use Phase I 2/29/2016	Final 9/30/2017
South GST* (Included in UPIS at 9/30/15 total)	\$ 715,318	\$ 715,318
Utility Plant in Service at 9/30/15	12,470,720	12,470,720
Reduction to South GST	(65,318)	(65,318)
Vehicle Additions	54,340	54,340
Vehicle Retirements	(15,889)	(15,889)
Hydro-pneumatic Tank	184,151	184,151
North GST	562,797	562,797
Reduction to North GST	(71,700)	(71,700)
Peabody Retirement	(59,761)	(59,761)
General Plant	198,720	198,720
Difference from 2/29/16 Trial Balance	50,264	50,264
Utility Plant in Service at 2/29/2016	13,308,324	13,308,324
Reestablished Values for Computers and Vehicles	516,923	559,639
Vehicles	-	5,611
General Plant Additions Phase I**	-	278,209
General Plant Additions Phase II	-	476,929
Less: Retirements	686,898	729,614
Non-Capital Costs	171,845	171,845
AFUDC	8,354	8,354
Scrap Value of Meters	13,023	13,023
Water Service Lines	19,899	19,899
Additional Capitalized Time	42,307	42,307
Capitalized Time for DSIC Leak Repair	34,965	34,965
Gross Utility Plant in Service	12,847,956	13,608,704
Less: Accumulated Depreciation at 2/29/2016***	2,684,682	2,684,682
Less: Remaining Phase I Depreciation Expense		148,558
Phase II Depreciation Expense	-	269,886
Add: A/D on Disallowed Capital Costs	12,601	12,601
Retirements	686,898	729,614
Restb. Values for Computers and Vehicles	162,710	131,384
Less: Contributions in Aid of Construction, net	2,342,255	2,342,255
Add: Disallowed Plant	16,184	16,184
Amortization of CIAC Phase I		8,568
Amortization of CIAC Phase II	-	14,687
Net Utility Plant in Service	8,699,412	9,076,361
Less: Accumulated Deferred Income Taxes	944,945	1,041,204
Acquisition Adjustment, net	339,291	332,047
Customer Deposits	37,650	37,650
Add: Net Deferred Charges	-	-
Working Capital	105,541	113,500
Total Original Cost Rate Base	\$ 7,483,067	\$ 7,778,960

*The South GST is included in Petitioner's September 30, 2015 Utility Plant in Service balance of \$12,470,720.

**Petitioner presented its "Phase I" adjustments in its proposed Phase II column in its Rebuttal rate schedules. In Petitioner's Docket Entry response 4-39 received on February 6, 2017, Petitioner explained that with the change to agreed a rate base cutoff for Phase I of February 29, 2016 from September 30, 2016 that portion for Petitioner's original Phase I adjustments from March 1, 2016 through September 30, 2016 was pushed to Phase II.

*** Included in the \$2,684,682 is an adjustment of \$59,761 for the retirement of the Peabody tank and \$15,889 for the retirement of vehicles

The Commission finds Petitioner's rate base for consolidated wastewater operations to be \$8,040,181 as shown below, subject to the Rate Base Update Mechanism. We note that given the context of this Cause and the time delay issue, we included Phase I rate base for the sole purpose of clarity to readers of this Order.

	Do Not Use Phase I 2/29/2016	Final 9/30/2017
Utility Plant in Service at 9/30/15	\$ 18,675,607	\$ 18,675,607
Add: Allocation of Vehicles	25,213	25,213
GIS Mapping	42,359	42,359
2015 Sewer Capital Improvement Project	148,122	148,122
General Plant Additions Phase I	79,107	79,107
Difference from 2/29/16 Trial Balance	120,688	120,688
Utility Plant in Service at 2/29/2016	19,091,095	19,091,095
Add: Restb. Values for Computers and Vehicles	339,223	367,254
Add: 2016 Sewer Capital Improvement Project	-	107,404
2017 Sewer Capital Improvement Project	-	180,903
Vehicles	-	3,682
General Plant Additions Phase I	-	110,750
General Plant Additions Phase II	-	189,857
Less: Retirements	336,538	364,570
Non-Capital Costs	4,222	4,222
Sewer Laterals	50,748	50,748
Manhole Repairs	60,490	60,490
CS&W Invoices	230,113	230,113
RedZone Robotics Invoices	26,555	26,555
Capitalized Time (Management and Repairs)	41,405	41,405
Retirement Reversal	(873)	(873)
AFUDC	1,575	1,575
Gross Utility Plant in Service	18,679,545	19,272,140
Less: Accumulated Depreciation	6,256,180	6,256,180
Less: Remaining Phase I Depreciation Expense		270,149
Phase II Depreciation Expense	-	477,927
Add: A/D on Disallowed Capital Costs	14,176	14,176
Retirements	336,538	364,570
Restb. Values for Computers and Vehicles	85,872	41,490
Less: Contributions in Aid of Construction, net	3,748,895	3,748,895
Add: Disallowed Plant	11,732	11,732
Amortization of CIAC Phase I		457
Amortization of CIAC Phase II	-	783
Net Utility Plant in Service	9,122,788	8,952,198
Less: Accumulated Deferred Income Taxes	887,594	987,305
Acquisition Adjustment, net	-	-
Customer Deposits	23,759	23,759
Add: Net Deferred Charges	-	-
Working Capital	90,885	99,049
Total Original Cost Rate Base	\$ 8,302,319	\$ 8,040,181

P. Rate Base Update Mechanism.

1. Petitioner's Evidence. In its case-in-chief, Petitioner did not provide a proposed Rate Base Update Mechanism; however, Petitioner proposed implementation of Phase II to occur one year after implementation of Phase I rates.

2. OUC's Evidence. Ms. Stull explained that by using actual rate base as of February 29, 2016, for Phase I rate base, it eliminated the need for Petitioner to affirm in a future filing that UPIS is used and useful. Regarding Phase II, the rates should continue to be based on projected rate base as of September 30, 2017. However, before Phase II rates can be implemented, Petitioner should file an affirmation that additional capital costs are in service and used and useful. Petitioner should also file a general ledger trial balance reflecting account balances as of September 30, 2017. Ms. Stull stated that only the capital additions that are identified as specific projects in Petitioner's case-in-chief should be eligible for phase-in treatment.

Ms. Stull stated that the rate base update for each project should not exceed Petitioner's projected construction costs for that project for ratemaking purposes. Petitioner should also provide a certification that the new plant is in service and verification that the construction costs have been incurred and paid. Petitioner should provide a general ledger transaction listing for each project reflecting all costs Petitioner seeks to include in rate base along with all supporting documentation. The supporting documentation should include invoices, time sheets, contracts, and other applicable documents, for each line item that is greater than 10% of the project's total value. Further, Petitioner should submit the following: (1) updated UPIS by asset account incorporating the eligible plant additions, (2) updated annual depreciation expense incorporating the eligible plant additions, (3) updated accumulated depreciation on Petitioner's authorized rate base, (4) updated contributions-in-aid of construction by account, including accumulated amortization, (5) a revised revenue requirement, as necessary, and (6) updated tariffs.

3. Petitioner's Rebuttal. Mr. Kersey explained that Petitioner agreed with a Phase I rate base cut-off of February 29, 2016. However, Petitioner disagreed with the OUC's proposed Phase II rate base update. Petitioner argued that it should be allowed to include in its Phase II update all general ledger rate base transactions with corresponding adjustments to September 30, 2017, forecasted expenses. Mr. Kersey explained that adjustments to forecasted expenses would include expense items that are dependent on rate base, such as depreciation expense, interest expense, property tax expense, and income tax expense. Petitioner would allow the OUC a period for discovery to confirm Petitioner's revenue requirement for Phase II rates. Mr. Kersey stated that the OUC's discovery should be limited to confirming Petitioner's updated September 30, 2017, rate base, as well as adjustments to fiscal year-end September 30, 2017 operating income for Phase II rates.

4. Commission Discussion and Findings. Because the parties agreed to a Phase I rate base cutoff of February 29, 2016, there is no need to true-up Phase I rates because all plant that was under review is already in service. However, for rate base adjustments that were proposed for Phase II, a Rate Base Update Mechanism is necessary, and we believe that a discovery process is appropriate for Petitioner's Phase II update. We also agree that confirmation of rate base updates should be part of the process. However, while the OUC provided a list of specific

information Petitioner should provide with the Phase II update, Petitioner did not provide a list of the information that it agreed to submit. Moreover, the parties disagreed as to whether all utility plant through the end of the test period should be included or if only major projects should be included in Petitioner's Phase II update.

In Cause No. 44450, the Commission addressed the issue of a phase-in mechanism related to Indiana-American Water Company Inc.'s ("Indiana-American") rate base projected to be placed in service due to the use of a future test period. In that Cause, the Commission approved a settlement that described a two-phase certification process for Indiana-American's proposed future utility plant investments. The Rate Base Update Mechanism we describe below is based on consideration of both parties' positions in this Cause and the documentation and review period process approved in Cause No. 44450.

Rates approved in this Cause are based on UPIS and other components of rate base projected through the end of the test period, September 30, 2017. To be consistent with the intent of Ind. Code § 8-1-2-42.7, total plant additions, including major projects, should be included in Petitioner's Rate Base Update. However, total plant additions may not exceed Petitioner's proposed rate base as of September 30, 2017, as determined by the Commission in this Order based on the evidence presented. If we were to allow material plant additions in Petitioner's update that were not included in Petitioner's forecasts, the Commission would have nothing in its record to support the reasonableness of the additional plant. Further, Petitioner represents that its forecasts are a reasonable representation of the costs, including the plant addition costs that it will incur. Thus, based on Petitioner's testimony, the recommendation to cap Petitioner's total plant to the amounts proposed in this Cause should not harm Petitioner. Moreover, to the extent Petitioner's actual net original cost rate base as of September 30, 2017, exceeds the amount proposed in Petitioner's case-in-chief, Petitioner is not foreclosed from including those additional investments in rate base in a future general rate case.

The rates approved herein are effective upon approval of a filed tariff as described below. However, within 30 days of the effective date of this Order, Petitioner shall certify under this Cause that all UPIS to be included in rates is used and useful as of September 30, 2017. The certification shall include a schedule of actual values for all components of rate base. Petitioner shall also provide the following schedules: (1) actual UPIS by account, (2) updated calculations of depreciation expense based on the original cost of UPIS and deferred depreciation as of September 30, 2017, (3) a revised revenue requirement, as necessary, and (4) an updated tariff.

In addition, because of our separately-discussed concerns regarding Petitioner's need to improve its oversight of projects performed by contractors and its financial controls over invoices, Petitioner shall also provide a listing for each project in a general ledger transaction that reflects all costs Petitioner is seeking to include in Phase II rate base. Petitioner shall provide supporting documentation, including invoices, time sheets, contracts, and other applicable documents, for each line item of the general ledger transaction listing that is greater than \$7,500 of that project's total cost. The OUCC and LOFS will have 30 days to review and submit objections to Petitioner's rate base update compliance filing. If objections cannot be resolved informally, any party may request a hearing on the issue.

8. **Weighted Average Cost of Capital.** Mr. Lubertozzi testified that Petitioner and OUCC entered into a settlement agreement that resolves all components to the Weighted Average Cost of Capital (“WACC”). He explained that customer interests are best served when the authorized rate of return on rate base is neither higher nor lower than the overall cost of capital; thus, Petitioner and OUCC reached agreement on a WACC that is equal to 8.18%. He testified that the agreed-upon return on equity and capital structure is reasonable and was the result of an arms-length negotiation after considerable discussion between knowledgeable parties. Mr. Lubertozzi further testified that a 9.75% return on equity (“ROE”) is consistent with the Commission’s Order in Cause No. 44450, and is lower than the ROEs previously approved for Petitioner’s Indiana operating divisions. He also indicated that the 50/50 ratio for the capital structure is reasonable and consistent with the actual capital structure of Utilities, Inc.

At the hearing, the Presiding Officers asked Mr. Lubertozzi and Mr. Kaufman about the stipulated cost of equity, a component of WACC, that the parties recommended. Mr. Lubertozzi testified that Petitioner looked at the approved cost of equity in other states and also looked at the cost of engaging a cost of capital expert and determined it was beneficial to avoid bringing an expert in to testify. When asked to compare the relative cost of equity for a utility that has no service issues with one that does, Mr. Lubertozzi explained that most utilities are going to have some type of sanitary system overflow or manhole overflow or some surcharges. He acknowledged that cost of equity could be used as a tool to send a message to a utility regarding whether its service is adequate or not. Tr. at B-132, 133. During questioning from the bench, Mr. Kaufman acknowledged that in the last Order concerning Twin Lakes, the Commission approved a reduction of 50 basis points to express their concern about service quality issues. Tr. at E-18, 19. Mr. Kaufman declined to express an opinion as to whether a reduction would be warranted in this proceeding because of the agreement between the parties.

Petitioner experienced operational difficulties as a result of certain employees, and Petitioner indicated that it has renewed its focus in conjunction with replacing those employees. It is our hope that along with their new personnel, Petitioner will improve internal controls. Additionally, Petitioner has made some progress with service quality issues; however, there is still room for Petitioner to improve service quality. It is also our hope that Petitioner will continue to make measureable improvements in service quality. To support these goals, the Commission designates detailed requirements in the sections of this Order titled as follows: (1) Internal Investigation and Use of Three-Way-Match Process, and (2) Wastewater and Water Service Quality and Communications with LOFS.

With an expectation and goal of eliminating controversy and avoiding rate case expense, prior to the filing of its case, Petitioner reached agreement with the OUCC on cost of equity and capital structure to establish weighted cost of capital. The Commission finds that the agreed upon cost of equity and capital structure percentages to establish weighted cost of capital are reasonable and prudent, and these amounts are as follows:

<u>Class of Capital</u>	<u>Percent of Total</u>	<u>Cost Rate</u>	<u>Weighted Cost</u>
Long Term Debt	50.00%	6.60%	3.30%
Common Equity	50.00%	9.75%	4.88%
Total	<u>100.00%</u>		<u>8.175%</u>

9. **Revenue Adjustments.** Base year revenues through September 30, 2015, were \$2,073,096 for consolidated water and \$2,200,545 for consolidated wastewater. The parties proposed various pro forma adjustments to revenues associated with accruals, surcharges, miscellaneous, and declining usage. Petitioner agreed with many of the OUCC's adjustments to consolidated water operations, including the following: \$22,107 for Service Revenues for Water, (9,711) for Accrued Water Revenues, (\$5,771) for IWSI Water Tracker, and (\$22,107) for Other Miscellaneous Revenues for Water. Petitioner agreed with the OUCC's adjustment to consolidated wastewater operations, including the following: (\$10,185) for Accrued Wastewater Revenues. We find the adjustments agreed to by the parties to be reasonable. The remaining disagreements, which are associated with Declining Usage, Customer Normalization, and Surcharge revenues, are discussed below.

A. **Declining Usage and Customer Normalization Adjustments.**

1. **Petitioner's Evidence.** Mr. Kersey testified that Petitioner proposed a decrease of \$133,301 to base year water revenues and a decrease of \$12,641 to base year wastewater revenues to reflect declining usage. These overall adjustments to water and wastewater service revenues include declining usage, customer normalization, and surcharge revenue adjustments. He explained that the usage normalization adjustment was calculated specifically for each territory and customer class and was developed by averaging the annual change in consumption per customer from June 2009 through June 2015. He further stated that Petitioner analyzed consumption patterns during the winter months of December through February over the same period to determine whether the declining usage was weather neutral. He testified that a similar level of decline in usage was seen during the winter months, suggesting that the decline is not a weather-related phenomenon.

2. **OUCC's Evidence.** Mr. Kaufman proposed removal of Petitioner's declining usage adjustment in its entirety because he said that Indiana Senate Enrolled Act No. 383, System Integrity Adjustments, diminished the need to make a declining consumption adjustment to revenues. He explained that Senate Bill 383 allows a utility to track the difference between its authorized revenues and collected revenues thereby insulating a utility from under-collecting its authorized revenues. Additionally, he said that estimated usage in the Year One Forecasted Revenues should not be used when Petitioner now has actual usage figures. The OUCC did not propose any customer growth or customer normalization adjustments.

3. **Petitioner's Rebuttal.** Mr. Kersey noted that the OUCC did not dispute Petitioner's declining usage forecast or supporting data. Pet. Ex. R2 at 2-3. Mr. Kersey testified regarding the effect of declining usage data, and he said he did not believe that Petitioner should update its Year One Forecasted Revenues with billings for periods where actual usage data

now exists. He reasoned that a significant amount of time went into reconciling the bill frequency distribution by Petitioner's cost-of-service consultants, and because there was no significant change to the customer base or in weather patterns, an update using actual usage data would not materially change the proposed rates. He testified that an update was an inefficient use of resources. Mr. Kersey further testified that he did not agree with Mr. Kaufman's suggestion that any under-collection should be recovered via Senate Bill 383. He explained that relying on the mechanism provided via Senate Bill 383 would conflict with the purpose for utilizing a future test year and would not guarantee full recovery of Petitioner's revenue requirement. *Id* at 3-4.

Petitioner also presented customer normalization adjustments based on its cost-of-service analysis, which was further explained in Petitioner's February 6, 2017 Docket Entry Response 4-38. For water, Petitioner proposed a pro forma customer normalization reduction of \$2,495. Pet. Ex. R2, Attach. JPK-R1. For wastewater, Petitioner proposed a pro forma customer normalization increase of \$13,085.

4. Commission Discussion and Findings. The OUCC's objection to Petitioner's declining usage adjustment appeared to be primarily based on new legislation that allows utilities to file for system integrity adjustments. We find the OUCC's reliance on Senate Bill 383 unpersuasive. Setting a utility's rates lower than they would otherwise be on the theory that the utility can subsequently seek to true-up their rates through some future mechanism is not consistent with sound ratemaking principles which are based on a revenue requirement that is reasonable, necessary, and prudent.

The record shows a measurable decline in usage by Petitioner's customers, which did not appear to be weather related. The OUCC did not dispute the declining usage forecast. Indeed, the OUCC argued that declining consumption justified its proposal to deny recovery of the second ground-storage tank. We find it reasonable to take this decline into consideration in establishing rates, particularly where the utility is using a forecasted test period. While the OUCC noted that predicting consumption usage can be difficult, we do not believe this renders Petitioner's proposed adjustment faulty. On this point, we note that the OUCC's comparison between Petitioner's initially proposed Year One Forecasted Revenues to actual revenues for the same period does not present an apples-to-apples comparison. More specifically, the OUCC's analysis did not recognize the fact that Petitioner's Year One Forecasted Revenues excluded all surcharges, whereas the actual revenue included all surcharges. Accordingly, this makes the OUCC's proposed usage inaccurate for this purpose.

The record shows Petitioner's analysis included detailed work papers providing adjustments for each customer class for each of Petitioner's operating divisions. We find this analysis is transparent and provides a suitable basis to adjust future consumption. Accordingly, the Commission finds Petitioner's proposed usage adjustment, which reduces pro forma water and wastewater revenues by \$68,976 and \$17,315, respectively, is reasonable and should be approved. Similarly, we find Petitioner's proposed customer normalization revenue reduction of \$2,495 for water and increase of \$13,085 for wastewater to be reasonable and should be approved.

B. Surcharge Revenues.

1. OUCC's Evidence. Ms. Stull included forecasted revenues and pro forma adjustments for all of Petitioner's surcharges in determining her recommended level of revenues. These include the IWSI water tracker pro forma reduction of \$5,771, IWSI DSIC pro forma adjustment of \$4,683, and a Twin Lakes wastewater utility infrastructure improvement charge ("USIC") pro forma adjustment of \$87,608, of which the latter two include revenues to be recovered in the DSIC and USIC reconciliation process. Pub. Ex. 1 at 59-62 and 65-67.

2. Petitioner's Rebuttal. Mr. Kersey explained that Petitioner did not initially consider it necessary to include surcharges in its forecasted revenues because Petitioner's proposed tariff resets the surcharge rates to \$0 and are therefore a non-factor when determining rates for Petitioner's total revenue requirement. Pet. Ex. R2 at 10. However, he testified that Petitioner agreed with Ms. Stull's recommendation to include Petitioner's surcharge revenues in its forecast, but Petitioner proposed a different calculation method. *Id.* at 9. He said Petitioner annualized surcharge revenues based on base year and forecasted usage and customer counts; therefore, Petitioner proposed an IWSI DSIC pro forma adjustment of \$2,679 and a Twin Lakes USIC pro forma adjustment of \$76,063. *Id.* at 10.

3. Commission Discussion and Findings. We note that the difference in Petitioner's proposed surcharge revenue and the OUCC's proposed amount is associated with the DSIC and USIC reconciliation process, which we believe should be included. Thus, the Commission agrees with the OUCC's IWSI and Twin Lakes surcharge revenue pro forma adjustments, noting that due to the DSIC and USIC reconciliation process, Petitioner is guaranteed to recover this level of revenue.

C. Pro Forma Present Rate Revenues. Based on the above, the Commission finds Petitioner's pro forma water and wastewater revenue at present rates for the 12 months ended September 30, 2017, are \$1,990,826 and \$2,273,738, respectively.

10. Operating Expenses. Mr. Kersey described generally how the forecasted changes to O&M were determined. He explained O&M may be directly billed to Petitioner or allocated to Petitioner from its affiliate services company, Water Service Corporation ("WSC"), or represent a combination of direct and allocated expense. Mr. Kersey said whenever possible, WSC will directly allocate costs that are identified with a specific operating company or prorate the allocations based on the functionality or proximity of the overhead cost, which are distinguished by utilizing overhead cost centers. He explained that costs that are not directly assignable to a specific subsidiary are allocated to the subsidiaries of Utilities, Inc. monthly. He said allocations are based on September 30, 2015, weighted ERC counts for each cost type, as shown in WP-JPK-01 (ERC Allocations).

Several of the O&M items were either not challenged by the OUCC or the OUCC's proposed adjustments were accepted by Petitioner in rebuttal. The adjustments agreed to by the parties, which the Commission finds to be reasonable, are as follows:

Description	Water Adjustments	Wastewater Adjustments
Salaries and Wages	\$ 58,708	\$ 38,507
Maintenance Testing	3,726	(862)
Maintenance Repair	1,261	57,950
Transportation	(9,652)	(6,334)
Outside Services - Other	(34,323)	(22,522)
<i>General Expenses</i>		
Salaries and Wages	18,549	Disputed Adj.
Office Expense	7,430	4,876
Regulatory Commission	6,656	4,956
Pension & Other Benefits	5,664	3,717
Rent	3,973	2,606
Insurance	7,805	5,120
Office Utilities	3,615	2,372
Miscellaneous	3,890	2,435
Amortization - Abandoned Meter	33,906	-
Amortization - Acq. Adj.	(1,083)	(2,819)

We discuss the remaining disputed operating expense adjustments below.

A. Purchased Power and Water Expenses.

1. Petitioner's Evidence. Mr. Kersey testified regarding Petitioner's forecasted purchased power and water expenses. He explained that electric power costs are forecasted by month based on the historical levels of electric power costs. Fiscal year forecasts for 2016 and 2017 are based on the latest four years of supplier invoices for the service periods June 1, 2011, through May 30, 2015. He further stated that the latest twelve months, June 1, 2014, through May 30, 2015, service costs were used as a base, and an average annual growth rate from the historical periods was applied to all forecast periods. It was assumed that any seasonality from the four years analyzed will continue. Based on the calculations, Mr. Kersey testified that purchased power costs were forecasted to increase by approximately 1% from \$290,042 in the base period to \$292,381 in the test year, including the forecasted reduction in usage.

Mr. Kersey explained that purchased water costs were forecasted by month based on respective levels of forecasted purchased water and water rates. He stated that forecasted purchased water rates of \$2.90 per thousand gallons were based on current charges by Petitioner's supplier, Indiana-American, of \$2.83 with an anticipated increase of \$0.07. He further stated that forecasted purchased water volumes were calculated based on an average of the prior 9-10 years of purchased water volumes, discounted by 1% annually. The 1% discount assumes both consumer conservation and changes in water losses. The volume used to calculate purchased water expense was based on pumped water and not sold water. Mr. Kersey stated that purchased water costs were forecasted to increase by approximately 12% from \$341,794 in the base period to \$381,398 in the test year. The increase is due to increased supplier rates and a one-time sales tax refund credited

to Petitioner in the base period in the amount of \$24,155.53 for the period ending December 31, 2013.

2. OUCC's Evidence. Ms. Stull disagreed with Petitioner's use of a year-over-year growth rate to forecast purchased power expense because she said it showed unusual fluctuations and inconsistencies among its assumptions. Ms. Stull proposed removal of \$2,339 in purchased power expenses and recovery based on Petitioner's fiscal year ending September 30, 2015. Additionally, she disputed Petitioner's growth rate projections for electric costs and suggested that Petitioner did not factor in its proposed declining consumption. She proposed no change to base year purchased power of \$290,042, which consists of \$77,830 for consolidated water and \$212,212 for consolidated wastewater.

With respect to purchased water expense, Ms. Stull disagreed with Petitioner's forecast. She said that purchased water expense should be comprised of a monthly meter charge and a volumetric charge; however, Petitioner's estimate did not incorporate a monthly meter charge. Additionally, she said that Petitioner proposed declining consumption for operating revenues but forecasted increased purchase water volumes as compared to base year levels. She said these two assumptions conflict. She stated that it was not necessary for Petitioner to forecast purchased water because Petitioner can file a water tracker for any increases in purchased water costs. Additionally, Ms. Stull said that Petitioner included forecasted costs to file a water tracker in 2017. Ms. Stull proposed a reduction of \$4,033 and further proposed a new forecasting method wherein separate metered and volumetric charges are utilized instead of using one effective rate.

3. Petitioner's Rebuttal. Mr. Kersey testified that Petitioner did not agree to the negative adjustment of \$2,339 to the purchased power expense. Mr. Kersey stated that Petitioner considered all aspects of electric cost trends in its proposed declining usage when forecasting for purchased power expense. He further stated that historical cost trends take all components into consideration, including weather impacts, cost changes by electric providers, and consumption changes by both Petitioner and its customer base.

With respect to purchased water expense, Mr. Kersey testified that while Petitioner agreed with the OUCC's proposed forecasting method, which included metered and volumetric charges, it did not agree to the negative adjustment of \$4,033. He explained that Petitioner's forecast for purchased water is based on a long-term average of purchased volume at 1% annually and not on purchased volumes in the base year. This accounts for the difference in proposal between the OUCC and Petitioner of 127,178,000 and 131,418,000 for purchased water volumes, respectively. He proposed an adjusted forecast for purchased water expense of \$380,353, which is an increase of \$2,988 to the OUCC's proposal but \$1,045 less than Petitioner's original proposal.

4. Commission Discussion and Findings. Petitioner calculated its forecasted purchased power expense by taking into account weather impacts, cost changes by electric providers, and consumption changes by Petitioner and its customer base. Petitioner's forecasted growth rates are based on the average year-over-year historical purchased power expense change. The OUCC argued that variations in the year-over-year growth rates for water and wastewater purchased power expense meant Petitioner's methodology was flawed. However, the record shows average growth rates are dependent on historical costs recognized in each of the service periods analyzed by Petitioner. Historical cost trends take into consideration all

components that historically changed costs, including weather impacts, cost changes by electric providers, and consumption changes by the utility and its customer base. We find Petitioner's forecasted purchased power expenses to be reasonable and should be approved. Purchased power expenses are \$78,115 for Petitioner's consolidated water operations and \$214,266 for Petitioner's consolidated wastewater operations, a base year increase of \$285 and \$2,054, respectively.

Further, the record shows that Petitioner updated its forecasted purchased water expense to account for the OUCC's proposed change in methodology. The revised purchased water expense properly included both metered and volumetric charges as agreed upon by Petitioner and OUCC. We find Petitioner's forecasted purchased water expense to be reasonable and is approved. Purchased water expense of \$380,353 is applicable to Petitioner's water operations, a base year increase of \$38,559.

B. Salaries and Wages Expense.

1. OUCC's Evidence. Mr. Richard Corey, Utility Analyst with the OUCC, proposed removal of \$7,976 from salaries and wages expense that Petitioner proposed for its consolidated wastewater operations due to an incorrect expense recognition in Petitioner's general ledger trial balance for the fiscal year ending September 30, 2015.

2. Petitioner's Rebuttal. Mr. Kersey testified that Petitioner did not agree to the OUCC's proposed removal of \$7,976 from salaries and wages expense. He explained that one employee's cost was incorrectly booked to Petitioner's general ledger in its base year. However, Petitioner's forecast should not be adjusted because that employee was not included in the forecast of salaries and wages expense. He further explained that the forecast was calculated on an individual employee basis.

3. Commission Discussion and Findings. The record shows the salaries and wages expense was calculated on a per employee basis and based upon current and anticipated levels of staffing. The adjustment proposed by the OUCC failed to recognize that the employee's cost at issue was not included in Petitioner's forecast. Accordingly, the OUCC's proposed adjustment would cause salaries and wages expense to be understated. We thus find Petitioner's calculation of salaries and wages expenses to be reasonable. We find that Petitioner's salaries and wages expense is \$734,850, which includes \$443,699 for water operations, a \$77,257 base year increase, and \$291,151 for wastewater operations, a \$50,678 increase over base year.

C. Capitalized Labor.

1. OUCC's Evidence. Mr. Corey explained that Petitioner's capitalized labor in the test year was calculated based on anticipated capital investments. He stated that the OUCC proposed removing the capitalized labor from Petitioner's Leadership/President cost center ("Leadership") and Indiana operations cost centers. Ms. Stull explained that Petitioner proposed capitalizing 50% - 90% of an employee's time in some instances. This includes the time of high-level managers. Ms. Stull said that the time of high-level managers is not typically capitalized in material amounts. Petitioner's employees do not perform the actual capital work because it is against corporate policy for an employee to enter a trench or confined space. Petitioner appears to be over-capitalizing time spent on capital projects, especially the time of management

employees. Ms. Stull proposed a total reduction to capitalized labor of \$42,307 for Petitioner's consolidated water operations.⁷ The adjustment is comprised of \$24,183 to remove excessive capitalization of management time and \$18,124 of specific non-capital. For Petitioner's consolidated wastewater operations, Ms. Stull proposed a total reduction of capitalized labor of \$41,405 that includes \$6,052 for specific non-capital and \$35,353 for excessive capitalization of management time. The OUCC proposed capitalized labor and benefits of \$101,319 for consolidated water operations and \$66,484 for wastewater operations for capitalized labor.

2. Petitioner's Rebuttal. Mr. Kersey accepted the adjustment proposed by the OUCC to remove capitalized labor from Leadership and Indiana operation centers. Additionally, Mr. Kersey stated that because Petitioner agreed to remove certain projects (SCADA, Second Sludge-Storage Tank, and WWTP Headworks Upgrade) from its capital project forecast, it is necessary to remove the capitalized time associated with these projects. Mr. Kersey proposed to exclude capitalized labor of \$5,550 for consolidated water operations and \$45,787 for consolidated wastewater operations as shown on Rebuttal Schedule 6-E.

3. Commission Discussion and Findings. Petitioner agreed with the OUCC to exclude capitalized labor for Leadership and the Indiana operation center. We find it is appropriate to adjust the capitalized labor as agreed upon by Petitioner and the OUCC. We also agree with Petitioner's proposal to remove forecasted capitalized labor on projects that were eliminated. However, we note that Petitioner made an additional adjustment on its Rebuttal Schedule 6-E to include in capitalized labor time associated with the SCADA project and the WWTP Headworks Upgrade, both of which have been removed from rate base. Therefore, we deny Petitioner's rebuttal position, in part, and we find that Petitioner's forecasted capitalized labor expense is \$95,769 for the consolidated water operations and \$20,698 for the consolidated wastewater operations.

D. Chemical Expense.

1. Petitioner's Evidence. Mr. Kersey explained how forecasted chemical costs were determined. He testified that chemical costs were forecasted by month based on historical levels of chemical costs and usages. He further testified that, based on this evaluation, chemical expenses were forecasted to decrease from \$84,799 in the base period to \$80,790 in the test year, and the decrease was primarily due to projected decreases in consumption, which resulted in less need for chemicals.

2. OUCC's Evidence. Ms. Stull proposed an increase of \$4,009 to Petitioner's forecasted chemical expense of \$80,790 to eliminate Petitioner's forecasted decrease in consumption, which the OUCC rejected. Ms. Stull proposed using the 2015 base year chemical expense as the 2017 projected chemical expense to be consistent with the OUCC's recommendations regarding operating revenues.

3. Petitioner's Rebuttal. Mr. Kersey explained that Petitioner does not accept the OUCC's proposed increase of \$4,009 to Petitioner's original forecasted amount of

⁷ We note the OUCC also proposed a \$34,965 reduction to rate base associated with capitalized labor for DSIC leak repairs from April 2013 – May 2015.

\$80,790. Petitioner also does not accept the OUCC's removal of Petitioner's declining usage adjustment. Mr. Kersey explained that Petitioner revised its original forecasted amount of \$80,790 because Petitioner should not have originally relied on ERC to apportion forecasted expenses between water and wastewater. Accordingly, Petitioner's revised allocation is \$17,556 for water and \$63,235 for wastewater for a total of \$80,790 for chemical expenses.

4. Commission Discussion and Findings. The Commission previously approved Petitioner's proposed declining usage and customer normalization adjustments. Thus we reject the OUCC's proposal to remove that same adjustment. We find Petitioner's original forecasted amount of \$80,790 and the revised allocation are reasonable and supported by the evidence of the record. Therefore, we accept Petitioner's chemical expense of \$17,556 allocated to water operations and \$63,235 allocated to wastewater operations.

E. Deferred Maintenance in Rate Base.

1. Petitioner's Evidence. Mr. Kersey explained that forecasted Net Deferred Charges were adjusted to remove both Twin Lakes' and IWSI's loss of prudent abandonment of plant. Other adjustments to Net Deferred Charges include the incremental amortization of book assets and the addition of a forecasted tank inspection project in the Twin Lakes service territory. Petitioner decreased Net Deferred Charges for its consolidated water operations by \$331,393 and \$229,504 for its consolidated wastewater operations.

2. OUCC's Evidence. Ms. Stull opposed Petitioner's proposal to include deferred maintenance in its rate base. She said that Petitioner referred to these expenses as deferred charges. She explained that they represent maintenance costs that are amortized over the expected life of the deferred cost. She said that these costs do not represent an investment in utility plant and should not be included in rate base. Pub. Ex. 1 at 33. Ms. Stull noted Petitioner forecasted \$41,318 of water deferred charges and \$33,681 of wastewater charges as of September 30, 2017. She explained Petitioner's forecasted water deferred charges primarily consisted of deferred maintenance costs, including tank painting, volatile organic chemical testing, tank maintenance and repair, and sludge hauling. Ms. Stull also explained that Petitioner's wastewater deferred charges primarily consisted of deferred maintenance costs, including sludge hauling, tank maintenance and repair, and sewer master planning.

3. Petitioner's Rebuttal. Mr. Kersey noted that the OUCC did not propose any maintenance and repair adjustments in its case-in-chief testimony. Mr. Kersey explained that the well cleaning costs, filter media replacement, and well maintenance costs that the OUCC proposed to disallow from rate base should be set up as a net deferred charge component of rate base with a proposed recovery of these costs over a span of three years. Mr. Kersey explained that a three-year amortization period for well cleanings and rehabilitations is appropriate because the three-year period was chosen to reflect above normal corrosiveness of the water, which requires well reconditioning at an above normal frequency. Mr. Kersey further explained that without frequent reconditioning of Petitioner's wells, the risk of failure would increase and would result in otherwise unnecessary capital spending in the future.

4.- Commission Discussion and Findings. We find Petitioner's practice of capitalizing maintenance activities is inappropriate and violates proper accounting procedures and NARUC's USoA. Therefore, we have removed the costs associated with well cleanings and filter media replacement from Petitioner's rate base. However, these costs should be recovered through operating expense. The OUCC explained in its response to a February 3, 2017 Docket Entry that Petitioner's maintenance expense as detailed in Petitioner's work paper JPK-5 does not include any costs for well cleaning or filter media replacement. Pub. Ex. 8, Response 2. The OUCC agreed that well cleaning and filter media replacement costs should be recovered but disagreed with Petitioner's proposed amount and amortization period. The OUCC recommended an amortization period of five years for well cleaning costs and ten years for filter media replacement costs. The OUCC did not provide any explanation for its recommended amortization period of five years for the well cleaning costs. Petitioner, however, explained that a three-year amortization is necessary due to raw water quality. Thus, the Commission finds a three-year amortization for well cleanings is reasonable and supported by the evidence. Regarding filter media replacement costs, Petitioner proposed a three-year amortization period, while the OUCC recommended a ten-year amortization. Neither party provided an explanation in support of their proposed amortization period. Thus, the Commission finds that an average of the two proposed amortization periods should be used. Based on the foregoing, the Commission finds \$60,782 should be included in operating expense for the water utility maintenance costs.

Total Well Cleaning	\$164,320
Divided by: 3 years	<u>3</u>
Sub-total	<u>54,773</u>
Total Filter Media Replacement	39,060
Divided by: 6.5 years	<u>6.5</u>
Sub-total	<u>6,009</u>
<i>Total</i>	<u><u>\$60,782</u></u>

F. Taxes Other Than Income Expense.

1. Petitioner's Evidence. Mr. Kersey explained how taxes other than income taxes were determined. He explained that these expenses were forecasted to increase from \$380,465 in the base period to \$420,929 in the test year and that the adjustments were based on forecasted levels of salaries, revenues, and UPIS. He testified that Utility Commission Taxes were forecasted to increase from \$64,368 in the base period to \$73,589 in the test year, and the increase was calculated at 1.50% of revenue.

2. OUCC's Evidence. Mr. Corey proposed removing Petitioner's Utility Commission Taxes based on a rate of 1.5% and replacing it with the current rate of 1.4% rate for Utility Receipts Tax. He proposed including the IURC Fee expense based on the IURC fee rate of 0.1077802% that became effective on July 1, 2015, and reducing the forecasted payroll taxes in the amount of \$903, which he specifically related to the proposed salary reduction of \$7,976.

Ms. Stull proposed a reduction to Petitioner's forecasted property tax expense in the amount \$44,507 but agreed Petitioner's forecast method was appropriate. She said the OUCC's

property tax expense adjustment was solely related to the reductions to Petitioner's forecasted net utility plant balance.

3. Petitioner's Rebuttal. Mr. Kersey testified that he agreed to the adjustment methods used by the OUCC, but Petitioner does not agree to the payroll tax reduction of \$903. Mr. Kersey stated that because the OUCC's proposed \$7,976 salary adjustment was inappropriate, the associated \$903 payroll tax adjustment was also in error.

4. Commission Discussion and Findings. Because of our determination regarding salaries and wages expense above, the Commission rejects the OUCC's proposed reduction in forecasted payroll taxes of \$903. We find Petitioner's payroll tax expense to be \$40,145 for its consolidated water operations and \$26,343 for its consolidated wastewater operations. In addition, we find Petitioner's taxes other than income tax expense should be calculated using the current rates as of the filing date of Petitioner's Petition as follows: 1.4% Utility Receipts Tax rate and a 0.1077802% IURC Fee rate.

The record shows the OUCC agreed to Petitioner's forecast method for property expense. We find the methodology used by the parties to determine property tax expense to be reasonable. As a result of our previous determination regarding UPIS, the Commission finds property tax expense for Petitioner's consolidated water and wastewater utilities to be \$125,700, a \$35,149 decrease over base period, and \$140,604, a \$45,930 increase over base period, respectively. We further find property taxes shall be updated as part of Petitioner's Rate Base Update filing.

G. Sales Tax Refund.

1. OUCC's Evidence. Ms. Stull discussed an issue related to sales tax paid by IWSI. She explained that, until recently, IWSI paid sales tax on all water purchased from Indiana-American because IWSI neglected to file the necessary paperwork for the sales tax exemption. She said this was corrected when IWSI filed the proper paperwork in 2014. Petitioner received a \$24,156 refund from the Indiana Department of Revenue on November 6, 2014, and a \$29,040 credit from Indiana-American in July 2014. She explained that although IWSI revised its water tracker downwards in January 2015 to reflect this decrease in purchased water expense, the prior period amount of \$53,196 should be refunded or credited to IWSI customers who paid these taxes.

2. Petitioner's Rebuttal. Mr. Lubertozi disagreed with the OUCC's proposal that sales tax refunds should be credited to customers. In his opinion, a Commission-ordered refund would be retroactive ratemaking. Mr. Lubertozi also stated the OUCC's proposal would constitute a taking of utility property. Just as Petitioner's returns are not guaranteed, expenses are not guaranteed to stay the same, increase, or decrease. In other words, the test year represents a snap shot of expenses and revenues. Thus, the OUCC only identified one area in which expenses were lower than otherwise expected but ignored other instances in which expenses increased. Therefore, he argued, it is unreasonable in this instance to retroactively adjust rates to capture one issue while ignoring the rest.

3. Commission Discussion and Findings. The OUCC proposed requiring Petitioner to refund customers \$53,196 for refunds paid to Petitioner for sales tax in late

2014. The Commission previously authorized IWSI's revenue requirement, which included the recovery of projected sales tax on purchased water. Therefore, it would be unreasonable for the Commission in this Order to require Petitioner to refund to customers amounts previously authorized by the Commission and occurring outside of the adjustment period. The Commission finds that the OUCC's proposal is not an appropriate adjustment, and the Commission declines to direct Petitioner to refund sales tax amounts in this instance.

However, the Commission is troubled by the underlying issues here including Petitioner's failure to properly monitor its costs and to file its tax exemption form in a timely manner. We note that Petitioner needs to make improvements to its management oversight. The Commission requires Petitioner to make improvements in the section titled Internal Investigation and Use of Three-Way-Match Process herein.

H. Depreciation Rates and Depreciation Expense.

1. Petitioner's Evidence. John F. Guastella, President of Guastella Associates, LLC, performed a depreciation analysis of Petitioner's water and wastewater utility systems and recommended depreciation rates. He stated that Petitioner's water and wastewater systems are comprised of relatively small utilities that do not have sufficient retirement data readily available to perform either an actuarial or simulated plant balance method for determining average-service lives for his depreciation study. He said, therefore, he undertook a comparative analysis to establish appropriate average-service lives.

For his comparisons, Mr. Guastella looked at ten utilities, NARUC guideline depreciation rates, California Public Utilities Commission Standard Practice depreciation rates, and Florida Public Service Commission rules and regulations on depreciation rates. The most recent comparative depreciation study he performed was on behalf of Utility Services of Illinois, Inc., a sister company to Petitioner, in connection with a rate application to Illinois Commerce Commission. He noted he has prepared similar comparative studies, which were accepted in other jurisdictions in recent years. Mr. Guastella recommended a depreciation rate for individual plant accounts. Mr. Guastella did not present evidence showing how each recommended depreciation rate is reasonable based on Petitioner's actual assets.

Mr. Guastella described the comparative data he collected and identified the basis for the negative-net-salvage values used in his study. He testified that net-salvage-value is the salvage value of property retired less the cost of removal. Negative-net-salvage value occurs when the cost of retirement or removal exceeds gross-salvage value. He explained that to develop the relationship between original and current construction costs he used the ratio of the current-year Handy-Whitman Index ("Handy-Whitman") to the vintage-year index, which supports the use of negative-net-salvage values. The vintage years were determined by the number of years of the respective average-service life of Petitioner's water and wastewater systems. He said Handy-Whitman is commonly used in construction-cost comparisons like the one he prepared for Petitioner. Mr. Guastella testified that the average-service lives of Petitioner's systems he recommended are not only reasonable in general but are reasonable for determining depreciation rates for Petitioner.

2. OUCC's Evidence. Mr. Kaufman testified in opposition to Petitioner's proposal to dispense with the Commission's composite-depreciation rates to determine Petitioner's depreciation expense. Mr. Kaufman noted that in past cases Petitioner's various divisions have used the Commission's composite-depreciation rates for its water and wastewater utilities. However, in this case, Petitioner proposed to use depreciation rates on an account-specific basis, based on the results of Mr. Guastella's study. Mr. Kaufman explained that Mr. Guastella's estimated depreciation rates range from 1.47% for Lake, River, and Other Intakes to 14.29% for Back-Flow-Prevention Devices. Mr. Kaufman stated that Mr. Guastella's proposed depreciation rates are not based on the actual condition of Petitioner's plant. In fact, Mr. Kaufman noted, Mr. Guastella did not physically inspect the condition of Petitioner's plant.

Mr. Kaufman stated that Petitioner's alternative depreciation rates are not more reliable than the Commission's composite-depreciation rates. Mr. Kaufman explained that a water or wastewater utility has the option of relying on the Commission's composite-depreciation rate or conducting its own depreciation study. Mr. Kaufman explained that Mr. Guastella's study is not specific to the conditions in Indiana or Petitioner's plant. In the absence of a utility-specific depreciation study, Mr. Kaufman testified that the Commission's composite-depreciation rates should be used to determine depreciation expenses. Mr. Kaufman explained that Petitioner's proposed depreciation expense is 3.03% for its water operations and 2.79% for its wastewater operations compared to the Commission's composite-depreciation rates of 2.0% for a complete water system, 1.7% for a water system that purchases its water, 2.5% for a wastewater system with a treatment plant, and 2.2% for a wastewater system without a treatment plant.

Mr. Kaufman also rejected Mr. Guastella's use of negative-net-salvage value. He argued that Petitioner provided no documentation that Petitioner incurs the removal or dismantling costs indicated by Mr. Guastella's depreciation study. He added that including negative-net-salvage value attempts to recognize the current cost of dismantling and removing assets, such as structures, storage facilities, pumps, mains, and service laterals. He also stated that Mr. Guastella's examination of the relationship between original and current construction costs is not utility-specific and does not provide an accurate approach to estimate or infer negative-net-salvage values. Mr. Kaufman stated that if Petitioner's proposed negative-net-salvage values are removed from Petitioner's effective depreciation rates, Petitioner's depreciation rates would be reduced from 3.03% to 2.40% for water operations and from 2.79% to 2.12% for wastewater operations.

He explained that Petitioner's proposal to recognize negative-net-salvage value increases depreciation rates. Mr. Kaufman said that if negative-net-salvage values were removed from Petitioner's depreciation calculations, the annual depreciation expense for water operations would be reduced by \$82,443 to \$311,292 and the annual depreciation expense for wastewater operations would be reduced by \$136,459 to \$421,125. Mr. Kaufman noted that Mr. Guastella assumes a negative-net-salvage value ratio of 70% for Transmission and Distribution Mains and 100% for Services; however, utilities typically do not incur significant expenses to remove or dismantle these plant assets. He explained that when service lines are replaced, the retired plant is typically destroyed or left in the ground.

Mr. Kaufman disagreed with Mr. Guastella's assertion that Mr. Kaufman's evaluation confirms the reasonableness of the negative-net-salvage rates Mr. Guastella proposed. Mr.

Kaufman did not dispute that the cost to construct and install water utility plant has progressively become more expensive over the last 75-100 years, but he asserted Mr. Guastella's study did not provide a reasonable basis to estimate removal and dismantling costs. Mr. Kaufman added it is an inaccurate approach to estimate or infer negative-net-salvage rates.

Mr. Kaufman noted Mr. Guastella uses average-service life to calculate a multiplier of original cost to current cost. For example, Mr. Guastella assumes transmission and distribution mains have an average-service life of 70 years, a time span Mr. Kaufman did not dispute. Mr. Guastella then calculates a multiplier of current versus original cost by comparing the cost to install transmission and distribution mains 70 years ago to the cost of installing transmission and distribution mains using the 2015 Handy-Whitman, and this results in a cost multiplier of 25.96. Mr. Kaufman asserted that this approach is not reasonable. He said this relationship might make sense if the average age of Petitioner's transmission and distribution mains was 70 years. Hypothetically, if the average age of Petitioner's transmission and distribution mains is only 30 years old, the relationship of the cost of mains today compared to 70 years ago is irrelevant. Mr. Kaufman asserted this age-price relationship does not provide a reasonable basis to determine a negative-net-salvage value. Mr. Kaufman explained that Mr. Guastella calculates negative-net salvage-value multipliers that assume all of Petitioner's plant has an age equal to its estimated life. This type of analysis is inaccurate, and it overstates negative-net-salvage value multipliers and Petitioner's depreciation expense.

Mr. Kaufman asserted Mr. Guastella's estimate of the negative-net-salvage ratios will be the same for all water and wastewater utilities regardless of their actual age. Mr. Kaufman explained this type of analysis distorts estimated depreciation expense and overstates the cost of negative-net-salvage for newer plant. He explained that newer plant will have a higher construction cost than parts of a similar, older utility. Thus, using the same multiplier results in the newer utility having a higher estimated cost to remove the same plant. Mr. Kaufman stated there is no basis to estimate that it costs more to remove plant constructed in 2015 than plant constructed in 1990, which is the effect of Mr. Guastella's negative-net-salvage study. He asserted that the cost of removal, if there is any, should be the same for similar plant, regardless of the cost to install the plant that is being removed.

Mr. Kaufman noted that approximately \$218,900 of Petitioner's proposed depreciation expense relates to its estimated negative-net-salvage. To ensure that these funds are available for plant removal, funds collected for negative-net-salvage should be segregated in a separate account to pay for future removal costs. Petitioner should then be required to track its actual costs for removal and dismantling as those costs are incurred. Petitioner can use the funds in the separate account to pay for the actual cost of removal.

3. LOFS's Evidence. Mr. Theodore Sommer, a Partner with London Witte Group, LLC, testified on behalf of LOFS and disagreed with the depreciation study performed by Mr. Guastella. Mr. Sommer agreed that there are cost savings associated with doing a desk analysis of the plant that Petitioner has on its books, but he questioned the accuracy of Mr. Guastella's result and testified Petitioner's proposed depreciation study should not be accepted.

Regarding Petitioner's proposed negative-net-salvage values, which are embedded in its proposed depreciation rates, Mr. Sommer explained that the cost of removal must represent an accurate estimate of the actual cost to remove an asset. He stated that Mr. Guastella relied on the net-salvage values established some years ago to determine the costs of removal, but Mr. Sommer explained that current technology includes the in situ method, which is likely more appropriate given the character of Petitioner's system.

Mr. Sommer testified that the in situ method, which repairs assets in place, eliminates the cost of removal for some collection and transmission lines. Mr. Sommer referenced the pipe-bursting method of gravity wastewater main remediation and how it was applied to 2,200 linear feet of main in the Twin Lakes system. Mr. Sommer testified that his understanding is that the pipe-bursting method allows for a replacement of existing pipe without removing any of the old pipe. Mr. Sommer stated that Petitioner's system contains a great deal of mains that contain asbestos, which suggests that the in situ method for replacement of mains in Petitioner's system is appropriate. Mr. Sommer concluded that Mr. Guastella's use of negative-net-salvage rates that did not consider the impact of new technology would result in depreciation rates that are too high. He recommended that the Commission reject Mr. Guastella's depreciation study.

4. Petitioner's Rebuttal. Mr. Kersey testified that, while Petitioner agreed to recalculate depreciation expense based on UPIS as of February 29, 2016, and September 30, 2017, it did not agree to the continued use of the Commission's composite rates. Mr. Kersey stated that not only are the Commission's composite rates outdated, they prevent Petitioner from earning its authorized return. He testified that the composite rates are outdated because they were adopted approximately 30 years ago and do not accurately reflect the greatly changed industry landscape. He further testified that the Commission's composite rates do not allow Petitioner to adjust depreciation rates for assets that are not held on its books. He stated that if the Commission is going to reject the depreciation rates proposed, Petitioner must be allowed to re-establish plant values for such short-lived assets. Mr. Kersey provided tables showing the impact of re-establishing these plant values for both water and wastewater. Table 6 reflects a Net-Gross Plant-in-Service adjustment amount of \$408,744 for consolidated wastewater operations as of September 30, 2017. Table 4 reflects a Net-Gross Plant-in-Service adjustment amount of \$691,023 for consolidated water operations as of September 30, 2017.

Mr. Guastella also responded to Mr. Kaufman and Mr. Sommer. He stated that their criticisms do not reflect reasonable assessments of his study or his comparative analysis, which used a methodology that has been accepted by utility regulatory jurisdictions throughout the country for thousands of small water and wastewater utilities. He said their criticisms also do nothing to support the continued use of the fixed-composite depreciation rates.

Mr. Guastella testified that the application of a composite-depreciation rate is the least-preferred method of satisfying the purpose of depreciation, namely, intergenerational equity. He testified that an arbitrary 2% composite-depreciation rate for a water system is the least-accurate way to determine depreciation expense as compared with any of the other methods used to estimate the most likely average-service life of each asset. Mr. Guastella explained that the percentages for net salvage that he recommended reflect reasonable estimates that result in depreciation rates to achieve intergenerational equity. He said failure to include net salvage at all is not reasonable. Mr.

Guastella also stated that Mr. Kaufman's recommendation that the funds collected for negative-net-salvage be segregated in a separate account was unnecessary and speculative.

Mr. Guastella concluded that both Mr. Kaufman and Mr. Sommer recommended the continued use of composite-depreciation rates that were apparently established 28 years ago for water systems and 32 years ago for wastewater systems. He said neither Mr. Kaufman nor Mr. Sommer showed how the composite rates were calculated for the utilities under consideration and if plant data was used. He added that both witnesses focused on their assumptions of the physical condition of certain assets, apparently absent any recognition of such other causes of depreciation such as obsolescence and changes in regulatory requirements. He said that on the basis of the magnitude of those composite rates, it is likely that they do not reflect any consideration of net-salvage values. He said Mr. Kaufman and Mr. Sommer offered no opinion as to the reasonableness of the depreciation rates for individual accounts that he recommended. Mr. Guastella concluded that the depreciation rates for individual accounts that he recommended have been generally accepted and are considerably more accurate than the Commission's composite rates, and most importantly, best accomplish the goal of intergenerational equity.

5. Commission Discussion and Findings. Depreciation allows utilities to recover the original cost of assets that are used and useful in providing service at a level that spreads recovery of the cost over the estimated life of assets. As a result, each generation of customers pays its fair share of cost according to their use of the assets.

NARUC in its Uniform System of Accounts for Class A Water Utilities, published in 1996, defined depreciation as:

Depreciation, as applied to depreciable utility plant, means the loss in service value not restored by current maintenance, incurred in connection with the consumption or prospective retirement of utility plant in the course of providing service from causes which are known to be in current operation and against which the utility is not protected by insurance. Among the causes to be given consideration are wear and tear, decay, action of the elements, inadequacy, obsolescence, changes in the art, changes in demand, and requirements of public authorities. Pet. Ex. 5 at 2.

The Commission has the responsibility pursuant to Ind. Code § 8-1-2-19 to ascertain and determine the proper and adequate rates of depreciation of the several classes of property of each public utility. Historically, the Commission's composite rate is used, unless the Commission decides that a utility's proposed rate schedule is more proper and adequate for the public utility's property.

The Commission is presented with two options to determine the appropriate depreciation expense for Petitioner: (1) Accept Petitioner's proposed depreciation rates, which designate a depreciation rate for each individual plant account and include an embedded cost of removal and salvage value; or (2) Re-approve Petitioner's use of the Commission's composite rates for water and wastewater utilities in Indiana.

We previously addressed applicable depreciation rates for Petitioner's Twin Lakes division. In Cause No. 43957, the Commission rejected Petitioner's proposed depreciation rates wherein Petitioner proposed to change the depreciation rates for only vehicles and computer equipment and software systems, explaining that the Commission's composite rate takes into consideration the total plant. *Twin Lakes Utilities, Inc.*, 2012 WL 641631, Cause No. 43957 at p. 21 (IURC Feb. 22, 2012). The Commission in its Order directed Petitioner to use the Commission-developed depreciation rates for water and wastewater and "if Petitioner believes that a composite rate provides inaccurate information, it should have conducted and submitted for Commission approval its own depreciation study to more accurately reflect the expense." *Id.*

To be approvable, Petitioner's proposed depreciation rates need to be proper and adequate per the statute and *more accurately reflect the expense* for depreciation than the Commission-developed depreciation rates. Therefore, we consider what constitutes an approvable depreciation study and resulting rates, and we begin our analysis by comparing a previous Commission-approved depreciation study to Petitioner's study. We then consider evidence regarding whether Petitioner's proposed rates more accurately reflect Petitioner's depreciation expense. If Petitioner's proposed rates do not more accurately reflect depreciation expense, we must re-approve the Commission's composite rates.

For instance, the Commission approved the use of Indiana-American Water's proposed depreciation rates rather than the Commission's composite rates in Cause No. 43081. *Indiana-American Water Co. Inc.*, 2006 WL 3877352, Cause No. 43081 (IURC Nov. 21, 2006). Indiana-American provided the testimony of Mr. John J. Spanos of Gannett Fleming, Inc. who explained his depreciation study. Regarding the thoroughness of his study, Mr. Spanos filed an approximately 300-page report that included annual and accrued depreciation, the statistical support for the life and net-salvage values, and the detailed tabulation of annual and accrued depreciation for water plant and a much shorter report for wastewater plant, primarily based on the depreciation study for the water plant. Importantly, he also indicated that he physically observed the condition of Indiana-American's plant and equipment. Mr. Spanos used his extensive experience to determine service lives and net-salvage values, and he discussed these issues with Indiana-American personnel. Pet. Ex. JJS-1 at I-4.

Unlike the Indiana-American study above, Mr. Kaufman testified that Petitioner's study was not based on a depreciation study specific to the actual condition of Petitioner's plant. Petitioner retained a consultant to prepare a depreciation *comparative* analysis by individual plant account but not a study of Petitioner's actual assets. In the Indiana-American study, their consultant observed the condition of the plant and equipment; however, Mr. Guastella did not inspect Petitioner's plant and equipment. Additionally, Indiana-American's consultant discussed the service lives and net-salvage values of the plant with Indiana-American personnel, and Mr. Guastella said that he did not do this. We conclude that there are significant differences between Indiana-American's approved study and Mr. Guastella's study and these differences indicate that Mr. Guastella's proposed rates are less likely to be more accurate for Petitioner's plant than the Commission's composite rates.

Mr. Guastella's argument for providing a comparative-depreciation study instead of a full-depreciation study is because, in part, he lacked sufficient data to complete a full-depreciation

study or to provide actual costs incurred for retirements and removals. Mr. Guastella testified that Petitioner has not experienced sufficient retirements to perform either an actuarial or simulated-plant balance method for determining average-service lives. However, Mr. Guastella did not provide detailed evidence supporting his recommended rates by individual plant account. Petitioner's lack of data does not justify using unsupported depreciation rates rather than the Commission's composite-depreciation rates.

Mr. Guastella also testified that the Commission's composite rates are outdated because they were developed approximately 30 years ago and do not accurately reflect the greatly changed industry landscape. However, Mr. Guastella's statement was conclusory, and he did not provide detailed evidence to specifically show how the rates are outdated or how the industry landscape in Indiana has changed. Accordingly, we are unconvinced that Mr. Guastella's proposed rates, albeit developed more recently, are more accurate than the Commission's composite rates.

Mr. Guastella testified that he prepared similar comparative studies for utilities in other states and his studies were accepted by those jurisdictions. Mr. Kaufman explained that Mr. Guastella's study is not specific to the conditions in Indiana or to Petitioner's plant. Mr. Guastella did not provide evidence to show that conditions such as typical plant age, types of plant, and terrain in Indiana are similar to conditions in the states that approved Mr. Guastella's rates. The fact that other states approved Mr. Guastella's composite-depreciation rates is not evidence that the rates are more accurate for Petitioner's utilities in Indiana than the Commission's composite rates.

As a component of its proposed rates, Mr. Guastella embedded net-salvage values, and we now consider whether inclusion of net-salvage values could possibly increase the accuracy of Petitioner's proposed rates. By including net-salvage values in rates, Petitioner is attempting to recover the current cost of dismantling and removing assets like structures, storage facilities, pumps, and other facilities and selling those assets for salvage value. Mr. Guastella did not produce any evidence of the actual cost to remove any plant or equipment for his proposed net-salvage value. Mr. Kaufman also noted that in Indiana, when transmission and distribution plants are replaced, the retired plant is typically destroyed or left in the ground. Mr. Guastella offered no evidence that explains the common practices in Indiana regarding removal or abandonment of obsolete assets and how those practices support Petitioner's proposed net-salvage rates. Petitioner acknowledged in response to discovery by the OUCC, Petitioner does not separately track actual costs to remove retired assets, thereby preventing further review. The Commission finds there is insufficient evidence to support use of Petitioner's proposed net-salvage values as a component of their proposed depreciation rates because we are not convinced of the accuracy for Petitioner's plant.

Our inquiry above indicates that Petitioner's proposed rates are not more accurate than the Commission's composite rates for calculating the depreciation expense applicable to Petitioner's plant. Additionally, because Petitioner embedded net-salvage values into its depreciation rates and we do not accept the accuracy of Petitioner's net-salvage values, we cannot accept Petitioner's depreciation rates. The Commission finds that Petitioner's proposed study does not more accurately reflect Petitioner's expense for depreciation. Using the Commission's composite rates

based on the depreciable plant, the Commission finds the following depreciation expense adjustments to be reasonable, subject to the Rate Base Update Mechanism discussed herein:

	Water	Wastewater
	2017	2017
Utility Plant in Service	\$ 13,608,704	\$ 19,272,140
Less: Land and Land Rights	114,404	155,076
Depreciable UPIS	13,494,300	19,117,064
Times: Composite Depreciation Rate	2.00%	2.50%
Pro forma Depreciation Expense	269,886	477,927
Less: Base Year Depreciation Expense	352,735	492,427
Pro forma Adjustment	\$ (82,849)	\$ (14,500)

Rejecting Petitioner's proposed depreciation rates leaves this Commission with the issue of re-establishing plant values for short-lived assets, which are still in service but have no book value. We agree and accept Mr. Kersey's proposed re-establishment of plant values for short-lived assets that are in service but have no book value. As a result, Net-Gross Plant-in-Service is increased to \$408,744 for the consolidated wastewater operations and \$691,023 for the consolidated water operations.

I. Maintenance and Repair Expense.

1. Petitioner's Evidence. Mr. Kersey stated that maintenance and repair expense were forecasted based on an evaluation of historical data and estimated operations. Mr. Kersey stated that Petitioner forecasted an increase from base year maintenance and repair expense of \$129,797 to test year expense of \$189,009. Mr. Kersey explained maintenance and repair expense consisted of: (1) deferred maintenance, (2) sewer rodding, (3) sludge hauling, (4) permits, (5) uniforms, and (6) other.

2. OUC's Evidence. Ms. Stull accepted Petitioner's projected maintenance and repair expense as presented in its case-in-chief testimony. However, Ms. Stull proposed the removal from rate base of costs that were capitalized in error and stated that, to the extent the costs removed should be considered a recurring operating expense and were not already included in test year operating expense, she proposed an adjustment to maintenance and repair expense as appropriate. The \$171,845 of water rate base costs eliminated by Ms. Stull consisted of well cleaning, rehabilitation costs, and filter media maintenance. The costs eliminated were incurred during 2011 through 2015. The \$4,222 of wastewater rate base costs eliminated by Ms. Stull consisted of repair costs, tree removal, and renewal of a National Pollutant Discharge Elimination System land application permit. The costs eliminated were incurred during 2013 through 2015.

3. Petitioner's Rebuttal. Mr. Kersey noted that no maintenance and repair expense adjustments were proposed by the OUC. Mr. Kersey asserted that Ms. Stull goes so far as to clarify that the OUC proposed an adjustment for operating expense based on the transactions it proposes to exclude in Public's Exhibit No. 1; however, no adjustment to operating expenses was made by the OUC. Mr. Kersey explained Petitioner believes the costs Ms. Stull removed from rate base should be amortized over three years, which would result in additional forecasted

maintenance amortization expense. Mr. Kersey stated that Attachment JPK-R2 of Petitioner's Exhibit R2 breaks down Ms. Stull's proposed rate base adjustment for non-allowed costs between costs which Petitioner believes should remain capitalized and those that should be amortized. Mr. Kersey stated the total amount of incremental amortization per year proposed by Petitioner is \$42,567 (\$127,700/3). Mr. Kersey explained the three-year amortization period proposed by Petitioner was chosen to reflect the above-normal corrosiveness of the water, which requires well reconditioning at an above-normal frequency.

4. Commission Discussion and Findings. Petitioner's proposed annual maintenance and repair expense of \$189,009 as of September 30, 2017 included \$34,710, which represented periodic maintenance costs that are not incurred on an annual basis. The \$34,710 of periodic maintenance expense represents the amortization of deferred charges Petitioner proposed in rate base. Because the parties agreed to the initial maintenance and repair expense adjustments proposed by Petitioner in its case-in-chief testimony, we will limit our discussion to the adjustments proposed by Petitioner in its rebuttal case, which represent the annual amortization of non-capital costs Ms. Stull removed from Petitioner's rate base. First, we note Mr. Kersey misstates Ms. Stull's testimony regarding the need for adjusting entries. Mr. Kersey states that Ms. Stull went so far as to clarify that the OUCC is proposing an adjustment to operating expense based on the transactions the OUCC proposed to exclude in Attachment MAS-4. However, Ms. Stull's actual testimony was, "To the extent the costs I remove should be considered a recurring operating expense and that operating expense is not already included in test year operating expenses, I propose an upward adjustment to maintenance and repair expense *as appropriate*." Pub. Ex. 1 at 23. Ms. Stull did not make any additional adjustments to maintenance and repair expense, and therefore, must have determined that no further adjustments were appropriate. Having reviewed the evidence before us, we agree with Ms. Stull and find that Petitioner's forecasted maintenance and repair expense is \$189,008, of which \$48,864 represents water operations maintenance and repair expense and \$140,144 represents wastewater operations maintenance and repair expense.

J. Authorized Operating Expense. Based on the above, the Commission finds Petitioner's pro forma present rate water and wastewater operating expenses for the 12 months ending September 30, 2017, are \$1,801,004 and \$1,820,752, respectively.

11. Net Operating Income at Present Rates.

A. Water Utility's Net Operating Income under Present Rates. Based on the evidence and the determinations made above, the Commission finds Petitioner's water utility adjusted forecasted operating results under present rates are as follows:

	Water
Operating Revenues	\$ 1,990,826
O&M Expense	918,268
General Expenses	448,200
Depreciation Expense	269,886
Amortization Expense	9,784
Taxes Other Than Income	193,577
Federal Income Taxes	(33,993)
State Income Taxes	(4,717)
Total Operating Expenses	1,801,004
Net Operating Income	\$ 189,822

We further find that the net operating income available to Petitioner for return under its present rates for consolidated water utility service of \$189,822 is insufficient to provide a fair return on the fair value of its properties used and useful in providing water service for the convenience of the public, and is therefore unjust and unreasonable and shall be increased.

B. Wastewater Utility's Net Operating Income under Present Rates. Based on the evidence and the determinations made above, we find Petitioner's wastewater utility adjusted forecasted operating results under present rates are as follows:

	Wastewater
Operating Revenues	\$ 2,273,738
O&M Expense	711,329
General Expenses	295,327
Depreciation Expense	477,927
Amortization Expense	19,612
Taxes Other Than Income	198,727
Federal Income Taxes	97,175
State Income Taxes	20,656
Total Operating Expenses	1,820,752
Net Operating Income	\$ 452,986

We further find that the net operating income available to Petitioner for return under its present rates for wastewater utility service of \$452,986 is insufficient to provide a fair return on the fair value of its properties used and useful in providing wastewater service for the convenience of the public, and is therefore unjust and unreasonable and should be increased.

12. **Authorized Rate Increase.**

A. **Water Utility.** The Commission finds Petitioner is permitted to increase its water rates and charges by 37.53% to produce additional operating revenue of \$734,268, total annual operating revenues of \$2,725,095, and net operating income of \$635,930 as depicted below:

	Total
Operating Revenues	\$ 2,725,095
O&M Expense	918,268
General Expenses	451,538
Depreciation Expense	269,886
Amortization Expense	9,784
Taxes Other Than Income	203,817
Federal Income Taxes	195,820
State Income Taxes	40,052
Total Operating Expenses	2,089,165
Net Operating Income	\$ 635,930

The determinations in the preceding table reflect the effect of additional revenue on federal and state income taxes, Utility Receipts Tax, Bad Debt Expense, and the IURC Fee.

The calculation of Petitioner's water utility authorized percent increase subject to the Rate Base Update Mechanism described herein is depicted below:

	Total
Original Cost rate Base	\$ 7,778,960
Times: Weighted Cost of Capital	8.175%
Net Operating Income Required for Return on Rate base	635,930
Less: Adjusted Net Operating Income	189,822
Net Revenue Requirement	446,108
Gross Revenue Conversion Factor	164.594545%
Recommended Revenue Increase	\$ 734,268
Recommended Percentage Increase	37.53%

B. **Wastewater Utility.** The Commission finds Petitioner is permitted to increase its rates and charges by 14.82% to produce additional operating revenue of \$336,266, total annual operating revenues of \$2,610,004, and net operating income of \$657,285 as depicted below:

	Total
Operating Revenues	\$ 2,610,004
O&M Expense	711,329
General Expenses	296,856
Depreciation Expense	477,927
Amortization Expense	19,612
Taxes Other Than Income	203,417
Federal Income Taxes	202,420
State Income Taxes	41,158
Total Operating Expenses	1,952,719
Net Operating Income	\$ 657,285

The determinations in the preceding table reflect the effect of additional revenue on federal and state income taxes, Utility Receipts Tax, Bad Debt Expense, and the IURC Fee.

The calculation of Petitioner's wastewater utility authorized percent increase subject to the Rate Base Update Mechanism described herein is depicted below:

	Total
Original Cost rate Base	\$ 8,040,181
Times: Weighted Cost of Capital	8.175%
Net Operating Income Required for Return on Rate base	657,285
Less: Adjusted Net Operating Income	452,986
Net Revenue Requirement	204,300
Gross Revenue Conversion Factor	164.594540%
Recommended Revenue Increase	\$ 336,266
Overall % of Revenues Subject to Increase	14.82%

C. Ultimate Finding. Based on the evidence and giving appropriate weight to the need for Petitioner to discharge its public duties, the Commission finds that the rates authorized above, subject to Rate Base Update Mechanism described herein, are just and fair and should allow Petitioner the opportunity to earn a reasonable return on its property dedicated to providing water and wastewater utility services to the public.

13. Other Tariff Issues and Non-Recurring Charges. In compliance with the Commission's Order in Cause No. 44587, Petitioner clarified the tariff language of the WSCI division's wastewater reconnection fee to match the Twin Lakes division's description. Also, to achieve synchronization of non-recurring charges, Petitioner increased the Twin Lakes division's

wastewater reconnection fee from \$25 to \$37.50 to match the WSCI division's reconnection fee, and Petitioner increased its new customer charge from \$20 to \$25 to match the WSCI and IWSI divisions' new customer charge. The OUCC agreed with these changes. Accordingly, the Commission finds these changes comply with the Commission's Order in Cause No. 44587, and are approved.

14. Internal Investigation and Use of Three-Way-Match Process.

A. Internal Investigation of Contractor Invoices.

1. Petitioner's Supplemental Evidence. Mr. Lubertozi testified regarding Petitioner's internal investigation into invoices from CS&W. He explained that while preparing portions of Petitioner's rebuttal testimony Petitioner engaged in an internal investigation after he and Mr. Kersey discovered issues with CS&W invoices. Mr. Lubertozi testified that the answers provided by Petitioner's operations management regarding the invoices were vague and untimely. After a series of questions, one of Petitioner's then-current employees admitted that certain of these invoices were prepaid and that work for these prepaid invoices was either not started or not completed. Mr. Lubertozi stated that based on this information, he contacted Utilities, Inc.'s CEO, Ms. Lisa Sparrow, regarding his concern about possible fraud. The resulting investigation was conducted by Ms. Sparrow and Mr. John Stover, General Counsel and Corporate Secretary of Utilities, Inc., and Petitioner's Vice President.

Petitioner engaged in an internal investigation that involved physical inspection or auditing of invoices related to hard assets in four phases. Phase Two was a random sample of capital invoices, and it revealed that one invoice, CS&W Invoice No. 4018, had been prepaid for work that had not been started. Mr. Lubertozi explained that, due to this inconsistency, Petitioner engaged in Phase Three of the investigation, which consisted of a physical inspection of all CS&W invoices over \$10,000 from 2012 to present. While Phase Three revealed no inconsistencies, Petitioner again expanded the scope of the audit to include additional invoices in Phase Four. Phase Four revealed no inconsistencies.

Mr. Lubertozi testified that the internal investigation identified nine invoices covering approximately \$230,000 of capital projects that had been invoiced, but the work had either not been started or not been completed. The invoices were issued at the request of Petitioner's former employee, who then falsely receipted them for payment. Additionally, the investigation did not reveal a widespread issue and showed that only Indiana customers were impacted.

He testified that Petitioner completely removed the impact of the prepaid invoices from its rate filing and prepared updated schedules reflecting the corrections Petitioner identified. Mr. Lubertozi further testified that Petitioner intends to provide bill credits for the over-collection associated with its sewer infrastructure charge approved in Cause No. 44646. Additionally, the investigation revealed that the former employee falsely reported the status of certain projects in the January and July 2015 semi-annual reports filed in Cause No. 44388. Petitioner will file corrected semi-annual reports to address the investigation's findings.

Mr. Kersey testified regarding Petitioner's internal investigation. He provided detailed explanations of the adjustments Petitioner made to remove the impact of the prepaid \$230,000 capital projects invoices that were discovered during the internal investigation. Mr. Kersey explained that Petitioner proposed a pro forma rate base reduction of \$246,394 to account for the prepaid invoices. He discussed in detail the steps used by Petitioner to calculate this adjustment. He further testified that Petitioner compared its pro forma proposed wastewater revenue requirement in its case-in-chief to its revised revenue requirement to calculate a reduction of \$32,497 or 1.15% in Phase II rates, and a \$32,483 or 1.17% reduction in Phase I rates, because of the investigation. Mr. Kersey said that Petitioner takes all allegations of fraud very seriously and Petitioner will take steps to remind all employees of Utilities, Inc.'s Code of Business Conduct and Ethics Policy.

2. OUCC's Supplemental Evidence. Mr. Parks testified regarding OUCC's investigative field review of invoices. Mr. Parks testified that he identified four invoices from late 2011 wherein CS&W invoiced for work at manholes and he found no on-site evidence that the work was performed. Mr. Parks testified regarding his site visit, and he referenced his detailed analysis of invoices in Table 2 of his supplemental testimony.

Ms. Stull outlined Petitioner's internal investigation process and stated that Petitioner's internal inquiry was insufficient to find all instances where Petitioner paid for work that was not completed. Ms. Stull stated that her concerns included: (1) the limited time-period reviewed, (2) the insufficiency of the review conducted, and (3) the lack of further investigation or verification of information provided by Petitioner's terminated employees and CS&W.

Ms. Stull used the OUCC's field review of CS&W manhole work as an example of the insufficiency of Petitioner's investigation. Ms. Stull further testified that she had concerns regarding the lack of further investigation or verification of information provided by Petitioner's terminated employees and CS&W, specifically the lack of verification that no one benefitted financially from the improperly paid invoices. Ms. Stull ultimately testified that, while she agreed that the adjustments proposed by Petitioner in its supplemental testimony were necessary, she did not agree with Petitioner that the Commission should conclude that Petitioner's problems were limited to the invoices and issues uncovered during its internal investigation.

3. LOFS's Evidence. Mr. Richard Cleveland, Community Manager of LOFS, addressed Petitioner's internal investigation. Mr. Cleveland testified that it was alarming that Petitioner's management and culture allowed for a trusted supervisory employee to engage in dishonest behavior that, if left undiscovered, likely would have resulted in customers paying for work that was never done. Mr. Cleveland expressed concern that this latest incident raises questions about Petitioner's management like those raised by the Commission in its Order in Cause No. 43957. In that Cause, the Commission analyzed Twin Lakes' longstanding history of service quality deficiencies and noted "an apparent lack of continuity among the individuals operating Twin Lakes, which we consider an obstacle to meaningful improvement." Cause No. 43957, Order at 24. Mr. Cleveland testified that after Employees A and B were terminated because of the latest incident, he was notified that Mr. Charles Alexander resigned. Mr. Alexander served in a supervisory capacity over the operations personnel assigned to the system that serves LOFS.

4. Petitioner's Rebuttal. Mr. Lubertozi responded to the OUCC's criticisms of Petitioner's internal investigation. He emphasized the seriousness with which Petitioner took the investigation and the speed at which Petitioner instituted its investigation upon being made aware of a potential problem. He again discussed the four-phase process constituting the internal investigation and described the inquiries that took place at each stage. He stated that Petitioner confirmed that some of the work referenced by Mr. Parks was actually completed; thus, the OUCC's investigation identified only two invoices that had not been previously identified by Petitioner. He further stated that using three different methods, Petitioner confirmed that some work identified in Mr. Parks's Table 2 was also completed. He concluded that Mr. Parks's thorough review in large part confirmed Petitioner's conclusions.

5. Commission Discussion and Findings. While the OUCC criticized the scope of Petitioner's investigation and its decision to only review invoices since 2012, the record shows that Petitioner began its investigation with a scope intended to uncover whether additional invoices and work were questionable. Based on the findings of that initial phase, Petitioner expanded its review, both in terms of the period reviewed and the dollar amount of the audited invoices. Petitioner expanded its investigation into Phases Three and Four to gain greater certainty that it had identified the reasonable scope of the potential issues. The investigation involved both financial auditing and physical inspections. The record shows that in a handful of instances, it was not always feasible or easy to physically inspect and confirm that certain work was done. Further, while the OUCC performed an exhaustive review of Petitioner's records and engaged in substantial discovery, it only identified two additional invoices that had not already been identified in Petitioner's investigation. Both invoices were dated prior to January 2012. Given the passage of time, the Commission finds the scope of invoices and years considered in Petitioner's review to be reasonable.

We note that Petitioner appropriately removed approximately \$230,000 of capital projects that had been invoiced but the work had either not been started or not been completed. Petitioner also acted promptly to provide bill credits for the over-collection associated with its sewer infrastructure charge approved in Cause No. 44646. We find Petitioner's remedial financial actions to be reasonable and prudent under the circumstances.

B. Use of Three-Way-Match Process.

1. OUCC's Evidence. Mr. Parks testified that Petitioner's three-way match process for matching purchase orders, receipts, and invoices was ineffective because it allowed payments to be made to contractors when work was not performed, allowed payment of inflated invoices for both North and South GSTs, and allowed inflated invoices to be paid for other sewer repair work. He further testified that Petitioner's three-way match permitted these things to happen because the process allowed a single Petitioner employee to control or influence all parts of the three-way match. He stated that Petitioner's processing of the prepaid sewer repair invoices also caused him concern. He stated that Petitioner's management and accounts payable failed to question year-end clustering of the prepaid invoices and other characteristics that would make the invoices suspect. Mr. Parks further stated that while Petitioner claimed that its investigation uncovered pre-billing for only nine 2015 invoices, the OUCC found additional invoices that were questionable.

Ms. Stull testified that Petitioner maintained insufficient internal controls and undue reliance on the three-way match process. She further stated her concerns regarding Petitioner's internal management controls, including its lack of an internal auditor position, lack of segregation of duties with respect to its internal control procedures, and lack of adequate cost control measures. Ultimately, Ms. Stull recommended that the Commission order Petitioner to evaluate its internal controls and accounting procedures.

2. Petitioner's Rebuttal. Mr. Lubertozi testified regarding Petitioner's three-way match process. He said the three-way match process is a payment verification technique used to ensure that all purchases have been approved or authorized and that payments to contractors are complete and accurate. The matches refer to the comparison of the purchase order to the contractor's invoice and a confirmation that the goods or services are received. After the third step, the contractor's invoice is paid. He explained that a significant amount of Petitioner's capital spending relates to capital projects that are reviewed by a Capital Projects Review Team ("Projects Team"). Mr. Lubertozi said due to Petitioner's organizational structure and Projects Team, there are instances when purchase orders are created after the order has been requested or placed with the contractor. He stated that while this may not coincide with the three-way match best practice, the goal of the three-way match was achieved as well as the overall integrity of the process.

Mr. Lubertozi further testified that Petitioner is not opposed to hiring an internal auditor, as the OUCC suggested; however, he is not convinced that an internal auditor would have uncovered the prepayment situation. He said no audit or auditor could detect all instances of potential fraud. Mr. Lubertozi further questioned whether the benefits of hiring a dedicated internal auditor would outweigh the costs. He pointed out that the OUCC had not included any salary and benefit expense in its schedules for this new employee.

3. Commission Discussion and Findings. The OUCC was critical of Petitioner's operations because of its three-way match process and its failure to prevent payment on several occasions of invoices for work that was not performed, and we agree with the OUCC's assessment of this issue. Petitioner has in place a three-way match process to ensure that all purchases have been approved or authorized and that payments to contractors are complete and correct. However, on several occasions, a single employee was responsible for multiple parts of the three-way match, and this defeated the purpose of the three-way match. A three-way match wherein multiple matches and approvals are conducted by the same person cannot prevent fraudulent activities. We also note that the OUCC initially detected the fraudulent invoices, and not Petitioner. We agree with the OUCC that Petitioner's past three-way match process was insufficient because it did not include a division of duties among multiple people or measures to prevent payment for unperformed work. Although we understand that Petitioner has a small number of local staff, it is important that Petitioner creates a division of duties within its three-way-match process to ensure that contractor invoices are accurate.

While Petitioner did not oppose hiring a full-time internal auditor as recommended by the OUCC, the Commission finds such a requirement to be insufficiently supported at this time, particularly given the additional expense that would be incurred to employ an auditor. Pet. Ex. R1 at 7 (identifying annual revenue requirement of \$74,754 for an Internal Auditor I position). Most importantly, a proper three-way match process, which includes a division of duties, would

eliminate the need to hire a full-time internal auditor to monitor accuracy and adequacy of contractor invoices and payments to contractors.

Regarding Petitioner's oversight of work performance of contractors, the OUCC testified above regarding Petitioner's minimal oversight and project planning on the manhole work performed by contractors. We agree with the OUCC that Petitioner needs to make operational improvements in its oversight of contractor invoices and work performance. Accordingly, the Commission identifies below several specific improvements Petitioner must make. Within 90 days of the effective date of this Order, Petitioner shall file under this Cause a report explaining how it is implementing the improvements below:

a. Improve Management's Oversight of Projects Performed by Contractors. Develop best practices for management oversight of contractors and effective invoice review procedures, which includes (1) creating a scope of work for each project, (2) performing inspections of contractor-performed construction, and (3) implementing a policy requiring contractors to list materials, equipment, and quantity of labor on invoices.

b. Improve Financial Controls Over Invoices Submitted to Petitioner. Integrate a division of duties into Petitioner's three-way matching policy to decrease the risk of fraud and potential for clerical errors in the review, approval, and payment of contractor invoices. Consult with Petitioner's internal audit resources or external consultants as prudent to identify material risks in Petitioner's current controls and develop policies and practices to decrease material risks.

c. Properly Classify Expenses and Capital Work for Accounting Purposes. Modify Petitioner's Capitalized Time Guidelines regarding classification of capital and expenses as discussed in the Non-Capital Costs section. Develop a written policy for how expenses and capital work related to both contractor invoices and employee time will be properly categorized in Petitioner's books and records. Make policy consistent with applicable guidance from the NARUC USoA.

Petitioner shall pursue these steps and others that it believes will help it to minimize the possibility of fraudulent activity in the future, to improve its management and control over contractors and invoices, and to comply with acceptable practices regarding the classification of expenses and capital work.

15. Wastewater and Water Service Quality and Communication with LOFS.

A. Petitioner's Evidence. Concerning Petitioner's wastewater collection system, Mr. Lubertozi testified that Petitioner complied with the 10% annual inspection, televising, and pressure cleaning ordered by the Commission in Cause No. 43128 S1. Petitioner also performed additional work within the last five years to identify and resolve issues within its wastewater system. He said these steps included implementing a Sewer Capital Improvement Program and utilizing RedZone Robotics technology to produce a web-based GIS map of Petitioner's entire wastewater collection system. He further testified that Petitioner has additional plans to replace the wastewater system infrastructure in the next five years, and he provided a general outline of those plans.

Mr. Lubertozi stated that the backups and overflows which occurred during 2015 in the Twin Lakes wastewater system were a result of unprecedented rainfall events and flooding throughout Indiana. He further stated that Petitioner takes these situations very seriously and has taken additional steps toward eliminating these events, including upgrades and improvements consistent with the Commission's Order in Cause No. 43128 S1. He said that the record rainfall events which occurred in the spring and summer of 2015 allowed Petitioner to locate previously unidentified points where surface water impacted the wastewater system. Mr. Lubertozi stated that Petitioner is working closely with customers, including LOFS, to help mitigate these issues in the future and reduce any impact rain events have on Petitioner's wastewater system.

Mr. Lubertozi explained that it would take significant investment of probably \$7 million in the wastewater system to stop the backups from occurring from manholes and in basements of homes. Tr. B-26, 27. He said that all rain downspouts need to be permanently disconnected from the sewer system and all ditches that run through Lakes of the Four Seasons need to be cleared out. He said that he did not have direct evidence of whether customers in the past year were asked to disconnect their downspouts. He said he did not have specific knowledge of an instance when Petitioner asked Lakes of the Four Seasons to clear a ditch and they did not do it, but he had evidence of ditches with rain water collecting in them.

Mr. Lubertozi testified during cross examination that Petitioner began developing a comprehensive asset management plan in 2015 and continues to work on it in 2017. *Id.* at 15. Mr. Lubertozi explained that the plan is a list of all system assets and the plan addresses consequences of asset failure, status of assets, and guidelines for asset maintenance. *Id.* at 19.

Regarding drinking water quality, Mr. Lubertozi testified that Petitioner has taken additional steps to improve service, including making improvements within the water system. He said that aggressive flushing and some additional capital spent at the water treatment plant could help remedy the water discoloration problem. *Id.* at 27. Mr. Lubertozi stated that Petitioner is in compliance with all applicable water quality regulations and standards. He testified that Petitioner recently implemented vigorous and comprehensive uni-directional flushing and hydrant maintenance programs. Mr. Lubertozi testified that these programs reduced the number of customer complaints regarding water quality. He stated that there were 47 customer complaints regarding water quality in 2015; however, only four of the complaints were regarding utility-side issues. He noted that, while there is always room for improvement, he believed the reduced number

of complaints demonstrated the significant efforts undertaken in the past several years to improve water quality for Petitioner's customers.

Mr. Lubertozi discussed Petitioner's communication with LOFS about the water and wastewater service provided within the community. He explained that the majority of the communication took place between Mr. Charles Alexander, former Area Manager for Petitioner, and Mr. Rick Cleveland. Mr. Lubertozi further stated that Petitioner meets periodically with various LOFS personnel to discuss work being done within the community, updates to ongoing activities, future scheduled work, as well as other issues arising in the LOFS community.

B. LOFS's Evidence. Mr. Cleveland testified regarding service quality and Petitioner's communication with LOFS. Mr. Cleveland testified that for the past 25 years, there have been problems with sewage backing up into LOFS residents' homes and manholes overflowing during rain events. He testified that these issues were recognized by the Commission in previous cases. In particular, Mr. Cleveland said that in Petitioner's 2006 rate case, Cause No. 43128, there was testimony that Petitioner received at least 45 complaints of sewage backing up into customers' homes. *Twin Lakes Utilities, Inc.*, Cause No. 43128, 2008 WL 294523 at p. 13 (IURC Jan. 16. 2008).

In this Cause, Mr. Cleveland presented records from the Indiana Department of Environmental Management ("IDEM") showing 16 manhole overflows between April 2014 and December 2015, with eight of these overflows occurring at Manhole No. 329. He stated that sewer backups and manhole overflows were not acceptable and recommended that the Commission impose specific performance metrics on Petitioner. Mr. Cleveland said he was concerned that Petitioner's wastewater treatment facility may not be able to accommodate and treat flows in heavy rain events. He recommended that the Commission require Petitioner to address these decades-old wastewater discharge problems and order, as a condition of the rate increase, that Petitioner replace or repair the system in reasonable, measurable increments that eliminate wastewater overflows. He also recommended that the Commission not authorize additional rate increases until Petitioner has operated for a suitable period of time without sewage backups, manhole overflows, or discolored water and has achieved acceptable customer satisfaction ratings.

Mr. Cleveland expressed his concerns regarding Petitioner's drinking water quality. Mr. Cleveland recounted the testimony of Ms. Carol Karpen in a field hearing in February 2011 in Cause No. 43957. The Karpens experienced brown water in wash cycles and would not drink the water due to quality issues. Mr. Cleveland testified that the Karpens reported to him that despite more frequent flushing by Petitioner since 2012, they continue to have damaged clothing because they do not always know when brown water will appear in the wash cycle, and they continue to buy bottled water. He recounted other specific examples of quality issues experienced by LOFS residents. He testified that he received numerous complaints over the years that water delivered by Petitioner required softening and filtration and the water shortened the expected useful life of household appliances.

Regarding communication between Petitioner and LOFS, Mr. Cleveland testified that the Commission in the October 5, 2017 Order in Cause No. 44646 found that Petitioner needed to improve communication with LOFS. The Commission directed Petitioner to meet with LOFS quarterly to discuss issues. Mr. Cleveland testified that Petitioner has not complied with the

Commission's Order to meet quarterly and Petitioner has not responded to e-mails requesting meetings to discuss quality issues or potential rate case filings.

Mr. Cleveland provided supplemental testimony in this Cause in response to Petitioner's internal investigation. Mr. Cleveland testified that it is alarming that Petitioner's management and culture allowed for a trusted supervisory employee to engage in dishonest behavior that would have resulted in customers paying for work that was never done. He further stated that Petitioner's supplemental testimony suggested that Petitioner's management and culture encourages the attainment of financial goals without regard to basic principles of fairness and honesty.

C. Petitioner's Rebuttal. Mr. Lubertozi responded to Mr. Cleveland's testimony regarding 16 manhole overflows. He pointed out that, with the exception of two events, all of the sewer discharges identified by Mr. Cleveland involved instances of significant rainfall, ranging from 1.3 inches within 40 minutes to over 4 inches within 60 minutes. He further explained that, absent the unprecedented rainfall experienced on June 8, 2015, and August 18, 2015, there would only have been a single overflow event in the past three years. Mr. Lubertozi discussed past instances when the Commission recognized that Petitioner's wastewater system, as an older gravity system, was prone to inflow and infiltration issues. Mr. Lubertozi stated that Petitioner has adopted a more proactive approach to cleaning and televising the wastewater system and explained this approach.

Mr. Lubertozi addressed the concerns raised regarding Petitioner's drinking water quality. He stressed that any water leaving Petitioner's treatment plant meets or exceeds all applicable state and federal water quality standards. He stated that he understands some customers have concerns about water quality at their residences and Petitioner continues to work with these customers to address brown water at their residences. In the case of the Karpens' residence, Mr. Lubertozi stated that Petitioner routinely flushes a hydrant located in the vicinity of their residence and will continue to work with them to address any quality issues. He said testing performed at the Karpens' residence showed that the water coming into their residence was clear with extremely low or non-measurable iron concentrations, even when discolored water was experienced in their faucets. He also explained that the issue of water hardness is not unique to Petitioner and would be present at any water utility using similar groundwater sources. He disagreed with Mr. Cleveland's suggestion that the need for softening Petitioner's water is an indication of water service quality issues.

Mr. Lubertozi responded to Mr. Cleveland's testimony regarding communications with LOFS. He stated that while there is always room for improvement, correspondences showed that there was plenty of communication between Petitioner and LOFS. He agreed with Mr. Cleveland's comments that Petitioner did not meet with LOFS on a quarterly basis. He stated that this failure was due to Petitioner incorrectly relying on the Commission's Order in Cause No. 44388, which required meetings on a semi-annual basis and a meeting at least 60 days prior to filing its next general rate case. As Petitioner's President, he took full responsibility for not complying with the Commission's Order and apologized to the Commission and LOFS for the oversight. However, Mr. Lubertozi disagreed with Mr. Cleveland's comments that Petitioner failed to advise LOFS of Petitioner's intention to file a rate case. He stated that Petitioner's representatives met with LOFS on September 30, 2015, and informed LOFS of its intention to file a rate case. He further stated that in the future it would be advisable to have these communications in writing so each party would have a record.

Mr. Lubertozi testified regarding criticisms by LOFS of Petitioner's management. He responded to Mr. Cleveland's statement that the management and culture at Petitioner encourages attainment of the utility's financial goals without regard to basic principles of fairness and honesty. He testified that the culture at Utilities, Inc. and its operating companies is one of safety and integrity. Mr. Lubertozi explained that the terminated employee's actions decreased Petitioner's opportunity to achieve its financial goals, not *encouraged the attainment* of Petitioner's financial goals as Mr. Cleveland suggested.

D. Commission Discussion and Findings. As referenced in the testimony by LOFS, Petitioner has faced service challenges with its utilities for many years, particularly in regard to sewage backups, manhole overflows, and drinking water discoloration. Additionally, there have been concerns regarding Petitioner's on-going communication with LOFS. In more recent years, Petitioner has taken some steps to improve performance as noted in the Commission's Orders.

In the October 7, 2015 Order in Cause No. 44646, the Commission denied LOFS's request for a subdocket to address overflows at Twin Lakes because the Commission believed that Petitioner was making appropriate improvements in its collection system and Petitioner's older gravity system was prone to inflow and infiltration issues. The Commission discussed these issues as follows:

We have previously initiated a subdocket in Cause No. 43128 SI to address similar (sanitary sewer overflow) issues, and in fact, sanitary sewer overflows at the same manholes that recently overflowed. As part of that subdocket, Petitioner is televising and smoke testing 10 percent of its system annually. Petitioner is also providing semi-annual reporting of the inspections and improvements it is making to its collection system. While it is troubling that sanitary sewer overflows are reoccurring at the same manholes at issue in Cause 43128, Petitioner's system is an older gravity system prone to inflow and infiltration issues. We also note that the recent sanitary sewer overflows occurred during a statistically historic rain event. We believe that Petitioner is making the appropriate improvements in its collection system based on the reports filed under Cause No. 43128 SI. Accordingly, we decline LOFS's request for another subdocket. However, we do believe that Petitioner needs to improve the communication of its planning with LOFS, and direct Petitioner to meet with LOFS on a quarterly basis to discuss any issues with Petitioner's water or wastewater systems, and provide LOFS any filings made to IDEM related its collection system. *Twin Lakes Utilities, Inc.*, Cause No. 44646, 2015 WL 5920879 at p. 8 (IURC Oct. 7, 2015).

In the April 23, 2014 Order in Cause No. 44388, the Commission approved a Stipulation and Settlement Agreement with the OUCC and LOFS and discussed Petitioner's improvements. In that Cause, Mr. McIntosh, on behalf of the OUCC, testified regarding Petitioner's wastewater operations, and he noted that the odor controls implemented by Petitioner appear to have been effective. Mr. McIntosh recommended that Petitioner continue to make repairs on defective manholes to reduce inflow and infiltration of ground water and storm water. In the Order, the Commission stated the following regarding Petitioner's service quality and customer relations:

While Petitioner still has room for improvement, it appears that many of the service quality and customer relation issues raised in Petitioner's last rate case have been addressed or improved by Petitioner. We encourage Petitioner to continue to improve service quality and proactively manage its water and wastewater systems, and further encourage the parties to continue to work together to proactively identify issues and work to reach mutually agreeable solutions. *Twin Lakes Utilities, Inc.*, Cause No. 44388, 2014 WL 1712265 at p. 9 (IURC April 23, 2014).

In the current Cause, regarding wastewater bypasses and overflows, the record shows that in nearly every instance, significant and heavy precipitation was present when bypasses and overflows occurred. To address those issues, Petitioner is actively gathering data and taking steps to prevent bypasses and overflows. For instance, Mr. Lubertozzi stated that Petitioner was making capital improvements and implementing a web-based GIS map. Indeed, the record showed a decline in the percentage of complaints in 2015 that were determined to be due to utility-side issues. Going forward, Mr. Lubertozzi testified that Petitioner would probably need to invest \$7 million in the wastewater system to stop overflows from occurring from manholes and backups in basements of homes. He said that downspouts need to be permanently disconnected, ditches should be cleaned, and the system needs to be aggressively flushed.

Based upon our review of the evidence, Petitioner is making strides in decreasing wastewater bypasses and overflows as shown by the decline in complaints and that most incidences occurred when there was significant and heavy precipitation. We find that there is still room for Petitioner to further decrease the incidences of wastewater bypasses and overflows. We encourage Petitioner to incorporate their proposed investments and actions to decrease wastewater bypasses and overflows into the Commission required System Improvement Plan ("SIP") discussed below.

Regarding drinking water quality and discoloration, Mr. Lubertozzi stated that the water leaving Petitioner's treatment plant meets or exceeds all applicable state and federal water quality standards, and he said that Petitioner continues to work with customers to address discolored water. Mr. Cleveland testified regarding brown water in wash cycles and that Petitioner's water requires softening and filtration. Mr. Lubertozzi said that Petitioner continues to work with customers who have discolored water. He also explained that water hardness would be present at any water utility using similar groundwater sources, and he disagreed with Mr. Cleveland's conclusion that the need to soften water indicates water quality issues.

Based upon our review of the evidence, Petitioner is working with residents to address discolored water concerns. We find that Petitioner shall renew its focus on flushing the drinking water system and making strategic capital improvements to decrease water discoloration concerns. Petitioner shall also continue to communicate with residents about discolored water and to work with residents to resolve concerns. Accordingly, as discussed in Paragraph 7 below, we find that Petitioner shall meet with LOFS on a quarterly basis as required in Cause No. 44646.

Regarding rate increases for the wastewater and water systems, Mr. Cleveland recommended that the Commission not authorize additional rate increases until Petitioner has operated for a suitable period of time without sewage backups, manhole overflows, or discolored water and has achieved acceptable customer satisfaction ratings. We disagree. The evidence shows that Petitioner has already been making progress on decreasing bypasses and overflows and has

been working with residents regarding discolored water complaints. We believe that following the recommendation from LOFS to withhold additional rate increases to a future date when Petitioner meets certain performance criteria would be unfair and unreasonable to Petitioner and not in the best interest of customers over the long-term.

In summary, based on our review of the evidence, we believe Petitioner is making strides to improve service quality and Petitioner generally knows what it needs to do to continue improving service quality. However, Petitioner needs to create a master plan to decrease total incidences of wastewater backups in homes and manhole overflows and to decrease total complaints about discoloration of drinking water. That master plan, the SIP, should be well documented and include feedback from the OUCC and LOFS, and then, most importantly, must be implemented and progress measured and reported. The Commission finds the following process reasonably addresses our desire to see continued cooperation among the parties and the development and implementation of a comprehensive and thoughtful strategy by Petitioner to create lasting improvements in wastewater and water service quality, value, and accountability:

1. Develop and Implement a System Improvement Plan Focused on Three Key Aspects of Service Quality for Petitioner's Water and Wastewater Systems. Based on our consideration of the evidence, we find that Petitioner still needs to improve three key aspects of service quality and Petitioner shall develop and implement the SIP to ensure that it makes these improvements. Accordingly, we direct Petitioner to develop the SIP to achieve the following goals: (a) to decrease total incidences of wastewater backups in homes, (b) to decrease total incidences of manhole overflows, and (c) to decrease total complaints of discoloration of drinking water ("Three Key Aspects").

In the SIP, Petitioner shall provide detailed plans to measurably improve performance in the Three Key Aspects through use of two primary components: a comprehensive inflow and infiltration ("I&I") program and a multi-faceted program to decrease incidences of discolored water, as described below. The detailed plans shall include descriptions of the activities, measureable outcomes, cost-benefit analyses, and timelines. Additionally, Petitioner shall propose capital investments that require Commission approvals and suggested timetables for the filings and approvals. For proposed significant capital investments, Petitioner shall provide proper documentation of engineering studies and detailed competitive bids from contractors to support Petitioner's proposals.

a. Develop a Comprehensive Inflow and Infiltration Program to Decrease Total Incidences of Wastewater Backups and Manhole Overflows. Petitioner shall develop a comprehensive I&I program to decrease wastewater backups in homes and manhole overflows and to eliminate water inflow and ground water infiltration into Petitioner's wastewater collection system. The I&I program shall specifically address how Petitioner will decrease inflow of rain and storm water into the wastewater system by working with LOFS to eliminate improperly installed residential sump pumps and roof downspouts and illegally connected drains. The I&I program shall also utilize Petitioner's comprehensive asset program to decrease infiltration of groundwater into the wastewater system through leaky joints, cracked pipelines, and deteriorated manholes.

b. Develop a Multi-Faceted Program to Decrease Total Complaints of Discoloration of Drinking Water. Petitioner shall develop a thorough program to decrease complaints of discolored drinking water through implementation of a comprehensive asset program to prudently maintain, repair, flush, and replace Petitioner's water infrastructure. Additionally, Petitioner shall communicate with leadership and residents of LOFS regarding causes of discolored drinking water, steps Petitioner is taking to decrease complaints, and how residents can help prevent discolored water.

2. Measure and Achieve Annual Improvements in Three Key Aspects of Service Quality. To quantify and improve service quality, Petitioner shall measure and improve performance on the Three Key Aspects annually during 2018-2022. Accordingly, Petitioner shall develop a proposed plan to measure performance on the Three Key Aspects, and Petitioner shall report on actual performance on a quarterly and annual basis ("Performance Plan"). The Performance Plan shall designate percentage goals to decrease incidences and complaints annually as compared to the previous year, and Petitioner shall define how achievement of the percentage goals will be calculated and documented. Petitioner shall file the proposed Performance Plan as a compliance filing under this Cause at least five days before the technical conference discussed below. Petitioner shall discuss the proposed Performance Plan during the technical conference, and the Commission will provide written recommendations regarding the proposed Performance Plan within ten days following the technical conference. Petitioner shall incorporate the recommendations and file a revised Performance Plan in Petitioner's next Quarterly Status Report, as defined in Paragraph 5 below. Thereafter, Petitioner shall implement the Performance Plan and report performance in the Quarterly Status Report.

3. Present Proposed SIP and Performance Plan at a Technical Conference. For Petitioner to present the SIP for 2018-2022 and Performance Plan and receive initial feedback, Petitioner shall meet with Commission, OUCC staff, and LOFS in a technical conference within approximately 90 days of the effective date of this Order. To coordinate the scheduling of the technical conference, Petitioner, OUCC staff, and LOFS shall propose possible dates for a technical conference to the Presiding Officers in this Cause. As a compliance filing under this Cause, Petitioner shall file the agenda, proposed SIP, and proposed Performance Plan at least five days prior to the technical conference. Additionally, Petitioner shall file minutes from the technical conference within five days after the technical conference.

4. Incorporate Commission's Comments into Petitioner's SIP and Performance Plan. The Commission will provide written recommendations regarding Petitioner's proposed SIP and Performance Plan within ten days following the technical conference. Petitioner shall take into consideration the Commission's recommendations and file a revised SIP and Performance Plan in Petitioner's next Quarterly Status Report, as defined in Paragraph 5 below. Thereafter, Petitioner shall implement the SIP and Performance Plan and report performance in the Quarterly Status Report.

5. File Quarterly Status Reports with Commission. To communicate Petitioner's progress and to maintain accountability, Petitioner shall file a Quarterly Status Report with the Commission. This Quarterly Status Report replaces the previous semiannual reporting requirements ordered in Cause Nos. 43957 and 44388. The Quarterly Status Report shall include: (a) status of implementation of the SIP and updates to SIP, (b) quarterly and annual actual and

target performance of Performance Plan, (c) quarterly and annual televised line-inspection information, (d) a report on complaints elevated to the Director of Customer Care and resolutions, and (e) detailed wastewater lateral and manhole repair tracking forms with customer name and address, description of incident and root cause, a copy of any report to IDEM, and an explanation of the final resolution with the customer. Petitioner is directed to file its next Quarterly Status Report under this Cause, on or before April 30, 2018. A Quarterly Status Report filing shall be due on January 31, April 30, July 31, and October 31, of each year. Petitioner shall also simultaneously serve copies of the report on the OUCC and LOFS. The requirement to file a Quarterly Status Report shall end on December 31, 2022, unless Commission staff determine that Petitioner is not adequately implementing the SIP.

6. Present a Quarterly Update at a Technical Conference with Commission, OUCC staff, and a Representative from LOFS. To maintain accountability and communication, Petitioner shall meet quarterly (or another frequency as agreed to by the parties) with the Commission, OUCC staff, and a representative from LOFS in a technical conference. To coordinate the scheduling of each technical conference, Petitioner, OUCC staff, and LOFS shall propose possible dates for the technical conference to the Presiding Officers in this Cause. As a compliance filing under this Cause, Petitioner shall file the agenda for the technical conference at least five days prior to the conference. The agenda shall include Petitioner's updates regarding the status of Petitioner's SIP, Performance Plan, and any other significant activity occurring in the field. As a compliance filing under this Cause, Petitioner shall file the minutes of the technical conference within five days after the conference. The requirement to present quarterly updates at technical conferences shall end on December 31, 2020, unless Commission staff determine that Petitioner is not adequately implementing the SIP.

7. Meet Quarterly with LOFS to Discuss Plans and to Collaborate. Petitioner shall comply with the requirements in Cause No. 44646 regarding quarterly meetings with LOFS. As required in that Cause, Petitioner shall discuss issues with Petitioner's water or wastewater systems and provide LOFS with filings made to IDEM related to its collection system. Additionally, meetings shall include communication regarding Petitioner's plans to implement the SIP and collaborative actions LOFS and residents can take to help improve service quality. The requirement to conduct quarterly meetings with LOFS shall end on December 31, 2020, unless Commission staff determine that Petitioner is not adequately communicating and collaborating with LOFS.

16. Temporary Rates and Charges. On December 8, 2017, Petitioner filed its Submission of Temporary Rates and Charges seeking a determination that its filing satisfies the requirements of Ind. Code § 8-1-2-42.7 and authorizing Petitioner to implement temporary rates and charges. In a January 8, 2018 Docket Entry, the Commission through the Presiding Officers, approved the temporary implementation of rates and charges by Petitioner according to the provisions of Ind. Code § 8-1-2-42.7. The temporary rates and charges differ from the permanent rates and charges approved by the Commission in this Order. In compliance with Ind. Code § 8-1-2-42.7(i), Petitioner shall perform a reconciliation and implement a refund, in the form of a credit rider or a surcharge, as applicable, on customer bills rendered on or after the date the Commission approves the credit or surcharge. Accordingly, within 60 days from the effective date of this Order and prior to implementing the credit or surcharge, Petitioner shall file their reconciliation as a compliance filing under this Cause for approval by the Commission's Water/Wastewater Division.

On January 12, 2018, LOFS filed their Objection, Appeal to the Full Commission of January 8, 2018 Docket Entry and Motion to Stay Rate Increase Authorized by Docket Entry. LOFS sought to stay the implementation of the temporary rates and charges that were approved on January 8, 2018, as discussed in the paragraph above. However, this Order establishes permanent rates and charges for Petitioner. Accordingly, the filing by LOFS on January 12, 2018, is now moot.

17. **Confidentiality.** Petitioner filed Motions for Protection and Nondisclosure of Confidential and Proprietary Information on December 15, 2015, and June 27, 2016, which were supported by affidavits showing documents to be submitted to the Commission were trade secret information within the scope of Ind. Code §§ 5-14-3-4(a)(4), (9), and 24-2-3-2. On January 29, 2016, and October 24, 2016, the Presiding Officers issued docket entries finding such information to be preliminarily confidential, after which such information was submitted under seal. No party objected to the confidential and proprietary nature of the information submitted under seal in this proceeding. We find the information is confidential pursuant to Ind. Code § 5-14-3-4 and Ind. Code § 24-2-3-2, is exempt from public access and disclosure by Indiana law, and shall continue to be held confidential and protected from public access and disclosure by the Commission.

IT IS THEREFORE ORDERED BY THE INDIANA UTILITY REGULATORY COMMISSION that:

1. Petitioner should be permitted to increase its water rates and charges to produce additional operating revenue of \$734,268 to produce total annual operating revenues of \$2,725,095 and net operating income of \$635,930.

2. Petitioner should be permitted to increase its wastewater rates and charges to produce additional operating revenue of \$336,266 to produce total annual operating revenues of \$2,610,004 and net operating income of \$657,285.

3. In compliance with Finding Paragraph No. 16 above, Petitioner shall file a reconciliation of temporary rates and charges pursuant to Ind. Code § 8-1-2-42.7(i).

4. LOFS's Objection, Appeal to the Full Commission of January 8, 2018 Docket Entry and Motion to Stay Rate Increase Authorized by Docket Entry is denied as moot.

5. Petitioner is authorized to implement the rate increase as set forth in Ordering Paragraph 6 below and subject to the Rate Base Update Mechanism described herein.

6. Prior to implementing the rates authorized in this Order, Petitioner shall file the tariff and applicable rate schedules under this Cause for approval by the Commission's Water/Wastewater Division. Such rates shall be effective on or after the Order date subject to Division review and agreement with the amounts reflected.

7. Petitioner shall file its Rate Base Update Mechanism as described above.

8. Petitioner shall continue to utilize the Commission-approved composite-depreciation rates.

9. Petitioner shall revise its Capitalized Time Guidelines in compliance with Finding Paragraph Nos. 7E and 14B and avoid the inappropriate capitalization of employee time.

10. Petitioner is directed to file, under this Cause, all documents required by this Order.


11. The Confidential Information filed under seal in this Cause shall continue to be held by the Commission as confidential and not subject to public disclosure.

12. This Order shall be effective on and after the date of its approval.

HUSTON, FREEMAN, WEBER, AND ZIEGNER CONCUR:

APPROVED: **JAN 24 2018**

**I hereby certify that the above is a true
and correct copy of the Order as approved.**



Mary Becerra
Secretary of the Commission

**STATE OF NORTH CAROLINA
UTILITIES COMMISSION
RALEIGH**

DOCKET NO. W-354, SUB 360

BEFORE THE NORTH CAROLINA UTILITIES COMMISSION

In the Matter of

Application by Carolina Water Service, Inc., of)	ORDER APPROVING JOINT
North Carolina, 4944 Parkway Plaza Boulevard,)	PARTIAL SETTLEMENT
Suite 375, Charlotte, North Carolina 28217, for)	AGREEMENT AND STIPULATION,
Authority to Adjust and Increase Rates for)	GRANTING PARTIAL RATE
Water and Sewer Utility Service in All of its)	INCREASE, AND REQUIRING
Service Areas in North Carolina, Except Corolla)	CUSTOMER NOTICE
Light and Monteray Shores Service Area))

HEARD: Tuesday, August 28, 2018, at 7:00 p.m., in the Craven County Courthouse, Courthouse Annex, Courtroom #4, 302 Broad Street, New Bern, North Carolina

Wednesday, August 29, 2018, at 7:00 p.m., in Courtroom 317, New Hanover County Courthouse, 316 Princess Street, Wilmington, North Carolina

Wednesday, September 19, 2018, at 7:00 p.m., in the Mecklenburg County Courthouse, Courtroom 5350, 832 East 4th Street, Charlotte, North Carolina

Tuesday, September 25, 2018, at 7:00 p.m., in the Watauga County Courthouse, Courtroom #1, 842 W. King Street, Boone, North Carolina

Wednesday, September 26, 2018, at 7:00 p.m., in the Buncombe County Courthouse, Courtroom 1A, 60 Court Plaza, Asheville, North Carolina

Monday, October 8, 2018, at 7:00 p.m., and Tuesday, October 16, 2018, at 10:00 a.m., in Commission Hearing Room 2115, Dobbs Building, 430 North Salisbury Street, Raleigh, North Carolina

BEFORE: Chairman Edward S. Finley, Jr., Presiding, and Commissioners ToNola D. Brown-Bland, Jerry C. Dockham, James G. Patterson, Lyons Gray, Daniel G. Clodfelter, and Charlotte A. Mitchell

APPEARANCES:

For Carolina Water Service, Inc. of North Carolina:

Jo Anne Sanford, Sanford Law Office, PLLC, Post Office Box 28085,
Raleigh, North Carolina 27611

Robert H. Bennink, Jr., Bennink Law Office, 130 Murphy Drive, Cary,
North Carolina 27513

For Corolla Light Community Association, Inc.:

Brady W. Allen, Allen Law Offices, PLLC, 1514 Glenwood Ave., Suite 200,
Raleigh, North Carolina 27608

For the Using and Consuming Public:

Gina C. Holt, William E. Grantmyre, and John Little, Staff Attorneys, Public
Staff – North Carolina Utilities Commission, 4326 Mail Service Center,
Raleigh, North Carolina 27699

Margaret A. Force, Assistant Attorney General, North Carolina Department
of Justice, Post Office Box 629, Raleigh, North Carolina 27602

BY THE COMMISSION: On March 23, 2018, in the above-captioned proceeding,
pursuant to Commission Rule R1-17(a), Carolina Water Service, Inc., of North Carolina
(CWSNC or Company) submitted notice of its intent to file a general rate case application.

On April 6, 2018, CWSNC filed a procedural request proposing that the impact of
the Federal Tax Cuts and Jobs Act (the Tax Act) on the Company's rates be addressed
and resolved in this docket, rather than in the Commission's generic tax docket (Docket
No. M-100, Sub 148).

On April 27, 2018, CWSNC filed its verified application for a general rate increase
(Application), seeking authority to: (1) increase and adjust its rates for water and sewer
utility service in all of its service areas in North Carolina, except for the Company's Corolla
Light/Monteray Shores service area (CLMS); and (2) pass through any increases in
purchased bulk water rates, subject to CWSNC providing sufficient proof of the increases,
as well as any increased costs of wastewater treatment performed by third parties and
billed to CWSNC. Included with this filing were certain information and data required by
NCUC Form W-1. The Company stated in its Application that it presently has
approximately 34,871 water customers and 21,531 sewer customers in North Carolina

(including water and sewer availability customers).¹ The present rates for water and sewer service have been in effect since November 8, 2017, pursuant to the Commission's Order Approving Stipulations, Granting Partial Rate Increase and Requiring Customer Notice in CWSNC's last general rate case in Docket No. W-354, Sub 356 (Sub 356 Order).²

On May 16, 2018, the Company filed an Amendment to its Application, revising Page 4 of 7 to Appendix A-1.

On May 22, 2018, the Commission issued an Order Establishing General Rate Case, Suspending Rates, Scheduling Hearings, and Requiring Customer Notice. By that Order, the Commission declared this matter to be a general rate case pursuant to N.C.G.S. § 62-137, suspended the effect of the proposed new rates for up to 270 days pursuant to N.C.G.S. § 62-134, and required the parties to prefile testimony and exhibits. That Order also scheduled customer hearings in New Bern, Wilmington, Charlotte, Boone, Asheville, and Raleigh, North Carolina, set the evidentiary hearing in Raleigh, North Carolina, and required notice to all affected customers. On May 30, 2018, CWSNC filed its Ongoing Three-Year Water and Sewer Improvement Charges (WSIC/SSIC) Plan.

On July 27, 2018, CWSNC filed a certificate of service demonstrating that the Applicant sent the notices to customers as required by the Commission's Order issued in this proceeding on May 22, 2018.

Public hearings were held as scheduled. The following public witnesses testified at the public hearings in this proceeding:

August 28, 2018	New Bern	Ted Warnock, Simon Lock, Diana Viglianese, Jim Brown, Mike Shannon, Ralph Tridico, Irving Joffe, Michael Kaplan, John Gumbel, and Benny Thompson
August 29, 2018	Wilmington	David Holsinger
September 19, 2018	Charlotte	Patricia Marquardt, William Colyer, Nicoline Howell, Griffin Rice, Margaret Quan, Deborah Atkinson, Nicholas Stephen Kirkley, Tom Moody, Karen Cynowa, and Michael Tepedino

¹ The Company did not indicate the specific date related to its present number of customers stated in the Application. The number of customers presented in Finding of Fact No. 13 herein is based on the final revised detailed billing analysis prepared by Public Staff witness Casselberry for the 12-month period ended December 31, 2017, and is not disputed by the Company.

² The Elk River Development was excluded from the general rate increase application filed in Docket No. W-354, Sub 356, as the rates for those customers had increased effective September 20, 2016, pursuant to a rate increase application approved in Docket No. W-1058, Sub 7, for Elk River Utilities, Inc.

September 25, 2018	Boone	Harvey Bauman, Sid E. Von Ropeunt, George Hall, and Tim Presnell
September 26, 2018	Asheville	Jack Zinselmeir, Phil Reitano, Gerard Worster, Chuck Van Rens, and Connie Brown
October 8, 2018	Raleigh	William Stanley Glance, Vincent Roy, Judith Bassett, Vicki Smith, and Benjamin Farmer

CWSNC responded to public witness testimony by its filings of September 18, October 4, October 15, October 17, and October 25, 2018.

On September 4, 2018, CWSNC filed the direct testimony and exhibits of Company witnesses Richard Linneman, Financial Planning and Analysis Manager, CWSNC;³ Dylan W. D'Ascendis, Director, ScottMadden, Inc.; and Deborah Clark, Communications Coordinator, CWSNC.

On September 24, 2018, the Corolla Light Community Association, Inc. (Corolla Light HOA) filed a Petition to Intervene, which the Commission granted by Order issued on October 11, 2018.

On September 25, 2018, the Public Staff filed a motion for an extension of time for the parties to file testimony and exhibits, which was granted by Commission Order issued September 26, 2018.

On September 26, 2018, the North Carolina Attorney General's Office (AGO) filed a Notice of Intervention in this proceeding. The Commission recognizes the AGO's intervention pursuant to N.C.G.S. § 62-20.

The Public Staff's participation in this proceeding is recognized pursuant to N.C.G.S. § 62-15(d) and Commission Rule R1-19.

On October 3, 2018, the Public Staff filed the direct testimony and exhibits of Public Staff witnesses Gina Y. Casselberry, Advanced Utilities Engineer, Public Staff Water, Sewer, and Telephone Division; John R. Hinton, Director, Public Staff Economic Research Division; Lynn Feasel, Staff Accountant, Public Staff Accounting Division⁴; and Sonja R. Johnson, Staff Accountant, Public Staff Accounting Division.

³ CWSNC witness Dante DeStefano, Financial Planning and Analysis Manager, CWSNC, adopted the direct testimony initially submitted by CWSNC witness Richard Linneman. Hereafter, for convenience, the Commission will refer only to the testimony of witness DeStefano in this Order.

⁴ Public Staff witness Henry adopted the direct testimony initially submitted by Public Staff witness Feasel. Hereafter, for convenience, the Commission will refer only to the testimony of witness Henry in this Order.

On October 4, 2018, the Public Staff filed the direct testimony of Michelle M. Boswell, Staff Accountant, Public Staff Accounting Division.

On October 5, 2018, the Public Staff filed the supplemental testimony of witness Johnson.

On October 11 and 12, 2018, the Public Staff filed the supplemental testimony and exhibits of witnesses Casselberry; Boswell; Windley E. Henry, Accounting Manager, Water/Communications Section, Public Staff Accounting Division; Hinton; and the second supplemental testimony of witness Johnson.

Also on October 12, 2018, CWSNC filed the rebuttal testimony and exhibits of witnesses J. Bryce Mendenhall, Vice President of Operations, CWSNC; D'Ascendis; and DeStefano.

The evidentiary hearing began as scheduled at 10:00 a.m. on October 16, 2018, in Commission Hearing Room 2115, Dobbs Building, 430 North Salisbury Street, Raleigh, North Carolina, and concluded that same day.

On October 19, 2018, CWSNC and the Public Staff filed a Partial Joint Settlement Agreement and Stipulation (Stipulation). On October 23, 2018, CWSNC filed a response to Commissioner Clodfelter's request for a late-filed exhibit addressing the Company's post-test year plant additions.

On October 30, 2018, the Public Staff filed the late-filed exhibits of witnesses Johnson and Casselberry.

On November 19, 2018, the Public Staff filed a motion for extension of time for all parties to file proposed orders or briefs, which was granted by Commission Order issued the same day.

On November 20 and 21, 2018, the Public Staff filed the late-filed exhibits of witness Casselberry and the Revised Supplemental Exhibits I and II of witness Henry.

On November 27, 2018, the Public Staff filed the Revised Late-Filed Exhibits 4, 7, and 9 of witness Casselberry.

Also on November 27, 2018, CWSNC, the Public Staff, and the AGO filed their respective proposed orders or briefs. In conjunction with its proposed order, CWSNC filed the affidavit of Anthony Gray regarding CWSNC's rate case expense and DeStefano Supplemental Exhibits I (Billing Analysis by Service Areas) and II (Calculation of Gross Revenue Impact of Company Adjustments).

Based upon the foregoing, including the verified Application and accompanying NCUC Form W-1, the testimony and exhibits of the public witnesses appearing at the

hearings, the testimony and exhibits of the expert witnesses received into evidence, the Stipulation, and the entire record herein, the Commission makes the following:

FINDINGS OF FACT

General Matters

1. CWSNC is a corporation duly organized under the law and is authorized to do business in the State of North Carolina. CWSNC is a franchised public utility providing water and/or sewer utility service to customers in 38 counties in North Carolina. CWSNC is a wholly-owned subsidiary of Utilities, Inc. (UI).⁵

2. CWSNC is properly before the Commission pursuant to Chapter 62 of the North Carolina General Statutes seeking a determination of the justness and reasonableness of its proposed rates and charges for the water and sewer utility service CWSNC provides to customers in North Carolina, with the exception of the Corolla Light and Monterey Shores Service Area.

3. The appropriate test period for use in this proceeding is the 12-month period ending December 31, 2017, updated for known and measurable changes through the close of the hearing.

4. The present rates for water and sewer service have been in effect since November 8, 2017, pursuant to the Commission's Sub 356 Order, except for the Elk River Development, which rates have been in effect since September 20, 2016, pursuant to a rate general rate increase approved in Docket No. W-1058, Sub 7 for Elk River Utilities, Inc.

The Stipulation

5. On October 19, 2018, CWSNC and the Public Staff (Stipulating Parties) filed the Stipulation, resolving some of the issues between those two parties in this docket. Those issues that were not resolved by the Stipulation are referred to herein as the "Unsettled Issues."

6. The Stipulation is the product of the give-and-take in negotiations between the Stipulating Parties, is material evidence in this proceeding, and is entitled to be given appropriate weight in this case, along with the other evidence of record, including that submitted by the Company, the Public Staff, and the public witnesses that testified at the hearing.

⁵ Utilities, Inc. owns regulated utilities in 16 states, with primary service areas in Florida, North Carolina, South Carolina, Louisiana, and Nevada, which provide water and sewer utility service to approximately 197,732 customers.

7. The Stipulation is a nonunanimous settlement of matters in controversy in this proceeding and was not joined by the other parties.

8. The Stipulation resolves only some of the disputed issues between CWSNC and the Public Staff.

9. The Unsettled Issues, which were not resolved in the Stipulation, include the following:

- 1) Return on equity;
- 2) Public Staff adjustments to ADIT and EDIT;
- 3) Public Staff proposal that CWSNC refund to ratepayers the overcollection of federal taxes related to the decrease in the federal corporate tax rate since January 1, 2018;
- 4) Reduction of executive compensation and benefits, and related payroll taxes, by 50%;
- 5) Reallocation of insurance premium expenses, passed to CWSNC from its parent, UI;
- 6) Public Staff use of composite utility plant depreciation rates for calculating CIAC and PAA amortization expense;
- 7) Removal of purchased water and purchased sewer treatment expense from the cash working capital calculation;
- 8) Implementation of the proposed Consumption Adjustment Mechanism (CAM); and
- 9) Tariff rate design.

The Unsettled Issues are resolved by the Commission and are addressed later in this Order.

Acceptance of Stipulation

10. The Stipulation will provide CWSNC and its ratepayers just and reasonable rates when combined with the rate effects of the Commission's decisions regarding the Unsettled Issues in this proceeding.

11. The provisions of the Stipulation are just and reasonable to all parties to this proceeding and serve the public interest.

12. It is appropriate to approve the Stipulation in its entirety.

Customer Concerns and Service

13. As of the 12-month period ended December 31, 2017, CWSNC served approximately 30,437 water customers and 20,118 wastewater customers, including Elk River Development and CLMS.⁶ There are also 3,774 water availability customers in Carolina Forest, Woodrun, Linville Ridge, Sapphire Valley, Connestee Falls, and Fairfield Harbour and 1,401 sewer availability customers in Sapphire Valley, Connestee Falls, and Fairfield Harbour. CWSNC operates 92 water utility systems and 39 sewer utility systems.

14. A total of 35 witnesses testified at the six public hearings held for the purpose of receiving customer testimony. In general, public testimony at those hearings primarily dealt with objections to the rate increase but some customers did express quality of service concerns, including but not limited to, hardness of the water, staining in sinks and toilet bowls, staining of clothing due to flushing, delay in patching asphalt, and frequently pumping out a lift station.

15. As of October 10, 2018, the Public Staff had received approximately 64 written customer statements of position from CWSNC customers, a petition with 27 signatures from Amber Acres North, a petition with approximately 263 signatures from Bradfield Farms, including a resolution expressing objection to the rate increase, and a petition from Yachtmans (Queens Harbour) with approximately 100 signatures. All of the customers objected to the magnitude of the rate increase. Their primary concerns included the high rate of return requested, the increase in rates compared to inflation, the impact of recent federal corporate income tax reductions, the increasing base facility charge, hardness of the water and discolored water. In addition, the Commission received approximately 12 written customer statements via electronic mail, primarily expressing opposition to CWSNC's proposed rate increase.

16. CWSNC filed five verified reports with the Commission addressing the service-related concerns and other comments expressed by the witnesses who testified at the hearings held for the purpose of receiving public witness testimony. Such reports described each of the witnesses' specific service-related concerns and comments, the Company's response, and how each concern and comment was addressed, if applicable.

17. CWSNC has increased its attention to the communications component of service to customers since the last rate case, with an emphasis on more proactive communications and the launching of several social media platforms.

18. The Public Staff's description of the quality of service provided by CWSNC as "good" is supported by the record in this case.

19. The overall quality of service provided by CWSNC is adequate.

⁶ As of December 31, 2017, there were 321 water and 125 sewer customers in Elk River Development and 963 sewer-only customers in the CLMS service area.

Rate Base

20. The appropriate level of rate base used and useful in providing service is \$115,139,509 for CWSNC's combined operations, itemized as follows:

<u>Item</u>	<u>Amount</u>
Plant in service	\$213,005,526
Accumulated depreciation	<u>(52,955,117)</u>
Net plant in service	160,050,409
Cash working capital	2,079,155
Contributions in aid of construction	(42,183,408)
Advances in aid of construction	(32,940)
Accumulated deferred income taxes	(3,972,592)
Customer deposits	(342,640)
Gain on sale and flow back taxes	(289,628)
Plant acquisition adjustment	(1,052,168)
Excess book value	(456)
Cost-free capital	(261,499)
Average tax accruals	(125,909)
Regulatory liability for excess deferred taxes	(251,770)
Deferred charges	1,522,955
Pro forma plant	<u>0</u>
Original cost rate base	<u>\$115,139,509</u>

21. It is appropriate to exclude purchased water and sewer expense from the calculation of cash working capital.

22. It is appropriate to update ADIT to include the deferred tax related to the unamortized balance of rate case expense.

23. It is appropriate to adjust ADIT to reflect the deferred tax related to the unamortized balance of deferred maintenance charges.

Operating Revenues

24. It is appropriate to include in miscellaneous revenues allocated proceeds from the sale of utility property.

25. Miscellaneous revenues should be adjusted to correct the allocation of other water/sewer revenues between water and sewer operations for the Company's four rate divisions: (1) CWSNC Uniform Water; (2) CWSNC Uniform Sewer; (3) Bradfield Farms/Fairfield Harbour/Treasure Cove (BF/FH/TC) Water; and (4) Bradfield Farms/Fairfield Harbour (BF/FH) Sewer.

26. It is appropriate to adjust forfeited discounts and uncollectibles using the percentages calculated by the Public Staff based on test year service revenues and the respective test year forfeited discounts and uncollectibles balances.

27. The appropriate level of operating revenues under present rates for use in this proceeding is \$32,575,467, consisting of service revenues of \$32,429,699 and miscellaneous revenues of \$360,163, reduced by uncollectibles of \$214,395.

Maintenance and General Expenses

28. It is appropriate for CWSNC to recover total rate case expenses of \$395,479 related to the current proceeding and \$434,060 of unamortized rate case costs related to the prior proceeding in Docket No. W-354, Sub 356 (Sub 356 Proceeding). It is appropriate to amortize the total rate case costs for the current and prior proceedings over five years resulting in an annual level of rate case expense of \$165,908.

29. It is inappropriate to reduce CWSNC's revenue requirement to reflect the Public Staff's recommendation to allocate to shareholders 50% of the compensation of three UI executive officers in the amount of \$92,359.

30. It is appropriate to allocate automobile insurance based on the number of vehicles utilized for CWSNC's water and sewer operations as a percentage to the total number of UI automobiles.

31. It is appropriate to allocate workers compensation insurance based on the adjusted level of payroll.

32. It is appropriate to allocate property insurance based on the value of CWSNC's property covered by the current insurance policies.

Depreciation and Amortization Expense

33. It is appropriate to calculate CWSNC's ongoing annual level of depreciation expense based on the adjusted amount of plant in service and the depreciation lives for each plant account.

34. It is appropriate to reduce CWSNC's depreciation expense by the annual amortization of excess book value.

35. In calculating CWSNC's amortization expense—CIAC, it is appropriate to use a composite overall CIAC rate based on the actual amortization rates and balances at June 30, 2018, for each applicable account within the CIAC group of accounts.

36. In calculating CWSNC's amortization expense—PAA, it is appropriate to use the actual amortization rate of 2.47% for water operations and 3.53% for sewer operations.

37. The appropriate level of depreciation and amortization expense for combined operations for use in this proceeding is \$4,073,516.

Franchise, Property, Payroll, and Other Taxes

38. The appropriate level of franchise and other taxes for use in this proceeding is (\$49,702) for combined operations.

39. It is appropriate to calculate payroll taxes based on the adjusted level of salaries and wages and the current payroll tax rates.

40. It is inappropriate to reduce CWSNC's revenue requirement to reflect the Public Staff's recommendation to remove 50% of payroll taxes in the amount of \$2,920 to match the adjustment to salaries and wages related to executive compensation.

41. The appropriate level of payroll taxes for use in this proceeding is \$529,195 for combined operations.

42. The appropriate level of franchise, property, payroll, and other taxes for use in this proceeding is \$713,068 for combined operations, consisting of (\$49,702) for franchise and other taxes, \$233,575 for property taxes, and \$529,195 for payroll taxes.

Regulatory Fee and Income Taxes

43. It is appropriate to use the current statutory regulatory fee rate of 0.14% to calculate CWSNC's revenue requirement. The appropriate level of regulatory fee expense for use in this proceeding is \$45,606.

44. It is appropriate to calculate income taxes for ratemaking purposes based on the adjusted level of revenues and expenses and the corporate tax rates for utility operations.

45. The appropriate level of state income taxes for use in this proceeding is \$177,812.

46. The appropriate level of federal income taxes for use in this proceeding is \$1,207,341.

The Federal Tax Cuts and Jobs Act

47. As proposed by the Company in its Application, agreed to by the Public Staff, and not opposed by any other party, CWSNC's revenue requirement shall reflect the reduction in the federal corporate income tax rate from 35% to 21% as enacted in the Tax Act, for the Company's ongoing income tax expense.

48. As outlined in the Stipulation between CWSNC and the Public Staff, the Company's federal protected EDIT should be amortized over a period of time equal to the expected lifespan of the plant, property, and equipment with which they are associated, in accordance with the normalization rules of the United States Internal Revenue Service (IRS).

49. The Company's federal unprotected EDIT should be returned to ratepayers through a levelized rider over a period of four years.

50. The Company's state EDIT recorded pursuant to the Commission's Order Addressing the Impacts of HB 998 on North Carolina Public Utilities issued on May 13, 2014, in Docket No. M-100, Sub 138 (Sub 138 Order) should continue to be amortized in accordance with the Sub 356 Order.

51. The Company's overcollection of federal income taxes in rates related to the decrease in the federal corporate income tax rate for the period beginning January 1, 2018, and corresponding interest, based on the overall weighted cost of capital, should be refunded to ratepayers as a credit for a one-year period beginning when the new base rates become effective in the present docket.

Capital Structure, Cost of Capital, and Overall Rate of Return

52. The cost of capital and revenue increase approved in this Order is intended to provide CWSNC, through sound management, the opportunity to earn an overall rate of return of 7.75%. This overall rate of return is derived from applying an embedded cost of debt of 5.68%, and a rate of return on equity of 9.75%, to a capital structure consisting of 49.09% long-term debt and 50.91% common equity.

53. A 9.75% rate of return on equity for CWSNC is just and reasonable in this general rate case.

54. A 50.91% common equity and 49.09% long-term debt ratio is a reasonable capital structure for CWSNC in this case.

55. A 5.68% embedded cost of debt for CWSNC is reasonable for the purpose of this case.

56. The rate increase approved in this case, which includes the approved rate of return on equity and capital structure, will be difficult for some of CWSNC's customers to pay, in particular CWSNC's low-income customers.

57. Continuous safe, adequate, and reliable water and wastewater utility service by CWSNC is essential to CWSNC's customers.

58. The rate of return on equity and capital structure approved by the Commission appropriately balances the benefits received by CWSNC's customers from

CWSNC's provision of safe, adequate, and reliable water and wastewater utility service with the difficulties that some of CWSNC's customers will experience in paying the Company's increased rates.

59. The 9.75% rate of return on equity and the 50.91% equity capital structure approved by the Commission in this case result in a cost of capital that is as low as reasonably possible. They appropriately balance CWSNC's need to obtain equity and debt financing with its customers' need to pay the lowest possible rates.

60. The authorized levels of overall rate of return and rate of return on equity set forth above are supported by competent, material, and substantial record evidence, are consistent with the requirements of N.C.G.S. § 62-133, and are fair to CWSNC's customers generally and in light of the impact of changing economic conditions.

Revenue Requirement

61. CWSNC's rates and charges should be changed by amounts which, after pro forma adjustments, will produce the following increases in revenues:

<u>Item</u>	<u>Amount</u>
CWSNC Uniform Water	\$489,336
CWSNC Uniform Sewer	290,260
BF/FH Water	270,044
BF/FH Sewer	<u>374,448</u>
Total CWSNC	<u>\$1,424,088</u>

These increases will allow CWSNC the opportunity to earn a 7.75% overall rate of return, which the Commission has found to be just and reasonable in this case.

Consumption Adjustment Mechanism

62. In its Application, CWSNC requested Commission approval of a rate adjustment mechanism to account for variability in average monthly consumption per customer, which directly affects revenues.

63. CWSNC failed to demonstrate that its proposed consumption adjustment mechanism is reasonable or justified.

Rate Design

64. It is appropriate to charge customers in Sapphire Valley CWSNC's uniform metered sewer rates and to charge customers in Bradfield Farms and Fairfield Harbour CWSNC's flat sewer rate, as recommended by the Public Staff, agreed to by CWSNC, and not opposed by any party.

65. It is appropriate to charge customers in Linville Ridge and The Ridges at Mountain Harbour CWSNC's uniform metered water rates, as recommended by the Public Staff, agreed to by CWSNC, and not opposed by any party.

66. It is appropriate to charge customers in The Ridges at Mountain Harbour CWSNC's purchased sewer rates, as recommended by the Public Staff, agreed to by CWSNC, and not opposed by any party.

67. It is appropriate for CWSNC's rate design for water utility service for purposes of this proceeding to be a ratio of 52%/48% base charge to usage charge.

68. The rates and charges included in Appendices A-1, A-2, A-3, B-1, and B-2 are just and reasonable and should be approved.

Water and Sewer System Improvement Charges

69. Consistent with Commission Rules R7-39(k) and R10-36(k), CWSNC's WSIC and SSIC surcharges will reset to zero as of the effective date of the approved rates in this proceeding.

70. Pursuant to N.C.G.S. § 62-133.12, the cumulative maximum charges that the Company can recover between rate cases cannot exceed 5% of the total service revenues approved by the Commission in this rate case.

Housekeeping on Bonds

71. It is appropriate that the \$20,000 bond and certificate of deposit from Branch Banking and Trust Company (BB&T) posted for Amherst Subdivision in Wake County, North Carolina and the \$20,000 bond and certificate of deposit surety from BB&T posted for the Carolina Pines Service Area in Craven County, North Carolina be released to UI pursuant to the Commission's Order in Docket Nos. W-354, Sub 326; W-1152, Sub 8; and W-1151, Sub 7.

EVIDENCE AND CONCLUSIONS FOR FINDINGS OF FACT NOS. 1 – 4

The evidence supporting these findings of fact is found in the Application and the accompanying NCUC Form W-1, the testimony and exhibits of the witnesses, and the entire record in this proceeding. These findings are informational, procedural, and jurisdictional in nature and are not contested by any party.

EVIDENCE AND CONCLUSIONS FOR FINDINGS OF FACT NOS. 5 – 12

The evidence supporting these findings of fact is found in the Stipulation and in the testimony of both CWSNC and the Public Staff's witnesses.

On October 19, 2018, CWSNC and the Public Staff jointly filed the Stipulation, which memorializes these parties' agreements on some of the issues in this proceeding. Attached to the Stipulation is Settlement Exhibit 1, which demonstrates the impact of the parties' agreements on the calculation of CWSNC's gross revenue for the test year ended December 31, 2017. Thus, the Stipulation is based on the same test period as CWSNC's Application, adjusted for certain changes in plant, revenues, and costs that were not known at the time the case was filed, but are based upon circumstances occurring or becoming known through the close of the evidentiary hearing. In addition to the parties' agreements on some of the issues in this proceeding, the Stipulation provides that CWSNC and the Public Staff agree that the Stipulation reflects a give-and-take partial settlement of contested issues, that the provisions of the Stipulation do not reflect any position asserted by either CWSNC or the Public Staff, but instead reflect compromise and settlement between them. The Stipulation is binding as between CWSNC and the Public Staff, conditioned upon the Commission's acceptance of the Stipulation in its entirety. No party filed a formal statement or presented testimony indicating opposition to the Stipulation. However, neither have the AGO or Corolla Light HOA indicated their assent to the Stipulation. There are no other parties to this proceeding.

The key provisions of the Stipulation are as follows:

Capital Structure

The Stipulating Parties agreed that the capital structure appropriate for use in this proceeding is a capital structure consisting of 50.91% common equity and 49.09% long-term debt at a cost of 5.68%.

ADIT

The Company agreed to the Public Staff's proposed adjustments to ADIT regarding unamortized rate case expense. The Stipulating Parties agreed to revise ADIT for any updates made to regulatory commission expense.

Deferred Maintenance

The Company has agreed to the amount of unamortized deferred maintenance and annual deferred maintenance and repair expense as calculated by the Public Staff. The Stipulating Parties disagree as to how these amounts should be recovered from ratepayers and this issue will be addressed in the Evidence and Conclusions for Findings of Fact Nos. 47 - 51.

Regulatory Commission Expense

The Stipulating Parties agreed to a methodology for calculating regulatory commission expense, also known as rate case expense, and agreed to update the number in Settlement Exhibit 1, Line 46, for actual and estimated costs once supporting

documentation is provided by the Company. The Stipulating Parties further agreed to amortize regulatory commission expense for a five-year period.

Federal Protected EDIT

The Stipulating Parties agreed that the protected EDIT will be flowed back over a 45-year period using the Reverse South Georgia method, in accordance with tax normalization rules required by Internal Revenue Code (IRC) Section 203(e).

Deferral Accounting Treatment

The Company agreed to withdraw its request that deferral accounting treatment of costs related to Hurricane Florence be authorized by the Commission in this case and that amortization of such prudently-incurred costs be addressed in the Company's next general rate case.⁷

A stipulation entered into by less than all parties in a contested proceeding under Chapter 62 "should be accorded full consideration and weighted by the Commission with all other evidence presented by any of the parties in the proceeding." State ex rel. Utilities Commission v. Carolina Utility Customers Association, Inc., 348 N.C. 452, 466, 500 S.E. 2d 690, 700 (1998). Further, "[t]he Commission may even adopt the recommendations or provisions of the nonunanimous stipulation as long as the Commission sets forth its reasoning and makes 'its own independent conclusion' supported by substantial evidence on the record that the proposal is just and reasonable to all parties in light of all the evidence presented." Id.

Based upon the foregoing and the entire record herein, the Commission finds that the Stipulation was entered into by the Stipulating Parties after full discovery and extensive negotiations, that the Stipulation is the product of the "give-and-take" of the settlement negotiations between CWSNC and the Public Staff, and that the Stipulation represents a reasonable and appropriate resolution of certain specific matters in dispute in this proceeding. In making this finding, the Commission gives substantial weight to the testimony of CWSNC witness DeStefano and Public Staff witnesses Henry and Casselberry which support the Stipulation, and notes that no party expressed opposition to the provisions of the Stipulation. In addition, when the provisions of the Stipulation are compared to CWSNC's Application and the recommendations included in the testimony of the Public Staff's witnesses, the Stipulation results in a number of downward adjustments to the expenses sought to be recovered by CWSNC, and resolves issues that were more important to CWSNC, and, likewise, issues that were more important to the Public Staff. Therefore, the Commission further finds that the Stipulation is material evidence to be given appropriate weight in this proceeding, along with all other evidence

⁷ On January 17, 2019, in Docket No. W-354, Sub 363, CWSNC filed a Petition for an Accounting Order to Defer Incremental Hurricane Florence Storm Damage Expenses, Capital Investments, and Revenue Loss. That matter is presently pending before the Commission.

of record, including that submitted by CWSNC, the Public Staff, and the public witnesses that testified at the hearings.

In addition, the Commission finds that the Stipulation is a nonunanimous settlement of matters in controversy in this proceeding and that the Stipulation resolves only some of the disputed issues between CWSNC and the Public Staff. The Stipulation leaves the following Unsettled Issues to be resolved by the Commission: (1) return on equity; (2) the Public Staff's proposed adjustments to ADIT and to EDIT, including how the amount of unamortized deferred maintenance expense should be recovered from ratepayers; (3) the Public Staff's proposal to require CWSNC to refund the overcollection of federal taxes related to the January 1, 2018, decrease in the federal corporate income tax rate; (4) the Public Staff's proposed 50% reduction in the Company's recovery of executive compensation, benefits, and payroll taxes; (5) the Public Staff's proposed re-allocation of insurance premiums passed-on to CWSNC by UI; (6) the Public Staff's proposed use of composite utility plant depreciation rates for calculating CIAC and PAA; (7) the Public Staff's proposed removal of purchased water and purchased sewer treatment expense from the calculation of cash working capital; (8) CWSNC's proposed implementation of a consumption adjustment mechanism (CAM); and (9) CWSNC's proposed tariff rate design.

After careful consideration, the Commission finds that when combined with the rate effects of the Commission's decisions regarding the foregoing Unsettled Issues, the Stipulation strikes a fair balance between the interests of CWSNC to maintain its financial strength at a level that enables it to attract sufficient capital, on the one hand, and its customers to receive safe, adequate, and reliable water and sewer service at the lowest reasonably possible rates, on the other. The Commission finds that the resulting rates are just and reasonable to both CWSNC and its ratepayers. In addition, the Commission finds that the provisions of the Stipulation are just and reasonable to all parties to this proceeding and serve the public interest, and that it is appropriate to approve the Stipulation in its entirety.

EVIDENCE AND CONCLUSIONS FOR FINDINGS OF FACT NOS. 13 – 19

The evidence supporting these findings of fact is found in the testimony of the public witnesses appearing at the hearings, in the testimony of Public Staff witness Casselberry, in the testimony and exhibits of CWSNC witnesses DeStefano, Mendenhall, and Clark, and in the verified reports filed by CWSNC in response to the concerns expressed by the public witnesses that testified at the hearings.

On April 27, 2018, CWSNC filed an application for a general rate increase, which was verified by CWSNC's Financial Planning and Analysis Manager. The Application stated that CWSNC presently serves approximately 34,871 water customers and 21,531 sewer customers in North Carolina. The Company's service territory spans 38 counties in North Carolina, from Corolla in Currituck County to Bear Paw in Cherokee County.

The Commission held hearings throughout CWSNC's service territory for the purpose of receiving testimony from members of the public, and particularly from CWSNC's water and wastewater customers, as follows:

<u>Hearing Date</u>	<u>Location</u>	<u>Public Witnesses</u>
August 28, 2018	New Bern	Ted Warnock, Simon Lock, Diana Viglianese, Jim Brown, Mike Shannon, Ralph Tridico, Irving Joffee, Michael Kaplan, John Gumbel, and Benny Thompson
August 29, 2018	Wilmington	David Holsinger
September 19, 2018	Charlotte	Patricia Marquardt, William Colyer, Nicoline Howell, Griffin Rice, Margaret Quan, Deborah Atkinson, Nicholas Stephen Kirkley, Tom Moody, Karen Cynowa, and Michael Tepedino
September 25, 2018	Boone	Harvey Bauman, Sid E. Von Ropeunt, George Hall, and Tim Presnell
September 26, 2018	Asheville	Jack Zinselmeir, Phil Reitano, Gerrard Worster, Chuck Van Rens, and Connie Brown
October 8, 2018	Raleigh	William Stanley Glance, Vincent Roy, Judith Bassett, Vicki Smith, and Benjamin Farmer

Of the 10 witnesses who testified in New Bern, eight were CWSNC customers from the Fairfield Harbour service area, and one each were CWSNC customers from the Brandywine Bay and Carolina Pines service areas. Each witness expressed concern about the rate increase, and others addressed water quality issues such as hardness and discoloration.

At the Wilmington hearing, one witness, who is a CWSNC customer in the Belvedere-system service area testified. He objected to the rate increase, particularly so soon after the last one, and he complained of stains on his clothes caused by the water.

Ten CWSNC customers testified at the hearing in Charlotte, including seven from the Bradfield Farms service area, one from the Hemby Acres service area, and two from the Yachtsman, or Queens Harbor, service area. Generally, customers who testified expressed concerns about the proposed percentage increase in rates and about water quality with regard to the presence of particulates and hardness issues. Some witnesses objected to the rate design and others compared CWSNC's rates unfavorably to those in other jurisdictions, including publicly-owned water/wastewater systems, such as that owned by Union County.

Four witnesses testified at the hearing in Boone, including one witness from the Ski Mountain Acres community, two from the Elk River service area, and one from the

Hound Ears service area. These witnesses focused their testimony on the proposed percentage increase in rates, water quality issues, and questions regarding the investments supporting CWSNC's requested rate increase.

At the hearing in Asheville, five witnesses testified, including two witnesses from the Fairfield Mountain of Lake Lure community, two from the Mt. Carmel service area and one from the Woodhaven service area. These witnesses all expressed concern about the proposed percentage increase in rates. In addition, Ms. Connie Brown, a CWSNC customer in the Mt. Carmel service territory, testified regarding the Company's sewer service, stating that a sewer line near her house requires weekly pumping by a septic truck, and that CWSNC has failed to perform needed repairs or upgrades to that sewer line.

At the hearing in Raleigh, five witnesses testified, including two from the Carolina Trace service area, two from the Amber Acres service area, and one from the Jordan Woods service area. Each of these witnesses objected to CWSNC's proposed rate increase. One of the witnesses from the Amber Acres service territory testified she had seen no improvement in service that would warrant a rate increase, that the Company could be more efficient, and that she opposed the flat rate sewer service charge. The witness from the Jordan Woods service territory testified that his bill was 70% higher after the last rate increase. One of the witnesses appearing at the hearing in Raleigh who is a utilities representative of Carolina Trace testified regarding a good working relationship with CWSNC's local employees, concerns about communications with "headquarters" and about the incidence of boil water notices, criticisms of the Company's practice of adjusting charges for wastewater with respect to commercial pools, but not for residential pool owners, anticipation of completion of the Global Positioning System (GPS) mapping project so that all manholes are located, and criticism of the "uniform rate system." The witness recommended that the uniform rate communities be reorganized into smaller, more similar groups, and expressed difficulty understanding CWSNC's proposed CAM, and criticism of the higher base rates as a component of rate design, indicating that this "guarantees" the Company a net profit regardless of performance. This witness requested that the Commission reject CWSNC's request for a rate increase, noting that it is the second request within a year.

After conclusion of each of the public hearings, CWSNC filed verified reports responding to the testimony provided by the public witnesses. In summary, these reports addressed the public witnesses' concerns related to water hardness by stating that hardness is a function of the level of calcium ions in the source water and that it is not a matter subject to regulation. Further, CWSNC observed that many customers either have already made, or wish to make, their own arrangements for water softening, and that CWSNC leaves that matter to its customers' discretion. CWSNC stated its observation that some customers are not inclined to pay for water softening services for other customers, and CWSNC described its flushing protocol, which is designed to address discoloration and particulates in the water. CWSNC also indicated that it seeks to improve its flushing program to address water quality concerns.

Included in the Company's report on the Asheville hearing was a response to the testimony of Ms. Connie Brown in which CWSNC states that it is preparing a capital project to resolve the issue she identified.

With regard to the public witnesses' concerns regarding the magnitude of the rate increase requested, CWSNC expressed its view of the imperative for rate increases, when the need is demonstrated after a comprehensive audit by the consumer advocate, focusing on the capital-intensive nature of the regulated water and wastewater industry, and on the obligation to maintain safe and reliable service. CWSNC also quoted from published reports that indicate a need for billions of dollars of investment in water and wastewater infrastructure within North Carolina. Finally, CWSNC expressed its view that it is fallacy to compare rates among different kinds of providers, noting that the actual costs to serve customers vary by provider and system, and that companies regulated by the Commission are required to prove their actual cost of service, in the face of skilled examination and audits by the Public Staff and a rigorous review by the Commission.

In these reports, CWSNC also responded to the concerns expressed by the public witnesses who complained about specific issues or questions in the Ski Mountain Acres Property Owners' Association, the Elk River system, the Hound Ears Club and Fox Club communities, the Fairfield Mountain system, the Amber Acres community, the Jordan Woods community, and the Carolina Trace community. In some instances, CWSNC responded to concerns by stating that it would revisit the issues or questions raised by contacting the customers involved. The Commission encourages CWSNC to complete the customer outreach contemplated in these reports.

The Commission also recognizes the efforts of the public witnesses and appreciates their participation in this proceeding. The Commission has carefully considered the testimony provided at the hearings in reaching its conclusions in this Order.

Public Staff witness Casselberry testified that her investigation included review of the customer complaints filed in this proceeding, contacts with the North Carolina Department of Environmental Quality (DEQ), including the Water Quality and Public Water Supply Sections of the Division of Water Resources (DWR), review of CWSNC's records, and analysis of revenues at existing and proposed rates. Witness Casselberry testified that she had contacted representatives of all DEQ regional offices regarding the operation of the CWSNC water and sewer systems. Tr. Vol. 7, p. 301. She testified that none of the regional office personnel she contacted expressed any major concerns with the water and sewer systems serving CWSNC customers or identified any major water quality concerns. Id.

In addition, witness Casselberry testified that she had reviewed approximately 64 customer statements received from CWSNC's customers in connection with this proceeding. Witness Casselberry testified that the consumer statements received are from customers in the following service territories with the corresponding number of statements in parentheses:

Abington (1), Amber Acres North (1) and petition with 27 signatures; Bradfield Farms (3) including a resolution objecting to the rate increase from the Bradfield Farms Homeowners Association, Board of Directors, and petition with approximately 263 signatures; Brandywine Bay (9); Carolina Pines (1); Carolina Trace (13); Conestee Falls (3); Elk River (1); Fairfield Harbour (12); Fairfield Mountain (2); Linville Ridge (1); Nags Head (1); Queens Harbor (1) including a petition with approximately 100 signatures; The Ridges at Mountain Harbor (4); The Villages at Sugar Mountain (1); Wood Haven/Pleasant Hill (2); and unspecified service areas (8). Tr. Vol. 7, p. 318.

Witness Casselberry summarized the customer statements by testifying that all customers objected to the magnitude of the rate increase, and expressed concern with CWSNC's proposed rate of return, the magnitude of the rates compared to inflation, the rates compared to rates of local municipalities, and the treatment of CWSNC's reduced federal corporate income tax rate. Tr. Vol. 7, pp. 318-334. Witness Casselberry provided a more detailed response to customer concerns in her supplemental testimony.

Witness Casselberry also testified with regard to the service and water quality complaints registered by customers at each of the six public hearings. Tr. Vol. 7, pp. 324-334. She testified that she had read each of the reports CWSNC filed after the hearings, and that there were a few isolated service issues, which the Company addressed or was in the process of resolving. She further testified that she had no additional comments or recommendations. Tr. Vol. 7, p. 333. Witness Casselberry concluded that CWSNC's quality of service had improved since its last general rate case, that, overall, CWSNC's service was good, and that the quality of water meets the standards set forth by the Safe Drinking Water Act and is satisfactory. Tr. Vol. 7, p. 333-334.

CWSNC witness Clark also testified in response to the public witness testimony and the consumer statements. She testified that CWSNC has increased its efforts to engage with and improve customers' overall interaction and experience with the Company. She further testified that the Company implemented multiple new social media and other types of communication, including the use of Facebook, Twitter, Instagram, "Carolina Water Drop" podcasts, bill inserts, phone calls, and face-to-face meetings. She also described a program of CWSNC personnel attending homeowners' association and property-owners' association meetings and the Company's design of a series of free Word Press sites with information about service, personnel, projects, and usage tips.

Based upon the foregoing and the entire record herein, the Commission finds that CWSNC's level of service has improved since its last rate case, and that, overall, the quality of service provided by CWSNC to its North Carolina customers is adequate. In reaching this conclusion, the Commission gives substantial weight to the testimony of Public Staff witness Casselberry, who testified that none of the North Carolina environmental agency regional office personnel she contacted expressed any major concerns with the water and sewer systems serving CWSNC customers or identified any

major water quality concerns. In addition, after having carefully weighed the comments and concerns expressed by the public witnesses appearing at the hearing and the verified reports filed by the Company, the Commission determines that CWSNC has adequately addressed these comments and concerns, or has appropriately committed to do so outside of the formal proceeding. Finally, while the Commission has determined that CWSNC has met its quality of service obligations to its customers for the purpose of this case, the Commission further determines that these efforts should continue and should be considered again in CWSNC's next general rate case through similar investigative efforts by the Public Staff, testimony from the Company and the Public Staff, and reports in response to the public witnesses' concerns. In particular, the Commission is interested in obtaining information about the resolution of the concerns expressed by Ms. Brown at the hearing in Asheville. Therefore, the Commission will require CWSNC to report to the Commission on the progress of the capital project that is intended to resolve the issue identified by Ms. Brown.

EVIDENCE AND CONCLUSIONS FOR FINDINGS OF FACT NOS. 20 – 23

The evidence supporting these findings of fact is found in the Application and the accompanying NCUC Form W-1, the testimony of Company witness DeStefano, and of Public Staff witness Henry, and the Stipulation.

The following table summarizes the differences between the Company's level of rate base from its Application and the amounts recommended by the Public Staff:

<u>Item</u>	<u>Company Application</u>	<u>Public Staff</u>	<u>Difference</u>
Plant in service	\$206,614,909	\$ 213,005,526	\$6,390,617
Accumulated depreciation	<u>(51,498,888)</u>	<u>(52,955,117)</u>	<u>(1,456,229)</u>
Net plant in service	155,116,021	160,050,409	4,934,388
Cash working capital	2,222,369	2,067,611	(154,758)
Contributions in aid of construct.	(42,813,916)	(41,895,670)	918,246
Advances in aid of construction	(32,940)	(32,940)	0
Accum. deferred income taxes	(5,167,701)	(3,972,592)	1,195,109
Customer deposits	(306,974)	(342,640)	(35,666)
Gain on sale and flow back taxes	(425,537)	(289,628)	135,909
Plant acquisition adjustment	(1,062,767)	(1,029,202)	33,565
Excess book value	(448)	(456)	(8)
Cost-free capital	(261,499)	(261,499)	0
Average tax accruals	112,327	(125,909)	(238,236)
Regulatory liability for EDIT	(251,770)	(251,770)	0
Deferred charges	2,538,827	1,522,955	(1,015,872)
Pro forma plant	<u>5,149,664</u>	<u>0</u>	<u>(5,149,664)</u>
Original cost rate base	<u>\$114,815,656</u>	<u>\$115,438,669</u>	<u>\$623,013</u>

On the basis of the Stipulation and revisions made by the Public Staff in its supplemental testimony, Henry Supplemental Exhibit I, and Henry Revised Supplemental Exhibits I and II, the Company does not dispute adjustments recommended by the Public Staff to plant in service, accumulated depreciation, contributions in aid of construction, customer deposits, gain on sale and flow back taxes, plant acquisition adjustment, excess book value, average tax accruals, deferred charges, and pro forma plant. Therefore, the Commission finds that the adjustments recommended by the Public Staff to plant in service, accumulated depreciation, contributions in aid of construction, customer deposits, gain on sale and flow back taxes, plant acquisition adjustment, excess book value, average tax accruals, deferred charges, and pro forma plant, which are not contested, are appropriate adjustments to be made to rate base in this proceeding.

Based on the testimony of Company witness DeStefano, CWSNC disagrees with Public Staff adjustments to cash working capital and ADIT.

Cash Working Capital

Public Staff witness Henry testified that cash working capital provides the Company with the funds necessary to carry on the day-to-day operations of the Company. He testified that his calculation of cash working capital, included 1/8th of total adjusted operating and maintenance (O&M) and general and administrative (G&A) expenses, less purchased water and sewer expenses. Public Staff witness Henry testified that the calculation implemented by the Public Staff is defined as the “formula method” of calculating cash working capital. Tr. Vol. 8, p. 109. Witness Henry also explained the Public Staff’s rationale for excluding purchased water and sewer expenses from cash working capital is that in general there is no lag time between the time the service is being provided and the time the Company pays for the cost of its purchased water and sewer expenses. Tr. Vol. 8, pp. 110-111.

On cross-examination, witness Henry testified that based on his research, the formula method had been used by the Commission for years to set rates in the water, electric, and natural gas industries before lead lag studies were used to calculate cash working capital. Witness Henry noted that in its filed rate case application, CWSNC also excluded purchased water and sewer expenses from its cash working capital calculation. Tr. Vol. 8, p. 110.

On re-direct, witness Henry testified that the Public Staff has been consistent on how it calculates cash working capital from rate case to rate case during the period of time he has been employed by the Public Staff.

Company witness DeStefano accepted the commonly used formula method of applying a 1/8th factor to O&M expenses as a measure of cash working capital; however, he argued that it is improper to remove purchased water and sewer expenses from the calculation, as they are cash expenses and are no different in nature from the remaining O&M expenses. As such, he requested that the purchased water and sewer expenses be included in cash working capital in this proceeding.

Witness DeStefano testified that it may be likely that purchased water and sewer expenses are excluded from the cash working capital calculation because there is currently a means (pursuant to N.C.G.S. § 62-133.11) to prospectively update recovery levels between base rate cases. He contended that this is only true for a portion of such expenses incurred by the Company; that is, only those systems that are supplied 100% by third-party suppliers. Further, he contended that this process only allows a change in rate recovery after the increase in expense has been experienced by the Company. Therefore, witness DeStefano requested that purchased water and sewer expenses be included in the cash working capital calculation in this proceeding.

During cross-examination, witness Henry was questioned concerning the pass-through application process allowed by N.C.G.S. § 62-133.11, in which water and sewer utilities may seek to adjust their rates, outside a general rate case proceeding, to reflect changes in costs based solely upon changes in rates imposed by third-party suppliers. In particular, witness Henry was asked whether there was still a lag in such pass-through application process. Witness Henry responded that there is a lag; however, the Company could prepare its schedules and calculations ahead of time in anticipation of an increase from a third-party supplier and also noted that the Public Staff processes these pass-through applications “pretty quickly.” Tr. Vol. 8, p. 113.

When asked on cross-examination whether the Company can file for pass-through recovery of purchased water costs if the system is not 100% purchased water, witness Henry stated that he did not know, and that there was no evidence provided to explain how many CWSNC systems are not 100% purchased water versus how many would be able to file a pass-through and recover costs.

The Commission has carefully reviewed the evidence in this docket and concludes that it is appropriate to exclude purchased water and sewer expenses from the calculation of cash working capital. This treatment is consistent with Commission practice in other cases,⁸ and recognizes the fact that there is no lag between the time a Company collects revenues from its customers for the provision of water and sewer utility service purchased from others and the time the Company pays for the purchased water and sewer expenses, since purchased water and sewer expenses are not due until after the service is provided, the meter has been read, and the Company has been billed by its supplier for the service. The Public Staff provided persuasive evidence supporting its use of the formula method for calculating cash working capital. The Public Staff testified and the Company confirmed that the Company’s as-filed case used the formula method.

Further, the Commission finds that it is clear from the evidence that, notwithstanding the existence of a lag between the time the Company incurs a change in rates imposed by third-party suppliers of purchased water or sewer and receives authorization to pass through the increase in costs to its customers, the time lag is shorter than obtaining recovery through a general rate case proceeding. Additionally, the

⁸ See Recommended Order issued on February 10, 2006, in Docket No. W-176, Sub 32, et al. (and Order Overruling Exceptions and Affirming Recommended Order issued on April 17, 2006), a general rate case proceeding for Scientific Water and Sewerage Corporation.

Commission determines that it is incumbent upon the Company to take measures to anticipate increases when possible and to take the time and effort to prepare pass-through applications and file them as quickly as possible. The Commission determines that the testimony of company witnesses regarding purchased water systems that did not purchase 100% of their water was of no import, as there was no evidence of how many systems were prevented from filing pass-through applications due to this situation and the amount of purchased water expense that was not recoverable via the pass-through process. The Commission therefore finds, for the reasons stated above, that it is inappropriate to include purchased water and sewer expenses in the calculation of cash working capital.

ADIT

The difference in the level of ADIT is due to the differing levels of unamortized rate case expense, unamortized deferred maintenance, and EDIT recommended by the Company and the Public Staff. Based on the conclusions reached elsewhere in this Order regarding the levels of rate case expense, deferred maintenance, and EDIT, the Commission concludes that the appropriate level of ADIT for use in this proceeding is \$3,972,592.

Summary Conclusion

Based on the foregoing, the Commission concludes that the appropriate level of rate base for combined operations for use in this proceeding is as follows:

<u>Item</u>	<u>Amount</u>
Plant in service	\$ 213,005,526
Accumulated depreciation	<u>(52,955,117)</u>
Net plant in service	160,050,409
Cash working capital	2,079,155
Contributions in aid of construction	(42,183,408)
Advances in aid of construction	(32,940)
Accumulated deferred income taxes	(3,972,592)
Customer deposits	(342,640)
Gain on sale and flow back taxes	(289,628)
Plant acquisition adjustment	(1,052,168)
Excess book value	(456)
Cost-free capital	(261,499)
Average tax accruals	(125,909)
Regulatory liability for excess deferred taxes	(251,770)
Deferred charges	1,522,955
Pro forma plant	<u>0</u>
Original cost rate base	<u>\$115,139,509</u>

EVIDENCE AND CONCLUSIONS FOR FINDINGS OF FACT NOS. 24 – 27

The evidence supporting these findings of fact is found in the testimony of Public Staff witnesses Henry and Casselberry, and Company witness DeStefano. The following table summarizes the differences between the Company's level of operating revenues under present rates from its Application and the amounts recommended by the Public Staff:

<u>Item</u>	<u>Company Application</u>	<u>Public Staff</u>	<u>Difference</u>
Service revenues	\$32,435,554	\$32,429,699	(\$5,855)
Miscellaneous revenues	351,867	360,163	8,296
Uncollectible accounts	<u>(193,143)</u>	<u>(214,395)</u>	<u>(21,252)</u>
Total	<u>\$32,594,278</u>	<u>\$32,575,467</u>	<u>(\$18,811)</u>

On the basis of the Stipulation and the revisions made by the Public Staff in its supplemental testimony and Henry Supplemental Exhibit I, and Henry Revised Supplemental Exhibits I and II, the Company does not dispute the following Public Staff adjustments to operating revenues under present rates:

<u>Item</u>	<u>Amount</u>
Reflect pro forma level of service revenues	(\$5,855)
Adjustment to forfeited discounts	7,387
Adjustment to other water/sewer revenues	(2)
Adjustment to sale of utility property	911
Adjustment to uncollectible accounts	<u>(21,252)</u>
Total	<u>(\$18,811)</u>

For reasons discussed elsewhere in this Order, the Commission has found that the adjustments listed above, which are not contested, are appropriate adjustments to be made to operating revenues under present rates in this proceeding.

Summary Conclusion

Based on the foregoing, the Commission concludes that the appropriate level of operating revenues under present rates for combined operations for use in this proceeding is as follows:

<u>Item</u>	<u>Amount</u>
Service revenues	\$32,429,699
Miscellaneous revenues	360,163
Uncollectible accounts	<u>(214,395)</u>
Total operating revenues	<u>\$32,575,467</u>

EVIDENCE AND CONCLUSIONS FOR FINDINGS OF FACT NOS. 28 – 32

The evidence supporting these findings of fact is found in the Application and the accompanying NCUC Form W-1; the testimony of Public Staff witnesses Henry, Johnson, Boswell, and Casselberry; and Company witnesses DeStefano, Mendenhall, and Clark; the Public Staff's exhibit filed on October 30, 2018.

The following table summarizes the differences between the Company's requested level of maintenance and general expenses and the amounts recommended by the Public Staff:

<u>Item</u>	<u>Company Application</u>	<u>Public Staff</u>	<u>Difference</u>
<u>Maintenance Expenses:</u>			
Salaries and wages	\$4,908,936	\$4,765,636	(\$143,300)
Purchased power	1,934,268	1,932,358	(1,910)
Purchased water and sewer	2,059,238	1,972,527	(86,711)
Maintenance and repair	3,129,187	2,749,845	(379,342)
Maintenance testing	470,830	544,360	73,530
Meter reading	225,963	225,867	(96)
Chemicals	628,209	632,415	4,206
Transportation	449,313	447,271	(2,042)
Oper. expenses charged to plant	(707,831)	(673,065)	34,766
Outside services – other	<u>482,562</u>	<u>455,369</u>	<u>(27,193)</u>
Total	<u>\$13,580,675</u>	<u>\$13,052,583</u>	<u>(\$528,092)</u>
<u>General Expenses:</u>			
Salaries and wages	\$2,112,000	\$1,972,000	(\$140,000)
Off. supplies & other office exp.	563,875	560,363	(3,512)
Regulatory commission expense	436,013	165,908	(270,105)
Pension and other benefits	1,379,548	1,340,118	(39,430)
Rent	233,928	227,339	(6,589)
Insurance	572,345	429,335	(143,010)
Office utilities	744,196	742,300	(1,896)
Miscellaneous	<u>215,612</u>	<u>23,469</u>	<u>(192,143)</u>
Total	<u>\$6,257,517</u>	<u>\$5,460,832</u>	<u>(\$796,685)</u>

On the basis of the Stipulation and revisions made by the Public Staff in its supplemental testimony and Henry Supplemental Exhibit I, and Henry Revised Supplemental Exhibits I and II, the Company does not dispute adjustments recommended by the Public Staff to maintenance salaries and wages, purchased power, maintenance and repair, maintenance testing, meter reading, chemicals, transportation, operating expenses charged to plant, outside services – other, office supplies and other office expenses, rent, office utilities, and miscellaneous. For reasons detailed elsewhere in this Order, the Commission finds that the adjustments recommended by the Public Staff to

maintenance salaries and wages, purchased power, maintenance and repair, maintenance testing, meter reading, chemicals, transportation, operating expenses charged to plant, outside services – other, office supplies and other office expenses, rent, office utilities, and miscellaneous expense, which are not contested, are appropriate adjustments to be made to maintenance and general expenses in this proceeding.

Based on the testimony of Company witnesses Clark, Mendenhall, and DeStefano, which was filed prior to the Stipulation and prior to the filing of Henry Revised Supplemental Exhibits I and II by the Public Staff, the Company disagreed with the Public Staff adjustments to (1) regulatory commission expense, (2) general salaries and wages/pensions and benefits, and (3) insurance.

Regulatory Commission Expense

With the Stipulation and revisions made by the Public Staff in its supplemental testimony and Henry Revised Supplemental Exhibit I, the Parties have agreed to total rate case costs of \$395,479 for this current proceeding and \$434,060 of unamortized rate case costs from the Sub 356 Proceeding. Amortization of the total rate case costs for the current and prior proceedings over five years results in an annual expense amount of \$165,908.

The Commission now addresses the contested issues that have an impact on maintenance and general expenses.

Based on the foregoing the Commission finds that the regulatory commission expenses, agreed to by the Stipulating Parties and reflected in Henry Revised Supplemental Exhibit I, are just and reasonable and should be approved.

General Salaries and Wages/Pensions and Benefits

Public Staff witness Johnson testified that the Public Staff has proposed an adjustment to CWSNC's revenue requirement reflecting the removal of 50% of the compensation, including pension and benefits, of the top three executive officers of Utilities, Inc. Witness Johnson testified that the three UI executive officers whose compensation and benefits are the subject of the Public Staff's proposed adjustment are the Vice President & General Counsel, the President and Chief Executive Officer (CEO), and the President of Shared Services (Company Executives). She asserted that the Public Staff's recommendation is not based on the premise that the compensation of the Company Executives the Public Staff selected are excessive or should be reduced. Instead, witness Johnson testified that the Public Staff's recommendation is based on the Public Staff's belief that it is reasonable and appropriate for the shareholders of the large water and wastewater utilities to bear some of the cost of compensating those individuals who are most closely linked to furthering shareholder interests, which are not always the same as those of the ratepayers.

Witness Johnson testified that the Company Executives have fiduciary duties of care and loyalty to the shareholder, but not to customers. Consequently, witness Johnson maintained that the Company Executives are obligated to direct their efforts not only to minimizing the costs and maximizing the reliability of CWSNC's service to customers, but also to maximizing the Company's earnings and the value of its shares. Further, witness Johnson testified that it is reasonable to expect that management will serve the shareholder as well as the ratepayers; therefore, she argued that a portion of management compensation and pension and benefits should be borne by the shareholder.

On cross-examination, witness Johnson conceded that she: (1) had not specifically looked at the duties and responsibilities of the UI executive team, outside of an informal phone call; (2) could not say which of the named executives' specific duties were solely for the benefit of the shareholder and completely not for the benefit of the ratepayer; (3) was not sure whether any of the named executives provided communications or information for evaluation of investment by shareholders, though she noted that this sounded like a CEO function; (4) agreed that because the shareholders provide the capital necessary to operate the company, the management was required to be advertent to the interest of shareholders to provide service to customers; (5) agreed that such an adjustment had not been made by the Public Staff for CWSNC previously; and (6) agreed that a range of Corix⁹ corporate costs, such as directors' fees, tax, and corporate legal costs, were not included for recovery in this case.

Witness Johnson testified that the compensation of the Company Executives allocated to CWSNC totaled \$185,196, of which the Public Staff recommends 50%, totaling \$92,598, be removed as shareholder expense. Tr. Vol. 8, p. 75. As shown In Johnson Late-Filed Exhibit I, Schedule 1, filed on October 30, 2018, witness Johnson updated her adjustment to remove 50% of the Company Executives' compensation to an amount totaling \$92,359. She also recommended decreasing CWSNC's revenue requirement by \$2,920 to remove 50% of payroll taxes to match the adjustment to salaries and wages related to executive compensation. Witness Johnson clarified in the cover letter to her late-filed exhibit that "[t]here was no adjustments made to pensions and incentive plans of the three executives, as these costs were not included by CWSNC for recovery."

On redirect examination, witness Johnson testified that in each of the respective recent general rate cases, both Duke Energy Progress LLC, (DEP) in Docket No. E-2, Sub 1142, and Duke Energy Carolinas LLC (DEC) in Docket No. E-7, Sub 1146, excluded in their E-1 filings 50% of the compensation of their top four executive officers. Tr. Vol. 8, p. 137. She testified that DEP and the Public Staff (in the DEP case) and DEC and the Public Staff (in the DEC case) stipulated to removing 50% of the compensation and benefits of five top officers in recognition of the work done on behalf of shareholders.

⁹ Corix Utilities (Illinois) LLC (Corix), acquired 100% of the membership interest of Hydro Star, LLC, which through its wholly owned subsidiary, Hydro Star Holdings Corporation, owned 100% of the issued and outstanding stock of UI, CWSNC's parent company. See Order Approving Acquisition of Stock and Requiring Customer Notice, N.C.U.C. Docket No. W-1000, Sub 14 (2012).

Witness Johnson maintained that it is the Public Staff's principled position that work and loyalties are divided between shareholders and customers, which was the basis for her adjustment. Tr. Vol. 8, p. 130. Additionally, when questioned by the Commission, witness Johnson testified that the Company Executives received bonuses as a direct result of increasing the earnings per share, which directly benefitted shareholders. Tr. Vol. 8, p. 132.

CWSNC witness DeStefano testified that the function of the Company Executives is not the equivalent of publicly-traded parent company corporate executives whose job focus may be much more focused on benefits to the shareholders. Witness DeStefano stated UI is more of an operating company, as demonstrated by the roles of the three individuals at issue. Additionally, he stated that since UI is not a publicly-traded company, time spent on shareholder related activities is limited to that which is required to make sure risks are mitigated and capital is secured. Witness DeStefano testified that UI has only one shareholder and argued that dealing with that single investor requires comparable effort as working with the Company's debt holders.

With respect to the role of the Vice President & General Counsel, witness DeStefano testified that this position provides legal support to the regulated companies such as CWSNC, including, for example, on issues involving human resources matters, health, safety and environmental issues, contract review, litigation support, and review of various legal issues. He stated that such legal support includes regulatory and transactional matters, including rate filings, easement and right-of-way issues, and mandatory regulatory and legal policies such as record retention, privacy, and cybersecurity. He maintained that these are the basic legal functions of any regulated utility, which are discharged to the direct benefit of CWSNC's customers.

With regard to the role of the President of Shared Services, witness DeStefano stated that this position focuses on the delivery of services essential to local operations and customers, including: customer service; human resources; health, safety and environmental compliance; information technology; billing; insurance; accounting; and facilities management. Witness DeStefano rejected the Public Staff's assertion that any of the President of Shared Services' role supports the shareholder in any other manner than simply facilitating a well-run utility. On cross-examination, he reiterated his view that this officer oversees these local operations functions as his primary and key duty.

Witness DeStefano described the role of the CEO as having close interaction with local CWSNC leadership in evaluating capital investment plans and operating budgets, as well as providing expertise on and leadership with addressing customer concerns, industry "best practices," setting short- and long-term operating strategies, and generating company initiatives and policies such as safety, environmental, and business transformation programs. He maintained that the CEO assesses risks so that risks are addressed and mitigated to ensure that the Company provides safe, reliable, and cost-effective service. In addition, witness DeStefano testified that the CEO works closely with the single shareholder and lenders to secure capital and debt for improvements that directly address customer needs.

Witness DeStefano testified that a regulated utility exists solely to provide service to its customers and that it cannot exist without debt and equity funding. In summary, he argued that the functions of the Company Executives differ from those of publicly-traded parent company corporate executives whose job focus may very well be much more on benefits to the shareholders. He explained that UI is more of an operating company, as demonstrated by the roles of the three individuals at issue. Witness DeStefano asserted that since UI is not a publicly-traded company, time spent on shareholder-related activities is limited to that which is required to make sure risks are mitigated and capital is secured.

Witness DeStefano rejected as unfair Public Staff witness Johnson's representation that the Company Executives did not have fiduciary duties of care and loyalty to customers, but only to shareholders. Witness DeStefano observed that when the fundamental focus of the shareholder is ensuring customer satisfaction and welfare by providing the best service at the most reasonable possible price — which the management of these regulated utilities is required by statute to do — then the interests of the shareholder and the Company's ratepayers are understood to be exactly aligned. He maintained that this alignment becomes clearer when one considers the necessity, for the customers' benefit, for a utility to attract both high-quality human resources for management and leadership purposes, and to attract financial capital to support the capital-intensive industry.

Witness DeStefano explained that attracting capital from investors is vital to fund needed improvements in aging systems and, as other regulators have recognized, one of the great benefits to a local utility being part of a larger utility company is access to capital that the parent is able to provide. He contended that the ability to maintain and support proper service to customers at a reasonable cost is inextricably linked to the Company Executives' ability to meet shareholder expectations. Witness DeStefano opined that without the Company Executives' support and services, the Company would neither be positioned to meet the needs of its customers nor be eligible to achieve financial returns that attract debt and equity capital needed for the financial welfare of the utility. Therefore, in his view executive base compensation is an integral and necessary part of the Company's overall cost of service to meet the needs of its customers.

Witness DeStefano further contended that the Public Staff's recommendation to exclude from the cost of service 50% of CWSNC's share of the costs of compensation for the Company Executives is arbitrary and lacks support either in the facts or the reality of the functions of this executive team, whose contributions should be fully supported in rates as they focus on direct benefits to customers.

Moreover, witness DeStefano testified that Corix, a corporate level above UI, has provided beneficial services and support to UI and its affiliates, including CWSNC, since its acquisition of UI. Witness DeStefano pointed out that those Corix corporate costs (such as director fees, tax and corporate legal costs) have not been included for recovery in CWSNC's rates even though they are part of the overall costs to support the services provided to the Company.

After considering all of the evidence of record, and for the reasons discussed below, the Commission finds that the Public Staff's proposed adjustment to CWSNC's revenue requirement, representing the removal of 50% or \$92,359, of the Company Executives' compensation is inappropriate. Consequently, the Commission concludes that the Public Staff's proposed adjustment should be rejected. In reaching this conclusion, the Commission gives great weight to the testimony of witness DeStefano that, because UI is not a publicly-traded company, time spent on shareholder-related activities is limited to that which is required to ensure risks are mitigated and capital is secured. The Commission is also persuaded by witness DeStefano's assertion that because UI has only one shareholder, dealing with that single investor requires comparable effort as working with debt holders. Moreover, the Commission gives significant weight to the testimony of witness DeStefano that Corix's corporate costs (such as director fees, tax and corporate legal costs) have not been included for recovery in CWSNC's rates. The Commission notes that Public Staff witness Johnson confirmed that Corix's corporate costs have not been included for recovery in this proceeding.

The Commission also gives substantial weight to the testimony of witness DeStefano in which he described the roles of the three Company Executives at issue. In particular, witness DeStefano pointed out that the Company Executives focus on local operations and have close interaction with local CWSNC leadership for the direct benefit of customers. Based upon the evidence in this proceeding, the Commission agrees with witness DeStefano that the functions of the Company Executives differ from those functions of similar corporate officers within a publicly-traded parent company in that the functions of corporate executives in a publicly-traded parent company may tend to focus more on benefitting the shareholders rather than focusing on interacting with local subsidiary operations for the benefit of customers.

The Commission is not persuaded by the Public Staff's observation that the Commission approved 50% adjustments for executive compensation for DEP in its Order Accepting Stipulation, Deciding Contested Issues and Granting Partial Rate Increase issued on February 23, 2018, in Docket No. E-2, Sub 1142, and for DEC in its Order Accepting Stipulation, Deciding Contested Issues, and Requiring Revenue Reduction issued on June 22, 2018, in Docket No. E-7, Sub 1146. Both DEC and DEP originally filed their rate cases reflecting removal of 50% of the executive compensation of the top four executive officers and, later in the proceedings, the Company and the Public Staff reached a stipulation to remove 50% of the executive compensation for the top five executive officers. Thus, the Commission did not resolve the issue through litigation in either case.

The Commission acknowledges that in its recent Order Approving Partial Settlement Agreement and Stipulation, Granting Partial Rate Increase, and Requiring Customer Notice issued on December 18, 2018, in Docket No. W-218, Sub 497 (December 18, 2018 Order), for Aqua North Carolina, Inc. (Aqua NC), the Commission determined that it was appropriate to allocate 25% of the executive compensation, including pensions and incentive plans of the top five Aqua America executives to Aqua NC's shareholders (as proposed as an alternative recommendation of Aqua NC's

witness) and not to ratepayers through inclusion of those expenses in the revenue requirement. That decision is consistent with the Commission's decision in Aqua NC's 2011 general rate case (Docket No. W-218, Sub 319). The Commission notes that, unlike Aqua NC, Public Staff witness Johnson testified that an adjustment to remove any portion of executive compensation has not been made for CWSNC in a past rate case proceeding.

The Commission determines that there are distinct differences between CWSNC and Aqua NC that justify allowing CWSNC to include in its revenue requirement the full amount of compensation allocated to CWSNC for the Company Executives. As noted in the December 18, 2018 Order, Aqua America, Inc., the parent company of Aqua NC, is the second largest investor-owned water and wastewater utility in the United States with its shares traded on the New York Stock Exchange and a \$6.709 billion market capitalization at the August 17, 2018 market close as reported by Morningstar. In contrast, as witness DeStefano testified, the parent company of CWSNC, UI, is more of an operating company and its shares are not publicly-traded. Further, the Commission observes that Corix, a corporate level above UI, is also a privately held corporation. Finally, with respect to the size of CWSNC in comparison to that of Aqua NC, the Commission is cognizant that Aqua NC provides utility service to significantly more customers in North Carolina than CWSNC, with significantly greater total operating revenues, differences that the Commission determines are material to the resolution of this issue.¹⁰

The Commission disagrees with the Public Staff's view that shareholders of large water and wastewater utilities must bear some of the cost of compensating those individuals who are most closely linked to furthering shareholder interests should be applied mechanically in every case. Rather, the Commission finds that such an adjustment should be considered based upon all available information and the Commission will, in future general rate cases, continue to consider this issue on a case-by-case basis in light of all the evidence of record.

Based upon the foregoing and the entire record herein, the Commission finds that it is inappropriate to reduce CWSNC's revenue requirement to reflect the Public Staff's recommendation to allocate to shareholders 50% of the compensation, or \$92,359, for the three Company Executives. Therefore, the Commission concludes that the Public Staff's proposed adjustment should be denied.

Insurance

Public Staff witness Henry testified that he adjusted insurance premiums to reflect the current amount for insurance for UI, the parent company of CWSNC, which was provided by the Company. Witness Henry allocated insurance premiums to CWSNC

¹⁰ Aqua NC serves approximately 78,739 water customers and 17,940 wastewater customers with over \$59 million in total annual operating revenues; whereas, CWSNC serves approximately 30,437 water customers and 20,233 wastewater customers with over \$33 million in total annual operating revenues.

using the following factors: (1) allocated automobile insurance based on the number of automobiles for CWSNC's water and sewer operations as a percentage to the total number of UI automobiles; (2) allocated workers compensation insurance based on the adjusted level of payroll; (3) allocated property insurance to reflect the value of the property covered by the current insurance policies; and (4) allocated the remaining insurance items to the various entities based on the number of customers.

Witness Henry also testified that he removed two-thirds of the pollution liability insurance premium included in the Company's application since it is a three-year policy and only an annual level of premium expense should be included in operating expenses in this proceeding.¹¹

Public Staff witness Henry testified that in cases where the Public Staff cannot directly tie a particular item to North Carolina, it uses an allocation factor based on the number of customers as a last resort. He testified that when there are tangible assets to which a value can be determined, it is reasonable and appropriate to directly assign costs based on that actual known information, as opposed to based on customer count.

On cross-examination, witness Henry testified that customer count was used by the Public Staff to allocate costs in seven out of 10 categories when there was no other means of determining the portion attributable to items in North Carolina. Tr. Vol. 8, p. 118. On cross-examination, in response to the question of whether the Company would ever fully recover through expense and rates its allocated insurance expense if the Public Staff's methodology is adopted, witness Henry stated that ratepayers should not have to bear more costs than necessary due to the Company's methodology of allocating costs based on customer count. Tr. Vol. 8, p. 121. Moreover, witness Henry stated that the Company should not be able to over-recover the insurance costs that are allocated from UI. He contended that the allocation methodology based upon customer count utilized by UI is incorrect and unfair. Tr. Vol. 8, p. 122.

CWSNC disagreed with the Public Staff's methodology of allocating automobile, worker's compensation, and property insurance to CWSNC's water and sewer operations. Company witness DeStefano testified that CWSNC's as-filed allocation method for insurance expenses is the most reasonable and appropriate allocation method. He stated that there are far too many factors in setting policy premiums that were not considered by the Public Staff, to utilize only one factor for each policy when allocating insurance costs. Witness DeStefano also testified that the Company's allocation method avoids "going down the rabbit hole" of attempting to identify a perfect allocation method, and utilizes a single, consistent allocation method in each application. The Company's as-filed position for allocating all insurance cost is based on the percentage of customers in each state that it provides water and sewer utility service.

¹¹ Of the Public Staff's total adjustment of (\$143,010) to CWSNC's ongoing annual level of insurance expense, (\$61,008) of this amount relates to its adjustment to correct the Company's overstatement of its annual pollution liability insurance premium.

After careful consideration, the Commission finds that the Public Staff appropriately allocated insurance costs to CWSNC. The Commission is persuaded that the Public Staff method is a more direct allocation methodology than the methodology advocated by the Company, because using vehicle count, payroll, and property covered in CWSNC's service territory ensures that customers are not paying more for cost of service than they would if costs were allocated solely based on customer count. Moreover, the Commission recognizes that there is no perfect methodology for allocating costs, but directly assigning costs to the rate entities that created the cost, is a more reasonable and equitable policy to follow than an allocation based on the number of customers, which does not identify the entity that created the cost. The Commission acknowledges that the Public Staff used customer count when a more accurate allocation method was not available. The Commission agrees with the Public Staff that there is a risk that North Carolina customers could inappropriately incur extra expense resulting from possible over-recovery by the Company of insurance expense due to a single, consistent allocation method, when a more accurate method exists. Therefore, the Commission concludes that the methodology employed by the Public Staff in allocating automobile, worker's compensation, and property insurance to CWSNC's water and sewer operations is just and reasonable and should be approved for this proceeding.

Summary Conclusion

Based upon the foregoing, the Commission concludes that the appropriate level of maintenance and general expenses for combined operations for use in this proceeding are as follows:

<u>Item</u>	<u>Amount</u>
<u>Maintenance Expenses:</u>	
Salaries and wages	\$4,765,636
Purchased power	1,932,358
Purchased water and sewer	1,972,527
Maintenance and repair	2,749,845
Maintenance testing	544,360
Meter reading	225,867
Chemicals	632,415
Transportation	447,271
Oper. expenses charged to plant	(673,065)
Outside services – other	455,369
Total	<u>\$13,052,583</u>

<u>Item</u>	<u>Amount</u>
<u>General Expenses:</u>	
Salaries and wages	\$2,064,359
Off. supplies & other office exp.	560,363
Regulatory commission expense	165,908
Pension and other benefits	1,340,118
Rent	227,339
Insurance	429,335
Office utilities	742,300
Miscellaneous	23,469
Total	<u>\$5,553,191</u>

EVIDENCE AND CONCLUSIONS FOR FINDINGS OF FACT NOS. 33 – 37

The evidence supporting these findings of fact is found in the Application and the accompanying NCUC Form W-1 of CWSNC, the testimony of Public Staff witness Henry, and the testimony of Company witness DeStefano. The following table summarizes the differences between the Company's level of depreciation and amortization expenses from its Application and the amounts recommended by the Public Staff:

<u>Item</u>	<u>Company Application</u>	<u>Public Staff</u>	<u>Difference</u>
Depreciation expense	\$5,549,406	\$5,617,382	\$67,976
Amortization expense – CIAC	(1,480,909)	(1,776,720)	(295,811)
Amortization expense – PAA	(39,197)	(77,331)	(38,134)
Amortization of ITC	(519)	(519)	0
Total	<u>\$4,028,781</u>	<u>\$3,762,812</u>	<u>(\$265,969)</u>

With respect to CWSNC's depreciation expense, in light of the agreements reached in the Stipulation and revisions recommended by the Public Staff in its supplemental testimony and reflected in Henry Supplemental Exhibit I, the Company does not dispute the adjustments recommended by the Public Staff to depreciation expense. As detailed elsewhere in this Order, the Commission finds that the adjustments recommended by the Public Staff to depreciation expense, which are not contested, are appropriate adjustments to be made to operating revenue deductions in this proceeding.

The Commission now addresses the Public Staff adjustments to amortization expense – CIAC and amortization expense – PAA.

Amortization Expense – CIAC and PAA

Public Staff witness Henry testified that the Public Staff adjusted CIAC amortization expense and PAA amortization expense to reflect the Public Staff's recommended level of CIAC and PAA, respectively, multiplied by an amortization percentage that is based on

the composite depreciation rate for the Public Staff's adjusted level of direct plant in service.

On cross-examination, witness Henry testified that the Public Staff had previously made this adjustment in every rate case he had worked on involving CWSNC and the other UI utility subsidiaries in North Carolina, such as CWS Systems, Inc. and Transylvania Utilities, Inc. Witness Henry stated that the Public Staff initially adopted and utilized this adjustment to address problems with CWSNC's recording CIAC and PAA in prior years and also the portion of CIAC (tap-on fees) that is not directly allocated to a particular plant account. Witness Henry further testified that "in order for the customer to take advantage of those tap-on fees, the Public Staff calculated a composite depreciation rate to reduce the amount of PAA as well as CIAC." Tr. Vol. 8, p. 123.

During cross-examination, witness Henry acknowledged that the problems associated with errors affecting recordation of CIAC and PAA that existed in the past had been resolved by the Company, although the tap-on fee situation has not changed. According to witness Henry, the Company still has a problem with recording the right amount of tap-on fees in each plant account and, therefore, the Public Staff continues to think that it is necessary to use composite depreciation rates.

Witness Henry also acknowledged that, in theory, there is nothing wrong with the Company's position that CIAC and PAA amortization should use the actual amortization rates for each applicable account within the CIAC and PAA groups and not a proxy of composite depreciation rates. He continued by stating, however, that because of CWSNC's past problems, the Public Staff prefers to continue to use the composite depreciation rates. Witness Henry was not able to quantify the significance of the Public Staff's assertion of continuing tap-on fee problems. He also agreed that, in theory, it is true that what can be directly assigned should match the depreciation rates of the Company.

On cross-examination, witness Henry testified that the Public Staff's PAA adjustment in this case amounts to approximately \$38,000, that the Public Staff's CIAC adjustment is approximately \$296,000, and that the two adjustments total approximately \$334,000. He further testified that the total adjustment is "significant," but added that it is also "appropriate." Witness Henry agreed that these two adjustments reduce the Company's revenue requirement in this case by approximately \$334,000 per year; and that, under the Public Staff's position, CWSNC would not collect that amount of revenue each year that the new rates set in this proceeding remain in effect; and that the Company would never be allowed to recover such disallowed revenue.

CWSNC witness DeStefano disagreed with witness Henry's calculation of the annual amortization expenses for CIAC and PAA utilizing the composite depreciation rate for the Company's direct plant in service. Witness DeStefano testified that the Company believes CIAC and PAA amortization should use the actual amortization rates for each applicable account within the CIAC and PAA groups, and not the proxy of the composite depreciation rate for plant in service. He further testified that the Public Staff's calculation

presumes the mix of asset account values in plant in service, CIAC, and PAA are exactly the same, which they are not. Applying the Company's rates, as witness DeStefano proposed, to the actual balances at June 30, 2018, produce composite CIAC rates of 2.49%, 2.04%, 2.50%, and 2.06% for CWSNC Water, CWSNC Sewer, Bradfield Farms/Fairfield Harbor/Treasure Cove Water, and Bradfield Farms/Fairfield Harbor Sewer, respectively. For PAA, witness DeStefano testified that CWSNC's actual water rate of 2.47% and actual sewer rate of 3.53% should be utilized. Witness DeStefano explained that the Company's actual CIAC and PAA composite rates differ from the composite depreciation rate for plant in service due to a varying asset mix, therefore, he recommended that the aforementioned rates were the more reasonable and supportable calculation for use in this proceeding.

In response to questions from Chairman Finley, witness DeStefano testified that the Company's rebuttal request is that, to the extent there is a one-to-one match between the utility plant account and the CIAC account, the Commission should use the same rate for a particular account's balance, and not just the composite rate for the entire CIAC balance, because the mix of assets is different between plant in service accounts and CIAC accounts. Witness DeStefano further stated that he did not believe that the Public Staff disputed the accuracy of the rates proposed by the Company. Witness DeStefano also acknowledged the existence of certain CIAC accounts that are called "tap fee, reconnect fee, things like that" which probably do not have an equivalent plant account. However, witness DeStefano stated that this lack of equivalency should not preclude the other CIAC balances' amortizations from being calculated based on their one-to-one matches. Witness DeStefano stated that the Company would be amenable to using the composite depreciation rate for tap-fees as a proxy if that is necessary, but not for the entire CIAC balance, just for the accounts that do not have one-to-one matches.

In response to further questions from Chairman Finley, witness DeStefano testified that he disagreed with the Public Staff's position that it is proper to use the composite depreciation rate applied to the Company's total CIAC balance, for the reason that the asset mixes are different, so the composite rates would be different. Witness DeStefano also agreed that the Company's recommendation is more refined than the Public Staff's general recommendation. He stated that the proper utility accounting is to match on the books the CIAC amortization, which is the credit on the income statement, and the depreciation expense, which is a debit on the income statement, so that there is no net benefit or detriment to the Company from contributed property.

In response to questions from Commissioner Brown-Bland, witness DeStefano again emphasized the Company's position that the proper accounting is to match CIAC amortization with the applicable utility plant assets. He stated that, with respect to depreciation and amortization expense, the Company should neither be punished nor benefit from for having received contributed property, which is proper accounting. Witness DeStefano stated that the Public Staff's methodology does not match what the Company is doing on its books; i.e., proper accounting. When asked if the methodology proposed by the Public Staff, which was stated to have been used consistently over many rate cases, would, over time, balance out both ways, witness DeStefano responded that he

did not believe that it will balance out to the extent that the Company's recovery through rates and the entries on its books will not be in sync.

The Commission observes that in the Sub 356 Proceeding, as stated in Paragraph 13 of the Joint Stipulation, there was a difference of opinion between CWSNC and the Public Staff concerning the methodology used to calculate CIAC amortization expense and CIAC accumulated amortization. In that proceeding, CWSNC accepted the Public Staff's adjustment but "reserve[d] the right to request and advocate for a change in methodology in a future general rate case". The Public Staff did not dispute or oppose the Company's right to seek a change in methodology in a subsequent rate case.

In the present proceeding, CWSNC's NCUC Form W-1, Item 10, Schedules B-22 and B-23, demonstrate that CWSNC has proposed utilizing per book amounts for CIAC amortization expense and PAA amortization expense with no pro forma adjustments. In his rebuttal testimony, CWSNC witness DeStefano proposed to utilize the composite CIAC rates of 2.49%, 2.04%, 2.50%, and 2.06% for Uniform Water, Uniform Sewer, Bradfield Farms/Fairfield Harbour/Treasure Cove Water, and Bradfield Farms/Fairfield Harbour Sewer, respectively. According to witness DeStefano, these composite CIAC rates are based upon the actual amortization rates for each applicable account within the CIAC group rather than utilizing the composite depreciation rates for plant in service as recommended by the Public Staff. For the calculation of PAA amortization expense, witness DeStefano recommended using the actual water rate of 2.47% and the actual sewer rate of 3.53% rather than the composite depreciation rates recommended by the Public Staff.

The Commission acknowledges that the Public Staff calculated an annual level of amortization expense for each amortization expense, CIAC and PAA, based on the recommended level of each balance multiplied by the composite depreciation rate for the Company's direct plant in service, consistent with the methodology used by the Public Staff in numerous past general rate case proceedings. However, the Commission determines that the basis of the Public Staff's historical use of the composite depreciation rate is undermined in this proceeding by witness Henry's testimony that the problems associated with errors affecting recordation of CIAC and PAA, which existed in the past with CWSNC, had been resolved. However, based upon the evidence presented in this proceeding, it is unclear whether the correction of these past problems occurred on a going-forward basis or if CWSNC recorded a restatement of historical data on the Company's books and records. Further, the Sub 356 Proceeding was the first general rate case proceeding filed by CWSNC since the merger of the UI entities operating in North Carolina into CWSNC was approved by the Commission on August 17, 2016. The Commission observes that the combined total amount of the Public Staff's adjustment to CIAC amortization expense in that proceeding was higher than in past proceedings, being an increase of \$410,479 per Johnson Exhibit I, Schedules 3(a)–3(d)). The Public Staff's combined total adjustment to PAA amortization expense was a decrease of \$9,459.

Based upon a review of previous general rate case proceedings for the individual pre-merger UI entities, the Commission notes that there have been significant

adjustments recommended by the Public Staff and approved by the Commission for CIAC and PAA amortization expenses in past Commission Orders. For example, in Docket No. W-778, Sub 91, a stipulated general rate case proceeding for CWS Systems, Inc. (Order issued February 24, 2016), the Public Staff's adjustment to CIAC and PAA amortization expense was an increase of \$138,481 and \$7,093, respectively.¹² Similarly, in Docket No. W-354, Sub 344, a stipulated general rate case proceeding for CWSNC (Order issued December 7, 2015), the Public Staff's adjustment for CIAC and PAA amortization expense was an increase of \$51,290 and \$7,489, respectively. Although these general rate case proceedings were stipulated, the Commission finds it relevant that as a result of the Public Staff's audit of these general rate case application filings, significant adjustments to CIAC and PAA amortization expense were recommended by the Public Staff and approved by the Commission. For these reasons, the Commission determines that in CWSNC's next general rate case proceeding, the methodology used to calculate CIAC and PAA amortization expense should be examined and evaluated in greater detail by CWSNC and the Public Staff and the parties should seek to reach agreement on the proper methodology to use on a going-forward basis for the post-merger CWSNC entity in order to ensure that contributed property is depreciated at the same rate that the related CIAC is amortized. The Commission notes that Company witness DeStefano testified that CWSNC is amenable to using the composite depreciation rate as proposed by the Public Staff with respect to tap fees collected by CWSNC.

In the present rate case proceeding, the Public Staff has recommended a total increase to CIAC and PAA amortization expense of \$295,811 and \$38,144, respectively. In light of the significant increases to the Public Staff's adjustment to CIAC and PAA amortization expense in the Sub 356 Proceeding and in the present proceeding, the Commission determines that use of the Public Staff's past methodology may have overstated its recommended adjustments for the post-merger CWSNC entity, particularly since Public Staff witness Henry testified on cross-examination that the problems associated with errors affecting recordation of CIAC and PAA, which existed in the past with CWSNC, had been solved by the Company. Consequently, for purposes of this proceeding, the Commission finds that the methodology recommended by witness DeStefano for calculating the adjustment to CIAC and PAA amortization expenses should be adopted.

In reaching this conclusion, the Commission gives significant weight to Public Staff witness Henry's testimony on cross-examination that, in theory, there is nothing wrong with the Company's position that CIAC and PAA amortization should use the actual amortization rates for each applicable account within the CIAC and PAA groups and not a proxy of composite depreciation rates. On cross-examination, witness Henry also agreed that, in theory, it is true that what can be directly assigned should match the depreciation rates of the Company. The Commission determines that this testimony

¹² CWS Systems, Inc. had erroneously calculated both CIAC amortization expense and PAA amortization expense by applying the amortization percentage to the amount of CIAC and PAA, net of accumulated amortization, instead of applying the amortization percentage to the amount of CIAC and PAA before amortization. Part of the Public Staff's total adjustment in that proceeding was the correction of CWS Systems, Inc.'s error.

supports and provides justification for CWSNC's position regarding proper accounting for CIAC and PAA amortization and for the Commission's decision for purposes of this proceeding.

Accordingly, for the reasons set forth above, the Commission finds that an adjustment to increase CIAC and PAA amortization expenses by \$8,073 and \$15,168, respectively, based upon the methodology proposed by CWSNC is reasonable and appropriate for use in this proceeding.

Based on the foregoing, the Commission concludes that the appropriate level of depreciation and amortization expense for use in this proceeding is as follows:

<u>Item</u>	<u>Amount</u>
Depreciation expense	\$5,617,382
Amortization expense – CIAC	(1,488,982)
Amortization expense – PAA	(54,365)
Amortization of ITC	<u>(519)</u>
Total	<u>\$4,073,516</u>

EVIDENCE AND CONCLUSIONS FOR FINDINGS OF FACT NOS. 38 – 42

The evidence supporting these findings of fact is found in the Application and the accompanying NCUC Form W-1 of CWSNC, and in the testimony of Public Staff witness Henry and of Company witness DeStefano. The following table summarizes the differences between the Company's level of franchise, property, payroll, and other taxes from its Application and the amounts recommended by the Public Staff:

Item	Company Application	Public Staff	Difference
Franchise and other taxes	(\$49,700)	(\$49,702)	(\$2)
Property tax	233,280	233,575	295
Payroll taxes	<u>538,817</u>	<u>526,275</u>	<u>(12,542)</u>
Total	<u>\$722,397</u>	<u>\$710,148</u>	<u>(\$12,249)</u>

With the Stipulation and revisions made by the Public Staff in its supplemental testimony and Henry Supplemental Exhibit I, the Company does not dispute adjustments recommended by the Public Staff to franchise and other taxes and property taxes. Therefore, the Commission finds that the adjustments recommended by the Public Staff to franchise and other taxes and payroll taxes, which are not contested, are appropriate adjustments to be made to operating revenue deductions in this proceeding.

Payroll Tax

The difference in the level of payroll taxes is due to the differing levels of salaries and wages recommended by the Company and the Public Staff. Based on the conclusions reached elsewhere in this Order regarding the appropriate levels of salaries

and wages, the Commission concludes that the appropriate level of payroll taxes for use in this proceeding is \$529,195.

Summary Conclusion

Based on the foregoing, the Commission concludes that the appropriate level of franchise, property, payroll, and property other taxes for use in this proceeding is as follows:

<u>Item</u>	<u>Amount</u>
Franchise and other taxes	(\$49,702)
Property tax	233,575
Payroll taxes	<u>529,195</u>
Total	<u>\$713,068</u>

EVIDENCE AND CONCLUSIONS FOR FINDINGS OF FACT NOS. 43 – 46

The evidence supporting these findings of fact is found in the testimony of Public Staff witnesses Boswell and Henry, and of Company witness DeStefano. The following summarizes the differences between the Company’s level of regulatory fee and income taxes from its Application and the amounts recommended by the Public Staff:

<u>Item</u>	<u>Company Application</u>	<u>Public Staff</u>	<u>Difference</u>
Regulatory fee	\$51,800	\$45,606	(\$6,194)
Deferred income tax	0	(83,555)	(83,555)
State income tax	273,392	189,741	(83,651)
Federal income tax	<u>1,856,324</u>	<u>1,288,340</u>	<u>(567,984)</u>
Total	<u>\$2,181,516</u>	<u>\$1,440,132</u>	<u>(\$741,384)</u>

With the Stipulation and revisions made by the Public Staff in its supplemental testimony and Henry Supplemental Exhibit I, and in the testimony of witness Boswell and Boswell Exhibit 1, the Company agreed with the Public Staff adjustment to deferred income tax of \$83,555 to reflect the annual amortization of protected federal EDIT.

Regulatory Fee

The difference in the level of regulatory fee is due to the differing levels of revenues recommended by the Company and the Public Staff. Based on conclusions reached elsewhere in this Order regarding the levels of revenues, the Commission concludes that the appropriate level of regulatory fee for use in this proceeding is \$45,606.

State Income Taxes

The difference in the level of state income taxes is due to the differing levels of revenues and expenses recommended by the Company and the Public Staff. Based on the conclusions reached elsewhere in the Order regarding the levels of revenues and expenses, the Commission concludes that the appropriate level of state income taxes for use in this proceeding is \$177,812.

Federal Income Taxes

The difference in the level of federal income taxes is due to the differing levels of revenues and expenses recommended by the Company and the Public Staff. Based on the conclusions reached elsewhere in the Order regarding the levels of revenues and expenses, the Commission concludes that the appropriate level of federal income taxes for use in this proceeding is \$1,207,341.

EVIDENCE AND CONCLUSIONS FOR FINDINGS OF FACT NOS. 47 – 51

The evidence supporting these findings of fact is found in the Application and the accompanying NCUC Form W-1, in the testimony of CWSNC witness DeStefano and of Public Staff witnesses Henry and Boswell, and in the Stipulation.

CWSNC witness DeStefano noted in his direct testimony that on December 22, 2017, President Trump signed into law the Tax Act. Witness DeStefano stated that the most impactful component of the Tax Act to CWSNC was the reduction in the federal corporate income tax rate from 35% to 21%. Witness DeStefano maintained that this component not only impacts the current tax rate for corporations but also impacts the deferred income taxes recorded on the Company's books prior to the Tax Act. Witness DeStefano also noted that the second significant component of the Tax Act is the fact that contributed plant is now treated as a form of income and subject to the federal corporate income tax rate.

Witness DeStefano provided details on how the Company has proposed to implement and address the Tax Act in this proceeding. Witness DeStefano noted that CWSNC has reflected the new federal corporate income tax rate of 21% in its calculation of its proposed revenue requirement as reflected in its Application for a rate increase.

Witness DeStefano further testified that due to the fact that the Tax Act was a singular event occurring outside of the Company's historic test period, it should not be treated as a stand-alone event since many changes occur over the course of time. Witness DeStefano asserted that for that reason, CWSNC recommends that the Tax Act not automatically trigger a refund to customers of revenues collected from January 1, 2018, until a final order is received in this proceeding (a period of time CWSNC identified as the Review Period).

Witness DeStefano asserted that, instead, the Commission should consider all items within the Company's revenue requirement, as it is doing in this rate case, and, if the actual return earned by CWSNC during the Review Period exceeds the authorized return considering the new 21% federal corporate income tax rate, then, and only at that point, should the Commission order CWSNC to refund the revenues collected since January 1, 2018 based on the 35% federal corporate income tax rate. Witness DeStefano testified that should a refund be required, CWSNC suggests that such refund be instituted as a negative surcharge to the customers' bills over a 12-month period.

Witness DeStefano also described the impact of the Tax Act on the deferred income taxes on the Company's books. Witness DeStefano stated that prior to January 1, 2018, deferred taxes were recorded on the Company's books at the federal corporate income tax rate of 35% to normalize the impact of future tax liability or benefit. Witness DeStefano noted that due to the reduction in the corporate income tax rate to 21% on January 1, 2018, the tax liability is expected to be paid back at the new lower federal corporate income tax rate. Witness DeStefano maintained that because of the lower corporate income tax rate, the deferred taxes have been adjusted on the books as of December 31, 2017.

Witness DeStefano stated that CWSNC is proposing the following treatment for the EDIT. Witness DeStefano maintained that for EDIT protected under the IRS normalization rules, CWSNC proposes to apply the flow back in accordance with those rules. Witness DeStefano testified that for EDIT not protected by normalization rules, but related to property, plant, and equipment (PP&E), the Company proposes flow back over a 20-year period. During the evidentiary hearing, Company witness DeStefano clarified the Company's proposal, stating the Company did not have any EDIT related to PP&E. Finally, witness DeStefano stated that for EDIT not protected by normalization rules nor related to PP&E, CWSNC proposes flow back over a five year period.

The Public Staff noted in its proposed order that on December 22, 2017, the Tax Act was signed into law. The Public Staff stated that, among other provisions, the Tax Act reduced the federal corporate income tax rate from 35% to 21%, effective January 1, 2018¹³, and it also repealed the manufacturing tax deduction and eliminated bonus depreciation.

The Public Staff stated that the reduction in the corporate income tax rate in the Tax Act also results in federal EDIT for utilities. The Public Staff explained that EDIT arise from the impact of tax changes on ADIT. The Public Staff explained that ADIT occur because of timing differences between when a utility collects income taxes from ratepayers and when those taxes are paid to the IRS. The Public Staff noted that one of

¹³ The Public Staff noted that in response to the enactment of the Tax Act, on January 3, 2018, the Commission opened a generic rulemaking docket (Docket No. M-100, Sub 148, i.e., the Tax Docket) for the purpose of determining how the Commission should proceed. The Public Staff stated that in the order establishing the Tax Docket, the Commission placed all public utilities on notice that the federal corporate income tax expense component of all existing rates and charges, effective January 1, 2018, would be billed and collected on a provisional rate basis.

the major types of ADIT arises from differing annual depreciation rates applied to the cost of assets purchased by a utility or other business. The Public Staff maintained that under generally accepted accounting principles and, in many cases, under the regulatory accounting principles followed by the Commission, a utility business is allowed to record on its books an annual depreciation expense representing the allocation of the cost of an item of property between its acquisition and the end of its useful life, and determine its annual income tax expense recovered from its ratepayers on that basis. The Public Staff stated that the depreciation expense is in most cases determined by the straight line method; that is, evenly over each year of the property item's life. The Public Staff maintained that, in contrast, the IRC allows accelerated depreciation for purposes of annual income tax determination: the business may deduct from its income, on its tax returns, a larger proportion of the property's value in the initial years of its life and a smaller percentage in the later years. The Public Staff commented that all other things being equal, for example, the tax basis and book basis of the asset, the total depreciation expense over the life of the asset will be the same for ratemaking and income tax purposes.

The Public Staff noted that for accounting and ratemaking purposes, the temporary tax savings that a utility obtains by using accelerated rather than straight-line depreciation for income tax purposes is treated as a deferred tax liability. The Public Staff stated that the total amount of taxes a utility has been able to defer, at any given time, is classified as ADIT. The Public Staff maintained that ADIT is treated as cost-free capital and is deducted from rate base because the source of the funds that have not yet been paid to the IRS or another taxing authority is the ratepayer. The Public Staff asserted that if the income tax rate remains constant, the increased taxes a utility pays in the later years of a property item's life will be equal to the tax benefit of accelerated depreciation received by the utility in the earlier years but not flowed through to the ratepayers in the earlier years; and, if the time value of money is disregarded, the total taxes the utility pays with respect to that property item will not be increased or reduced by the use of accelerated depreciation.

The Public Staff commented that when the federal corporate income tax rate is reduced, as it was in the Tax Act, a portion of the federal ADIT that the utility has accumulated from the ratepayers will never be needed by the utility for the payment of taxes. The Public Staff stated that this portion is classified as federal EDIT. The Public Staff noted that the IRC requires that certain federal EDIT must be normalized, or flowed back, subject to certain limitations and that federal EDIT that is subject to this limitation is classified as federal protected EDIT. The Public Staff stated that all other types of federal EDIT are classified as unprotected, in that there are no limitations placed upon them by the IRS with regard to the length of time over which they can be returned to ratepayers.

In her supplemental testimony, Public Staff witness Boswell presented the Public Staff's proposal regarding the flowback of federal and state EDIT, as well as the flowback of the overcollection of taxes since January 1, 2018. She included three adjustments, based on the information provided by the Company. First, witness Boswell recommended the return of federal protected EDIT based upon the Company's calculation of the net

remaining life of the timing differences, as required under the IRC. For federal unprotected EDIT, witness Boswell recommended removing the entire federal EDIT regulatory liability associated with the unprotected differences from rate base, and placing it in a rider to be refunded to ratepayers over three years on a levelized basis, with carrying costs calculated at the overall weighted average cost of capital. Public Staff witness Boswell stated that the immediate removal of federal unprotected EDIT from rate base increases the Company's rate base and mitigates regulatory lag that may occur from refunds of federal unprotected EDIT not contemporaneously reflected in rate base. Further, witness Boswell noted that the financing cost to the Company will be imposed ratably over the period that the EDIT is returned through the levelized rider.

Additionally, witness Boswell disagreed with the Company's proposal to offset the federal unprotected EDIT and state EDIT against deferred regulatory assets. Witness Boswell stated that the Public Staff deems that offsetting known and measurable reductions in taxes to be paid going forward against either unknown future regulatory assets, or regulatory assets previously approved by the Commission for recovery over a specified period, presents significant intergenerational issues and constitutes inappropriate ratemaking. Witness Boswell stated that existing deferred regulatory assets are the result of accounting adjustments approved or adopted by the Commission, the purpose of which typically is to spread the recovery of incurred costs over a specified period of time known as the amortization period. Witness Boswell maintained that the amortization period for each regulatory asset is approved by the Commission based upon its determination of what is fair and reasonable for the ratepayers with regard to the costs associated with that specific regulatory asset, or other specific factors taken into consideration by the Commission at the time of that approval. Witness Boswell stated that choosing to simply offset the new unprotected EDIT regulatory liability with the remaining unamortized portion of any regulatory asset would effectively override the Commission's prior decision as to the appropriate amortization period for the regulatory asset, by equalizing the remaining amortization period and the amortization period for the new EDIT regulatory liability. Witness Boswell stated that it is the Public Staff's opinion that the amortization periods for existing regulatory assets and the federal unprotected EDIT should be determined separately, based on the specific characteristics of each cost or benefit. Witness Boswell asserted that departing from this transparent process in the course of a general rate case simply to offset flowing through the benefit of reductions in an entirely separate category of costs (income taxes) is neither fair nor reasonable.

Witness Boswell also maintained that in the case of unknown future possible regulatory assets or other costs, currently offsetting them against the EDIT liability would likewise be inappropriate, not only because those costs are not currently known and actual, but also because doing so would be prejudging the appropriate amortization period for those future costs.

For state EDIT, witness Boswell did not recommend an adjustment in this case, as the Company has been amortizing the applicable regulatory liability over a three-year period as approved in the Sub 356 Proceeding.

Finally, witness Boswell recommended that the Commission require the Company to refund to ratepayers the overcollection of federal taxes related to the decrease in federal tax rates for the period beginning January 1, 2018, including the corresponding interest calculated at the overall weighted cost of capital, as a surcharge credit for a one-year period beginning when the new base rates become effective in the current docket. Witness Boswell noted that the Company did not file a proposal to return the overcollection¹⁴.

Witness Boswell stated that it is the Public Staff's position that the Commission's October 5, 2018 Order in Docket No. M-100, Sub 148 was explicitly clear that the overcollection of taxes since January 1, 2018 should be flowed back to ratepayers. The Public Staff argued that these funds rightfully belong to the ratepayers and should be returned to them as soon as reasonably possible.

Witness Boswell also disagreed with the Company's proposal to retain the overcollection of taxes since January 1, 2018 if the Company has not earned its approved rate of return during the period. Witness Boswell maintained that the approved rate of return in any general rate case represents the amount the Company has the potential to earn, with proper management. She argued that it does not represent guaranteed dollars or return for the Company. Witness Boswell stated that the actual return earned by a utility fluctuates over time, and may fall below the approved rate of return for significant periods of time. Witness Boswell maintained that, nevertheless, it is ultimately the utility's choice as to when it should file for a general rate increase; otherwise, its rates as they exist at any moment in time are generally presumed to recover its costs. Witness Boswell stated that in this particular case even if the Company had not been recovering its currently approved rate of return during 2018, applying the future Commission-mandated refund of overcollected income taxes against that past return deficiency would, in principle, constitute inappropriate retroactive ratemaking. Witness Boswell stated that the tax overcollection in question was to be used to pay taxes that the Company was expected to owe and that as of January 1, 2018, the overcollected taxes are no longer owed. Witness Boswell maintained that the overcollection is ratepayer money that should not be utilized to assist the Company in attaining its return, and thus benefit its shareholders.

Finally, witness Boswell asserted that the appropriate interest rate to apply to the overcollection should be calculated at the overall weighted cost of capital since the same methodology is utilized to calculate the revenue impacts of the collected taxes. Witness Boswell asserted that utilizing a lower rate would shortchange the ratepayers the full value of the refund.

The Public Staff maintained in its proposed order that the Commission's primary concern regarding the effects of the Tax Act should be to ensure that ratepayers receive the full benefit of the reduction in the federal corporate income tax rate. The Public Staff asserted that rates have been set to ensure that the Company has adequate funds with

¹⁴ CWSNC witness DeStefano did state in his direct testimony that should a refund of these amounts be required, CWSNC suggested a negative surcharge to the customers' bills over a 12-month period.

which to pay taxes; now that the federal income tax rate is reduced, rates should be adjusted accordingly. The Public Staff stated that the question before the Commission is how, and over what length of time, these effects should be implemented.

The Public Staff argued that the evidence shows that there is some agreement regarding how to implement the effects of the Tax Act. The Public Staff noted that the Company and the Public Staff agree upon the revenue requirement effect of the decrease in the corporate income tax rate; additionally, no party disputes the amounts presented by the Company regarding the impact of the Tax Act on these issues. The Public Staff recommended that the Commission find that the revenue requirement changes presented by the Company related to these issues are appropriate and should be approved.

The Public Staff noted that, additionally, the Company and the Public Staff agree, and no party disputes, that federal protected EDIT, which is subject to tax normalization rules, should not be returned to ratepayers any faster than allowed under the IRS rules. Therefore, the Public Staff recommended that the Commission find that it is appropriate for the Company to return federal protected EDIT in the amount, and over the time period, recommended by the Company and the Public Staff.

The Public Staff stated that the evidence shows there is not agreement as to how CWSNC should return to ratepayers the federal unprotected EDIT. The Public Staff noted that CWSNC proposed several solutions for handling the federal unprotected EDIT. The Public Staff maintained that in direct testimony, CWSNC proposed to amortize the balance over a five-year period. The Public Staff also noted that in rebuttal testimony, CWSNC proposed to utilize the federal unprotected EDIT as an offset against the Company's various unamortized deferred maintenance assets in the current proceeding. The Public Staff disagreed with the Company's rebuttal proposal, and proposed refunding the federal unprotected EDIT balance through a levelized rider over a three-year period. The Public Staff further recommended removing the entire federal EDIT balance from rate base in the current case, thus mitigating regulatory lag that may occur from refunds of federal unprotected EDIT not contemporaneously reflected in rate base.

CWSNC amended its Tax Act proposals as outlined in the rebuttal testimony of CWSNC witness DeStefano. Witness DeStefano reiterated that CWSNC has adjusted the federal corporate income tax rate to 21% in its Application. He also asserted that due to the fact that the Tax Act was a singular event occurring outside of the Company's historic test period, the Company contends that it should not be treated as a stand-alone event since many changes occur over the course of time. Witness DeStefano argued that for that reason, CWSNC contends that the Tax Act should not automatically trigger a refund to customers of revenues collected from January 1, 2018, until a final order is issued by the Commission in this proceeding.

Witness DeStefano testified that the Commission should carefully and thoroughly consider all items within the Company's revenue requirement and that indeed is precisely what is occurring in the current proceeding. Witness DeStefano maintained that the Company has updated its original test year of December 31, 2017 with actual data as of

June 30, 2018, which is approximately the midpoint between the Tax Act taking effect and the date the current rate case will likely become effective and reflects a fair representation of the Company's financial status in the Review Period. Witness DeStefano asserted that if the proper revenue requirement as determined by the Commission in this rate case meets or exceeds that of the Company's last rate case, excluding effects of the Tax Act beyond the change in the income tax rate to 21%, such as amortization of EDIT, it will therefore strengthen the claim that the Company did not exceed its authorized return. Consequently, witness DeStefano testified, the Company concludes that it is in a unique position relative to other North Carolina utilities, as the comprehensive financial review in this proceeding would directly support the retention of the Review Period funds by the Company to sustain its just-vetted operating needs. However, witness DeStefano maintained that should a refund be required by the Commission in this rate case, the Company recommends that the credit be offset by the Company's existing deferred asset balances.

Witness DeStefano also noted that the Company has provided supporting workpapers for the federal protected EDIT balance and requests a 45-year amortization of this balance using the Reverse South Georgia method, inclusive of gross up, in accordance with IRS normalization rules.

Witness DeStefano further noted that the Company was authorized in its last rate case to amortize state EDIT realized due to the recent North Carolina corporate income tax rate changes. Witness DeStefano testified that CWSNC proposes combining the remaining state EDIT with the federal unprotected EDIT and offsetting the balance against the Company's various unamortized deferred maintenance assets in this proceeding. Witness DeStefano maintained that the particular deferred assets to be utilized in this calculation are shown in the testimony of Public Staff witness Henry, Exhibit I, Schedule 2-10(a), and are comprised of tank painting, wastewater treatment plant painting, and wastewater pumping and hauling costs. Witness DeStefano argued that CWSNC contends, and the Public Staff's testimony confirms, that there are sufficient deferred assets to offset the combined EDIT credit balance, with a focus on those asset balances closest to conclusion of their amortization period in order to best align this proposal with the Public Staff proposal of a three-year amortization period.

Witness DeStefano testified that this proposal would smooth customer impacts by netting balances due-to and due-from customers immediately, as opposed to initiating offsetting customer rates (recovery in base rates of deferred asset rate base and amortization, versus an EDIT credit rider) with different effective periods, which would result in uneven customer impact over the next several years and mask price signals otherwise considered in rate design, or in other words, a yo-yoing of rates. Witness DeStefano argued that it will also mitigate cash flow concerns for the Company, as the lower tax rate going forward will lead to slower growth in the ADIT balance, which is a source of cash used for continued capital investment. Witness DeStefano argued that limiting interest payments required on refunds will also mitigate negative cash flow impacts. He stated that it will also avoid for both the Company and the Public Staff the additional effort of implementing a new rider, tracking the balances, and potentially

manually calculating interest. Witness DeStefano maintained that a similar proposal was recently accepted by the Regulatory Commission of Alaska (RCA) in Docket U-18-042, Order No. 2.

Witness DeStefano stated that if the Commission does not adopt the Company's proposal as outlined in his rebuttal testimony of offsetting deferred assets against the unprotected EDIT, the Company alternatively reiterates its position articulated in the direct testimony presented by witness DeStefano, with a five-year amortization of unprotected non-PP&E EDIT.

Finally, witness DeStefano testified that, should a sur-credit be implemented for revenues recorded in the Review Period, the Company proposes to offset this credit balance with the unamortized deferred assets approved in this proceeding until the deferred assets are exhausted before implementing a sur-credit. Witness DeStefano maintained that any amount determined to be refunded should be credited to customers over one year, and accrue interest at an appropriate short-term interest rate, especially if refunds commence at or before January 1, 2019. Witness DeStefano argued that using an appropriate short-term interest rate is more reasonable than applying the cost of capital rate due to the funds being returned to customers approximately one year or less since they were billed. Witness DeStefano maintained that the Company proposes that any calculation of Review Period revenues to be refunded should identify the percent revenue reduction due to the decrease in income tax expense for each tariff group. He stated that this percentage would then be multiplied by the actual applicable revenues booked for the Review Period to determine the level of refund.

Witness DeStefano also noted that the Commission issued an Order on October 5, 2018 in Docket No. W-100, Sub 57, which initiated a generic proceeding to review the impacts of the Tax Act on water and wastewater utilities, specifically CIAC, in North Carolina. He noted that comments were due on October 25, 2018. Witness DeStefano stated that CWSNC plans on providing comments in the generic proceeding and will, in the interim, comply with the Commission's requirement that the full gross-up method be utilized, excepting circumstances where the present value method is authorized by the Commission.

The AGO stated in its post-hearing brief that ratepayers should promptly enjoy the benefits of CWSNC's cost savings resulting from recent changes in the federal tax law. The AGO asserted that recent reductions in federal and state corporate income tax rates result in lower operating expenses for utilities, with a favorable impact on the cost of public utility service, and produce an excess accumulation of funds for deferred income taxes that may be returned to ratepayers. The AGO noted that the Commission determined in a recent order in a generic proceeding that the issue of how to reflect the changes in federal tax rates in new utility rates would be determined for CWSNC in this general rate case proceeding. See Order Addressing the Impacts of the Federal Tax Cuts and Jobs Act on Public Utilities in Docket No. M-100, Sub 148 issued on October 5, 2018 at p. 58. The AGO stated that it supports rate adjustments to flow through the benefits of tax changes to ratepayers as soon as possible.

The AGO noted that the change in the federal corporate income tax rate results in five impacts: (1) the federal corporate income tax rate reduction from 35% to 21% is reflected in the Company's proposed operating expenses; (2) the Company proposes not to return the amount of tax expense that was overcollected in rates from January 1, 2018 until new rates take effect; (3) the Company proposes that the return of EDIT associated with the recent reductions in the state corporate income tax rate decided in the Company's last general rate case proceeding be modified in this case and treated similarly to the Company's proposal for federal unprotected EDIT; (4) the Company proposes to use the federal unprotected EDIT as an offset to existing deferred asset balances, instead of returning it to ratepayers; and (5) CWSNC proposes to return the federal protected EDIT through rates over the period required by federal tax provisions, which it shows to be a 45-year period.

The AGO stated that it does not object to the first and fifth impacts noted above, but objects to the second, third, and fourth.

The AGO noted that, first, the federal corporate income tax rate reduction from 35% to 21% is reflected in the Company's proposed operating expenses and that this proposed impact is not disputed.

Second, the AGO maintained that the Company proposes not to return the amount of tax expense that was overcollected in rates from January 1, 2018 until new rates take effect. The AGO stated that that amount has been booked as a regulatory liability as required by the Commission's January 3, 2018 Order in Docket No. M-100, Sub 148 and will amount to approximately \$1.26 million for the calendar year. The AGO noted that if not allowed to keep the amount, CWSNC asks the Commission to allow the amount to be used as an offset by the Company to existing deferred asset balances.

The AGO asserted that CWSNC's argument that it should be allowed to keep the provisional amount that was collected since January 1, 2018 lacks merit. The AGO noted that the Commission considered arguments in its October 5, 2018 Order in Docket No. M-100, Sub 148, and concluded on page 55 that it is "appropriate to require an immediate reduction in the base rates (for the expense piece) of affected utilities to reflect the 21% federal corporate income tax rate mandated by the Tax Act, effective January 1, 2018." The AGO further noted that the Commission explained on pages 55 and 56 of the Order that "the federal corporate income tax rate reduction mandated by the Tax Act is material and substantial," and concluded that "ratepayers should not be forced to continue paying base rates that were set to recover a 35% federal corporate income tax rate that has been reduced to 21% until the utility's next general rate case proceeding."

The AGO argued that there is no justification for allowing CWSNC to retain the provisional amount collected after the federal corporate income tax rate was reduced on January 1, 2018. The AGO stated that the Public Staff has proposed that the amounts overcollected for taxes since January 1, 2018 be returned to customers in a rider over a

one-year period with carrying costs calculated using the weighted cost of capital approved in this case. The AGO stated that it agrees with the Public Staff's proposal in this regard.

The AGO stated that, third, the appropriate treatment of the state EDIT was addressed in the Company's last general rate case proceeding. The AGO noted that CWSNC proposed in rebuttal testimony in this proceeding that the return of the state EDIT be modified and treated similarly to the Company's proposal for federal unprotected EDIT.

The AGO stated that it does not support such a change and agrees with the recommendation of Public Staff witness Boswell that no adjustment be made to the provision for return of state EDIT from what was proposed and approved in the Company's prior rate case proceeding. The AGO asserted that the Company's vague proposal would offset the state EDIT against either unknown future regulatory assets or known regulatory assets that have been reviewed and approved with particular treatment in previous cases and that it is not appropriate to override such prior determinations or to set aside ratepayer funds for possible future uses.

The AGO noted that, fourth, the Company's initial proposal was to return federal unprotected EDIT to ratepayers over a five-year period. The AGO stated that, however, in rebuttal testimony the Company proposed instead that the money be used as an offset to existing deferred asset balances.

The AGO noted that it recommended a return of the federal unprotected EDIT over a period of two years or less in the recent Duke Energy Carolinas rate case in Docket No. E-7, Sub 1146, so that ratepayers benefit as soon as possible from the amounts they are owed. The AGO asserted that, likewise, in this proceeding, the AGO recommends a two-year period. The AGO stated that the Public Staff's proposal in this case would return the federal unprotected EDIT over a three-year period, as was done under the settlement reached between the Public Staff and Aqua North Carolina in the recent Aqua North Carolina rate case proceeding (Docket No. W-218, Sub 497). The AGO noted that Public Staff witness Boswell testified that although the Public Staff has proposed a three-year period in this proceeding, a two-year time frame is feasible and is within the range that the Public Staff has proposed in other cases. The AGO also noted that the time frame has not been specified in the Stipulation in this case and that the AGO supports a return of the federal unprotected EDIT as soon as possible, but in no event longer than two years. The AGO asserted that with the adoption of a two-year timeframe to return the federal unprotected EDIT, ratepayers will benefit immediately from the use of the amounts they are owed.

The AGO maintained that CWSNC's proposal not to return federal unprotected EDIT to ratepayers and instead to apply the EDIT to unspecified asset balances should be denied because it is unjust and unreasonable. The AGO asserted that it is inappropriate to override prior determinations about the amortization of regulatory assets. The AGO noted that, further, CWSNC has not shown that any harm will fall to the Company by the prompt return of the funds. The AGO maintained that it is time for CWSNC to stop relying on excess revenues from its customers to maintain the overly

flush cash flow that was provided under former tax deferral policies. The AGO asserted that the alternative of not returning dollars to consumers who struggle to pay their bills, or to consumers who would use their money for different purposes if given the opportunity, results in an undue burden on ratepayers and communities in North Carolina.

The AGO stated that, fifth, CWSNC proposes to return the federal protected EDIT associated with the reduction in the federal corporate income tax rate through rates over the period of time required by federal tax provisions, which the Company shows to be a 45-year period. The AGO noted that the Public Staff does not dispute the 45-year time frame based on its investigation and that the Public Staff explained that federal tax provisions do not permit regulators to flow back the EDIT immediately and instead require a flow back that is ratable over the life of the timing differences that gave rise to the excess. The AGO stated that based on the federal requirements and the Public Staff's investigation, the AGO does not object to this proposal.

After reviewing the entire record, the Commission notes that there are five separate issues that need to be addressed for CWSNC in this proceeding concerning the Tax Act. Further, as concluded by the Commission on page 58 of its October 5, 2018 Order in Docket No. M-100, Sub 148, the Commission will address these impacts of the Tax Act on CWSNC in this rate case proceeding.

Based upon the foregoing, and after careful consideration of all of the evidence in this proceeding, the Commission reaches the following findings regarding the issues related to the Tax Act for CWSNC in this proceeding:

1. It is appropriate in this proceeding to reflect the reduction in the federal corporate income tax rate from 35% to 21% on the Company's ongoing federal income tax expense.
2. It is appropriate in this proceeding to amortize CWSNC's federal protected EDIT over 45 years in accordance with the IRC.
3. It is appropriate in this proceeding to implement a four-year levelized rider for the return of federal unprotected EDIT to ratepayers.
4. It is appropriate in this proceeding to maintain the decision reached by the Commission in CWSNC's last general rate case proceeding to amortize over three years the Company's state EDIT recorded pursuant to the Commission's Sub 138 Order.
5. It is appropriate in this proceeding to adopt the Public Staff's recommendation that CWSNC should refund to ratepayers the overcollection of federal income taxes related to the decrease in the federal corporate income tax rate for the period beginning January 1, 2018, including interest at the overall weighted cost of capital, as a credit for a one-year period.

Federal Income Tax Expense - First, the Commission notes that the Company reflected the use of the 21% federal corporate income tax rate in calculating its proposed revenue requirement as filed in its Application. No party has disputed reflecting the 21% rate in this proceeding, and the Commission finds that it is appropriate to calculate CWSNC's revenue requirement in this proceeding using the current 21% federal corporate income tax rate.

Federal Protected EDIT - Second, the Commission notes that the Public Staff and CWSNC agreed in the Stipulation on the appropriate treatment for the Company's federal protected EDIT. Specifically, Section III, Paragraph G of the Stipulation states as follows:

The Stipulating Parties agree that the protected EDIT will be flowed back over a 45-year period using the Reverse South Georgia method, in accordance with tax normalization rules required by IRC Section 203(e).

As shown on Public Staff witness Boswell Exhibit 1, CWSNC has a regulatory liability of \$4,907,523 for federal protected EDIT.

No party disputed this treatment for CWSNC's federal protected EDIT. Therefore, the Commission finds it appropriate to approve this treatment for CWSNC's federal protected EDIT.

Federal Unprotected EDIT – CWSNC's proposed treatment for its federal unprotected EDIT changed during the course of this proceeding. In direct testimony, the Company recommended that EDIT not protected by normalization rules, but related to PP&E be flowed back over a 20-year period and that EDIT not related to PP&E be flowed back over a five-year period. CWSNC witness DeStefano confirmed during cross-examination by the AGO that the Company does not have any PP&E-related federal unprotected EDIT and has approximately \$1 million in non-PP&E federal unprotected EDIT.¹⁵ However, in rebuttal testimony, CWSNC recommended that the federal unprotected EDIT be offset against deferred assets, but that if that proposal is not adopted by the Commission that the federal unprotected EDIT be returned with a five-year amortization period.

On cross-examination by the Public Staff, witness DeStefano agreed that the deferred maintenance assets he referenced in his rebuttal testimony to be used as offsets were already decided and approved in a prior CWSNC rate case. He stated that the balances and the amortization periods were set in a prior case and that CWSNC is proposing to change that in order to smooth out the impacts of the Tax Act. Witness DeStefano maintained that it appears to the Company to be a unique offset situation that could be utilized to smooth out the impact to customers for cost spread to future years. He also stated that he is not aware of a situation wherein the North Carolina Utilities Commission has approved such offsetting treatment.

¹⁵ Public Staff witness Boswell Exhibit 2 shows \$966,595 in federal unprotected EDIT.

Both the Public Staff and the AGO recommended that the Commission not approve CWSNC's offsetting proposal.

Based upon the record of evidence, the Commission finds that CWSNC's federal unprotected EDIT should be returned to ratepayers through a levelized rider.¹⁶ The Commission finds that this treatment appropriately balances the interests of ratepayers and the Company.

In arriving at its conclusion, the Commission gives substantial weight to the testimony of Public Staff witness Boswell. The Commission agrees with witness Boswell that offsetting known and measurable reductions in taxes to be paid going forward against either unknown future regulatory assets, or regulatory assets previously approved by the Commission for recovery over a specified period, presents significant intergenerational issues and constitutes inappropriate ratemaking. The Commission further agrees with witness Boswell that the amortization period for each regulatory asset is approved by the Commission based upon its determination of what is fair and reasonable for the ratepayers with regard to the costs associated with that specific regulatory asset, or other specific factors taken into consideration by the Commission at the time of that approval. The Commission finds that choosing to simply offset the new unprotected EDIT regulatory liability with the remaining unamortized portion of any regulatory asset would effectively override the Commission's prior decision as to the appropriate amortization period for the regulatory asset, by equalizing the remaining amortization period and the amortization period for the new EDIT regulatory liability. And as CWSNC witness DeStefano testified, he is not aware of a situation wherein the Commission has approved such offsetting treatment.

The Commission further agrees with witness Boswell that the amortization periods for existing regulatory assets and the federal unprotected EDIT should be determined separately, based on the specific characteristics of each cost or benefit. The Commission agrees with witness Boswell that departing from this transparent process in the course of a general rate case simply to offset flowing through the benefit of reductions in an entirely separate category of costs (income taxes) is neither fair nor reasonable. Further, the Commission notes that for customers, a rider will be separately identified on their bills so they can see in dollars and cents the impact of the federal unprotected EDIT flow through. This transparency would not occur with the offsetting proposed by the Company.

Through the years the Commission has set rates at a level to ensure that the Company would be able to pay its taxes, including deferred taxes, when they became due.¹⁷ These funds were paid by ratepayers to the Company to enable the Company to pay its taxes; now that the funds are no longer needed to pay the Company's taxes, they

¹⁶ The Commission notes that the calculation of the rider should reflect the return on equity approved by the Commission herein.

¹⁷ The Commission notes that the last reduction in the corporate income tax rate occurred in 1986. The evidence in the record shows that the Company in that instance did not propose to create two separate classifications of federal unprotected EDIT, but simply refunded all of its federal unprotected EDIT through amortization over a five-year period.

should be flowed back to ratepayers as quickly as practicable. The fact that the Company has made use of these funds as cost-free capital does not change the fact that these funds are ultimately customer money that is no longer needed for tax payments. The only remaining question for the Commission to decide is what is a reasonable period of time to refund these federal unprotected EDIT to ratepayers.

The Commission has carefully considered the evidence as to the appropriate time period over which to return federal unprotected EDIT. The evidence shows that all of the parties agree that the timeframe should be within a two-year to five-year range. Specifically, the Public Staff recommends three years, the AGO recommends two years, and the Company, if its offsetting proposal is not adopted, recommends five years. The Company no longer needs these funds to pay its taxes, which is why they were collected from ratepayers in the first place. Therefore, based on the evidence in this case, the Commission finds that it is appropriate in this case to return federal unprotected EDIT over a four-year period through a levelized rider. The Commission finds that this decision appropriately balances the interests of ratepayers and the Company. By removing the total amount of the federal unprotected EDIT credit from rate base in the current case, the Company will be provided with an increase in rates to moderate any cash flow issues, to the extent they would exist. Further, the Commission finds that requiring the flowback over four years provides the Company with additional time to return the money and is the appropriate timeframe to balance both the Company's and the ratepayer's interests.

State EDIT - Additionally, the Commission does not find it appropriate to adopt witness DeStefano's proposal to utilize the state EDIT to offset various unamortized deferred maintenance assets in the current proceeding. The Commission has previously approved the amortization of state EDIT in the Sub 356 proceeding, and does not find any of the evidence presented in this proceeding persuasive to change the decision reached by the Commission in that docket.

In arriving at its conclusion, the Commission gives substantial weight to the testimony of witness Boswell. The Commission agrees with witness Boswell that CWSNC's proposal to offset the state EDIT against deferred regulatory assets presents significant intergenerational issues and constitutes inappropriate ratemaking. The Commission also agrees with the Public Staff and the AGO that there is no compelling reason to change the amortization of the state EDIT in this proceeding.

Therefore, the Commission finds that the state EDIT regulatory liability should continue to be amortized over a three-year period as approved in the Sub 356 Order.

Provisional Amount – Finally, the Commission finds that it is appropriate to require CWSNC to return the overcollection of federal taxes related to the decrease in the federal corporate income tax rate, including interest calculated at the overall weighted cost of capital, as a credit over a one-year period beginning when new base rates become effective. The rates with respect to the federal income tax expense have been provisional based on the Commission's generic order, so retroactive ratemaking is not at issue.

The Commission notes that CWSNC witness DeStefano specified during cross-examination by the AGO that the Company will have approximately \$1.26 million in provisional revenues for the 2018 calendar year. In reaching its conclusion on this issue, the Commission notes that in its generic order issued in Docket No. M-100, Sub 148 on January 3, 2018, the Commission ordered all utility rates based on the federal corporate income tax rate of 35% rather than the Congressionally approved 21%, effective January 1, 2018, to be provisional and required accompanying deferred accounting for the amount of reduced rates. This meant that the Commission in subsequent orders could require refunds of revenues collected after January 1, 2018 to return to customers the portion of rates providing revenues to cover federal income tax expense greater than 21%. The North Carolina Supreme Court in State ex rel. Utilities Com. v. Nantahala Power & Light Co., 326 N.C. 190, 388 S.E.2d 118, 1990 N.C. LEXIS 12, 110 P.U.R.4th 250, ruled that this procedure in a generic rulemaking case is appropriate with respect to a similar federal income tax reduction with respect to the Tax Reform Act of 1986. The Court rejected challenges to the Commission's order requiring generic rate reductions as constituting single-issue rate adjustments. The Court held, however, that should utilities wish to demonstrate that their overall rate level not be reduced to reflect lower federal income tax expense, the remedy was to file a general rate case.

In this case, CWSNC has filed a general rate case, and the cost of service evidence justifies a rate increase, thus offsetting the reduction in cost of service from the tax rate decrease with increases elsewhere.

CWSNC nevertheless wishes to retain the overcollected, provisional revenues from January 1, 2018 to October 16, 2018. CWSNC's theory is that it failed to recover its overall cost of service during that period. The Commission determines that the Company's proposed justification to permit CWSNC to retain the revenues at issue is inapposite. The Commission uses the historic test year as adjusted through the end of the hearing to set rates prospectively, effective as of the date of this rate case Order. The reduction in federal income tax expense to 21% is an ongoing reduction in cost of service. To authorize the Company to effectively add a surcharge in rates beginning on January 1, 2018 with respect to this expense item would be no different than authorizing a surcharge for recovery of rates covering a decrease in labor costs during the test year as adjusted.

In addition, on cross-examination by the Public Staff, witness DeStefano noted that an affiliate of CWSNC pointed him to a recent Order by the RCA wherein that Commission declined to make a portion of the revenues received by two water utilities refundable pursuant to the Tax Act. The Commission gives little weight to witness DeStefano's testimony concerning the August 28, 2018 Order by the RCA. Witness DeStefano agreed during cross-examination that the utilities that were granted the favorable treatment by the RCA are distinguishable from CWSNC's case in this instance. First, the Alaska decision addresses two specific water utilities wherein the RCA opened the dockets and held show cause proceedings to investigate if the rates charged by the two utilities remained just and reasonable given the reduction to the annual revenue requirement caused by the Tax Act. In contrast, in North Carolina, in response to the Tax Act, the

Commission established a generic rulemaking docket (Docket No. M-100, Sub 148) on January 3, 2018, and in the Order establishing the docket, the Commission put the utilities on notice that any revenues collected on and after January 1, 2018, were to be considered provisional pending a final ruling by the Commission. In addition, the two Alaskan utilities had not been in for rate cases since 2014, and both companies are required to file their next rate case by July 1, 2020, if not sooner. Witness DeStefano also stated on cross-examination that he was not aware of any other state besides Alaska to make this decision, although he did not think he had “uncovered every stone” on this issue and that a lot of states are still working through this process. Witness DeStefano also agreed that he is aware of several other states that are ordering their utilities to refund these provisional amounts.

In fact, in North Carolina, the Commission has required other utilities in its October 5, 2018 Order issued in Docket No. M-100, Sub 148 to return the provisional amount collected since January 1, 2018, with interest reflected at each company’s overall weighted cost of capital as approved in the company’s last general rate case proceeding, in each utility’s next general rate case proceeding or in three years, whichever is sooner.

Addressing CWSNC witness DeStefano’s proposal to use a short-term interest rate instead of the overall weighted cost of capital for the provisional amount, the Commission notes that on cross-examination by the Public Staff, witness DeStefano stated that he does not have a proposed short-term interest rate offhand to apply to the provisional amount in question in this proceeding. He specified that the rate could be anything that would reflect the retention of funds for one calendar year or less. Witness DeStefano stated that in this case applying the cost of capital rate seems too high for something that is refunded within a 12-month period from when it was generated. Witness DeStefano specified that the short-term borrowing rate would be less than the overall weighted cost of capital and could be very low, in the 2% range. Both the Public Staff and the AGO disagreed with witness DeStefano on using a short-term interest rate for the provisional amount.

After reviewing the record of evidence on this issue, the Commission finds that the Company’s recommendation that the interest on any refund be calculated using a short-term debt rate is not appropriate or reasonable to ratepayers when the Company earns a return on its rate base, based on the overall weighted cost of capital. In reaching this conclusion, the Commission gives substantial weight to the testimony of the Public Staff’s witness and the arguments of the AGO.

The Commission also notes that it recently required Cardinal Pipeline Company, LLC, to return to ratepayers the provisional amount that it voluntarily decided to return now instead of under the parameters of the October 5, 2018 Order with interest reflected at the company’s overall weighted cost of capital as approved in its last general rate case proceeding (See Docket Nos. G-39, Sub 42 and M-100, Sub 148).

In summary, the Commission finds and concludes that these decisions concerning the Tax Act are appropriate and provide for the full flowback to ratepayers of the effects

of the Tax Act. As noted in Public Staff witness Casselberry's supplemental testimony, many of the public witnesses that testified at the public hearings in New Bern and Charlotte noted the tax reductions due to the Tax Act. The decisions herein address those concerns expressed by the various public witnesses in this proceeding and do provide a full flowback to ratepayers of the decrease in the federal corporate income tax rate resulting from the Tax Act.

EVIDENCE AND CONCLUSIONS FOR FINDINGS OF FACT NOS. 52 – 60

The evidence supporting these findings of fact and conclusions is found in the Application and the accompanying NCUC Form W-1 of the Company, the testimony and exhibits of the public witnesses, the testimony and exhibits of Company witness D'Ascendis, the testimony and exhibits of Public Staff witness Hinton, and the entire record of this proceeding.

Rate of Return on Equity

In its Application and in the direct testimony of CWSNC witness D'Ascendis, the Company requested approval for its rates to be set using a rate of return on equity in a range of 11.50% to 11.90%. In his rebuttal testimony, witness D'Ascendis reduced his recommended rate of return on equity to a range of 10.80% to 11.20% after updating his analysis and making several changes to the application of his models. For the reasons set forth herein, the Commission finds that a rate of return on equity of 9.75% is just and reasonable.

Rate of return on equity, also referred to as the cost of equity capital, is often one of the most contentious issues to be addressed in a rate case. In the absence of a settlement agreed to by all parties, the Commission must exercise its independent judgment and arrive at its own independent conclusion as to all matters at issue, including the rate of return on equity. See, State ex rel. Utils. Comm'n v. Carolina Utils. Customers Ass'n, 348 N.C. 452, 466, 500 S.E.2d 693, 707 (1998). In order to reach an appropriate independent conclusion regarding the rate of return on equity, the Commission should evaluate the available evidence, particularly that presented by conflicting expert witnesses. State ex rel. Utils. Comm'n v. Cooper, 366 N.C. 484, 491-93, 739 S.E.2d 541, 546-47 (2013) (Cooper I). In this case, the evidence relating to the Company's cost of equity capital was presented by CWSNC witness D'Ascendis and Public Staff witness Hinton. No other rate of return on equity expert evidence was presented by any party.

In addition to its evaluation of the expert evidence, the Commission must also make findings of fact regarding the impact of changing economic conditions on customers when determining the proper rate of return on equity for a public utility. Cooper I, 366 N.C. at 494, 739 S.E.2d at 548. This was a factor newly announced by the Supreme Court in its Cooper I decision and not previously required by the Commission or any appellate courts as an element that must be considered in connection with the Commission's determination of an appropriate rate of return on equity. The Commission's

discussion of the evidence with respect to the findings required by Cooper I is set out in detail in this Order.

Cooper I was the result of the Supreme Court's reversal and remand of the Commission's approval of the agreement regarding the rate of return on equity in a stipulation between the Public Staff and Duke Energy Carolinas, LLC (DEC) in Docket No. E-7, Sub 989. The Commission has had occasion to apply both prongs of Cooper I in subsequent orders, specifically the following:

- Order Granting General Rate Increase, Docket No. E-2, Sub 1023 (May 30, 2013) (2013 DEP Rate Order), which was affirmed by the North Carolina Supreme Court in State ex rel. Utils. Comm'n v. Cooper, 367 N.C. 444, 761 S.E.2d 640 (2014) (Cooper III)¹⁸;
- Order on Remand, Docket No. E-7, Sub 989 (Oct. 23, 2013) (DEC Remand Order), which was affirmed by the North Carolina Supreme Court in State ex rel. Utils. Comm'n v. Cooper, 367 N.C. 644, 766 S.E.2d 827 (2014) (Cooper IV);
- Order Granting General Rate Increase, Docket No. E-7, Sub 1026 (Sep. 24, 2013) (2013 DEC Rate Order), which was affirmed by the Supreme Court in State ex rel. Utils. Comm'n v. Cooper, 367 N.C. 741, 767 S.E.2d 305 (2015) (Cooper V);
- Order on Remand, Docket No. E-22, Sub 479 (July 23, 2015), which was not appealed to the Supreme Court;
- Order Approving Rate Increase and Cost Deferrals and Revising PJM Regulatory Conditions, Docket No. E-22, Sub 532 (Dec. 22, 2016);
- Order Accepting Stipulation, Deciding Contested Issues and Granting Partial Rate Increase, Docket No. E-2, Sub 1142 (Feb. 23, 2018); and
- Order Accepting Stipulation, Deciding Contested Issues, and Requiring Revenue Reduction, Docket No. E-7, Sub 1146 (June 22, 2018).

In order to give full context to the Commission's decision herein and to elucidate its view of the requirements of the General Statutes as they relate to rate of return on equity, as interpreted by the Supreme Court in Cooper I, the Commission deems it

¹⁸ An intervening case, State ex rel. Utils. Comm'n v. Cooper, 367 N.C. 430, 758 S.E.2d 635 (2014) (Cooper II), arose from Dominion North Carolina Power's 2012 rate case and resulted in a remand to the Commission, inasmuch as the Commission's Order in that case predated Cooper I.

important to provide in this Order an overview of the general principles governing this subject.

A. Governing Principles in Setting the Rate of Return on Equity

First, there are, as the Commission noted in the 2013 DEP Rate Order, constitutional constraints upon the Commission's rate of return on equity decisions established by the United States Supreme Court Decisions in Bluefield Waterworks & Improvement Co., v. Pub. Serv. Comm'n of W. Va., 262 U.S. 679 (1923) (Bluefield), and Fed. Power Comm'n v. Hope Natural Gas Co., 320 U.S. 591 (1944) (Hope):

To fix rates that do not allow a utility to recover its costs, including the cost of equity capital, would be an unconstitutional taking. In assessing the impact of changing economic conditions on customers in setting a return on equity, the Commission must still provide the public utility with the opportunity, by sound management, to (1) produce a fair profit for its shareholders, in view of current economic conditions, (2) maintain its facilities and service, and (3) compete in the marketplace for capital. State ex rel. Utilities Commission v. General Telephone Co. of the Southeast, 281 N.C. 318, 370, 189 S.E.2d 705, 757 (1972). As the Supreme Court held in that case, these factors constitute "the test of a fair rate of return" in Bluefield and Hope. Id.

2013 DEP Rate Order, p. 29.

Second, the rate of return on equity is, in fact, a cost. The return that equity investors require represents the cost to the utility of equity capital. In his dissenting opinion in Missouri ex rel. Southwestern Bell Tel. Co. v. Missouri Pub. Serv. Comm'n, 262 U.S. 276 (1923), Justice Brandeis remarked upon the lack of any functional distinction between the rate of return on equity (which he referred to as a "capital charge") and other items ordinarily viewed as business costs, including operating expenses, depreciation, and taxes:

Each is a part of the current cost of supplying the service; and each should be met from current income. When the capital charges are for interest on the floating debt paid at the current rate, this is readily seen. But it is no less true of a legal obligation to pay interest on long-term bonds ... and it is also true of the economic obligation to pay dividends on stock, preferred or common.

Id. at 306 (Brandeis, J. dissenting) (emphasis added). Similarly, the United States Supreme Court observed in Hope, "From the investor or company point of view it is important that there be enough revenue not only for operating expenses but also for the capital costs of the business ... [which] include service on the debt and dividends on the stock." Hope at 603.

Leading academic commentators also define rate of return on equity as the cost of equity capital. Professor Charles Phillips, for example, states that “the term ‘cost of capital’ may be defined as the annual percentage that a utility must receive to maintain its credit, to pay a return to the owners of the enterprise, and to ensure the attraction of capital in amounts adequate to meet future needs.” Phillips, Charles F., Jr., The Regulation of Public Utilities (Public Utilities Reports, Inc. 1993), p. 388. Professor Roger Morin approaches the matter from the economist’s viewpoint:

While utilities enjoy varying degrees of monopoly in the sale of public utility services, they must compete with everyone else in the free open market for the input factors of production, whether it be labor, materials, machines, or capital. The prices of these inputs are set in the competitive marketplace by supply and demand, and it is these input prices which are incorporated in the cost of service computation. This is just as true for capital as for any other factor of production. Since utilities must go to the open capital market and sell their securities in competition with every other issuer, there is obviously a market price to pay for the capital they require, for example, the interest on capital debt, or the expected return on equity.

* * *

[T]he cost of capital to the utility is synonymous with the investor’s return, and the cost of capital is the earnings which must be generated by the investment of that capital in order to pay its price, that is, in order to meet the investor’s required rate of return.

Morin, Roger A., Utilities’ Cost of Capital (Public Utilities Reports, Inc. 1984), at pp. 19-21. Professor Morin adds: “The important point is that the prices of debt capital and equity capital are set by supply and demand, and both are influenced by the relationship between the risk and return expected for those securities and the risks expected from the overall menu of available securities.” Id. at 20 (emphasis added).

Changing economic circumstances as they impact CWSNC’s customers may affect those customers’ ability to afford rate increases. For this reason, customer impact weighs heavily in the overall ratemaking process, including, as set out in detail elsewhere in this Order, the Commission’s own decision of an appropriate authorized rate of return on equity. In addition, in the event of a settlement, customer impact no doubt influences the process by which the parties to a rate case decide to settle contested matters and the level of rates achieved by any such settlement.

However, a customer’s ability to afford a rate increase has absolutely no impact upon the supply of or the demand for capital. The economic forces at work in the competitive capital market determine the cost of capital – and, therefore, the utility’s required rate of return on equity. The cost of capital does not go down because some customers may find it more difficult to pay for an increase in water and wastewater prices

as a result of prevailing adverse economic conditions, any more than the cost of capital goes up because some customers may be prospering in better times.

Third, the Commission is and must always be mindful of the North Carolina Supreme Court's command that the Commission's task is to set rates as low as possible consistent with the dictates of the United States and North Carolina Constitutions. State ex rel. Utils. Comm'n v. Pub. Staff-N. Carolina Utils. Comm'n, 323 N.C. 481, 490, 374 S.E.2d 361, 370 (1988). Further, and echoing the discussion above concerning the fact that rate of return on equity represents the cost of equity capital, the Commission must execute the Supreme Court's command "irrespective of economic conditions in which ratepayers find themselves." (2013 DEP Rate Order, p. 37.) The Commission noted in that Order:

The Commission always places primary emphasis on consumers' ability to pay where economic conditions are difficult. By the same token, it places the same emphasis on consumers' ability to pay when economic conditions are favorable as when the unemployment rate is low. Always there are customers facing difficulty in paying utility bills. The Commission does not grant higher rates of return on equity when the general body of ratepayers is in a better position to pay than at other times, which would seem to be a logical but misguided corollary to the position the Attorney General advocates on this issue.

Id. Indeed, in Cooper I the Supreme Court emphasized "changing economic conditions" and their impact upon customers. Cooper I, at 548.

Fourth, while there is no specific and discrete numerical basis for quantifying the impact of economic conditions on customers, the impact on customers of changing economic conditions is embedded in the rate of return on equity expert witnesses' analyses. The Commission noted this in the 2013 DEP Rate Order: "This impact is essentially inherent in the ranges presented by the return on equity expert witnesses, whose testimony plainly recognized economic conditions – through the use of econometric models – as a factor to be considered in setting rates of return." 2013 DEP Rate Order, p. 38.

Fifth, under long-standing decisions of the North Carolina Supreme Court, the Commission's subjective judgment is a necessary part of determining the authorized rate of return on equity. State ex rel. Utils. Comm'n v. Pub. Staff, 323 N.C. 481, 490, 374 S.E.2d 361, 369 (1988). As the Commission also noted in the 2013 DEP Rate Order:

Indeed, of all the components of a utility's cost of service that must be determined in the ratemaking process, the appropriate [rate of return on equity] is the one requiring the greatest degree of subjective judgment by the Commission. Setting [a return on equity] for regulatory purposes is not simply a mathematical exercise,

despite the quantitative models used by the expert witnesses. As explained in one prominent treatise:

Throughout all of its decisions, the [United States] Supreme Court has formulated no specific rules for determining a fair rate of return, but it has enumerated a number of guidelines. The Court has made it clear that confiscation of property must be avoided, that no one rate can be considered fair at all times and that regulation does not guarantee a fair return. The Court also has consistently stated that a necessary prerequisite for profitable operations is efficient and economical management. Beyond this is a list of several factors the commissions are supposed to consider in making their decisions, but no weights have been assigned.

The relevant economic criteria enunciated by the Court are three: financial integrity, capital attraction and comparable earnings. Stated another way, the rate of return allowed a public utility should be high enough: (1) to maintain the financial integrity of the enterprise, (2) to enable the utility to attract the new capital it needs to serve the public, and (3) to provide a return on common equity that is commensurate with returns on investments in other enterprises of corresponding risk. These three economic criteria are interrelated and have been used widely for many years by regulatory commissions throughout the country in determining the rate of return allowed public utilities.

In reality, the concept of a fair rate of return represents a “zone of reasonableness.” As explained by the Pennsylvania commission:

There is a range of reasonableness within which earnings may properly fluctuate and still be deemed just and reasonable and not excessive or extortionate. It is bounded at one level by investor interest against confiscation and the need for averting any threat to the security for the capital embarked upon the enterprise. At the other level it is bounded by consumer

interest against excessive and unreasonable charges for service.

As long as the allowed return falls within this zone, therefore, it is just and reasonable. . . . It is the task of the commissions to translate these generalizations into quantitative terms.

Charles F. Phillips, Jr., The Regulation of Public Utilities, 3d ed. 1993, pp. 381-82 (Notes omitted.)

2013 DEP Rate Order, pp. 35-36.

Thus, the Commission must exercise its subjective judgment so as to balance two competing rate of return on equity-related factors – the economic conditions facing the Company’s customers and the Company’s need to attract equity financing in order to continue providing safe and reliable service.

The Supreme Court in Cooper V affirmed the 2013 DEC Rate Order, in which this framework was fully articulated. But to the framework we can add additional factors based upon the Supreme Court’s decisions in Cooper III, Cooper IV, and Cooper V. Specifically, the Supreme Court held that nothing in Cooper I requires the Commission to “quantify” the influence of changing economic conditions upon customers (see, e.g., Cooper V, 367 N.C. at 745-46; Cooper IV, 367 N.C. at 650; Cooper III, 367 N.C. at 450), and, indeed, the Supreme Court reiterated that setting the rate of return on equity is a function of the Commission’s subjective judgment: “Given th[e] subjectivity ordinarily inherent in the determination of a proper rate of return on common equity, there are inevitably pertinent factors which are properly taken into account but which cannot be quantified with the kind of specificity here demanded by [the appellant].” Cooper III, 367 N.C. at 450, quoting State ex rel. Utils. Comm’n v. Pub. Staff-North Carolina Utils. Comm’n, 323 NC 481, 490 (1988).

Finally, the Supreme Court discussed with approval the Commission’s reference to and reliance upon expert witness testimony that used econometric models that the Commission had noted “inherently” contained the effects of changing economic circumstances upon customers and also discussed with approval the Commission’s reference to and reliance upon expert witness testimony correlating the North Carolina economy with the national economy. See, e.g., Cooper V, 367 N.C. at 747; Cooper III, 367 N.C. at 451.

It is against this backdrop of overarching principles that the Commission turns to the evidence presented in this case.

B. Application of the Governing Principles to the Rate of Return Decision

1. Evidence from Expert Witnesses on Cost of Equity Capital

Company witness D'Ascendis recommended in his direct testimony a rate of return on equity range of 11.50% to 11.90%. This range was based upon his indicated cost of common equity of 11.50% plus a recommended size adjustment of 0.40%. In his rebuttal testimony, witness D'Ascendis provided an updated analysis including changes in the application of his models and reduced his recommended rate of return on equity to a range of 10.80% to 11.20%.

D'Ascendis Direct Testimony

Witness D'Ascendis' recommendation was based upon his Discounted Cash Flow (DCF) model, his Risk Premium Model (RPM), and his Capital Asset Pricing Model (CAPM), applied to market data of a proxy group of six publicly-traded water companies (Utility Proxy Group). He also applied the DCF, RPM, and CAPM to a proxy group of domestic, non-price regulated companies (Non-Price Regulated Proxy Group) which he described as comparable in total risk to his Utility Proxy Group.

The results derived from witness D'Ascendis' analyses in his direct testimony are as follows:

Summary of D'Ascendis' Common Equity Cost Rate Analyses in Direct Testimony

<u>Utility Proxy Group</u>	
Discounted Cash Flow Model	9.10%
Risk Premium Model	12.12
Capital Asset Pricing Model	11.31
Cost of Equity Models Applied to	
<u>Non-Price Regulated Proxy Group</u>	<u>12.63</u>
Indicated Common Equity	
Cost Rate Before Adjustments	11.50%
Size Adjustment	0.40
Range of Common Equity Cost	
Rates After Adjustments	<u>11.50% - 11.90%</u>

He concluded that a common equity cost rate of 11.50% for CWSNC is indicated before any Company-specific adjustments. He then adjusted upward by 0.40% to reflect CWSNC's smaller relative size as compared with the members of his Utility Proxy Group, resulting in a size-adjusted indicated common equity cost rate of 11.90%.

Witness D'Ascendis testified he used the single-stage constant growth DCF model. He testified his unadjusted dividend yields are based on the proxy companies' dividends as of March 29, 2018, divided by the average of closing market prices for the 60 trading

days ending March 29, 2018.¹⁹ He made an adjustment to the dividend yield because dividends are paid periodically, usually quarterly.

For witness D'Ascendis' DCF growth rate, he testified he used only analysts' five-year forecasts of earning per share (EPS) growth. He testified that the mean result of his application of the single-stage DCF model is 9.12%, the median result is 9.07%, and the average of the two is 9.10% for his Utility Proxy Group.

CWSNC witness D'Ascendis used two risk premium methods. He testified his first method is the Predictive Risk Premium Model (PRPM), while the second method is a RPM using a total market approach. He testified that the inputs to his PRPM are the historical returns on the common shares of each company in the Utility Proxy Group minus the historical monthly yield on long-term U.S. Treasury securities through March 2018. He testified he added the forecasted 30-year U.S. Treasury Bond yield, 3.69% to each company's PRPM-derived equity risk premium to arrive at an indicated cost of common equity. He testified that the mean PRPM indicated common equity cost rate for the Utility Proxy Group is 13.52%, the median is 13.33%, and the average of the two is 13.43%.

Witness D'Ascendis testified that his total market approach RPM adds a prospective public utility bond yield to an average of (1) an equity risk premium that is derived from a beta-adjusted total market equity risk premium, and (2) an equity risk premium based on the S&P Utilities Index. He calculated his adjusted prospective bond yield for the Utility Proxy Group to be 5.00%, and the average equity risk premium to be 5.80% resulting in a risk premium derived common equity of 10.80% for his RPM using his total market approach.

To determine the results of his risk premium method, he testified that he averaged the PRPM result of 13.43% and the RPM results of 10.80% and the indicated cost of equity from his risk premium method was 12.12%.

For his CAPM, witness D'Ascendis testified that he applied both the traditional CAPM and the empirical CAPM (ECAPM) to the companies in his Utility Proxy Group and averaged the results. For his CAPM beta coefficient, he considered two methods of calculation: the average of the beta coefficients of the Utility Proxy Group companies reported by Bloomberg Professional Services, and the average of the beta coefficients of the Utility Proxy Group companies as reported by Value Line resulting in a mean beta of 0.78 and a median beta of 0.74.

Witness D'Ascendis testified that the risk-free rate adopted for both applications of the CAPM is 3.69%. This risk-free rate of 3.69% is based on the average of the *Blue Chip* consensus forecast of the expected yields on 30-year U.S. Treasury bonds for the six quarters ending with the second calendar quarter of 2019, and long-term projections for the years 2019 to 2023 and 2024 to 2028.

¹⁹ See Schedule DWD-3, page 1, column 1.

Witness D'Ascendis stated that he used three sources of data to determine the risk premium in his CAPM: historical, Value Line, and Bloomberg, that when averaged, result in an average total market equity risk premium of 9.12%. He testified that the mean result of his CAPM/ECAPM analyses is 11.25%, the median is 11.37%, and the average of the two is 11.31%.

Witness D'Ascendis also selected 17 domestic non-price regulated companies for his Non-Price Regulated Proxy Group that he believes are comparable in total risk to his Utility Proxy Group. He calculated common equity cost rates using the DCF, RPM, and CAPM for the Non-Price Regulated Proxy Group. His DCF result was 14.15%, his RPM cost rate was 12.46%, and his CAPM/ECAPM cost rate was 11.78%.

Witness D'Ascendis also made a 0.40% equity cost rate adjustment due to CWSNC's small size relative to the Utility Proxy Group. He testified that the Company has greater relative risk than the average company in the Utility Proxy Group because of its smaller size compared with the group, as measured by an estimated market capitalization of common equity for CWSNC (whose common stock is not publicly-traded).

Hinton Direct Testimony

Public Staff witness Hinton recommended a common equity cost rate of 9.20%. He testified that, according to Moody's Bond Survey, yields on long-term "A" rated public utility bonds as of August 2018 were 4.26% and 4.27% for July 2018. Witness Hinton noted that such bonds yielded 4.63% on January 10, 2014 which is the time of filing of the Public Staff and Company Stipulation in Docket No. W-354, Sub 336 that included a 9.75% cost of equity. He further testified that the relative decrease in long-term bond yields since the last rate case is not indicative of an increase in financing costs for utilities; rather, it portends a lowering of financing costs for long-term capital. However, he also testified that there has been an increase in the cost of short-term financing.

Witness Hinton stated that the current lower interest rates and stable inflationary environment of today indicate that borrowers are paying less for the time value of money. He testified that this is significant since utility stocks and utility capital costs are highly interest-rate sensitive relative to most industries. Furthermore, given that investors often view purchases of the common stocks of utilities as substitutes for fixed income investments, the reductions in interest rates observed over the past 10 years or more have paralleled the decreases in investor required rates of return on common equity.

Witness Hinton testified that he generally does not rely on interest rate forecasts. Rather, he considers that relying on current interest rates, especially in relation to yields on long-term bonds, is more appropriate for ratemaking in that, it is reasonable to expect that as investors are pricing bonds, they are based on expectations on future interest rates, inflation rates, etc. He testified that while he has a healthy respect for forecasting, he is aware of the risk of relying on predictions of rising interest rate cases. He presented a case that can be observed in the testimony of Company witness Ahern in the 2013 Aqua NC rate case. In that case, witness Ahern identified several point forecasts of

30-year Treasury Bond yields that were predicted to rise to 4.3% in 2015, 4.7% in 2016, and 5.2% in 2017. He presented a graph of 30-Year US Treasury Bonds yields which showed in 2016 and 2017 the range was approximately 2.25% to 3.10%. Tr. Vol. 7, pp. 136-137.

Witness Hinton testified that he used the DCF model and the RPM to determine the cost of equity for CWSNC. He testified that the DCF model is a method of evaluating the expected cash flows from an investment by giving appropriate consideration to the time value of money. The DCF model is based on the theory that the price of the investment will equal the discounted cash flows of return. The return to an equity investor comes in the form of expected future dividends and price appreciation. He testified that as the new price will again be the sum of the discounted cash flows, price appreciation is ignored and attention is focused on the expected stream of dividends.

Witness Hinton testified that he applied the DCF method to a comparable group of water utilities followed by the Value Line Investment Survey (Value Line). He testified that the standard edition of Value Line covers nine water companies. He excluded Connecticut Water Service, Inc. and the SJW Group because of a merger of the two companies and also excluded Consolidated Water Co. because of its significant overseas operations.

Witness Hinton calculated the dividend yield component of the DCF by using the Value Line estimate of dividends to be declared over the next 12 months divided by the price of the stock as reported in the Value Line Summary and Index sections for each week of the 13-week period June 29, 2018 through September 21, 2018. He testified that a 13-week averaging period tends to smooth out short-term variations in the stock prices. This process resulted in an average dividend yield of 2.1% for his proxy group of water utilities.

To calculate the expected growth rate component of the DCF, Public Staff witness Hinton employed the growth rates of his proxy group in EPS, dividends per share (DPS), and book value per share (BVPS) as reported in Value Line over the past 10 and five years. He also employed the forecasts of the growth rates of his proxy group in EPS, DPS, and BVPS as reported in Value Line. He testified that the historical and forecast growth rates are prepared by analysts of an independent advisory service that is widely available to investors, and should also provide an estimate of investor expectations. He testified that he included both historical known growth rates and forecast growth rates, because it is reasonable to expect that investors consider both sets of data in deriving their expectations.

Witness Hinton incorporated the consensus of various analysts' forecasts of five-year EPS growth-rate projections as reported in Yahoo Finance. He testified that the dividend yields and growth rates for each of the companies and for the average for his comparable proxy group are shown in Exhibit JRH-3.

Witness Hinton concluded based upon his DCF analysis that a reasonable expected dividend yield is 2.1% with an expected growth rate of 6.1% to 7.1%. Thus, he

testified that his DCF analysis produces a cost of common equity for his comparable proxy group of water utilities of 8.20% to 9.20%.

Witness Hinton testified that the equity risk premium method can be defined as the difference between the expected return on a common stock and the expected return on a debt security. The differential between the two rates of return are indicative of the return investors require in order to compensate them for the additional risk involved with an investment in the Company's common stock over an investment in the Company's bonds that involves less risk.

Witness Hinton testified that his method relies on approved returns on common equity for water utility companies from various public utility commissions as reported in a RRA Water Advisory, published by the Regulatory Research Associates, Inc. (RRA), a group within S&P Global Market Intelligence (RRA Water Advisory). In order to estimate the relationship with a representative cost of debt capital, he regressed the average annual allowed equity returns with the average Moody's A-rated yields for Public Utility bonds from 2006 through 2018. His regression analysis, which incorporates years of historical data, is combined with recent monthly yields to provide an estimate of the current cost of common equity.

Witness Hinton testified that the use of allowed returns as the basis for the expected equity return has two strengths over other approaches that involve various models that estimate the expected equity return on common stocks and subtracting a representative cost of debt. He stated that one strength of his approach is that authorized returns on equity are generally arrived at through lengthy investigations by various parties with opposing views on the rate of return required by investors. He testified that it is reasonable to conclude that the approved allowed returns are good estimates of the cost of equity.

Witness Hinton testified that the summary data of risk premiums shown on his Exhibit JRH-4, page 1 of 2, indicates that the average risk premium is 4.95% with a maximum premium of 5.78% and minimum premium of 3.73%, which when combined with the last six months of Moody's A-rated utility bond yields produces yields with an average cost of equity of 9.11%, a maximum cost of equity of 9.94%, and a minimum cost of equity of 7.89%. He performed a statistical regression analysis as shown on Exhibit JRH-4, page 2 of 2 in order to quantify the relationship of allowed equity returns and bond costs. He testified that by applying this relationship to the current utility bond cost of 4.22%, resulted in a current estimate of the cost of equity of 9.70% which reflects a risk premium of 5.48%.

Witness Hinton concluded that based on all of the results of his DCF model that indicate a cost of equity from 8.20% to 9.20% with a central point estimate of 8.70%, and the risk premium model that indicates a cost of equity of 9.70%, he determined that the investor required rate of return on equity for CWSNC is between 8.70% and 9.70%. He concluded that 9.20% is his single best estimate of the Company's cost of common equity.

Witness Hinton testified as to the reasonableness of his recommended return, that he considered the pre-tax interest coverage ratio produced by his cost estimates for the cost of equity. He testified that based on his recommended capital structure, cost of debt, and equity return of 9.20%, the pre-tax interest coverage ratio is approximately 3.2 times. He testified that this pre-tax interest coverage and a funds flow to debt ratio of 26% should allow CWSNC to qualify for a single "A" bond rating.

Witness Hinton testified that his recommended return on common equity takes into consideration the impact of the water and sewer system improvement charges pursuant to N.C.G.S. § 62-113.12 on CWSNC's financial risk. He testified that these improvement charges are seen by debt and equity investors as supportive regulation that mitigates business risk. Witness Hinton stated that he considers this mechanism to be noteworthy and is supportive of his 9.20% return on equity recommendation.

Witness Hinton testified that it is not appropriate to add a risk premium to the cost of equity due to the size of the company. He testified that from a regulatory policy perspective, ratepayers should not be required to pay higher rates because they are located in the franchise area of a utility of a size which is arbitrarily considered to be small. He further testified that if such adjustments were routinely allowed, an incentive would exist for large existing utilities to form subsidiaries when merging or even to split-up into subsidiaries to obtain higher allowed returns. He further testified that CWSNC operates in a franchise environment that insulates the Company from competition and it operates with procedures in place that allow for rate adjustments for eligible capital improvements, cost increases, and other unusual circumstances that impact its earnings.

D'Ascendis Rebuttal Testimony

In his rebuttal testimony, CWSNC witness D'Ascendis disagreed with witness Hinton that a 9.20% common equity rate is appropriate for CWSNC and stated that the Public Staff's recommendation would not be sufficient to maintain the integrity of presently invested capital and permit the attraction of needed new capital at a reasonable cost in competition with other firms of comparable risk.

Witness D'Ascendis also disagreed with witness Hinton's exclusion of the CAPM and comparable earnings model (CEM), both of which witness Hinton used as a check on his DCF and RPM in a previous proceeding involving Aqua NC (Docket No. W-218, Sub 319). According to witness D'Ascendis, both the academic literature and the Commission support the use of multiple models in determining a return on common equity. Witness D'Ascendis then attempted to supplement what would have been witness Hinton's analysis with a CAPM and CEM, which indicated results of 10.93% and 12.49%, respectively.

Witness D'Ascendis objected to witness Hinton's DCF analysis and he also took issue with witness Hinton's use of historical growth rates in EPS, DPS, and BVPS as well as his use of projected growth rates in DPS and BVPS. He asserted that it is appropriate

to rely exclusively upon security analysts' forecasts of EPS growth rates in a DCF analysis for multiple reasons.

First, he believed that individual investors who could potentially invest in utility stocks generally have more limited informational resources than institutional investors and are therefore likely to place greater significance on the opinions and projections expressed by financial information services such as Value Line, Reuters, Zacks, and Yahoo! Finance, which are all easily accessible and/or available on the Internet and through public libraries. Witness D'Ascendis testified that security analysts have significant insight into the dynamics of the industries and individual companies they analyze, as well as company's abilities to effectively manage the effects of a changing industry, economic, or market environment. Second, over the long run, there can be no growth in DPS without growth in EPS. Security analysts' earnings expectations have a more significant, but not exclusive, influence upon market prices than dividend expectations, providing a better matching between investors' market price appreciation expectation and the growth component of the DCF model. Third, there is academic support for the superiority of analysts' forecasts of growth in EPS as the growth component in the DCF model. Witness D'Ascendis asserted that witness Hinton should have relied exclusively upon the Value Line and Yahoo! Finance EPS forecasts.

Witness D'Ascendis also disagreed with witness Hinton's application of his RPM because of his use of annual average authorized returns on equity for water companies instead of using individual cases and his use of current interest rates instead of projected interest rates. According to witness D'Ascendis, using current or historical measures, such as interest rates, are inappropriate for cost of capital and ratemaking purposes because they are both prospective in nature.

In addition, witness D'Ascendis disagreed with witness Hinton on risk due to size. Witness D'Ascendis emphasized that because it is the rate base of a specific regulated jurisdictional utility to which a regulatory allowed rate of return will be applied, it is the unique risk of that rate base which needs to be reflected in the allowed rate of return, including any additional risk due to small size. In addition, the corporate structure of the owners of that rate base is irrelevant as it is the use of the funds which gives rise to the investment risk, not the source of those funds. It matters not whether the rate base is held privately, by a municipality, by a large holding company, by a small holding company, by an equity investment fund, multiple shareholders, or a single shareholder. Only the riskiness of the particular rate base is relevant. The size of any given jurisdictional rate base is not arbitrary, it is what it is, and it is imminently relevant relative to the size of any publicly-traded utilities from whose market data a common equity cost rate recommendation is derived. Therefore, there is no incentive for "large existing utilities to form subsidiaries when merging or even to split-up into subsidiaries" because it is the risk of the regulated rate base which is relevant.

Witness D'Ascendis testified that witness Hinton's corrected cost of common equity analysis results in a common equity cost rate of 10.62% for witness Hinton's

comparable group of water utilities before adjustment for CWSNC's increased risk due to size relative to the proxy group.

In his rebuttal testimony, Company witness D'Ascendis also updated his analysis and made certain changes in the application of the models he used to determine the cost of equity in his direct testimony. As a result, he revised his recommended rate of return on equity range to be 10.80% to 11.20%. This range was based upon his indicated cost of common equity of 10.80% plus a recommended size adjustment of 0.40%.

Witness D'Ascendis' rebuttal testimony also updated his original DCF, RPM, and CAPM models with relation to his Utility Proxy Group, as well as his Non-Price Regulated Proxy Group.

The results derived from witness D'Ascendis' analyses in his rebuttal testimony are as follows:

Summary of D'Ascendis' Common Equity Cost Rate Analyses
in Rebuttal Testimony

<u>Utility Proxy Group</u>	
Discounted Cash Flow Model	9.15%
Risk Premium Model	10.73
Capital Asset Pricing Model	10.93
Cost of Equity Models Applied to	
<u>Non-Price Regulated Proxy Group</u>	<u>12.43</u>
Indicated Common Equity	
Cost Rate Before Adjustments	10.80%
Size Adjustment	0.40
Range of Common Equity Cost	
Rates After Adjustments	<u>10.80% - 11.20%</u>

He concluded that a common equity cost rate of 10.80% for CWSNC is indicated before any Company-specific adjustments. He then adjusted upward by 0.40% to reflect CWSNC's smaller relative size as compared with the members of his Utility Proxy Group, resulting in a size-adjusted indicated common equity cost rate of 11.20%.

Witness D'Ascendis testified that his rebuttal testimony provided an updated analysis as of September 28, 2018. In addition, he testified that his rebuttal testimony differed from his direct testimony in the application of his models, which he had changed in May 2018. Witness D'Ascendis listed such changes as follows:

1. In the Predictive Risk Premium Model (PRPM) applicable to the proxy group companies, instead of averaging the spot and long-term average predicted variances, I selected the minimum value for each company;

2. For the beta adjusted equity risk premium (ERP), instead of averaging the ERPs by source {i.e. Ibbotson, Value Line, and Bloomberg), I gave all six ERP measures equal weight;

3. For the Standard & Poor's (S&P) utility-specific ERP, instead of averaging the ERPs by source, I gave all five ERP measures equal weight; and

4. For the market risk premium (MRP) used in the Capital Asset Pricing Model (CAPM), instead of averaging the MRPs by source. I gave all six MRP measures equal weight.

Tr. Vol. 7, p. 184.

D'Ascendis Cross-Examination

On cross-examination, witness D'Ascendis testified he was aware that CWSNC has approximately 50,000 customers in North Carolina and that CWSNC is the second largest regulated water and wastewater company in North Carolina. Witness D'Ascendis further testified on cross-examination that CWSNC obtains all of its debt and all of its equity from Utilities, Inc., and in this general rate case both CWSNC and the Public Staff are using Utilities, Inc.'s capital structure and cost of debt.

Witness D'Ascendis testified that Public Staff D'Ascendis Direct Cross-Examination Exhibit 1 lists the market capitalizations for four of the companies in his Utility Proxy Group as shown on D'Ascendis Direct Exhibit No. 1, Schedule DWD-8, page 2, column 6. He testified that this cross-examination exhibit correctly listed the Utilities, Inc. book equity on June 30, 2018, at \$252.2 million and when the Utility Proxy Group market to book ratio of 300.5 was applied to Utilities Inc.'s \$252.2 million book equity, the resulting Utilities, Inc. market capitalization is \$758 million. He testified Utilities, Inc.'s \$758 million market capitalization was larger than two of his Utility Proxy Group companies, Middlesex Water Company at \$600 million and York Water Company at \$399 million.

Witness D'Ascendis also testified that he was aware that as testified to by Public Staff witness Hinton, in the 1990s the Commission specifically rejected a size adjustment for CWS Systems, an affiliate of CWSNC.

CWSNC witness D'Ascendis testified on cross-examination that Public Staff D'Ascendis Cross-Examination Exhibit 2 was his response to a Public Staff data request showing water and wastewater utility general rate cases in which he testified recommending a return on equity range or a specific return on equity. He testified that in the Emporium Water case in Pennsylvania, which was a fully litigated case, he recommended an 11.05% return on equity and the Commission approved a 10.0% return on equity in January 2015, being 105 basis points below his recommendation.

He testified that in the Carolina Water Service, Inc. general rate case in South Carolina with decision on December 22, 2015, he recommended a return on equity range of 10.0% to 10.50% which had a mid-point of 10.25%, and the Commission approved a return on equity of 9.34% which was 91 basis points below his mid-point. He further testified in the Aqua Illinois, Inc. general rate case with decision on March 2, 2018, he recommended a specific return on equity of 10.85%, and the Commission approved a return on equity of 9.60%, which was 125 basis points below his recommendation.

Witness D'Ascendis testified that in the Middlesex Water Company general rate case in New Jersey with decision on March 6, 2018, he recommended a specific return on equity of 10.70% and the Commission approved a return on equity of 9.60%, which was 110 basis points below his recommendation. Witness D'Ascendis testified that in the current Aqua Virginia general rate case, in which he recommended a specific return on equity of 10.60%, Aqua Virginia recently agreed in a settlement to a 9.25% return on equity, which the Hearing Examiner accepted.

Witness D'Ascendis testified that most of the authorized returns on equity on Public Staff D'Ascendis Direct Cross-Examination Exhibit 2 were the result of settlements which the Commissions approved. He testified for the nine cases with approved returns on equity, the average approved return on equity was 142 basis points below his recommendation.

He testified that his most recent litigated and most relevant case was for Carolina Water Service, Inc. in South Carolina where on May 26, 2018, the Commission approved a return on equity of 10.50%, which was within his range of 10.45% to 10.95%.

CWSNC witness D'Ascendis testified that Public Staff Direct Cross-Examination Exhibit 3 is a RRA Water Advisory, S&P Global, dated July 27, 2018, which lists water utility rate case decisions in the years 2014 through 2017, and through June 30, 2018. He testified that in 2018 through June 30, 2018, the average approved return on equity was 9.41%. He testified that if for any reason the South Carolina 10.5% return on equity decision for Carolina Water Service was dropped, the 2018 average would be 9.23% return on equity. He testified that the four 2018 California return on equity decisions have fully forecasted test years, full decoupling, and three year rate plans. He testified that these California decisions dated March 22, 2018, were all fully litigated, and the approved returns on equity were: California America Water — 9.20%, California Water Service — 9.20%, Golden State Water Co. — 8.90%, and San Jose Water Co. — 8.90%. He testified that more relevant than these cases was the recent Duke Energy Carolinas case Docket No. E-7, Sub 1146 with a settlement approved 9.90% return on equity.

CWSNC witness D'Ascendis further testified that in 2014 where the RRA Water Advisory reported 13 water utility rate case decisions with approved returns on equity, none were 10% or above. He testified that in 2015 where the RRA Water Advisory reported 11 water utility decisions with approved returns on equity, only two were 10.0% or above, being Maryland American Water at 10.0% and Kona Water in Hawaii with 10.10% return on equity. He testified that in 2016 where the RRA Water Advisory reported nine water utility rate case decisions with approved returns on equity, only Hawaii Water

Service at 10.10% return on equity, had an approved return on equity at 10.0% or above. He testified that in 2017 where the RRA Water Advisory reported nine water utility rate case decisions with approved returns on equity averaging 9.56%, only Utilities, Inc. of Florida with a formula-based return on equity of 10.40% and a 41.92% approved common equity capital structure, had an approved return on equity at 10.0% or above.

CWSNC witness D'Ascendis further testified on cross-examination as shown on Public Staff D'Ascendis Direct Cross-Examination Exhibit 5, that three of the four California water utilities with the litigated decisions dated March 22, 2018, being California American Water with a 9.20% approved return on equity, California Water Service with a 9.20% approved return on equity, and Golden State Water with an approved 8.90% return on equity, being a subsidiary of American States Water, are companies included in his Utility Proxy Group. CWSNC witness D'Ascendis testified that Public Staff D'Ascendis Cross-Examination Exhibit 5 contained the 2018 return on equity decisions for five of the companies in his Utility Proxy Group and the average approved return on equity was 9.30%.

On cross-examination witness D'Ascendis further testified that there was a backlash in the investment community relating to the four California March 22, 2018, return on equity decisions. He testified that MSN Money is a reliable source for the market prices on Public Staff D'Ascendis Cross-Examination Exhibit 4. This cross-examination exhibit listed the market close prices on March 22, 2018, and October 15, 2018, for American Waterworks, American States Water, California Water Service, and San Jose Water. The respective market price percentage increases between March 22, 2018, and October 15, 2018 were: American Waterworks — 9.80%, American States Water — 8.40%, California Water Service — 7.30%, and San Jose Water — 9.50%. He testified that in comparison the S&P 500 from March 22, 2018 to October 15, 2018 had increased 4.10%, being less than one half the market price gains of the four water companies.

2. Evidence of Impact of Changing Economic Conditions on Customers

As noted above, utility rates must be set within the constitutional constraints made clear by the United States Supreme Court in Bluefield and Hope. To fix rates that do not allow a utility to recover its costs, including the cost of equity capital, would be an unconstitutional taking. In assessing the impact of changing economic conditions on customers in setting a return on equity, the Commission must nonetheless provide the public utility with the opportunity, by sound management, to (1) produce a fair profit for its shareholders, in view of current economic conditions, (2) maintain its facilities and service, and (3) compete in the marketplace for capital. State ex rel. Utils. Comm'n v. General Telephone Co. of the Southeast, 281 N.C. 318, 370, 189 S.E.2d 705 (1972). As the Supreme Court held in that case, these factors constitute “the test of a fair rate of return” in Bluefield and Hope. Id.

a. Discussion and Conclusions Regarding Evidence Introduced During the Evidentiary Hearing

In this case, all parties had the opportunity to present the Commission with evidence concerning changing economic conditions as they affect customers. The testimony of witnesses D'Ascendis and Hinton, which the Commission finds entitled to substantial weight, addresses changing economic conditions.

As to the impact of changing economic conditions on CWSNC's customers, Public Staff witness Hinton testified that he reviewed information on the economic conditions in the areas served by CWSNC, specifically, the 2014, 2015, and 2016 data on total personal income from the Bureau of Economic Analysis (BEA) and the Development Tier Designations published by the North Carolina Department of Commerce for the counties in which CWSNC's systems are located. The BEA data indicates that from 2014 to 2016, total personal income weighted by the number of water customers by county grew at a compound annual growth rate (CAGR) of 3.0%.

Witness Hinton testified that the North Carolina Department of Commerce annually ranks the State's 100 counties based on economic well-being and assigns each a Tier designation. The most distressed counties are rated a "1" and the most prosperous counties are rated a "3". The rankings examine several economic measures such as, household income, poverty rates, unemployment rates, population growth, and per capita property tax base. For 2017, the average Tier ranking that has been weighted by the number of water customers by county is 2.6. He testified that both these economic measures indicate that there has been improvement in the economic conditions for CWSNC's service area relative to the three previous CWSNC rate increases in Docket Nos. W-354, Subs 356, 344, and 336 that were approved in 2017, 2015, and 2014, respectively.

CWSNC witness D'Ascendis testified on economic conditions in North Carolina that he reviewed. He testified that he reviewed: unemployment rates from the United States, North Carolina, and the counties comprising CWSNC's service territory; the growth in Gross Domestic [sic] Product (GDP) in both the United States and North Carolina; median household income in the United States and in North Carolina; and national income and consumption trends.

He testified that the rate of unemployment has fallen substantially in North Carolina and the United States since late 2009 and early 2010, when the rates peaked at 10.00% and 12.00%, respectively. He testified that by February 2018, the unemployment rate had fallen to less than one-half of those peak levels: 4.10% nationally; and 4.60% in North Carolina.

He testified that he was also able to review (seasonally unadjusted) unemployment rates in the counties served by CWSNC. At its peak, which occurred in late 2009 into early 2010, the unemployment rate in those counties reached 12.58% (58 basis points higher than the statewide average); by February 2018 it had fallen to 4.87% (27 basis points higher than the statewide average).

Witness D'Ascendis testified that for real GDP growth, there also has been a relatively strong correlation between North Carolina and the national economy (approximately 69%). Since the financial crisis, the national rate of growth at times (during portions of 2010 and 2012) outpaced North Carolina. He testified that since the third quarter of 2015, however, North Carolina has consistently exceeded the national growth rate.

Witness D'Ascendis testified that as to median household income, the correlation between North Carolina and the United States is relatively strong (approximately 88% from 2005 through 2015). Since 2009 (that is, the years subsequent to the financial crisis), median household income in North Carolina has grown at a faster annual rate than the national median income (3.62% vs. 2.47%).

Witness D'Ascendis noted that in the Commission's Order on Remand in Docket No. E-22, Sub 479, the Commission observed that economic conditions in North Carolina were highly correlated with national conditions, such that they were reflected in the analyses used to determine the cost of common equity. He testified that those relationships still hold: Economic conditions in North Carolina continue to improve from the recession following the 2008/2009 financial crisis, and they continue to be strongly correlated to conditions in the United States generally. He testified unemployment, at both the State and county level, continues to fall and remains highly correlated with national rates of unemployment; real GDP recently has grown faster in North Carolina than the national rate of growth, although the two remain fairly well correlated; and median household income also has grown faster in North Carolina than the rest of the country, and remains strongly correlated with national levels.

b. Evidence Introduced During Public Hearings and Further Conclusions

The Commission's review also includes consideration of the evidence presented during the public hearings by public witnesses, almost all of whom presently are customers of CWSNC. The hearings provided 35 witnesses the opportunity to be heard regarding their respective positions on CWSNC's application to increase rates. The Commission held six evening hearings throughout CWSNC's North Carolina service territory to receive public testimony. The testimony presented at the hearings illustrates the difficult economic conditions facing many North Carolina citizens. The Commission accepts as credible, probative, and entitled to substantial weight the testimony of the public witnesses.

c. Commission's Decision Setting Rate of Return and Approving Rate Increase/ Takes Into Account and Ameliorates the Impact of Current Economic Conditions on Customers

As noted above, the Commission's duty under N.C.G.S. § 62-133 is to set rates as low as reasonably possible without impairing the Company's ability to raise the capital needed to provide reliable water and wastewater service and recover its cost of providing

service. The Commission is especially mindful of this duty in light of the evidence in this case concerning the impact of current economic conditions on customers.

Chapter 62 of the North Carolina General Statutes in general, and N.C.G.S. § 62-133 in particular, set forth the formula that the Commission must employ in establishing rates. The rate of return on cost of property element of the formula in N.C.G.S. § 62-133(b)(4) is a significant, but not independent one. Each element of the formula must be analyzed to determine the utility's cost of service and revenue requirement. The Commission must make many subjective decisions with respect to each element in the formula in establishing the rates it approves in a general rate case. The Commission must approve accounting and pro forma adjustments to comply with N.C.G.S. § 62-133(b)(3). The Commission must approve depreciation rates pursuant to N.C.G.S. § 62-133(b)(1). The decisions the Commission makes in each of these subjective areas have multiple and varied impacts on the Decisions it makes elsewhere in establishing rates, such as its decision on rate of return on equity.

Economic conditions existing during the test year, at the time of the public hearings, and at the date of this Commission Order affect not only the ability of CWSNC's consumers to pay water and wastewater utility rates, but also the ability of CWSNC to earn the authorized rate of return during the period rates will be in effect. Pursuant to N.C.G.S. § 62-133, rates in North Carolina are set based on a modified historic test period.²⁰ A component of cost of service as important as return on investment is test year revenues.²¹ The higher the level of test year revenues the lower the need for a rate increase, all else remaining equal. Historically, and in this case, test year revenues are established through resort to regression analysis, using historic rates of revenue growth or decline to determine end of test year revenues.

When costs and expenses grow at a faster pace than revenues during the period when rates will be in effect, the utility will experience a decline in its realized rate of return on investment to a level below its authorized rate of return. Differences exist between the authorized return and the earned or realized return. Components of the cost of service must be paid from the rates the utility charges before the equity investors are paid their return on equity. Operating and administrative expenses must be paid, depreciation must be funded, taxes must be paid, and the utility must pay interest on the debt it incurs. To the extent revenues are insufficient to cover the entire cost of service, the shortfall reduces the return to the equity investor, last in line to be paid. When this occurs, the utility's realized or earned return is less than the authorized return.

This phenomenon, caused by incurrence of higher costs prior to the implementation of new rates to recover those higher costs, is commonly referred to as regulatory lag. Just as the Commission confronts constitutional and statutory restrictions in making discrete decrements to rate of return on equity to mitigate the impact of rates on consumers, it also confronts statutory constraints on its ability to adjust test year

²⁰ N.C.G.S. § 62-133(c).

²¹ N.C.G.S. § 62-133(b)(3).

revenues to mitigate for regulatory lag. However, the WSIC and SSIC legislation N.C.G.S. § 62-133.12 and Commission Rules R7-39 and R10-26, have mitigated the regulatory lag for CWSNC. The Commission, in its expert experience and judgment and based on evidence in the record, is aware of the effects of regulatory lag in the existing economic environment. However, just as the Commission is constrained to address difficult economic times on customers' ability to pay for service by establishing a lower rate of return on equity in isolation from the many subjective determinations that must be made in a general rate case, it likewise does not address the effect of regulatory lag on the Company by establishing a higher rate of return on equity. Instead, in setting the rate of return, the Commission considers both of these negative impacts in its ultimate decision fixing CWSNC's rates. The Commission keeps all factors affected by current economic conditions in mind in the many subjective decisions it makes in establishing rates. In doing so in the case at hand, the Commission is approving a 9.75% rate of return on equity in the context of weighing and balancing numerous factors and making many subjective decisions. When these decisions are viewed as a whole, including the decision to establish the rate of return on equity at 9.75%, the Commission's overall decision fixing rates in this general rate case results in lower rates to consumers in the existing economic environment.

Consumers pay rates, a charge in dollars per 1,000 gallons for the water they consume and for the metered wastewater that is treated (or a monthly flat rate for certain residential wastewater customers). Investors are compensated by earning a return on the capital they invest in the business. Consumers do not pay a rate of return on equity.

All of the scores of adjustments the Commission approves reduce the revenues to be recovered from ratepayers and the return to be paid to equity investors. Some adjustments reduce the authorized rate of return on investment financed by equity investors. The adjustments are made solely to reduce rates and provide rate stability to consumers (and return to equity investors) to recognize the difficulty for consumers to pay in the current economic environment. While the equity investor's cost was calculated by resort to a rate of return on equity of 9.75% instead of within a range of 10.80% to 11.20% as proposed by the Company, this is only one approved adjustment that reduced ratepayer responsibility and equity investor reward. Many other adjustments reduced the dollars the investors actually have the opportunity to receive. Therefore, nearly all of these other adjustments reduce ratepayer responsibility and equity investor returns in compliance with the Commission's responsibility to establish rates as low as reasonably permissible without transgressing constitutional constraints.

For example, to the extent the Commission makes downward adjustments to rate base, or disallows test year expenses, or increases test year revenues, or reduces the equity capital structure component, the Commission reduces the rates consumers pay during the future period when rates will be in effect. Because the utility's investors' compensation for the provision of service to consumers takes the form of return on investment, downward adjustments to rate base or disallowances of test year expenses or increases to test year revenues, or reduction in the equity capital structure component,

reduce investors' return on investment irrespective of its determination of rate of return on equity.

The rate base, expenses, and revenue adjustments are instances where the Commission makes decisions in each general rate case, including the present case, that influence the Commission's determination on rate of return on equity and cost of service and the revenue requirement. The Commission always endeavors to comply with the North Carolina Supreme Court's requirements that it "fix rates as low as may be reasonably consistent" with U.S. Constitutional requirements irrespective of economic conditions in which ratepayers find themselves. While compliance with these requirements may have been implicit and, the Commission reasonably assumed, self-evident as shown above, the Commission makes them explicit in this case to comply with the Supreme Court requirements of Cooper I.

Based on the changing economic conditions and their effects on CWSNC's customers, the Commission recognizes the financial difficulty that the increase in CWSNC's rates will create for some of CWSNC's customers, especially low-income customers. As shown by the evidence, relatively small changes in the rate of return on equity have a substantial impact on a utility's base rates. Therefore, the Commission has carefully considered the changing economic conditions and their effects on CWSNC's customers in reaching its decision regarding CWSNC's approved rate of return on equity. The Commission also recognizes that the Company is investing significant sums in system improvements to serve its customers, thus requiring the Company to maintain its creditworthiness in order to compete for large sums of capital on reasonable terms. The Commission must weigh the impact of changing economic conditions on CWSNC's customers against the benefits that those customers derive from the Company's ability to provide safe, adequate, and reliable water and wastewater service. Safe, adequate, and reliable water and wastewater service is essential to the well-being of CWSNC's customers.

The Commission finds that these investments by the Company provide significant benefits to CWSNC's customers. The Commission concludes that the return on equity approved by the Commission in this proceeding appropriately balances the benefits received by CWSNC's customers from CWSNC's provision of safe, adequate, and reliable water and wastewater service with the difficulties that some of CWSNC's customers will experience in paying CWSNC's increased rates.

The Commission in every case seeks to comply with the North Carolina Supreme Court mandate that the Commission establish rates as low as possible within constitutional limits. The adjustments the Commission approves in this case comply with that mandate. Nearly all of them reduced the requested return on equity and benefit consumers' ability to pay their bills in this economic environment.

Summary and Conclusions on the Rate of Return on Equity

The Commission has carefully evaluated the return on equity testimony of CWSNC witness D'Ascendis and Public Staff witness Hinton. The results of each of the models or methods used by these two witnesses to derive the return on equity that each witness recommends is shown below:

	<u>D'Ascendis</u>	<u>Hinton</u>
<u>Utility Proxy Group</u>		
DCF	9.15%	8.70%
Risk Premium	10.73%	9.70%
PRPM	10.90%	
Total Market RPM	10.56%	
CAPM	10.93%	-----
Traditional CAPM	10.67%	
ECAPM	11.18%	
<u>Non-Price Regulated Proxy Group</u>		
DCF	12.43%	-----
Risk Premium	13.79%	
CAPM	12.32%	
	11.52%	
Indicated Return on Equity Before Adjustment	10.80%	9.20%
Size Adjustment	0.40%	-----
Recommended Return on Equity	10.8-11.2%	9.20%

The range of these results is 8.70% to 12.43%. Underlying the low result of 8.70%, is a range of 8.20% to 9.20%, according to witness Hinton's testimony concerning his application of the DCF. Similarly, underlying the high result of 12.43% is a range of 11.52% (CAPM) to 13.79% (DCF), according to witness D'Ascendis' testimony concerning the cost of equity models applied to his Non-Price Regulated Proxy Group. Such a wide range of estimates by expert witnesses is not atypical in proceedings before the Commission with respect to the return on equity issue. Neither is the seemingly endless debate and habitual differences in judgment among expert witnesses on the virtues of one model or method versus another and how to best determine and measure the required inputs of each model in representing the interest of their intervening party. Nonetheless, the Commission is uniquely situated, qualified, and required to use its impartial judgment to determine the return on equity based on the testimony and evidence in this proceeding in accordance with the legal guidelines discussed above.

In so doing, the Commission finds that the testimony of Company witness D'Ascendis regarding the DCF (9.15%), traditional CAPM (10.67%), and total market RPM (10.56%) analyses of his Utility Proxy Group and the DCF (8.70%) and risk premium

(9.70%) analysis testimony of Public Staff witness Hinton are credible, probative, and are entitled to substantial weight as set forth below.

Company witness D'Ascendis, noting that CWSNC is not publicly-traded, first established a group of six relatively comparable risk water companies that are publicly-traded (Utility Proxy Group). He testified that use of relatively comparable risk companies as proxies is consistent with principles of fair rate of return established in the Hope and Bluefield cases, which are recognized as the primary standards for the establishment of a fair return for a regulated public utility. He then applied the DCF, the CAPM, and the risk premium models to the market data of the Utility Proxy Group. Witness D'Ascendis' DCF model indicated a cost of equity of 9.15%, his traditional CAPM model indicated a cost of equity of 10.67%, and his total market RPM model indicated a cost of equity of 10.56%.

Witness Hinton applied a risk premium analysis by performing a regression analysis using the allowed returns on common equity for water utilities from various public utility commissions, as reported in an RRA Water Advisory, with the average Moody's A-rated bond yields for public utility bonds from 2006 through 2018. The results of the regression analysis were combined with recent monthly yields to provide the current cost of equity. According to witness Hinton, the use of allowed returns as the basis for the expected equity return has strengths over other (risk premium) approaches that estimate the expected return on equity and subtract a representative cost of debt. He testified that one strength of his approach is that authorized returns on equity are generally arrived at through lengthy investigations by various parties with opposing views on the rate of return required by investors. Thus, it is reasonable to conclude that the approved returns are good estimates for the cost of equity. Witness Hinton testified that applying the significant statistical relationship of the allowed equity returns and bond yields from the regression analysis and adding current bond cost of 4.22% resulted in a current estimate of the cost of equity of 9.70%.

Witness Hinton also applied the DCF model to a proxy risk group of publicly-traded water utilities. To determine the expected growth rate component in his application of the DCF, witness Hinton testified that he employed both historical and forecasted growth rates of earnings per share (EPS), book value per share (BVPS), and dividends per share (DPS). He concluded that an expected growth rate of 6.10% to 7.10% should be combined with a dividend yield of 2.10% which produced his cost of equity estimate of 8.20% to 9.20% for his comparable risk group based on his DCF analysis, with a specific cost of equity estimate of 8.70%.

The average of witness D'Ascendis' Utility Proxy Group DCF result of 9.15%, traditional CAPM result of 10.67%, total market RPM result of 10.56%, witness Hinton's DCF result of 8.70%, and RPM of 9.70% is 9.75%. The Commission approved return on equity of 9.75% is thus supported by the average of the results of the above-listed cost of equity models which the Commission finds are entitled to substantial weight based on the record in this proceeding.

Witness D'Ascendis used two risk premium methods to estimate the cost of equity to CWSNC. He testified that his first method is the PRPM and the second method is a RPM using a total market approach. In his PRPM, he employed the Eviews[®] statistical software applied to the historical returns on the common shares of each company in his Utility Proxy Group minus the historical monthly yields on long-term U.S. Treasury securities through March 2018 to arrive at a predicted annual equity risk premium. He then added the forecasted 30-year U.S. Treasury yield to each company's PRPM derived equity risk premium. Using this approach, he calculated a cost of equity estimate of 10.90%. In his total market approach RPM, he added a prospective public utility bond yield to an average of (1) an equity risk premium that is derived from a beta-adjusted total market equity risk premium, and (2) an equity risk premium based on the S&P Utilities Index. His RPM result produced a rate of return estimate of 10.56%. Averaging his PRPM result of 10.90% and his total market approach RPM, he determined that the cost of equity is 10.73% using his risk premium methods.

The Commission gives little weight to witness D'Ascendis' PRPM result of 10.90%. This result is considerably lower than his original PRPM result of 13.43%, highlighting the sensitivity of this model to changes in the way it is applied. Further, the Commission is skeptical that investor expectations are influenced by a method analyzing economic time series with time-varying volatility using the statistical software employed by witness D'Ascendis.

Witness D'Ascendis also used two CAPM methods to estimate the cost of equity to CWSNC. He testified that his first method is the traditional CAPM, and the second method is the empirical CAPM approach. The traditional CAPM method adds a risk-free rate to the product of a company specific beta and a market risk premium for each company in the Utility Proxy Group. This approach yields a cost of equity estimate of 10.67%. Witness D'Ascendis' empirical CAPM approach, which assumes a Security Market Line that is less steep than that described by the CAPM formula, produced a cost of equity estimate of 11.18%.

The Commission gives little weight to witness D'Ascendis' ECAPM result of 11.18%. The Commission concludes that, in this instance, witness D'Ascendis' testimony fails to demonstrate how the ECAPM approach is superior to the CAPM approach which is widely accepted by the investment community.

In addition to estimating the cost of equity for his Utility Proxy Group of publicly-traded water utilities, witness D'Ascendis attempted to estimate the cost of equity for another proxy group consisting of 17 domestic, non-price regulated companies. In order to select a proxy group of domestic, non-price regulated companies similar in risk to the Utility Proxy Group, he testified that he relied on the beta coefficients and related statistics derived from Value Line regression analyses of weekly market prices over the last five years. After selecting the 17 unregulated companies, he applied the DCF, RPM, and CAPM in the identical manner used for his Utility Proxy Group, with certain limited expectations. The results of the DCF, RPM, and CAPM applied to the non-price regulated proxy group are 13.79%, 12.32%, and 11.52%, respectively. The Commission concludes

that these results are unreasonably high. Each of these results are higher than witness D'Ascendis' estimates of the cost of equity for his own Utility Proxy Group and deserve no weight, particularly with respect to the DCF. The Commission further concludes that given the difference in these results, the risk of the two groups is not equal and the Utility Proxy Group is more reliable as a proxy for the investment risk of common equity in CWSNC.

After determining that the indicated cost of equity from the DCF, CAPM, and risk premium methods applied to both of his proxy groups equals 10.80%, witness D'Ascendis then adjusted the indicated cost of equity upward by 0.40% to reflect CWSNC's smaller size compared to companies in his Utility Proxy Group. He testified that the size of the company is a significant element of business risk for which investors expect to be compensated through higher returns. Witness D'Ascendis calculated his size adjustment as described in his prefiled direct testimony and stated that even though a 4.61% upward size adjustment is indicated, he applies a 0.40% size premium to CWSNC's indicated common equity cost rate. Witness Hinton testified that he does not believe it is appropriate to add a risk premium to the cost of equity of CWSNC due to size for several reasons. First, from a regulatory policy perspective, witness Hinton stated that ratepayers should not be required to pay higher rates because they are located in the franchise area of a utility which is arbitrarily considered to be small. Further, if such adjustments were routinely allowed, an incentive would exist for large utilities to form subsidiaries or split-up subsidiaries to obtain higher returns. In addition, he noted that CWSNC operates in a franchise environment that insulates the Company from competition with procedures in place for rate adjustments for circumstances that impact its earnings. Finally, while witness Hinton stated that while there are studies that address how the small size of a company relates to higher returns, he is aware of only one study that focuses on the size of regulated utilities and risk and that study concluded that utility stocks do not exhibit a significant size premium. In rebuttal, witness D'Ascendis maintained that a small size adjustment was necessary based on the results of studies he cited and discussed and contended that the study concerning size premiums for utilities discussed by witness Hinton was flawed.

Based upon the foregoing and the entire record in this proceeding, the Commission concludes that a size adjustment of 0.40% is not warranted and should not be approved. The Commission determines there is insufficient evidence to authorize an adjustment to the approved rate of return on equity in this case. The record simply does not indicate the extent to which CWSNC's size alone justifies added risk. While a small water/wastewater utility might face greater risk than a publicly-traded peer group, because for example the service area was confined to a hurricane prone coastal geographic area, evidence of such factual predicates is absent from the record. The Commission notes that the witnesses also disagreed with respect to whether the studies discussed in the testimony concerning size and risk are reliable or even applicable to regulated utilities. The Commission concludes that the testimony regarding these studies is not convincing and does not support a size adjustment. In addition, while witness D'Ascendis calculates and testifies that a 4.61% upward size adjustment is indicated, he applies a size premium of 0.40% to

CWSNC's indicated cost of equity. The Commission thus concludes that the 0.40% adjustment is not supported by his testimony and is rather arbitrary.

Having determined that the appropriate rate of return on equity based upon the evidence in this proceeding is 9.75%, the Commission notes that there is considerable testimony concerning the authorized returns on equity for water utilities in other jurisdictions. While the Commission has relied upon the record in this proceeding and is certainly aware that returns in other jurisdictions can be influenced by many factors, such as different capital market conditions during different periods of time, settlements versus full litigation, the Commission concludes that the rate of return on equity trends and decisions by other regulatory authorities deserve some weight as (1) they provide a check or additional perspective on the case-specific circumstances, and (2) the Company must compete with other regulated utilities in the capital markets, meaning that a rate of return significantly lower than that approved for other utilities of comparable risk would undermine the Company's ability to raise necessary capital, while a rate of return significantly higher than other utilities of comparable risk would result in customers paying more than necessary. Public Staff D'Ascendis Cross-Examination Exhibit 3, the RRA Water Advisory publication showing approved return on equity decisions for water utilities across the country from January 2014 through June 30, 2018, is helpful in illustrating that the average rate of return on equity for water utilities is 9.59% in 2014, 9.76% in 2015, 9.71% in 2016, 9.56% in 2017, and in the only seven cases reported on for the first six months of 2018 the average is 9.41% with a range of 8.9% to 10.5%. This authorized return data is generally supportive of the Commission approved return on equity of 9.75% based upon the evidence in this proceeding. To the extent it is not, the record evidence justifies any such difference.

In its post-hearing brief, the AGO notes that the 10.80% to 11.20% range for rate of return on equity requested by CWSNC is substantially higher than the 9.6% return on equity stipulated to in the Sub 356 Proceeding. In this case, the AGO, in its role as consumer advocate, argues that the DCF model is relied upon by investors using widely available current market data and the DCF results produced by expert witnesses for CWSNC and the Public Staff show that a 9.2% return on equity is more than sufficient to attract the investment dollars needed for adequate service. However, unlike the AGO, the Commission cannot ignore the other evidence in this proceeding. When other such evidence is considered and weighed by the Commission as discussed hereinabove, the Commission finds that the reasonable and appropriate return on equity is 9.75%.

The Commission notes further that its approval of a rate of return on equity at the level of 9.75% or for that matter at any level, is not a guarantee to the Company that it will earn a rate of return on equity at that level. Rather, as North Carolina law requires, setting the rate of return on equity at this level merely affords CWSNC the opportunity to achieve such a return. The Commission finds, based upon all the evidence presented, that the rate of return on equity provided for herein will indeed afford the Company the opportunity to earn a reasonable and sufficient return for its shareholders while at the same time producing rates that are just and reasonable to its customers.

Capital Structure

CWSNC witness D'Ascendis recommended the use of the actual capital structure of Utilities Inc., on June 30, 2018 consisting of 49.09% long-term debt and 50.91% common equity.

In his supplemental testimony, Public Staff witness Hinton also recommended a 49.09% long-term debt and 50.91% common equity capital structure based upon updated information provided by CWSNC concerning the capital structure at June 30, 2018. The Partial Stipulation also supports a 49.09% long-term debt, 50.91% common equity capital structure. No other party presented evidence as to a different capital structure.

Accordingly, the Commission finds that the recommended capital structure of 50.91% common equity and 49.09% long-term debt is just and reasonable to all parties in light of all the evidence presented.

Cost of Debt

In its Application, the Company proposed a cost rate for long-term debt of 6.00%. In supplemental testimony, witness Hinton revised his recommended cost of debt to 5.68%. In addition, the Stipulation includes a cost of debt rate of 5.68%. No intervenor offered any evidence supporting a debt cost rate below 5.68%.

Therefore, the Commission finds that the use of a debt cost rate of 5.68% is just and reasonable to all parties based upon all the evidence presented in this proceeding.

EVIDENCE AND CONCLUSIONS FOR FINDING OF FACT NO. 61

The following schedules summarize the gross revenue and rate of return that the Company should have a reasonable opportunity to achieve based on the increases in revenues approved in this Order for each rate entity. These schedules, illustrating the Company's gross revenue requirements, incorporate the adjustments found appropriate by the Commission in this Order.

SCHEDULE I

Carolina Water Service, Inc. of North Carolina

Docket No. W-354, Sub 360

Net Operating Income for a Return

For the Twelve Months Ended December 31, 2017

Combined Operations

	Present <u>Rates</u>	Increase <u>Approved</u>	After Approved <u>Increase</u>
Operating Revenues:			
Service revenues	\$32,429,699	\$1,434,938	\$33,864,637
Miscellaneous revenues	360,163	3,314	363,477
Uncollectibles	<u>(214,395)</u>	<u>(14,164)</u>	<u>(228,559)</u>
Total operating revenues	<u>32,575,467</u>	<u>1,424,088</u>	<u>33,999,555</u>
Operating Revenue Deductions:			
Salaries and wages – Maintenance	4,765,636	0	4,765,636
Purchased power	1,932,358	0	1,932,358
Purchased water and sewer	1,972,527	0	1,972,527
Maintenance and repair	2,749,845	0	2,749,845
Maintenance testing	544,360	0	544,360
Meter reading	225,867	0	225,867
Chemicals	632,415	0	632,415
Transportation	447,271	0	447,271
Operating expense charged to plant	(673,065)	0	(673,065)
Outside services – other	455,369	0	455,369
Salaries and wages – General	2,064,359	0	2,064,359
Office supplies & other office expense	560,363	0	560,363
Regulatory commission expense	165,908	0	165,908
Pension and other benefits	1,340,118	0	1,340,118
Rent	227,339	0	227,339
Insurance	429,335	0	429,335
Office utilities	742,300	0	742,300
Miscellaneous	23,469	0	23,469
Depreciation expense	5,617,382	0	5,617,382
Amortization of CIAC	(1,488,982)	0	(1,488,982)
Amortization of PAA	(54,365)	0	(54,365)
Amortization of ITC	(519)	0	(519)
Franchise and other taxes	(49,702)	0	(49,702)
Property taxes	233,575	0	233,575
Payroll taxes	529,195	0	529,195
Regulatory fee	45,606	1,994	47,600
Deferred income tax	(83,555)	0	(83,555)
State income tax	177,812	42,663	220,475
Federal income tax	<u>1,207,341</u>	<u>289,680</u>	<u>1,497,021</u>
Total operating revenue deductions	<u>24,739,562</u>	<u>334,337</u>	<u>25,073,899</u>
Net operating income for a return	<u>\$7,835,905</u>	<u>\$1,089,751</u>	<u>\$8,925,656</u>

SCHEDULE II

Carolina Water Service, Inc. of North Carolina

Docket No. W-354, Sub 360

Original Cost Rate Base

For the Twelve Months Ended December 31, 2017

Combined Operations

<u>Item</u>	<u>Amount</u>
Plant in service	\$213,005,526
Accumulated depreciation	<u>(52,955,117)</u>
Net plant in service	160,050,409
Cash working capital	2,079,155
Contributions in aid of construction	(42,183,408)
Advance in aid of construction	(32,940)
Accumulated deferred income taxes	(3,972,592)
Customer deposits	(342,640)
Gain on sale and flow back taxes	(289,628)
Plant acquisition adjustment	(1,052,168)
Excess book value	(456)
Cost-free capital	(261,499)
Average tax accruals	(125,909)
Regulatory liability for excess deferred taxes	(251,770)
Deferred charges	1,522,955
Pro forma plant	<u>0</u>
Original cost rate base	<u>\$115,139,509</u>
Rates of return:	
Present	6.81%
Approved	7.75%

SCHEDULE III

Carolina Water Service, Inc. of North Carolina

Docket No. W-354, Sub 360

Statement of Capitalization and Related Costs

For the Twelve Months Ended December 31, 2017

Combined Operations

	<u>Ratio %</u>	<u>Original Cost Rate Base</u>	<u>Embedded Cost %</u>	<u>Net Operating Income</u>
PRESENT RATES				
Long-Term Debt	49.09	\$ 56,521,985	5.68	\$3,210,449
Common Equity	<u>50.91</u>	<u>58,617,524</u>	7.89	<u>4,625,456</u>
Total	<u>100.00</u>	<u>\$115,139,509</u>		<u>\$7,835,905</u>
APPROVED RATES				
Long-Term Debt	49.09	\$ 56,521,985	5.68	\$3,210,449
Common Equity	<u>50.91</u>	<u>58,617,524</u>	9.75	<u>5,715,207</u>
Total	<u>100.00</u>	<u>\$115,139,509</u>		<u>\$8,925,656</u>

SCHEDULE I-A

Carolina Water Service, Inc. of North Carolina
Docket No. W-354, Sub 360
Net Operating Income for a Return
For the Twelve Months Ended December 31, 2017
CWSNC Water Operations

	Present <u>Rates</u>	Increase <u>Approved</u>	After Approved <u>Increase</u>
Operating Revenues:			
Service revenues	\$16,931,032	\$490,858	\$17,421,890
Miscellaneous revenues	189,225	1,325	190,550
Uncollectibles	<u>(98,200)</u>	<u>(2,847)</u>	<u>(101,047)</u>
Total operating revenues	<u>17,022,057</u>	<u>489,336</u>	<u>17,511,393</u>
Operating Revenue Deductions:			
Salaries and wages – Maintenance	2,587,126	0	2,587,126
Purchased power	957,880	0	957,880
Purchased water and sewer	1,285,290	0	1,285,290
Maintenance and repair	828,186	0	828,186
Maintenance testing	208,965	0	208,965
Meter reading	197,562	0	197,562
Chemicals	224,644	0	224,644
Transportation	238,827	0	238,827
Operating expense charged to plant	(370,288)	0	(370,288)
Outside services – other	254,847	0	254,847
Salaries and wages – General	1,120,684	0	1,120,684
Office supplies & other office expense	306,345	0	306,345
Regulatory commission expense	90,071	0	90,071
Pension and other benefits	713,025	0	713,025
Rent	123,289	0	123,289
Insurance	233,072	0	233,072
Office utilities	413,686	0	413,686
Miscellaneous	15,929	0	15,929
Depreciation expense	2,877,977	0	2,877,977
Amortization of CIAC	(712,658)	0	(712,658)
Amortization of PAA	(105,674)	0	(105,674)
Amortization of ITC	(287)	0	(287)
Franchise and other taxes	(21,943)	0	(21,943)
Property taxes	134,370	0	134,370
Payroll taxes	287,285	0	287,285
Regulatory fee	23,831	685	24,516
Deferred income tax	(35,576)	0	(35,576)
State income tax	102,338	14,660	116,998
Federal income tax	<u>694,876</u>	<u>99,538</u>	<u>794,414</u>
Total operating revenue deductions	<u>12,673,680</u>	<u>114,883</u>	<u>12,788,563</u>
Net operating income for a return	<u>\$4,348,377</u>	<u>\$374,453</u>	<u>\$4,722,830</u>

SCHEDULE II-A

Carolina Water Service, Inc. of North Carolina

Docket No. W-354, Sub 360

Original Cost Rate Base

For the Twelve Months Ended December 31, 2017

CWSNC Water Operations

<u>Item</u>	<u>Amount</u>
Plant in service	\$109,412,912
Accumulated depreciation	<u>(27,471,271)</u>
Net plant in service	81,941,641
Cash working capital	1,017,981
Contributions in aid of construction	(18,419,357)
Advance in aid of construction	(23,760)
Accumulated deferred income taxes	(1,699,612)
Customer deposits	(191,669)
Gain on sale and flow back taxes	(196,947)
Plant acquisition adjustment	(2,282,334)
Excess book value	(456)
Cost-free capital	(121,791)
Average tax accruals	(71,951)
Regulatory liability for excess deferred taxes	(144,323)
Deferred charges	1,116,295
Pro forma plant	<u>0</u>
Original cost rate base	<u>\$60,923,717</u>
Rates of return:	
Present	7.14%
Approved	7.75%

SCHEDULE III-A

Carolina Water Service, Inc. of North Carolina

Docket No. W-354, Sub 360

Statement of Capitalization and Related Costs

For the Twelve Months Ended December 31, 2017

CWSNC Water Operations

	<u>Ratio %</u>	<u>Original Cost Rate Base</u>	<u>Embedded Cost %</u>	<u>Net Operating Income</u>
PRESENT RATES				
Long-Term Debt	49.09	\$ 29,907,453	5.68	\$1,698,743
Common Equity	<u>50.91</u>	<u>31,016,264</u>	8.54	<u>2,649,634</u>
Total	<u>100.00</u>	<u>\$ 60,923,717</u>		<u>\$4,348,377</u>
APPROVED RATES				
Long-Term Debt	49.09	\$ 29,907,453	5.68	\$1,698,743
Common Equity	<u>50.91</u>	<u>31,016,264</u>	9.75	<u>3,024,087</u>
Total	<u>100.00</u>	<u>\$ 60,923,717</u>		<u>\$4,722,830</u>

SCHEDULE I-B

Carolina Water Service, Inc. of North Carolina
Docket No. W-354, Sub 360
Net Operating Income for a Return
For the Twelve Months Ended December 31, 2017
CWSNC Sewer Operations

	Present <u>Rates</u>	Increase <u>Approved</u>	After Approved <u>Increase</u>
Operating Revenues:			
Service revenues	\$12,685,778	291,163	\$12,976,941
Miscellaneous revenues	110,138	815	110,953
Uncollectibles	<u>(74,846)</u>	<u>(1,718)</u>	<u>(76,564)</u>
Total operating revenues	<u>12,721,070</u>	<u>290,260</u>	<u>13,011,330</u>
Operating Revenue Deductions:			
Salaries and wages – Maintenance	1,540,179	0	1,540,179
Purchased power	748,066	0	748,066
Purchased water and sewer	687,237	0	687,237
Maintenance and repair	1,606,630	0	1,606,630
Maintenance testing	302,561	0	302,561
Meter reading	0	0	0
Chemicals	347,986	0	347,986
Transportation	142,640	0	142,640
Operating expense charged to plant	(219,769)	0	(219,769)
Outside services – other	154,330	0	154,330
Salaries and wages – General	667,170	0	667,170
Office supplies & other office expense	183,350	0	183,350
Regulatory commission expense	53,622	0	53,622
Pension and other benefits	424,543	0	424,543
Rent	73,562	0	73,562
Insurance	138,751	0	138,751
Office utilities	246,763	0	246,763
Miscellaneous	9,931	0	9,931
Depreciation expense	2,271,822	0	2,271,822
Amortization of CIAC	(574,609)	0	(574,609)
Amortization of PAA	(22,136)	0	(22,136)
Amortization of ITC	(232)	0	(232)
Franchise and other taxes	(17,738)	0	(17,738)
Property taxes	79,520	0	79,520
Payroll taxes	171,028	0	171,028
Regulatory fee	17,809	407	18,216
Deferred income tax	(39,438)	0	(39,438)
State income tax	74,266	8,695	82,961
Federal income tax	<u>504,263</u>	<u>59,043</u>	<u>563,306</u>
Total operating revenue deductions	<u>9,572,107</u>	<u>68,145</u>	<u>9,640,252</u>
Net operating income for a return	<u>\$3,148,963</u>	<u>\$222,115</u>	<u>\$3,371,078</u>

SCHEDULE II-B

Carolina Water Service, Inc. of North Carolina

Docket No. W-354, Sub 360

Original Cost Rate Base

For the Twelve Months Ended December 31, 2017

CWSNC Sewer Operations

<u>Item</u>	<u>Amount</u>
Plant in service	\$84,335,000
Accumulated depreciation	<u>(21,353,928)</u>
Net plant in service	62,981,072
Cash working capital	802,539
Contributions in aid of construction	(18,442,146)
Advance in aid of construction	(9,180)
Accumulated deferred income taxes	(1,862,686)
Customer deposits	(114,105)
Gain on sale and flow back taxes	(92,681)
Plant acquisition adjustment	271,225
Excess book value	0
Cost-free capital	(139,708)
Average tax accruals	(43,322)
Regulatory liability for excess deferred taxes	(85,491)
Deferred charges	220,825
Pro forma plant	<u>0</u>
Original cost rate base	<u>\$43,486,342</u>
Rates of return:	
Present	7.24%
Approved	7.75%

SCHEDULE III-B

Carolina Water Service, Inc. of North Carolina

Docket No. W-354, Sub 360

Statement of Capitalization and Related Costs

For the Twelve Months Ended December 31, 2017

CWSNC Sewer Operations

	<u>Ratio %</u>	<u>Original Cost Rate Base</u>	<u>Embedded Cost %</u>	<u>Net Operating Income</u>
PRESENT RATES				
Long-Term Debt	49.09	\$ 21,347,445	5.68	\$1,212,535
Common Equity	<u>50.91</u>	<u>22,138,897</u>	8.75	<u>1,936,428</u>
Total	<u>100.00</u>	<u>\$ 43,486,342</u>		<u>\$3,148,963</u>
APPROVED RATES				
Long-Term Debt	49.09	\$ 21,347,445	5.68	\$1,212,535
Common Equity	<u>50.91</u>	<u>22,138,897</u>	9.75	<u>2,158,543</u>
Total	<u>100.00</u>	<u>\$ 43,486,342</u>		<u>\$3,371,078</u>

SCHEDULE I-C

Carolina Water Service, Inc. of North Carolina

Docket No. W-354, Sub 360

Net Operating Income for a Return

For the Twelve Months Ended December 31, 2017

BF/FH/TC Water Operations

	Present <u>Rates</u>	Decrease <u>Approved</u>	After Approved <u>Decrease</u>
Operating Revenues:			
Service revenues	\$1,043,134	\$273,574	\$1,316,708
Miscellaneous revenues	46,306	492	46,798
Uncollectibles	<u>(15,334)</u>	<u>(4,022)</u>	<u>(19,356)</u>
Total operating revenues	<u>1,074,106</u>	<u>270,044</u>	<u>1,344,150</u>
Operating Revenue Deductions:			
Salaries and wages – Maintenance	312,749	0	312,749
Purchased power	70,816	0	70,816
Purchased water and sewer	0	0	0
Maintenance and repair	62,128	0	62,128
Maintenance testing	9,286	0	9,286
Meter reading	28,305	0	28,305
Chemicals	32,714	0	32,714
Transportation	32,241	0	32,241
Operating expense charged to plant	(40,679)	0	(40,679)
Outside services – other	22,632	0	22,632
Salaries and wages – General	135,473	0	135,473
Office supplies & other office expense	34,624	0	34,624
Regulatory commission expense	10,884	0	10,884
Pension and other benefits	99,239	0	99,239
Rent	14,938	0	14,938
Insurance	28,178	0	28,178
Office utilities	40,103	0	40,103
Miscellaneous	(1,172)	0	(1,172)
Depreciation expense	127,603	0	127,603
Amortization of CIAC	(55,682)	0	(55,682)
Amortization of PAA	14,897	0	14,897
Amortization of ITC	0	0	0
Franchise and other taxes	(3,653)	0	(3,653)
Property taxes	9,645	0	9,645
Payroll taxes	34,729	0	34,729
Regulatory fee	1,504	378	1,882
Deferred income tax	1,178	0	1,178
State income tax	(1,317)	8,090	6,773
Federal income tax	<u>(8,945)</u>	<u>54,931</u>	<u>45,986</u>
Total operating revenue deductions	<u>1,012,417</u>	<u>63,399</u>	<u>1,075,816</u>
Net operating income for a return	<u>\$61,689</u>	<u>\$206,645</u>	<u>\$268,334</u>

SCHEDULE II-C

Carolina Water Service, Inc. of North Carolina

Docket No. W-354, Sub 360

Original Cost Rate Base

For the Twelve Months Ended December 31, 2017

BF/FH/TC Water Operations

<u>Item</u>	<u>Amount</u>
Plant in service	\$5,924,076
Accumulated depreciation	<u>(1,625,325)</u>
Net plant in service	4,298,751
Cash working capital	111,557
Contributions in aid of construction	(1,095,675)
Advance in aid of construction	0
Accumulated deferred income taxes	48,827
Customer deposits	(18,063)
Gain on sale and flow back taxes	0
Plant acquisition adjustment	22,332
Excess book value	0
Cost-free capital	0
Average tax accruals	(5,124)
Regulatory liability for excess deferred taxes	(10,756)
Deferred charges	109,634
Pro forma plant	<u>0</u>
Original cost rate base	<u>\$3,461,483</u>
Rates of return:	
Present	1.78%
Approved	7.75%

SCHEDULE III-C

Carolina Water Service, Inc. of North Carolina

Docket No. W-354, Sub 360

Statement of Capitalization and Related Costs

For the Twelve Months Ended December 31, 2017

BF/FH/TC Water Operations

	<u>Ratio %</u>	<u>Original Cost Rate Base</u>	<u>Embedded Cost %</u>	<u>Net Operating Income</u>
PRESENT RATES				
Long-Term Debt	49.09	\$ 1,699,242	5.68	\$96,517
Common Equity	<u>50.91</u>	<u>1,762,241</u>	(1.98)	<u>(34,828)</u>
Total	100.00	<u>\$ 3,461,483</u>		<u>\$61,689</u>
APPROVED RATES				
Long-Term Debt	49.09	\$ 1,699,242	5.68	\$ 96,517
Common Equity	<u>50.91</u>	<u>1,762,241</u>	9.75	<u>171,817</u>
Total	100.00	<u>\$ 3,461,483</u>		<u>\$268,334</u>

SCHEDULE I-D

Carolina Water Service, Inc. of North Carolina

Docket No. W-354, Sub 360

Net Operating Income for a Return

For the Twelve Months Ended December 31, 2017

BF/FH Sewer Operations

	Present <u>Rates</u>	Increase <u>Approved</u>	After Approved <u>Increase</u>
Operating Revenues:			
Service revenues	\$1,769,755	\$379,343	\$2,149,098
Miscellaneous revenues	14,494	682	15,176
Uncollectibles	<u>(26,015)</u>	<u>(5,577)</u>	<u>(31,592)</u>
Total operating revenues	<u>1,758,234</u>	<u>374,448</u>	<u>2,132,682</u>
Operating Revenue Deductions:			
Salaries and wages – Maintenance	325,582	0	325,582
Purchased power	155,596	0	155,596
Purchased water and sewer	0	0	0
Maintenance and repair	252,901	0	252,901
Maintenance testing	23,548	0	23,548
Meter reading	0	0	0
Chemicals	27,071	0	27,071
Transportation	33,563	0	33,563
Operating expense charged to plant	(42,329)	0	(42,329)
Outside services – other	23,560	0	23,560
Salaries and wages – General	141,032	0	141,032
Office supplies & other office expense	36,044	0	36,044
Regulatory commission expense	11,331	0	11,331
Pension and other benefits	103,311	0	103,311
Rent	15,550	0	15,550
Insurance	29,334	0	29,334
Office utilities	41,748	0	41,748
Miscellaneous	(1,220)	0	(1,220)
Depreciation expense	339,980	0	339,980
Amortization of CIAC	(146,033)	0	(146,033)
Amortization of PAA	58,548	0	58,548
Amortization of ITC	0	0	0
Franchise and other taxes	(6,368)	0	(6,368)
Property taxes	10,040	0	10,040
Payroll taxes	36,153	0	36,153
Regulatory fee	2,462	524	2,986
Deferred income tax	(9,719)	0	(9,719)
State income tax	2,525	11,218	13,743
Federal income tax	<u>17,147</u>	<u>76,168</u>	<u>93,315</u>
Total operating revenue deductions	<u>1,481,357</u>	<u>87,910</u>	<u>1,569,267</u>
Net operating income for a return	<u>\$276,877</u>	<u>\$286,538</u>	<u>\$563,415</u>

SCHEDULE II-D

Carolina Water Service, Inc. of North Carolina

Docket No. W-354, Sub 360

Original Cost Rate Base

For the Twelve Months Ended December 31, 2017

BF/FH Sewer Operations

<u>Item</u>	<u>Amount</u>
Plant in service	\$13,333,538
Accumulated depreciation	<u>(2,504,593)</u>
Net plant in service	10,828,945
Cash working capital	147,078
Contributions in aid of construction	(4,226,230)
Advance in aid of construction	0
Accumulated deferred income taxes	(459,121)
Customer deposits	(18,803)
Gain on sale and flow back taxes	0
Plant acquisition adjustment	936,609
Excess book value	0
Cost-free capital	0
Average tax accruals	(5,512)
Regulatory liability for excess deferred taxes	(11,200)
Deferred charges	76,202
Pro forma plant	<u>0</u>
Original cost rate base	<u>\$7,267,968</u>
Rates of return:	
Present	3.81%
Approved	7.75%

SCHEDULE III-D

Carolina Water Service, Inc. of North Carolina

Docket No. W-354, Sub 360

Statement of Capitalization and Related Costs

For the Twelve Months Ended December 31, 2017

BF/FH Sewer Operations

	<u>Ratio %</u>	<u>Original Cost Rate Base</u>	<u>Embedded Cost %</u>	<u>Net Operating Income</u>
PRESENT RATES				
Long-Term Debt	49.09	\$ 3,567,845	5.68	\$202,654
Common Equity	<u>50.91</u>	<u>3,700,123</u>	2.01	<u>74,223</u>
Total	100.00	<u>\$ 7,267,968</u>		<u>\$ 276,877</u>
APPROVED RATES				
Long-Term Debt	49.09	\$ 3,567,845	5.68	\$ 202,654
Common Equity	<u>50.91</u>	<u>3,700,123</u>	9.75	<u>360,761</u>
Total	100.00	<u>\$ 7,267,968</u>		<u>\$ 563,415</u>

EVIDENCE AND CONCLUSIONS FOR FINDINGS OF FACT NOS. 62 AND 63

The evidence supporting these findings of fact is found in the Application and the accompanying NCUC Form W-1, and in the testimony and exhibits of CWSNC witness DeStefano and of Public Staff witness Casselberry.

CWSNC witness DeStefano testified that the Company's experience is consistent with that of the water utility industry in general, as CWSNC continues to experience a decline in consumption. He testified that this decline in consumption, combined with regulatory lag resulting from use of traditional historical test year ratemaking principles, impairs CWSNC's opportunity to achieve its Commission-authorized rate of return on equity. Witness DeStefano further testified that, in its Application, CWSNC requested authority to implement a "consumption band" water and wastewater rate adjustment mechanism within each of the Company's four rate divisions for non-purchased water and wastewater commodity customers. He explained that the proposed CAM is a mechanism that balances the risk and impact on ratepayers and shareholders of levels of water and wastewater consumption that are either significantly higher or significantly lower than those levels of consumption that were used to set rates. He further explained that should actual consumption be greater than 1% less than what was used in designing rates within the rate case, then a surcharge would be placed on the customers' bills for a period not to exceed 12 months to make the Company whole. Conversely, he stated that if actual consumption is greater than 1% higher than the consumption used to design rates within the rate case, then a negative surcharge would be applied to the customers' bills for a period not to exceed 12 months. Witness DeStefano requested that the Commission approve the water and wastewater CAM based on the Commission's inherent regulatory authority to do so in a general rate case, recognizing that a rulemaking proceeding would be required to develop and adopt the terms of such a mechanism, and based on a finding that the proposed CAM serves the public interest. Absent approval of a water and wastewater CAM, witness DeStefano contended the Company and its customers would continue to needlessly experience the vicissitudes of significant variances in consumption over a significant period.

Witness DeStefano further testified that the CAM is a mechanism that balances the risk and impact on ratepayers and shareholders of levels of water and wastewater consumption that are either significantly higher or significantly lower than those levels of consumption that were used to set the Company's base rates. In addition, he testified that, generally, an increased conservation ethic among customers and the proliferation of efficient water fixtures that conform to increasingly strict manufacturing standards, contribute to a persistent and gradual decline in consumption per customer. He testified that these factors are out of the control of the Company and will continue to drive consumption decline for the foreseeable future as older, less-efficient fixtures are replaced with more efficient fixtures and new homes are built at current efficiency standards. Witness DeStefano also testified that the water and sewer industry operates with a cost structure that is mostly fixed; however, the utility's revenues are generated in large portion by the variable consumption component of rates. Additionally, he testified that the Company's revenue requirement is set based on an expected "normal"

consumption level, which does not account for the considerable seasonal weather variations which can occur. He contended that it is highly unlikely that any particular year will result in exactly the level of consumption utilized in the setting of rates.

Witness DeStefano then testified that the proposed CAM helps to alleviate the negative impact to the Company of declining consumption and significant seasonal weather variation and to protect customers from overcollection in an increasing consumption scenario. In addition, he testified that such a mechanism would eliminate the throughput incentive, which currently presents the Company with conflicting motivations inasmuch as the Company is currently incentivized to sell more water to improve its financial performance, yet this would increase costs to customers and fail to promote conservation of a valuable resource. The CAM mechanism, he concluded, would remove this conflict and allow the Company to promote wise water use without concern for the impacts on its financial results, in short, better aligning the interests of customers and the Company.

Public Staff witness Casselberry testified that the Public Staff's position is that any new rate mechanism, such as a CAM, should be authorized by the North Carolina General Assembly (General Assembly) before being considered by the Commission for rulemaking. Witness Casselberry further testified that, assuming the Commission does have the authority or is granted the authority to approve a CAM, the Public Staff still opposes a CAM, based on the Public Staff's concerns with the 1% threshold proposed by CWSNC. More specifically, witness Casselberry testified that the 1% threshold could be triggered by 50 seconds longer in the shower or one additional flush of the commode per day. She argued that an alternate rate design should not be triggered by such an insignificant deviation in normal customer usage. When asked how customer growth may influence consumption, witness Casselberry testified that consumption and customer growth would have to be evaluated annually, that it is possible that customer growth may decrease and consumption increase or some other combination, and that any mechanism that benefits the Company by ensuring it collects its full revenue requirement should also benefit customers by crediting customers with revenue resulting from increased usage due to customer growth.

Witness Casselberry also testified in response to witness DeStefano's testimony that the overall trend of per-capita usage continues to decline, referring to Table 1 in his testimony, which highlighted the Company's average usage for a non-seasonal window. Witness Casselberry testified that the Company's average did not take into account the newly consolidated seasonal customers, such as those who live in Sapphire Valley, Connetsee Falls, and Fairfield Mountain who do not use water in the winter months and use 50% less than the average residential customer. She further testified that the reduction in consumption could also be due to higher rates after consolidation of CWSNC's service areas in the last rate case. Witness Casselberry also testified that water efficient appliances have been on the market for close to 10 years and that many customers have already installed these appliances. She testified that CWSNC's experienced reduction in consumption is more likely due to the age of the Company's meters. Witness Casselberry testified that CWSNC has no meter replacement program,

that many of CWSNC's meters are more than 30 years old, and that it is common knowledge that as meters age, they slow down. Witness Casselberry suggested that more historical data was necessary to determine what the consumption trend will be now that CWSNC's service areas have been consolidated.

In its post-hearing brief, the AGO argued that CWSNC's proposed CAM is not authorized by statute and that CWSNC has not justified the approval of a non-statutory rider. The AGO further argued that the new rider harms consumers by increasing the frequency of changes to rates outside of a general rate proceeding, by shifting business risks from investors to ratepayers, and by discouraging water conservation efforts. Like the Public Staff, the AGO noted that legislation was introduced in the regular session of the General Assembly in 2017 that, if adopted, would have authorized the creation of a rate adjustment mechanism for water and wastewater utilities based on changes in consumption, if the Commission should find such a mechanism to be in the public interest. However, the legislation was not enacted. The AGO concluded that, in light of the General Assembly's decision not to authorize this rate adjustment mechanism, the Commission should reject CWSNC's request that it approve such a mechanism as an exercise of discretion.

The AGO also argued that CWSNC had not justified the approval of a non-statutory rider, citing cases where the State appellate courts have approved non-statutory riders in limited circumstances involving highly variable and unpredictable expense or volume levels, of significant magnitude, that are beyond the control of the utility. The AGO concluded that the evidence adduced in this case does not compel approval of the new mechanism, based upon the following. First, the AGO cites the testimony of witness D'Ascendis, who testified that there is not any statistically significant change in investor-required return before or after the implementation of such a "decoupling" mechanism (i.e. a rate adjustment mechanism for changes in consumption), and that there are many things affecting publicly-traded companies, and this one factor is not measureable. Second, the AGO argued that the CAM is not justified by extreme variability or trends and the witnesses for CWSNC and the Public Staff did not agree about the significance of evidence regarding changes in consumption and whether the evidence indicates a problem of a magnitude requiring a new rate adjustment mechanism. Third, the AGO argued that the proposed mechanism is designed to make rate adjustments for changes in per customer consumption without consideration of other factors that tend to offset the impact, such as growth in the number of customers that CWSNC serves. Thus, the AGO argues that any mechanism that boosts rates relating to changes in per-customer consumption should also credit customers for increased growth in customer count. Fourth, the AGO argued that the CAM proposal would trigger a rate adjustment based on a relatively small departure from normal habits, such as by shortening a daily shower by less than a minute. Fifth, the AGO argued that, contrary to CWSNC's contention that the mechanism would balance the interests of the utility and its consumers, the new rider is harmful to consumers because it increases the frequency of changes to rates outside of general rate proceedings. The AGO contrasted the adjustments required in a general rate case, where CWSNC would be required to "net" all costs and benefits of operation at the time rates are set to take into consideration

offsetting cost decreases as well as other offsetting factors, with the proposed CAM. The AGO argued that the CAM would allow CWSNC to shift normal business risk associated with a single factor from its investors to ratepayers. Finally, the AGO argued that consumers will tend to be discouraged from investing in water conservation measures if their efforts are met with an offsetting rate increase. In sum, the AGO argued that the proposed CAM should be rejected because it is not authorized by statute, is not justified, and is harmful to consumers.

The Commission has carefully evaluated the foregoing evidence presented in this proceeding concerning CWSNC's request to implement a CAM and the entire record in this proceeding. The Commission finds persuasive the evidence presented by the Public Staff, and agrees with the arguments of the Public Staff and the AGO that the proposed CAM is not appropriately structured. More specifically, the Commission agrees with Public Staff witness Casselberry that the 1% threshold is too narrow, and would inappropriately trigger a rate change based on relatively small departures from normal consumption habits, such as shortening a daily shower by less than one minute or one additional flush of the commode. The Commission, therefore, finds that CWSNC has not demonstrated that a consumption adjustment mechanism is reasonable or justified. In making this finding, the Commission gives substantial weight to the arguments of the Public Staff and the AGO that the mechanism was designed to make rate adjustments for changes in per-customer consumption without consideration of other factors that tend to offset the impact, such as growth in the number of customers that the Company serves and periods of warm weather. The Commission concludes that these factors are relevant in determining whether circumstances establish that a decline in consumption denies the Company a reasonable opportunity to earn its authorized rate of return and whether the CAM is reasonable or justified based on the evidence in this case. The Commission finds the testimony of CWSNC witness DeStefano generally unpersuasive. Specifically, witness DeStefano's testimony is unpersuasive because, as witness Casselberry testified, the proposed CAM does not account for customer growth, potentially allowing CWSNC to earn its reasonable revenue requirement in a year when declining consumption is offset by customer growth.

Based upon the foregoing and the entire record herein, the Commission finds that CWSNC has failed to demonstrate that its proposed CAM is reasonable or justified for the purposes of this case. The Commission, therefore, concludes that CWSNC's request for approval to implement its proposed CAM should be denied.

EVIDENCE AND CONCLUSIONS FOR FINDINGS OF FACT NOS. 64 – 68

The evidence supporting these findings of fact is found in the Application and the accompanying NCUC Form W-1, and in the testimony and exhibits of Public Staff witness Casselberry and CWSNC witness DeStefano.

The water rates proposed by CWSNC in its Application were based on a fixed-to-variable ratio of 47% fixed for the base facility charge and 53% variable for the usage charge. Further, as part of its Application and as a matter of rate design in this

case, CWSNC proposed no rate changes for customers in the CLMS service area. CWSNC stated that its proposal to not increase (but hold constant) the water and sewer rates for those affected customers is consistent with the ratemaking and rate design approved by the Commission in the Company's last three general rate cases (Docket Nos. W-354, Subs 336, 344, and 356) and will continue the orderly process of moving the CLMS service area toward full inclusion in the Company's uniform water and sewer rates in future general rate cases.

With respect to sewer rates, Paragraph 25 of the Company's Application stated that, pursuant to Paragraph No. 15 (entitled, "Metered Sewer Rates") of the Joint Stipulation between CWSNC and the Public Staff filed in the Sub 356 Proceeding on September 9, 2017, the Company agreed to:

...consider implementing metered sewer rates for customers in its Fairfield Harbour, Bradfield Farms, and Sapphire Valley service areas in the Company's next general rate case filing and reserves the right to independently propose metered sewer rates for these systems. (Footnote omitted)

In its Application, CWSNC stated that, after careful consideration, the Company decided to file its Application premised upon continuation of flat rate sewer service for customers in its Fairfield Harbour, Bradfield Farms, and Sapphire Valley service areas, but that the Company was willing to discuss this matter with the Public Staff and reserved the right, after such consultation, to either affirm the current decision to continue flat rates or, instead, propose metered rates for the three service areas in question.

In regard to rate design, CWSNC witness DeStefano testified that, as an alternative proposal to CWSNC's requested CAM, the Company requested that the Commission find it reasonable, necessary, and appropriate to direct the parties to develop a rate design that is based on a 60% to 40% ratio of base facility to volumetric charges for water. He testified that this would be a change from the Company's current ratio of approximately 50%/50%, base to volumetric. According to witness DeStefano, the proposed ratio is needed to more closely align cost recovery with actual costs incurred. He argued that with the current ratio of approximately 50%/50%, base to volumetric, the recovery to actual costs incurred is not properly aligned. Witness DeStefano testified that the Company is currently experiencing an actual cost ratio of approximately 80%/20% fixed to variable, yet rates are designed with an approximately 50%/50% ratio for fixed and variable. He maintained that this misalignment hinders the Company's ability to earn its fair and reasonable return should consumption continue its decline. Witness DeStefano contended that the consumption trend across the industry is currently one of decline due to conservation efforts and the installation of more efficient water fixtures. Witness DeStefano testified that the current rate design reduces the Company's ability to promote conservation efforts without negatively impacting its ability to earn a fair and reasonable return.

Public Staff witness Casselberry testified that in the Sub 356 Proceeding, the Public Staff recommended that CWSNC consider implementing metered sewer rates for customers in its Sapphire Valley, Fairfield Harbour, and Bradfield Farms Subdivision service areas, and reserved the right to independently propose metered sewer rates for these systems. Witness Casselberry stated that as part of the settlement agreement in the Sub 356 Proceeding, CWSNC supported the recommendation and agreed to undertake such consideration in conjunction with its next general rate case. Witness Casselberry noted that, in this proceeding, CWSNC decided not to implement metered sewer rates for customers in those service areas.

Witness Casselberry testified that, since sewer customers in Sapphire Valley were incorporated into CWSNC's uniform sewer rate division, they should be charged the same rate as other metered sewer customers within that rate division. In addition, customers with multiple units behind a master meter should be billed the same way as the other master metered customers, which specifies that commercial customers, including condominiums or other property owner associations who bill their members directly, shall have a separate account set up for each meter and each meter shall be billed separately based on the size of the meter and usage associated with the meter as stated in the schedule of rates for water and sewer service.

Further, witness Casselberry testified that it was also the Public Staff's position that since Bradfield Farms and Fairfield Harbour are in their own separate rate division and all of the customers in that rate division have flat sewer rates and the Public Staff received only one complaint concerning the flat rate, the Public Staff agreed with the Company that the flat rate should remain for the BF/FH rate division. However, she recommended that, in the future, should the BF/FH rate division be eliminated and customers are incorporated into the CWSNC uniform sewer rate division, they too should be charged the metered sewer rate for customers who also have metered water. Witness Casselberry testified that it was also her understanding that the Company agreed with the Public Staff's recommendation that customers in Sapphire Valley should be billed the uniform metered sewer rate and that customers in Bradfield Farms and Fairfield Harbour should be billed a flat sewer rate in this general rate case.

Regarding the customers in the Linville Ridge Subdivision and The Ridges at Mountain Harbour (The Ridges), witness Casselberry testified that the Public Staff recommends uniform metered water rates. The Public Staff also recommended purchased sewer rates for The Ridges. Witness Casselberry testified that since CWSNC's last general rate case, water meters have been installed for all the residential customers in Linville Ridge and The Ridges. Both systems are located in the mountains and are considered seasonal mountain systems, because many of the customers' premises are occupied only during the summer months and during holidays. Witness Casselberry testified that she had evaluated the consumption for the other seasonal mountain systems and determined that the average residential monthly consumption is 1,920 gallons. She stated that it was her understanding that CWSNC has agreed that using 1,920 gallons as the estimated consumption for calculated revenue is reasonable and acceptable for Linville Ridge and The Ridges.

According to witness Casselberry, The Ridges is a purchased sewer system. CWSNC purchases sewage treatment from Clay County Water and Sewer District. Clay County charges a flat bi-monthly rate of \$1,621.24. Based on the billing data provided, there are 44 single-family equivalents (SFEs). The base facility charge per SFE is \$18.42 (\$1621.24/2 months/44 SFE). Witness Casselberry recommended the following base facility charges:

Residential customers	
< 1" meter	\$ 18.42
Commercial customers:	
< 1" meter	\$ 18.42
2" meter	\$147.36

Witness Casselberry testified that it was her understanding that CWSNC agreed with the Public Staff's recommended base facility charges for The Ridges.

Witness Casselberry testified that Carolina Trace is a purchased water system and the supplier is the City of Sanford (City). She noted that the usage rate is established based on the supplier's rate and that the existing usage charge is \$2.21 per 1,000 gallons. She explained that under the general statutes, utility companies may petition the Commission for a pass-through outside of a general rate case which allows a company to directly pass on to customers the increased cost of purchased water. She observed that in this proceeding, there is no change in the City's usage charge and, therefore, CWSNC is proposing the same usage charge as the existing usage rate. However, witness Casselberry testified that since Carolina Trace is in the uniform water rate division, should the base charge for uniform rates increase, the new rate would apply to Carolina Trace as well.

Witness Casselberry further testified that CWSNC proposed, as an alternative to a CAM, that the Commission should direct the parties to develop a rate design that is based on a 60%/40% ratio of base charge to usage charge for water versus the current ratio of approximately 50%/50%. Witness Casselberry opposed CWSNC's alternative proposal. Witness Casselberry calculated the current ratio as 47%/53% base charge to usage charge based upon the end of period (EOP) residential customers for uniform rates, with meters less than one inch, and actual consumption for the test year period ending December 31, 2017 (not including Elk River or purchased water customers). In regard to rate design and seasonal customers, witness Casselberry testified that in order for seasonal customers to have water and sewer service year round, the water and sewer facilities must remain operational year round. Witness Casselberry explained that the base charge covers those costs to keep the systems operating such as testing, purchased power, maintenance and repairs, chemicals, sludge removal, salaries, and other general fixed costs. Witness Casselberry testified that the Public Staff would like to take the present ratio closer to a range of 40%/60% base charge to usage charge; thus, she recommended a ratio in the range of 45%/55% base charge to usage charge for this

proceeding, which she noted is consistent with what has been recommended by the Public Staff in the past.

Witness Casselberry testified that it is the Public Staff's position that higher usage charges promote conservation and that when the base charge is increased and the consumption charge is reduced, customers have a tendency to use more water and they also have less control over their water bill. She opined that with a higher base charge, customers have less ability to reduce their bills. In addition, witness Casselberry testified that, according to the customer testimony received at the public hearings, base charges are getting extremely high and that it is becoming difficult for some CWSNC customers to pay their base charges.

On cross-examination, witness Casselberry testified that some of the declining consumption that CWSNC has experienced may be attributed to aged meters and that the Company should implement a meter changeout plan to recoup such lost consumption. She commented that many of CWSNC's systems are over 30 years old and some of these systems still have the same meters installed that were in use when CWSNC originally acquired the systems. Witness Casselberry recommended that CWSNC evaluate the status of its current meters and implement an appropriate meter changeout program.

In his rebuttal testimony, witness DeStefano responded to witness Casselberry's view that higher base charges do not encourage conservation. He asserted that witness Casselberry's statement exemplifies the throughput incentive conflict in that the Public Staff believes a lower base charge encourages conservation, which may be reasonable. However, he contended that absent a CAM to stabilize revenues, this adds revenue volatility to the Company due to a higher proportion of revenues being subject to the unpredictability and the unexpected changes of seasonal weather patterns and any conservation measures adopted by customers. Witness DeStefano maintained that the Company is therefore not properly incented to promote conservation, and the Public Staff's position on rate design highlights the need to implement the CAM. Witness DeStefano testified that, if the Commission does not approve implementation of CWSNC's proposed CAM, the Company alternatively requests that the Commission find it reasonable, necessary, and appropriate to direct the parties to develop a rate design that is based on a 60%/40% ratio of base charges to volumetric charges for water.

Based upon the foregoing and the entire record herein, the Commission finds that the following specific rate design proposals recommended by Public Staff witness Casselberry and agreed to by the Company which were not opposed by any party, are reasonable and appropriate:

- That sewer customers in Sapphire Valley, who were incorporated into CWSNC's uniform sewer rate division, should be charged the same rate as other metered sewer customers within that rate division.

- That sewer customers in Bradfield Farms and Fairfield Harbour should continue to be charged a flat rate.
- That CWSNC's uniform metered water rates should be charged to customers in Linville Ridge and at The Ridges at Mountain Harbor based on the Public Staff's estimated usage of 1,920 gallons per EOP customer per month, consistent with the average for CWSNC's other seasonal mountain systems.
- That customers at The Ridges at Mountain Harbor should be charged purchased sewer rates at the Public Staff's recommended base facility charge, which is \$18.42 per SFE. The resulting base facility charges, exclusive of the collection charge that is the same as for customers in all of CWSNC's purchased sewer systems are shown below.

Residential customers	
< 1" meter	\$ 18.42
Commercial customers:	
< 1" meter	\$ 18.42
2" meter	\$147.36

Further, the Commission concludes, consistent with the recommendation of witness Casselberry, that CWSNC's customers in Carolina Trace, which is a purchased water system in the CWSNC uniform water rate division, should be charged the same base charge as approved in this case for that rate division.

In this case, CWSNC proposed no rate changes for customers in the Company's CLMS service area. CWSNC maintained that its proposal to not increase (but hold constant) the water and sewer rates for its customers in the CLMS service area is consistent with the ratemaking and rate design approved by the Commission in the Company's last three general rate cases (Docket Nos. W-354, Subs 336, 344, and 356) and will continue the orderly process of moving the CLMS service area toward full inclusion in the Company's uniform water and sewer rates in future general rate cases. No party to this case opposed the Company's recommendation to maintain the status quo of rates for the CLMS service area. Accordingly, the Commission finds good cause to not increase (but hold constant) the sewer rates for the CLMS service area.

As discussed in the preceding section, the Commission concluded that CWSNC's request for approval to implement its proposed CAM should be denied. In conjunction with the Company's CAM request, CWSNC also proposed a metered water rate structure for purposes of designing rates in this proceeding consisting of 47%/53% ratio of base charge to usage charge. Alternatively, if the proposed CAM was not approved, the Company proposed a ratio of 60%/40% base charge to usage charge for rate design purposes.

The Public Staff opposed using CWSNC's alternative to a CAM in this proceeding. Witness Casselberry testified that since the Public Staff would like to take the ratio closer to a 40%/60% base charge to usage charge ratio to promote conservation and give customers more control over their bills, she recommended the slightly lower ratio range of 45%/55% base charge to usage charge for this proceeding rather than the present ratio of 47%/53%.

Based upon the foregoing and the entire record herein, the Commission determines that the appropriate ratio of base charge to usage charge for use in this proceeding is 52%/48%. In reaching this conclusion, the Commission gives equal weight to the testimony of CWSNC witness DeStefano and of Public Staff witness Casselberry. Witness DeStefano testified that CWSNC continues to experience a consistent decline in consumption due to conservation efforts by customers and the installation of more water efficient household fixtures, and witness Casselberry's Late-Filed Exhibit 1 lends support to witness DeStefano's assertion concerning declining consumption. Further, the Commission notes that the testimony of witness Casselberry indicated that both CWSNC uniform water rate division and the BF/FH/TC water rate division had a customer growth factor of less than 1% in this proceeding. Tr. Vol. 8, p. 302. Consequently, the Commission recognizes that CWSNC would not have the opportunity to recover any significant portion of its declining consumption through customer growth.

The Commission also agrees with witness DeStefano that the rate design proposed by the Public Staff is weighted too heavily toward variable costs, in light of witness Casselberry's testimony that approximately 75%²² of the Company's water service costs are fixed. Tr. Vol. 7, p. 343. Both these witnesses generally agreed that CWSNC has a substantial number of seasonal customers who have water and/or sewer service available on-demand year round, but do not contribute to cost recovery through CWSNC's volumetric charges to the same extent as year-round customers. Furthermore, the Commission recognizes the importance of the Public Staff's stated goal to encourage conservation through a decline in consumption, and relying on higher usage charges to provide incentive to customers to do so. However, the Public Staff's proposed rate design could also have the unintended effect of making it even more difficult for the Company to achieve and earn its allowed return and diminishing the Company's incentive to promote conservation of a natural resource by its customers and, ultimately, cause more frequent general rate case filings. The Commission concludes that approving a rate design in this proceeding which should work to reduce the need for CWSNC to file frequent rate case applications would benefit customers in the long term, as customers ultimately pay through monthly rates the reasonable and prudent costs incurred for rate case filings.

Having carefully weighed these competing goals or interests, and having considered the foregoing and the entire record herein, the Commission finds that it is appropriate to utilize a ratio of 52%/48% base charge to usage charge in this proceeding. The Commission concludes that such rate design is fair and reasonable to both CWSNC and its customers as it appropriately balances the competing interests involved, as testified to by the witnesses in this proceeding. Therefore, taking into account the

²² CWSNC witness DeStefano testified that 80% of the Company's water service costs are fixed.

foregoing findings and conclusions, the Commission concludes that the rates and charges included in Appendices A-1, A-2, A-3, B-1, and B-2 are just and reasonable and should be approved.

Finally, the Commission notes that CWSNC's requested changes in its rate design, and the Public Staff's opposition thereto, is not unique to this case.²³ The Commission's experience in deciding the issues in this case and other general rate cases has informed the Commission's view that the problems that CWSNC asserts concerning declining consumption and revenue volatility due to the unpredictability and unexpected changes in weather patterns that make it difficult for the Company to generate revenue that is both stable and sufficient to cover its fixed costs of providing service to its customers is one that merits further consideration outside the context of a discrete general rate case. Although the tension between a utility's desire for stable and sufficient revenue generation, on the one hand, and policies that support conservation, on the other, is not a new phenomenon, the Commission acknowledges that there are new tools available to utilities and regulators and new research publications that may support addressing these issues in a more nuanced manner than the Company's proposal in this case. Therefore, the Commission will open a generic docket, by issuance of a forthcoming order, to investigate issues related to rate design, and require CWSNC, the Public Staff, and other specifically selected water utilities to participate in such a proceeding. The Commission's goal in doing so will be to explore and consider rate design proposals that may better achieve the utility's desire for revenue sufficiency and stability, while also sending appropriate price signals to consumers that support and encourage water efficiency and conservation.

EVIDENCE AND CONCLUSIONS FOR FINDINGS OF FACT NOS. 69 AND 70

The evidence supporting these findings of fact is found in the Commission's prior Orders approving rulemaking in Docket No. W-100, Sub 54 establishing the procedures for implementing and applying the WSIC and SSIC approved in CWSNC's rate case in Docket No. W-354, Sub 336 and in the Commission's prior Orders approving WSIC and SSIC mechanisms for CWSNC and the other Utilities, Inc. companies that have been merged into CWSNC.

The Commission's previously approved WSIC/SSIC improvement charge rate adjustment mechanism continues in effect, although it has been reset to zero in this rate case. The WSIC/SSIC mechanism is designed to recover, between rate case proceedings, the costs associated with investment in certain completed, eligible projects for water and sewer system or water quality improvements pursuant to N.C.G.S. § 62-133.12. The WSIC/SSIC surcharge is subject to commission approval and to audit and refund provisions. Any cumulative system improvement charge recovered pursuant to the WSIC/SSIC mechanism may not exceed 5% of the total annual service revenues approved by the Commission in this rate case proceeding.

²³ See, e.g., Docket No. W-218, Sub 497, a general rate case proceeding for Aqua North Carolina, Inc.

Based on the service revenues set forth and approved in this Order, the maximum WSIC/SSIC charges as of the effective date of this Order are:

<u>Item</u>	<u>Service Revenues</u>	<u>Cap %</u>	<u>WSIC & SSIC Cap</u>
CWSNC Uniform Water Operations	\$17,421,890	X 5% =	\$871,095
CWSNC Uniform Sewer Operations	\$12,976,941	X 5% =	\$648,847
BF/FH/TC Water Operations	\$1,316,708	X 5% =	\$65,835
BF/FH Sewer Operations	\$2,149,098	X 5% =	\$107,455

EVIDENCE AND CONCLUSIONS FOR FINDING OF FACT NO. 71

With respect to CWSNC's bonding requirements, CWSNC presently has posted with the Commission a \$3,730,000 bond, secured by a letter of credit from The Toronto-Dominion Bank, New York Branch. Such bond was approved by Commission Order issued on September 27, 2016, in Docket No. W-354, Sub 350, et al. (In the Matter of a Joint Application by Carolina Water Service, Inc. of North Carolina, Bradfield Farms Water Company, Carolina Trace Utilities, Inc., CWS Systems, Inc., Elk River Utilities, Inc., and Transylvania Utilities, Inc. for Approval of Merger). As of the date of this Order, an amount of \$3,690,000 of the approved bond has been assigned to the existing service areas of CWSNC, leaving an amount of \$40,000 of bond and surety unassigned.

Upon review of the Commission's bond files, it was determined that in its Order Approving Merger, issued on August 2, 2010, in Docket Nos. W-354, Sub 326; W-1152, Sub 8; and W-1151, Sub 7, the Commission assigned \$20,000 of CWSNC's unassigned bond to Amherst Subdivision in Wake County, North Carolina and \$20,000 of the unassigned bond to the Carolina Pines Service Area in Craven County, North Carolina and stated that the bonds previously posted by Nero Utility Services, Inc. and Carolina Pines Utility, Inc. would be released to those entities (which were owned by Utilities, Inc.) upon the Commission's receipt of written notification that the merger has been completed.

On September 1, 2010, Utilities, Inc. filed a letter with the Commission providing notification that the merger had been completed. The Commission has determined that neither the \$20,000 bond and certificate of deposit surety from BB&T for Amherst Subdivision nor the \$20,000 bond and certificate of deposit surety from BB&T posted for the Carolina Pines Service Area have been released to UI. The Commission concludes that since UI has satisfied the requirement for the release of these two bonds and sureties as established by a previous Commission Order and that the Commission's bonding requirements for these two service areas are now included in CWSNC's present bond posted with the Commission in Docket No. W-354, Sub 350, et al., the two \$20,000 bonds and sureties relating to Amherst Subdivision and the Carolina Pines Service Area should be released to UI. With the release of these two bonds and sureties, CWSNC has a total bond and surety of \$3,730,000 posted with the Commission, of which \$3,690,000 has been assigned to existing service areas of CWSNC and \$40,000 is unassigned.

IT IS, THEREFORE, ORDERED as follows:

1. That the Partial Joint Settlement Agreement and Stipulation is incorporated by reference herein and is hereby approved in its entirety;
2. That the Partial Joint Settlement Agreement and Stipulation, filed on September 17, 2018, and the parts of this Order pertaining to the contents of that agreement shall not be cited or treated as precedent in future proceedings;
3. That the Schedules of Rates, attached hereto as Appendices A-1, A-2, A-3, and A-4, and the Schedules of Connection Fees for Uniform Water and Uniform Sewer, attached hereto as Appendices B-1 and B-2, are hereby approved and deemed to be filed with the Commission pursuant to N.C.G.S. § 62-138, and are hereby authorized to become effective for service rendered on and after the issuance date of this Order;
4. That the Notices to Customers, attached hereto as Appendices C-1 and C-2 shall be mailed with sufficient postage or hand delivered to all affected customers in each relevant service area, respectively, in conjunction with the next regularly scheduled billing process;
5. That CWSNC shall file the attached Certificate of Service, properly signed and notarized, not later than 10 days after the Notices to Customers are mailed or hand delivered to customers;
6. That CWSNC shall refund to ratepayers the overcollection of federal income taxes related to the decrease in the federal corporate income tax rate for the period beginning January 1, 2018, including interest at the overall weighted cost of capital, as a credit to customers' bills for a one-year period beginning when the new rates become effective in the present docket;
7. That the decision reached by the Commission in CWSNC's Sub 356 Order to amortize over three years the Company's state EDIT recorded pursuant to the Commission's Sub 138 Order shall remain in full force and effect;
8. That the unprotected EDIT associated with the reduction in the federal corporate income tax rate shall be returned by CWSNC to ratepayers through a levelized rider to rates over a four-year period;
9. That the protected federal EDIT shall be amortized by CWSNC over 45 years in accordance with the IRC;
10. That in CWSNC's next general rate case proceeding, CWSNC and the Public Staff shall evaluate in detail and determine the appropriate methodology to calculate CIAC and PAA amortization expense for the post-merger entity on a going-forward basis for ratemaking purposes in order to ensure that contributed property is depreciated at the same rate that the related CIAC is amortized;

11. That, within 180 days of the date of this Order, CWSNC shall file a report with the Commission on the progress of the capital project intended to resolve the quality of service concern identified by Ms. Brown, one of the public witnesses appearing at the public hearing in Asheville, as is discussed in more detail in this Order. Such report shall state whether Ms. Brown has indicated to CWSNC that the final resolution of the issue is satisfactory;

12. That the two certificate of deposit bond sureties previously filed by Utilities, Inc. (as noted above) from BB&T for Amherst Subdivision in Wake County and for the Carolina Pines Service Area in Craven County, North Carolina shall be released to Utilities, Inc. The Chief Clerk shall file a copy of the letter to Utilities, Inc. from the Deputy Clerk releasing the bond sureties in Docket Nos. W-354, Sub 326, W-1152, Sub 8, W-1151, Sub 7, and this docket;

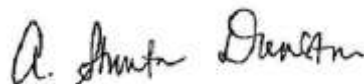
13. That the Chief Clerk shall establish Docket No. W-354, Sub 360A as the single docket to be used for all future WSIC/SSIC filings, orders, and reporting requirements. To that end, the Chief Clerk shall copy CWSNC's WSIC/SSIC pending application filed on January 31, 2019, in Docket No. W-354, Sub 356A and Sub 360 into Docket No. W-354, Sub 360A; and

14. That the Chief Clerk shall close Docket No. W-354, Subs 356A, 344A, and 336A.

ISSUED BY ORDER OF THE COMMISSION.

This the 21st day of February, 2019.

NORTH CAROLINA UTILITIES COMMISSION



A. Shonta Dunston, Deputy Clerk

Commissioner Daniel G. Clodfelter concurring in part and dissenting in part.

DOCKET NO. W-354, SUB 360

Commissioner Daniel G. Clodfelter, concurring in part and dissenting in part:

On all save one point I join in the Commission's opinion and in the result. My difference is in the matter of rate design and more specifically in the Commission's approval of a rate structure whereby the Company will earn 52% of its revenue requirement from fixed charges and the remaining 48% from volumetric charges. There is no special magic to the 52%/48% ratio of revenues from fixed charges to revenue from volumetric charges settled on by the Commission. The Public Staff advocated for a ratio of 45% revenue from fixed charges to 55% revenue from variable charges for setting rates, while testifying that it would prefer to move as close to a 40% fixed to 60% variable ratio as possible. The Company proposed a revenue ratio of 47% fixed to 53% variable if the requested CAM adjustment mechanism was approved and a ratio of 60% fixed to 40% variable without the CAM.¹ The actual figures for the Company's test year, as calculated by witness Casselberry, were 47% of revenue derived from fixed charges and 53% derived from volumetric rates. Nothing in the evidence presented by any of the witnesses supports a conclusion that any particular one of these ratios or, for that matter, any other ratio within the range of values advocated by the parties will ensure just the right balance between the need for revenue stability to cover fixed costs and a rate design that will encourage water efficiency and conservation.

The tension between the policy goal of providing adequate and stable revenue to cover a high level of fixed costs, a feature inherent in most water and sewer systems, and the second policy goal of encouraging water use reduction is very real and has worsened in recent years as appliances have become more efficient and as drought events have changed public consciousness of the relative abundance or scarcity of water. This tension is not, however, unmanageable, and the academic and research literature together with extensive real world experience by public and private water utilities demonstrate that there are a number of different techniques that have now been adopted, either in general use or as experiments, that can mitigate the conflicts between the competing objectives of revenue stability and water conservation.² Some of these mechanisms are more complex than others, and many of them take advantage of increasingly sophisticated data resources concerning customer usage patterns. All of them are more nuanced than the Company's proposals or the Commission's result in this case, and they attempt to accommodate both major goals for rate design without sacrificing or ignoring either one. A "single factor" approach to managing the conflicting

¹ I agree with and concur in the Commission's refusal to approve the CAM adjustment mechanism for the reasons stated in the Commission's opinion.

² See, e.g., "Designing Water Rate Structures for Conservation and Revenue Stability," a 2014 joint study report by the Environmental Finance Center at the University of North Carolina at Chapel Hill and the Sierra Club Lone Star Chapter concerning rate design options in Texas; and "Achieving Revenue Stability through Your Water Rate Structure," a 2017 webinar presentation by, among others, the Environmental Finance Center at the University of North Carolina at Chapel Hill and the American Water Works Association. This is a topic on which the Environmental Finance Center has recognized expertise which could be invaluable to this Commission.

objectives by simply adjusting the ratio of fixed to variable charges ignores this available research and field experience and misses opportunities for the Company to implement rate designs that are tailored to the unique characteristics of its systems, its customers, and their usage patterns.

I fully agree with the Commission majority that it is time to open a generic docket to explore alternative ratemaking options for water and sewer companies regulated by the Commission for the sound reasons articulated in the Commission's order. Where I differ is that I would maintain the existing ratio of fixed to volumetric charges unchanged pending the conclusion of proceedings in that separate docket. This is especially so since I can find nothing in this record that supports picking any one fixed-to-variable ratio rather than any other. I find no persuasive evidence in this record that maintaining the present rate design will unreasonably hinder the Company's operations or its chance to earn its permitted rate of return while the Commission conducts a more thorough examination of the question.

/s/ Daniel G. Clodfelter
Commissioner Daniel G. Clodfelter

SCHEDULE OF RATES

for

CAROLINA WATER SERVICE, INC. OF NORTH CAROLINA

for providing water and sewer utility service

in

ALL OF ITS SERVICE AREAS IN NORTH CAROLINA

(excluding Corolla Light, Monterey Shores, Fairfield Harbour Service Area, Treasure Cove, Register Place Estates, North Hills and Glen Arbor/North Bend Subdivisions, Bradfield Farms, Larkhaven, Silverton, and Woodland Farms Subdivisions, and Hawthorne at the Green Apartments)

WATER RATES AND CHARGES

Monthly Metered Water Service (Residential and Commercial):

Base Facility Charge (based on meter size with zero usage):

< 1" meter	\$ 27.53
1" meter	\$ 68.83
1½" meter	\$ 137.65
2" meter	\$ 220.24
3" meter	\$ 412.95
4" meter	\$ 688.25
6" meter	\$1,376.50

Usage Charge:

A. Treated Water, per 1,000 gallons	\$ 7.08
B. Untreated Water, per 1,000 gallons (Brandywine Bay Irrigation Water)	\$ 4.11

Commercial customers, including condominiums or other property owner associations who bill their members directly, shall have a separate account set up for each meter and each meter shall be billed separately based on the size of the meter and usage associated with the meter.

C. Purchased Water for Resale, per 1,000 gallons:

<u>Service Area</u>	<u>Bulk Provider</u>		
Carolina Forest	Montgomery County	\$	3.19
High Vista Estates	City of Hendersonville	\$	3.25
Riverpointe	Charlotte Water	\$	6.30
Whispering Pines	Town of Southern Pines	\$	2.23
White Oak Plantation/ Lee Forest	Johnston County	\$	2.40
Winston Plantation	Johnston County	\$	2.40
Winston Point	Johnston County	\$	2.40
Woodrun	Montgomery County	\$	3.19
Yorktown	City of Winston-Salem	\$	5.01
Zemosa Acres	City of Concord	\$	5.27
Carolina Trace	City of Sanford	\$	2.21

When because of the method of water line installation utilized by the developer or owner, it is impractical to meter each unit or other structure separately, the following will apply:

Sugar Mountain Service Area:

Where service to multiple units or other structures is provided through a single meter, the average usage for each unit or structure served by that meter will be calculated. Each unit or structure will be billed based upon that average usage plus the base monthly charge for a <1” meter.

Mount Mitchell Service Area:

Service will be billed based upon the Commission-approved monthly flat rate.

Monthly Flat Rate Water Service: (Billed in Arrears) \$ 53.58

Availability Rate: (Semiannually)

Applicable only to property owners in Carolina Forest and Woodrun Subdivisions in Montgomery County \$ 24.65

Availability Rate: (Monthly)

Applicable only to property owners in Linville Ridge Subdivision	\$ 12.35
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Availability Rate: (Monthly rate, billed semiannually)

Applicable only to property owners in Fairfield Sapphire Valley Service Area	\$ 9.10
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Availability Rate: (Monthly rate, billed quarterly)

Applicable only to property owners in Connestee Falls	\$ 4.80
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<u>Meter Testing Fee:</u> ^{1/}	\$ 20.00
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<u>New Water Customer Charge:</u>	\$ 27.00
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Reconnection Charge: ^{2/}

If water service is cut off by utility for good cause	\$ 27.00
If water service is discontinued at customer's request	\$ 27.00

Reconnection Charge: ^{3/} (Flat-rate water customers)

If water service is cut off by utility for good cause	Actual Cost
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Management Fee: (in the following subdivisions only)
(Per connection)

Wolf Laurel	\$150.00
Covington Cross Subdivision (Phases 1 & 2)	\$100.00

Oversizing Fee: (in the following subdivision only)
(One-time charge per single-family equivalent)

Winghurst	\$400.00
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Meter Fee:

For <1" meters	\$ 50.00
For meters 1" or larger	Actual Cost

<u>Irrigation Meter Installation:</u>	Actual Cost
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SEWER RATES AND CHARGES

Monthly Metered Sewer Service:

A. Base Facility Charge:

Residential (zero usage)	\$ 46.31
Commercial (based on meter size with zero usage)	
< 1" meter	\$ 46.31
1" meter	\$ 115.78
1½" meter	\$ 231.55
2" meter	\$ 370.48
3" meter	\$ 694.65
4" meter	\$1,157.75
6" meter	\$2,315.50

B. Usage charge, per 1,000 gallons (based on metered water usage)	\$ 3.62
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Commercial customers, including condominiums or other property owner associations who bill their members directly, shall have a separate account set up for each meter and each meter shall be billed separately based on the size of the meter and usage associated with the meter.

Monthly Metered Purchased Sewer Service:

Collection Charge (Residential and Commercial)	\$ 31.63
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Usage charge, per 1,000 gallons
(based on metered water usage from the water supplier)

<u>Service Area</u>	<u>Bulk Provider</u>	
White Oak Plantation/ Lee Forest/Winston Pt.	Johnston County	\$ 5.06
Kings Grant	Two Rivers Utilities	\$ 3.80
College Park	Town of Dallas	\$ 5.70

<u>Monthly Flat Rate Sewer Service:</u>	\$ 57.82
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Multi-residential customers who are served by a master meter shall be charged the flat rate per unit.	\$ 57.82
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Mt. Carmel Subdivision Service Area:

Monthly Base Facility Charge	\$ 6.77
Monthly Collection Charge (Residential and Commercial)	\$ 31.63
Usage Charge, per 1,000 gallons (based on metered water usage from the water supplier)	\$ 5.88

Regalwood and White Oak Estates Subdivision Service Area:

Monthly Flat Rate Sewer Service	
Residential Service	\$ 57.82
White Oak High School	\$1,799.66
Child Castle Daycare	\$ 223.58
Pantry	\$ 119.49

Fairfield Mountain/Apple Valley (a.k.a. Rumbling Bald) Service Area and Highland Shores Subdivision:

Monthly Sewer Rates:

Residential

Collection charge/dwelling unit	\$ 31.63
Treatment charge/dwelling unit	\$ 69.50
Total monthly flat rate/dwelling unit	<u>\$ 101.13</u>

Commercial and Other:

Minimum monthly collection and treatment charge \$ 101.13

Monthly collection and treatment charge for customers who do not take water service \$ 101.13

Treatment charge per dwelling unit

Small (less than 2,500 gallons per month)	\$ 78.50
Medium (2,500 to 10,000 gallons per month)	\$ 139.50
Large (over 10,000 gallons per month)	\$ 219.50

Collection Charge (per 1,000 gallons) \$ 13.93

The Ridges at Mountain Harbour:

Monthly Sewer Rates:

Collection charge (Residential and Commercial) \$ 31.63

Treatment Charge (Residential and Commercial)
 < 1" meter \$ 18.42
 2" meter \$ 147.36

Availability Rate: (Monthly rate, billed semiannually)

Applicable only to property owners in Fairfield Sapphire
Valley Service Area \$ 8.30

Availability Rate: (Monthly rate, billed quarterly)

Applicable only to property owners in Connestee Falls \$ 4.70

New Sewer Customer Charge: ^{4/} \$ 27.00

Reconnection Charge: ^{5/}
If sewer service is cut off by utility for good cause Actual Cost

MISCELLANEOUS UTILITY MATTERS

Charge for Processing NSF Checks: \$ 25.00

Bills Due: On billing date

Bills Past Due: 21 days after billing date

Billing Frequency: Bills shall be rendered monthly in all service areas, except for Mt. Carmel, which will be billed bimonthly.

Availability rates will be billed quarterly in advance for Connestee Falls, semiannually in advance for Carolina Forest, Woodrun, and Fairfield Sapphire Valley, and monthly for Linville Ridge.

Finance Charge for Late Payment:

1% per month will be applied to the unpaid balance of all bills still past due 25 days after billing date.

Notes:

^{1/} If a customer requests a test of a water meter more frequently than once in a 24-month period, the Company will collect a \$20.00 service charge to defray the cost of the test. If the meter is found to register in excess of the prescribed accuracy limits, the meter testing charge will be waived. If the meter is found to register accurately or below prescribed accuracy limits, the charge shall be retained by the Company. Regardless of the test results, customers may request a meter test once in a 24-month period without charge.

^{2/} Customers who request to be reconnected within nine months of disconnection at the same address shall be charged the base facility charge for the service period they were disconnected.

^{3/} The utility shall itemize the estimated cost of disconnecting and reconnecting service and shall furnish this estimate to customer with cut-off notice.

^{4/} This charge shall be waived if customer is also a water customer within the same service area.

^{5/} The utility shall itemize the estimated cost of disconnecting and reconnecting service and shall furnish this estimate to customer with cut-off notice. This charge will be waived if customer also receives water service from Carolina Water Service within the same service area. Customers who request to be reconnected within nine months of disconnection at the same address shall be charged the base facility charge for the service period they were disconnected.

SCHEDULE OF RATES

for

CAROLINA WATER SERVICE, INC. OF NORTH CAROLINA

for providing sewer utility service

in

COROLLA LIGHT AND MONTERAY SHORES SERVICE AREA

SEWER RATES AND CHARGES

Monthly Metered Sewer Service (Residential and Commercial):

Base Facility Charge (based on meter size with zero usage)

< 1" meter	\$ 52.06
1" meter	\$ 130.15
1½" meter	\$ 260.31
2" meter	\$ 416.49
3" meter	\$ 780.92
4" meter	\$1,301.54
6" meter	\$2,603.07

Usage Charge, per 1,000 gallons \$ 6.62
(based on metered water usage per the water supplier)

Commercial customers, including condominiums or other property owner associations who bill their members directly, shall have a separate account set up for each meter and each meter shall be billed separately based on the size of the meter and usage associated with the meter.

New Sewer Customer Charge: \$ 21.92

Reconnection Charge: ^{1/}

If sewer service cut off by utility for good cause Actual Cost

Uniform Connection Fees: ^{2/}

The following uniform connection fees apply unless specified differently by contract approved by and on file with the North Carolina Utilities Commission.

Connection Charge (CC), per SFE (Single-Family Equivalent)	\$ 100.00
Plant Modification Fee (PMF), per SFE	\$1,000.00

The systems where connection fees other than the uniform fees have been approved and/or allowed to become effective by the North Carolina Utilities Commission are as follows. These fees are per SFE:

<u>Subdivision</u>	<u>CC</u>	<u>PMF</u>
Corolla Light	\$ 700.00	\$ 0.00
Monteray Shores	\$ 700.00	\$ 0.00
Monteray Shores (Degabrielle Bldrs.)	\$ 0.00	\$ 0.00
Corolla Bay ^{3/}	\$ 100.00	\$1,000.00
Corolla Bay ^{4/}	\$ 700.00	\$ 0.00
Corolla Shores	\$ 700.00	\$ 0.00

One SFE shall equal 360 gallons per day of capacity.

MISCELLANEOUS UTILITY MATTERS

<u>Charge for Processing NSF Checks:</u>	\$ 24.91
<u>Bills Due:</u>	On billing date
<u>Bills Past Due:</u>	21 days after billing date
<u>Billing Frequency:</u>	Bills shall be rendered monthly
<u>Finance Charge for Late Payment:</u>	1% per month will be applied to the unpaid balance of all bills still past due 25 days after billing date.

Notes:

^{1/} The Utility shall itemize the estimated cost of disconnecting and reconnecting service and shall furnish the estimate to customer with cut-off notice.

Customers who request to be reconnected within nine months of disconnection at the same address shall be charged the base facility charge for the service period they were disconnected.

^{2/} These fees are only applicable one time, when the unit is initially connected to the system.

^{3/} The connection charge of \$100 per SFE and the plant modification fee of \$1,000 per SFE specified herein apply to new wastewater connections requested at Corolla Bay prior to June 4, 2015.

^{4/} The connection charge of \$700 per SFE applies to new wastewater connections requested at Corolla Bay on and after June 4, 2015.

SCHEDULE OF RATES

for

CAROLINA WATER SERVICE, INC. OF NORTH CAROLINA

for providing water and sewer utility service

in

TREASURE COVE, REGISTER PLACE ESTATES, NORTH HILLS, GLEN
ARBOR/NORTH BEND SUBDIVISIONS, FAIRFIELD HARBOUR SERVICE AREA,
BRADFIELD FARMS SUBDIVISION, LARKHAVEN SUBDIVISION, SILVERTON AND
WOODLAND FARMS SUBDIVISIONS, AND HAWTHORNE AT THE GREEN
APARTMENTS

WATER RATES AND CHARGES

Monthly Metered Water Service (Residential and Commercial):

Base Facility Charge (based on meter size with zero usage)

< 1" meter	\$ 16.74
1" meter	\$ 41.85
1½" meter	\$ 83.70
2" meter	\$ 133.92

Usage Charge, per 1,000 gallons	\$ 3.75
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Availability Rate: (Monthly rate, billed semiannually)

Applicable only to property owners in Fairfield Harbour Service Area	\$ 3.28
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Connection Charge:

Treasure Cove Subdivision	\$ 0.00
North Hills Subdivision	\$ 100.00
Glen Arbor/North Bend Subdivision	\$ 0.00
Register Place Estates	\$ 500.00

Fairfield Harbor: ^{1/}

All Areas Except Harbor Pointe II Subdivision

Recoupment of capital fees per tap	\$ 335.00
Connection charge per tap	\$ 140.00

Harbor Pointe Subdivision and any area where mains have been installed after July 24, 1989

Recoupment of capital fee per tap	\$ 650.00
Connection charge per tap	\$ 320.00

Bradfield Farms:

Connection charge per tap	None
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<u>Meter Testing Fee:</u> ^{2/}	\$ 20.00
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<u>New Water Customer Charge:</u>	\$ 27.00
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Reconnection Charge: ^{3/}

If water service is cut off by utility for good cause	\$ 27.00
If water service is discontinued at customer's request	\$ 27.00

<u>New Meter Charge:</u>	Actual Cost
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<u>Irrigation Meter Installation:</u>	Actual Cost
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SEWER RATES AND CHARGES

Monthly Sewer Service:

Residential:

Flat Rate, per dwelling unit	\$ 50.46
Bulk Flat Rate, per REU	\$ 50.46

Commercial and Other:

Monthly Flat Rate (Customers who do not take water service)	\$ 50.46
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Monthly Metered Rates
(based on meter size with zero usage)

<1" meter	\$ 44.58
1" meter	\$111.45
1½" meter	\$222.90
2" meter	\$356.64

Usage Charge, per 1,000 gallons	\$ 1.43
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Bulk Sewer Service for Hawthorne at the Green Apartments: ^{4/}

Bulk Flat Rate, per REU	\$ 50.46
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(To be collected from Hawthorne and delivered to Carolina Water Service, Inc. of North Carolina for treatment of the Hawthorne wastewater pursuant to Docket No. W-218, Sub 291)

Availability Rate: (Monthly rate, billed semiannually)

Applicable only to property owners in Fairfield Harbour Service Area	\$ 2.65
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Connection Charge:

Fairfield Harbour: ^{1/}

All Areas Except Harbor Pointe II Subdivision

Recoupment of capital fees per tap	\$ 735.00
Connection charge per tap	\$ 140.00

Harbor Pointe Subdivision and any area where mains have been installed after July 24, 1989

Recoupment of capital fee per tap	\$2,215.00
Connection charge per tap	\$ 310.00

Bradfield Farms:

Connection charge per tap	None
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<u>New Sewer Customer Charge:</u> ^{5/}	\$ 27.00
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Reconnection Charge:^{6/}
If sewer service is cut off by utility for good cause Actual Cost

MISCELLANEOUS UTILITY MATTERS

Charge for Processing NSF Checks: \$ 25.00

Bills Due: On billing date

Bills Past Due: 21 days after billing date

Billing Frequency: Bills shall be monthly for service in arrears. Availability billings semiannually in advance.

Finance Charge for Late Payment: 1% per month will be applied to the unpaid balance of all bills still past due 25 days after billing date.

Notes:

^{1/} The recoupment of capital portion of the connection charges shall be due and payable at such time as the main water and sewer lines are installed in front of each lot, and the tap-on fee for water and sewer shall be payable upon request by the owner of each lot to be connected to the water and sewer lines. With written consent of the company, payment of the recoupment capital portion of the connection charge may be made payable over five-year period following the installation of the water and sewer mains in front of each lot, payment to be made in such a manner and in such installments as agreed upon between lot owner and the company, together with interest on the balance of the unpaid recoupment of capital fee from said time until payment in full at the rate of 6% per annum.

^{2/} If a customer requests a test of a water meter more frequently than once in a 24-month period, the Company will collect a \$20.00 service charge to defray the cost of the test. If the meter is found to register in excess of the prescribed accuracy limits, the meter testing charge will be waived. If the meter is found to register accurately or below prescribed accuracy limits, the charge shall be retained by the Company. Regardless of the test results, customers may request a meter test once in a 24-month period without charge.

^{3/} Customers who request to be reconnected within nine months of disconnection at the same address shall be charged the base facility charge for the service period they were disconnected.

^{4/} Each apartment building will be considered 92.42% occupied on an ongoing basis for billing purposes as soon as the certificate of occupancy is issued for that apartment building.

^{5/} This charge shall be waived if customer is also a water customer within the same service area.

^{6/} The utility shall itemize the estimated cost of disconnecting and reconnecting service and shall furnish this estimate to customer with cut-off notice. This charge will be waived if customer also receives water service from Carolina Water Service within the same service area. Customers who request to be reconnected within nine months of disconnection at the same address shall be charged the base facility charge for the service period they were disconnected.

CAROLINA WATER SERVICE, INC. OF NORTH CAROLINA

SCHEDULE OF CONNECTION FEES

FOR WATER UTILITY SERVICE UNDER UNIFORM RATES

Uniform Connection Fees: ^{1/}

The following uniform connection fees apply unless specified differently by contract approved by and on file with the North Carolina Utilities Commission.

Connection Charge (CC), per SFE (Single-Family Equivalent)	\$ 100.00
Plant Modification Fee (PMF), per SFE	\$ 400.00

The systems where connection fees other than the uniform fees have been approved and/or allowed to become effective by the North Carolina Utilities Commission are as follows. These fees are per SFE:

<u>Subdivision</u>	<u>CC</u>	<u>PMF</u>
Abington	\$ 0.00	\$ 0.00
Abington, Phase 14	\$ 0.00	\$ 0.00
Amherst	\$ 250.00	\$ 0.00
Bent Creek	\$ 0.00	\$ 0.00
Blue Mountain at Wolf Laurel	\$ 925.00	\$ 0.00
Buffalo Creek, Phase I, II, III, IV	\$ 825.00	\$ 0.00
Carolina Forest	\$ 0.00	\$ 0.00
Chapel Hills	\$ 150.00	\$ 400.00
Eagle Crossing	\$ 0.00	\$ 0.00
Elk River Development	\$1,000.00	\$ 0.00
Forest Brook/Old Lamp Place	\$ 0.00	\$ 0.00
Harbour	\$ 75.00	\$ 0.00
Hestron Park	\$ 0.00	\$ 0.00
Hound Ears	\$ 300.00	\$ 0.00
Kings Grant/Willow Run	\$ 0.00	\$ 0.00
Lemmond Acres	\$ 0.00	\$ 0.00
Linville Ridge	\$ 400.00	\$ 0.00
Monterrey (Monterrey LLC)	\$ 0.00	\$ 0.00
Quail Ridge	\$ 750.00	\$ 0.00
Queens Harbour/Yachtsman	\$ 0.00	\$ 0.00
Riverpointe	\$ 300.00	\$ 0.00
Riverpointe (Simonini Bldrs.)	\$ 0.00	\$ 0.00
Riverwood, Phase 6E (Johnston County)	\$ 825.00	\$ 0.00

<u>Subdivision</u>	<u>CC</u>	<u>PMF</u>
Saddlewood/Oak Hollow (Summey Bldrs.)	\$ 0.00	\$ 0.00
Sherwood Forest	\$ 950.00	\$ 0.00
Ski Country	\$ 100.00	\$ 0.00
The Ridges at Mountain Harbour	\$2,500.00	\$ 0.00
White Oak Plantation	\$ 0.00	\$ 0.00
Wildlife Bay	\$ 870.00	\$ 0.00
Willowbrook	\$ 0.00	\$ 0.00
Winston Plantation	\$1,100.00	\$ 0.00
Winston Pointe, Phase 1A	\$ 500.00	\$ 0.00
Wolf Laurel	\$ 925.00	\$ 0.00
Woodrun	\$ 0.00	\$ 0.00
Woodside Falls	\$ 500.00	\$ 0.00

Other Connection Fees:

The following connection fees apply unless specified differently by contract approved and/or filed with the North Carolina Utilities Commission.

Amber Acres, Amber Acres North, Amber Ridge, Ashley Hills North, Bishop Pointe, Carriage Manor, Country Crossing, Covington Cross, Heather Glen, Hidden Hollow, Jordan Woods, Lindsey Point, Neuse Woods, Oakes Plantation, Randsdell Forest, Rutledge Landing, Sandy Trails, Stewart's Ridge, Tuckahoe, Wilder's Village, and Forest Hill Subdivisions

Connection Charge:

- A. 5/8" meter \$ 500.00
- B. All other meter sizes Actual cost of meter and installation

The systems where other connection fees have been approved and/or allowed to become effective by the North Carolina Utilities Commission are as follows:

<u>Subdivision</u>	<u>CC</u>
Lindsey Point Subdivision	\$ 0.00
Amber Acres North, Sections II & IV	\$ 570.00
Fairfield Mountain/Apple Valley (a.k.a. Rumbing Bald) Service Area	\$ 500.00
Highland Shores Subdivision	\$ 500.00
Laurel Mountain Estates	\$ 0.00
Carolina Trace	\$ 605.00
Connestee Falls	\$ 600.00

The following connection fees apply unless specified differently by contract approved and/or filed with the North Carolina Utilities Commission.

All Areas Except Holly Forest XI, Holly Forest XIV, Holly Forest XV, Whisper Lake I, Whisper Lake II, Whisper Lake III, Deer Run, Lonesome Valley Phases I and II, and Chattooga Ridge

Recoupment of Capital Fee (RCF) ^{2/}	\$ 0.00
Connection charge	\$ 400.00

The systems where other connection fees have been approved and/or allowed to become effective by the North Carolina Utilities Commission are as follows:

<u>Subdivision</u>	<u>CC</u>	<u>RCF</u>
Holly Forest XI	\$ 400.00	\$2,400.00
Holly Forest XIV	\$ 400.00	\$ 250.00
Holly Forest XV	\$ 400.00	\$ 500.00
Whispering Lake Phase I	\$ 400.00	\$1,250.00
Whispering Lake Phases II and III	\$ 400.00	\$2,450.00
Deer Run	\$ 400.00	\$1,900.00
Lonesome Valley Phases I and II	\$ 0.00	\$ 0.00
Chattooga Ridge	\$ 0.00	\$ 0.00

Notes:

^{1/} These fees are only applicable one time, when the unit is initially connected to the system.

^{2/} The recoupment of capital portion of the connection charges shall be due and payable at such time as the main water and sewer lines are installed in front of each lot, and the tap-on fee for water and sewer shall be payable upon request by the owner of each lot to be connected to the water and sewer lines. With written consent of the company, payment of the recoupment capital portion of the connection charge may be made payable over five-year period following the installation of the water and sewer mains in front of each lot, payment to be made in such a manner and in such installments as agreed upon between lot owner and the company, together with interest on the balance of the unpaid recoupment of capital fee from said time until payment in full at the rate of 6% per annum.

CAROLINA WATER SERVICE, INC. OF NORTH CAROLINA

SCHEDULE OF CONNECTION FEES FOR

SEWER UTILITY SERVICE UNDER UNIFORM RATES

Uniform Connection Fees: ^{1/}

The following uniform connection fees apply unless specified differently by contract approved by and on file with the North Carolina Utilities Commission.

Connection Charge (CC), per SFE (Single-Family Equivalent)	\$ 100.00
Plant Modification Fee (PMF), per SFE	\$1,000.00

The systems where connection fees other than the uniform fees have been approved and/or allowed to become effective by the North Carolina Utilities Commission are as follows. These fees are per SFE:

<u>Subdivision</u>	<u>CC</u>	<u>PMF</u>
Abington	\$ 0.00	\$ 0.00
Abington, Phase 14	\$ 0.00	\$ 0.00
Amber Acres North (Phases II & IV)	\$ 815.00	\$ 0.00
Ashley Hills	\$ 0.00	\$ 0.00
Amherst	\$ 500.00	\$ 0.00
Bent Creek	\$ 0.00	\$ 0.00
Brandywine Bay	\$ 100.00	\$1,456.00
Camp Morehead by the Sea	\$ 100.00	\$1,456.00
Elk River Development	\$1,200.00	\$ 0.00
Hammock Place	\$ 100.00	\$1,456.00
Hestron Park	\$ 0.00	\$ 0.00
Hound Ears	\$ 30.00	\$ 0.00
Independent/Hemby Acres/Beacon Hills (Griffin Bldrs.)	\$ 0.00	\$ 0.00
Kings Grant/Willow Run	\$ 0.00	\$ 0.00
Kynwood	\$ 0.00	\$ 0.00
Mt. Carmel/Section 5A	\$ 500.00	\$ 0.00
Queens Harbor/Yachtsman	\$ 0.00	\$ 0.00
Riverpointe	\$ 300.00	\$ 0.00
Riverpointe (Simonini Bldrs.)	\$ 0.00	\$ 0.00
Steeplechase (Spartabrook)	\$ 0.00	\$ 0.00
The Ridges at Mountain Harbour	\$2,500.00	\$ 0.00

<u>Subdivision</u>	<u>CC</u>	<u>PMF</u>
White Oak Plantation	\$ 0.00	\$ 0.00
Willowbrook	\$ 0.00	\$ 0.00
Willowbrook (Phase 3)	\$ 0.00	\$ 0.00
Winston Pointe (Phase 1A)	\$2,000.00	\$ 0.00
Woodside Falls	\$ 0.00	\$ 0.00

Other Connection Fees:

The systems where other connection fees have been approved and/or allowed to become effective by the North Carolina Utilities Commission are as follows:

<u>Subdivision</u>	
Carolina Pines	
Residential	\$1,350.00 per unit (including single-family homes, condominiums, apartments, and mobile homes)
Hotels	\$750.00 per unit
Nonresidential	\$3.57 per gallon of daily design of discharge or \$900.00 per unit, whichever is greater

<u>Subdivision</u>	<u>CC</u>
Fairfield Mountain/Apply Valley (a.k.a. Rumbling Bald)	
Service Area	\$ 550.00
Highland Shores	\$ 550.00
Carolina Trace	\$ 533.00
Connestee Falls	\$ 400.00

The following connection fees apply unless specified differently by contract approved and/or filed with the North Carolina Utilities Commission.

All Areas Except Holly Forest XIV, Holly Forest XV, Deer Run, and Lonesome Valley Phases I and II

Recoupment of Capital Fee (RCF) ^{2/}	\$ 0.00
Connection Charge	\$ 550.00

The systems where other connection fees have been approved and/or allowed to become effective by the North Carolina Utilities Commission are as follows:

<u>Subdivision</u>	<u>CC</u>	<u>RCF</u>
Holly Forest XIV	\$ 550.00	\$1,650.00
Holly Forest XV	\$ 550.00	\$ 475.00
Deer Run	\$ 550.00	\$1,650.00
Lonesome Valley Phases I and II	\$ 0.00	\$ 0.00

Notes:

^{1/} These fees are only applicable one time, when the unit is initially connected to the system.

^{2/} The recoupment of capital portion of the connection charges shall be due and payable at such time as the main water and sewer lines are installed in front of each lot, and the tap-on fee for water and sewer shall be payable upon request by the owner of each lot to be connected to the water and sewer lines. With written consent of the company, payment of the recoupment capital portion of the connection charge may be made payable over five-year period following the installation of the water and sewer mains in front of each lot, payment to be made in such a manner and in such installments as agreed upon between lot owner and the company, together with interest on the balance of the unpaid recoupment of capital fee from said time until payment in full at the rate of 6% per annum.

**STATE OF NORTH CAROLINA
UTILITIES COMMISSION
RALEIGH**

DOCKET NO. W-354, SUB 360

BEFORE THE NORTH CAROLINA UTILITIES COMMISSION

In the Matter of
Application by Carolina Water Service, Inc. of)
North Carolina, 4944 Parkway Plaza Boulevard,)
Suite 375, Charlotte, North Carolina 28217, for)
Authority to Adjust and Increase Rates for Water)
and Sewer Utility Service in All of its Service)
Areas in North Carolina, Except Corolla Light and)
Monteray Shores Service Area)

NOTICE TO CUSTOMERS

NOTICE IS HEREBY GIVEN that the North Carolina Utilities Commission has issued an Order authorizing Carolina Water Service, Inc. of North Carolina (CWSNC) to increase rates for water and sewer utility service in all of its service areas in North Carolina (excluding Corolla Light and Monteray Shores Service Area). The new approved rates are as follows:

WATER RATES AND CHARGES

(Excluding Corolla Light and Monteray Shores Service Area, Fairfield Harbour Service Area, Treasure Cove, Register Place Estates, North Hills and Glen Arbor/North Bend Subdivisions, Bradfield Farms, Larkhaven Subdivision, Silverton and Woodland Farms Subdivisions, and Hawthorne at the Green Apartments)

Uniform Water Customers:

Monthly Metered Water Service (Residential and Commercial):

Base Facility Charge (based on meter size with zero usage)	
< 1" meter	\$ 27.53
1" meter	\$ 68.83
1½" meter	\$ 137.65
2" meter	\$ 220.24
3" meter	\$ 412.95
4" meter	\$ 688.25
6" meter	\$1,376.50

Usage Charge:

A. Treated Water, per 1,000 gallons	\$ 7.08
B. Untreated Water, per 1,000 gallons (Brandywine Bay Irrigation Water)	\$ 4.11
C. Purchased Water for Resale, per 1,000 gallons:	

<u>Service Area</u>	<u>Bulk Provider</u>		
Carolina Forest	Montgomery County	\$	3.19
High Vista Estates	City of Hendersonville	\$	3.25
Riverpointe	Charlotte Water	\$	6.30
Whispering Pines	Town of Southern Pines	\$	2.23
White Oak Plantation/ Lee Forest	Johnston County	\$	2.40
Winston Plantation	Johnston County	\$	2.40
Winston Point	Johnston County	\$	2.40
Woodrun	Montgomery County	\$	3.19
Yorktown	City of Winston-Salem	\$	5.01
Zemosa Acres	City of Concord	\$	5.27
Carolina Trace	City of Sanford	\$	2.21

Commercial customers, including condominiums or other property owner associations who bill their members directly, shall have a separate account set up for each meter and each meter shall be billed separately based on the size of the meter and usage associated with the meter.

When because of the method of water line installation utilized by the developer or owner, it is impractical to meter each unit or other structure separately, the following will apply:

Sugar Mountain Service Area:
Where service to multiple units or other structures is provided through a single meter, the average usage for each unit or structure served by that meter will be calculated. Each unit or structure will be billed based upon that average usage plus the base monthly charge for a <1” meter.

Mount Mitchell Service Area:
Service will be billed based upon the Commission-approved monthly flat rate.

Monthly Flat Rate Water Service: (Billed in Arrears) \$ 53.58

Availability Rate: (Semiannually)

Applicable only to property owners in Carolina Forest and Woodrun Subdivisions in Montgomery County \$ 24.65

Availability Rate: (Monthly)

Applicable only to property owners in Linville Ridge Subdivision \$ 12.35

Availability Rate: (Monthly rate, billed semiannually)

Applicable only to property owners in Fairfield Sapphire Valley Service Area \$ 9.10

Availability Rate: (Monthly rate, billed quarterly)

Applicable only to property owners in Connestee Falls \$ 4.80

SEWER RATES AND CHARGES

(Excluding Corolla Light and Monterey Shores Service Area, Fairfield Harbour Service Area, Treasure Cove, Register Place Estates, North Hills and Glen Arbor/North Bend Subdivisions, Bradfield Farms, Larkhaven Subdivision, Silverton and Woodland Farms Subdivisions, and Hawthorne at the Green Apartments)

Uniform Sewer Customers:

Monthly Metered Sewer Service:

Base Facility Charge:

Residential (zero usage) \$ 46.31

Commercial (based on meter size with zero usage)

< 1" meter	\$ 46.31
1" meter	\$ 115.78
1½" meter	\$ 231.55
2" meter	\$ 370.48
3" meter	\$ 694.65
4" meter	\$1,157.75
6" meter	\$2,315.50

Usage charge, per 1,000 gallons \$ 3.62

Commercial customers, including condominiums or other property owner associations who bill their members directly, shall have a separate account set up for each meter and each meter shall be billed separately based on the size of the meter and usage associated with the meter.

Monthly Metered Purchased Sewer Service:

Collection Charge (Residential and Commercial) \$ 31.63

Usage charge, per 1,000 gallons
(based on metered water usage from the water supplier)

<u>Service Area</u>	<u>Bulk Provider</u>		
White Oak Plantation/ Lee Forest/Winston Pt.	Johnston County	\$	5.06
Kings Grant	Two Rivers Utilities	\$	3.80
College Park	Town of Dallas	\$	5.70

Monthly Flat Rate Sewer Service: \$ 57.82

Multi-residential customers who are served by a master meter shall be charged the flat rate per unit. \$ 57.82

Mt. Carmel Subdivision Service Area:

Monthly Base Facility Charge \$ 6.77

Monthly Collection Charge
(Residential and Commercial) \$ 31.63

Usage Charge, per 1,000 gallons
(based on metered water usage from the water supplier) \$ 5.88

Regalwood and White Oak Estates Subdivision Service Area:

Monthly Flat Rate Sewer Service		
Residential Service	\$	57.82
White Oak High School	\$	1,799.66
Child Castle Daycare	\$	223.58
Pantry	\$	119.49

Fairfield Mountain/Apple Valley (a.k.a. Rumbling Bald) Service Area and Highland Shores Subdivision

Monthly Sewer Rates:

Residential	
Collection charge/dwelling unit	\$ 31.63
Treatment charge/dwelling unit	\$ 69.50
Total monthly flat rate/dwelling unit	<u>\$ 101.13</u>
Commercial and Other	\$ 101.13
Minimum monthly collection and treatment charge	\$ 101.13
Monthly collection and treatment charge for customers who do not take water service (per single-family unit)	\$ 101.13
Treatment charge per dwelling unit	
Small (less than 2,500 gallons per month)	\$ 78.50
Medium (2,500 to 10,000 gallons per month)	\$ 139.50
Large (over 10,000 gallons per month)	\$ 219.50
Collection Charge (per 1,000 gallons)	\$ 13.93

The Ridges at Mountain Harbour:

Monthly Sewer Rates (Residential and Commercial):

Collection charge	\$ 31.63
Treatment Charge	
< 1" meter	\$ 18.42
2" meter	\$ 147.36

Availability Rate: (Monthly rate, billed semiannually)

Applicable only to property owners in Fairfield Sapphire Valley Service Area	\$ 8.30
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Availability Rate: (Monthly rate, billed quarterly)

Applicable only to property owners in Connestee Falls	\$ 4.70
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RATE ADJUSTMENT MECHANISM:

The Commission-authorized water and sewer system improvement charge (WSIC/SSIC) rate adjustment mechanism continues in effect and will now be applicable to all customers in CWSNC's North Carolina service areas. It has been reset at zero in the Docket No. W-354, Sub 360 rate case. On January 31, 2019, in Docket No. W-354, Sub 360A, CWSNC applied, under the Rules and Regulations of the Commission, for a rate surcharge to become effective April 1, 2019. The WSIC/SSIC mechanism is designed to recover, between rate case proceedings, the costs associated with investment in certain completed, eligible projects for system or water quality improvement. The WSIC/SSIC mechanism is subject to Commission approval and to audit and refund provisions. Any cumulative system improvement charge recovered pursuant to the WSIC/SSIC mechanism may not exceed 5% of the total annual service revenues approved by the Commission in this general rate case proceeding. Additional information regarding the WSIC/SSIC mechanism is contained in the Commission's Order and can be accessed from the Commission's website at www.ncuc.net, under Docket Information, using the Docket Search feature for docket number "W-354 Sub 356A" and "W-354 Sub 360A".

CREDIT/REFUNDS DUE TO REDUCTION IN FEDERAL CORPORATE INCOME TAX RATE:

On December 22, 2017, President Donald J. Trump signed into law the Tax Cuts and Jobs Act (The Tax Act), which among other things, reduced the federal corporate income tax rate from 35% to 21%, effective for taxable years beginning after December 31, 2017. In the present rate case proceeding, CWSNC's revenue requirement reflects the reduction in the federal corporate income tax rate from 35% to 21%, on the Company's ongoing federal income tax expense. Further, the Commission is requiring that CWSNC refund to its customers the overcollection of federal income taxes related to the decrease in the federal corporate income tax rate for the period beginning January 1, 2018, and corresponding interest, through a surcharge credit for a one-year period beginning with the effective date of the new rates.

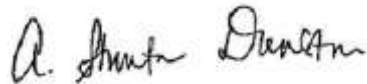
With respect to excess deferred income taxes (EDIT) resulting from the reduction in the federal corporate income tax rate, the Commission is requiring that: (1) CWSNC's Protected Federal EDIT shall be flowed back to customers over a 45-year period using the Reverse South Georgia method, in accordance with tax normalization rules required by Internal Revenue Code Section 203(e) and (2) CWSNC's Unprotected Federal EDIT shall be returned to ratepayers through a levelized rider over a period of four years.

CWSNC will provide the applicable dollar amounts concerning (1) the one-year surcharge credit and (2) the federal EDIT rider (refund) shown as separate line items on individual customers' monthly bills, along with explanatory information.

ISSUED BY ORDER OF THE COMMISSION.

This the 21st day of February, 2019.

NORTH CAROLINA UTILITIES COMMISSION

A handwritten signature in black ink, appearing to read "A. Shonta Dunston". The signature is written in a cursive, flowing style.

A. Shonta Dunston, Deputy Clerk

**STATE OF NORTH CAROLINA
UTILITIES COMMISSION
RALEIGH**

DOCKET NO. W-354, SUB 360

BEFORE THE NORTH CAROLINA UTILITIES COMMISSION

In the Matter of
 Application by Carolina Water Service, Inc.) **NOTICE TO CUSTOMERS**
 of North Carolina, 4944 Parkway Plaza) **IN TREASURE COVE,**
 Boulevard, Suite 375, Charlotte, North) **REGISTER PLACE ESATES,**
 Carolina 28217, for Authority to Adjust and) **NORTH HILLS, AND GLEN**
 Increase Rates for Water and Sewer Utility) **ARBOR/NORTH BEND**
 Service in All of its Service Areas in North) **SUBDIVISIONS, FAIRFIELD**
 Carolina, Except Corolla Light and) **HARBOUR SERVICE AREA,**
 Monteray Shores Service Area) **BRADFIELD FARMS**
) **SUBDIVISION, LARKHAVEN**
) **SUBDIVISION, SILVERTON**
) **AND WOODLAND FARMS**
) **SUBDIVISIONS, AND**
) **HAWTHORNE AT THE GREEN**
) **APARTMENTS**
)

NOTICE IS HEREBY GIVEN that the North Carolina Utilities Commission has issued an Order authorizing Carolina Water Service, Inc. of North Carolina (CWSNC) to charge the following new rates for water and sewer utility service in Treasure Cove, Register Place Estates, North Hills, and Glen Arbor/North Bend Subdivisions, Fairfield Harbour Service Area, Bradfield Farms Subdivision, Larkhaven Subdivision, Silverton and Woodland Farms Subdivisions, and Hawthorne at the Green Apartments:

WATER RATES AND CHARGES

Monthly Metered Water Service (Residential and Commercial):

Base Facility Charge (based on meter size with zero usage)	
< 1" meter	\$ 16.74
1" meter	\$ 41.85
1½" meter	\$ 83.70
2" meter	\$ 133.92

Usage Charge, per 1,000 gallons \$ 3.75

Availability Rate: (Monthly rate, billed semiannually)

Applicable only to property owners in Fairfield
Harbour Service Area \$ 3.28

SEWER RATES AND CHARGES

Monthly Sewer Service:

Residential:

Flat Rate, per dwelling unit \$ 50.46
Bulk Flat rate, per REU \$ 50.46

Commercial and Other:

Monthly Flat Rate
(Customers who do not take water service) \$ 50.46

Monthly Metered Rates
(based on meter size with zero usage)

<1" meter \$ 44.58
1" meter \$111.45
1½" meter \$222.90
2" meter \$356.64

Usage Charge, per 1,000 gallons \$ 1.43

Bulk Sewer Service for Hawthorne at the Green Apartments:

Bulk Flat Rate, per REU \$ 50.46

(To be collected from Hawthorne and delivered to Carolina Water Service, Inc. of North Carolina for treatment of the Hawthorne wastewater pursuant to Docket No. W-218, Sub 291)

Availability Rate: (Monthly rate, billed semiannually)

Applicable only to property owners in Fairfield
Harbour Service Area \$ 2.65

RATE ADJUSTMENT MECHANISM:

The Commission-authorized water and sewer system improvement charge (WSIC/SSIC) rate adjustment mechanism continues in effect and will now be applicable to all customers in CWSNC's North Carolina service areas. It has been reset at zero in the Docket No. W-354, Sub 360 rate case. On January 31, 2019, in Docket No. W-354, Sub 360A, CWSNC applied, under the Rules and Regulations of the Commission, for a rate surcharge to become effective April 1, 2019. The WSIC/SSIC mechanism is designed to recover, between rate case proceedings, the costs associated with investment in certain completed, eligible projects for system or water quality improvement. The WSIC/SSIC mechanism is subject to Commission approval and to audit and refund provisions. Any cumulative system improvement charge recovered pursuant to the WSIC/SSIC mechanism may not exceed 5% of the total annual service revenues approved by the Commission in this general rate case proceeding. Additional information regarding the WSIC/SSIC mechanism is contained in the Commission's Order and can be accessed from the Commission's website at www.ncuc.net, under Docket Information, using the Docket Search feature for docket number "W-354 Sub 356A" and "W-354 Sub 360A".

CREDIT/REFUNDS DUE TO REDUCTION IN FEDERAL CORPORATE INCOME TAX RATE:

On December 22, 2017, President Donald J. Trump signed into law the Tax Cuts and Jobs Act (The Tax Act), which among other things, reduced the federal corporate income tax rate from 35% to 21%, effective for taxable years beginning after December 31, 2017. In the present rate case proceeding, CWSNC's revenue requirement reflects the reduction in the federal corporate income tax rate from 35% to 21%, on the Company's ongoing federal income tax expense. Further, the Commission is requiring that CWSNC refund to its customers the overcollection of federal income taxes related to the decrease in the federal corporate income tax rate for the period beginning January 1, 2018, and corresponding interest, through a surcharge credit for a one-year period beginning with the effective date of the new rates.

With respect to excess deferred income taxes (EDIT) resulting from the reduction in the federal corporate income tax rate, the Commission is requiring that: (1) CWSNC's Protected Federal EDIT shall be flowed back to customers over a 45-year period using the Reverse South Georgia method, in accordance with tax normalization rules required by Internal Revenue Code Section 203(e) and (2) CWSNC's Unprotected Federal EDIT shall be returned to ratepayers through a levelized rider over a period of four years.

CWSNC will provide the applicable dollar amounts concerning (1) the one-year surcharge credit and (2) the federal EDIT rider (refund) shown as separate line items on individual customers' monthly bills, along with explanatory information.

ISSUED BY ORDER OF THE COMMISSION.

This the 21st day of February, 2019.

NORTH CAROLINA UTILITIES COMMISSION

A handwritten signature in black ink, appearing to read "A. Shonta Dunston". The signature is written in a cursive, flowing style.

A. Shonta Dunston, Deputy Clerk

CERTIFICATE OF SERVICE

I, _____, mailed with sufficient postage or hand delivered to all affected customers the attached Notices to Customers issued by the North Carolina Utilities Commission in Docket No. W-354, Sub 360, and the Notices were mailed or hand delivered by the date specified in the Order.

This the ____ day of _____, 2019.

By: _____
Signature

Name of Utility Company

The above named Applicant, _____, personally appeared before me this day and, being first duly sworn, says that the required Notices to Customers were mailed or hand delivered to all affected customers, as required by the Commission Order dated _____ in Docket No. W-354, Sub 360.

Witness my hand and notarial seal, this the ____ day of _____, 2019.

Notary Public

Printed or Typed Name

(SEAL) My Commission Expires: _____
Date

COMMONWEALTH OF VIRGINIA
STATE CORPORATION COMMISSION
AT RICHMOND, DECEMBER 21, 2018

CCC-CLERK'S OFFICE
DOCUMENT CONTROL CENTER

2018 DEC 21 A 11: 27

CASE NO. PUR-2017-00069

181230112

APPLICATION OF

MASSANUTTEN PUBLIC SERVICE
CORPORATION

For an increase in water
and sewer rates

FINAL ORDER

On June 30, 2017, Massanutten Public Service Corporation ("Massanutten" or "Company") filed with the State Corporation Commission ("Commission") an application for a general increase in its water and sewer rates, together with certain schedules filed under seal pursuant to 5 VAC 5-20-170 of the Commission's Rules of Practice and Procedure,¹ and testimonies and exhibits ("Application").² The Company filed its Application pursuant to Chapter 10 of Title 56 of the Code of Virginia ("Code")³ and the Commission's Rules Governing Utility Rate Applications and Annual Informational Filings.⁴

The Company requested authority to increase its rates for water and sewer service to produce an increase in water revenues of \$63,939, and an increase in wastewater revenues of \$658,268.⁵ The Company indicated that this rate request was based on a 9.25% return on

¹ 5 VAC 5-20-10 *et seq.*

² On July 14, 2017, the Company filed Schedule 40. On July 19, 2017, the Company filed supplements to Schedules 30 and 36. The Company's Application was deemed complete as of July 19, 2017.

³ Code § 56-232 *et seq.*

⁴ 20 VAC 5-201-10 *et seq.*

⁵ Ex. 4 (Application) at 2, Schedule 26.

equity.⁶ Massanutten proposed to allocate the revenue increase for water and wastewater to its four customer classes producing the following revenue increase by class:⁷

<u>Class</u>	<u>Water Revenue Increase</u>	<u>Wastewater Revenue Increase</u>
Residential	3.76%	42.71%
Commercial	2.61%	41.60%
Hospitality	-0.78%	37.12%
Water Park	0.64%	38.91%

Currently the monthly base facilities charge applicable to water service for all customers ranges from \$13.82 to \$345.58 as the meter size increases from 5/8" to 4". Under the proposed rates, the monthly base facilities charge would range from \$14.26 to \$364.36 as the meter size increases from 5/8" to 4". Specifically, the Company proposed the following changes in water charges per 1,000 gallons to its four customer classes:

<u>Class</u>	<u>Current Charge</u>	<u>Proposed Charge</u>
Residential	\$8.47	\$8.93
Commercial	\$8.84	\$9.17
Hospitality	\$8.88	\$9.16
Water Park	\$9.23	\$9.57

Currently the monthly base facilities charge applicable to wastewater service for all customers ranges from \$13.37 to \$334.19 as the meter size increases from 5/8" to 4". Under the proposed rates, the monthly base facilities charge would range from \$19.07 to \$484.41 as the meter size increases from 5/8" to 4". Specifically, the Company proposed the following changes in wastewater charges per 1,000 gallons to its four customer classes:

⁶ Ex. 9 (Guttormsen Direct Testimony) at 2.

⁷ *Id.* at 5-6; Ex. 4 (Application) at Schedule 43. The Company calculated these percentage increases based in part on a reduction in customer consumption. *See* Ex. 4 (Application) at Schedule 43; Ex. 5 (Lubertozi Direct Testimony) at 8.

<u>Class</u>	<u>Current Charge</u>	<u>Proposed Charge</u>
Residential	\$7.59	\$11.00
Commercial	\$8.67	\$12.42
Hospitality	\$8.62	\$12.29
Water Park	\$9.56	\$13.68

Currently, the monthly availability fee is \$4.81 for water and \$4.65 for wastewater. This would increase to \$5.07 per month for water and \$6.74 per month for wastewater. These charges are billed semi-annually.⁸ The Company's Application reflected proposed rates with an effective date of November 1, 2017.⁹

On August 10, 2017, the Commission entered an Order for Notice and Hearing ("Procedural Order") in this proceeding, which, among other things, docketed the Company's Application, directed Massanutten to provide notice of its Application, provided interested persons the opportunity to comment or participate in the proceeding, directed the Commission's Staff ("Staff") to investigate the Application, scheduled an evidentiary hearing, and assigned a Hearing Examiner to conduct all further proceedings in this matter on behalf of the Commission. Pursuant to the Procedural Order, the Company implemented its proposed rates on an interim basis, subject to refund with interest, on December 16, 2017.¹⁰

On August 2, 2017, a notice of participation was timely submitted by Great Eastern Resort Corporation, Great Eastern Resort Management, Inc., Great Eastern Waterpark, LLC, Great Eastern Purveyors, Inc., Peak Construction Company, Inc., Woodstone Time-Share Owners Association, Shenandoah Villas Owners Association, The Summit at Massanutten

⁸ Ex. 4 (Application) at 2-3.

⁹ *Id.* at 3; Ex. 8 (Guttormsen Direct Testimony) at 6.

¹⁰ Tr. 18.

Owners Association, Regal Vistas at Massanutten Owners Association, and Eagle Trace Owners Association (collectively, "Resort Customers"). In response to requests by the public, the Hearing Examiner convened local public hearings on March 1, 2018, in Rockingham County.

The Hearing Examiner convened a public and evidentiary hearing on March 27, 2018. One public witness testified at the hearing. Massanutten, Staff, and the Resort Customers participated in the hearing. On May 1, 2018, Massanutten, Staff, and the Resort Customers filed post-hearing briefs.

On June 5, 2018, the Report of Michael D. Thomas, Hearing Examiner ("Report") was filed. On June 26, 2018, Massanutten, the Resort Customers, and Staff timely filed comments to the Hearing Examiner's Report.

NOW THE COMMISSION, upon consideration of this matter, is of the opinion and finds as follows.

Initially, as recommended by the Hearing Examiner, we find that dismissal of the Company's Application is not warranted, and that the Commission may determine just and reasonable rates based on the evidentiary record in this case.¹¹ We also approve, as agreed to by Massanutten and Staff, that the Company's rates herein shall be based on a rate of return on common equity of 9.25%, which is the midpoint of a cost of equity range of 8.75% to 9.75%.¹²

We reject the Company's request to treat specifically-identified rate case costs attendant to its 2014 Rate Case¹³ as a regulatory asset for ratemaking purposes. Pursuant to the Company's

¹¹ See, e.g., Report at 43, 43 n.53.

¹² See, e.g., *id.* at 34.

¹³ *Application of Massanutten Public Service Corporation, For an increase in water and sewer rates*, Case No. PUE-2014-00035, Final Order (Aug. 25, 2015) ("2014 Rate Case").

Stipulation in that case, the Commission's Final Order therein directed that the Company could "defer and amortize rate case costs over 5 years on the Company's books" for accounting purposes, but that it could not treat those specific costs "as regulatory assets for ratemaking purposes."¹⁴ The Final Order in the 2014 Rate Case, however, obviously does not preclude the Commission from reflecting a reasonable amount of normalized regulatory expense in the Company's annual revenue requirement for purpose of the instant proceeding. Based on the specific, unique circumstances attendant to the Company and the facts of this case, we find that it is reasonable to include a level of regulatory expense, normalized over five years, that reflects: (i) five years of regulatory costs (2013-2017);¹⁵ and (ii) the legal costs of the Potomac Riverkeeper Suit.¹⁶ This results in a normalized level of regulatory expense of \$277,079, which we find reasonable for purposes of this specific rate proceeding.¹⁷

The Commission agrees with the Hearing Examiner's finding that the costs and timing of the Biological Nutrient Removal Project were reasonable.¹⁸

We also agree with the Hearing Examiner that the evidence supports a revenue allocation and rate design that would move the Company's rate classes toward parity.¹⁹ We find that the Hearing Examiner's 50% parity revenue allocation and rate design, which produces a positive

¹⁴ *Id.*, Attachment A at 2.

¹⁵ This totals \$1,312,820. *See, e.g.*, Ex. 2 (Rate Case Expense History) at 2; Ex. 29 (Updated Schedules) at 25.

¹⁶ This totals \$72,575. *See, e.g.*, Ex. 30 (Updated Riverkeeper Legal Expenses); Tr. 223-225.

¹⁷ Based on the allocation between water and wastewater service used in this case, \$131,514 of this normalized expense is allocated to water service, and \$145,565 is allocated to wastewater service. *See, e.g.*, Ex. 4 (Application) at RG-Exhibit 1 - Adjustment 8.

¹⁸ *See, e.g.*, Report at 46.

¹⁹ *See, e.g., id.* at 47.

return for the Residential class, will move the classes closer to parity and avoid rate shock.²⁰ We also agree with the Hearing Examiner that the Waterpark's sewage bill should be calculated based on its sewage meter reading rather than on water consumption, which will appropriately bill the Waterpark for its wastewater discharges.²¹

Finally, we agree with the Hearing Examiner that the Company should continue to comply with the tracking and reporting requirements of Paragraph (14) of the Stipulation in the 2014 Rate Case.²²

Accordingly, IT IS ORDERED THAT:

(1) An overall annual revenue requirement increase of \$573,239 for water service, and a decrease of \$129,080 for wastewater service, for a net annual increase of \$444,159 is hereby approved.

(2) A rate of return on common equity of 9.25%, and a cost of equity range of 8.75% to 9.75% are hereby approved.

(3) The revenue requirement approved herein is based on an overall cost of capital of 7.525% from the Utilities, Inc. capital structure supported by Staff.

(4) The Company shall refund, with interest: (i) the difference between the interim rates that became effective for service rendered on and after December 16, 2017, and the final rates approved herein. On or before February 15, 2019, the Company shall complete refunds by check or through credits to customer bills, to the extent that such revenues produced by interim rates exceed revenues produced by the rates approved herein.

²⁰ See, e.g., *id.* at 45.

²¹ See, e.g., *id.* at 45, 47.

²² See, e.g., *id.* at 46.

(5) Refunds, with interest, for current customers may be made by a credit to the customers' accounts and shown on bills. If refunds, with interest, for current customers are made by a credit to the customers' accounts and shown on bills, the bills shall show the refund as a separate item or items.

(6) For former customers, refunds with interest that exceed \$1 shall be made by check mailed to the last known address of such customers.

(7) Massanutten may retain refunds owed to former customers when such refund amount is less than \$1; however, if refunds owed to former customers in an amount less than \$1 are retained by the Company, the Company will prepare and maintain a list detailing each of the former accounts for which refunds are less than \$1, and in the event such former customers contact the Company and request refunds, such refunds shall be made promptly. All unclaimed refunds shall be handled in accordance with Code § 55-210.6:2.

(8) Massanutten may offset the credit or refund to the extent no dispute exists regarding the outstanding balances of its current customers or customers who are no longer on its system. To the extent the outstanding balances of such customers are disputed, no offset shall be permitted for the disputed portion.

(9) Interest upon the ordered refunds shall be computed from the date payments on monthly bills were due as shown on the bills to the date each refund is made at the average prime rate for each calendar quarter, compounded quarterly. The average prime rate for each calendar quarter shall be the arithmetic mean, to the nearest one-hundredth of one percent, of the "Bank prime loan" values published in the Federal Reserve Bulletin of the Federal Reserve's Selected Interest Rates (Statistical Release H.15) for the three (3) months of the preceding calendar quarter.

(10) On or before March 15, 2019, Massanutten shall submit to the Divisions of Utility Accounting and Finance and Public Utility Regulation a report showing that all refunds have been made pursuant to this Final Order and itemizing the cost of the refund and accounts charged. The Company shall not recover the interest paid or the expenses incurred in making such refunds from water or wastewater rates and charges subject to the Commission's jurisdiction.

(11) The Company shall implement the Hearing Examiner's 50% parity revenue allocation and rate design and shall calculate the Waterpark's sewage bill based on its sewage meter reading rather than on water consumption.

(12) This case is dismissed.

AN ATTESTED COPY hereof shall be sent by the Clerk of the Commission to:
Brian R. Greene, Esquire, Eric W. Hurlocker, Esquire, and William T. Reisinger, Esquire, GreeneHurlocker, PLC, 1807 Libbie Avenue, Suite 102, Richmond, Virginia 23226; Michael J. Quinan, Esquire, Christian & Barton, LLP, 909 E. Main Street, Suite 1200, Richmond, Virginia 23219; Mark B. Callahan, Esquire, Clark & Bradshaw, P.C., P.O. Box 71, Harrisonburg, Virginia 22802; James G. Ritter, Esquire, Christian & Barton LLP, 909 East Main Street, Suite 1200, Richmond, Virginia 23219; and C. Meade Browder, Jr., Senior Assistant Attorney General, Office of the Attorney General, 202 N. 9th Street, 8th Floor, Richmond, Virginia 23219-3424.

BEFORE THE TENNESSEE PUBLIC UTILITY COMMISSION

NASHVILLE, TENNESSEE

March 9, 2020

IN RE:

PETITION OF TENNESSEE WATER SERVICE,
INC. FOR ADJUSTMENT OF RATES AND
CHARGES, APPROVAL OF A QUALIFIED
INFRASTRUCTURE INVESTMENT PROGRAM,
AND MODIFICATION TO CERTAIN TERMS AND
CONDITIONS FOR THE PROVISION OF WATER
SERVICE

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) DOCKET NO.
) 19-00028
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AMENDED ORDER¹

This matter came before Chair Robin L. Morrison,² Commissioner Herbert H. Hilliard, and Commissioner David F. Jones of the Tennessee Public Utility Commission (the “Commission” or “TPUC”), the voting panel assigned to this docket, during a regularly scheduled Commission Conference held on November 4, 2019, for consideration of the *Petition* filed by Tennessee Water Service, Inc. (“TWS” or “Company”) on February 28, 2019 seeking an adjustment of rates and charges, approval of qualified infrastructure investment program, and modification to certain terms and conditions for the provision of water service. TWS amended its *Petition* on March 22, 2019, to remove its request for a Qualified Infrastructure Investment Program.

I. SUMMARY

Setting utility rates is a complicated process entailing the analysis of financial data and the

¹ The amendments to the Commission’s *Order* of January 30, 2020, are limited to corrections to the Depreciation and Amortization chart on page 18 and a technical correction in wording on page 19. In addition, the Commission’s final schedules are attached to this Amended Order. Neither the corrections aforementioned or the attached schedules change the final result of the *Order* of January 30, 2020.

² Commission Vice Chair Kenneth C. Hill was originally assigned to the Hearing Panel but recused himself on October 14, 2019. Chair Morrison replaced him. Transcript of Commission Conference, p. 34 (October 14, 2019).

projection of a public utility's revenues, operating expenses, and rate base to arrive at a rate that will allow a utility the opportunity to earn a reasonable rate of return. The rate case process allows for the intervention of interested parties and generally includes the participation of the Tennessee Attorney General's Office, which represents the interests of utility customers through the Consumer Advocate Unit ("Consumer Advocate"). Rate cases entail a multitude of accounting and financial issues that include troves of documents and thousands of calculations, sponsored by witnesses who are subject to discovery requests and cross-examination. Using the evidentiary record developed by the parties, the Commission sets rates that are just and reasonable. The record of this rate case, as with all matters before the Commission, is available online through the Commission's website for public inspection.

The tragedy and destruction brought by the wildfires in Sevier County, Tennessee, in November of 2016 and its consequences weigh heavily over this matter. There are no known instances within the Commission's history in which a public utility has lost 95% of its customer base and in such a disastrous manner. This is the first instance and, hopefully, the last. Nevertheless, service has been restored at great cost and, in this proceeding, the Commission must look at the facts and financial data before it and set rates.

The Commission has not been blind to the plight of all involved. There have been understandably forthright and emotional appeals from customers about the amount of the rates and matters of insurance coverage. One issue in this matter pertains to what extent, if any, the Company should be penalized for its failure to have an insurance policy that could have at the very least offset some of the extensive damage caused by the wildfires. As explained within this order, the insurance issue has been concluded with the Company forgoing nearly 50% of the cost of the replacement of the under-insured assets.³ As such, customers will benefit from new assets with a

³ See pp. 34-39 of this *Order*, Section VI, G.10. *Regulatory Liability – Uninsured Property*.

longer and more efficient service life. Furthermore, recovery of the remaining 50% of the Company’s investment is spread over sixty-six years. By spreading the cost over a longer period, the burden on customers is lowered considerably. It must be noted here that the decision of the Commission was not unanimous. Commissioner Hilliard did not vote with the majority on the basis that the Company’s alleged negligence in not having appropriate insurance entitled the Company to no recovery.⁴ To the extent the majority’s conclusion on the insurance issue impacted numerous calculations in the majority’s revenue deficiency, Commissioner Hilliard did not vote with the majority.

Nevertheless, one must bear in mind that this issue is but one of many considered by the Commission in the context of a rate case. Even assuming the Commission adopted every position of the Consumer Advocate in this matter, including penalizing the Company for 100% of their investment in replacing fire damaged water facilities, the customers of TWS would still face a significant rate increase.

**Average Monthly Customer Bill
Under Company and Consumer Advocate Rate Proposals vs. Commission Decision**

Company	Consumer Advocate	Commission Decision
\$125	\$87	\$96

Unfortunately, the cost of providing water service is going to be higher when there are fewer customers. A conventional wisdom in ratemaking is that the greater the number of customers, the easier it is to spread and lower the cost of service. Here, the number of customers is far below the level of customers that existed before the wildfires. With time, the number of customers should

⁴ Transcript of Commission Conference, pp. 30-31 (November 4, 2019): “Commissioner Hilliard: I voted no primarily because I think the company should have had to put aside the \$700,000. I thought their explanation for why they did not adequately insure the facilities was inadequate. I also thought it was very negligent not to insure something at a bare premium where the deductible was higher than what you’d actually get paid if you actually had a loss.”

grow. With other dynamic factors subject to change, it is likely the Company's rates will need to be reviewed in the near future.

II. BACKGROUND AND *PETITION*

TWS is a public utility subject to the Commission's jurisdiction, providing water service to customers located in the Chalet Village Subdivision ("Chalet Village") in Sevier County, Tennessee. In November 2016, devastating wildfires spread over nearly 180,000 acres throughout Gatlinburg, Tennessee, ultimately claiming fourteen lives. In addition to the tragic loss of life, the wildfires caused devastating property damage to both homes and businesses in the community. TWS had approximately 580 water connections prior to the wildfire, but only 57 remained after the wildfires. The Company, in turn, filed an *Emergency Petition for Emergency Relief* in Commission Docket No. 17-00108. Subsequent to a public hearing and based upon the evidentiary record in that proceeding, the Commission ordered the following:

Tennessee Water Service, Inc. is authorized to create two regulatory asset accounts to defer: a) actual operating losses beginning January 1, 2017 until its next rate case or otherwise ordered; and b) returns on identified capital projects necessary to repair fire damage and restore the water system to operational status; such returns to be accrued on the actual amount of the capital assets placed into service at Tennessee Water Service, Inc.'s currently-authorized rate of return of 6.89% and beginning on the date the capital asset is placed into service and continuing until its next rate case unless ordered otherwise.

Tennessee Water Service, Inc. is authorized to accrue and defer reasonable and necessary case expenses.

Tennessee Water Service, Inc. shall increase the minimum service charge for all current and future customers by \$7. Tennessee Water Service, Inc. is not authorized to charge inactive customers or lot owners the minimum service charge.

The Operational Cost Pass-through Mechanism, as modified by the Consumer Protection and Advocate Division of the Office of the Tennessee Attorney General, is approved.

Tennessee Water Service, Inc. shall file quarterly reports detailing the accounting transactions and account balances for its deferred operating losses, returns on capital assets, rate case expenses, and the amount of quarterly revenues and the amount of

aggregate revenues collected from active customers as a result of the minimum service charge increase.

Tennessee Water Service, Inc. shall file a rate case petition no later than July 1, 2019, unless an order from the Tennessee Public Utility Commission extending this deadline for good cause is obtained.⁵

This *Petition* was filed February 28, 2019 and initially sought a revenue requirement of \$469,767, representing a 177% increase over pro-forma rate revenues at present of \$169,323.⁶ The Company initially sought to increase the minimum monthly charge from \$25.70 over a three-year phase in period to \$95.00 per month.⁷ After the first 1,000 gallons of usage, the Company proposed a three-year phased in volumetric charge of \$20.65 per 1,000 gallons.

The Company further proposed a Private Fire Service charge. In addition, the Company sought a Qualified Infrastructure Investment Program (“QIIP”) in accordance with Tenn. Code Ann. § 65-5-103 to address a continuing need to maintain and upgrade infrastructure to provide safe and reliable water service.

III. TRAVEL OF THE CASE

The Consumer Advocate filed a *Petition to Intervene* on April 3, 2019. The parties commenced the submission of discovery requests and responses. The Consumer Advocate submitted Pre-filed Testimony of William H. Novak on July 12, 2019, which proposed that a more modest rate increase of approximately \$73,000.⁸

On August 30, 2019, TWS filed copies of the legal notices concerning the Hearing date and the proposed rate changes that were published in appropriate newspapers of general circulation, as required by TPUC Rule 1220-4-1-.05.

⁵ *In re: Petition of Tennessee Water Service, Inc. for Approval of an Interim Emergency Wildfire Restoration Surcharge, Interim Emergency Water Service Availability Surcharge, Interim Emergency Make-Whole Surcharge, and an Interim Emergency Operation Cost Pass-Through Mechanism*, Docket No. 17-00108, *Final Order*, Ordering Clauses 2-7 (February 21, 2018).

⁶ Dante M. DeStefano, Pre-filed Direct Testimony, p. 8 (February 28, 2019).

⁷ *Id.* at 4.

⁸ William H. Novak, Pre-filed Direct Testimony, p. 8 (July 8, 2019).

IV. THE HEARINGS AND POST HEARING FILINGS

The Hearing on the merits of the *Petition* commenced in Nashville and was held on September 9, 2019 as noticed by the Commission on August 30, 2019. Participating in the Hearing were the following parties and their respective counsel:

Tennessee Water Service, Inc. - Ryan Freeman, Esq., Baker, Donelson, Bearman, Caldwell & Berkowitz, P.C., 633 Chestnut Street, Suite 1900, Chattanooga, Tennessee, 37450.

Consumer Advocate Unit – Wayne M. Irvin, Esq. Office of the Tennessee Attorney General, Financial Division, Consumer Advocate Unit, P.O. Box 20207, Nashville, Tennessee 37202-0207.

The panel heard testimony from Company witnesses, Catherine E. Heigel, Dante DeStefano, Anthony Gray, Jared Deason, and J. Bryce Mendenhall. The Consumer Advocate presented witness testimony from William H. Novak. In addition to offering the opportunity for live public comment, a public comment was made telephonically during the Hearing.

Additional filings and pre-filed testimony were submitted before the Hearing Panel reconvened on October 14, 2019, during a regularly scheduled Commission Conference for a supplemental hearing regarding the extent of regulatory liability that is appropriate for TWS.⁹ The supplemental hearing was duly noticed on October 1, 2019. At the supplemental hearing, the Hearing Panel heard public comment.

The voting panel assigned to this matter reconvened on November 4, 2019 and deliberated, announcing findings and conclusions upon consideration of the entire record, including all exhibits and the testimony of witnesses. With the exception of a matter concerning a regulatory liability adjustment to account for a lack of proper insurance, the Hearing Panel voted unanimously in favor of the findings and conclusions. Commissioner Herbert Hilliard dissented from a majority of the

⁹ *Pre-Hearing Order*, p. 1 (October 4, 2019).

Hearing Panel with respect to the regulatory liability finding.¹⁰

V. CRITERIA FOR ESTABLISHING JUST AND REASONABLE RATES

The Commission has jurisdiction to set the rates of public utilities operating in the State of Tennessee.¹¹ In setting rates for public utilities, the Commission balances the interests of the utilities subject to its jurisdiction with the interests of Tennessee consumers, i.e., it is obligated to fix just and reasonable rates.¹² A public utility possesses the burden of proof on a petition to prove an adjustment of its rates is warranted.¹³

The Commission must also approve a rate that provides the regulated utility an opportunity to earn a just and reasonable return on its investments.¹⁴ The Commission considers petitions for a rate increase, filed pursuant to Tenn. Code Ann. § 65-5-103, in light of the following criteria:

1. The investment or rate base upon which the utility should be permitted to earn a fair rate of return;
2. The proper level of revenues for the utility;
3. The proper level of expenses for the utility;
4. The rate of return the utility should earn; and
5. Other factors specific to a matter that warrants an investigation to determine the impact on a utility and its rates.

There is no single, precise measure of the fair rate of return a utility is allowed an opportunity to earn. Therefore, the Commission must exercise its judgment in making an appropriate determination. The Commission, however, is not without guidance in exercising its

¹⁰ Transcript of Commission Conference, pp. 30-31 (November 4, 2019). Although Commissioner Hilliard's dissent has a cascade effect on the mathematical conclusions of multiple calculations adopted herein, he does not dissent from the principles and policy decisions applied to the remainder of the issues.

¹¹ Tenn. Code Ann. §§ 65-4-101(6); 65-4-104; 65-5-101, *et seq.*

¹² Tenn. Code Ann. § 65-5-101 (2018).

¹³ Tenn. Code Ann. § 65-5-103(a) (2018).

¹⁴ *Bluefield Water Works and Improvement Company v. Public Service Commission of the State of West Virginia*, 262 U.S. 679, 43 S.Ct. 675 (1923).

judgment:

A public utility is entitled to such rates as will permit it to earn a return on the value of the property which it employs for the convenience of the public equal to that generally being made at the same time and in the same general part of the country on investments in other business undertakings which are attended by corresponding risks and uncertainties; but it has no constitutional right to profits such as are realized or anticipated in highly profitable enterprises or speculative ventures. The return should be reasonably sufficient to assure confidence in the financial soundness of the utility and should be adequate, under efficient and economical management, to maintain and support its credit and enable it to raise the money necessary for the proper discharge of its public duties.¹⁵

In addition, the United States Supreme Court has determined that regulated utilities are entitled to a return that is “just and reasonable.”¹⁶ The rate a utility is permitted to charge should enable it “to operate successfully, to maintain its financial integrity, to attract capital, and to compensate investors for the risks assumed.”¹⁷

The general standards to be considered in establishing the fair rate of return for a public utility are financial integrity, capital attraction and setting a return on equity that is commensurate with returns investors could achieve by investing in other enterprises of corresponding risk.¹⁸ Thus, rates established must allow a company to cover its operating expenses and provide an opportunity to earn a fair rate of return on a company’s investment used to provision service. Further, a rate should be reasonable not only when it is first established, but also for a reasonable time thereafter.¹⁹

The Commission has wide discretion with regard to setting rates. The Commission may “utilize an historical test period, a forecast period, a combination of these where necessary, or any other accepted method of rate making necessary to give a fair rate of return.”²⁰ The Supreme Court noted in *Powell Tel. Co. v. Tennessee Pub. Serv. Comm’n* that, “there is no statutory nor decisional

¹⁵ *Id.* at 692-693; see also *Duquesne Light Co. v. Barasch*, 488 U.S. 299, 310 (1989).

¹⁶ *Federal Power Comm’n v. Hope Natural Gas Co.* 320 U.S. 591, 605 (1944).

¹⁷ *Id.*

¹⁸ *Id.* at 603.

¹⁹ *McCardle v. Indianapolis Water Co.*, 272 U.S. 400, 408-409, 47 S.Ct 144, 148 (1926); *Southern Bell Telephone & Telegraph Co. v. Tennessee Pub. Serv. Comm’n*, 304 S.W.2d 640, 647 (1944).

²⁰ *Powell Tel. Co. v. Tennessee Pub. Serv. Comm’n*, 660 S.W.2d 44, 46 (Tenn.1983); *Am. Ass’n of Retired Persons v. Tennessee Pub. Serv. Comm’n*, 896 S.W.2d 127, 133 (Tenn.Ct.App.1994).

law that specifies any particular approach that must be followed by the Commission. Fundamentally, the establishment of just and reasonable rates is a value judgment to be made by the Commission in the exercise of its sound regulatory judgment and discretion.”²¹ Accordingly, the Commission is not limited to adopting any particular approach or to adopting a specific test period in making known and measurable adjustments to produce just and reasonable rates.²²

Applying these principles and criteria, and upon consideration of the entire record, including all exhibits and the testimony of the witnesses, the panel made the following findings and conclusions. It should be noted here that some calculations contain numbers rounded to the nearest whole number.

VI. FINDINGS AND CONCLUSIONS

A. TEST PERIOD AND ATTRITION PERIOD

In a rate case, the Commission must decide the appropriate test period and attrition period to be utilized in the calculation of rates. Selecting the test period has the stated purpose of providing an indication of the rate of return that will be produced during the period under the existing rate structure in the reasonably foreseeable future. The test period takes into consideration the effect of calculations related to revenues, expenses, and investments.

The Company selected a historical test period of the twelve months ending September 30, 2018 and an attrition period of the twelve months ending December 31, 2020. The Consumer Advocate adopted the same review periods.²³ However, the Consumer Advocate also utilized monthly data for the three-year period ended September 30, 2016 to form a “pre-fire” snapshot for analysis in order to properly consider the impact of the significant impact on the wildfires such as

²¹ *Powell*, 660 S.W.2d at 46.

²² *CF Industries v. Tennessee Pub. Serv. Comm’n*, 599 S.W.2d 536, 543 (Tenn. 1980).

²³ William H. Novak, Pre-filed Direct Testimony, p. 6 (July 12, 2019).

loss of customers.²⁴ The panel voted unanimously to adopt the attrition period of the twelve months ending December 31, 2020.

B. REVENUES

The primary difference between the parties' water sales forecasts is the application of the tariff's base charge to water usage. The Company's forecast is based on providing customers with up to 2,000 gallons of water per month in the base charge per the Company's current billing practice; however, the Consumer Advocate includes only 1,000 gallons in the base charge per the Company's tariff.²⁵ The Company has been incorrectly applying its tariff rate by implementing the \$25.70 monthly charge for the first 2,000 gallons of water rather than the first 1,000 gallons of water. As a result, the Company has been under-collecting from customers by \$6.30 per customer monthly dating back to the implementation of the emergency rate order in Docket No. 17-00108.²⁶ Another material difference is that the Consumer Advocate projects monthly customer usage that is 601 gallons (4,080 – 3,479) more than the Company's, which is based on normalized, pre-fire water sales for the three years ended September 30, 2016.²⁷

The Hearing Panel concluded that the Consumer Advocate's corrected water sales forecast should be adopted because the forecast is based upon the correct application of the Company's current tariff, and it reflects normalized, pre-fire water usage and water loss rates. As such, the Commission forecasts Attrition Year Water Sales at present rates of \$248,782, which is \$78,370 more than the Company's water sales forecast of \$170,412.

With respect to the category of "Other Revenue", the Company did not originally include any amount for Other Revenue, but it subsequently amended its case to adopt the Consumer

²⁴ *Id.* at 6-7.

²⁵ *Id.* at 12.

²⁶ *Id.*

²⁷ *Id.* at 12-13.

Advocate’s forecast of Other Revenue for the Attrition Year. The Consumer Advocate projected Other Revenue of \$4,919, based upon the average Other Revenue per bill for the three years ended September 30, 2016, and applied this average to the projected customer bills for the Attrition Year. The Hearing Panel found that the Consumer Advocate’s calculations were reasonable and accurate for projection of Other Revenue at present rates. Additionally, the Company agrees with the Consumer Advocate’s forecast. Based on corrections to water sales, the panel voted unanimously to adopt a forfeited discount rate of 1.4773% (\$3,675/\$248,782).

C. OPERATIONS AND MAINTENANCE EXPENSES

For the Company’s Operations and Maintenance Expenses, the Company forecasted \$224,451 and Consumer Advocate forecasted \$141,752. The Hearing Panel adopted a forecast of \$141,466. The table below provides a breakdown of these expenses, followed by an examination of each expense listed.

	Company	Consumer Advocate	Commission Decision
Purchased Power	\$ 8,723	\$ 8,527	\$ 8,667
Maint. & Repair	50,190	23,240	23,622
Maint. Testing	1,920	1,876	1,908
Chemicals	243	111	241
Transportation	2	5	2
Outside Services	5,842	1,986	5,829
Office Supplies	2,954	2,882	2,935
Pension Benefits	6,924	6,769	6,880
Rent	2,047	1,492	2,037
Insurance	3,401	3,324	3,379
Office Utilities	2,386	1,575	2,370
Miscellaneous	1,525	1,431	1,515
Purchased Water	116,937	60,295	61,301
Bad Debt	1,187	600	610
Regulatory	0	0	0
Salary & Wages	20,170	27,639	20,170
Total	\$224,451	\$141,752	\$141,466

C.1. Purchased Power, Maintenance Testing, Transportation, Office Supplies, Pension Expenses, Insurance, and Miscellaneous Expenses

With respect to Purchased Power; Maintenance Testing; Transportation; Office Supplies; Pension Benefits; Insurance; and Miscellaneous, the Company determined the three-year, pre-fire average amount for the three years ended September 30, 2016, and, using the midpoint of the Test Year to the midpoint of the Attrition Year, it inflated the pre-fire average amount for 27 months (7.58%) and divided by the three-year average number of customers to determine an expense amount per customer.²⁸ The per-customer amount was then multiplied by a projected 313 customer count to arrive at the Attrition Year forecast.²⁹

The Consumer Advocate also used the same three-year, pre-fire average as a basis to forecast these expense categories; however, it used the end of the Test Year to the midpoint of the Attrition Year to inflate the pre-fire average amount by 21 months (5.85%) in order to compute its expense amount per customer.³⁰ The per-customer amount was then multiplied by a projected 311 customer count to arrive at the Attrition Year forecast. Both the Company and the Consumer Advocate used a 3.3% CPI as an annual inflator. The difference in growth rates is due to the Company starting at the midpoint of the Test Year and inflating for 27 months to arrive at a compounded growth rate of 7.58%; whereas, the Consumer Advocate started at the end of the Test Year and inflated for 21 months to arrive at a compounded growth rate of 5.85%.³¹

The pre-fire average is farther removed in time than the typical, most-recently completed test year generally employed in rate cases. Under the unique facts of this case, the Hearing Panel found such methodology necessary here and the Company's compounded growth rate to be reasonable. Due to ongoing fire recovery efforts in 2017 and 2018 affecting routine operations,

²⁸ Anthony Gray, Pre-filed Direct Testimony, p. 3-4 (February 28, 2019).

²⁹ *Id.*

³⁰ William H. Novak, Pre-filed Direct Testimony, p. 7, fn 8. (July 12, 2019).

³¹ *Id.*

both parties normalize the test period by developing a pre-fire, three-average for 2014 through 2016 for purchased power, maintenance testing, transportation, office supplies, pension benefits, insurance, and miscellaneous expenses. The Hearing Panel concluded the pre-fire average amounts to be a reasonable basis for projecting these expenses for the Attrition Year. It should be noted that the differences in the parties' methodology here are not significant. For all the expense categories discussed here, the Company projects a total of \$25,449, as compared to the Consumer Advocate's \$24,814; a difference of only \$635 for all of the aforementioned expenses combined.

Based on this analysis, the Commission utilized a forecast for each of these expense categories by applying the compounded growth rate of 7.58% to the pre-fire averages to compute an expense amount per customer, and then multiplied that amount by 311 customers projected for the Attrition Period to arrive at the expense forecast. Accordingly, the Hearing Panel voted unanimously to adopt expenses in the following amounts: Purchased Power of \$8,667, Maintenance Testing of \$1,908, Transportation of \$2; Office Supplies of \$2,935; Pension Benefits of \$6,880; Insurance of \$3,379; and Miscellaneous Expense of \$1,515.

C.2. Maintenance and Repair Expenses

With respect to Maintenance and Repair expenses, the Company used a per-customer average of selected maintenance accounts for the three years ended September 30, 2016, inflated for 27 months (7.58%), and applied to projected Attrition Year customers of 311 to determine a portion of its forecast.³² The Company then added the booked contract operator expense for the year ended September 30, 2018 to this amount to arrive at its total Attrition Year forecast of \$50,173 for Maintenance and Repair. After the Hearing, the Company submitted a revised forecast of 50,190,

³² Anthony Gray, Pre-filed Direct Testimony, p. 3 (February 28, 2019).

which was based on Attrition Year customers of 313 as opposed to the 311 included in its original forecast.³³

The Consumer Advocate used a three-year average of individual maintenance accounts inflated for 21 months (5.85%) to determine an Attrition Year amount of \$23,240.³⁴ The Company projected \$26,950 more than the Consumer Advocate. The primary difference between the Company and the Consumer Advocate is the amount forecasted for contract operator expense. The Consumer Advocate used a pre-fire, three-year average of \$20,893 to normalize this expense, whereas the Company used the 2018 Test Year ended September 30, 2018, amount of \$47,444 for its basis.³⁵

The Hearing Panel found that post-fire restoration of the water system is largely complete and the pre-fire average is more reflective of Maintenance and Repair expense on a going-forward basis; thus, Maintenance and Repair expense should return to pre-fire normalized amounts. Much of the system has been rebuilt and replaced with new plant. As such, it is reasonable to expect a downward trend in Maintenance and Repair expense over the next few years. Based on using the pre-fire average inflated by the Company's forecasted growth of rate of 7.58%, the Hearing Panel voted unanimously to adopt \$23,622 as the Maintenance and Repair expense for the Attrition Year.

C.3. Chemicals and Office Utilities

Like most of its other expense projections, the Company determined the three-year, pre-fire average amount for the three years ended September 30, 2016, and inflated the pre-fire average for 27 months (7.58%) and divided by the three-year average number of customers to determine the expense amount per customer. The per-customer amount was then multiplied by a projected 313 customer count to arrive its Attrition Year forecast of Chemicals of \$243 and Office Utilities of

³³ Tennessee Water Service's Late Filed Exhibits, Exhibit 6, Schedule 7 (September 10, 2019).

³⁴ William H. Novak, Pre-filed Testimony, pp. 13-14 (July 12, 2019).

³⁵ *Id.*

\$2,386.³⁶ The Consumer Advocate, however, used the post-fire test year ended September 30, 2018, as its basis for projecting one account comprising the Chemicals expense and one account comprising the Office Utilities expense.³⁷ Other than pointing out that the landscaping expense dropped significantly during the test period, the Consumer Advocate did not explain why it used the post-fire amounts for these two accounts as opposed to the pre-fire average it used for all the other accounts which make up these expense categories.³⁸

Here, the Hearing Panel found it reasonable and consistent to use the pre-fire average for all accounts. Therefore, the Chemicals and Office Utilities expense forecasts was computed by inflating the pre-fire average by 7.58% to determine a per-customer amount and then multiplying that amount by 311 customers projected for the Attrition Year. Based on this calculation, the Hearing Panel voted unanimously to adopt Chemicals expense of \$241 and Office Utilities expense of \$2,370.

C.4. Outside Services and Rent

With respect to Outside Services and Rent, the Company based its forecasts on the three-year, pre-fire average amount inflated by 7.58% just as it did with most of its other expenses. However, the Company added pro-forma adjustments for these two expense categories. The Company made pro-forma adjustments to reflect an estimated corporate allocation of Outside Services and estimated new corporate office rent, neither of which was included in the test period. As adjusted to reflect these pro-forma items, the Company forecasted Outside Services of \$5,842 and Rent of \$2,047.³⁹ The Consumer Advocate used a three-year, pre-fire average inflated by 5.85% to determine an Attrition Year forecast of \$1,986 for Outside Services and \$1,492 for Rent.⁴⁰

³⁶ Anthony Gray, Pre-filed Direct Testimony, p. 3 (February 28, 2019).

³⁷ William H. Novak, Pre-filed Direct Testimony, CA Exhibit, Schedule 7 (July 12, 2019).

³⁸ *Id.* at 16.

³⁹ Tennessee Water Service's Late-Filed Exhibits, Exhibit 6, Schedule 7, (September 10, 2019).

⁴⁰ William H. Novak, Pre-filed Direct Testimony, p. 14 (July 12, 2019).

The primary differences between the Company and the Consumer Advocate are the pro-forma adjustments added by the Company.

The Hearing Panel found the pro-forma adjustments for Outside Services and Rent appear reasonable and reflect known and measurable adjustments. Using a forecast based on a three-year, pre-fire average inflated by 7.58%, as applied to projected Attrition Year customers of 311, to arrive at Outside Services of \$2,041 and Rent of \$1,517 with the addition of the Company's pro-forma adjustments, the Hearing Panel voted unanimously to adopt Outside Services of \$5,829 and Rent of \$2,037.

C.5. Purchased Water

With respect to Purchased Water, in projecting Attrition Year expense the Company computed the average per-customer purchased water for the year ended September 30, 2018, inflated by 7.58%, and multiplied by an annual customer count of 311 to arrive at an Attrition Year forecast of \$116,937. Embedded in this amount is a lost and unaccounted for water rate of 71.52%. The Consumer Advocate computed the average per-customer purchased water for the three years ended September 30, 2016, inflated that amount by 5.85%, and applied the projected customer count of 311 to arrive at \$60,295 of purchased water expense for the Attrition Year.⁴¹ Embedded in the Consumer Advocate's forecast is an average lost and unaccounted for water rate of 14.83%.

The Company's purchased water forecast is 94% greater than the Consumer Advocate's. The primary difference is the much higher water loss rate included in the Company's forecast. The Company's use of the test year ended September 30, 2018, likely explains the higher water loss rate than the pre-fire rate assumed by the Consumer Advocate. During the Company's test year, the system was still undergoing major fire damage repairs and recovery. Since those recovery efforts are largely completed, water loss rates during the Attrition Year should normalize to pre-fire levels.

⁴¹ *Id.*, at 18.

Indeed, since much of the system has been replaced with new plant, it is reasonable to assume that future water loss rates should decline over historic levels. For these reasons, the Hearing Panel accepted the Consumer Advocate's methodology for computing purchased water with the application of an inflation factor of 7.58% to the pre-fire average. Thus, the Hearing Panel voted unanimously to adopt Purchased Water of \$61,301 for the Attrition Year.

C.6. Bad Debt Expense

With respect to Bad Debt, the Company projected bad debt based upon the booked amount for the year ended September 30, 2018, expressed as a percentage of water sales for the same period, and it then applied this percentage to its projected water sales for the Attrition Year to arrive at \$1,187. The Consumer Advocate used the per-customer average for the three years ended September 30, 2016, inflated by 5.85% and multiplied by the projected customer count of 311 to arrive at its Attrition Year forecast of \$600. Staff reviewed the calculations of both parties and found them to be accurate. A concern here is the Company's projection essentially doubled the historic average of bad debt expense. No evidence was offered to support such a sharp increase in bad debt expense over historic pre-fire levels. Here, the methodology of the Consumer Advocate, which normalizes the forecast based on pre-fire operations, provides a reasonable and acceptable basis for determining Attrition Year bad debt expense. For these reasons, the Hearing Panel voted unanimously to adopt Bad Debt expense of \$610 for the Attrition Year.

C.7. Salary and Wages

With respect to Salary and Wages, the Company projected salary and wages based upon the amounts booked for the year ended September 30, 2018, reduced by a non-recurring amount and by capitalized labor to arrive at its Attrition Year forecast of \$20,170. The Consumer Advocate used a three-year, pre-fire average inflated by 5.85%, and applied to the Attrition Year customer count of

311 to arrive at its Salary and Wage forecast of \$27,639.⁴² The Consumer Advocate did not reduce its forecast to reflect capitalized labor.

The panel found that the Company’s projection is based on a more recent booked amount that better reflects current employee levels while also recognizing adjustments for non-recurring and capitalized labor amounts. Therefore, the Hearing Panel voted unanimously to adopt Salaries and Wages of \$20,170 for the Attrition Year.

D. DEPRECIATION AND AMORTIZATION EXPENSES

Below is a table outlining each party’s forecast and the Commission’s decision with respect to Depreciation and Amortization Expenses:

	Company	Consumer Advocate	Commission Decision
Depreciation	\$ 42,735	\$ 42,735	\$ 42,735
Amortz. CIAC	(15,213)	(15,213)	(15,213)
Amortz. Excess Deferred Taxes	(2,245)	(2,769)	(2,769)
Amortz. ITC	(48)	(48)	(48)
Amortz. Deferred Operating Losses	41,788	20,894	20,894
Amortz. Deferred Return on Incremental Plant	17,298	8,649	5,757
Amortz. Deferred Rate Case Cost	17,940	17,940	20,638
Amortz. Uninsured Property	(5,730)	(11,619)	(5,730)
Total	\$ 96,525	\$ 60,569	\$ 66,264

D.1. Depreciation Expense

With respect to Depreciation Expense, the Company originally projected \$39,613 for Depreciation Expense; in its Late-Filed Exhibit, however, the Company agreed with the Consumer Advocate’s projected \$42,735 Depreciation Expense.⁴³ The Consumer Advocate began with December 2019 depreciation expense in the amount of \$3,239 based on a balance of \$2,590,658.

⁴² William H. Novak, Pre-filed Direct Testimony, p. 19 (July 12, 2019).

⁴³ Tennessee Water Service’s Late-Filed Exhibits, Exhibit 6, Schedule 6 (September 10, 2019).

Thereafter, the Consumer Advocate applied .13% to the average balance to determine the monthly depreciation for the Attrition Year. The twelve-month total is \$42,735. The Hearing Panel voted unanimously to adopt Depreciation Expense for the Year in the amount of \$42,735.

D.2. Amortization of Contributions in Aid of Construction

With respect to Amortization of Contributions in Aid of Construction, the Company and the Consumer Advocate projected the Attrition Year expense based upon the twelve month amortization ($\$1,268 * 12$) of this account resulting in amortization of \$15,213. The Hearing Panel found the calculations were accurate and corresponded to the amortization utilized in determining the Attrition Year Contribution in Aid of Construction balance. For these reasons, the Hearing Panel voted unanimously to adopt \$15,213 as the Amortization of Contributions in Aid of Construction.

D.3. Amortization of Regulatory Liability Excess Deferred Taxes

With respect to Amortization of Regulatory Liability Excess Deferred Taxes, the Company adopted in a late-filed exhibit the amount of \$2,245. The Consumer Advocate projected the Attrition Year balance to be \$2,769. The Hearing Panel found the Consumer Advocate's calculations to be accurate and the amortization correlates to the Regulatory Liability Excess Deferred Tax projected balance of \$71,917 adopted by both parties. For these reasons, the Hearing Panel voted unanimously to adopt \$2,769 for the Amortization of Regulatory Liability Excess Deferred Taxes.

D.4. Amortization of Investment Tax Credits

With respect to the Amortization of Investment Tax Credits, both the Company and the Consumer Advocate agree on the Attrition Year amount of \$48. This amount is based upon an amortization of \$4.00 per month being applied to the unamortized investment tax credit balance.

The Hearing Panel found the calculations to be accurate and voted unanimously to adopt \$48 as the Amortization of Investment Tax Credit for the Attrition Year.

D.5. Amortization of Deferred Operating Losses

In Commission Docket No. 17-00108, the Company was authorized to establish a regulatory account to defer operating losses.⁴⁴ Additionally, the Commission delayed setting an amortization period until the Company's rate proceeding where recovery would be addressed.⁴⁵

Both parties agree on the Deferred Operating Loss balance at the end of the Test Year of \$208,941. The difference between the parties for this expense is the Company amortized this amount over five years, while the Consumer Advocate amortized this amount over ten years. Whether to amortize for five or ten years or any period is a matter of reasonableness may be employed to prevent or lessen rate shock to consumers. Here, ratepayers are burdened with significant additional cost resulting from the wildfires and the longer amortization period minimizes the monthly bill increase. For this reason, the Hearing Panel found a ten-year amortization period for Deferred Operating Loss to be appropriate and voted unanimously to adopt Amortization of Deferred Operating Losses of \$20,894.

D.6. Amortization of Deferred Return on Incremental Plant

Both parties agree on the Deferred Return on Incremental Plant balance at the end of the Test Year of \$86,486, with the Company recommending an annual amortization of \$17,297, and the Consumer Advocate recommending \$8,648.⁴⁶ The reason for the difference between the parties for this amortization expense is the Company amortized this amount over five years, while the Consumer Advocate chose a ten-year amortization period.

⁴⁴ *In re: Petition of Tennessee Water Service, Inc. for Approval of an Interim Emergency Wildfire Restoration Surcharge, Interim Emergency Water Service Availability Surcharge, Interim Emergency Make-Whole Surcharge, and an Interim Emergency Operation Cost Pass-Through Mechanism*, Docket No. 17-00108, *Final Order*, p. 10 (February 21, 2018).

⁴⁵ *Id.*

⁴⁶ William H. Novak, Pre-filed Direct Testimony, p. 32 (July 12, 2019).

Imputing the Company's proposed regulatory liability amount of \$382,016 and recalculating the deferred returns using the same methodology as the parties, the Deferred Return on Incremental Plant balance at the end of the Test Year is \$57,574. Taking into consideration the rate impact on customers, particularly the burden of significant additional costs resulting from the wildfires, a longer amortization period which minimizes the monthly bill increase is reasonable. Therefore, the Hearing Panel voted unanimously to adopt a ten-year amortization period for Deferred Return on Incremental Plant as appropriate and Amortization of Deferred Return on Incremental Plant of \$5,757.

D.7. Amortization of Deferred Rate Case Costs

The Company originally proposed \$21,691, however, the Company later agreed with and adopted the Consumer Advocate's projected \$17,940 for the Attrition Year.⁴⁷ The Consumer Advocate based its projection on costs of \$30,000 as cap in Commission Docket No. 17-00108 plus an estimated cost of \$59,700 for this docket with a five-year amortization period.⁴⁸ The Company has supplemental rate case expense of \$13,488⁴⁹ in this case and amortized this amount over five years as well to bring the total annual amortization to \$20,638. The Hearing Panel found that considering TWS is a small company and that there was more than one hearing, along with the complex facts of this case, allowing recovery of the supplemental rate case expense is reasonable. For these reasons, the Hearing Panel found the five-year amortization period of rate case cost to be appropriate and voted unanimously to adopt \$20,638 as Amortization of Deferred Rate Case Costs for the Attrition Year.

⁴⁷ Tennessee Water Service's Late-Filed Exhibits, Exhibit 6, Schedule 6 (September 10, 2019).

⁴⁸ William H. Novak, Pre-filed Direct Testimony, p. 33 (July 12, 2019).

⁴⁹ *TWS Supplemental Hearing Costs Filing*, (October 17, 2019).

D.8. Amortization of Uninsured Property

With respect to the Commission's finding of a Regulatory Liability for Uninsured Property by taking the Company's proposed amount of \$382,016, a Majority of the Hearing Panel voted that this amount shall be amortized over 66.67 years (1.5% amortization rate) through the Attrition Year to arrive at the midpoint balance of \$8,041 of accumulated amortization and annual amortization expense of \$5,730 ($\$382,016 * 1.5\%$).⁵⁰

E. GENERAL TAXES

General Taxes consist of Payroll, Franchise, Gross Receipts, Property and Commission Regulatory Fees. The chart below provides a breakdown of the General Taxes category, the positions of the parties, and the decision of the Commission.

	Company	Consumer Advocate	Commission Decision
Payroll	\$ 1,940	\$ 723	\$ 1,940
Franchise	1,792	1,122	1,122
Gross Receipts	3	144	144
Property	15,139	18,188	18,188
Utility Commission	0	267	1,054
Total	\$ 18,874	\$ 20,444	\$ 22,448

E.1. Payroll Taxes

The Company's projected Salary & Wage expense of \$20,170 is based upon the booked amount for the year ended September 30, 2018. The corresponding payroll tax general ledger amount at September 30, 2018 was adjusted consistent with the Salary and Wage adjustment to arrive at an Attrition period expense of \$1,940. The Consumer Advocate based its projection of \$723 upon the average of pre-fire years and inflated for 21 months (5.85%).⁵¹ The Company's forecast corresponds to payroll tax general ledger amount at September 30, 2018 and was adjusted

⁵⁰ See Findings with respect to Rate Base in Section G.9. *Regulatory Liability – Uninsured Property* of this Order. Commissioner Hilliard dissented from the Majority decision with respect to the amount of the regulatory liability.

⁵¹ William H. Novak, Pre-filed Direct Testimony, p. 21 (July 12, 2019).

consistent with the Salary and Wage adjustment. For this reason, the Hearing Panel voted unanimously to adopt the Company's projected Payroll Expense of \$1,940.

E.2. Franchise Tax

The Company projected \$1,792 franchise taxes using the same amount of the Test Year ending September 30, 2016. The Consumer Advocate calculated the per customer average franchise tax based up FY 14-15-16 (\$3.41) times the number of customers (311) times the 21-month inflation factor of 5.85% to determine franchise taxes of \$1,122 and more accurately reflect an appropriate level of Attrition Period expense. For this reason, the Hearing Panel voted unanimously to adopt \$1,122 as Franchise Taxes for the Attrition Year.

E.3. Gross Receipts Tax

The Company projected the gross receipt tax year amount of \$3 based solely on the Test Year amount. The Consumer Advocate calculated the Test Year average per customer of \$0.44 times the number of customers (311) times the 21-month inflation rate of 5.85% to arrive at \$144. The Consumer Advocate's methodology and calculation more accurately reflect an appropriate level of Attrition Year expense. For this reason, Hearing Panel voted unanimously to adopt \$144 as Gross Receipts tax for the Attrition Year.

E. 4. Property Tax

The Company used the general ledger amount for the real estate tax account (\$8,383) and the general property tax account balance (\$6,757) for the operating company and the parent at September 30, 2018 to calculate \$15,139 in property taxes for the Attrition Year. The Consumer Advocate used the post-fire average per customer for general taxes times the customer count of 311 (\$9,804) to determine general property taxes. Real estate taxes (\$8,383) were based solely on the booked amount for the October 1, 2017 to September 30, 2018. The total Attrition Year taxes are projected to be \$18,188.

Here, the panel found the methodology used by the Consumer Advocate is preferable because it is based upon a customer count which should be more reflective of actual costs. For this reason, the Hearing Panel voted unanimously to adopt \$18,188 for Property Tax Expense for the Attrition Year.

E. 5. Inspection Fees

The Company projected zero for Inspection fees and the Consumer Advocate projected \$267.⁵² Pursuant to Tenn. Code Ann. §65-4-303, regulatory inspection fees are based upon the gross receipts, before any deductions, of the previous year. In its *Petition*, the Company listed Test Year revenues of \$86,295 and the Consumer Advocate listed Test Year revenues of \$86,299. The Company under-billed customers for the previous year, due to the mis-application of their tariff. The Company should take greater care in applying its tariff correctly. For this reason, Hearing Panel calculates the inspection fee of \$1,054 based upon the projected Attrition Year revenues of \$253,701, less bad debt expense of \$610. $((\$248,782 - \$610 - \$5,000) / 1,000) * \4.25 .

F. STATE EXCISE AND FEDERAL INCOME TAXES

Excise Taxes are calculated by applying the statutory rate of 6.5 % to Net Income before Federal Income Taxes. Federal Income Taxes are calculated by applying the statutory rate of 21% to Net Income less Excise Taxes. Based upon the Net Income adopted by the Hearing Panel, State Excise Taxes of negative \$783 and Federal Income Taxes of negative \$2,366 are adopted for the Attrition Year.

G. RATE BASE

Rate Base is the total of the investor funded or supplied plant, facilities, and other investments used by the utility in provisioning service to its customers. Thus, Rate Base represents the investment on which a fair rate of return is applied to arrive at the net operating income

⁵² William H. Novak, Pre-filed Direct Testimony, p. 21 (July 12, 2019).

requirement. The following table presents the comparative Rate Base calculations of the Company, the Consumer Advocate, and the Hearing Panel's decision:

Attrition Year	Company	Consumer Advocate	Commission Decision
Additions:			
Utility Plant In Service	\$ 2,624,827	\$ 2,624,827	\$ 2,624,827
Working Capital	15,798	12,612	12,827
Deferred Operating Losses	198,494	198,494	198,494
Deferred Return on Incremental Plant Investment	82,162	82,162	54,695
Deferred Rate Case Cost	80,730	80,730	92,869
Total Additions	\$ 3,002,011	\$ 2,998,825	\$ 2,983,712
Deductions:			
Acc. Depreciation	\$ 436,926	\$ 436,926	\$ 436,926
CIAC	633,347	633,347	633,347
Acc. Deferred Income Taxes	57,687	57,687	57,687
Reg.Liability - Excess Deferred Taxes	71,917	71,917	71,917
Reg.Liability- Uninsured Property	382,016	757,006	372,193 ⁵³
Total Deductions	\$ 1,581,893	\$ 1,956,883	\$ 1,572,070
RATE BASE	\$ 1,420,118	\$ 1,041,942	\$ 1,411,642

G.1. Utility Plant In Service

Utility Plant In Service represents the gross property, plant and equipment employed by the utility to provide service to customers. The Consumer Advocate computed Utility Plant In Service by starting with the September 30, 2018 plant account balances of \$1,819,060 for the utility and the allocated plant of \$26,317 from the parent company.⁵⁴ Anticipated projects in the amount of

⁵³ Commissioner Hilliard dissented from the Majority's decision, stating the regulatory liability should have been for the full 757,000 investment. Transcript of Commission Conference, pp. 30-31 (November 4, 2019).

⁵⁴ William H. Novak, Pre-filed Direct Testimony, pp. 23-24 (July 12, 2019).

\$870,530 were added and \$91,081 was deducted for projected retirements. The two major assets added were for tank/booster station rehabilitation placed in service in January 2019 for \$331,483, and well/booster station rehabilitation placed in service in June 2019 for \$443,126. These rehabilitation projects were necessary to recover the system from damages sustained as a result of the 2016 wildfires.⁵⁵ The Company agreed with the Consumer Advocate's projected \$2,624,827 Plant in Service for the Attrition Year.⁵⁶

The Hearing Panel found the methodology and outcome used by the Consumer Advocate reasonable and voted unanimously to adopt Plant In Service of \$2,624,827 for the Attrition Year.

G.2. Working Capital

Working Capital represents the utility's investment in the cash-on-hand requirement needed to pay its bills timely. For small company rate cases such as this one, working capital requirements are generally computed by taking one-eighth of net cash operating expenses (i.e., expenses that require cash payments to vendors), which equates to a 45-day lag (365/8). Purchased water, however, may be excluded based on the contention that this expense is paid for after associated revenues are received.

The Company computed Working Capital by adding Maintenance Expense, General Expense, and General Taxes forecasted for the Attrition Year and multiplying the total by one-eighth, which results in a Working Capital Allowance of \$15,798. The Consumer Advocate calculated Working Capital by adding its forecasted Attrition Year Maintenance Expense, General Expense, Other Operating Expense, and General Taxes and subtracting Purchased Water, and then multiplying the total by one-eighth, which results in a Working Capital Allowance of \$12,612.⁵⁷

⁵⁵ J. Bryce Mendenhall, Pre-filed Direct Testimony, pp. 4-5 (February 28, 2019).

⁵⁶ Tennessee Water Service's Late Filed Exhibits, Exhibit 6, Schedule 2 (September 10, 2019).

⁵⁷ William H. Novak, Pre-filed Direct Testimony, CA Exhibit, Schedule 4.

The Hearing Panel found the Consumer Advocate’s methodology to be consistent with sound ratemaking principles. Moreover, the Company’s methodology excludes forecasted Other Operating Expense without explanation. With adjustments for forecasts for Maintenance Expense, General Expense, Other Operating Expense, General Taxes and Purchased Water, the Hearing Panel voted unanimously to adopt a Working Capital Allowance of \$12,827 for the Attrition Year.

G. 3. Deferred Operating Losses

Because of the devastating wildfires in November 2016 that caused the Company to lose over 90% of its customer base, the Commission in Docket No. 17-00108 authorized the Company to create a regulatory asset account to defer its reasonable operating losses from January 1, 2017 through this rate case proceeding.⁵⁸

The Company sought \$245,305 in operating losses through December 2018 which it proposed to recover over a five-year period with an annual amortization of \$49,061.⁵⁹ The Company further proposed recovery of 2019 losses in a separate surcharge outside of the rate case.⁶⁰

The Consumer Advocate computed the Deferred Operating Loss by starting with the balance in the regulatory asset account of \$208,941 as of September 30, 2018. This balance agrees with the Company’s response to Commission Staff’s data request of August 28, 2019, which appropriately includes the revenue generated from the \$7.00 service charge increase authorized by the Commission in Docket No. 17-00108. The Consumer Advocate then selected a ten-year amortization period for recovery of the deferred losses, which results in an annual amortization

⁵⁸ *In re: Petition of Tennessee Water Service, Inc. for Approval of an Interim Emergency Wildfire Restoration Surcharge, Interim Emergency Water Service Availability Surcharge, Interim Emergency Make-Whole Surcharge, and an Interim Emergency Operation Cost Pass-Through Mechanism*, Docket No. 17-00108, *Final Order*, p. 10 (February 21, 2018).

⁵⁹ Dante M. DeStefano, Pre-filed Direct Testimony, p. 7 (February 28, 2019).

⁶⁰ *Id.* 8.

amount of \$20,894 ($\$208,941/10$).⁶¹ It then applied monthly amortization of \$1,741 ($\$208,941/(10*12)$) through the Attrition Year to arrive at the midpoint account balance of \$198,494 for the Attrition Year. This amount represents the average unrecovered operating losses deferred from January 1, 2017 through September 30, 2018, on which the Company should earn a fair return.

Further, consistent with the Commission's order in Docket No. 17-00108, the Consumer Advocate recommends the Company be allowed to continue deferring its operational losses for the period October 1, 2018 until the new rates ordered in this proceeding become effective on January 1, 2020.⁶² The Company will be allowed recovery of these additional deferred losses in a future rate proceeding. The Company came to agree with the Consumer Advocate's projected \$198,494 of deferred losses.⁶³

The Hearing Panel found the Consumer Advocate's methodology complied with the Commission's Final Order in Docket No. 17-00108, and adopted a ten-year amortization period for Deferred Operating Losses and voted unanimously to adopt average Deferred Operating Losses of \$198,494, as well as annual amortization of \$20,894, for the Attrition Year. Additionally, pursuant to the Commission's order in Docket No. 17-00108, the Hearing Panel directed the Company to continue deferring its reasonable operating losses for the period of October 1, 2018 through December 31, 2019 for potential future recovery.

G.4. Deferred Return on Incremental Plant Investment

In Docket No. 17-00108, the Commission authorized the Company to create a regulatory asset to account for the returns on the plant investments required to recover the system from the

⁶¹ William H. Novak, Pre-filed Direct Testimony, p. 29 (July 12, 2019).

⁶² *Id.*

⁶³ Tennessee Water Service's Late Filed Exhibits, Exhibit 6, Schedule 2 (September 10, 2019).

2016 wildfires.⁶⁴ The order permitted the returns to be computed from the time such new plant was placed in service until this rate case proceeding at the then-authorized rate of return of 6.89%.⁶⁵ The primary investments made during this time was the tank/booster station rehabilitation project of \$331,483 placed in service in January 2019 and the well/booster station rehabilitation project of \$443,126 placed in service in May 2019, along with additional, smaller incremental plant additions.⁶⁶

The Consumer Advocate computed the Deferred Return on Incremental Plant Investment by determining actual and forecasted plant additions, depreciation, and plant retirements for the period January 1, 2017 through December 31, 2019, and then applying the annual return of 6.89% to the resulting net plant investments over this period. Using this methodology, the Consumer Advocate calculated deferred returns of \$86,486 for the period.⁶⁷ The Consumer Advocate then selected a ten-year amortization period for recovery of the deferred returns and then applied monthly amortization of \$721 ($\$86,486 / (10 * 12)$) through the Attrition Year to arrive at the midpoint account balance of \$82,162 for the Attrition Year.⁶⁸ The Company adopted the Consumer Advocate's projected \$82,162 in a late-filed exhibit.⁶⁹

The Hearing Panel found the methodology and calculations of the Consumer Advocate to be accurate and reasonable. Nevertheless, the deferred returns should take into account the Company's admission of liability for failure to properly insure the destroyed assets. The Consumer Advocate did not reduce the deferred returns for any imputed insurance proceeds that may have been collected

⁶⁴ *In re: Petition of Tennessee Water Service, Inc. for Approval of an Interim Emergency Wildfire Restoration Surcharge, Interim Emergency Water Service Availability Surcharge, Interim Emergency Make-Whole Surcharge, and an Interim Emergency Operation Cost Pass-Through Mechanism*, Docket No. 17-00108, *Final Order*, p. 10 (February 21, 2018).

⁶⁵ *Id.*

⁶⁶ J. Bryce Mendenhall, Pre-filed Direct Testimony, pp. 4-5 (February 28, 2019); Dante M. DeStefano, Pre-filed Direct Testimony, Schedule C (February 28, 2019).

⁶⁷ William H. Novak, Pre-filed Direct Testimony, p. 32 (July 12, 2019).

⁶⁸ *Id.*

⁶⁹ Tennessee Water Service's Late-Filed Exhibits, Exhibit 6, Schedule 3 (September 10, 2019).

if the assets were insured. Taking into account the Majority's decision with respect to the finding of a regulatory liability for a lack of sound insurance coverage, the Majority of the Hearing Panel found it appropriate to reduce the deferred returns by imputing \$382,016 of putative insurance proceeds to offset the tank/booster and well/booster rehabilitation projects.⁷⁰ Using the same methodology as the Consumer Advocate, but for the insurance imputation, the Hearing Panel found deferred returns of \$57,574 for the period January 1, 2017 through December 31, 2019. The Hearing Panel voted unanimously to adopt the ten-year amortization period for recovery of the deferred returns and then applied monthly amortization of \$480 ($\$57,574 / (10 \times 12)$) through the Attrition Year to arrive at the midpoint account balance of \$54,695 for the Attrition Year and an annual amortization amount of \$5,757 ($\480×12).

G.5. Deferred Rate Case Cost

In Docket No. 17-00108, the Commission authorized the Company to defer up to \$30,000 of the costs for that case for recovery in this proceeding.⁷¹ The Company filed information showing that the costs for Docket No. 17-00108 were \$48,757.⁷² The Company further filed information showing forecasted costs of \$59,700 for the hearing on the merits in the current docket and \$13,488 of costs for the supplemental hearing in this docket.

The Consumer Advocate began with the Test Year balance of \$48,757 and adjusted it to the \$30,000 cap set by the Commission in Docket No. 17-00108.⁷³ Projected costs for this docket of \$59,700 were added to produce a balance of \$89,700. A five-year amortization period was selected and monthly amortization of \$1,495 ($\$89,700 / (5 \times 12)$) was applied through the Attrition Year to

⁷⁰ See Section G.9. *Regulatory Liability – Uninsured Property* of this Order; Commissioner Hilliard dissented with the Majority of the Hearing Panel with respect to the insurance related regulatory liability determination.

⁷¹ *In re: Petition of Tennessee Water Service, Inc. for Approval of an Interim Emergency Wildfire Restoration Surcharge, Interim Emergency Water Service Availability Surcharge, Interim Emergency Make-Whole Surcharge, and an Interim Emergency Operation Cost Pass-Through Mechanism*, Docket No. 17-00108, *Final Order*, p. 10 (February 21, 2018).

⁷² *Tennessee Water Service Inc. Response to TPUC Data Request*, DR2, #4 (August 28, 2019).

⁷³ William H. Novak, Pre-filed Direct Testimony, p. 33-34 (July 12, 2019).

arrive at an average Attrition Year balance of \$80,730 for Rate Base and annual amortization of \$17,940 ($\$1,495 \times 12$) for expenses.⁷⁴ In the original filing, the Company did not project any rate case costs; however, the Company agreed with the Consumer Advocate's projected amount of \$80,730 in a late-filed exhibit.⁷⁵

The Hearing Panel found the calculations of the Consumer Advocate to be accurate. Based upon the late-filed exhibit, the Company also agreed with the Consumer Advocate's calculations and five-year amortization period. However, neither the Consumer Advocate nor the Company updated its exhibits to include the \$13,488⁷⁶ of costs for the supplemental hearing. The Hearing Panel found it appropriate to add these costs to Deferred Rate Case Cost and determined the estimated rate case costs to be \$103,188. Applying a five-year amortization period with a monthly amortization of \$1,720 ($\$103,188 / (5 \times 12)$) through the Attrition Year, the Hearing Panel voted unanimously to adopt an average Attrition Year balance of \$92,869 for Rate Case Cost and annual amortization of \$20,638 ($\$1,720 \times 12$) for expenses.

G.6. Accumulated Depreciation

Accumulated Depreciation recognizes all of the prior depreciation of plant, and this account is netted against gross plant to arrive at the net plant amount on which the Company should earn a fair rate of return. The Consumer Advocate calculated Attrition Year Accumulated Depreciation by using the Test Year balance of \$459,597 and adding depreciation expense recognized for the Test Year of \$68,410 and subtracting the accumulated depreciation associated with retirements (removal of plant) in the amount of \$91,081.⁷⁷ In a late-filed exhibit, the Company revised its Accumulated Depreciation amount to agree with the Consumer Advocate in the amount of \$436,926.⁷⁸

⁷⁴ *Id.*

⁷⁵ Tennessee Water Service's Late Filed Exhibits, Exhibit 6, Schedule 2 (September 10, 2019).

⁷⁶ *TWS Supplemental Hearing Costs Filing*, (October 17, 2019).

⁷⁷ William H. Novak, Pre-filed Direct Testimony, p. 25 (July 12, 2019).

⁷⁸ Tennessee Water Service's Late Filed Exhibits, Exhibit 6, Schedule 2 (September 10, 2019).

The Hearing Panel found the calculations accurate and reasonable and voted unanimously to adopt the Consumer Advocate's result of an average Accumulated Depreciation of \$436,926 for the Attrition Year.

G.7. Contributions In Aid of Construction

Contributions In Aid of Construction generally represent investments in utility plant that are funded by the utility's customers, developers, or other outside parties. Since the utility's investors did not have any capital outlay associated with these investments, they should not be permitted to earn a return on them. Thus, Contributions In Aid of Construction are deducted from Rate Base to reduce the investment base on which a fair return is computed. Contributions In Aid of Construction are amortized as an offset to depreciation expense over the life of the contributed plant.

The Company and the Consumer Advocate agree that the balance of this account is \$633,347.⁷⁹ This is based upon the September 2018 account balance of \$659,969 with monthly amortization of \$1,268 applied for 21 months to arrive at an average balance of \$633,347 for the Attrition Year. The Hearing Panel found the calculations accurate and voted unanimously to adopt Contributions In Aid of Construction of \$633,347 for the Attrition Year.

G.8. Accumulated Deferred Income Taxes

Accumulated Deferred Income Taxes ("ADIT") recognize that the utility may generally deduct more expenses for tax purposes than for regulatory purposes in the same accounting period, thereby reducing its tax liability in the current year. The most significant portion of ADIT relates to differences in the methods used for computing depreciation expense for tax purposes versus ratemaking purposes. Because these differences cause the utility to pay lower taxes in the current year than the amount of taxes collected from customers through service rates, the benefit of the

⁷⁹ *Id.*

preferential tax treatment is flowed through to customers by deducting the ADIT from Rate Base in order to offset the returns paid by customers to the investors.

The Consumer Advocate computed ADIT by starting with the Test Year balance for the operating company and the parent in the amount of \$54,013.⁸⁰ Additions to the deferred account were made by using the midpoint balance of the tax effect on the depreciation timing differences of new assets placed in service in the amount of \$3,675. In late-filed exhibit, the Company revised its ADIT amount to agree with the Consumer Advocate in the amount of \$57,687.⁸¹

The Hearing Panel found the calculation to be accurate and voted unanimously to adopt ADIT of \$57,687 for the Attrition Year.

G.9. Regulatory Liability – Excess Deferred Taxes

The Regulatory Liability for Excess Deferred Taxes represents the amount of excess ADIT that should be returned to ratepayers as a result of the Tax Cuts and Jobs Act. Since the corporate tax rate was reduced from 35% to 21%, the booked amount of ADIT was reduced to recognize that the associated deferred taxes will be paid in the future at the new 21% rate, rather than the higher 35% rate that was in effect when the taxes were originally deferred. The amount of the ADIT reduction, or Excess Deferred Taxes, was collected from customers through rates, but since the higher taxes will never be paid due to the reduction in the corporate tax rate, they must be returned to the ratepayers. Amortization of a regulatory liability is the mechanism used to effectuate the return of Excess Deferred Taxes.

With regard to the amortization of Excess Deferred Taxes, the IRS requires Excess Deferred Taxes related to depreciation timing differences on certain assets to be amortized over the life of the related assets. This category is known as protected Excess Deferred Taxes. Both the Consumer Advocate and the Company agree that protected Excess Deferred Taxes should be amortized over

⁸⁰ *Id.* at 26.

⁸¹ Tennessee Water Service's Late-Filed Exhibits, Exhibit 6, Schedule 2 (September 10, 2019).

49 years.⁸² The Test Period amount of protected Excess Deferred Taxes of \$72,183 was amortized through the Attrition Year at \$123 per month ($\$72,183/(49*12)$) to arrive at a midpoint protected Excess Deferred Taxes balance of \$69,973 for the Attrition Year.

With regard to unprotected Excess Deferred Taxes, the IRS allows state commissions to choose any amortization period for return of this amount to ratepayers. The Consumer Advocate recommended a three-year amortization period and amortized the Test Period amount of unprotected Excess Deferred Taxes of \$3,888 through the Attrition Year at \$108 per month ($\$3,888/(3*12)$) to arrive at a midpoint unprotected Excess Deferred Taxes balance of \$1,944 for the Attrition Year. Initially, the Company recommended a five-year amortization period for unprotected Excess Deferred Taxes; however, in a late filed exhibit, the Company revised its Regulatory Liability for Excess Deferred Taxes to agree with the Consumer Advocate.⁸³

The Hearing Panel found the Consumer Advocate's calculations to be accurate and voted unanimously to adopt a total Regulatory Liability for Excess Deferred Taxes of \$71,917 (\$69,973 protected plus \$1,944 unprotected) and annual amortization of \$2,769.

G.10. Regulatory Liability – Uninsured Property

The Consumer Advocate proposed a Regulatory Liability for Uninsured Property of \$757,006 based on its contention that some of the assets destroyed by the wildfires should have been fully covered by insurance.⁸⁴ According to the Consumer Advocate, had such insurance coverage been properly in place, the Company would have collected sufficient insurance proceeds to replace the destroyed assets, thereby eliminating the need for investor-funded investments for such replacements and, consequently, lowering the Rate Base on which a return is paid by customers.

⁸² William H. Novak, Pre-filed Direct Testimony, p. 26 (July 12, 2019);

⁸³ Tennessee Water Service's Late-Filed Exhibits, Exhibit 6, Schedule 3 (September 10, 2019).

⁸⁴ William H. Novak, Pre-filed Direct Testimony, p. 38 (July 12, 2019).

Thus, the Regulatory Liability for Uninsured Property recommended by the Consumer Advocate essentially removes the rate impact of replacing the destroyed assets. Effectively, the regulatory liability amount proposed here requires the Company to shoulder the full cost of the investments made to recover from the wildfire that the Consumer Advocate contends should have been fully insured. The Consumer Advocate's intent is to completely offset the tank/booster station rehabilitation project costing \$331,483 placed in service in January 2019 and a well/booster station rehabilitation project costing \$443,126 placed in service in May 2019.⁸⁵

As such, the Consumer Advocate computed a Regulatory Liability for Uninsured Property by taking the cost of the uninsured replacements and amortizing them over 66.67 years (1.5% amortization rate) which is the same as the economically useful life of the assets recognized in the Plant In Service and related Depreciation calculations.⁸⁶ Using this methodology, the Consumer Advocate computed accumulated amortization of the regulatory liability through the Attrition Year to arrive at the midpoint balance of \$14,175 of accumulated amortization and annual amortization expense of \$11,619. The Consumer Advocate also determined the ADIT related to the uninsured assets by computing the tax effect on the deprecation timing differences of uninsured assets through the midpoint of the Attrition Year to arrive at an incremental ADIT balance of \$3,426. Based on these calculations, the Consumer Advocate computed and recommended a Regulatory Liability for Uninsured Property of \$757,006 ($\$331,483 + \$443,126 - \$14,175 - \$3,428$).

Here, the Company admitted that some of the destroyed property was under-insured and that a Regulatory Liability is appropriate to recognize the Company's failure to properly insure the plant.⁸⁷ Thus, the issue is not whether the Company was imprudent. With the Company's admission, the issue for the Hearing Panel is the extent to which its failure should be recognized in

⁸⁵ *Id.*

⁸⁶ *Id.*

⁸⁷ Transcript of Hearing, pp. 40-41, 50 (September 9, 2019); Transcript of Commission Conference, p. 70 (October 14, 2019).

new rates. The Company contends that, based upon a proxy project completed in nearby Sugar Mountain, North Carolina immediately prior to the November 2016 wildfires, the Company should have insured the destroyed plant for \$432,016.⁸⁸ The Company asserts this level of insurance coverage would have been reasonable because it is based upon the actions the Company should have taken in 2016 to insure the property in light of the information available to the Company at that time.⁸⁹ As the insurance policy the Company has in place for other assets contains a \$50,000 casualty loss deductible, the Company asserts that a Regulatory Liability for Uninsured Property of \$382,016 should be recognized (\$432,016 - \$50,000).⁹⁰

The Consumer Advocate, however, argues the Company's assumptions and computations are too speculative and hypothetical to be used for ratemaking purposes. The Consumer Advocate maintains the Sugar Mountain proxy project is a diversionary and unsupported assertion and not comparable to the Company's Chalet Village projects at issue in this docket and, therefore, should be rejected.⁹¹ The Company maintains that it would be unreasonable to use hindsight to hold it accountable for the unforeseen circumstances of the wildfires that devastated the system.⁹²

In response to the destruction of the wildfires, the Company invested \$757,006 to re-establish water service to replace assets it concedes were not properly insured. The Company has taken responsibility for the lack of insurance and has agreed to absorb half of those costs to replace the property damaged by the wildfires.⁹³ The Company maintains its proposition is not an arbitrary splitting of the baby, but rather based on several arguments, including the use of a proxy as a basis of insurance coverage it should have had.

⁸⁸ J. Bryce Mendenhall, Pre-filed Rebuttal Testimony, pp. 6-7 (August 16, 2019).

⁸⁹ J. Bryce Mendenhall, Supplemental Rebuttal Testimony, pp. 3-4 (October 9, 2019).

⁹⁰ J. Bryce Mendenhall, Rebuttal Testimony, p. 7 (August 16, 2019).

⁹¹ William H. Novak, Pre-filed Second Supplemental Testimony, p. 6-7 (October 7, 2019).

⁹² Transcript of Hearing, p. 53 (September 9, 2019).

⁹³ *Id.*

Company witness Bryce Mendenhall testified that the Sugar Mountain project should have been used by the Company at that time to determine an appropriate replacement cost for insurance coverage of the destroyed assets. In support of the Sugar Mountain proxy, the Company asserted the geography, common materials, labor, and other costs such as engineering and design relatively comparable between the Sugar Mountain and Chalet Village booster station projects.⁹⁴ Mr. Mendenhall also testified that disasters, such as the wildfires, can create a premium on reconstruction of damaged assets due to supply and demand pressure on contract labor and materials and that the Company received only one qualified bid to complete the rehabilitation projects at Chalet Village.⁹⁵ The Company reported that only one bid was received for the replacement of the booster station and only one bid was received for the Clubhouse project from a bidder with qualifications and certification.⁹⁶

A basic tenet of just and reasonable rates requires a utility to have the opportunity to earn a reasonable rate of return for investments for used and useful plant.⁹⁷ Rates should be fair to both the ratepayer and the utility. On one hand, the Consumer Advocate frames this matter as a near zero-sum proposition in which the full cost of the replacements should be removed from rate base as a result of the Company's imprudence. However, the Majority of the panel found that requiring the Company to forgo 100% of its investment through the application of hindsight three years after the wildfires and the rebuilding of assets destroyed in the fire would be punitive and unreasonable.

Based on the evidentiary record before it, a Majority of the Hearing Panel found the regulatory liability amount proposed by the Company to be reasonable.⁹⁸ This result requires the

⁹⁴ *Id.* at 167-169.

⁹⁵ J. Bryce Mendenhall, Pre-filed Rebuttal Testimony, p. 6 (August 16, 2019).

⁹⁶ *Id.*

⁹⁷ *Bluefield Water Works and Improvement Company v. Public Service Commission of the State of West Virginia*, 262 U.S. 679, 692-693 (1923).

⁹⁸ Commissioner Herbert H. Hilliard dissented from the Majority- Transcript of Commission Conference, pp. 30-31 (November 4, 2019): "Commissioner Hilliard: I voted no primarily because I think the company should have had to put aside \$700,000. I thought their explanation for why they were not adequately insure the facilities was inadequate. I

Company to forgo 49.3% of the total cost of replacement while providing the customers with the benefit of replacement assets that will have a longer service life. One must consider the age of the plant that was replaced and the circumstances in which it was replaced. The destroyed well and tank booster stations were existing when the Company acquired the utility and was granted its certificate of convenience and necessity (“CCN”) in 1984, making the plant more than 30 years old at the time of the 2016 wildfires. The tank and well booster stations have been completely replaced with new plant that will undoubtedly serve the customers far longer than the destroyed plant would have. Moreover, it is reasonable to assume that routine maintenance and repair costs will decline in the foreseeable future due to the replacement of the aging assets with new plant. Customers therefore will likely receive the benefits of longer service life and reduced costs due to the installation of the new plant.

Further, the Commission does not by rule or order specifically require utilities to fully insure against all possible casualty losses or otherwise endorse specific insurance coverage parameters, although insurance coverage or the reasonableness of a policy is certainly a consideration for the Commission. A public utility does not have license to conduct its affairs recklessly. Nevertheless, the Commission has authorized recovery of nonrecurring, extraordinary costs from ratepayers for uninsured casualty losses that were beyond the utility’s control. For instance, in Docket Nos. 08-00201, 12-00051, and 13-00121, the Commission authorized the creation of regulatory assets for recovery of storm-damage costs from ratepayers incurred as a result of devastating winter storms.⁹⁹ And in Docket No. 11-00180 the Commission authorized Berry’s Chapel Utility, Inc. to create a

also thought it was very negligent not to insure something at a bare premium where the deductible was higher than what you’d actually get paid if you actually had a loss.”

⁹⁹ See *In Re: Entergy Arkansas, Inc’s Proposed Storm Damage Rider*, Docket No. 08-00201, *Order Approving Storm Damage Rider*, (February 2, 2009); *In Re: Petition of Kingsport Power Company D/B/A AEP Appalachian Power to Implement a Storm Damage Rider Tariff for Recovery of Storm Costs*, Docket No. 12-00051, *Order Approving Proposed Tariff*, p. 4 (November 28, 2012); *In Re: Petition of Kingsport Power Company D/B/A AEP Appalachian Power for Approval of Deferred Accounting*, Docket No. 13-00121, *Order Approving Request to Defer Storm Cost*, p.2 (October 16, 2014).

regulatory asset for recovery of specific flood-damage costs from ratepayers incurred as a result of catastrophic flooding that occurred in Middle Tennessee in May 2010.¹⁰⁰ The wildfires in 2016 certainly qualify as an extraordinary event beyond the control of a public utility. Thus, it is consistent with the Commission's prior ratemaking decisions and policy to permit the Company to recover the uninsured casualty losses sustained in this case which were undoubtedly extraordinary and beyond the utility's control.

Finally, allowing the Company recovery of costs related to restoring the water system from the fire damage is consistent with the Commission's previous order on this issue in Docket No. 17-00108. In that docket, the Commission authorized the Company to establish a regulatory asset to accrue and defer the returns on the capital projects necessary to repair the fire damage and restore the system to operational status. Those capital projects have been identified in this proceeding as the tank and well booster station rehabilitation projects. And by entering the rate order in Docket No. 17-00108, the Commission determined that probable future recovery of the capital costs related to these projects was proper and in accordance with the ratemaking and regulatory accounting principles established by the Commission's Uniform System of Accounts.

Based on the foregoing, the Majority of the Hearing Panel authorized a Regulatory Liability for Uninsured Property by taking the proposed amount of \$382,016 amortized over 66.67 years (1.5% amortization rate) through the Attrition Year to arrive at the midpoint balance of \$8,041 of accumulated amortization and annual amortization expense of \$5,730 ($\$382,016 * 1.5\%$). The ADIT related to the underlying property was determined by computing the tax effect on the depreciation timing differences through the midpoint of the Attrition Year to arrive at an incremental ADIT balance of \$1,782. Based on these calculations, the Majority of the Hearing Panel voted to authorize a Regulatory Liability for Uninsured Property of \$372,193 ($\$382,016 - \$8,041 - \$1,782$).

¹⁰⁰ See *In Re: Petition of Berry's Chapel Utility, Inc. to Recover Costs to Repair Flood Damage and to Refund Customer Service Fees*, Docket No. 11-00180, *Final Order*, pp. 15-17, (August 21, 2012).

H. REVENUE CONVERSION FACTOR

The Revenue Conversion Factor represents the multiple figure needed to convert the operating revenue deficiency to the revenues necessary to produce that income. Specifically, taxes and other fees must be collected on top of the revenue in order for the necessary amount of revenues to be collected by the Company to cover its revenue deficiency. As stated by the Consumer Advocate, the Commission traditionally includes the forfeited discount in its revenue conversion factor and the Company offers no explanation for its exclusion.¹⁰¹ The Advocate further states that the Commission has also traditionally treated the inspection fee as a prepaid tax instead of including it as a component of the revenue conversion factor.

The Hearing Panel voted unanimously to adopt a forfeited discount factor of 0.014773, an uncollectible ratio of 0.002452, a state excise tax rate of 6.5% and a federal income tax rate of 21% which yields a recommended revenue conversion factor of 1.337392.

I. RATE OF RETURN AND COST OF CAPITAL

The goal of regulatory rate setting is to ensure a fair rate of return on a company's investments while ensuring the safety and reliability of the service provided. The fair rate of return standard descends from court decisions in the *Hope* and *Bluefield* cases.¹⁰² A fair rate of return is achieved when (1) the return is comparable to other businesses that bear similar risks; (2) the allowed return is sufficient to ensure financial integrity; and (3) the company can attract, at reasonable cost, credit to meet its capital requirements.

The Company proposes a capital structure that is a 50%/50% split of long-term debt and equity. The Company notes that this capital structure is consistent with the recent history of TWS's

¹⁰¹ William H. Novak, Pre-filed Direct Testimony, p. 42 (July 12, 2019).

¹⁰² *Bluefield Water Works & Improvement Co. v. P.S.C. of West Virginia*, 262 U.S. 679 (1923) and *F.P.C. v. Hope Natural Gas Co.*, 320 U.S. 591 (1944).

parent, Utilities, Inc. (“UI”). TWS is a wholly-owned subsidiary of UI.¹⁰³ The Company proposes a cost of equity of 10.50%. The Company and its parent company are not publicly traded. The Company estimates the cost equity for use in the proceeding using an ensemble of the discounted cash flow and capital asset pricing models applied to a comparison group of natural gas and water utilities.¹⁰⁴ The Company proposes a cost of debt of 5.04%.¹⁰⁵ The resulting overall rate of return based upon the Company’s capital structure, debt cost, and equity return is 7.77%.¹⁰⁶

The Consumer Advocate notes that, for this case, it “has no objection to the Cost of Capital proposed by the Company that produces an overall return of 7.7%.”¹⁰⁷ Based upon the positions taken by the parties, there is no controversy concerning the overall cost of capital of 7.77%. At the Hearing, Consumer Advocate witness Novak stated that “It’s my understanding that the company and the Consumer Advocate had agreed to the cost of capital prior to the company’s filing” and “we are not contesting the company’s cost of capital.”¹⁰⁸

The Company proposes a capital structure that is a 50%/50% split of long-term debt and equity. Similarly, in an order issued February 21, 2019, the North Carolina Utilities Commission established a capital structure of 50.91% equity and 49.09% long-term debt for an affiliate of TWS.¹⁰⁹ As such, the panel found the proposed capital structure of a 50%/50% split of long-term debt and equity is reasonable for use in this proceeding. Similarly, the North Carolina Commission set the cost of debt to be 5.68%. The panel also found the proposed debt cost in this proceeding of 5.04% is comparable and thus, reasonable.

¹⁰³ Dante M. DeStefano, Pre-filed Direct Testimony, p. 10 (February 29, 2019).

¹⁰⁴ Jared Deason, Pre-filed Direct Testimony, p. 23 (February 29, 2019).

¹⁰⁵ Dante M. DeStefano, Pre-filed Direct Testimony, p. 10 (February 29, 2019).

¹⁰⁶ *Id.*

¹⁰⁷ William H. Novak, Pre-filed Direct Testimony, p. 40 (July 12, 2019).

¹⁰⁸ Transcript of Hearing. p. 195 (September 9, 2019)

¹⁰⁹ Tennessee Water Service Inc's Responses to First Informal Discovery Request of the Consumer Advocate Unit Item 6 (April 10, 2019).

The Hearing Panel voted unanimously to adopt the 7.77% overall rate of return and the 10.5% equity return. The related Interest Expense is calculated by applying the adopted weighted cost of debt to the adopted rate base amount. Using the adopted rate base of \$1,411,642 and weighted cost of debt of 2.52%, Interest Expense for the Attrition Year is \$35,573, the Hearing Panel voted unanimously to adopt Interest Expense for the Attrition Year of \$35,573.

J. REVENUE DEFICIENCY

Based upon the foregoing, the Majority of the Hearing Panel found that the Company will experience a Revenue Deficiency of \$111,020 for the Attrition Year ending December 31, 2020, at presently-authorized service rates. Thus, new rates should be designed and implemented which will generate additional annual water service revenues of \$111,020. This increase in revenues will afford the Company a reasonable opportunity to earn its recommended fair rate of return of 7.77%

K. RATE DESIGN AND OTHER TARIFF CHANGES

Rate design covers the manner in which new rates reflecting the revenue deficiency are recovered from customers. This section also includes changes to the tariff, or terms and conditions of service.

K.1. Rate Design

The Company proposed to phase in rates over a three-year period in order to avoid rate shock, but it should be noted that TWS requested \$300,444 in additional revenues – an amount that exceeds the Majority Panel’s revenue deficiency of \$111,020. TWS is also proposed new rates for private fire service. The Company’s proposed rate design was as follows:

	<u>Current</u>	<u>Year 1</u>	<u>Year 2</u>	<u>Year 3</u>
Monthly Flat Rate (Includes 2,000 gallons)	\$25.70	\$50.00	\$74.00	\$94.00
Per Gallon Charge (Over 2,000 Minimum)	\$13.30	\$16.50	\$19.00	\$20.65

Private Fire Service				
Multi-Use Line	\$ 0.00	\$11.33	\$24.00	\$35.80
Fire Only Line	\$ 0.00	\$22.67	\$48.00	\$71.60

Based upon the Company’s recommended rate design, which includes a lower monthly average water usage level, the average monthly water bill would be approximately \$125 prior to sales tax.

The Consumer Advocate calculates a revenue deficiency of \$73,087, and the following rates without a phase in:¹¹⁰

	<u>Current</u>	<u>Proposed</u>
Monthly Flat Rate (Includes 1,000 gallons)	\$25.70	\$33.39
Per Gallon Charge (Over 1,000 Minimum)	\$13.30	\$17.28

While the Consumer Advocate does not oppose the implementation of private fire service, it does not believe that TWS has identified a significant need for the tariff and has not presented justification to support the proposed rates.¹¹¹ Based upon the Consumer Advocate’s recommended rate design, the average monthly water bill would be approximately \$87 prior to sales tax.

The goal of overall rate design is to establish a system of rates that will enable a utility to generate sufficient revenues to cover expenses needed to operate the utility, plus an equity return for investors. There are often, however, many factors that are taken into consideration when designing rates, including those related to economics and social considerations. For example, a social consideration may be to establish rates for residential customers that are affordable but not necessarily reflective of the actual cost of service. Thus, in some cases, rates for certain services or classes of services (i.e., industrial and large commercial) may be priced further above cost in order

¹¹⁰ William H. Novak, Pre-filed Direct Testimony, p. 45-46 (July 12, 2019).

¹¹¹ William H. Novak, Pre-filed Supplemental Testimony, pp. 4-5 (July 31, 2019).

to maintain residential services at affordable rates. In this case, however, TWS serves only residential customers so the revenue deficiency must be recovered solely from residences.

As concluded herein the Majority of the Hearing Panel calculated an annual revenue deficiency of \$111,020 which is based upon forecasted attrition period revenues, expenses, applicable taxes, and a rate base with a fair return. Many factors go into these calculations and especially important to rate design is forecasted attrition period number of customers and average customer water usage. Since revenue calculations are based upon 3,732 annual customer bills with an average monthly usage number 4,080 gallons, it is appropriate to also use these amounts in order develop a rate design that will recover the necessary annual revenue deficiency.

Here, there are primarily two rate components: (1) an existing flat monthly rate of \$25.70 which includes a set amount of usage [currently it includes the initial 1,000 gallons of usage] and (2) an existing \$13.30 charge for each additional 1,000 gallons used above the minimum. Since rates were established in the emergency petition in Docket No. 17-00108, however, the Company has incorrectly applied its tariff by including 2,000 gallons in the minimum monthly flat rate and charging usage rates in excess of 2,000 gallons used monthly.¹¹² This is most unfortunate as it may cause much confusion for ratepayers when rates are changed.

The Hearing Panel found that the Company's proposed private fire service offerings are reasonable and also recommends approval of the proposed rates which are expected to generate additional revenues of \$1,289 annually, leaving the remaining \$109,731 revenue deficiency to be collected from the monthly flat rate and water usage component. Based upon this remaining revenue deficiency, the Hearing Panel voted unanimously to adopt a Monthly flat rate of \$50.00 for the first 1,000 gallons of water used. Any additional water used beyond the first 1,000 gallons is

¹¹² William H. Novak, Pre-filed Direct Testimony, p. 12 (July 12, 2019).

subject to a volumetric charge of \$14.95 per 1,000 gallons. A comparison between the prior rates and the new rates is below.

	<u>Current</u>	<u>Commission</u>
Monthly Flat Rate (Includes 1,000 gallons)	\$25.70	\$50.00
Per Gallon Charge (Each additional 1,000 gallons)	\$13.30	\$14.95

In this case, the Consumer Advocate used average water usage based upon the three years preceding the wildfire to compute rates. The rationale is that current volumes may not be as reliable due to a number of factors. Illustrative of this fact is that the Company's most recent two years of water usage indicates a water loss percentage of 30.43% for the twelve months ending September 30, 2017 and 71.52% for the ending September 30, 2018. The historical water loss percentage for the three years prior to the wildfires averaged only 14%. Moreover, the Company's recent volumes could be impacted by water used in company testing and maintenance of facilities, construction clean-up and possibly other factors such as the size of new homes, newer construction efficiencies and water conservation efforts of consumers. Due to these uncertainties, the rate design adopted by the Hearing Panel increases the Company's fixed revenue recovery to approximately 52% of total revenues, thereby minimizing the revenue impacts of potentially inaccurate water usage levels and high water loss percentages. In this manner, the Company's revenues are more likely to remain stable, and thus more predictable, by recovering more fixed costs through fixed charges, as opposed to relying on the recovery of fixed charges through revenue streams collected via volumetric usage charges. Based upon the proposed customer levels and average water usage, the average water bill will be approximately \$96 monthly.

K.2. Operational Cost Pass Through Mechanism

In Docket No. 17-00108, the Commission implemented an Interim Emergency Operational Cost Pass Through Mechanism ("OCPTM") as proposed by TWS and modified by the Consumer

Advocate.¹¹³ This mechanism authorized TWS to pass through to customers nondiscretionary increases or decreases in costs incurred for purchased water and purchased electricity such that if the price of purchased water or electricity increased or decreased, the Company could adjust customer rates accordingly. In fact, the tariff required TWS to make semi-annual filings with the Commission to adjust customer rates for changes in these expenses; however the Company never made the requisite filings to utilize the mechanism.

In the instant docket, TWS wants to make the mechanism permanent because it argues the overall rate proposal does not include a method to recover increases in production costs. Additionally, the Company contends the OCPTM will provide benefits beyond the attrition year where variable costs will inevitably rise.¹¹⁴ The Consumer Advocate reasons that the mechanism be terminated because it is recommending that the Company be allowed to continue deferring operating losses through December 31, 2019.¹¹⁵ The Consumer Advocate argues this deferment makes the continuation of the mechanism no longer necessary.

The panel found that the uncertainty in water usage levels as discussed above makes it difficult to calculate an accurate amount of purchased water. Additionally, this uncertainty makes it difficult to establish a baseline for the amount of electricity needed to pump the water. Moreover, the panel further found that the Company's overall operations during the near future could be quite volatile (not just purchased water and electricity) due the number of customers added, changes in water usage, and efficiencies experienced with a more efficient water system. Thus, it is quite likely that a review of rates will be necessary in the next two years once these variables are better known. Accordingly, the Hearing Panel voted unanimously to terminate this mechanism until such

¹¹³ *In re: Petition of Tennessee Water Service, Inc. for Approval of an Interim Emergency Wildfire Restoration Surcharge, Interim Emergency Water Service Availability Surcharge, Interim Emergency Make-Whole Surcharge, and an Interim Emergency Operation Cost Pass-Through Mechanism*, Docket No. 17-00108, *Final Order*, p. 11 (February 21, 2018).

¹¹⁴ Dante M. DeStefano, Pre-filed Direct Testimony, pp. 6-7 (August 16, 2019).

¹¹⁵ William H. Novak, Pre-filed Rebuttal Testimony, pp. 43-44 (July 12, 2019).

time that the Company's operations are more stable so a sound baseline can be established on which to compare future changes.

K.3. Qualified Infrastructure Improvement Program

The Company proposed a Qualified Infrastructure Improvement Program ("QIIP") mechanism to be implemented in order for the Company to recover its qualifying incremental non-revenue producing plant infrastructure investment relating to:

Distribution Infrastructure – a Replacement distribution and transmission mains and valves installed as replacements for existing facilities, reinforcement of existing facilities or otherwise ensuring reliability of existing facilities; Hydrants, Services, Meters and Meter Installations – installed as in-kind replacements, reinforcements or ensuring reliability of existing facilities; Unreimbursed funds related to capital projects to relocate facilities required by government highway projects; Capitalized tank repairs and maintenance that serve to replace, reinforce, otherwise ensure reliability of existing facilities.

Production and Pumping Infrastructure – Replacement of water treatment facilities and equipment installed as replacements for existing facilities, reinforcements of existing facilities or otherwise ensuring reliability of existing facilities; Raw Water and Finished Water pumping equipment and structures installed as replacements, reinforcements or otherwise reliability of existing facilities.¹¹⁶

In essence the Company would provide a forecast of QIIP investment and begin collecting appropriate carrying charges via a customer surcharge. At year end, TWS would true-up the budget to actual investment along with a true-up over/under collections from consumers. The Consumer Advocate offered no opinion on this mechanism.

The Hearing Panel found the QIIP was not in the public interest at this time and voted unanimously that the request be denied. The main emphasis has been and should continue to be for TWS to build facilities necessary to service customers. Within the QIIP, the Company plans to establish more reliable facilities and improve them. While added reliability is important, the emphasis has to be to provide basic service that is reasonably affordable. In light of the major rate

¹¹⁶ Dante M. DeStafano, Pre-filed Direct Testimony, Exhibit 7, Original Sheet No. 19 (February 28, 2019).

increases that customers are about to realize, adding infrastructure that is not absolutely necessary to actually serve customers at this time could very well make rates unaffordable and unreasonable.

However, the Hearing Panel noted that if a project becomes necessary to furnish service, and absent repairing or replacing the infrastructure would result in inadequate or loss of service, the Company may petition for emergency relief in the form of additional deferred accounting and present its case. Moreover, if a local government entity requires the utility to replace, move or otherwise cause the Company to spend money on capital projects, the Company has the option to file an emergency petition for necessary relief. Finally, the Company's earnings volatility in the near future will make it quite likely that an overall review of rates will be necessary in the next two years.

K.4. Other Miscellaneous Tariff Changes

In addition to the aforementioned tariff provisions relating to the private fire service, OCPTM, and the QIIP, TWS provides several other miscellaneous tariff changes in its tariff.

In addition to requiring a third party to pay the new 21% tax rate on all Contribution-in-aid of Construction ("CIAC"), TWS proposes to also collect the 6.5% Tennessee state excise tax rate on CIAC. The Consumer Advocate, however, correctly points out the Tennessee state excise tax does not apply to CIAC.¹¹⁷ Moreover, the Commission decided this very topic in its order issued on October 1, 2018, in Docket 18-00001, *Order Approving Staff Report and Recommendation*.¹¹⁸ Within that order, the Commission ordered all small water and wastewater utilities to file a tariff with a CIAC gross up factor of 26.58%, which excludes excise tax. TWS, however, failed to

¹¹⁷ William H. Novak, Pre-field Supplemental Testimony, p. 2 (July 31, 2019).

¹¹⁸ *In Re: Tennessee Public Utility Commission Investigation of Impacts of Federal Tax Reform on the Public Utility Revenue Requirements*, Docket No. 18-00001, *Order Approving Staff Report and Recommendations*, pp. 3-4.

submit the required tariff. The Consumer Advocate had no objection to the remaining miscellaneous changes to TWS's tariff.¹¹⁹

The Hearing Panel directed TWS to file a tariff for CIAC reflecting a 26.58% gross up factor and to file the specific tariff language attached to the October 1, 2018 order issued in Docket No. 18-00001 and voted unanimously to approve the remaining miscellaneous tariff changes.

IT IS THEREFORE ORDERED THAT:

1. The rates filed by Tennessee Water Service, Inc. on February 28, 2019 are denied;
2. For purposes of the rates herein, the attrition period Revenues for the twelve months ending December 31, 2020, are \$248,782 in Water Sales and \$4,919 in other Revenues, and a forfeited discount rate of 1.4773%;
3. For purposes of the rates herein, the Operations and Maintenance Expenses for the attrition period are \$141,466.
4. For purposes of the rates herein, Depreciation Expense for the attrition period is \$42,735; (2) Amortization of Contributions in Aid of Construction of \$15,213; and (3) Amortization of Investment Tax Credit of \$48.
5. The (1) Amortization of Regulatory Liability for Excess Deferred Taxes of \$2,769, with a 49-year amortization period for Protected Excess Deferred Taxes and a three-year amortization period for Unprotected Excess Deferred Taxes; and (2) Amortization of Regulatory Liability for Uninsured Property of \$5,730, with a 66.67-year amortization period consistent with the associated uninsured plant.
6. The (1) a ten-year amortization period for Deferred Operating Loss with an annual amortization of \$20,894; (2) a ten-year amortization period for Deferred Return on Incremental Plant Investment with an annual amortization of \$5,757; and (3) a five-year amortization period for Deferred Rate Case Expense with an annual amortization of \$20,638. The Company is authorized

¹¹⁹ William H. Novak, Pre-filed Supplemental Testimony, pp. 4-5 (July 31, 2019).

to continue deferring its reasonable operating losses as agreed to by the parties through December 31, 2019, for potential future recovery.

7. For purposes of the rates herein, the Net State Excise Tax is calculated using the statutory rate of 6.5% and Federal Income Taxes are calculated using the 21% statutory rate for the attrition period. Other Taxes for the attrition period are approved as follows: Payroll Tax of \$1,940, Franchise Tax of \$1,122, Gross Receipts Tax of \$144, Property Tax of \$18,188; and Inspection Fees of \$1,054.

8. For purposes of the rates herein, Rate Base is \$1,411,642 for the attrition period;

9. For purposes of the rates herein, the Net Operating Income is \$26,672 for the attrition period based on current rates prior to application of taxes for additional attrition period revenues;

10. For purposes of the rates herein, the overall Revenue Conversion Factor of 1.337392 based upon a forfeited discount factor of 0.014773, an uncollectible ratio of 0.002452, a state excise tax rate of 6.5% and a federal income tax rate of 21%.

11. For purposes of the rates herein, the capital structure is composed of 50.00% debt and 50.00% equity; debt cost of 5.04% and an equity return of 10.50% with an overall rate of return of 7.77%;

12. For purposes of the rates herein, using the adopted Rate Base of \$1,411,642 and weighted cost of debt of 2.52%, Interest Expense is calculated in the amount of \$36,573 for the attrition period.

13. For purposes of the rates herein, the Revenue Deficiency of \$111,020 is established for the attrition period.

14. The Monthly Flat Rate for the first 1,000 gallons of water usage shall be increased from \$25.70 to \$50.00 per month.

15. The volumetric charge for each 1,000 gallons above the first 1,000 gallon water usage shall be increased from \$13.30 to \$14.95 per 1,000 gallons.

16. The proposed Private Fire Service rates of \$35.80 for multi-use lines and \$71.60 for Fire-Only lines are approved.

17. The existing Interim Emergency Operational Cost Pass Through Mechanism is terminated.

18. The proposed Qualified Infrastructure Improvement Program surcharge is denied as it is not in the public interest at this time.

19. Tennessee Water Service Inc. is to file a tariff regarding Contributions in Aid of Construction to reflect a 26.58% gross up factor, and to file the specific tariff language attached to the October 1, 2018 order issued in Commission Docket No. 18-00001.

20. The rates approved herein shall become effective January 1, 2020.

21. Any person who is aggrieved by the Commission's decision in this matter may file a Petition for Reconsideration with the Commission within fifteen days from the date of this Order; and

22. Any person who is aggrieved by the Commission's decision in this matter has the right to judicial review by filing a Petition for Review in the Tennessee Court of Appeals, Middle Section, within sixty days from the date of this Order.

Chair Robin L. Morrison and Commissioner David F. Jones concur. Commissioner Herbert H. Hilliard dissents in part where noted herein.

ATTEST:



Earl R. Taylor, Executive Director

TENNESSEE PUBLIC UTILITY COMMISSION

Ratemaking Schedules

TPUC Docket 19-00028

***Petition of Tennessee Water Service, Inc.
for Adjustment of Rates And Charges,
Approval of a Qualified Infrastructure
Investment Program, and Modification to
Certain Terms and Conditions for the
Provision of Water Service***

TENNESSEE WATER SERVICE, INC
Index to Schedules
For the 12 Months Ending December 31, 2020

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TENNESSEE WATER SERVICE, INC
Results of Operations
For the 12 Months Ending December 31, 2020

<u>Line No.</u>		<u>Amount</u>
1	Rate Base	\$1,411,642
2	Operating Income At Current Rates	26,672
3	Earned Rate Of Return	1.89%
4	Fair Rate Of Return	7.77%
5	Required Operating Income	109,685
6	Operating Income Deficiency	83,012
7	Gross Revenue Conversion Factor	<u>1.337392</u>
8	Revenue Deficiency	<u><u>\$111,020</u></u>

TENNESSEE WATER SERVICE, INC
Average Rate Base
For the 12 Months Ending December 31, 2020

Line No.		Test Period	Adjustments	Attrition Period
	Additions:			
1	Utility Plant in Service	\$1,845,378	\$779,449	\$2,624,827
2	Working Capital	18,455	(5,629)	12,827
3	Deferred Operating Losses	208,941	(10,447)	198,494
4	Deferred Return on Incremental Plant Investment	20,475	34,220	54,695
5	Deferred Rate Case Costs	<u>48,757</u>	<u>44,112</u>	<u>92,869</u>
6	Total Additions	<u>\$2,142,006</u>	<u>\$841,706</u>	<u>\$2,983,712</u>
	Deductions:			
7	Accumulated Depreciation	\$459,597	(\$22,671)	\$436,926
8	Contributions in Aid of Construction	659,969	(26,622)	633,347
9	Accumulated Deferred Income Taxes	54,013	3,674	57,687
10	Regulatory Liability - Excess Deferred Taxes	99,031	(27,114)	71,917
11	Regulatory Liability - Uninsured Property	<u>0</u>	<u>372,193</u>	<u>372,193</u>
12	Total Deductions	<u>\$1,272,610</u>	<u>\$299,460</u>	<u>\$1,572,070</u>
13	Rate Base	<u>\$869,396</u>	<u>\$542,245</u>	<u>\$1,411,642</u>

TENNESSEE WATER SERVICE, INC
 Working Capital Allowance
 For the 12 Months Ending December 31, 2020

Line No.		<u>Test Period</u>	<u>Adjustments</u>	<u>Attrition Period</u>
1	Maintenance Expenses	\$93,143	(\$52,874)	\$40,269
2	General Expenses	15,645	3,471	19,116
3	Other Operating & Maintenance Expenses	89,767	(7,685)	82,082
4	General Taxes	<u>17,362</u>	<u>5,086</u>	<u>22,448</u>
5	Total Operating Expenses	\$215,917	(\$52,003)	\$163,914
6	Less Purchased Water Expense	<u>68,275</u>	<u>(6,974)</u>	<u>61,301</u>
7	Net Operating Expenses	<u>\$147,642</u>	<u>(\$45,029)</u>	<u>\$102,613</u>
8	Working Capital (1/8th of Net Operating Expenses)	<u>\$18,455</u>	<u>(\$5,629)</u>	<u>\$12,827</u>

TENNESSEE WATER SERVICE, INC
Income Statement at Current Rates
For the 12 Months Ending December 31, 2020

Line No.		Test Period	Adjustments	Attrition Period
	Operating Revenues:			
1	Water Sales Revenues	\$86,299	\$162,483	\$248,782
2	Other Revenues	95,318	(90,399)	4,919
3	Total Operating Revenues	\$181,617	\$72,084	\$253,701
	Operating & Maintenance Expenses:			
4	Maintenance Expenses	\$93,143	(\$52,874)	\$40,269
5	General Expenses	15,645	3,471	19,116
6	Other Operating & Maintenance Expenses	89,767	(7,685)	82,082
7	Total Operating & Maintenance Expenses	\$198,555	(\$57,089)	\$141,466
	Other Expenses:			
8	Depreciation Expense	\$27,999	\$14,736	\$42,735
9	Amortization of Contributions in Aid of Construction	(15,119)	(94)	(15,213)
10	Amortization of Regulatory Liability - Excess Deferred Taxes	0	(2,769)	(2,769)
11	Amortization of Investment Tax Credits	(48)	0	(48)
12	Amortization of Deferred Operating Losses	0	20,894	20,894
13	Amortization of Deferred Return on Incremental Plant	0	5,757	5,757
14	Amortization of Deferred Rate Case Costs	0	20,638	20,638
15	Amortization of Regulatory Liability - Uninsured Property	0	(5,730)	(5,730)
16	General Taxes	17,362	5,086	22,448
17	State Excise Taxes	0	(783)	(783)
18	Federal Income Taxes	0	(2,366)	(2,366)
19	Total Other Expenses	\$30,194	\$55,368	\$85,562
20	Total Operating Expenses	\$228,749	(\$1,720)	\$227,029
21	Utility Operating Income	(\$47,132)	\$73,804	\$26,672

TENNESSEE WATER SERVICE, INC
Operations and Maintenance Expense Summary
For the 12 Months Ending December 31, 2020

<u>Line No.</u>		<u>Amount</u>
	Maintenance Expenses:	
1	Purchased Power	\$8,667
2	Maintenance & Repair	23,622
3	Maintenance Testing	1,908
4	Chemicals	241
5	Transportation	2
6	Outside Services	5,829
7	Total Maintenance Expenses	<u>\$40,269</u>
	General Expenses:	
8	Office Supplies & Other Office Expenses	\$2,935
9	Pension & Other Benefits	6,880
10	Rent	2,037
11	Insurance	3,379
12	Office Utilities	2,370
13	Miscellaneous	1,515
14	Total General Expenses	<u>\$19,116</u>
	Other Expenses:	
15	Purchased Water	\$61,301
16	Bad Debt	610
17	Regulatory	0
18	Salary & Wages	20,170
19	Total Other Expenses	<u>\$82,082</u>
20	Total Operations and Maintenance Expense	<u><u>\$141,466</u></u>

TENNESSEE WATER SERVICE, INC
Taxes Other than Income Taxes
For the 12 Months Ending December 31, 2020

<u>Line No.</u>		<u>Amount</u>
1	Payroll Tax Expense	\$1,940
2	Franchise Tax Expense	1,122
3	Gross Receipts Tax Expense	144
4	Property Tax Expense	18,188
5	Utility Commission Fee Expense	<u>1,054</u>
6	Total	<u><u>\$22,448</u></u>

TENNESSEE WATER SERVICE, INC
Excise and Income Taxes
For the 12 Months Ending December 31, 2020

Line No.		<u>Amount</u>
1	Operating Revenues	<u>\$253,701</u>
	Operating Expenses:	
2	O&M Expenses	\$141,466
3	Depreciation Expense	42,735
4	Net Amortization Expense	23,529
5	General Taxes	22,448
6	Total Operating Expenses	<u>\$230,178</u>
7	NOI Before Excise and Income Taxes	\$23,523
8	Interest Expense	35,573
9	Net Income Before Income Taxes	<u><u>(\$12,051)</u></u>
	Tennessee Excise Tax Calculation:	
10	Net Income Before Income Taxes	(\$12,051)
11	Excise Tax Rate	6.50%
12	Excise Tax Expense	<u><u>(\$783)</u></u>
	Federal Income Tax Calculation:	
13	Net Income Before Income Taxes	(\$12,051)
14	State Excise Tax Expense	(783)
15	Net Income Before Federal Income Tax	<u>(\$11,267)</u>
16	FIT Rate	21.00%
17	Federal Income Tax Expense	<u><u>(\$2,366)</u></u>

TENNESSEE WATER SERVICE, INC
Income Statement at Proposed Rates
For the 12 Months Ending December 31, 2020

Line No.		<u>Current Rates</u>	<u>Rate Increase</u>	<u>Proposed Rates</u>
	Operating Revenues:			
1	Water Sales Revenues	\$248,782	\$111,020	\$359,802
2	Other Revenues	4,919	1,640	6,559
3	Total Operating Revenues	<u>\$253,701</u>	<u>\$112,660</u>	<u>\$366,361</u>
	Operating & Maintenance Expenses:			
4	Maintenance Expenses	\$40,269	\$0	\$40,269
5	General Expenses	19,116	0	19,116
6	Other Operating & Maintenance Expenses	82,082	276	82,358
7	Total Operating & Maintenance Expenses	<u>\$141,466</u>	<u>\$276</u>	<u>\$141,743</u>
	Other Expenses:			
8	Depreciation Expense	\$42,735	\$0	\$42,735
9	Amortization of Contributions in Aid of Construction	(15,213)	0	(15,213)
10	Amortization of Regulatory Liability - Excess Deferred Taxes	(2,769)	0	(2,769)
11	Amortization of Investment Tax Credits	(48)	0	(48)
12	Amortization of Deferred Operating Losses	20,894	0	20,894
13	Amortization of Deferred Return on Incremental Plant	5,757	0	5,757
14	Amortization of Deferred Rate Case Costs	20,638	0	20,638
15	Amortization of Regulatory Liability - Uninsured Property	(5,730)	0	(5,730)
16	General Taxes	22,448	0	22,448
17	State Excise Taxes	(783)	7,305	6,522
18	Federal Income Taxes	(2,366)	22,067	19,700
19	Total Other Expenses	<u>\$85,562</u>	<u>\$29,372</u>	<u>\$114,934</u>
20	Total Operating Expenses	<u>\$227,029</u>	<u>\$29,648</u>	<u>\$256,676</u>
21	Utility Operating Income	<u>\$26,672</u>	<u>\$83,012</u>	<u>\$109,685</u>

TENNESSEE WATER SERVICE, INC
 Rate of Return Summary
 For the 12 Months Ending December 31, 2020

Line No.	Class of Capital	Percent of Total	Cost Rate	Weighted Cost Rate
1	Debt	50.00%	5.04%	2.52%
2	Equity	50.00%	10.50%	5.25%
3	Total	100.00%		7.77%
 <u>Interest Expense:</u>				
4	Rate Base			\$1,411,642
5	Weighted Debt Cost			2.52%
6	Interest Expense			\$35,573

TENNESSEE WATER SERVICE, INC
Revenue Conversion Factor
For the 12 Months Ending December 31, 2020

<u>Line No.</u>		<u>Amount</u>	<u>Balance</u>
1	Operating Revenues		<u>1.000000</u>
2	Add: Forfeited Discounts	0.014773	<u>0.014773</u>
3	Balance		1.014773
4	Uncollectible Ratio	0.002452	<u>0.002488</u>
5	Balance		1.012284
6	State Excise Tax	0.065000	<u>0.065798</u>
7	Balance		0.946486
8	Federal Income Tax	0.210000	<u>0.198762</u>
9	Balance		<u>0.747724</u>
10	Revenue Conversion Factor (Line 1 / Line 9)		<u><u>1.337392</u></u>

TENNESSEE WATER SERVICE, INC
Rate Design
For the 12 Months Ending December 31, 2020

Line No.		<u>Bills/Usage</u>	<u>Current Rate</u>	<u>Current Revenue</u>	<u>Proposed Rate</u>	<u>Proposed Revenue</u>	<u>Revenue Increase</u>
	Water Sales:						
1	Attrition Period Bills	3,732	\$25.70	<u>\$95,912</u>	\$50.00	<u>\$186,600</u>	<u>\$90,688</u>
	Attrition Period Usage:						
2	Step 1 - 0 to 1,000 Gallons/Month	3,732	\$0.00	\$0		\$0	\$0
3	Step 2 - Over 1,000 Gallons/Mont	<u>11,494</u>	\$13.30	<u>152,869</u>	\$14.95	<u>171,834</u>	<u>18,965</u>
4	Total Usage Revenue	15,226		<u>\$152,869</u>		<u>\$171,834</u>	<u>\$18,965</u>
5	Attrition Period Sales Revenue			<u>\$248,782</u>		<u>\$358,434</u>	<u>\$109,653</u>
	Private Fire Service:						
6	Multi-use Line	36	\$0.00	\$0	\$35.80	\$1,289	\$1,289
7	Fire-Only Line	0	\$0.00	<u>0</u>	\$71.60	<u>0</u>	<u>0</u>
8	Attrition Period Private Fire Service			<u>\$0</u>		<u>\$1,289</u>	<u>\$1,289</u>
9	Attrition Period Other Revenue			<u>\$4,919</u>		<u>\$4,919</u>	<u>\$0</u>
10	Total Attrition Period Revenues			<u><u>\$253,701</u></u>		<u><u>\$364,642</u></u>	<u><u>\$110,941</u></u>
11					Revenue Deficiency		<u>111,020</u>
12					Rate Design Difference		<u><u>\$79</u></u>

STATE OF ILLINOIS
ILLINOIS COMMERCE COMMISSION

Utility Services of Illinois, Inc.	:	
	:	
Proposed Rate Increases for	:	17-1106
Water and Sewer Service.	:	
(tariffs filed November 30, 2017)	:	

ORDER

Dated: September 24, 2018

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STATE OF ILLINOIS
ILLINOIS COMMERCE COMMISSION

Utility Services of Illinois, Inc.	:	
	:	
Proposed Rate Increases for	:	17-1106
Water and Sewer Service.	:	
(tariffs filed November 30, 2017)	:	

ORDER

By the Commission:

I. PROCEDURAL HISTORY

On November 30, 2017, Utility Services of Illinois, Inc. (“USI” or “Company”) filed with the Illinois Commerce Commission (“Commission”) its Ill. C. C. No. 3, Third Revised Sheet No. 1 and Original Sheet Nos. 6 – 9; as well as its Ill. C. C. No. 4, Third Revised Sheet No. 1 (hereinafter referred to as “Filed Rate Schedule Sheets”), in which it proposes rate increases for water and sewer service, to be effective January 14, 2018.

Notice of the proposed changes was sent to customers, posted in USI’s business offices, and published in a newspaper of general circulation in its service areas, in accordance with the requirements of Section 9-201(a) of the Public Utilities Act (“Act”) (220 ILCS 5/9-201(a)) and the provisions of 83 Ill. Adm. Code 255.

On December 20, 2017, consistent with Section 9-201(b) of the Act, the Commission suspended the Filed Rate Schedule Sheets for a period of 105 days beginning January 14, 2018 to, and including, April 28, 2018.

Pursuant to notice given in accordance with the law and the rules and regulations of the Commission, a prehearing conference was held on January 29, 2018 before a duly authorized Administrative Law Judge of the Commission at its offices in Chicago, Illinois.

On May 17, 2018, the Commission re-suspended the Filed Rate Schedule Sheets to, and including, October 28, 2018.

The following Petitions to Intervene were granted by the ALJ: Lake Wildwood Association, Inc. (“LWA”); the Galena Territory Association, Inc. (“GTA”); Apple Canyon Lake Property Owners’ Association, Inc. (“ACLPOA”); Lake Holiday Property Owners Association (“LHPOA”); the Village of Johnsburg, Illinois (“Johnsburg”); Westlake Village Master Homeowners Association, Inc. (“WVMHA”); and the Citizens Utility Board (“CUB”). The Illinois Attorney General’s Office, by and through Lisa Madigan, Attorney General for the State of Illinois (“AG”), filed an appearance as a party to this matter.

A public forum was held on May 7, 2017, at Johnsburg High school. An evidentiary hearing was held in this matter in Chicago, Illinois on June 6, 2018. At the evidentiary hearing, the Company, the AG, Staff of the Commission (“Staff”), GTA, ACLPOA, LWA, LHPOA, and Johnsburg appeared and presented testimony.

The Company presented the following witnesses: Steven Lubertozi, President of USI; Justin Kersey, Vice President of Operations of USI; Rob Guttormsen, Financial Planning & Analysis Manager of USI; John Norton, Director of Capital Planning & Asset Management for USI; Michael Miller, Regional Manager – Midwest Operations at Utilities, Inc. (“UI”); Sean Carbonaro, the Project Manager for USI; Dylan W. D’Ascendis, a Director at ScottMadden, Inc.; and Pauline Ahern, an Executive Director at ScottMadden, Inc.

The following witnesses testified on behalf of Staff: Richard W. Bridal II and Theresa Ebrey, Accountants in the Accounting Department of the Financial Analysis Division; Christopher L. Boggs, a Rate Analyst in the Rates Department of the Financial Analysis Division; William H. Atwood, Jr., P.E., a Water Engineer in the Water Engineering Program of the Safety and Reliability Division; David Brightwell, an Economic Analyst in the Policy Program of the Policy Division; and Michael McNally, a Senior Financial Analyst in the Finance Department of the Financial Analysis Division.

Also, Joe Mattingley, the Chief Executive Officer of GTA testified on behalf of GTA; Shaun Nordie, the General Manager of ALCPOA testified on behalf of ACLPOA; Joan Boyer, the General Manager of LWA testified on behalf of LWA; D. John Bouxseing, the General Manager of LHPOA testified on behalf of LHPOA; and Claudett Peters, the Village Administrator of Johnsburg testified on behalf of Johnsburg. GTA, LHPOA, ACLPOA, LWA, and the AG presented the testimony of Mary E. Selvaggio, a Consultant at MES Consulting LLC. CUB did not present a witness.

Initial Briefs and Reply Briefs were filed by USI, Staff, the AG, CUB, and the Home Owners Association (a collective group consisting of GTA, ACLPOA, LWA, WVMHA and Johnsburg, hereinafter referred to as “HOA”) on July 2, 2018 and July 20, 2018, respectively. The record was subsequently marked “Heard and Taken.”

On August 13, 2018, USI filed a Motion to Reopen Record addressing the Lake Wildwood storage tank and booster issue and requesting the admission of USI Exhibit 23. No objections to USI’s Motion to Reopen Record were filed. Also on August 13, 2018, the ALJ issued a request pursuant to 83 Ill. Adm. Code 200.875 for additional calculations. Staff filed a Response to the ALJ’s request on August 15, 2018. USI filed a Reply to Staff’s Response on August 16, 2018 stating that it has no objection to Staff’s Response. No further filings were made in response to the ALJ’s request. On September 13, 2018, the record was reopened for the limited purpose of admitting USI Exhibit 23 and Staff’s Response to the ALJ request.

The Proposed Order was served on August 16, 2018. Briefs on Exceptions were filed on August 30, 2018 by the AG, HOA, Staff, and USI. Reply Briefs on Exceptions were filed on September 7, 2018 by HOA, Staff, USI, CUB, and the AG.

II. PUBLIC COMMENTS

As of the date of this Order, 493 public comments have been posted on the Commission's e-docket system regarding the increased rates proposed by USI. The Commission appreciates these comments as well as the time and effort expended by those who prepared and provided them. These comments have not been taken lightly and they have been carefully considered by the Commission to the extent permitted by law.

III. NATURE OF OPERATIONS

USI is an Illinois corporation and is a wholly owned subsidiary of UI. In 2014, pursuant to the Commission's approval in Docket No. 13-0618, the 23 Illinois utility operating companies of UI were consolidated into USI. *Utility Services of Ill., Inc. and each of the 23 Illinois Operating Subsidiaries of Utilities, Inc.*, Docket No. 13-0618, Order (Oct. 7, 2014). In USI's last rate case, Docket No. 14-0741, the Commission approved a consolidated rate structure for the 23 different rate areas that each represent a former utility company of UI. *Utility Services of Illinois, Inc.*, Docket No. 14-0741, Order at 29-31 (Sept. 22, 2018). USI Ex. 1.0 at 2.

USI provides water service to approximately 12,000 customers and almost 3,000 availability customers *via* 42 wells, one surface water plant, two interconnects, and more than 1.4 million linear feet of water distribution mains. In addition, the Company furnishes wastewater service to approximately 4,000 customers *via* more than .3 million linear feet of wastewater collection mains and eight wastewater treatment facilities. The Company's facilities are dispersed among 23 non-interconnected service areas located in 12 different counties throughout Illinois. The 12 counties are DuPage, Jo Daviess, Kane, Lake, LaSalle, Marshall, McHenry, Peoria, Stephenson, Vermillion, Will and Winnebago.

IV. TEST YEAR

USI's filing is based on a future test year ending September 30, 2019, with *pro forma* adjustments for known and measurable changes. No party challenged the reasonableness of using this future test year. The Commission concludes that the test year ending September 30, 2019, with adjustments for known and measurable changes, is appropriate for the purposes of this proceeding.

V. RATE BASE

A. Uncontested Issues

1. Accumulated Deferred Income Taxes ("ADIT")

The change in the federal income tax rate to 21%, which became effective after the Company's November 30, 2017 filing of this case, necessitated three adjustments to ADIT in this proceeding. First, Staff recommended an adjustment to remove amounts for

ADIT associated with an inactive company. This adjustment, reflected in Staff Ex. 7.0, Schedules 7.14 W & S, was agreed to by the Company (USI Ex. 15.0 at 9) and the AG-HOA (AG-HOA Ex. 1.0 at 6). Second, during discovery in the proceeding, the Company agreed that, pursuant to the Private Letter Ruling 201717008 on April 28, 2017, it is not necessary to average the prorated ADIT balance. Staff's adjustment to remove the impact of averaging the prorated ADIT balance (Staff Ex. 7.0, Sched. 7.15 W & S) was agreed to by the Company (USI Ex. 15.0 at 9) and the AG-HOA (AG-HOA Ex. 1.0 at 7). Finally, in response to AG data request 14.02 - Corrected (Ex. A to AG's Motion to Admit Late Filed Exhibit "AG Cross Ex. 4"), USI provided an adjustment to reflect the correction of income tax rates and the Bonus Depreciation percentage to be used in this proceeding. Upon review of the Company's schedules, Staff agreed with the adjustment as reflected in Appendices A and B as Schedule 10W and 10S, to Staff's Initial Brief.

The Commission finds that these adjustments are appropriate.

2. Cash Working Capital

Staff witness Ebrey proposed an adjustment to the Company's proposed calculation of cash working capital to remove the impact of personal property and real estate taxes. Staff Ex. 7.0, Sched. 7.08 W and S. The Company accepted Staff's adjustment. USI Ex. 15.0, Sched. 15.08 W and S.

The Commission finds that this adjustment is appropriate.

3. Pro Forma Tax Rate

Staff, AG, and USI agreed that the state and federal income tax rates to be used in the approved revenue requirement should be set at 9.5% and 21%, respectively. Staff Ex. 7.0, Sched. 1.07 W & S; USI Ex. 15.0, Sched. 15.07 W& S; and AG-HOA Ex. 2.1, Sched. A-3, Water and Sewer.

The Commission approves the adjustment to reflect the increase in the federal tax rate.

4. Camelot Water Treatment Softener Replacement

Staff witness Bridal proposed an adjustment to reduce costs associated with the Camelot Water Treatment Softener Project. Initially, the Company forecast \$75,000 in capital cost for the project. The Company's response to AG data request 3.05(a), however, updated the capital cost to \$56,938. Staff Ex. 2.0 at 8. Thus, Mr. Bridal's adjustment reduced the costs associated with the Camelot Water Treatment Softener Project in rate base and the operating statement accordingly. In rebuttal testimony, the Company agreed that Mr. Bridal's adjustment was consistent with its response to the AG's data request; however, due to modification in the project's scope, the Company did not agree to the adjustment and updated the cost of the project. USI Ex. 10.0 at 17. Staff did not take issue with the modified scope and costs of the project.

Based upon the information above, the Commission determines Staff's adjustment as modified and updated by USI should be adopted.

5. Deferred Charges

Staff witness Bridal proposed an adjustment to correct costs associated with deferred charges included in the Company's rate filing. Staff Ex. 2.0 at 5. In response to AG data request 1.07, the Company stated that it had inadvertently loaded an incorrect draft version of its deferred charge amortization forecast. In the Company's rebuttal testimony, the Company agreed with Mr. Bridal's proposed adjustment. USI Ex. 9.0 at 8.

The Commission finds the adjustment to be appropriate.

6. Prepayments

Staff witness Bridal proposed an adjustment to correct prepayment costs the Company included in its rate case filing. Staff Ex. 2.0 at 5-6. In response to AG data request 1.09, the Company stated that it inadvertently represented the timing of the prepaid invoices to show balances in the final period of amortization. The Company's rebuttal testimony confirmed that the Company mistakenly represented the timing of prepaid cost and agreed with Mr. Bridal's proposed adjustment. USI Ex. 9.0 at 8.

Based upon the information above, no further adjustment is necessary for this project.

7. Geographic Information System ("GIS") Conversion Project

Staff witness Bridal proposed an adjustment to reduce the costs of the GIS conversion project. Staff Ex. 2.0 at 7. The GIS conversion project converts paper and electronic maps into a GIS database to assist in asset management. USI Ex. 4.0 at 14. The Company initially forecast \$100,000 of capital costs for the GIS conversion project, but the response to the AG data request stated that the new expected total capital cost of the project is \$65,801. Staff Ex.2.0 at 8. Mr. Bridal's adjustment updated the project costs accordingly. The Company stated that it does not oppose Mr. Bridal's proposed adjustment that includes both Cap Time and Interest During Construction project components. USI Ex. 10.0 at 16. The Company did not agree with the proration method used to adjust Cap Time, but accepted the adjustment to limit contested issues.

Based on the information above, no further adjustment is necessary for this project.

8. Original Cost Determination

Staff recommended the Commission make a finding in its final order that the Company's December 31, 2016 plant balances for each division are approved for purposes of an original cost determination, subject to any adjustments ordered by the Commission in this proceeding. Staff witness Bridal noted that the 12 months ending December 31, 2016, represents the most recent calendar year for which final historical data is available. Because the Company maintains its books on a calendar year basis, using the most recent calendar year would set a more reasonable starting point for updating the original cost determination in a future rate case. Staff Ex. 2.0 at 21. He recommended the order state:

IT IS FURTHER ORDERED that the original cost of water plant for Utility Services of Illinois, Inc. at December 31, 2016,

is \$45,850,896 and the original cost of plant for the sewer division of Utility Service of Illinois, Inc. at December 31, 2016 is \$16,768,867, as reflected on Staff Schedule 2.22.

The Company agreed with Staff's recommendation. USI Ex. 7.0 at 3. No other party addressed this issue in testimony. The Commission finds Staff's recommended language to be appropriate and it is included in the ordering paragraphs in this Order.

9. Ferson Creek WTP Well/Filter Project

Staff witness Atwood proposed a \$938,865 adjustment for a project to replace USI's Ferson Creek well and treatment system. When he filed his direct testimony, he stated USI had not demonstrated a reasonable expectation that the proposed project will be in service and used and useful by the estimated completion date of September 2018. Therefore, Mr. Atwood recommended that the associated costs for the project be removed from rate base. Staff Ex. 5.0 at 3, 7. In his rebuttal testimony, Mr. Atwood withdrew the proposed adjustment based upon the testimony of USI and USI's responses to Staff's data requests, which provided sufficient information on project schedules, permitting, and other required approvals to alleviate Staff's concern regarding the project expressed in Staff's direct testimony. Staff Ex. 11.0 at 2.

Based upon the above, no adjustment is necessary for this project.

10. Ferson Creek WTP GST/Booster

In his direct testimony, Staff witness Atwood proposed a \$947,928 adjustment (Staff Ex. 5.0 at 3) for a project to replace USI's Ferson Creek ST/Booster, because USI had not demonstrated a reasonable expectation that the proposed project will be in service and used and useful by the estimated completion date of September 2018. Therefore, Mr. Atwood recommended that the associated costs for the project be removed from rate base. *Id.* at 8. In his rebuttal testimony, Staff witness Atwood withdrew his adjustment based upon the testimony of USI witness Carbonaro and USI's responses to Staff's data requests, which provided sufficient information on project schedules, permitting, and other required approvals to alleviate his concern regarding the project as described in his direct testimony. Staff Ex. 11.0 at 2-3.

Based upon the above, the Commission finds no adjustment is necessary for this project.

11. Ferson Creek WWTP Rehabilitation

Staff witness Atwood's direct testimony proposed a \$50,000 adjustment for a project that consisted of an engineering inspection and study planned for 2018. When his testimony was filed, Mr. Atwood's opinion was that USI had not demonstrated a reasonable expectation that the plant related to the proposed project would be in service and used and useful by the Company's estimated completion date. Therefore, Mr. Atwood recommended that the associated costs for the project be removed from rate base. Staff Ex. 5.0 at 3. In his rebuttal testimony, Staff witness Atwood withdrew his adjustment based upon the testimony of USI and USI's responses to Staff's data requests, which provided sufficient information on project schedules, permitting, and other

required approvals to alleviate his concern regarding the project as described in his direct testimony. Staff Ex. 11.0 at 2-3.

Based upon the above, the Commission determines no adjustment is necessary for this project.

12. Galena Package Plant Rehabilitation

Staff witness Atwood proposed a \$586,412 adjustment for a project that consisted of improvements to two wastewater treatment package plants in the Company's Galena Territory service area. The improvements include structural repairs and surface rehabilitation, replacement of clarifier drive equipment, and replacement of aeration piping and diffusers. Staff Ex. 5.0 at 3, 9. Mr. Atwood recommended that the associated costs for the project be removed from rate base because USI had not demonstrated an appropriate plant in service amount. *Id.* at 10. In his rebuttal testimony, Mr. Atwood withdrew his adjustment based upon the testimony of USI witness Carbonaro and USI's responses to Staff's data requests, which provided sufficient information on project schedules, permitting, and other required approvals to alleviate his concern regarding the project as described in his direct testimony. Staff Ex. 11.0 at 2-3.

Based upon the above, the Commission finds no adjustment is necessary for this project.

13. Oakwood WWTP

Staff witness Atwood proposed a \$65,000 adjustment (Staff Ex. 5.0 at 3) for a project that consists of an engineering evaluation study regarding the potential need for the Oakwood Wastewater Treatment Plant to meet potential new wastewater discharge limits for nitrate and dissolved oxygen. *Id.* at 9. Staff was of the opinion USI had not demonstrated a reasonable expectation that the proposed project would be in service and used and useful by the estimated completion date. Therefore, Mr. Atwood recommended that the associated costs for the project be removed from rate base. *Id.* at 9. The Company accepted this adjustment. USI Ex. 10.0 at 26; Staff Ex. 11.0 at 2.

Based upon the above, the Commission approves Staff's adjustment related to this project.

14. Lake Holiday Iron Removal Plant

Staff witness Atwood proposed a \$20,000 adjustment (Staff Ex. 5.0 at 3) for a project that consists solely of an engineering evaluation study of iron removal at the Lake Holiday Water Plant. *Id.* at 11. According to Staff, USI had not demonstrated a reasonable expectation that the proposed project will be in service and used and useful by the estimated completion date. Therefore, Mr. Atwood recommended that the associated costs for the project be removed from rate base. *Id.* The Company accepted this adjustment. USI Ex. 10.0 at 31-32; Staff Ex. 11.0 at 2.

The Commission finds this adjustment is proper.

15. Medina – Wastewater Treatment Plant Study and Rehabilitation

Staff witness Atwood proposed a \$50,000 adjustment (Staff Ex. 5.0 at 3) for a project consisting solely of an engineering evaluation study to determine whether the existing lagoon treatment system should be rehabilitated, or a new mechanical type wastewater treatment package plant should be constructed. *Id.* at 11. Mr. Atwood recommended that the associated costs for the project be removed from rate base because USI had not demonstrated a reasonable expectation that the proposed project will be in service and used and useful by the estimated completion date. *Id.* at 260-261. The Company accepted this adjustment. USI Ex. 10.0 at 33-34; Staff Ex. 11.0 at 2.

The Commission finds this adjustment to be proper.

16. Whispering Hills Water Storage Tank

Staff witness Atwood proposed a \$25,000 adjustment (Staff Ex. 5.0 at 3) for a project consisting of an engineering evaluation and hydraulic study to be conducted in 2019 in advance of construction of a new water storage tank in 2021. *Id.* at 12. Mr. Atwood recommended that the associated costs for the project be removed from rate base because USI had not demonstrated a reasonable expectation that the proposed project will be in service and used and useful by the estimated completion date. *Id.* at 12-13. The Company accepted Staff's adjustment. USI Ex. 10.0 at 41-42; Staff Ex. 11.0 at 2.

The Commission finds this adjustment is proper.

17. Various Systems – Sewer Clean and Televisive

Staff witness Atwood proposed an adjustment for the cost of a project to clean and televise the sanitary sewers of nine wastewater collection systems (Camelot, Cedar Bluff, Ferson Creek, Harbor Ridge, Galena, Northern Hills, Medina, Oakwood, and Westlake). Mr. Atwood recommended the adjustment because the cleaning and televising of sanitary sewers is a routine element of operation and maintenance ("O&M") of a wastewater collection system." Staff Ex. 5.0 at 6. Thus, he recommended the associated costs for this project should be removed from rate base because it is a maintenance activity, not a capital project, *i.e.* capital asset. Instead it should be classified as an O&M expense. *Id.* at 6. The total adjustment to rate base proposed by Staff was \$580,456. *Id.* at 3.

Staff witness Bridal also testified in rebuttal regarding the issue. Mr. Bridal opposed the Company's rebuttal position that the costs of the sewer clean and televise project should be included in rate base as a deferred charge. Staff Ex. 8.0 at 8-9. Mr. Bridal testified that the "Sewer Clean and Televise Project is a project completed over multiple years, rather than during a single occurrence, and as such is not similar to costs for other projects included as deferred charges in rate base." *Id.* at 8.

In surrebuttal testimony, the Company maintained its primary position that the cost of the Sewer Clean and Televise project should be included in sewer rate base. However, if the Commission were to agree with Staff's position, the Company also proffered an alternative adjustment to normalize as maintenance expense the project cost for completion of the entire sewer system. USI Ex. 16.0 at 2-3.

In response to Company data request 2.05 to Staff (USI Cross Ex. 4), Staff maintained its position that the costs for cleaning and televising the sanitary sewers should not be a rate base item. However, Staff agreed to calculate the normalized cost of the cleaning and televising of the sanitary sewers in the manner suggested by USI in its surrebuttal testimony. USI Ex. 16.0 at 3. The normalized annual amount calculated by USI and agreed to by Staff in response to the data request, was \$113,153. USI Ex.16.0 at 3; USI Cross Ex. 4. In their Initial Briefs, Staff and the Company confirmed that they now agree on the accounting treatment for the project.

The Commission approves Staff's proposal to allow the Company to recover costs of the Sewer Clean and Televise project as a normalized maintenance expense, and adopts the Company's alternative adjustment to reflect the normalized maintenance expense in the sewer revenue requirement.

18. Lake Wildwood Unused Storage Tanks

Staff witness Bridal proposed an adjustment to remove from rate base and the operating statement the costs of unused ground storage and hydro pneumatic tanks in the Company's Lake Wildwood service area because these water tanks were unused and unconnected and are not used for the provision of utility services. Staff Ex. 2.0 at 6-7 and Sched. 2.05. According to Mr. Bridal, including unused plant in rate base would be inconsistent with the Act given that in determining rates or charges the Commission can only include in rate base the value of investments that are both prudently incurred, and used and useful to public utility customers. 220 ILCS 5/9-211. The AG also proposed an adjustment related to these costs. USI Ex. 10.0 at 43. In rebuttal testimony, the Company indicated it would not oppose Mr. Bridal's adjustment. *Id.*

Based on the information above, the Commission finds the adjustment related to this project is appropriate.

19. Smart Energy and Water ("SEW") Platform

Staff witness Bridal recommended a multi-part adjustment to the SEW Platform cloud-based computing project that (1) removed all costs of the SEW Platform, (2) added back the annual licensing/subscription cost of the SEW Platform as an operating expense, and (3) added back the SEW Platform hardware costs. Staff Ex. 8.0 at 13. Mr. Bridal noted that the Commission opened a rulemaking to consider the appropriate accounting treatment for cloud-based computing systems that was still pending before the Commission. Following the initiation of the rulemaking, the Commission entered its order in the Aqua Illinois, Inc. ("Aqua") rate case, and determined that it was not yet ready to adopt a proposal from Staff regarding costs associated with cloud computing. *Aqua Illinois Inc.*, Docket No. 17-0259, Order at 15 (Mar. 7, 2018). The Commission noted the pending rulemaking, and stated its preference to use the rulemaking to explore the best way to address regulatory accounting treatment of cloud-based computer systems rather than adopt a short-term solution. Given the Commission's express preference to use the rulemaking to determine how to address the regulatory accounting treatment of cloud-based computer systems, Mr. Bridal recommended certain costs associated with the SEW Platform project be removed from plant in service and reflected in the Company's annual costs as an operating expense. Staff Ex. 2.0 at 18-19.

In rebuttal testimony, Staff witness Bridal withdrew his proposed adjustment to the SEW Platform. Staff Ex. 8.0 at 4. He noted that USI's rebuttal testimony explained that the SEW platform meets capitalization requirements set forth in Financial Accounting Standards Board ("FASB") Accounting Standards Update 2015-05 (ASU 2015-05) as codified in FASB Accounting Standards Codification 340-40 (ASC 340-40). Staff Ex. 8.0 at 4-5. USI provided further explanation in its response to data requests from Staff and the AG. *Id.* at 5. The Company proposed its own adjustment in rebuttal testimony to add in hardware costs already included in the Company's revenue requirements. USI Ex. 9.0, Sched. 9.16W; Staff Ex. 8.0 at 13-14. Mr. Bridal recommended an adjustment that removed the duplicate SEW costs. Staff Ex. 8.0, 13-14, Sched. 8.03. The Company indicated that it agreed with Staff's adjustment to remove duplicate SEW costs. Staff Group Cross Ex. 1.

Based on the information above, the Commission adopts Staff's revised adjustment to remove duplicate SEW Platform hardware costs from the revenue requirement.

20. Accumulated Deferred Income Tax ("ADIT") – Plant Adjustments From Rate Case

USI states that the AG, Staff and USI concur on the methodology for reflecting any changes to ADIT that would be derived from adjustments the Commission ultimately approves. USI IB at 6.

Staff states that it and the Company agree on the methodology to reflect the adjustments necessary to ADIT to reflect the impact of Staff plant adjustments still at issue in this case. Staff notes that there is no evidence in the record concerning the ADIT adjustment associated with the AG plant adjustment for the Lake Wildwood Storage Tank and Booster, discussed later in this Order.

It is clear that ADIT is no longer a contested issue. The Commission adopts the methodology to reflect the adjustments necessary to ADIT as agreed to by the parties.

21. Various Hydrant Painting

Staff and the Company agree regarding the costs of the Hydrant Painting Project that should be included in the Company's revenue requirement. Staff Ex. 8.0 at 14; USI Ex. 16.0 at 8. USI notes that the AG's brief is silent on this issue. The Commission agrees that the proposed resolution of this issue is appropriate and it is adopted.

B. Contested Issues

1. Unamortized Rate Case Expense

a. USI

USI asserts that a utility's rate case expense is properly included as an operating expense that it should have an opportunity to recover through rates. *Driscoll v. Edison Light & Power Co.*, 307 U.S. 104 (1939); *DuPage Utility Co. v. Ill. Commerce Comm'n*, 47 Ill.2d. 550, 267 N.E.2d. 662 (1971). However, Staff and the AG would only allow USI

to amortize and recover rate case expenses over time and would exclude the unamortized balance from rate base so that the time value of money would not be recovered.

By including the unamortized balance in rate base, as the Company proposes, USI suggests that shareholders would not be earning a profit on these expenses, but rather would be merely reimbursed for their carrying costs for the time period that will elapse before they receive full reimbursement for these approved expenses. The Commission has expressly recognized there is “a cost associated with the time-value of money on the uncollected [rate case] balance.” *Commonwealth Edison Co.*, Docket No. 99-0117, Order at 48 (Aug. 25, 1999). By denying USI the recovery of the time value of money, the Commission would effectively impose a loss of \$53,464 on the Company. USI Corr. Ex. No. 13.0 at 8-9.

Staff justifies this loss by arguing that shareholders should “bear the capital costs associated with improving their investment through increased rates.” Staff Ex. 7.0 at 12. However, that logic would arguably apply to any shareholder expenditure that “improves their investment through increased rates.” By law, USI cannot unilaterally adjust its rates to collect the revenue needed to meet its required service obligations without the approval of the Commission. The expenses of prosecuting a rate case are necessarily incurred to benefit customers, by assuring that they pay only just and reasonable rates for reliable service, and that the utility will be able to attract the capital investment that enables the utility to provide that service. USI asserts that not allowing investors to be fully compensated for the expenses incurred and investments made to provide service will chill the investment community from providing funds at reasonable costs in the future.

In response to Staff’s argument that its position “provides an incentive for the Company to keep its rate case expenses to a minimum” (Staff Ex. 7.0 at 12), USI maintains that by that logic, the Commission would be justified in disallowing the full recovery of any expense, on the misplaced theory that disallowance provides an incentive to keep the expense to a minimum. However, the Commission should not discourage utilities from making investments beneficial to customers and seeking to recover those investments through the rate case process.

USI claims that customers should also dislike the Staff and AG proposal because it means the Company will have \$53,464 less to spend on services and improvements that would otherwise benefit them. The AG even goes so far as to say “customers do not benefit from the Company expending money to increase rates.” Yet, without increased rates, the Company cannot pay for improvements like the \$56,938 Camelot Water Softener project, the \$938,865 Ferson Creek replacement well and treatment system, or the \$586,412 improvements to the Galena wastewater treatment plants.

Contrary to the claims of Staff and the AG, the Company suggests that it has provided a compelling rationale for departing from the long-standing past practice of compelling utilities to absorb a portion of rate case expense. That rationale is that recent changes to the Act, and Commission regulations promulgated pursuant thereto, now require rigorous review of rate case expenses to support their recovery. 220 ILCS 5/9-229; 83 Ill. Adm. Code 288. In this case, Staff made comprehensive data requests regarding the rate case expense. According to USI, these new regulatory requirements provide a more than strong enough inducement for the utility to keep rate case expenses

to a minimum, eliminating the apparent need for the additional taking that Staff and the AG advocate by disallowing unamortized rate case expense in rate base.

b. Staff

Staff opposes USI's proposed treatment of unamortized rate case expense, explaining that shareholders should "bear the capital costs associated with improving their investment through increased rates, thus ensuring a fair and equitable allocation of rate case costs between shareholders and ratepayers, who bear the amortized rate case costs in base rates." Staff Ex. 7.0 at 12. Staff asserts that this treatment provides incentive for the Company to keep costs of a rate case at a minimum. Staff argues that its proposal is consistent with the Commission's customary practice of allowing amortization of rate case expense but not allowing a return on the unamortized balance through its inclusion in rate base. *Id.* at 13.

The Company provided no evidence to support the proposed departure from the Commission's customary practice of allowing amortization of rate case expense but not allowing a return on its unamortized balance through its inclusion in rate base. In its rebuttal testimony, Staff cited numerous Commission orders as evidence of the Commission's customary practice explicitly rejecting the Company's proposal. Staff notes that the Company cites to Docket No. 99-0117 as support for its position. However, Staff points out the Order in Docket No. 99-0117 is the only recent Order in which the inclusion of unamortized rate case expense was approved. In that Order, Staff argues that the Commission distinguished it from other cases by pointing out that the proceeding was markedly different from general rate case dockets because it was initiated by law and not by a utility's request for a rate increase. Staff Ex. 7.0 at 13. This is not the case in the instant proceeding; therefore, Staff maintains that the Company's argument fails.

The Company further compares the unamortized rate case expense to investments in service improvements and maintenance projects which would clearly be used and useful in the provision of utility service. However, the Company does not provide any compelling evidence to demonstrate unamortized rate case expense is "used and useful" in the provision of utility service. Therefore, Staff argues that the comparison falls short.

c. AG

The AG maintains that the Company's proposal to earn a return on unamortized rate case expense and recover an annual amortization of the expense is inappropriate and the Commission should reject it. The AG states that the regulatory treatment advocated by the AG and Staff represents the Commission's customary practice of allowing the amortization of rate case expense in operating expenses, but to not include the unamortized balance of rate case expense in rate base. AG-HOA Ex. 2.0 at 6.

The AG reasons that unamortized rate case expense is appropriately a cost borne by the shareholders of a utility because the costs represent an investment to increase the value of the utility's assets by increasing rates. In the AG's view, ratepayers should not provide a return on such an investment as they do not benefit from the Company expending money to increase rates. In contrast, the AG argues that investments in utility plant may provide increased quality or reliability of water or sewer service and therefore

have the potential to be acceptable investment costs for ratepayers to provide a return upon.

The AG observes that the Company will ultimately recover the costs of its rate cases from its ratepayers through amortization, but the Company has not explained why ratepayers should be required to provide a return upon those costs while the Company collects the amortization of the rate case expense over time. The AG concludes that to do otherwise would be to remove an incentive for the Company to keep its rate case expenses to a minimum. AG-HOA Ex. 2.0 at 5.

The AG notes that the Company argues that the Commission should change its longstanding practice based on the decision in Docket No. 99-0117, now nearly two decades old, in which the Commission allowed the unamortized rate case expense to be included in rate base. Indeed, according to the AG, the Company has not provided any rationale that would support the Commission departing from its long-standing past practice, let alone sufficient evidence for the Commission to determine that this case is “markedly dissimilar” from any other rate case for a public utility providing water or sewer service. The AG recommends that the Commission adopt the AG and Staff adjustment to remove the unamortized rate case expense from rate base. The impact of that adjustment is a reduction to the Company’s water rate base by \$299,472 and the sewer rate base by \$70,614 (\$370,086 for the total company). AG-HOA Ex. 2.2, Sched. B-6.

d. Commission Analysis and Conclusion

The Commission agrees with the AG and Staff. It is a long-standing Commission practice that a utility can recover its rate case costs as an expense, but that the unamortized rate case expense should not be included in rate base. In other words, the Company will recover the cost, but its investors will not be able to earn a return on it. Rate base should include investments in the utility that result in an asset that is used and useful, which rate case expense is clearly not. The recent statutory amendments require a utility to justify its requested amounts for rate case expense in order to protect ratepayers. This showing does not transform this expense into an investment that should earn a return. Accordingly, the Commission finds that the Company has provided no reason for the Commission to overturn its general practice and the AG and Staff adjustment is adopted.

2. Killarney – Iron Removal Plant

a. USI

USI explains that the Killarney Iron Removal Plant Project is proposed to address service and water quality issues, including significant customer complaints related to water discoloration. The Killarney water system includes two wells, one of which has recently been producing discolored water due to a high concentration of dissolved iron. The iron removal plant will filter the iron in the water, and improve the level of service to customers. Currently, a groundwater well is run to waste several times per day for up to 30 minutes to reduce the water discoloration, resulting in increased energy use and wear and tear on the well pump. The iron removal filters should remove over 95% of the iron

from the raw groundwater and the well will no longer need to be run to waste. USI Ex. 4.0 at 24-25.

USI notes that Staff initially proposed adjustments to remove nearly \$800,000 from rate base and \$28,557 from depreciation expense, based on the belief the project would not be completed prior to the beginning of the test year because the site for a backwash pond had not been acquired. After the Company provided evidence that the project no longer needed to acquire a site, Staff opined that that the Company would not be able to acquire the necessary permits from the Illinois Environmental Protection Agency ("IEPA") in time to complete the project by September 2018.

In response to Staff's opinion that the permits would be burdensome and time consuming to obtain, the Company had its project engineers contact the IEPA. Based on information gained from this communication, USI expected the permit would be issued no later than September 15, 2018, and that the relatively minor tie-in to the storm sewer that requires permit approval could be completed quickly so that the plant would be placed in service prior to September 30, 2018. USI Ex. 16.0 at 8. Consequently, the Company maintains that it has demonstrated a reasonable likelihood that the Killarney Iron Removal Plant Project will be placed in service and used and useful prior to the time when the new rates are effective. If the Commission were to deny the Company the revenue necessary to support the project, the revenue deficiency could lead to deferral of other beneficial projects pending future rate relief.

In the unlikely event the project were not completed by September 30, 2018, USI states that Staff is not opposed to an accounting treatment that would include half of the Killarney project cost in rate base. USI Cross Ex. 1. The Staff accounting witness indicated that the Company's adjustment set forth in its response to Staff data request RWB 6.01 (Staff Cross Ex. 1) would accurately reflect the Company alternative scenario in the revenue requirement. USI Cross Ex. 2. Hence, if the Commission is not persuaded by the Company's assessment of the likely completion date, the alternative accounting treatment should be approved, given the degree of certainty that it will be completed shortly thereafter.

b. Staff

In direct testimony, Staff witness Atwood proposed a \$762,850 adjustment to the Killarney Iron Removal Plant Project. Staff Ex. 5.0 at 3, 10. Staff notes that USI now claims that it has demonstrated a reasonable likelihood that the project will be placed in service and used and useful prior to the time when new rates are in effect. However, Staff argues that the completion of this project is predicated on a series of plans and expectations regarding the IEPA permitting process, over which the Company has absolutely no control. The Company describes a best case scenario of the IEPA permitting process which would result in receipt of proper permits just two weeks before the end of the test year. USI Ex. 16.0 at 8. However, based on the experience of Staff's water engineer and his understanding of the IEPA permitting process, Staff opines that it is unlikely that the project will be in service and used and useful by the estimated completion date of September 2018. Staff Ex. 11.0 at 6.

In response to Staff data request RWB 6.01, the Company provided the adjustment necessary to include only half of the project cost in rate base, as proposed in the Company's surrebuttal testimony Exhibit 16.0 alternative. Staff Group Cross Ex. 1.0. In the interest of narrowing issues and for purposes of this proceeding only, Staff supports the Company's alternate proposal as an acceptable compromise. The alternate proposal balances the uncertainty regarding the in-service date of the project demonstrated in Staff's testimony, while also recognizing the likelihood that the project will otherwise be placed into service before the end of the test year ending September 30, 2019 and Staff recommends that the Commission adopt the Company's alternate proposal.

c. Commission Analysis and Conclusion

Staff's original proposal to exclude this project completely from rate base is inappropriate as now recognized by Staff. Based on the record, it is clear that it will be completed during the test year. The Commission agrees with Staff that the Company's alternate proposal balances the uncertainty regarding the in-service date of the project that became apparent during the testimonial phase of this proceeding, while also recognizing the likelihood that the project will otherwise be placed into service prior to the conclusion of the Company's test year ending September 30, 2019.

3. Valentine – Well and Treatment

a. USI

USI argues that Staff's proposed exclusion of the costs of non-productive test wells from the cost of the Valentine Well and Treatment Project included in the Company's rate base for recovery is erroneous and at direct odds with the Commission's Uniform System of Accounts ("USOA"). According to USI, the USOA for Water Utilities in Illinois clearly specifies that test wells and nonproductive wells that are part of a project that ultimately results in a source of water within the same supply area must be booked to Account 307 Wells and Springs (see USI Ex. 13.0, Sched. 13.2), not Account 675 as suggested by Staff. Water Utility Plant Account 307 - "Wells and Springs" - pertains to: "[w]ells, casings and appurtenances, including cost of test wells and nonproductive wells drilled as part of a project resulting in a source of water within the same supply area." The Company notes that Staff makes no claim the costs were imprudently incurred or that they were not part of a project resulting in a source of water within the Valentine supply area.

If the Commission is inclined to accept Staff's position, which USI argues is contrary to the USOA, and allow recovery of the expense associated with these capital costs over five years, then the unamortized balance must be included in rate base. If not, investors' cost recovery will have a negative net present value. Such a policy would effectively discourage the utility from exploring least cost alternatives by precluding the utility from recovering the full cost of prudent exploration and development of wells.

In response to Staff, USI states that this project is in no way comparable or similar to the issue confronting the Commission in the Illinois Power Company ("Illinois Power") case involving a cancelled nuclear power plant relied upon by Staff. In the Illinois Power case, the power plant was cancelled and never provided a kilowatt of power. Unlike Illinois Power, USI did not cancel its Valentine project. In fact, unlike the nuclear unit that

Illinois Power never finished, the Valentine well project will be completed, which is undisputed by Staff. Part of the cost of developing a source of water unquestionably includes finding the water. For that reason, USI avers, the USOA recognizes the plant investment ought to include costs of finding water *via* drilling test wells that are part of a project resulting in a water source within the supply area.

b. Staff

Staff notes that the Company claims that the costs of the abandoned, non-productive wells drilled as part of the Valentine – Well and Treatment project are allowable through the NARUC Uniform System of Accounts. Staff witness Bridal agrees that “the USOA provides that the costs of non-productive wells may be included in Water Utility Plant Account 307”; however, he noted that the USOA does not govern what costs recorded in USOA accounts may be recovered from ratepayers. Staff Ex. 8.0 at 10.

Staff notes that the Act provides that “[t]he Commission, in any determination of rates or charges, shall include in a utility’s rate base only the value of such investment which is both prudently incurred and used and useful in providing service to public utility customers.” 220 ILCS 5/9-211. In Docket No. 84-0480, the Commission considered an issue similar to the present case. Illinois Power planned to build a nuclear unit, but later cancelled the project. See *Illinois Power Co.*, Docket No. 84-0480, 1985 WL 1213319, 21. The Commission found that the decision to construct, suspend, and then ultimately cancel the unit was reasonable and prudent; however, the most equitable balancing of the interests of the ratepayers and the stockholders was achieved by allowing the cancellation costs to be amortized over a five-year period, and disallowing a return on the unamortized balance of the costs. *Id.* at 23-24.

In the present case, Staff considered this two-part test which requires the value of all investments included in rate base to be prudently incurred, and used and useful. Staff does not allege that the costs associated with the unproductive wells were not prudently incurred; however, the unproductive wells at issue in this case are not being used, and therefore are not used and useful. Staff does not contend that the Company should not recover any of the costs associated with the unproductive wells but in order to balance the interests of the Company’s investors and its ratepayers, the Commission should allow the costs associated with the unproductive wells to be amortized over five years and exclude the unamortized balance from rate base so that no return is allowed on the unamortized balance. Thus, Staff recommends that the Commission adopt Staff’s Schedule 8.02 adjustment to the Valentine Well and Treatment Project.

c. Commission Analysis and Conclusion

The Commission agrees with the Company that it acted prudently in its activities regarding this well, and indeed, Staff does not disagree. The Commission notes that this cost was incurred in the course of seeking a new water source, which Staff does not dispute will be completed. A well that provides a new water source is clearly used and useful and this well was part of the Company’s quest for that new water source. Unlike Docket No. 84-0480, the case relied on by Staff, this USI project will result in used and useful utility plant. The Commission does not adopt the adjustment proposed by Staff.

4. Lake Wildwood Storage Tank and Booster

a. USI

The Company's proposed Lake Wildwood Project will provide improved storage capacity to avoid service interruptions during peak periods and unplanned outages. The IEPA indicated that the current finished water storage capacity of the system is insufficient and that a total capacity of 80,000 gallons is needed. The project involves construction of a new ground storage tank ("GST") and booster station that will be constructed on the same property as the existing water treatment facility. The construction plans for the Lake Wildwood GST and booster station were completed in November 2017. The IEPA permit approval was received on December 5, 2017. The Marshall County building permit was received on January 22, 2018. USI Ex. 10.0 at 24.

USI submitted its plans, with all forms and supporting documents, to LWA on January 22, 2018 for review. As of April 25, 2018, the Company was communicating with LWA regarding compliance with land use covenants applicable to the development. The Company states that its plans comply with the covenants and the current construction plan is essentially the same as previously presented to and deemed acceptable by LWA in 2015. USI states that construction can begin immediately and the project has been approved by management and included in the current budget. The materials for the tank have been constructed and are currently stored at the tank contractor's facility. The Company expects that the project will be completed two to three months after installation begins. USI Ex. 10 at 24.

USI notes that LWA opposes completion of the project arguing that it is subject to approval by LWA, and that the plans in their current form do not meet the covenant requirements so that installation cannot begin. For that reason, LWA argues that the project may not be completed by September 2018. The AG refers to LWA's testimony and also concludes that completion of the project by September 2018 is unlikely, but opines that construction will be completed in October 2018. AG-HOA Ex. 2.0 at 8.

The Company does not agree with the adjustment proposed by the AG or LWA's position that the project is subject to LWA's approval. USI states that it presented the plans to LWA merely as a courtesy and in the spirit of a responsible business operating in the community. The Company originally presented the project construction plans, including a larger storage tank in the same location, to LWA in September 2015. At that time, LWA approved the plans for construction, as shown in LWA's October 2015 newsletter. The Company has no reason to believe any disagreements will not be expeditiously resolved. The Company avers that construction can begin once LWA restores lawful access to the Company's property. USI Ex. 4.0; USI Ex. 10.0. The Company asserts that the testimony demonstrates a reasonable expectation that the project will be completed by September 2018. USI IB at 12.

USI suggests that LWA changed its position with the idea it would delay the project and persuade the Commission that the costs should not be included in the Company revenue requirement approved in this case. However, the alternative suggested by LWA would significantly delay and substantially increase the cost of the project. Without approval of the revenues necessary to complete the project as planned, LWA will have

effectively caused its members to forgo the benefits of the proposed improvement, including improved availability of water service during peak periods.

It is unreasonable to assume LWA would continue to want to forgo the benefits of the increased storage capacity the project would provide. That position would force the Company to initiate legal action to resolve LWA's decision to back out of its prior support for the configuration of the project, in favor of the considerable extra cost and protracted schedule that the alternative would entail. The Company continues to believe the issue can be resolved amicably and in time for the project to be completed by the end of September 2018. Even the AG believes it should be completed by October 2018.

However, should the Commission conclude the project is not likely to be completed by September 30, 2018, there is no evidence to support a conclusion that it will not be completed prior to the end of the test year, which ends in September 2019. If the Commission so decides, USI recommends that the project be accorded the same accounting treatment as the Killarney Project. That accounting treatment would include half of the project cost in rate base. USI Cross Ex. 1. The Staff accounting witness indicated that the Company's adjustment set forth in its response to the Staff data request RWB 6.01 (Staff Cross Ex. 2) would accurately reflect the Company's alternative scenario in the revenue requirement. USI Cross Ex. 2. Hence, if the Commission is not persuaded by the Company's assessment of the likely completion date, the alternative scenario accounting treatment should be approved, given the degree of certainty that it will be completed during the test year. USI IB at 13.

b. HOA

HOA argues that the full cost of this project should be excluded from the test year rate base because it is unlikely that the construction can be completed by October 1, 2018 due to an ongoing legal dispute with LWA, which as of the date of filing Initial Briefs, had not yet been resolved. Because USI admits that construction would last for at least two to three months, the possibility of the project being completed by the October 1, 2018 test year start, is unlikely. USI Ex. 10.0 at 24. On July 19, 2018, LWA and USI reached a tentative agreement whereby LWA issued a conditional construction permit for the facility contingent upon USI supplementing its permit application by August 2, 2018 to meet LWA's requirements. If the revised plans are not submitted by that date, the permit would be revoked and no further construction allowed. If USI complies with the August 2, 2018 requirements and construction proceeds, then HOA will not object to the full recovery of the costs and will so inform the Commission. The AG-HOA adjustment assumes that the legal dispute is successfully resolved and that the new storage tank and booster station will be in service sometime in the test year, by including eleven months of depreciation expense on the project in the test year operating expenses. If the work is not completed within the first month of the test year, then HOA asserts that a further adjustment would be necessary.

HOA maintains that it is USI's own intransigence and failure to comply with the rules and regulations of the community where it seeks to build the facility that has delayed the project. The undisputed fact relating to this project is that there is a legal dispute preventing the construction from being completed by the beginning of the test year. According to HOA, the merits of the dispute are not for the Commission to determine, but

instead the Commission must base its decision solely on the fact that the project will not be used or useful to be included in the beginning of the test year rate base. The Company is disingenuous when it, on the one hand, states that it “plans to comply with the covenants” for Lake Wildwood but then argues that the plans for the project were “presented ... to the Association as a courtesy.” USI IB at 11-12. HOA suggests that the Company threatens to forego its obligations to provide adequate and safe water service to Lake Wildwood unless LWA ignores the building covenants for the project and capitulates to an illegal structure.

HOA recommends that the Commission adopt the AG-HOA adjustment, which reduces test year *pro forma* water plant additions by \$230,159, the depreciation reserve by \$961, and depreciation expense by \$640.

c. AG

The AG observes that LWA and the Company currently have unresolved issues concerning the proposed Lake Wildwood Storage Tank and Booster Project. The AG further observes that the Company does not have lawful access to the site and is in discussions with LWA to resolve issues involving the installation of utility plant at the site. USI Redirect Ex. 1. Because the Company’s projected in-service date of September 2018 is very unlikely due to the ongoing nature of discussions between the Company and LWA, the AG reasons that the Commission should adopt the AG-HOA adjustment to reflect a more reasonable forecasted in-service date.

The AG also observes that the testimony of USI witness Carbonaro stated that the project will be completed within two to three months after construction begins. USI Ex. No. 10.0 at 24. The AG argues that the Company and LWA likely do not have sufficient time to resolve their issues in order for the project to be in service in September (which the Company’s proposal presupposes for purposes of calculating rate base). The AG concludes that the cost of the project should accordingly be excluded from the beginning of the test year rate base to reflect the likely reality that the project will not be in service on the date the requested rate base assumes it would be. The AG also argues that adjusting the depreciation expense associated with the project from a full 12 months to eleven months would reflect the fact that the project was not put into use during the first month of the test year and properly match the reality of USI’s plant additions to rate base in its customers’ rates.

The AG argues that the Commission should adopt the AG-HOA adjustment that assumes the discussions between USI and the LWA are productive and that construction is completed in October 2018. The adjustment reduces test year *pro forma* water plant additions by \$230,159, the depreciation reserve by \$961, and depreciation expense by \$640. AG-HOA Ex. 2.0 at 8.

d. Staff

Staff supports the position that the Lake Wildwood Storage Tank and Booster Project will not be completed and used and useful in the provision of utility services prior to the beginning of the test year. However, the record evidence demonstrates that both AG-HOA and USI acknowledge the project will be completed at some point during the test year. As such, Staff supports the AG-HOA adjustment on this issue.

Staff notes that the AG-HOA adjustment did not incorporate a derivative adjustment to ADIT, which is also necessary to correctly reflect the AG-HOA position in the final revenue requirement.

e. Commission Analysis and Conclusion

It is clear that this improvement is necessary to provide adequate water service to residents in the Lake Wildwood area and it has already been approved by the IEPA. The Company has provided ample evidence that it is ready to proceed immediately with installation of the storage tank and booster, which can be completed in as little as two months. The record shows that: 1) the construction plans for the Lake Wildwood storage tank and booster station were completed in November 2017; 2) the IEPA permit approval was received on December 5, 2017; 3) the Marshall County building permit was received on January 22, 2018; 4) the project has been approved by USI management and is included in the current USI budget; and 5) the materials for the tank have been constructed and are currently stored at the tank contractor's facility. USI Ex. 10.0 at 24.

In a Motion to Reopen Record, filed on August 13, 2018, to which no party objected, the Company represents that the storage tank and booster station project for its Lake Wildwood service area will be operational before the test year begins October 1, 2018. Further, in an affidavit attached to the Motion to Reopen Record, USI witness Carbonaro states that construction of the project has commenced and the contractors for the project have advised USI that the project will be operational in September 2018. For these reasons, the AG-HOA adjustment is not adopted.

VI. OPERATING REVENUE AND EXPENSES

A. Uncontested Issues

1. Gross Revenue Conversion Factor ("GRCF")

Staff witness Ebrey proposed two changes to the Company's originally filed GRCF to: (1) reflect the federal corporate income tax rate of 21% that will be in effect in the 2019 test year; and (2) base the uncollectibles expense percentage on average historic net write-offs. Staff Ex 1.0 at 5. The Company agreed with Staff's use of the federal corporate income tax rate of 21% in its rebuttal testimony (USI Sched. 9.07S and 9.07W) but disagreed on the amount for uncollectibles used in the GRCF calculation. The parties agreed on the methodology for the GRCF and that the Commission's decision in the final order concerning the uncollectibles percentage would be used in the final approved GRCF. The Commission adopts the agreement of the parties.

2. Interest Synchronization

Staff witness Ebrey's proposed Interest Synchronization adjustment reflected Staff's weighted cost of debt. While the parties did not agree on the value for the overall rate base to be used in the calculation, the methodology for calculating the Interest Synchronization was the same for both parties. The parties agreed that the rate base

approved by the Commission's final order would be reflected in the final approved Interest Synchronization adjustment. The Commission finds this approach to be reasonable.

3. Interest Synchronization Correction

In rebuttal testimony, Staff witness Ebrey proposed a correction to the Interest Synchronization proposed by the Company in its direct testimony to correctly reflect the calculation using the new federal corporate income tax rate. The Company accepted Staff's adjustment in its surrebuttal testimony. USI Sched. 15.02W and 15.02S. This correction is approved by the Commission.

4. Income Tax Rate

Staff proposed an adjustment to reflect the impact on the test year expenses at present rates for the decrease in the Federal Income Tax Rate effective January 1, 2018, in accordance with Public Act 98-496, Income Tax Rate – Section 201. Staff Ex. 1.0 at 9. USI agreed with Staff's adjustment. USI Ex. 7.0 at 8. No other party addressed this issue in testimony. The Commission finds this adjustment to be proper.

5. HomeServe

Staff witness Ebrey proposed an adjustment in direct testimony to remove the Company's adjustment for revenues associated with its agreement with HomeServe because the agreement was terminated effective March 16, 2018. Staff Ex. 1.0 at 8. The Company accepted this adjustment in its rebuttal revenue requirement. USI Sched. 9.02S and 9.02W. This adjustment is reasonable and is adopted by the Commission.

6. Incentive Compensation

Staff witness Ebrey proposed an adjustment to reduce the Company's operating expenses for incentive compensation cost amounts that are based on financial metrics and do not provide ratepayer benefit. The adjustments to incentive compensation costs include the derivative adjustments to payroll taxes. Staff Ex. 1.0 at 11. The Company accepted this adjustment, including the derivative amounts for payroll taxes. USI Sched. 9.02S and 9.02W. This adjustment is consistent with Commission decisions regarding incentive compensation and it is approved by the Commission.

7. Meter Reading

Staff witness Ebrey proposed an adjustment to reduce meter reading expense to reflect the reduction identified by the Company in discovery. Staff Ex. 1.0 at 17. The Company accepted this adjustment. USI Sched. 9.02W. This adjustment is adopted by the Commission.

8. Chemical Expense

Staff witness Ebrey proposed an adjustment to reduce chemical expense to reflect the reduction identified by the Company in discovery. Staff Ex. 1.0 at 18. The Company

accepted this adjustment. USI Sched. 9.02W. This adjustment is adopted by the Commission.

9. Main Break Repairs

Staff witness Ebrey proposed an adjustment to reduce Main Break Repairs to reflect the reductions in costs identified by the Company for Clarendon Hills and for Whispering Hills. Staff Ex. 1.0 at 18. The Company accepted this adjustment. USI Sched. 9.02W. This adjustment is reasonable and adopted by the Commission.

10. Holiday Events

Staff proposed in direct testimony the removal of USI's holiday parties, events, and picnics expense because these costs are not necessary for the provision of utility service and should not be recovered from ratepayers. Staff Ex. 1.0 at 18. USI did not oppose this adjustment. USI Sched. 9.01 S and 9.02 W. The Commission finds Staff's adjustment to be reasonable.

11. Rate Case Expense (Section 9-229 Finding)

Based on its review of the Company's testimony and responses to data requests, which are addressed in the following section, Staff proposed that the Order in this proceeding include a Commission conclusion as follows:

The Commission has considered the estimated costs to be expended by USI to compensate attorneys and technical experts to prepare and litigate rate case proceedings and assesses that the amount included as rate case expense for this proceeding of \$396,435 is just and reasonable pursuant to Section 9-229 of the Act. Staff Ex. 7.0 at 17.

No party took issue with this language and it is adopted.

12. Rate Case Expense

After reviewing the rounds of testimony and responses to discovery, Staff withdrew its adjustment to reduce rate case expense and recommends approval of the estimated rate case expense (USI Cross Ex. 3) proposed by the Company of \$396,435. Combined with the unamortized rate case expense from Docket No. 14-0741 of \$267,765 and amortized over 3 years, the amortization expense recommended for recovery in this proceeding is \$221,400. USI Ex. 1.1. Accordingly, the Commission finds that no adjustment is necessary.

B. Contested Issues**1. Uncollectibles Expense****a. USI**

USI avers that Staff's proposed adjustment to uncollectible expense should not be accepted because it directly contradicts the findings that the Commission made in the Company's previous rate case. In that case, Docket No. 14-0741, the Commission determined the Company's uncollectible expense was correctly based on its records of three distinct accounts. The accounts included in the analysis were: (1) Agency Expense; (2) Uncollectible Accounts Expense, and (3) Uncollectible Accounts Accrual Expense. The Commission unequivocally concluded "that all three accounts . . . must be included when determining the Company's uncollectible expense." See Docket No. 14-0741, Order at 20.

In this case, USI maintains that Staff provided no analysis of how the entries are made to these three different accounts. Further, Staff made no attempt to explain what had changed in the Company's accounting procedures that would lead to a different result in this case, other than to express a suspicion that double counting might have occurred. Staff's conjecture that there had been double counting was based solely on the appearance that the four-year cumulative average of Write-Offs and Accruals were close in amount (\$27,410 as compared to \$25,498). According to USI, however, in each year, the amounts were significantly different. USI Ex. 9.0 at 5, Table 1. Moreover, double counting cannot have occurred because the Accruals (amounts anticipated and reserved for write offs prior to stopping service) are "net" (meaning minus) of amounts written off after service is stopped (bad debt expense). Docket No. 14-0741, Order at 18. As explained by the Company accounting witness, "[o]nce a customer's service is stopped their account balance will be written off [becoming bad debt expense] and the accrual will subsequently reverse." USI Ex. 9.0 at 6. In other words, bad debt expense is subtracted from the accrual account so it will not be double counted.

In support of its position Staff claims its position is "consistent" with other final orders in recent cases. In response, USI asserts that the determination of uncollectible expenses was not contested in any of those cases, so the orders contain no discussion whatsoever that would provide a basis for a conclusion that those orders support Staff's position. Second, the cited cases also involve statutorily authorized uncollectible riders, and neither the orders nor Staff's testimony in this case show any similarity between how uncollectibles are handled pursuant to a rider and how they ought to be treated as a fixed amount in a test year.

b. Staff

Staff and the Company used different revenue amounts for their respective calculations of uncollectibles expense. Staff's calculation for the uncollectibles rate uses the Company's reported operating revenues taken directly from the Company's Form 22 ILCC filed annually with the Commission. Staff Ex. 7.0, Sched. 7.11 W and S. This Operating Revenue includes Miscellaneous Revenues which are included in both the Company's and Staff's revenue requirements on Line 2 of Schedule 7.01W and S. In

surrebuttal testimony, the Company claims that the revenue amounts presented in its uncollectible surrebuttal adjustment reflect the same service revenue amounts the Company filed in the annual reports. However, the Company offers no explanation for its exclusion of the miscellaneous revenues that are also part of its own proposed revenue requirements. USI Ex. 15.0 at 6. Neither did the Company provide a reconciliation of the amounts it proposed to use for Water Service Revenues with the amounts reported for Water Revenues in its annual reports for 2014 through 2017. Staff avers that its calculation of the uncollectibles expense correctly includes the miscellaneous revenues that are included in the revenue requirement and the Commission should adopt it.

Also, Staff's calculation for the uncollectibles rate bases the Bad Debt Expense on the actual net write offs of uncollectible accounts over the four years that were used for the average calculation. The Company added the annual accrual for uncollectible accounts to the actual net-write offs used by Staff to arrive at its amount for Bad Debt Expense. Staff opined that the annual accrual for uncollectibles is an estimate of accounts that may be written off in the future and, thus, do not reflect actual costs incurred in the current period. As Staff stated in its direct testimony, "[a]ctual net write-offs over a period of time more accurately reflect the actual cost to the Company for uncollectible accounts than an estimate of uncollectible accounts for a single point in time as reflected in the Company's filing." Staff Ex. 1.0 at 11. Further, in rebuttal testimony, Ms. Ebrey pointed out that the Company's methodology appears to be double-counting uncollectible costs: "As can be seen from the data provided in Table 1 on page 5 of USI Exhibit No. 9.0, the average uncollectibles accounts and the average uncollectible accrual are almost the same amount, thus including the uncollectible accruals, on average, almost doubles the "actual" cost of uncollectibles." Staff Ex. 7.0 at 10-11.

Staff opines that Ms. Ebrey's position is based on proper ratemaking which uses a representative level of costs to be recovered in base rates. In addition, Ms. Ebrey's position of using an average of net write-offs is consistent with the Commission's decisions on this issue in recent cases before the Commission. See *Northern Illinois Gas Co.*, Docket No. 17-0124, Order at 37 (Jan. 31, 2018); *Ameren Illinois Co.*, Docket No. 15-0142, Order at 12 (Dec. 9, 2015). According to Staff, Ms. Ebrey's position is also consistent with the basis for uncollectibles measurement in uncollectible riders pursuant to Sections 16-111.8 and 19-145. See Docket No 15-0142, Order at 110; *Commonwealth Edison Co.*, Docket No. 10-0467, Order at 301 (May 24, 2011); Docket No. 17-0124, Order at 133; *North Shore Gas Co. and The Peoples Gas Light and Coke Co.*, Docket Nos. 14-0224/14-0225 (Consol.), Order at 51 (Jan. 21, 2015).

The Company argues that double-counting of uncollectible accounts cannot have occurred. However, a closer look at the details of accruals and write offs indicates otherwise. Both Staff and the Company agree that the annual accrual for uncollectibles is an estimate of accounts that may be written off in the future. Staff Ex. 7.0 at 10. Staff states that the write-offs the Company and Staff use in the calculations are the same for the net write-offs. Staff IB at 30. The Uncollectible Accrual is an additional amount used in the Company's calculation and is not a "net" number as the Company insinuates in its Initial Brief. See USI IB at 14.

c. Commission Analysis and Conclusion

This issue was addressed in Docket No. 14-0741. There is no evidence in the record to lead the Commission to conclude that the Company has changed its accounting methodology. Staff's position relies on inferences derived from its experiences in other proceedings and has provided no evidence that USI has double counted uncollectible accounts. In addition, the Commission finds no support for Staff's position in proceedings regarding uncollectibles riders. The Commission finds that the Company's position provides a better estimate of what its uncollectibles expense will be and it is adopted. The Company, however, did not explain why miscellaneous revenues, that are also a part of its revenue requirement, should be excluded from calculation of the uncollectibles expense rate. Therefore, the Commission adopts Staff's methodology for revenues, and the Company's methodology for expenses, resulting in an approved uncollectibles rate of 0.84% for water. There was no disagreement on the 0.04% uncollectibles rate for sewer.

2. Rent Expense

a. USI

USI's proposed revenue requirement includes new office space rent expense for the Illinois Operations and Finance Team, who currently share space with Water Service Corp. personnel at the office in Northbrook, Illinois. The Company's direct testimony indicated that it was working with a commercial real estate broker to better refine the estimated cost of the new lease, which is expected to begin in October 2018. USI notes that Staff supports recovery of the new office space rent expense with corrections to reflect the USI jurisdictional costs, which would be further allocated to Water and Sewer Operations. Staff Ex. 7.0 at 14, Sched. 7.13 W & S. The Company agreed with Staff's position regarding jurisdictional allocation. USI Ex. 9.0 at 7. In its surrebuttal testimony, the Company updated the cost per square foot to include the most recent pricing, which includes taxes and operating expenses collected under the lease. USI Corr. Ex. 13.0 at 5; Sched. 13.1, Attach. A and B.

USI notes that the AG opposes recovery of the increase to rent expense based on a belief the Company had not provided sufficient support for the increase. However, the Company states that the AG did not specify what support needed to be provided. Even after more detailed support was provided, which was satisfactory to Staff, the AG continues to advocate for no recovery, without any explanation by the AG as to how the additional information provided by the Company was deficient or what better information regarding the likely cost could have been obtained. The AG's opposition was also apparently based on the corrections of inadvertent errors in the jurisdictional amount initially included by the Company. However, those errors were corrected to the satisfaction of Staff, and the AG did not provide any further information to show the corrections had not been properly made. Based on the lack of detail provided regarding the type and availability of information the AG would consider sufficient to support the expense, any further adjustment beyond that proposed by Staff and accepted by the Company should be rejected as without merit.

The AG's brief acknowledges the Company had narrowed its options to two locations from which it had received proposals. No argument was made that a new lease

was not necessary or that the options were overpriced. Apparently, the objection is only that the lease has not been “finalized,” and unwarranted skepticism about the Company’s professed intention to acquire the additional office space before October 1. The only basis for the AG’s skepticism seems to be the fact that the Company was looking at space four years ago, and decided at that time to postpone the decision. At that time, the Company withdrew its proposal to recover an expense for a new lease. However, now the Company has determined to lease space and is going forward with the plan. In this case, the Company has demonstrated it has taken significant steps toward acquiring the office space and provided comprehensive cost information, all supporting its stated commitment to move into a new space by October. For these reasons, the adjustment proposed by the AG should not be accepted.

b. Staff

Staff proposed an adjustment to reflect the rent expense for the new office space the Company anticipates acquiring in October 2018 as presented in the Company’s response to data request AG 10.05. Staff Ex. 7.0 at 14. In its surrebuttal testimony, the Company provided new information which increased the rent expense it had provided prior to Staff’s rebuttal testimony. USI Ex. 13.0, Ex. 13.01. Staff indicates that it finds no reason to oppose the Company’s position on rent expense based on its updated information and supports approval of that amount in the Appendices attached to its Initial Brief.

c. HOA

The Commission should accept the AG-HOA adjustment to disallow the incremental rent expense for new office space because the Company has yet to finalize the location for the new office space. The Company’s surrebuttal testimony states that the Company has narrowed the choice to two locations and has received proposals for the two final locations. USI Ex. 13.0 at 4. The anticipated start date of October 1, 2018 for the rental of new office space is three months in the future and after the start of the test year and the plans regarding the expected new office space have not yet been finalized. HOA IB at 9.

HOA states that this is not a new proposal for the Company. The Company has been considering such a move since at least 2014 and has yet to finalize the plans. In the last rate case, Docket No. 14-0741, the Company proposed a similar adjustment but accepted the AG adjustment to remove the increased rent expense at the evidentiary hearing. Docket No. 14-0741, Order at 7. It is unrealistic to conclude that such a move that has been under consideration for at least the last four years and does not yet have a location or signed lease agreement could actually be effective in three months.

The Commission should adopt the AG adjustment to remove the cost of the incremental rent expense for new office space. The adjustment reduces rent expense by \$35,105 and \$8,277 for water and sewer operations, respectively, or \$43,382 for the total company.

d. AG

The AG explains that USI proposes to increase the amount of rent expense it collects from its customers to recover the costs of its new headquarters. The AG further explains that the anticipated start date for the rental of new office space reflected by USI's calculation of incremental rent expense is October 1, 2018. However, the AG notes that plans regarding the expected new office space have not yet been finalized. The AG observes that USI stated in surrebuttal testimony that it has narrowed the choice to two locations for which it has received proposals from commercial landlords. USI Ex. 13.0 at 4. The AG argues that the Commission should accept the AG's adjustment to disallow the incremental rent expense for new office space because the Company has yet to finalize the location for the new office space and does not have sufficient time to meet the anticipated start date that it proposes to use to calculate increased rent expense.

The AG also explains new headquarters underpinning the requested increase in rent expense is not a new proposal for the Company. The AG further explains that the Company has been considering such a move since at least 2014 and has yet to finalize the plans. The AG also observes that in USI's last rate case, Docket No. 14-0741, the Company proposed a similar adjustment but accepted the AG adjustment to remove the increased rent expense at the evidentiary hearing. Docket No. 14-0741, Order at 7. The AG argues that it is unrealistic to conclude that such a move that has been under consideration for at least the last four years and does not yet have a location or signed lease agreement could actually become effective in three months.

The AG argues that in an apparent attempt to reverse the burden of proof in this case, the Company laments that the AG did not specify what support needed to be provided to justify the recovery of the expense. The AG observes that the Company has not given any indication that a location for the new office space has been selected or that there are any plans to actually relocate its employees. According to the AG, all that has been provided is information on possible sites. The AG notes that the move is to occur by October 1, 2018, now less than three months away. Surely, according to the AG, if the Company were actually going to relocate its Illinois Operations and Finance Team, USI would have provided a more definite indication of its plans, whatever that may be. Actions speak louder than words, according to the AG, and USI offers nothing more than empty statements to justify an increased revenue requirement.

Accordingly, the AG concludes that the Commission should adopt the AG and HOA adjustment to remove the cost of the incremental rent expense for new office space. The adjustment reduces rent expense by \$35,105 and \$8,277 for water and sewer operations, respectively or \$43,382 for the total company.

e. Commission Analysis and Conclusion

The Commission finds that the Company has provided sufficient evidence that it will re-locate its Illinois Operations and Finance Team. The Company had, at the time of surrebuttal testimony, narrowed its choices down to two and the proposals indicate a lease commencement date of October 1, 2018. USI Corr. Ex. 13.0 at 4. The Company has also satisfied Staff's jurisdictional concerns.

The AG's and HOA's concern that the Company also contemplated this move in its last rate case is unconvincing and the Commission actually finds the previous case to lend support to its decision to approve the Company's proposal in this case. In the last case, the Company had originally considered the move and then when it had decided against it, agreed to withdraw the request. In this case, it has not agreed to withdraw its proposal, which to the Commission, indicates that it intends to go ahead with the move. The AG-HOA adjustment is not adopted.

3. Unaccounted-For Water ("UFW")

a. USI

USI suggests that the AG proposes to retroactively change and limit USI's existing maximum allowable UFW to a rate of 15% applicable to all service areas. The rationale given for limiting USI's UFW rates to a statewide rate of 15% is that the Company has a consolidated rate structure for these same territories. USI opines that the rationale for the consolidated rate structure is to spread costs for rate filings and capital investments across a larger pool of customers, to help mitigate rate shock exposure to the Company's otherwise small subsets of customers. It was not intended to require the consolidated utility to expend exorbitant and uneconomic amounts, which would be shared by all customers, to achieve economically unjustified reductions in unaccounted for water costs, regardless of its source or cause. Thus, the same rationale does not apply to limiting each territory to a maximum UFW of 15%.

The AG has also proposed a reduction to USI's water operating expenses in the amount of \$68,607, as a result of retroactively applying the proposed new UFW rate of 15% and using the UFW percentage from 2017. While the Company does not oppose a prospective modification of its UFW tariff to provide for a blended single system-wide UFW rate that would be applicable in future rate cases, the Company disagrees the proposed limit of 15% would be appropriate.

The Company states that each service area has unique geographic and operational characteristics. Simply because the rate charges approved by the Commission are the same for each service area does not mean that all the plant investments should be the same. Topographical characteristic of each service area may not economically justify spending significantly different amounts for leak detection and main repairs or replacement, just to achieve the same level of UFW in each service area.

USI asserts that the existing allowable UFW rates of 25% for Galena and Apple Canyon are appropriate. These systems have many miles of non-conductive main that run through rock that was blasted out with dynamite in areas to install main. These areas consist of hills, ravines, bluffs and valleys that make leak location extraordinarily difficult. Because many of these mains and service lines sit on rock, leaks often occur on the underside of the pipe and do not surface, so they are undetectable. The characteristics of the mains, including material, location and installation technique are unique and require additional consideration for determining allowable UFW. Setting a rate arbitrarily lower for these two systems could very well result in significantly higher costs for all customers. The cost associated with the investment to investigate and maintain a UFW at a level of

15% would very likely significantly outweigh any operating expense benefit from reducing the allowable UFW of 25% to 15%. USI Ex. 14.0 at 2-3.

In past cases, the Commission has recognized that the appropriate level of water loss is entirely dependent on the system involved and its peculiar characteristics. Those factors can lead to “unavoidable leakage” – that is, leakage in mains and services that would cost more to locate and stop than the lost water is worth. Indeed, the Commission previously determined that a 57% unaccounted for water loss for Apple Canyon was “not excessive in light of the system’s physical characteristics and . . . [the] likelihood the cost of locating the leaks would be far greater than the cost of lost water.” One important contributing factor to “unavoidable leakage” for Apple Canyon was the very low number of active customers per mile of main. *Apple Canyon Utility Company*, Docket No. 90-0475/92-0401 (Consol.), Order at 5-6 (Aug. 4, 1993).

If the Commission were to consolidate the Company’s UFW, a similar method as that utilized in Docket No. 14-0741 should be used here. This method is a weighted average of system water pumped and takes the average annual pumpage multiplied by the system’s respective allowable UFW rate. Utilizing the same method, but including data through 2017, the Company arrives at a statewide UFW rate of 17.8%, which is the same rate arrived at in Docket No. 14-0741. USI Ex. 14.0 at 3-4.

In any event, USI suggests that it would be unlawful and unfair to disallow any expenses for losses that exceed lower levels that are not currently set forth in the Company’s tariffs. It would be pointless for the law to require the UFW to be set forth in a tariff, USI argues, and then hold the utility to a different standard for disallowing the pumping and chemical expense for a different, more stringent, limit than is currently set forth in the tariff. Any change in the tariffed UFW levels should be prospective in nature.

The Company states that the arguments made in HOA and AG Initial Briefs for adjustments to expenses to reflect a UFW level different from that which the current tariff allows should be rejected as unlawful and unfair. The AG concedes that before its proposed adjustment can be adopted, the Commission must first set a new UFW percentage for each of USI’s individual systems. In other words, the AG is proposing to change a tariff and give it retroactive effect in this proceeding. The statute provides that the Commission’s determination of rates is limited to determining whether charges in excess of the established maximum in the filed tariff currently in effect are included. 220 ILCS 5/80306(m). USI suggests that it does not allow the Commission to consider anything other than the currently effective tariffed percentages to make a determination of rates. In violation of the statute, the AG would disallow an amount greater than the charges in excess of the applicable tariffed maximum percentage currently in effect, by retroactively applying new limits.

b. AG and HOA

The AG explains that the amount of water pumped from USI’s supply sources and the amount of delivered water that USI’s customers’ meters reflect in aggregate are not the same volume. The AG further explains that water may be lost due to intentional flushing of mains and fire hydrants, but much is also typically lost due to main breaks or leaks. The AG notes that USI has increased maintenance activities to treat water that is

in excess of a maximum UFW percentage set forth in the water utility's tariffs. The AG observes that though a utility in Illinois may recover the cost of the water lost from its system or systems, it is incumbent upon that utility to take steps to reduce the amount of UFW over time. Such mitigation efforts are often financed by ratepayers as new plant additions that are put into rate base.

The AG argues that the Commission should adopt its primary position that Ms. Selvaggio's suggested maximum 15% UFW to be applied to each of the service territories and not the statewide UFW rate of 17.8% proposed by the Company. USI Ex. 14.0 at 3-4. The AG reasons that the Company's proposed 17.8% is based on the average UFW expense from 2007 to 2017 and does not reflect the full impact of the remediation efforts that have been made since 2007 or the impact of the proposed projects that increase the revenue requirement in the current case. Therefore, according to the AG, the maximum UFW rate for each system should be 15%.

If the Commission agrees, the AG reasons that it should then adopt the adjustment proposed by Ms. Selvaggio to reduce operating expenses in the various service areas in which her proposed maximum UFW rate of 15% is less than the maximum UFW percentage that was set in Docket No. 14-0741. The AG also reasons that the AG-HOA adjustment accounts for the impact of UFW in excess of the AG-HOA updated proposed maximum UFW percentage of 15% for each of the service areas netted against the actual 2017 UFW expense. The AG argues that the Company's surrebuttal adjustment is based upon the Commission approved maximum UFW percentages that were set in the Company's last rate proceeding netted against the average UFW expense from 2007-2017. USI Ex. 14.0, Sched. 14.1W. The AG states that the UFW adjustment should be based upon an updated UFW percentage that is netted against the most current UFW expense.

The AG observes that the Company has had several rate cases since 2007 that included costs that would result in a reduction of the UFW expense. According to the AG, ratepayers should realize the benefit associated with the increased costs included in the rate filings since 2007 and the current case. The AG specifically highlights that in August and September of 2017, leaks in the service areas of Apple Canyon and Galena territories were remediated. The AG further notes that the remaining systems are planned to be surveyed after the hydrant inspect and replace project is finished in July 2018. AG-HOA Ex. 2.3, Attach. B. The AG also observes that the hydrant inspect and replace project is expected to provide a high level of service by allowing adequate flushing of water mains and preventing leaks. The AG explains that the project includes the repair of 163 hydrants that have already been completed and 308 hydrants yet to be completed and 179 valve extensions that have already been completed and nine valve extensions yet to be completed. The AG further explains that the project includes the repair of 56 and 79 hydrants and the installation of 38 and 39 valve extensions in Apple Canyon and Galena alone. AG-HOA Ex. 3.2, Attach. A. In addition, the AG observes, included in the requested revenue requirement is approximately \$150,000 for pipe replacements as a result of the leak studies. AG Cross Ex. 2.

Thus, the AG offers as its primary position that the Commission should adopt the AG-HOA adjustment for UFW of \$28,058 presented on Schedule 5 of the AG's Initial Brief. The AG explains that the adjustment is incremental to the Company's surrebuttal

adjustment of \$40,549 that was in response to the AG-HOA rebuttal adjustment presented on AG-HOA Ex. 2.2, Sched. C-8.

The AG also argues that the Commission should adopt the AG-HOA's proposed changes to the Company's UFW tariff to reflect the impact in reducing its UFW percentage that should result from the significant capital improvements that are included in the requested water revenue requirement in this case. AG-HOA Ex. 2.0 at 14-15. In the prior rate case, the AG notes that the Commission approved various maximum UFW percentages for each of the service areas of the Company ranging from 25.0% for Apple Canyon and Galena to 15.0% for the majority of the other service areas.

In light of the Company's arguments that "each service area has unique geographical and operational characteristics ..." and that the Galena and Apple Canyon "... systems have many miles of non-conductive main that run through rock that was blasted out with dynamite ..." and "... consist of hills, ravines, bluffs, and valleys that make leak location extraordinarily difficult ..." and "because many [of] these mains and service lines sit on rock, leaks often occur on the underside of the pipe and do not surface, so they are undetectable[.]" the AG and HOA offer as a compromise, secondary position that the maximum UFW percentages for Apple Canyon and Galena should be greater than 15% should the Commission reject the AG-HOA primary position noted above. USI IB at 17. If the Commission rejects the AG-HOA primary position, in the spirit of compromise and to provide some reduction of the maximum UFW percentage for Apple Canyon and Galena, the AG and the HOA propose as an alternative, a maximum UFW percentage of 20% for Apple Canyon and Galena and 15% for each of the other service areas.

Regardless of the position approved, the AG argues that the UFW adjustment accepted by the Commission should be based upon an updated UFW percentage that is netted against the most current UFW expense. AG-HOA Ex. 2.0 at 12. The AG further argues that ratepayers should realize the benefit associated with the increased costs included in the rate filings since 2007 and the current case. Thus, the AG argues that the Commission could adopt the revised AG-HOA adjustment for UFW of \$23,183 presented on Schedule 5 of the AG's Reply Brief as a compromise position. The AG explains that the adjustment is incremental to the Company's surrebuttal adjustment of \$40,549 that was in response to the AG-HOA rebuttal adjustment presented on AG-HOA Ex. 2.2, Sched. C-8. USI Ex. 14.0 at 5.

c. Commission Analysis and Conclusion

As noted by the Company, the rationale for the consolidated rate structure is to spread costs for rate filings and capital investments across a larger pool of customers and to help mitigate rate shock exposure to the Company's otherwise small subsets of customers. The consolidated rates allow the unique, expensive characteristics of the Apple Canyon and Galena territory to be spread across all customers. Having said that, however, the Commission agrees that the adoption of consolidated rates does not necessarily mean that each system must have the same expenses or the same UFW rate.

The Commission finds, however, that the Company fails to address recent investments that should reduce the UFW rate. Not only has the Company made

improvements since the last rate case, but it has also included many improvements in this current proceeding that should reduce the UFW rate. The Commission finds the AG’s primary position to be unreasonable and to not take into account the difficult characteristics that are unique to the Galena and Apple Canyon systems. The AG’s compromise position is more reasonable and reflects the unique characteristics of these systems while at the same time capturing the improvements that have been made, and will be made, throughout USI’s systems.

The Commission finds the Company’s argument regarding retroactive application to be without merit. The Commission notes that this rate case is based on a future test year that ends September 2019. Also, the rates will go into effect on January 1, 2019. The rates will not be retroactive. The revenue requirement adjustment proposed by the AG will be effective January 1, 2019 based on the maximum UFW rate adopted herein.

For these reasons, the Commission adopts the AG-HOA adjustment for UFW of \$23,183. Consistent with this decision, the Commission adopts the following changes to USI’s tariff:

The maximum percentage of unaccounted-for water considered in the determination of any rates or surcharges shall not exceed ~~(See table below)~~ 20% for Apple Canyon and Galena and 15% for each of the other all service territories. Rates or surcharges approved in the future shall not include charges for unaccounted-for water in excess of this maximum percentage without well-documented support and justification for the Commission to consider in any request to recover charges in excess of this maximum percentage.

~~UNACCOUNTED-FOR WATER MAXIMUM PERCENTAGE TABLE~~

TERRITORY*	Maximum
Apple Canyon: Galena (Joe Daviess County)	25.0
Oakwood-Galena (Vermillion County)	23.0
Charmar	18.8
Holiday Hills	15.8
Camelot/Cherry Hill/Clarendon/Del-Mar/Ferson Creek/Great Northern/Harbor Ridge/Killarney/Lake Holiday/Lake Marian/Lake Wildwood/Northern Hills/Valentine/Walk-Up Woods/Westlake/Whispering Hills/Wildwood	15.0

VII. RATE OF RETURN

A. Uncontested Issues

1. Capital Structure

Staff and the Company agree that USI's capital structure, as of July 31, 2017, is comprised of 47.85% long-term debt and 52.15% common equity. Staff Ex. 9.0, Sched. 9.1; USI Ex. 15.0, Wksht. ROR at 1. Staff originally proposed that USI's line of credit be treated as short term debt, because for practical purposes that is how USI uses the line of credit. However, to narrow issues in the docket and because the impact on rates is so small, Mr. McNally agreed to treat the line of credit as long-term debt, as advocated by the Company. Staff Ex. 9.0 at 2. The Commission adopts the parties' agreed to capital structure.

2. Cost of Long-Term Debt

Both Staff and USI proposed a cost of long-term debt of 5.76%. Staff Ex. 9.0 at 2; Staff Ex. 9.0, Sched. 9.1; and USI Ex. 15.0, Wksht. ROR at 1. The Commission finds a cost of long-term debt of 5.76% to be reasonable.

B. Contested Issues

1. Cost of Common Equity

a. USI

USI states that since the last rate case, the Company has expended or planned for investments of \$14 million dollars in projects that will benefit customers in the form of, among other things, improved water quality, reduced service disruptions due to main breaks and reduced inflow and infiltration to wastewater treatment plant. USI Ex. 1.0 at 6. To fund these projects, USI avers that it is crucially important that the Commission set rates at levels that will allow the Company to realize earnings levels that will compare favorably with competing investment alternatives available to investors.

To support the allowance of a return on equity ("ROE") that investors require to make the needed investment, the Company provided testimony by Ms. Ahern, a Certified Rate of Return Analyst with nearly 30 years of extensive experience in rate of return analysis, including testifying as an expert witness before 32 regulatory commissions in the United States and Canada. USI Ex. 7.0 at 1-2, App. A. Based on her detailed analysis of updated financial data and use of several recognized economic models, she recommended the Commission set 12% as the level of earnings required to assure the Company can fulfill its obligation to provide safe and reliable service, maintain the integrity of presently invested capital through future investment, and attract new capital at a reasonable cost and on reasonable terms in competition with other firms of comparable risk. USI Ex. 18.0 at 2.

To arrive at her recommendation, Ms. Ahern estimated the cost of equity from economic and financial data, using empirical financial models developed for that purpose, including the well-tested discounted cash flow ("DCF") method, the Capital Asset Pricing

Model (“CAPM”) and two risk premium approaches (“RPM”). USI explains that because the empirical financial models are subject to limiting assumptions or other constraints, and no individual model or variation is more reliable than all others under all market conditions, the fairness of the estimation of the investor required return is enhanced by the use of multiple models with variations supported in the academic literature. The tools she employed add reliability to the informed judgment the Commission must use to estimate the common equity cost rate.

Based on the economic data available when USI filed its direct testimony in November 2018, Ms. Ahern’s application of the various models produced a recommended rate of return of 11.15%. USI Ex. 7.0 at 5, Table 2, Sched. PMA-1 at 2.

USI states that financial market conditions changed appreciably in the eight months after her original recommendation for the return on common equity. Among other things, the Federal Reserve Bank raised the range of its benchmark Federal Funds Rate twice by a total of 50 basis points, and signaled two more increases during 2018. USI Ex. 18.0 at 21. Yields on Moody’s A rated public utility bonds rose 27 basis points from 3.86% for September 2017 to 4.13% for February 2018. Based on the current economic and capital market environment when her rebuttal testimony was filed, Ms. Ahern applied the same four cost of common equity models in a manner identical to their application in her direct testimony. Based upon the updated data, her opinion was that a common equity cost rate of 12% would be reasonable for USI. USI Ex. 12, Sched. 12.09.

In contrast to the Company’s more comprehensive analysis, USI observes that Staff’s approach yielded a recommended ROE of 9.31%, significantly below ROEs the Commission has established for water utilities in Illinois in the recent past, despite market conditions now supporting higher returns. See *Aqua Illinois, Inc.*, Docket No. 14-0491, Order at 41-44 (Mar. 25, 2015) (9.81%); *Illinois-American Water Co.*, Docket No. 16-0093, Order at 66 (Dec. 13, 2016) (9.79%). Staff’s analysis places undue weight on the results of the more limited DCF and CAPM. Importantly, informed expert judgment requires reliance on multiple generally accepted common equity costs models, because each model will have restrictive assumptions that could lead to inaccurate results that incorrectly represent true investor expectations.

USI notes that Staff relies upon a DCF model that assumes a market-to-book value ratio of one, which is rarely the case. Consequently, the application of Staff’s DCF model and its restrictive assumptions frequently misrepresent investors’ required return when market value exceeds, or is less than, book value. USI Ex. 12 at 6. Further, under present conditions, the relationships between price and growth rates underlying the DCF model are currently broken, which translates into an understatement of the ROE by application of the DCF results. USI Ex. 12 at 8-10.

According to USI, comparable drawbacks arise with reliance on Staff’s CAPM. The weaknesses in Staff’s approach include: (1) inappropriate reliance upon a spot risk-free rate despite the fact that both ratemaking and the cost of capital are expectational in nature; (2) use of monthly betas calculated by Staff that are not readily available to investors, and thus cannot be considered truly relevant to investor-required return; (3) a distorted calculation of the market risk premium due to the elimination of non-dividend paying stocks with the associated appreciation in the market price that investors weigh

when considering their investment alternatives, and (4) that it does not employ the empirical capital asset pricing model (“ECAPM”) that accounts for empirical evidence showing low beta securities actually earn higher returns than the CAPM formula would predict and thus understate the return investors would expect. USI Ex. 12 at 12-26.

USI opines that Staff’s analysis also failed to account for the additional return investors demand for the greater relative risk a smaller firm like USI has compared to the average market capitalization of the much larger (87.1 times greater) sample of water companies. The Company’s witness discussed empirical and academic support for a size premium, and quantified the business risk adjustment based upon the average sized premiums for similarly sized differentials of companies listed on the New York Stock Exchange, the American Stock Exchange and the NASDAQ exchange. USI Ex. 7.0 at 60-62; USI Ex. 12.0 at 27-39; USI Ex. 18 at 17-18.

USI notes that the orders cited by Staff and others in support of the approach of the Staff witness and against the Company’s expert date back as far as 2004. Staff’s analysis and methodologies produce unrealistically low ROE recommendations and ignore any value that can be attributed to USI’s calculations. In addition, Staff’s analysis was performed when capital market costs were extraordinarily low. There has been no showing that Staff has improved its methodology to correct the concern with the results that the Commission found problematic. The Commission should take into consideration the more robust results from the Company’s broader analysis. To do otherwise would have a negative impact on USI’s operations, and would “deter continued investment in the State of Illinois.” Docket No. 16-0093, Order at 66.

One of the reasons the Company believes its analysis provides more robust results is because of its consideration of the risk premium methodology, which Staff refuses to employ. Other regulatory jurisdictions recognize the risk premium analysis provides valid and informative data for evaluating the ROE necessary to induce investment in a regulated utility. See *DTE Electric*, Mich. P.S.C. Case No. U118014, Order (Jan. 31, 2017); *Indianapolis Power & Light Co.*, Ind. U.R.C. Cause Nos. 44676 & 44602, Order (Mar. 16, 2016); *New England Gas Co.*, Mass D.P.U. 10-114, Order (Sept. 7, 2012). FERC has also indicated that, because capital market conditions were anomalous, it had “less confidence” in the results of the DCF analysis and it was appropriate to consider “additional record evidence” including risk premium analysis. FERC found including risk premium analysis was “informative” and supported the conclusion that without it the ROE was too low to attract capital. *Martha Coakley v. Bangor Hydro-Electric Co.*, Opinion No. 531, 147 FERC ¶ 61,234 at 7 (2014).

Perhaps the most telling development indicating that Staff’s 9.31% recommended rate of return would impede USI’s ability to raise the funds needed to proceed with essential infrastructure plans in Illinois, USI argues, is the recent order (Order No. 2018-345, May 17, 2018) of the South Carolina Public Service Commission (“PSC”) authorizing a 10.5% return for a USI sister company, Carolina Water Service, Inc. USI Ex. 18.0 at 23-26; USI Ex. 13.0 at 2-3. Given the prospect of earning the authorized return in South Carolina or a lower return for an essentially similar investment in Illinois, the Company opines that funding for infrastructure projects in Illinois will be hard, if not impossible, to obtain.

The Company argues that the Commission has recognized that Staff's approach can sometimes produce anomalous results such that the proposed rate of return would not be competitive and deter continued investment in the State of Illinois. Docket No. 16-0093, Order at 66. The Commission has established ROEs in the past using an average of the parties' ROE recommendations. Docket No. 17-0259, Order at 41-42; Docket No. 17-0124; Docket No. 16-0093, Order at 67. By choosing a ROE that lies between the recommendations of competing experts, the Commission implicitly gives weight to useful insights produced by multiple legitimate theories for estimating investor expectations and minimizes the shortcomings of the various approaches relied upon by the cost of equity witnesses, without being an endorsement of every input of every aspect of the methodologies performed by the parties.

b. Staff

Staff witness McNally recommends an ROE of 9.31% (before taking into account the impact of Rider VBA), while in its surrebuttal testimony, the Company recommends an ROE of 12.00%, with an alternative proposal of 9.97%. Mr. McNally has been providing impartial rate of return analyses for Staff for over eighteen years. The models and inputs he relies upon, Staff avers, have been repeatedly tested through litigation and found by the Commission, and the appellate court, to be financially sound. Mr. McNally's cost of equity estimate relies upon Capital Asset Pricing Model ("CAPM") and DCF analyses. Staff Ex. 3.0 Corr. at 26; Staff Ex. 9.0 at 8. As discussed below, Staff asserts that Mr. McNally's cost estimate must be adjusted downward by 8 basis points, if Rider VBA is approved. *Id.* at 27-28.

Mr. McNally's DCF analysis and CAPM analyses were applied to both a sample of water companies ("Water Group") and a sample of utility companies ("Utility Group"). Mr. McNally used the same Water Group that USI witness Ahern used in her estimate for USI's cost of common equity. Staff Ex. 3.0 Corr. at 9. Mr. McNally selected his Utility Group so it was comparable in risk to USI. *Id.* at 9-10.

Mr. McNally testified that, according to DCF theory, a security price equals the present value of the cash flow investors expect it to generate. Specifically, the market value of common stock equals the cumulative value of the expected stream of future dividends after each is discounted by the investor required rate of return. Staff Ex. 3.0 Corr. at 11. Mr. McNally testified that DCF analysis is generally employed to determine appropriate stock prices given a specified discount rate. Since a DCF model incorporates time-sensitive valuation factors, it must correctly reflect the timing of the dividend payments that stock prices embody. As such, incorporating stock prices that the financial market sets on the basis of quarterly dividend payments into a model that ignores the time value of quarterly cash flows constitutes a misapplication of DCF analysis. The companies in the Water and Utility Groups pay dividends quarterly; therefore, he applied a constant growth quarterly DCF model to measure the annual required rate of return on common equity. Staff Ex. 3.0 Corr. at 11. Mr. McNally further testified that the constant growth DCF model assumes that dividends will grow at a constant rate in perpetuity and that the market value of common stock (i.e., stock price) equals the sum of the discounted value of each dividend. Staff Ex. 3.0 Corr. at 12. To estimate the growth rate in the DCF model, Mr. McNally measured the market-consensus expected growth indirectly, with

three to five year growth rates forecasted by securities analysts, which are compiled and disseminated to investors by Zacks Investment Research, Inc. ("Zacks") Staff Ex. 3.0 Corr. at 12. To measure the stock prices, Mr. McNally measured each company's current stock price with its closing market price from March 26, 2018. Staff Ex. 3.0 Corr. at 13. Mr. McNally testified that when estimating the required return on common equity with the DCF model, one should measure the expected dividend yield and the corresponding expected growth rate concurrently. Staff Ex. 3.0 Corr. at 13. Mr. McNally added that using a historical stock price along with current growth expectations or combining an updated stock price with past growth expectations will increase the inaccuracy of the estimate of the market-required rate of return on common equity. *Id.* With respect to expected future quarterly dividends, Mr. McNally testified that his analysis assumes that the current declared dividend rate will remain in effect for a minimum of four quarters and then adjust during the same quarter it changed during the preceding year. If the utility did not change its declared dividend during the last year, he assumed the rate would change during the next quarter. The average expected growth rate was applied to the current declared dividend rate to estimate the expected dividend rate. *Id.* at 14.

Mr. McNally's final DCF analysis estimated a required rate of return on common equity of 10.10% for the Water Group and 9.17% for the Utility Group. Staff Ex. 9.0 at 8, n. 17.

Staff explains that the CAPM is a one-factor risk premium model that mathematically depicts the relationship between risk and return. Mr. McNally testified that a risk premium model is based on the theory that the market-required rate of return for a given risk-bearing security equals the risk-free rate of return plus a risk premium that investors expect in exchange for assuming the risk associated with that security. Mathematically, a risk premium equals the difference between the expected rate of return on a risk factor and the risk-free rate. If the risk of a security is measured relative to a portfolio, then multiplying that relative measure of risk and the portfolio's risk premium produces a security-specific risk premium for that risk factor. Staff Ex. 3.0 Corr. at 15.

The risk premium methodology is consistent with the theory that investors are risk-averse. In other words, investors require higher returns to accept greater exposure to risk. If investors had an opportunity to purchase one of two securities with equal expected returns, they would purchase the security with less risk. Conversely, if investors had an opportunity to purchase one of two securities with equal risk, they would purchase the security with the higher expected return. *Id.*

Staff further explains that, in the CAPM, the risk factor is market risk, which is defined as risk that cannot be eliminated through portfolio diversification. To implement the CAPM, the analyst must estimate the risk-free rate of return, the expected rate of return on the market portfolio, and a security or portfolio-specific measure of market risk. *Id.* at 16.

First, Mr. McNally estimated the risk-free rate of return by examining the yields on four-week U.S. Treasury bills and thirty-year U.S. Treasury bonds. *Id.* Mr. McNally concluded that, based on forecasts of the real risk-free rate and inflation, currently, the U.S. Treasury bond yield of 3.10% more closely approximates the long-term risk-free rate. *Id.* at 18.

Second, to estimate the expected rate of return on the market portfolio, Mr. McNally conducted a DCF analysis as of December 31, 2017, on the firms composing the S&P 500 Index that pay a dividend and for which Zacks or Reuters growth rates are available. The estimated weighted average expected rate of return for those 411 firms, composing 87.46% of the market capitalization of the S&P 500, equals 12.02%. *Id.* at 20.

Finally, Mr. McNally measured the market risk on a security specific basis by measuring beta. Mr. McNally used Value Line betas and a regression analysis to estimate the beta for the Water and Utility Groups. *Id.* at 21. Mr. McNally adjusted his raw beta estimate to produce a more accurate forward-looking beta estimate. *Id.* at 22. Mr. McNally relied upon multiple approaches to calculate beta because “betas are forward-looking measures of investors’ expectations of market risk. As such, true betas are not observable. Betas that Staff calculates and betas that Value Line and other financial information services publish are proxies for true betas. Therefore, like all proxies, beta estimates are subject to measurement error. Thus, there is no single, definitively “correct” beta for a given company. *Id.* at 23. Therefore, Mr. McNally relied on both Value Line betas, which rely on weekly observations, and regression analysis betas, based on monthly observations, to estimate the beta of the Water and Utility Groups. *Id.* at 21-22. The average betas for Water Group (excluding Connecticut Water Service and SJW Corp.) and the Utility Group (excluding OGE Energy) were 0.72 and 0.60, respectively. *Id.* at 24-25; Staff Ex. 9.0 at 2-3.

Based on those estimates of the risk-free rate, the required return on the market, and the proxy sample betas, Mr. McNally estimated a required rate of return on common equity for the Water Group of 9.52% and a required rate of return on common equity of 8.45% for the Utility Group. *Id.* at 25.

Staff notes that Ms. Ahern claims that Mr. McNally should not have used spot interest rates, but rather, should have used a forecasted interest rate in his CAPM analysis. USI Ex. 12.0 at 12-15, 51. The Commission should reject Ms. Ahern’s argument, as it is without merit. Ms. Ahern fails to recognize that the current U.S. Treasury yield spot rate that Mr. McNally used to estimate the risk-free rate is a forward-looking rate. Staff Ex. 9.0 at 9. Mr. McNally explained that a spot rate reflects all relevant, currently available information, including investor expectations regarding future interest rates. Consequently, investor appraisals of the value of forecasts are also reflected in current interest rates. Therefore, to the extent that investors believe that the interest rates forecasts are valuable, that belief is already reflected in current market interest rates. *Id.* at 203-208. In contrast, Ms. Ahern’s recommendation is to use estimates of what U.S. Treasury yields will be in the future. Thus, Ms. Ahern’s estimates do not reflect investors’ current expectations, but rather, expectations of future expectations, and Mr. McNally testified that those types of estimates are inaccurate. *Id.* at 9-10.

Staff further opines that the Commission should reject Ms. Ahern’s claim that published Bloomberg and Value Line betas are superior to the regression betas that Mr. McNally calculated. USI Ex. 12.0 at 16. The betas that analysts employ are estimates of an unknown, true beta, therefore it is unknown which betas are more accurate. Staff Ex. 9.0 at 11. Further, the validity of the methodology is not a function of whether or not it is published, but of its ability to explain stock price behavior. Mr. McNally’s regression beta methodology has been used by Staff on a regular basis and is consistently accepted by

the Commission. Also, Mr. McNally's betas use the same monthly frequency of stock price data as the widely accepted Merrill Lynch methodology. Finally, previous arguments to exclude Staff calculated betas and rely upon only Value Line betas have been rejected multiple times by the Commission. *Id.*

Staff recommends that the Commission reject Ms. Ahern's claim that weekly betas are superior to monthly betas. USI Ex. 12.0 at 16. Mr. McNally testified that studies have shown that the major cause of significant differences in beta was the use of monthly versus weekly return intervals. Staff Ex. 9.0 at 12. However, time interval differences do not necessarily mean one beta estimate is statistically superior to another beta estimate. Mr. McNally testified that monthly betas have less variability than weekly betas and mitigate the effect of a stock price not reflecting information that is reflected in the market as a whole (what is known as "non-synchronous trading"). Thus, by relying exclusively upon betas calculated using weekly data, Ms. Ahern introduced bias into her CAPM analysis that could have been mitigated by including a beta estimate derived from monthly return intervals. *Id.* Staff states that the Commission has multiple times concluded that the use of both weekly and monthly betas is superior to the use of just one or the other, including Docket No. 09-0306, which was upheld by the appellate court. *Central Illinois Light Co.*, Docket Nos. 09-0306-09-0311 (Consol.), Order at 213 (Apr. 29, 2010); 2015 IL App (4th) 140173, ¶ 66 (Jun. 2, 2015).

Staff recommends that the Commission reject Ms. Ahern's claim that Mr. McNally's DCF estimate should include non-dividend paying companies. Staff explains that the DCF model is also referred to in financial parlance as a "dividend discount model" because it uses the dividends expected to be paid by the company being analyzed as one of its primary inputs. Staff Ex. 9.0 at 14. A DCF model cannot be validly applied to a company that does not pay dividends in the first place. Further, including non-dividend paying companies in a DCF analysis of the market would overstate the resulting estimated required rate of return on the market and the implied market risk premium because of differences in the average growth rate. *Id.* Finally, Staff points out that the argument to include non-dividend paying companies in the market return has been rejected by the Commission multiple times. See *Ameren Illinois Co.*, Docket No. 13-0192, Order at 165 (Dec. 18, 2013).

Moreover, Staff argues that the Commission should reject Ms. Ahern's criticisms of the Wong Study relied upon by Mr. McNally. USI Ex. 12.0 at 31-32. Staff states that the Wong study found no justification for a size premium for utilities. Ms. Ahern criticized the study because it is based on betas, which do not account for non-systematic risk. Staff Ex. 9.0 at 20. However, as Mr. McNally testified, Ms. Ahern's argument incorrectly implies that investors require compensation for all risk, systematic and unsystematic. However, unsystematic risk is not compensated in the market. That a study only accounts for systematic risk, the only portion of risk for which investors are to be compensated, does not invalidate that study. *Id.*

In addition, Staff argues that the conclusions of the Zepp article, which Ms. Ahern cites to dispute the Wong article, are dubious. Zepp's conclusions are based on two studies that rely on a single 11-year period, which is entirely too short of a time period to definitively declare the general existence of a size premium. Moreover, one of those studies utilized betas calculated using accounting returns, which are not reasonable

proxies for market returns from which the betas Ms. Ahern used in her CAPM were calculated, while the other study explicitly acknowledges that its findings may have nothing to do with the size of the companies involved, but rather, may reflect company-specific risk unrelated to size. Finally, one cannot assume the conclusions drawn from the specific models studied to apply to the assortment of models to which Ms. Ahern applies her size premium. *Id.*

Ms. Ahern claims that the 9.60% ROE approved in Docket No. 17-0259 for Aqua supports an ROE of 9.71% for USI. USI Ex. 12.0 at 57-58. Staff asserts that the Commission should reject that argument for a number of reasons. First, the 9.71% ROE Ms. Ahern suggests is based upon a leverage adjustment that this Commission has routinely rejected. Staff Ex. 9.0 at 28. Second, Ms. Ahern has not established that all other factors are equal between USI and Aqua, although her argument presumes as much. Third, the Commission has previously found ROE comparisons to be inappropriate, since the cost of equity suitable for a given utility is specific to that utility. See *Commonwealth Edison Co.*, Docket No. 05-0597, Order at 153 (June 6, 2006). As the Commission noted in Docket No. 07-0241/07-0242 (Consol.), “by determining the Utilities’ ROEs via comparison to existing ROEs, the Commission would be disregarding its duty to impose only cost-based and reasonable rates on the Utilities’ customers.” *North Shore Gas Co. and The Peoples Gas Light and Coke Co.*, Docket Nos. 07-0241/0242 (Consol.), Order at 90 (Feb. 5, 2008). Finally, to the extent that such a comparison provides any insight into the ROE in this proceeding, at 9.60%, it is much more in line with Mr. McNally’s revised ROE of 9.31% than Ms. Ahern’s proposed ROE of 12.00%. Staff Ex. 9.0 at 29.

Staff witness McNally found significant flaws in Company witness Ahern’s cost of equity analysis. The primary flaws are as follows: 1) the CAPM analysis employs unreliable beta estimates; 2) the analysis includes an ECAPM in which she improperly applies adjusted beta estimates; 3) the analysis includes an inappropriate RPM; 4) the recommendation reflects the results of a non-price regulated proxy sample that is not comparable in risk to the Company; and 5) the ROE recommendation includes an unwarranted “business risk adjustment” of 70 basis points.

With respect to the first item, Ms. Ahern’s betas are unreliable because they are based upon weekly return intervals, and weekly betas tend to suffer more from non-synchronous trading than monthly betas. *Id.* at 32. Also, the reliability of Ms. Ahern’s Bloomberg betas is still more questionable, since they are based upon only two years of data and are therefore more prone to measurement error. Because of this, the Commission has previously rejected the use of a two-year beta measurement period, finding betas calculated with five years of data to be more reliable. A Commission decision on this matter has also been affirmed by the Appellate Court. Additionally, two of the Bloomberg beta estimates are nearly equal to the market beta of 1.00, which is excessively high for low-risk, rate-regulated water companies. Indeed, both are significant outliers relative to their corresponding Value Line betas and the average Bloomberg beta for the other six companies. For these reasons, Ms. Ahern’s CAPM results, as well as her beta-derived RPM analyses that rely on those same beta estimates, should be discarded. *Id.* at 32-33.

With respect to the second item, Ms. Ahern's use of adjusted betas in her ECAPM is a double-adjustment that over-compensates for the observed flatness of the security market line and, therefore, leads to an overstated estimate of the cost of common equity whenever the raw beta is less than one, since the weight of raw beta is being reduced in favor of the market beta of 1.0. The Commission has previously rejected such application of the ECAPM in several cases. *Id.* at 35-36.

With respect to the third item, there are several flaws with Ms. Ahern's RPM analysis. First, her risk premium analysis improperly bases the equity risk premium on historical data, producing unreliable proxies of current risk premiums. Forward-looking expectations cannot be deduced from past experience with any reasonable degree of accuracy. Further, the result of such an approach is dependent on the arbitrary selection of a historical measurement period, which exposes the analysis to manipulation. Moreover, historical risk premiums do not measure investors' current return requirements because they measure earned returns rather than required returns. *Id.* at 38. Second, rather than rely on observable, current yields – that is, the current cost of capital – Ms. Ahern relied on a contrived combination of forecasts of up to 10 years in the future to determine her base yields to which her risk premiums are added. *Id.* at 39. Third, by arbitrarily grouping her 12 various risk premium calculations, she effectively assigned significantly greater weight to her highest results (up to 50%) than to her lowest results (as low as 2.8%), thereby by inflating her RPM result by approximately 70 basis points. *Id.* The Commission, in many proceedings, has rejected the use of the risk premium model because of such flaws, including in Docket No. 07-0241 (North Shore Gas Company and The Peoples Gas Light and Coke Company general rate cases), in which the Commission concluded, "The risk premium model that the Utilities used in addition to their CAPM is unhelpful. ... While all cost of equity analyses require the application of judgment, this particular approach is primarily a matter of judgment and we are unwilling to rely on such a subjective analysis. ... Insofar as it crept into decision-making in Docket No. 05-0597, that was an anomaly we will not repeat." *Id.* at 40-41.

With respect to the fourth item, Ms. Ahern inappropriately applied her cost of equity analyses to a proxy group of non-price-regulated companies, which she failed to establish as comparable in risk to USI. *Id.* at 41. In fact, Ms. Ahern's Non-Utility Group is significantly higher in risk than the Water Group, as evidenced by the Non-Utility Group's higher average Value Line and Bloomberg betas, as well as its weaker average credit rating, which is a full grade lower than that of the Water Group. The result of that higher risk manifests in the 12.06% ROE estimate for Ms. Ahern's Non-Utility Group, which is 21.2% higher than her 9.95% average for the Water Group, and even higher than Staff's 12.02% estimate of the required return for the overall market. *Id.* at 41-42.

With respect to the fifth item, Ms. Ahern added a size-based business risk adjustment to her cost of equity analysis which has no theoretical basis, is contrary to financial theory, not supported by empirical studies, and has been rejected by the Commission on numerous occasions. *Id.* at 42-46. The Commission even rejected the same size-based adjustment in a prior docket in which Ms. Ahern testified. See *Illinois-American Water Company*, Docket No. 07-0507, Order at 91-92 (July 30, 2008). Importantly, in Docket No. 03-0403, an Aqua (formerly Consumers Illinois Water

Company) rate proceeding in which Ms. Ahern was the Company cost of common equity witness, the Commission Order stated:

The Commission does not conclude that the size of [Aqua] warrants a risk premium. [Aqua] is a wholly owned subsidiary within a much larger organization, and in that sense is distinguishable from an independent utility of the same size as [Aqua].

Consumers Illinois Water Company, Docket No. 03-0403, Order at 43 (Apr. 13, 2004). Likewise, USI is also a wholly-owned subsidiary of a much larger organization. Therefore, Ms. Ahern's inclusion of a business risk adjustment based on the size of USI is unwarranted. *Id.* at 46-47.

If the five principal errors discussed above in Ms. Ahern's analysis were corrected, Staff states that it would produce a cost of equity estimate of 9.40%, which is much lower than Ms. Ahern's original 11.15% cost of equity recommendation and more in line with the 9.31% recommended by Mr. McNally in his rebuttal testimony.

The Company cites to a recent South Carolina PSC Order that authorized a 10.5% cost of common equity for Carolina Water Services, Inc. ("CWS"), a sister company of USI. USI Ex. 18.0 at 23-24; USI Ex. 13.0 at 2-4. USI essentially argues "[g]iven the transitive properties of equalities" if CWS is similar in risk to USI (which Staff disputes), then under *Bluefield Waterworks & Improvement Co. v. Public Serv. Comm'n of West Virginia* ("*Bluefield*"), 262 U.S. 679 (1923) and *Federal Power Comm'n v. Hope Natural Gas Co.* ("*Hope*"), 320 U.S. 591 (1944), USI is entitled to the same 10.5% return granted to CWS. USI Ex. 18.0 at 24-26. Staff states that the Commission should reject that argument.

First, the Company's logic is strained. That CWS may be similar to the Water Group, and the Water Group may be similar to USI, does not suggest that CWS should be viewed as equal, or even all that similar, in risk to USI. That is, the transitive properties of equalities does not extend to similarities. Further, that CWS was authorized to earn a ROE higher than Staff's proposal does not indicate that Staff's ROE is too low. Indeed, the flaws in such a comparison notwithstanding, one might just as well contend that Staff's proposed ROE indicates that CWS's ROE is too high.

Second, USI misreads *Bluefield* and *Hope*. Neither *Bluefield* nor *Hope* stands for the proposition that two comparable companies must have the same ROE. Also, *Bluefield* and *Hope* do not set specific regulatory standards that a Commission order must meet. See *Hope*, 320 U.S. at 600, 602 (stating that Congress "has provided no formula by which the 'just and reasonable' rate is to be determined" and that "[i]f the total effect of the rate order cannot be said to be unjust and unreasonable, judicial inquiry under the [Natural Gas] Act is at an end."); *Id.* at 603 ("[T]he fixing of just and reasonable rates, involves a balancing of the investor and the consumer interests."); *Bluefield*, 262 U.S. at 692 ("What annual rate [of return] will constitute just and reasonable compensation depends upon many circumstances, and must be determined by the exercise of a fair and enlightened judgment, having regard to all relevant fact.") Instead, *Bluefield* and *Hope* address the general criteria regulators should consider when setting just and reasonable rates to ensure a utility's ROE and rate of return are neither too low nor too high. *Hope*, 320 U.S.

at 603; *Bluefield*, 262 U.S. 692-695. The Commission made that clear in the Nicor Order, which USI witness Ahern refers to in her testimony, when the Commission states “[t]hese decisions establish that a regulatory body such as the Commission must consider whether the authorized return will allow a return that is sufficient to maintain the utility’s financial integrity and to attract capital at reasonable terms, while ensuring that customers do not pay an excessive or unreasonable return on those rates. *Bluefield*, 262 U.S. at 692-93; *Hope*, 320 U.S. 591 at 603; Docket No. 17-0124, Order at 100. The Commission must balance not just utilities being allowed “a sufficient return on investment so as to enable them to attract capital in financial markets at competitive rates,” but also that services are provided “at the least possible cost to the citizens of the State” and that “the rates for utility services are affordable and therefore preserve the availability of such services to all citizens.” 220 ILCS 5/1-102(a), (a)(iii), and (d)(viii).

Third, as previously noted, the Commission has repeatedly stated that it does not set rates based on rulings from other cases. Not only is the Commission not bound by any other jurisdictions’ decisions but different facts and testimonies have been presented in this proceeding than in the CWC proceeding, which would lead to different conclusions.

In his direct testimony, Mr. McNally presented a correction to the Company’s original ROE analysis to remove its five most egregious flaws. Those corrections reduced the Company’s original proposal from 11.15% to 9.40%. Staff Ex. 3.0 Corr. at 47. Similarly, in its surrebuttal testimony, the Company presented, “for the Commission’s consideration,” the results of its updated ROE analysis, making the same five corrections. Those corrections reduced the Company’s original proposal from 12.00% to 9.97%. Staff recommends that the Commission not consider an ROE of 9.97% for setting USI’s rates. To be clear, Mr. McNally did not testify that 9.40% was a reasonable ROE for USI. Rather, he presented that number specifically to show the effects of the principal errors in Ms. Ahern’s analyses and, thereby, demonstrate how inflated the Company’s 11.15% ROE proposal was. Other, less significant errors still plague that analysis, such as the improper use of historical and forecasted data, rendering it unsuitable for rate setting. Now, based on its updated 12.00% ROE analysis, the Company produces a similar showing as a “corrected updated return on common equity of 9.97%” – presumably with the hope that the Commission will adopt it in the likely event it rejects, as it absolutely should, the Company’s 12.00% proposal. But just like the 9.40% correction to the original 11.15% ROE, the 9.97% correction represents an incomplete correction and, therefore, does not represent a reasonable ROE. Nonetheless, it does provide some insight, as it exposes the Company’s 12.00% updated ROE as being even more outlandish than the original 11.15% proposal. Staff IB at 52.

For all the above reasons and those set forth in Staff’s Initial Brief and testimony, the Company’s 12.00% ROE should be rejected, and Staff’s 9.31% ROE should be adopted by the Commission.

c. AG

The AG argues that Ms. Ahern’s recommendation is flawed in several ways, including her use of a business/financial risk “adder” and alternative valuation methodologies the Commission has repeatedly rejected in many prior rate cases, including in cases in which Ms. Ahern has employed the same tactics. The AG reasons

that the effect of these adders and alternative methodologies is to inflate the proposed ROE. The AG argues that, as it has done in numerous past cases, the Commission should reject USI's use of adders and alternative valuation methodologies that seemingly serve one purpose—to improperly increase a utility's requested ROE.

The AG notes that Staff witness McNally identified five flaws in Ms. Ahern's ROE analysis in his direct testimony. Staff Ex. 3.0 Corr. at 31. The AG explains that three of the items Mr. McNally listed concern two valuation methodologies and an adder Ms. Ahern employed that the Commission has rejected repeatedly in many past cases, including cases in which Ms. Ahern was the witness promoting their use. The other two items are technical issues, including her use of "unreliable betas" and using a "non-price regulated proxy sample that is not comparable in risk to" USI. *Id.*

In addition to his technical critique, the AG explains, Mr. McNally noted that the Commission has rejected utility witnesses' use of the RPM. The AG observes that Mr. McNally identified nine orders in which the Commission rejected use of RPMs. *Id.* at 40, n. 59. One of the additional cases Mr. McNally cited was Illinois-American Water Company's ("IAWC") rate case in Docket No. 11-0767, which the AG states is notable because Ms. Ahern was IAWC's ROE witness in that proceeding. In its order dismissing Ms. Ahern's use of a risk premium model, the AG notes that the Commission found that her analysis was flawed and that "the Commission does not typically rely on the risk premium model to establish the cost of common equity in rate proceedings and believes that the record does not support a change in this proceeding." *Illinois-American Water Co.*, Docket No. 11-0767, Order at 110 (Sep. 19, 2012).

The AG argues that Ms. Ahern made little effort to explain why the Commission should deviate from its many past decisions rejecting use of risk premium models. The AG notes that in her rebuttal testimony, of the nine decisions cited by Mr. McNally, Ms. Ahern asserted that the risk premium model she used in the instant case does not suffer from the same problem the Commission found problematic in Docket Nos. 07-0241/07-0242 (Consol.). USI Ex. 12.0 at 52. The AG concludes that Ms. Ahern does not distinguish the RPMs she applied here from her RPM that the Commission rejected in Docket No. 11-0767.

In surrebuttal, the AG observes that Ms. Ahern cites two recent Commission decisions in which the Commission stated that its "analysis in this case is not indicative of how the Commission will review and decide upon ROE in future rate cases, nor shall this decision obligate the Commission to apply the same or similar analysis in future proceedings." USI Ex. 18.0 at 16-17, citing, Docket No. 17-0124, Order at 102; Docket No. 16-0093, Order at 67. The AG argues that Ms. Ahern does not provide the proper context for the Commission's statements in those cases. The AG further reasons that the ROE decisions in Docket No. 16-0093 and Docket No. 17-0142 were the results of *ad hoc* averaging methodologies the Commission devised in each case. The AG believes that the Commission's statements stress that the respective averaging methodologies employed in those dockets should not be used as precedent. More importantly, according to the AG, there is nothing in the statements suggesting a retreat from the Commission's repeated rejections of risk premium models.

The AG observes that Mr. McNally criticized Ms. Ahern's use of a business risk adjustment on both a technical basis and because it is inconsistent with several Commission orders rejecting similar adjustments. Staff Ex. 3.0 (Corr.) at 42-47. The AG explains that Mr. McNally cited two cases in which Ms. Ahern promoted similar size-based ROE adders that were rejected by the Commission. See Docket No. 07-0507, Order at 90-91; Docket No. 03-0403, Order at 43.

In the Aqua case, according to the AG, the Commission explained its decisions dismissing Ms. Ahern's proposal by noting that Aqua is a "wholly-owned subsidiary within a much larger organization, and in that sense is indistinguishable from an independent utility of the same size as [the parent company]." Docket No. 03-0403, Order at 43. The AG explains that Mr. McNally pointed out that because "USI is also a wholly-owned subsidiary within a much larger organization ... Ms. Ahern's inclusion of a business risk adjustment based on the size of USI is unwarranted." Staff Ex. 3.0 Corr. at 47.

In addition to the cases cited by Mr. McNally, the AG observes that the Commission rejected Ms. Ahern's use of: (1) a business risk premium in Docket No. 04-0442, (*Aqua Illinois*, Docket No. 04-0442, Order at 43-44 (Apr. 20, 2005)); (2) a financial and business risk adjustment in Docket No. 11-0767, (Docket No. 11-0767, Order at 110); and (3) a financial risk adjustment in Docket No. 09-0319 (*Illinois-American Water Co.*, Docket No. 09-0319, Order at 113 (Apr. 13, 2010)).

Thus, the AG reasons, in at least five separate cases the Commission has rejected Ms. Ahern's use of size and business risk premiums. The AG argues that Ms. Ahern made no effort in either her rebuttal or surrebuttal testimonies to explain why her proposal in this case is different from her proposals in the prior cases or why the Commission should suddenly reverse course and endorse her proposal here. The AG argues that as it has done in many past cases, the Commission should dismiss Ms. Ahern's use of a business risk premium in the current matter.

Moreover, the AG argues that Ms. Ahern's application of an ECAPM is technically flawed and should be rejected. *Id.* at 34-35. The AG observes that Mr. McNally noted that the Commission rejected Ms. Ahern's application of the ECAPM in Docket No. 11-0767. See Docket No. 11-0767, Order at 109. In defending her use of the ECAPM, the AG notes that Ms. Ahern included a long quote from Roger A. Morin. USI Ex. 12.0 at 48-49, quoting Roger A. Morin, *New Regulatory Finance* (Public Utility Reports, Inc. 2006) at 428-431. The AG finds Ms. Ahern's reliance on Mr. Morin interesting because, in Docket No. 03-0403, Ms. Ahern defended her application of an ECAPM analysis relying on a written comment by Mr. Morin. Docket No. 03-0403, Order at 41. The AG further explains that the Commission noted that "there is no showing that the theory of the Morin ECAPM is widely accepted by practitioners using risk premium models, notwithstanding the discussion in Dr. Morin's textbook. *Id.* at 41-42.

The AG argues that Ms. Ahern offered no response to Mr. McNally's testimony that the Commission rejected her use of the ECAPM in Docket No. 11-0767. The AG also states that she does not explain why the Commission should adopt the "Morin ECAPM" that it rejected in Docket Nos. 03-0403 and 04-0402. The AG recommends that, as it has done in at least three past cases, the Commission should dismiss Ms. Ahern's application of the ECAPM in this case.

The AG argues that the effect of Ms. Ahern's alternative measurement methodologies and adder is to inappropriately inflate her proposed ROE. Mr. McNally testified that removing the effect of the five errors discussed in his direct testimony reduces Ms. Ahern's suggested ROE by 175 basis points. Staff Ex. 3.0 (Corr.) at 47. Accordingly, the AG argues that the Commission should reject her proposal and adopt Mr. McNally's recommended 9.31% ROE.

d. CUB

CUB supports Staff's recommended ROE and urges the Commission to reject the Company's excessive ROE recommendation, and its unjustified and flawed ROE financial risk adders, and adopt a return of 9.31%. This ROE will fairly compensate USI's investors for their capital at reasonable cost to its customers. Hence, an ROE of 9.31% strikes a fair and reasonable balance between the interests of all stakeholders.

According to CUB, the objective of the rate of return witnesses in this proceeding is to estimate the market-required ROE for USI. The determination of an appropriate return is governed in part by two well-established decisions of the U.S. Supreme Court that are well-known to ROE experts: *Bluefield* and *Hope*. The Commission has often relied on *Bluefield* and *Hope* in its decisions involving the determination of a fair return. See Docket No. 13-0192, Order at 100. In accord with this legal guidance, CUB recommends the Commission approve a return on common equity of 9.31% for USI, as it is reasonable and consistent with the governing legal standards. In stark contrast to *Bluefield* and *Hope*, the Company is proposing to set rates based on a return of 12.00%. USI Ex. 12.0 at 58. CUB avers that USI's requested ROE is excessive and would result in unjust and unreasonable rates.

Staff, through the testimony of Mr. McNally, provided the type of analysis commonly relied upon by the Commission in determining ROE. Mr. McNally evaluated the Company's investment risk by utilizing appropriate, similarly-situated regulated entities as a proxy for determination of USI's cost of common equity. Mr. McNally has demonstrated that Staff's proposed ROE would fairly compensate USI's investors for their capital at a fair and reasonable cost to customers. Accordingly, Staff's recommended ROE of 9.31% should be adopted.

CUB opines that Ms. Ahern relies upon a flawed financial analysis and inappropriate adjustments for risk and size which have been consistently rejected by the Commission in setting ROE. USI Ex. 7.0 at 18-21. The incorporation of the inappropriate size premium inflates the Company's ROE recommendation. CUB urges the Commission to reject the Company's flawed analysis and not consider this inappropriate size premium in its determination of the ROE.

CUB further notes that the 70 basis point adjustment proposed by Ms. Ahern and opposed by Staff and CUB is one which the Commission has historically refused to adopt, for a variety of factual reasons noted by Mr. McNally in his testimony. Notably, Ms. Ahern accepts Mr. McNally's position that no theoretical basis exists for a sized-based risk premium. USI Ex. 12.0 at 28.

CUB explains that it has been Commission practice for over a decade to remove adders such as the size premium adjustment proposed by USI. The Commission has

specifically found in the past that “a business risk premium based upon the relative market value size of utilities has not been shown to be consistent with financial theory.” Docket No. 09-0319, Order at 113. This is the same type of adjustment that the Company alleges should be made here, and yet they have not shown that the adjustment is based upon sound financial theory. Mr. McNally thoroughly refuted each of the arguments put forth by USI as to why this adjustment may be necessary, and no evidence in the record shows that this adjustment is now consistent with financial theory. In keeping with past Commission precedent, this adjustment should be specifically excluded from the determination of the ROE.

CUB notes that USI advocates for an average of the recommendations of its witness and Mr. McNally. In making this argument, however, the Company fails to note that the Commission has previously found that several of the methods utilized by USI’s witness are not reliable, and therefore are not the type of legitimate theories upon which the Commission should make its determination. Notwithstanding the fact that this suggestion should be rejected as untimely and utterly lacking an evidentiary basis, the Commission should reject USI’s request given that the Company’s recommendation is based upon a flawed financial analysis that lacks a legitimate theoretical basis.

CUB argues that it is reasonable to assume that given recent Commission decisions, the Company may have anticipated some type of averaging methodology would be used to determine an awarded ROE in this case. CUB posits that use of averaging appears to have encouraged USI to offer an inflated ROE recommendation in order to manipulate a resulting average ROE. CUB avers that the Company’s inflated ROE recommendation represents a significant departure from the methodologies used to support utilities’ requested ROE in rate cases prior to 2015. CUB argues that it is also telling that in its Initial Brief, USI never specifically asks the Commission to award an ROE of 12.00%; rather, it completes its argument on the topic with a reminder that the Commission has recently set the cost of common equity for several utilities by taking a straight average of the recommendations. CUB believes that this further illustrates that the Company recognizes the unreasonableness of its inflated recommendation, and lends itself to the argument that the recommendation was made only to inflate the final award.

Finally, CUB notes that USI alleges that “perhaps the most telling development” regarding the appropriate ROE for the Company is the recent authorization by the South Carolina PSC of a 10.5% return for a USI sister company. The award of a particular ROE in a different state, different record, and different financial criteria for a sister company is not a valid basis upon which the Commission can rely to conclude a particular ROE is appropriate for USI. The Commission is obligated by the Act to conduct its own evaluation of the appropriate cost of equity based on the record evidence before it. CUB maintains that USI’s reference to the South Carolina PSC is irrelevant, wholly inappropriate and must be rejected.

e. Commission Analysis and Conclusion

The Commission, in making a determination regarding the cost of common equity, relies primarily on data derived from financial models that attempt to quantify the cost of attracting capital investment during the time period for which the rates will be in effect. Historically, the Commission has given substantial weight to the results of the DCF and CAPM

analyses of the parties' expert witnesses. In this proceeding, only Staff and USI presented witnesses who testified concerning their recommendations for the Company's cost of common equity. The briefs of CUB and the AG support Staff's position.

The Commission has said this regarding the estimation of the cost of common equity:

In estimating the cost of common equity, the Commission must consider not only the outputs of the financial models, but whether the authorized ROE satisfies the standards set forth in *Bluefield Water Works & 398 Improvement Co. v. Public Service Commission of West Virginia*, 262 U.S. 679 (1923) and *Federal Power Commission v. Hope Natural Gas Co.*, 320 U.S. 591 (1944). These decisions establish that a regulatory body such as the Commission must consider whether the authorized return will allow a return that is sufficient to maintain the utility's financial integrity and to attract capital at reasonable terms, while ensuring that customers do not pay an excessive or unreasonable return on those rates. *Bluefield*, 262 U.S. at 692-93; *Hope*, 320 U.S. 591 at 603. The Company must be able to provide safe, reliable service at just and reasonable rates. *Bluefield*, 262 U.S. at 693; *Hope*, 320 U.S. 591 at 603. The return should be commensurate with returns investors could earn by investing in other companies of comparable risk. *Bluefield*, 262 U.S. at 692; *Hope*, 320 U.S. 591 at 603.

Docket No. 16-0093, Order at 65. With this guidance in mind, the Commission cannot adopt either the initial (11.15%) or rebuttal (12.00%) proposal of the Company. Both proposals would result in an overstated ROE that benefits the utility and its shareholders to the detriment of ratepayers who would be required to pay excessive or unreasonable rates, contrary to the wisdom of these landmark cases.

In rejecting the Company's proposal, the Commission relies on Staff witness McNally's testimony which identified and explained the five most egregious errors contained in USI witness Ahern's testimony. These five errors are sufficient to reject the Company's proposal, but Staff also identified additional smaller errors in her analysis such as her use of historical and forecasted data. The Company's use of adjustments that have been repeatedly rejected by the Commission, such as the size based adjustment (see Docket No. 07-0507, Order at 91-92) results in an inflated ROE. An average of Staff's and the Company's proposals results in an ROE higher than that granted to its sister company in South Carolina. The result of the averaging and the ROE granted in South Carolina are not evidence of what a proper ROE for the Company is in this case, but they do provide a reasonableness check against the Company's requested 12.00%. For these reasons, the Commission rejects the Company's proposed 12.00% ROE.

Staff's proposal, in contrast to the Company's, provided the type of analysis commonly relied upon by the Commission in determining ROE. The Commission finds that Mr. McNally evaluated the Company's investment risk by utilizing appropriate,

similarly-situated regulated entities as a proxy for determination of USI's cost of common equity. The results of Mr. McNally's DCF and CAPM analyses are reasonable and result in an ROE of 9.31% for the Company which the Commission finds is sufficient to maintain USI's financial integrity and to attract capital at reasonable terms, while ensuring that customers do not pay an excessive or unreasonable return on those rates.

2. Impact of Rider VBA on Cost of Common Equity

a. USI

USI argues that the Commission should reject Staff's recommended eight basis point downward adjustment to ROE if Rider VBA is approved. Staff's recommendation is based on speculation that the implementation of Rider VBA will improve the credit rating of USI by one rating notch (e.g., A2 to A1). USI Ex. 12.0 at 38-39. This assumption is unfounded and inappropriate. It is particularly arbitrary given Staff's prior recommendation in the recent Aqua case that the adjustment should only be six basis points. USI is unaware of any utility company getting a credit rating upgrade solely due to the authorization of a Rider VBA-type mechanism. In addition, the Company suggests that Staff's speculation is rebutted by a study reported in a Moody's Investors Service article dated November 4, 2011. Moody's observed that such utilities did "show slightly less volatile gross profit and [cash flow from operations] pre-working Capital (CFO pre-WC) than the broad sector averages" but also observed that viewed from a broad sector perspective:

[t]here is little to no correlation between the stability of key financial metrics that determine a company's credit rating (i.e. ratios based on the CFO pre-WC coverage of interest and debt) and a sector's proclivity for special recovery mechanisms. In fact, based on sector averages, the sectors in which there is a greater use of special recovery mechanisms, such as [local distribution companies] and [transmission and distribution companies], appear to have more volatile credit metrics than vertically integrated utilities.

USI Ex. 12.0 at 40. In addition, USI states that empirical research by The Brattle Group, AUS Consultants and ScottMadden Inc. have all concluded that decoupling mechanisms have no statistically significant impact on investor perception of investment risk, and thus no statistically significant impact on their required ROE. USI Ex. 12.0 at 42-43.

According to USI, there is no evidence that the implementation of Rider VBA-type mechanisms drives changes in credit ratings, and no empirical evidence that these type of decoupling mechanisms reduce investors' collective perception of risk. Nor is implementation unique to the market data of the publicly-traded companies used in the derivation of Staff's ROE estimate. Consequently, USI avers that Staff's eight basis point reduction to USI's ROE is unwarranted, and should not be adopted by the Commission.

b. Staff

Mr. McNally testified that an eight basis point downward adjustment to his cost of common equity is necessary, since his risk assessment and cost of equity

recommendation for USI reflects USI's current risk, which does not reflect the reduction in operating risk that would occur if the Commission approves Rider VBA. Staff Ex. 3.0 Corr. at 27-28. Mr. McNally testified that his downward adjustment proposal is appropriate given that Rider VBA reduces volatility and uncertainty in the Company's cash flows, which Company witness Lubertozzi also expects. Staff Ex. 3.0 Corr. at 28; USI Ex. 1.0 at 9. Mr. McNally used the same methodology for his VBA adjustment that was used in a recent IAWC rate case in which the Commission also approved an eight basis point downward adjustment for Rider VBA. Docket No. 16-0093, Order at 66. In fact, the Commission has been making similar downward adjustments for decoupling riders for operating risk all the way back to when the riders were first approved in 2008. See Docket Nos. 07-0241/07-0242 (Consol.), Order at 99.

To calculate the Rider VBA cost of common equity adjustment, Mr. McNally examined the core rating factors Moody's focuses on for its water utility ratings analysis, which is based on the total risk of a company. The first core factor, business profile, is composed of five sub-factors; Rider VBA would have a positive effect on two of those sub-factors, cost and investment recovery, and revenue risk. To determine its ratings, Moody's assigns weight to each sub-factor based on relative importance, with the cost and investment recovery sub-factor being assigned 15% weight and the revenue risk sub-factor being assigned 5%. To estimate the appropriate risk adjustment, Mr. McNally began with the spread between long-term utility bonds rated A and Baa by Moody's. According to Moody's, on March 28, 2018, A-rated long-term utility bonds yielded 4.11%, while Baa-rated long-term utility bonds yielded 4.52%, a yield spread of 0.41%. Since the two sub-factors affected by Rider VBA are collectively assigned 20% weight, Mr. McNally multiplied the 0.41% spread by 20% to estimate the incremental effect of Rider VBA of 0.08%. Staff Ex. 3.0 Corr. at 29.

In response to USI, Staff notes that the Company's position is based on an apparent misapprehension of Staff's analysis. Contrary to the Company's claim, Staff did not assume that Rider VBA will improve USI's credit rating by one rating notch. Rather, as Mr. McNally explained, based on the Moody's credit rating guidelines and its credit favorable assessment of tariff mechanisms, he assumed that only two sub-factors of one of the three core rating factors Moody's employs would improve by one notch. Staff Ex. 3.0 at 28-29.

Staff also notes that the Company argues that an eight basis point adjustment is particularly arbitrary given Staff's six basis point recommended adjustment in a recent Aqua case for a similar rider. Staff opines that a mere two basis point difference is certainly not evidence of a "particularly arbitrary" conclusion. More importantly, Staff's adjustment is based on the same methodology it has been using in recent proceedings for such adjustments. See Docket No. 16-0093, Order at 66. That approach is based on current interest rates, which, of course, fluctuate somewhat over time.

Staff argues that the Company also cites, out of context, quotes from a 2011 Moody's article in an attempt to support its claim. The Company misappropriates a quote to attempt to draw an apple-to-oranges cross-sector comparison in order to falsely suggest that revenue decoupling somehow increases volatility. However, the article from which that quote was taken explicitly and repeatedly indicates that Moody's views the adoption of revenue decoupling mechanisms as a credit benefit, and Moody's has

consistently maintained that decoupling is credit positive since then. Staff Ex. 9.0 at 24. To suggest that revenue decoupling mechanisms, such as Rider VBA, would not enhance credit ratings through increased earnings stability and greater assurance of fixed cost recovery is contrary not only to Moody's perspective, but to that of the Company's own witness, Mr. Lubertozi, who testified that USI is seeking Rider VBA to stabilize its earnings and provide greater certainty that it can recover its fixed costs. USI Ex. 1.0 at 9-10.

Finally, Staff notes that the Company cites three studies undertaken by consulting groups, which found no statistically significant impact of revenue decoupling mechanisms on required rates of return. Like the Moody's article the Company cites, those studies specifically conclude that revenue decoupling reduces the investment risk of public utility stocks. Staff explains that those studies merely state that the impact cannot be isolated or measured as of yet due to the myriad of factors that affect investors' perception of risk. Staff Ex. 9.0, 24-25. In fact, finding no significant impact of revenue decoupling on required rates of return is not unexpected, as the entire point of such adjustments is to offset the windfall effects on ROE of decoupling. For all the above reasons, the Company's argument should be rejected, and just as the Commission has accepted similar revenue decoupling adjustments in past proceedings, Staff argues that it should do so once again in this docket.

c. CUB

CUB notes that USI's entire argument that Staff's eight basis point adjustment is arbitrary is premised upon the fact that Mr. McNally's recommended reduction is different from the Staff-recommended six basis point reduction in a different docket. CUB opines that USI's argument fails once the facts contained in Mr. McNally's testimony are considered. Mr. McNally is an expert in the field of financial analysis, with almost 20 years of experience in providing the Commission with opinions on a variety of financial issues, including rate of return and return on common equity, and has been a Chartered Financial Analyst for 15 years. Staff Ex. 3.0 at 1. Mr. McNally testified at length as to the reasons why an adjustment is necessary when a Rider VBA mechanism is approved and further testified how the adjustment is calculated. Staff Ex. 3.0 at 27-29. Mr. McNally testified that he calculated the cost of common equity adjustment necessary to reflect the impact that Rider VBA will have upon USI specifically, not any other company. Staff Ex. 3.0 at 28-29. CUB points out that this is the opposite of an arbitrary recommendation. Likewise, the six basis point reduction recommended by Staff in a different rate case for a different utility was similarly calculated by a financial expert and adopted by the Commission specifically for that utility and it was not an arbitrary reduction. CUB opines that Mr. McNally's recommendation is not arbitrary, but rather grounded in solid financial theory and analysis.

Further, USI's argument that Staff's recommendation is "based upon speculation that the implementation of Rider VBA will improve the credit rating of USI by one rating notch" is speculation that comes from USI's own witness, not Staff's. USI IB at 23 (citing USI Ex. 12.0 at 38-39). CUB avers that Mr. McNally never speculated that approval of Rider VBA would improve USI's credit rating by one notch. Rather, he testified that Rider VBA would have a positive effect on two sub-factors of its business profile factor, and

reduce risk to USI. Staff Ex. 3.0 at 29. Based upon the positive effect of those two sub-factors, which are collectively assigned a 20% weighting by Moody's, Mr. McNally multiplied this 20% by 0.41%, the spread between long term utility bonds rated A and Baa, to estimate the incremental effect of Rider VBA on the Company as 0.08%. *Id.* Accordingly, CUB urges the Commission to accept Mr. McNally's recommendation to reduce the ROE award by eight basis points if the Rider VBA mechanism is approved.

d. Commission Analysis and Conclusion

As the Commission has done in other cases where a revenue decoupling rider such as Rider VBA has been adopted, the Commission finds that Staff's proposed eight basis point downward adjustment to the cost of common equity is necessary. Most recently in Docket No. 16-0093, the Commission agreed that Rider VBA would reduce operating risk and accordingly adjusted IAWC's cost of common equity downward by eight basis points for IAWC. Docket No. 16-0093, Order at 66. Mr. McNally utilized the same methodology to calculate his adjustment in this case as was used to calculate the adjustment in Docket No. 16-0093. The Company has not provided sufficient reason for the Commission to change its practice and, thus, Staff's eight basis point adjustment is adopted.

C. Recommended Capital Structure and Rate of Return

Having considered the conclusions above concerning the Company's capital structure and costs of debt and equity, the Commission finds that the Company should be authorized to earn a rate of return of 7.57% for water and 7.61% for sewer. The rate of return incorporates an ROE of 9.23% for water and 9.31% for sewer. The Company's rate of return was derived as follows:

Water Service

Component	Amount	Percent	Cost	Weighted Cost
Long-Term Debt	\$217,958,743	47.85%	5.76%	2.76%
Common Equity	\$237,557,685	52.15%	9.23%	4.81%
Total	\$455,516,428	100%		7.57%

Sewer Service

Component	Amount	Percent	Cost	Weighted Cost
Long-Term Debt	\$217,958,743	47.85%	5.76%	2.76%
Common Equity	\$237,557,685	52.15%	9.31%	4.86%
Total	\$455,516,428	100%		7.61%

VIII. RATE DESIGN

A. Uncontested Issues

1. Section 8-306(i) Disclosure

Staff testified that the Company's proposed sewer tariff did not provide a separate rate for customers who have separate meters. The Act requires the utility to do so and states:

Each public utility that provides water and sewer service must offer separate rates for water and sewer service to any commercial or residential customer who uses separate meters to measure each of those services. In order for the separate rate to apply, a combination of meters must be used to measure the amount of water that reaches the sewer system and the amount of water that does not meet the sewer system.

220 ILCS 5/8-306(i). Staff witness Boggs recommended the Company propose language in its rebuttal testimony to revise its sewer tariff language so that it is in compliance with Section 8-306(i) of the Act. Staff Ex. 4.0 at 23. In rebuttal testimony, the Company provided tariff language to update its sewer tariff accordingly. USI Ex. 11.0 at 2. Staff responded that the new language complied with Section 8-306(i) of the Act, and Staff recommended the Commission approve it. Staff Ex. 10 at 8. Therefore, this issue is no longer contested and the Commission approves the Company's new language.

2. ILL.C.C. No. 4, Third Revised Sheet No. 1 – Sewer

Staff witness Boggs testified that on the Company's proposed tariff sheet ILL.C.C. No. 4, Third Revised Sheet No. 1 under the "Customer Charge" heading, the second set of proposed Customer Charges listed are supposed to be for commercial customers. Staff Ex. 10.0 at 8-9. However, the Company's proposed tariff is labeled "Residential" for its low use (\$91.90) and unmetered customers (\$101.55). Staff recommended the Company correct these Customer Charge labels or provide explanation in its surrebuttal testimony that clarifies any misunderstanding of these listed charges. *Id.* The Company did not correct these labels or provide an explanation in its surrebuttal testimony. The Company did not address this issue. The Commission therefore directs the Company to correct this error.

3. Sewer Rate Design

Staff did not object to the Company's proposed sewer service rate design. Staff Ex. 4.0 at 20-21. The Company developed its proposed residential and commercial sewer rates so that the revenue recovery from each class matches the cost to serve each class. USI Ex. 6.01, Sched. DWD-15 at 1-3. Therefore, the Commission approves the Company's sewer service rate design.

B. Contested Issues

1. Water Customer Charge and Water Usage Charge

a. USI

The Company opines that the Commission should not approve Staff's proposal to freeze the current customer charge so that the entire rate increase would be collected through the volumetric charge. The Company argues that the cost of service study ("COSS") performed by the Company's outside consultant demonstrated that almost 94% of the Company's revenue requirement is associated with fixed costs and the remaining 6% represents variable costs. USI Ex. 7.0 at 5-6. Staff's rate design goes in the opposite direction of what the COSS would support. Under present rates, fixed charges provide 61.06% of the Company's revenues, but would drop to 40.94% under Staff's proposal.

The Company states that its proposal would maintain the current percentage of revenue collected through the fixed charge and is more consistent with cost recovery principles supported by both the American Water Works Association and National Regulatory Research Institute. USI Ex. 11.0 at 5-6. In addition, pushing more of the recovery of the revenue requirement into the volumetric component of the rates will increase the magnitude of the revenues that will need to be reconciled through Rider VBA. USI suggests that Staff's proposal will also provide a false price signal to customers, who may adjust their usage to avoid the high volumetric charges, only to have those perceived savings result in even higher charges *via* Rider VBA, which is designed to make up the revenue requirement shortfall caused by a decline in water sales.

The Company notes that Staff wants the customer charge to only collect customer costs such as the meter and service line, and none of the demand related costs. According to USI, however, demand related costs, such as the mains, wells, pumps and water towers, are generally fixed. Fixed costs, including demand-related costs, should be matched to fixed charges. Otherwise a mismatch of revenue and costs is created, USI avers. Staff objects to collecting any fixed demand-related costs through the customer charge because Staff believes the higher customer charge ends up having low demand customers contributing to costs caused by higher demand customers. In response, USI states that unlike in the case of gas and electric utilities, USI does not have demand charges or meters that would facilitate recovery of fixed costs. Moreover, USI primarily serves a homogeneous class of customers, i.e., overwhelmingly residential. Thus, it is likely that most customers' contribution to the need for mains and production plant fixed costs are comparable. Staff argues that reducing the amount of revenue collected through the volumetric charge will "hinder" the customer's ability to control his/her water bill through conservation efforts. More likely, under Staff's rate design, the customer will be frustrated because his/her conservation efforts will lead to higher volumetric charges necessary to make-up the fixed costs that are not being recovered from reduced volumes of water sales.

USI recommends that the Commission approve the Company's approach to recovery of the proposed revenue requirement which more appropriately reflects the ratio of fixed to total costs.

b. Staff

Staff recommends that the Commission approve Staff's Customer Charge for the Company's water customers. Generally, rates should reflect cost of service unless there is good reason or rationale for them to do otherwise. 220 ILCS 5/1-102(a)(iv), (c)(iii-iv). The Act states that "the provision of reliable energy services at the least possible cost to the citizens of the State; in such a manner that ... [t]ariff rates for the sale of various public utility services are authorized such that they accurately reflect the cost of delivering those services" 220 ILCS 5/1-102(a)(iv). The Act further provides for the fair treatment of customers and requires that "(iii) the cost of supplying public utility services is allocated to those who cause the costs to be incurred; (iv) if factors other than cost of service are considered in regulatory decisions, the rationale for these actions is set forth." 220 ILCS 5/1-102(c)(iii); 220 ILCS 5/1-102(c)(iv).

In the past, the Company has not used any COSS, but in the Company's last rate case, the Company and the Commission agreed with Staff's recommendation to provide a more comprehensive COSS in the next rate case. Docket No. 14-0741, Order at 25. Accordingly, for the first time the Company provided a comprehensive COSS in this case.

Staff used the customer meter and services cost data from the Company's COSS, USI Ex. 6.01, Sched. DWD-7, to illustrate that the cost-based Customer Charge for USI would be \$11.52. Staff Ex. 4.0 at 13. The Company's current Customer charge is \$24.73, which is already more than double what it should be using the Company's own COSS. *Id.* Thus, Staff witness Boggs recommends keeping the Customer Charge at the current rate of \$24.73. *Id.* at 13.

Typically, according to Staff, the Customer Charge is used to recover fixed customer costs and is not used to recover demand related costs. *Id.* at 12. Instead, demand related costs are usually recovered through the volumetric or Usage Charge. *Id.* Staff notes that Mr. D'Ascendis insists on including 50% of the demand related costs in his proposed Customer Charge, in addition to all of the customer related costs. USI Ex. 11.0 at 5-6. Staff witness Boggs testified that including demand related costs in the Customer Charge, as Mr. D'Ascendis proposes, would hinder a customer's ability to control his/her water bill through conservation efforts. Staff Ex. 10.0 at 4. It would also penalize low use customers because, by paying the higher Customer Charge, they are contributing to recovery of costs caused by higher demand customers. *Id.* Staff argues that the Company's demand costs should be aligned with cost causation principles and when the Company incurs additional costs to increase the water system's capacity to keep up with the demand, customers with higher demands should pay higher demand costs through Usage Charges. *Id.* at 4-6.

Staff notes that USI witness D'Ascendis did not cite to any water rate case where a Commission approved the addition of demand related costs into the calculation of the monthly Customer Charge. Staff Ex. 4.0 at 12. Rather than addressing the issue of cost causation, as suggested by his own COSS, Mr. D'Ascendis focuses on whether costs are fixed costs or variable costs. Staff IB at 58.

Staff points out that in two of the more recent water rate cases before the Commission, IAWC rate case in Docket No. 16-0093 and Aqua's rate case in Docket No.

17-0259, the Commission approved Customer Charge calculations and proposals in both cases based on customer meter and services costs that were presented in each company's COSS. The data and calculations that were used in this case to arrive at the cost-based Customer Charge for USI are very similar to the data and calculations used to determine the Customer Charge approved by the Commission in the recent IAWC and Aqua rate cases. Staff explains that neither of these Commission-approved Customer Charge calculations included recovery of any demand related costs. Staff Ex. 10.0 at 5-6. Recovery of the Base costs, Extra Capacity-Maximum Day costs and Extra Capacity-Maximum hour costs should be recovered through the volumetric Usage Charge, rather than through the Customer Charge. For all these reasons, the Commission should adopt Staff's proposed water rate design.

The Company proposes a Usage Charge that essentially recovers the remainder of the Company's proposed revenue requirement that the monthly Customer Charges and Availability Charges do not recover. Staff Ex. 4.0 at 13. Staff witness Boggs testified that if the Commission approves Staff's Customer Charge proposals, the Company's proposed Usage Charge would be too low to allow the Company to fully recover its proposed revenue requirement. *Id.* He recommended using water Usage Charges as the residual rate to capture the Company's approved revenue requirement. *Id.* at 11. Staff acknowledges that this recommendation may exceed the Company Usage Charge proposal; however, Mr. Boggs' Usage Charge proposal is designed to take into consideration Staff's recommendation to keep the Customer Charge at \$24.73 and to eliminate the Availability Charge. *Id.* at 14. Staff's overall rate design recommendations allow customers greater control over their monthly water bills and allocates higher costs to customers with higher usage. *Id.* Therefore, the Commission should approve Staff's proposed Usage Charge.

In response to the Company, Staff states that the Commission has previously ruled that it is inappropriate to combine a Rider VBA with higher fixed charge recovery, as the Company seeks to do here, because it is redundant. Staff points to the Commission's Order in Docket No. 15-0142, where the Commission concluded that it "is inappropriate to pair a revenue decoupling mechanism such as Rider VBA with high fixed customer charges, because both address the issue of revenue stability." Docket No. 15-0142, Order at 109; see *also* Docket Nos. 14-0224/14-0225 (Consol.), Order at 176.

c. HOA

HOA notes that USI currently has separate customer charges for 5/8 inch, 3/4 inch, and 1-inch meters. The Company proposes to keep the separate charges and significantly increase the charges for each meter class. HOA proposes that the Commission consolidate the meter charges for the three classes and that the Commission reject USI's proposed increase and adopt the revenue calculation formula recommended by Staff witness Boggs. HOA states that all three meters serve residential customers and there is no justification for charging one residential customer a higher meter charge than another customer.

The Company admitted in its rebuttal testimony that "benefits can accrue to both the Company, Staff and the ratepayers if these three meter sizes monthly base facility charges were consolidated." USI Ex. 8.0 at 7. As a result of the issues concerning the

difference among the three meter sizes, and customer opposition as voiced at customer meetings, USI witness Lubertozzi does not oppose consolidating the three charges into one rate. Tr. at 48-49. In his surrebuttal testimony, Mr. Lubertozzi testified that using the filed revenue requirements, a consolidated meter monthly base facility charge for 5/8", 3/4", and 1" meters is \$38.54. USI Ex. 13.0 at 7, Table 2. HOA recommends that the Commission reject USI's revenue calculation and adopt the calculation proposed by Mr. Boggs.

d. AG

The AG adopts by reference the position taken by HOA on the issue of a water customer charge. The AG argues that the Commission should adopt HOA's proposed rate design regarding recovery of costs with a fixed charge.

e. Commission Analysis and Conclusion

The Commission adopts Staff witness Bogg's proposal because it removes the demand related costs that the Company has included in its proposed customer charge. The Commission finds that, consistent with cost causation principles, when the Company incurs additional costs to increase the water system's capacity to keep up with demand, customers with higher demands should pay higher demand costs through usage charges. The Commission notes that the Company's current customer charge, which Staff recommends keeping, is already more than double what it should be using the Company's own COSS.

The Commission disagrees with the Company's argument that Staff's proposal will provide a false price signal to customers. USI suggests that customers who adjust their usage to avoid high volumetric charges, would then have those perceived savings result in even higher charges *via* Rider VBA, which is designed to make up the revenue requirement shortfall caused by a decline in water sales. The savings that an individual customer is able to create through reduced usage should, arguably, be greater than an individual's share of an increase from Rider VBA because any increase pursuant to Rider VBA is shared amongst all ratepayers.

The Commission has previously determined, as noted by Staff, that it is inappropriate to adopt both high customer charges and a mechanism such as Rider VBA because they both address revenue stability. Rider VBA, or any revenue decoupling rider, is better for consumers because they allow customers some control over their bills through reduced usage.

For these reasons, the Commission adopts Staff's proposed \$24.73 Customer Charge and Staff's proposal to treat the Usage Charge as the residual rate to capture the Company's approved revenue requirement. The Commission adopts, as proposed by Staff, the AWWA equivalent meter charges for each of the larger meter sizes. The COSS presented by the Company does not provide substantial evidence to consolidate the 5/8", 3/4", and 1" meter sizes. To address the concerns of HOA, and in recognition of the public comments, the Company is directed to include in the COSS prepared for its next rate case an analysis on whether combining the Customer Charges for 5/8", 3/4" and 1" meter sizes can be completed in a way that reflects cost causation and is reasonable to all ratepayers.

2. Recovery of Availability Costs

a. USI

USI does not oppose the elimination of the Availability Charges that are currently collected from property owners in the service areas for the Lake Wildwood and Apple Canyon developments. Historically, these charges have been collected from owners of undeveloped lots who are not yet connected to the water delivery systems. The only remaining issue is whether the revenues previously generated by the Availability Charge should be transferred for collection into the fixed customer charge or the variable volumetric usage charge. Availability customers use no water, and hence by their very nature, the charges bear no relationship to the costs of pumping, metering, treating or any other activity that varies with the usage of water. The rationale for the Availability Charge was that the fixed costs of the plant and mains were determined in anticipation of future demand by these customers. Since these charges related exclusively to fixed costs of the systems, and not to any volume of delivered water, it is only logical and appropriate that the recovery of the revenues produced by the charge be assigned to the fixed base facility charge of the new rates.

USI argues that the Commission should not accept Staff's argument that the recovery of revenue previously collected from the eliminated Availability Charge should be assigned to the Usage Charge. Staff concedes the Availability Charge applied to customers who are not using water but have lots that have water infrastructure in place. In other words, the charge was not based on costs related to their usage; it was based on the fixed costs of the infrastructure. Staff argues collection of the availability revenues will aggravate the situation where customer charges are collecting more than the costs of the meter and service line. However, the Availability Charge s related to fixed costs and fixed costs should not be collected through a variable usage charge for the reasons stated in the previous section of this Order.

b. Staff

Staff recommends that the Commission eliminate the Availability Charge and assign the recovery of those costs to the Usage Charge. Staff notes that Availability Charges apply only to those customers of the Apple Canyon, Lake Holiday, and Lake Wildwood who own unimproved lots that have water infrastructure in place that is ready to be used whenever the customer is ready to connect to the Company's water system. Staff Ex. 4.0 at 15.

As explained above, the current Customer Charge that Staff recommends leaving in place is already more than double the customer, meter, and services costs that the Customer Charge is intended to recover. Adding a portion of the availability cost recovery to the Customer Charge would only further aggravate this situation, and would contravene the cost causation principals provided for in the Act. Accordingly, Staff recommends that the availability costs be recovered only through the Usage Charge.

c. Commission Analysis and Conclusion

The Commission agrees with Staff that the COSS, which the Company prepared at the Commission's direction, should guide the rate design for the Company. The Commission is troubled that the Company's current Customer charge of \$24.73 is already more than double what it should be using the Company's own COSS. Staff Ex. 4.0 at 13. Inclusion of any of the Availability Charge in the Customer Charge would exacerbate this distortion. Accordingly, Staff's position is adopted.

3. Rider VBA

a. USI

The Company recommends that the Commission approve Rider VBA, as proposed by the Company, without any of the modifications offered by HOA and the AG. USI asserts that its Rider VBA tariff proposal is essentially the same as has been recently approved for IAWC and Aqua. The Company asserts that HOA provided no evidence to show any of the modifications are necessary or justified.

USI explains that Rider VBA decouples the level of revenue approved for recovery of fixed costs of producing and delivering water from water sold or sales volumes. Most of USI's costs are fixed, but a disproportionate amount of the revenue collected is variable, which can lead to uncertainty that a utility will recover its fixed costs. Rider VBA is designed to enable the Company to recover a Commission authorized level of revenue, as determined in this proceeding, from its volumetric charges. It would also insulate consumers from paying more than the authorized level of revenue by providing for refunds if sales are higher than projected. The rate caps proposed by HOA would defeat the purpose of Rider VBA. The Company states that capping the recovery of the revenue shortfall at 2%, when the weather or business cycle cause a revenue shortfall of 10%, would deprive the utility of the cash flow needed to continue with projects and meet expenses previously approved by the Commission.

b. HOA

The HOA members are concerned about the impact of USI's proposed Rider VBA on their association members. Accordingly, HOA recommends placing a cap on the amount that USI is allowed to increase rates under Rider VBA. HOA witness Boyer proposed that "no annual increase should be more than 2 percent and the total amount of the VBA increase should not be more than 5 percent in any five-year period." HOA Ex. 3 Rev. at 3.

c. AG

The AG adopts by reference the position of HOA on adjustments to the Rider VBA tariff and annual reporting requirements pertaining to the functioning of the rider.

d. Staff

While Staff does not object to Rider VBA as proposed by USI with the typographical correction recommended by Staff, it does object to HOA's proposal concerning Rider

VBA. The Commission should reject HOA's proposal for several reasons. First, and most importantly, HOA's proposed cap on the Rider VBA rate would make Rider VBA an illegal rider. In addition, HOA's proposal should be rejected because: (a) it is asymmetrical, (b) it changes the revenue requirement approved by the Commission, and (c) the mechanics of the proposed cap are unclear. Staff Ex. 7.0 at 18.

e. Commission Analysis and Conclusion

The Commission agrees with Staff that Rider VBA would be rendered illegal if a cap were imposed because it would limit the amount of recovery and as a result, the revenue requirement approved by the Commission in this matter would be changed. The Commission notes that HOA's Reply Brief did not respond to Staff's lengthy arguments. The Commission declines to adopt HOA's proposed cap not only because it would change the revenue requirement, but also because it is asymmetrical and the mechanics of the proposal are not explained by HOA. Accordingly, the Commission adopts the Company's proposed Rider VBA with Staff's recommended correction but without the modifications recommended by HOA and the AG.

4. Rider VBA Reporting Requirements

a. USI

The Company requests that the Commission reject, due to the administrative burden, the proposal by the AG to annually prepare reports for the service list in this proceeding that calculate the Company's rate of return with and without the effects of Rider VBA. In essence, the AG would have USI prepare a rate case filing every year. USI is the smallest by far of the Illinois utilities with VBA riders, which include IAWC, Aqua, People Gas and North Shore Gas – yet, according to USI, no such burden has been imposed on these larger companies with customer bases many times larger than USI. The AG provides no instructions as to how to calculate the rate of return to be reported. Furthermore, there is no explanation of the intended purpose of the reports, which seek information extraneous to VBA reconciliation. The terms of Rider VBA already require annual filing of an information sheet, a report showing the dollar amount due to be collected or refunded and a petition to initiate a reconciliation proceeding to determine the accuracy of the Company's calculation. All of this public information will be available to any interested party.

USI avers that HOA gives no reason for requiring the Company to provide special treatment to only the persons on the service list in this docket, in perpetuity. The information in the annual VBA filing should be easily obtainable from the Commission's website, and HOA does not explain why this source of the information would be inadequate for any person genuinely interested in obtaining it. No other utility with a VBA rider has been burdened with this extraneous requirement.

b. HOA

If the Commission approves the Company's proposed Rider VBA, HOA requests that the tariff be revised to reflect a requirement that the Company send a copy of the annual report that is filed annually with the Commission to the representatives of the

service areas on the service list for this proceeding. The required annual report shows the determination of the Reconciliation Adjustment that is applicable to the upcoming year and the Company's rate of return with and without the effect of Rider VBA.

In response to USI's argument that preparing the report creates "administrative burdens," HOA states this argument raises the question as to the Company's ability to administer Rider VBA. USI further argues that the Company would in essence have to file a rate case every year to meet this request, but HOA notes that USI already volunteered to provide the Commission, on or before March 20th of each year, a report that provides the Company's rate of return with and without the effect of Rider VBA.

The Company further alleges that no such burden has been placed on the other Illinois utilities with VBA Riders in Illinois. HOA states, however, that is incorrect as the utilities all provide an annual report that sets forth the actual rate of return and ROE with and without the impact of Rider VBA.

If the Commission were to approve the requested Rider VBA and not adopt HOA's proposal, the Commission should require that the annual filing be publicly available on e-Docket in the docket of the reconciliation for that year. The service areas of USI deserve to be afforded the courtesy of having access to required information. As evidenced by the denial of the service areas requests for public forums regarding the Company's requested increase in rates in this case, the service areas must take other actions to monitor the charges that are being assessed to them. This is a simple request – to just send a copy of the annual filing with the Commission to the representatives of the service areas on the service list in this case.

c. AG

The AG argues that the Commission should reject the Company's opposition to HOA's proposal that the Company include a comparison of its rate of return earned with and without Rider VBA to HOA as a part of any approval of the proposed Rider VBA tariff. The AG notes that USI argues that the Company would in essence have to file a rate case every year if HOA's recommendation was adopted. The AG argues that USI itself has already volunteered to provide the relevant Rider VBA rate of return comparison with the filing of its annual report with the Commission on or before March 20th of each year in Section C of its requested Rider VBA.

The AG argues that if the Company does not know how to provide such a calculation, then the Company's ability to administer such a Rider to be in compliance with its proposed tariffs is in question. The AG states that the Company's opposition to the request is tantamount to USI requesting guidance as how to implement its own requested tariff. The AG argues that the Company should have sought guidance and clarification prior to filing its proposed Rider VBA in this rate case.

The AG reasons that perhaps the problem is that no witness sponsored the requested Rider VBA in testimony. The AG notes that the Company's proposed Rider VBA was only provided in the Company's filing letter dated November 29, 2017 and is not included in the record of this proceeding. The AG argues that if the Commission approves the Company's proposed Rider VBA, the Commission should approve HOA's proposal to send a copy of the report that provides the Company's rate of return with and without the

effects of Rider VBA to the representatives of the service areas on the service list of this proceeding.

The AG argues that if the Commission were to approve the requested Rider VBA and not adopt HOA's proposal, the Commission should, in the alternative, require that the annual filing be publicly available on e-Docket in the docket of the reconciliation for that year. The AG states that the service areas of USI deserve to be afforded access to this important USI earnings information. According to the AG, as evidenced by the denial of the service areas' requests for public forums regarding the Company's requested increase in rates in this case, the service areas must take other actions to monitor the charges that are being assessed to them. The AG requests that the Commission approve this reasonable proposal.

d. Commission Analysis and Conclusion

The AG and HOA assert that they are merely asking the Company to provide the representatives of the service areas on the service list of this proceeding with a copy of a report that the Company's proposed Rider VBA already requires the Company to prepare. Rider VBA states, in relevant part:

The Company shall file with the Commission on or before March 20 of each year ... a report which provides the Company's rate of return with and without the effect of Rider VBA. At this same time, the Company shall also file a petition with the Commission seeking initiation of an annual reconciliation to determine the accuracy of the statement.

Thus, because Rider VBA already requires the requested report, the Commission will not require any changes to the tariff. The only question appears to be whether the Company should provide a copy to parties on the service list or whether filing it with the Commission is sufficient. The Company asserts that the report will be easily accessible from the Commission's website, but the AG requests that, at a minimum, the filing be made publicly available on e-Docket. The Commission agrees with the AG that for ease of access for the parties, a public filing is appropriate and it should be made in the docket of that year's annual reconciliation.

IX. Cost of Service Study

A. Water – Uncontested

The Company's water COSS is presented in USI Exhibit 6.01, Schedules DWD-1-DWD-9. Staff did not object to the cost allocation methods the Company used both on the demand and consumption requirements of each customer class. Staff Ex. 4.0 at 23. No other party took issue with the Company's water COSS presentation. Therefore, the Commission approves the Company's water COSS.

B. Sewer – Uncontested

The Company's sewer COSS is provided in USI Exhibit No. 6.01, Schedules DWD-10-DWD-16. Staff did not object to the allocation methods the Company used on the

functional cost categories such as flow costs, demand costs and customer costs of each customer class. Staff Ex. 4.0 at 23. No other party took issue with the Company's sewer COSS presentation. Therefore, the Commission approves the Company's sewer COSS.

X. FINDINGS AND ORDERING PARAGRAPHS

The Commission, having considered the entire record herein and being fully advised in the premises, is of the opinion and finds that:

- (1) Utility Services of Illinois, Inc. provides water and sewer service to the public within the State of Illinois and, as such, is a public utility within the meaning of the Act;
- (2) the Commission has jurisdiction over Utility Services of Illinois, Inc. and of the subject-matter herein;
- (3) the recital of facts and conclusions reached in the prefatory portion of this Order are supported by the evidence, and are hereby adopted as findings of fact;
- (4) a test year ending September 30, 2019, should be adopted for the purpose of this rate proceeding;
- (5) for the test year ending September 30, 2019, and for the purposes of this proceeding, the rate base for Utility Services of Illinois, Inc. is as follows:

Water: \$33,071,142;

Sewer: \$7,423,945

the \$45,850,896 original cost of water plant in service for USI at December 31, 2016, as reflected on Staff's Schedule 2.22, is unconditionally approved as the original costs of plant;

the \$16,768,867 original cost of sewer plant in service for USI at December 31, 2016, as reflected on Staff's Schedule 2.22, is unconditionally approved as the original costs of plant;

- (6) a fair and reasonable rate of return on the water rate base for Utility Services of Illinois, Inc. is 7.57% and on the sewer rate base is 7.61%; rates should be set to allow the Company an opportunity to earn that these rates of return on its rate base, as is determined herein;
- (7) the rates which are presently in effect for Utility Services of Illinois, Inc., which are presently in effect, are insufficient to generate the operating income necessary to permit the Company to earn a fair and reasonable rate of return; those rates should be permanently canceled and annulled as of the effective date of the new tariffs allowed by this Order;
- (8) the rates proposed by Utility Services of Illinois, Inc. would produce a rate of return in excess of a return that is fair and reasonable; the Proposed Tariffs of Utility Services of Illinois, Inc. should be permanently canceled and annulled;

- (9) pursuant to Section 9-229 of the Act, the Commission has specifically assessed the amounts expended by the Company to compensate attorneys and experts to prepare and litigate this general rate case filing and finds those amounts, as adjusted, to be just and reasonable, with the Commission's more detailed supporting findings on this subject as set forth in this Order;
- (10) Utility Services of Illinois, Inc. should be permitted to file new tariff sheets setting forth the rates designed to produce operating revenues as follows:
- Water: \$9,330,034
- Sewer: \$2,585,708
- as such revenues are necessary to provide the Company a rate of return of 7.57% on its water rate base and 7.61% on its sewer rate base, consistent with the findings herein; these tariff sheets shall be applicable to service furnished on or after their effective date;
- (11) the new tariff sheets authorized to be filed by this Order shall reflect an effective date not less than five working days after the date of filing, with the tariff sheets to be corrected within that time period if necessary, except as is otherwise required by Section 9-201(b) of the Act as amended;
- (12) all remaining motions, petitions, objections, or other matters in this proceeding should be disposed of in a manner consistent with the conclusions reached herein; and
- (13) Utility Services of Illinois, Inc. shall otherwise perform all actions that this Order requires of it.

IT IS THEREFORE ORDERED by the Illinois Commerce Commission that the tariff sheets proposing a general increase in water rates filed by Utility Services of Illinois, Inc. on November 30, 2017 are hereby permanently canceled and annulled.

IT IS FURTHER ORDERED that Utility Services of Illinois, Inc. is authorized to place into effect tariff sheets which will produce the annual operating revenues and operating incomes set forth in Finding (10) above, and are consistent with Appendices A and B to this Order, to be effective on the date of filing for water and sewer service furnished on and after such effective date.

IT IS FURTHER ORDERED that Utility Services of Illinois, Inc. must file its rate tariffs consistent with the requirements of Findings (10) and (11) above.

IT IS FURTHER ORDERED that upon the effective date of the tariff sheets filed pursuant to this Order, the presently effective tariff sheets of Utility Services of Illinois, Inc., which are replaced thereby are permanently cancelled and annulled.

IT IS FURTHER ORDERED that any petitions, objections or motions made in this proceeding and not otherwise specifically disposed of herein are hereby disposed of in a manner consistent with the conclusions contained herein.

IT IS FURTHER ORDERED that the \$45,850,896 original cost of water plant in service for Utility Services of Illinois, Inc. at December 31, 2016, as reflected on Staff's Schedule 2.22, is unconditionally approved as the original costs of plant.

IT IS FURTHER ORDERED that the \$16,768,867 original cost of sewer plant in service for Utility Services of Illinois, Inc. at December 31, 2016, as reflected on Staff's Schedule 2.22 is unconditionally approved as the original costs of plant.

IT IS FURTHER ORDERED that pursuant to Section 10-113(a) of the Public Utilities Act and 83 Ill. Adm. Code 200.880, any application for rehearing shall be filed within 30 days after service of the Order on the party.

IT IS FURTHER ORDERED that subject to the provisions of Section 10-113 of the Public Utilities Act and 83 Ill. Adm. Code 200.880, this Order is final; it is not subject to the Administrative Review Law.

By Order of the Commission this 24th day of September, 2018.

CASE NO. 2020-00160
WATER SERVICE CORPORATION OF KENTUCKY
RESPONSES TO COMMISSION STAFF'S THIRD REQUEST FOR INFORMATION

14. Refer to Water Service Kentucky's response to the Staff's Second Request, Item 63. The 9.25 percent return on equity is a hard entered number and the weighted cost of capital is not calculated by using the net operating income. Provide a revised schedule showing the actual calculations of Water Service Kentucky's return on total capital and the ROE.

RESPONSE:

Please refer to the response provided to the Staff's Third Request, Items 11 and 12.

WITNESS:

Rob Guttormsen