

embedded in its base rates, which were \$2,425,823 for water and \$217,335 for wastewater base systems during the HTY. Aqua explained that it calculated these expenses by normalizing them to pre-pandemic levels, specifically the rate of bad debt expense implicitly authorized in the *Aqua 2018 Rate Case*. The Company recorded a regulatory asset of \$5,695,030 as a result of aging accounts receivable from its customers due to the termination moratorium. Aqua M.B. at 201.

Aqua argued that, although the service termination moratorium has ended, Pennsylvania continued to be impacted by the COVID-19 pandemic at the time of the Company's filing, and that it continues to incur incremental levels of uncollectible expenses beyond the end of the HTY. In response, Aqua sought continued authorization to defer (not recover) these incremental expenses realized over and above its recovery levels for review and recovery in its next base rate case. Aqua M.B. at 201-02 (citing Aqua St. 1 at 23-24).

Aqua asserted that it was not asking for "any time value of the money related to these deferrals" and that the Company and its shareholders were currently funding, and will continue to fund, the delayed cash inflow from aging accounts receivable. Thus, the Company submitted that its customers will not fund this aspect of the incremental costs Aqua has incurred to provide continuous and reliable service in the face of a global pandemic. Aqua M.B. at 203 (citing Aqua St. 1-R at 7).

Moreover, the Company asserted that it has not sought authorization to defer any incremental expenses for safety supplies, masks, hand sanitizers, social distancing signage, which were required in many facilities. According to the Company, Aqua has been and will continue to be conservative in seeking to recover incremental COVID-19 related expense. Aqua M.B. at 203-04.

I&E recommended the Company be required to track further COVID-19 related reductions to uncollectible expenses in its water and individual wastewater revenue requirements; and, that the balances be claimed in the next rate filing, which is anticipated to be filed in 2024. Further, I&E requested that Aqua: (1) be required to propose amortization of the balance at that time, amortized over a period of years, to be claimed in the next rate proceeding; and (2) be allowed to claim no interest or any time value of money component associated with the delay. Also, I&E recommended that the Company be allowed to claim no increases to COVID-19 related uncollectible expenses beyond the effective date of new rates in this proceeding, because Aqua has expressed that its motivation in delaying the amortization of the balance is to mitigate the impact on ratepayers. I&E M.B. at 58-59.

I&E added that any new increases to the COVID-19 related uncollectible expenses should not be recoverable in a future proceeding. According to I&E, the recommended delay is based on Aqua's assertion that the COVID-19 related uncollectible expenses are declining since the Company has been permitted to resume collection activities, and that the Company expects this declining trend to continue which would reduce the impact on ratepayers. I&E submitted that any new increases to the COVID-19 related uncollectible expenses should not be recoverable in a future proceeding. I&E M.B. at 57, 59.

The OCA recommended that Aqua offset any claimed costs with savings that it has recognized during the pandemic. Aqua agreed with this recommendation. However, the OCA contended that indefinite continued deferrals beyond the FPFTY would be unreasonable and should not be permitted. According to the OCA, the end of the FPFTY would be a reasonable point to cut off the Company's ability to continue recording incremental deferred uncollectible expenses related to the pandemic. OCA M.B. at 50.

2. Recommended Decision

The ALJ recommended that the Commission should continue to authorize Aqua to defer its COVID-19 related uncollectible expenses. However, the ALJ agreed with I&E that Aqua should be required to track further COVID-19 related reductions to uncollectible expenses pursuant to its water and the individual wastewater revenue requirements. The ALJ reasoned that the burden is on Aqua to demonstrate that these expenses are “prudently incurred incremental extraordinary, nonrecurring expenses related to COVID-19.” R.D. at 136 (citing Secretarial Letter issued by the Commission on May 13, 2020, at Docket No. M-2020-3019775 titled “COVID-19 Cost Tracking and Creation of Regulatory Asset” (*May 2020 Secretarial Letter*)).¹⁵¹ Agreeing with the OCA, the ALJ also stated that these expenses should be offset by any savings, upon which Aqua indicated agreement. R.D. at 136.

Additionally, the ALJ emphasized that, to date, the Commission has declined to impose a hard cutoff for the accumulation of deferred expenses related to COVID-19. The ALJ noted the provisions of the *May 2020 Secretarial Letter* have not been modified and cited to a recent decision of the Commission indicating that the effects

¹⁵¹ Subsequent to the *May 2020 Secretarial Letter*, the Commission issued the following Orders: *Public Utility Service Termination Moratorium Modification of March 13th Emergency Order*, Docket No. M-2020-3019244 (Order entered October 13, 2020) (*October 2020 Order*); *Public Utility Service Termination Moratorium*, Docket No. M-2020-3019244 (Order entered March 18, 2021) (*March 2021 Order*); and *Public Utility Service Termination Moratorium; COVID-19 Cost Tracking and Creation of Regulatory Asset*, Docket Nos. M-2020-3019244 and M-2020-3019775 (Order entered July 15, 2021) (*July 2021 Order*).

of the COVID-19 pandemic are still being felt by utilities.¹⁵² Therefore, the ALJ deemed it premature to establish a hard cut-off date for the accumulation of deferred expenses and savings in this base rate proceeding. Rather, the ALJ was persuaded by Aqua's argument that permitting additional time for economic conditions to stabilize will not harm ratepayers and may perhaps be to their benefit as the Company is able to offset uncollectible expenses with increased collection activities. R.D. at 136 (citing Aqua St. 1-R at 7).

The ALJ acknowledged the Company's contention that it is not seeking any time value of the money related to these deferrals, nor is it seeking authorization to defer any incremental expenses for safety supplies, masks, hand sanitizers, and social distancing signage, that were required in many facilities. The ALJ further reasoned that uncollectible expenses may be mitigated by the enhancements to Aqua's universal service program and from recent federal funding dedicated to reducing unpaid utility bills. R.D. at 136-37.

3. OCA Exception No. 7 and Replies

In its Exception No. 7, the OCA argues that the ALJ erred in accepting Aqua's proposal to continue deferring its COVID-19 uncollectible expenses indefinitely. OCA Exc. at 9-10.

The OCA begins with its agreement that the pandemic is ongoing and its continuing impacts have informed the OCA's other adjustments including those

¹⁵² See *Petition of Pennsylvania-American Water Company for Authorization to Defer, and Record as Regulatory Assets for Future Recovery: (1) Incremental Expenses Incurred Because of the Effects of the COVID-19 Emergency; (2) Revenue Reductions Attributable to the Effects of the COVID-19 Emergency; and (3) Carrying Charges on the Amounts Deferred*, Docket No. P-2020-3022426 (Order entered September 15, 2021) (*PAWC COVID-19 Deferral Order*).

regarding seasonal positions and rate case expense, citing the OCA Exception Nos. 4 and 5. Despite this, the OCA asserts it is unreasonable to continue to allow deferrals indefinitely beyond the FPFTY. OCA Exc. at 9 (citing OCA St. 1 at 63). According to the OCA, the Commission should establish a clear point in time during which Aqua must cease recording costs related to COVID-19 into the existing deferral account, in order to ensure that those costs do not accumulate to unreasonably burden consumers in later rate cases. OCA Exc. 9-10.

The OCA submits that the end of the FPFTY would be a reasonable point to end the current deferral and the Commission should impose such a cut-off for the Company. The OCA adds that if the Company finds it necessary to continue to defer COVID-19 related costs at the end of its FPFTY (*i.e.*, by March 31, 2023), it can ask the Commission to approve a new deferral mechanism at that time. *Id.* at 10.

In its reply, Aqua argues that the ALJ correctly rejected the OCA's arguments. The Company asserts that the OCA still believes it necessary to set an end-date for the calculation of COVID-19 deferrals that increase expenses but wants to capture any future decreases to the balance. Aqua submits that the OCA's approach is unbalanced and should be rejected. The Company contends that its proposal, as modified and adopted by the ALJ, is balanced because it continues to defer the determination of changes to the COVID-19 uncollectible accounts balance, whether higher or lower, until Aqua's next rate case. Aqua R. Exc. at 6.

Emphasizing the ALJ's reference to the *May 2020 Secretarial Letter* and that the Commission has declined to impose a hard cut-off for the accumulation of deferred expenses related to COVID-19, the Company argues that establishing a cut-off date only for Aqua in the context of this rate proceeding would be unfair and premature. Accordingly, Aqua contends that the OCA's Exception No. 7 should be denied. Aqua R. Exc. at 7 (citing Aqua M.B. at 200-06; Aqua R.B. at 89).

In its reply to the OCA's Exception No. 7, I&E asserts that it does not oppose the OCA's argument that the ALJ erred in accepting Aqua's proposal to continue deferring its COVID-19 uncollectible expenses indefinitely. I&E also references the ALJ's conclusion that the Commission has declined to impose a hard cut-off date for the accumulation of such deferred expenses. However, I&E recommends that, until such time as a hard cut-off date is established, the Commission in this proceeding should set the cut-off date for Aqua at the effective date of new rates. I&E R. Exc. at 14-15.

4. Disposition

Aqua seeks Commission approval of its request to continue recording amounts in its COVID-19 deferral account and to seek recovery in a future rate case. As discussed in *PAWC COVID-19 Deferral Order*, the Company must demonstrate that the expense items it requests to defer appear to be within the scope of the type of items that the Commission has allowed as an exception to the general rule against retroactive recovery of past expenses. Commission authorization for deferral accounting is not intended to create a factual record. As such, the burden of proof will remain with Aqua in a future proceeding to demonstrate that each expense item is: (1) extraordinary and substantial, (2) nonrecurring, (3) incremental and, (4) COVID-19 related consistent with the *May 2020 Secretarial Letter*. See *PAWC COVID-19 Deferral Order* at 6-7.

Regarding COVID-19 cost tracking and the creation of regulatory assets, the Commission directed regulated utilities in Pennsylvania:

[T]o track extraordinary, nonrecurring incremental COVID-19-related expenses and to maintain detailed accounting records of such expenses. Utilities must maintain detailed records of the incremental expenses incurred for the provisioning of utility services used to maintain the health, safety and welfare of Pennsylvania customers during the COVID-19 pandemic. With the exception of the separate

regulatory authorization afforded uncollectible expenses below, this Secretarial Letter does not grant authorization for utilities to defer any other potential COVID-19-related expenses.

May 2020 Secretarial Letter at 2.

The directives in the *May 2020 Secretarial Letter* were reaffirmed in our *July 2021 Order*, as follows:

The Commission acknowledged in its [*March 2021 Order*] that its COVID-19 related Orders may benefit customers and increase expenses for utilities. Consistent with our May 13, 2020, Secretarial letter at Docket No. M-2020-3019775, the Commission hereby confirms that utilities shall continue tracking extraordinary, nonrecurring incremental COVID-19 related expenses and shall maintain detailed accounting records of such expenses. Additionally, the Commission hereby confirms that electric, natural gas, water, wastewater, steam, and all rate base/rate of return telecommunications utilities are authorized to create a regulatory asset for any incremental expenses incurred above those embedded in rates resulting from the directives contained in this Order. To be eligible for inclusion in a utility's COVID-19 designated regulatory asset, the utility must maintain detailed records of the incremental extraordinary, nonrecurring expenses incurred as a result of compliance with the Commission's [*Emergency Order, March 2021 Order, October 2020 Order*] and this Order.

July 2021 Order at 4.

Here, there is no dispute that the incremental uncollectible expenses related to COVID-19 above those already embedded in base rates are within the scope of the type of items which are allowable as an exception to the general rule against retroactive recovery of past expenses. Aqua has elected to defer seeking recovery of these expenses

until its next base rate proceeding at which time it will have the burden of proof to demonstrate that each expense satisfies the Commission standards for recovery.

The only question in this proceeding is whether the Commission should impose a cut-off date for the accumulation of deferred expenses related to COVID-19. Aqua seeks to extend the accumulation period until its next base rate proceeding. I&E requests that the Commission stop the accumulation time period beginning with the effective date of new rates established in this proceeding. The OCA proposes a continuation of the deferral of COVID-19 related costs until the end of the Company's FPFTY in this proceeding and thus by March 31, 2023.

Consistent with our determination in *PAWC COVID-19 Deferral Order*, we shall decline to set a hard cut-off date for the accumulation of deferred expenses. It is evident that the effects of COVID-19 are still being felt by utilities and we deem it premature to conclude that the pandemic is over and that no additional related expenses will be incurred beyond the end-dates proposed by I&E and the OCA.

We also agree with the well-reasoned conclusions of the ALJ that permitting additional time for economic conditions to stabilize will not harm ratepayers but may operate to their benefit if the Company is able to offset uncollectible expenses with increased collection activities. *See* Aqua St. 1-R at 7. Further, Aqua provided testimony that it is not seeking the time value of the money related to these deferrals, nor is it seeking authorization to defer any incremental expenses for safety supplies, masks, hand sanitizers, or social distancing signage, that were required in many facilities. *Id.* Moreover, as noted by the ALJ, uncollectible expenses may be further mitigated by the enhancements to the Company's universal service program and from recent federal funding dedicated to reducing unpaid utility bills. *See* R.D. at 137.

In declining to establish a cut-off date for the accumulation of deferred expenses in this proceeding, we emphasize that consideration of the period of recovery for any regulatory asset treatment is being deferred to the subsequent base rate proceeding filed by the Company. Again, such deferred amounts that Aqua may seek to recover in a future proceeding will be subject to detailed review and investigation and the burden of proof will remain with the Company to establish the prudence and reasonableness of its incremental COVID-19 related financial impacts.

Thus, we shall deny the OCA's Exception No. 7 and adopt the recommendation of the ALJ.

F. Directed Questions of Commissioner Yanora

On September 16, 2021, Commissioner Yanora requested that the Parties address certain issues, including questions pertaining to lead service lines, cross-connections, backflow prevention devices, and lost and unaccounted for water. The Company provided responses to these questions in Aqua Exhibit TMD-4-R which were sponsored by Aqua's witness, Mr. Duerr, with his rebuttal testimony. *See* Aqua M.B. at App. D.

The specific inquiries are as follows:

- 1) The estimated number of company-owned lead service lines and the number of customer-owned lead service lines in the Aqua water distribution system;
- 2) Compliance of the Aqua tariff cross-connection control requirements with 25 Pa. Code §§ 109.709, 109.609 and any applicable provisions of the International Plumbing Code;
- 3) Compliance materials of Aqua's operation and maintenance plans required by 25 Pa. Code § 109.702 as they relate to

adequate, safe, and reasonable service for utility customers and employees;

- 4) The number of Aqua's commercial meters in the system, the number tested, and the number passed or failed for calendar year 2020;
- 5) The number of Aqua's valves exercised in calendar year 2020 and the frequency of valve maintenance;
- 6) The number of Aqua's commercial and industrial customers that have testable backflow prevention devices and the number of devices that were tested for calendar year 2020;
- 7) Aqua's tariff backflow prevention requirements regarding residential fire protection and irrigation and whether Aqua has a plan for inspection and testing of fire hydrants;
- 8) Whether Aqua has surveyed the number of fire hydrants that do not provide a minimum flow of 500 gallons per minute at 20 pounds per square inch; and
- 9) Whether Aqua's residential customers have American Society of Sanitary Engineers 1024 backflow assemblies installed at meter locations.
- 10) Whether Aqua has evaluated its lost and unaccounted water performances since 2018 and any relevant results.

Directed Questions at 1-2.

The following discussion provides a summary of the responses provided by Aqua's witness, Mr. Duerr, in addressing the Directed Questions. Aqua Exh. TMD-4-R.¹⁵³ We note that some of the areas of inquiry have already been addressed in the Quality of Service sections, *supra*.

¹⁵³ There are no page numbers within this exhibit; thus, we shall follow the Company's general citation method to the questions and responses (*i.e.*, Yanora-1, Yanora-2, *etc.*).

Regarding the first inquiry about the estimated number of lead service lines in Aqua's system, the Company responded that on September 3, 2020, Aqua filed a petition for approval of tariff changes authorizing the replacement of customer-owned lead service lines. Aqua asserted that the Commission approved the petition on July 15, 2021, pursuant to a modified settlement.¹⁵⁴ The Company submitted that since receiving approval it has reached out to customers with known lead service lines and is in the process of getting agreements in place with customers to allow replacement of their lead service line under Aqua PA's program. Yanora-1.

The Company added that, as of September 2021, Aqua had seven known Company-side lead service lines and identified 325 customer-owned lead service lines in its system based on the review of tap cards, water sampling data, meter exchange, and service call information. Aqua estimated that in total there are over 100 Company-side lead service lines and over 2,000 customer-owned lead service lines. *Id.*

¹⁵⁴ On May 28, 2021, ALJ Marta Guhl granted Aqua's modified Joint Petition for Settlement and approved the Company's Joint Settlement Replacement Plan set forth in the Settlement. *See Petition of Aqua Pennsylvania, Inc. for Tariff Changes Authorizing Replacement of Customer-Owned Lead Service Lines*, Docket No. P-2020-3021766 (Recommended Decision issued May 28, 2021). No Exceptions to the Recommended Decision were filed and the Commission entered a Final Order adopting the Recommended Decision on July 15, 2021 (*Aqua LSL Order*).

As to the second inquiry concerning compliance with tariff cross-connection¹⁵⁵ control requirements, Aqua asserted that it has an established cross-connection control program operated under its Cross-Connection Control Manual (Manual). The Company attached a copy of the Manual (as Yanora-2, Attachment 1) and indicated that as of July 2021, 77% of known backflow devices in Aqua's service areas were tested in accordance with 25 Pa. Code §§ 109.709, 109.608 and applicable provisions of the International Plumbing Code. According to Aqua, all new customers of its systems are required to install backflow devices as identified in the standards and specification outlined in its Manual which meet the requirements of the codes noted above. Yanora-2.

Regarding the third inquiry, Aqua submitted that it has an operation and maintenance plan required by 25 Pa. Code §109.702 as it relates to adequate, safe, and reasonable service for utility customers and employees. The Company stated that this plan was last updated in November 2019 and will be updated again in 2022 after the Company completes its requirements to update emergency response plans required by the American Water Infrastructure Act, which the Company indicated were due on December 31, 2021, for certification of Group 3 systems. In addition to general updates,

¹⁵⁵ Cross connections are defined in the PA DEP's regulations as follows:

Cross-connection—An arrangement allowing either a direct or indirect connection through which backflow, including backsiphonage, can occur between the drinking water in a public water system and a system containing a source or potential source of contamination, or allowing treated water to be removed from any public water system, used for any purpose or routed through any device or pipes outside the public water system, and returned to the public water system. The term does not include connections to devices totally within the control of one or more public water systems and connections between water mains.

Aqua stated that the updated operation and maintenance plan will reflect acquired systems and updates related to other operating plans. Yanora-3.

Regarding the fourth inquiry concerning the number of commercial meters in the system, the number tested, and the number passed or failed for 2020, Aqua responded that at the end of 2020, the Company had 23,139 meters installed at commercial premises within the service area. Aqua added that in 2020, 801 meters installed at commercial premises were removed and tested; 458 (57%) of those meters failed their testing based on flowrates and accuracy defined by the standards of the American National Standards Institute (ANSI) and the AWWA for new meters. Yanora-4 (citing ANSI/AWWA C-700).

The fifth inquiry concerned the number of valves exercised in calendar year 2020 and the frequency of valve maintenance.¹⁵⁶ Aqua responded that it has a critical valve testing program that was reviewed during the Commission's recent Management Audit report. In this report, Aqua noted that it has been credited with developing a strong base for its valve inspection program by focusing on critical valves. Yanora-5.

Additionally, Aqua referenced the Management Audit recommendation that Aqua implement a full-scale valve inspection and exercise program designed to identify what valves have not been operated or inspected in the last ten years. Although Aqua

¹⁵⁶ Generally, the exercising of a water main valve means that each valve connected to the water main of the distribution system is tested to ensure it is working properly by operating the valve through a full cycle and returning it to its normal position (*i.e.*, turning the valve completely off, then gradually opening it and closing it, before returning it to its normal open position). *See e.g.*, Zane Satterfield, P. E., *Tech Brief – Valve Exercising*, Summer 2007, Vol. 7, Issue 2, National Environmental Services Center; <https://www.nesc.wvu.edu/files/d/1f62b334-8497-403e-bceb-f5116ac2c142/valve-exercising.pdf>.

agreed that non-critical valve inspection and exercising program is warranted, it had concerns with the suggested exercising frequency outlined in the report. As part of the implementation plan, Aqua agreed to engage a consultant to evaluate the Company's water systems and develop a non-critical valve inspection and exercising program. According to Aqua, this effort will consider such factors as standard operating procedures for inspection and exercising valves, valve operating frequency, the identification of routinely operated valves, and the resources necessary to complete these procedures. Aqua asserted that this program will ensure that non-critical valves will be inspected and exercised on a level representing good industry practice. The Company added that the exercising frequency will be included in the review by the consultant and Aqua will provide the recommended frequency in its next update report. *Id.*

In further response to the fifth inquiry, Aqua explained that all critical valves have been identified in the Aqua Geographic Information System (GIS) asset registry and will continue to be updated as as-builts are received. These valves currently have exercising schedules created and maintained in Aqua's work order management system or Maintenance Connection. The Company indicated that these schedules will be transferred to SAP Plant Maintenance in January 2022 and maintained at the asset level to ensure compliance with critical valve requirements. Aqua also asserted that all non-critical valves have been identified in the Aqua GIS asset registry. The Company conducted an analysis to ensure the exercising of these valves is completed over a 12-year period. According to Aqua, internal staff used GIS analysis techniques to identify valve proximity to major roadways to determine staffing requirements needed for traffic control measures. The Company stated that operation staff are meeting to determine which non-critical valves are scheduled per year. *Id.*

Additionally, Aqua stated that 129 isolation valves were repaired during calendar year 2020. Although the Company does not at present have a program for operating valves based on frequency, Aqua noted its operation of approximately 6,000 to

8,000 valves during its normal course of business which it estimated as ten percent of the valves in service each year. Aqua stated that the program operates critical valves at least once every four years and there are 270 valves in the program which began in 2017. The Company emphasized the ongoing nature of the program and the potential for occasional changes depending on modifications made in the distribution system. For reference, Aqua asserted that as of October 2021 there were a total of 83,547 valves in its system and provided a breakdown by region. *Id.*¹⁵⁷

In response to the sixth inquiry, Aqua provided information related to the number of commercial and industrial customers that have testable backflow prevention devices and the number of devices that were tested for calendar year 2020. The Company stated that there are 21,830 testable backflow devices installed on commercial premises, and 920 testable backflow devices installed on industrial premises. In 2020, Aqua recorded passable tests for 15,573 devices installed on commercial premises and 643 devices installed on industrial premises. Yanora-6.

The seventh inquiry pertained to tariff backflow prevention requirements regarding residential fire protection and irrigation and whether Aqua has a plan for inspection and testing of fire hydrants. In response, Aqua cited to the Manual provided in response to the second inquiry, which defines the requirements for residential fire protection and irrigation accounts. According to the Company, all new residential fire protection and irrigation services are required to install testable backflow devices and those devices are required to be tested annually. Yanora-7.

In response to the eighth inquiry – whether Aqua has surveyed the number of fire hydrants that do not provide a minimum flow of 500 gpm at 20 psi – Aqua replied

¹⁵⁷ PA-Southeastern comprised the largest number of valves at 66,033. The remainder of the regions were as follows: PA-Central – 5,374; PA-Northeastern – 6,322; and PA-Western – 5,818. Yanora-5.

that it has approximately 24,500 hydrants in service in Pennsylvania. During its normal course of business, Aqua continued, it receives requests to perform flow testing from various groups outside the Company such as fire companies, sprinkler contractors, township engineers and insurance companies. Aqua also noted it performs flow tests for its own internal purposes to review fire flow in areas of its systems, with 300-500 flow tests performed annually. According to Aqua, all tests assist in decisions in operating the system and for capital planning and tests coming back with less than 500 gpm at 20 psi residual are reviewed more thoroughly. If the hydrant is in good working order and does not need repairs, Aqua explained, the hydrant location area is passed along to the Engineering Department in order for the area to be included as a candidate within Aqua's Main Replacement program. Yanora-8.

Additionally, the Company stated that as a follow up from the last rate case, it provided information regarding all fire hydrants connected to 4-inch mains or smaller that are not capable of providing 500 gpm of water at 20 psi. *Id.*¹⁵⁸

The ninth inquiry concerns whether Aqua has determined if its residential customers have American Society of Sanitary Engineers (ASSE) 1024 backflow assemblies installed at meter locations. Aqua replied that its Rules and Regulations require all new customer connections to the Company's distribution system be equipped with backflow prevention, cross-connection-control or other special devices approved by the Company and in accordance with the Company's specifications. Further, at the Company's request, existing customers must install backflow prevention, cross-connection-control or other special devices approved by the Company to existing customer connections which must comply with the Company's specifications. Yanora-9.

¹⁵⁸ Aqua designated this information as Confidential and submitted it pursuant to the Protective Order issued in this proceeding. Yanora-8.

In support, Aqua submitted its Meter Installation Specifications, revised June 2015, indicating that it defines the requirements for all residential accounts. *See Yanora-9, Attachment 1.* The Company contended that all residential services are required to install an ASSE 1024 backflow device. Aqua asserted that these installations are monitored throughout its new business activities and the device is confirmed as installed before the meter is set. According to the Company, existing residential services are required to meet this standard when improvements are made to those properties requiring plumbing permits due to renovations and retrofits. *Yanora-9.*

In response to the tenth and final inquiry, Aqua affirmed that it has evaluated lost and unaccounted for water performance since 2018. The Company also emphasized that the Commission's Bureau of Audits recently reviewed this information in Aqua's 2020 Management Audit. *Yanora-10.*

Aqua explained that a yearly audit is conducted using the AWWA water audit tool which it described as "Version 6.0." *Id.* Aqua submitted that its performance exceeds industry medians for most key performance indexes, noting how Aqua's non-revenue water has held steady since 2018 at 20.2%, plus or minus 0.01%. The Company contended this results in a Real-Loss-Cost-Rate of only \$6.39/connection/year which is below the median 30th percentile. *Id.*

As background, Aqua described the leak survey activity conducted in Southeast Pennsylvania by its three full-time leak survey technicians with one in each operating division office. The Company stated that its leak survey technicians normally perform leak surveys fifty-two weeks a year by pipe plate, which systematically performs a survey on the entire system. According to Aqua, the survey focuses on high-risk materials such as cast iron and stove pipe cement pipe and the objective is to survey 100% of the high-risk pipe in the system over a 15-month period. Aqua further described how leak survey technicians are available at any time to assist crews having trouble

locating leak sources in the system. Additionally, Aqua noted that leak surveys are performed daily as the Company inspects hydrants, performs meter change outs, or responds to service calls. Specifically, the Company explained that the technician listens on the lines for leaks and any suspected leaks are relayed to maintenance personnel, who then respond. *Id.*

Next, the Company described its contract with Utilis, a remote-sensing data company, to conduct a pilot study survey of select distribution systems in 2019 in Southeast Pennsylvania. Aqua asserted that Utilis uses synthetic aperture radar satellite data along with their proprietary algorithm to specifically identify areas with soil moisture at a depth underground that often signifies drinking water leaks from pipes. The pilot is expected to conclude in 2022. *Id.*

For Greater Pennsylvania, Aqua proffered that it performs a water loss analysis using a form of the AWWA water audit methodology and employs a full-time leak locator who focuses primarily in the Northeastern areas. The Company also asserted that leak detection is outsourced to several contracted professionals throughout Greater Pennsylvania, as needed. Regarding other leak detection efforts, Aqua explained that its distribution field employees are equipped with acoustic leak detection equipment which is utilized each time the employee operates a fire hydrant, flushing device, distribution system valve or customer service valve. *Id.*

Referencing its direct testimony, Aqua noted its capital expenditures program for the years 2018 through 2021 has been weighted toward water main replacement. Yanora-10 (citing Aqua St. 1 at 4). The Company explained that it has approximately 5,800 miles of water main in Pennsylvania, and has been replacing, on average, over 100 miles per year for the last ten years accounting for an average investment of approximately \$100 million to \$150 million annually. As a result of this investment, the Company contended that it has experienced a reduction in the number of

main breaks in cold weather months and an overall tightening up of the system such that recent unaccounted for water levels have been trending downward. In addition, Aqua emphasized that it has acquired many small or troubled systems and made significant improvements in their unaccounted-for-water through main replacement. Specifically, Aqua asserted that it greatly improved the Phoenixville water systems. The Company added that it has also invested in GIS software, which is used to track and monitor main break history and water aesthetic issues due to aging infrastructure. Yanora-10.

In the Recommended Decision, the ALJ referenced the Directed Questions and the Company's responses to them. R.D. at 137. The ALJ also made one specific Finding of Fact pertaining to the Company's responses to the Directed Questions as follows:

111. As a matter of the normal course of operations, Aqua operates between 6,000 to 8,000 valves per year, or about 10% of its valves. [Aqua Exh. TMD-4-R]

R.D. at 29. No Party filed Exceptions regarding the Company's Responses to the Directed Questions or to the recommended Finding of Fact.

However, the Parties have developed an evidentiary record pertaining to various quality of service issues that overlap with some of the Directed Question issues, including Unaccounted-for-Water, Pressure Measurements, Isolation Valves, and Fire Hydrants. We have addressed these litigated issues in this Opinion and Order, *supra*. Moreover, we note that the Company's tariff proposal to help remediate customer-owned lead service lines was recently considered and approved in the Commission's *Aqua LSL Order* entered on July 15, 2021.

To the extent that the Directed Questions pertain to additional issues not addressed in the prior litigated issues, we find that Aqua has provided sufficient

responses and information which have assisted the Parties and the Commission in evaluating tangential matters which may impact the rate proposals at issue in this proceeding. Upon review, we determine that the Company's responses to the Directed Questions do not alter our ultimate determination herein that the proposed increases in rates, as modified by this Opinion and Order, are just and reasonable.

XIII. Conclusion

Based on our review of the record in this proceeding, we shall: (1) grant, in part, and deny, in part, the Exceptions filed by Aqua, I&E, and the OCA; (2) deny the Exceptions filed by the OSBA, CAUSE-PA, Aqua LUG, Masthope, and Mr. Osinski; and (3) approve an annual revenue increase of \$50,510,192 to the Company's *pro forma* revenue at present rates of \$510,006,687, or approximately 9.88%, for its water service and an annual revenue increase of \$18,740,978 to the Company's *pro forma* revenue at present rates of \$37,076,494, or approximately 50.55%, for its wastewater service.

THEREFORE;

IT IS ORDERED:

1. That the Exceptions filed by Aqua Pennsylvania, Inc., and Aqua Pennsylvania Wastewater, Inc., on February 28, 2022, are granted, in part, and denied, in part, consistent with this Opinion and Order.

2. That the Exceptions filed by the Commission's Bureau of Investigation and Enforcement on February 28, 2022, are granted, in part, and denied, in part, consistent with this Opinion and Order.

3. That the Exceptions filed by the Office of Consumer Advocate on February 28, 2022, are granted, in part, and denied, in part, consistent with this Opinion and Order.

4. That the Exceptions filed by the Office of Small Business Advocate on February 28, 2022, are denied, consistent with this Opinion and Order.

5. That the Exceptions filed by the Coalition for Affordable Utility Services and Energy Efficiency in Pennsylvania on February 28, 2022, are denied, consistent with this Opinion and Order.

6. That the Exceptions filed by Masthope Mountain Community Association on February 28, 2022, are denied, consistent with this Opinion and Order.

7. That the Exceptions filed by the Aqua Large Users Group on February 28, 2022, are denied, consistent with this Opinion and Order.

8. That the Exceptions filed by Donald C. Osinski on February 21, 2022, are denied, consistent with this Opinion and Order.

9. That the Recommended Decision of Administrative Law Judge Mary D. Long, issued on February 18, 2022, is adopted, as modified, by this Opinion and Order.

10. That Aqua Pennsylvania, Inc., is authorized to grant discounted rates to Chemung County Industrial Development Agency, Horsham Water Authority, and the Borough of Sharpsville consistent with the water resale contracts charging discounted rates pursuant to Aqua Pennsylvania, Inc.'s tariff Rider DRS – Demand Based Resale

Service. The total upward adjustment to Aqua Pennsylvania, Inc.'s revenues as a result of water contract revenue as set forth in Table II – Water shall be \$1,136,086.

11. That the corrections and modifications directed by this Opinion and Order reflected in Aqua Pennsylvania, Inc., and Aqua Pennsylvania Wastewater, Inc., Docket Nos. R-2021-3027385 and R-2021-3027386 (Commission Tables Calculating Allowed Revenue Increase), attached hereto, are adopted as being in the public interest.

12. That Aqua Pennsylvania, Inc., shall not place into effect the rates, rules, and regulations contained in proposed Tariff Water - Pa. P.U.C. No. 3, as filed.

13. That Aqua Pennsylvania Wastewater, Inc., shall not place into effect the rates, rules, and regulations contained in proposed Aqua Original Tariff Sewer - Pa. P.U.C. No. 3, as filed.

14. That Aqua Pennsylvania, Inc., is authorized to file tariffs, tariff supplements and/or tariff revisions, on at least one day's notice, and pursuant to the provisions of 52 Pa. Code §§ 53.1, *et seq.*, and 53.101, designed to produce an annual operating revenue of approximately \$561,658,784, representing an annual revenue increase of approximately \$50,510,192, to become effective for service rendered on and after May 19, 2022.

15. That Aqua Pennsylvania Wastewater, Inc., is authorized to file tariffs, tariff supplements and/or tariff revisions, on at least one day's notice, and pursuant to the provisions of 52 Pa. Code §§ 53.1, *et seq.*, and 53.101, designed to produce an annual operating revenue of approximately \$55,817,471, representing an annual revenue increase of approximately \$18,740,978, to become effective for service rendered on and after May 19, 2022.

16. That Aqua Pennsylvania, Inc., and Aqua Pennsylvania Wastewater, Inc., shall file detailed calculations with its tariff filings, which shall demonstrate to the Commission's satisfaction that the filed tariff adjustments comply with the provisions of this final Opinion and Order.

17. That Aqua Pennsylvania, Inc., and Aqua Pennsylvania Wastewater, Inc., shall allocate the authorized increase in operating revenue to each service, rate schedule, and customer class, and rate schedule within each rate customer class, in the manner prescribed in this Opinion and Order.

18. That Aqua Pennsylvania, Inc., and Aqua Pennsylvania Wastewater, Inc., shall file with the Commission's Secretary's Bureau at these dockets and provide the Commission's Bureaus of Technical Utility Services and Investigation and Enforcement with updates to schedule G-2 of Aqua Exhibits 1-A, 1-B, 1- C, 1-D, 1-E, 1-F, and 1-G, no later than July 1, 2022, which should include actual capital expenditures, plant additions, and retirements for the 12 months ending March 31, 2022, and, an additional update for actuals for the 12 months ending March 31, 2023, no later than July 1, 2023.

19. That Aqua Pennsylvania, Inc., and Aqua Pennsylvania Wastewater, Inc., shall comply with all directives and conclusions contained in this Opinion and Order that are not the subject of individual ordering paragraphs as if they were the subject of specific ordering paragraphs.

20. That Aqua Pennsylvania, Inc., and Aqua Pennsylvania Wastewater, Inc., shall begin monitoring and reviewing the appropriate customer billing data for purposes of determining, in its next base rate proceeding, if, and to what extent, any offset to its low-income program cost recovery is necessary to avoid any double recovery Aqua Pennsylvania, Inc., and Aqua Pennsylvania Wastewater, Inc., may receive through actual collections after the implementation of its customer assistance programs. Aqua

Pennsylvania, Inc., and Aqua Pennsylvania Wastewater, Inc., shall consult with the Office of Consumer Advocate and the Commission's Bureau of Investigation and Enforcement to determine the necessary data that is needed to accomplish this directive.

21. That Aqua Pennsylvania, Inc., shall develop an isolation valve inspection and exercise program, to be implemented no later than one-hundred and eighty (180) days from the effective date of rates resulting from this base rate proceeding, which establishes a defined schedule for Aqua Pennsylvania, Inc., to inspect and exercise each of its non-critical valves within a set inspection cycle and to maintain records of its attempts to exercise its isolation valves and note whether the operation was successful.

22. That Aqua Pennsylvania, Inc., shall appropriately mark any public fire hydrants in Aqua Pennsylvania, Inc.'s system that cannot provide the minimum fire flow of 500 gallons per minute at 20 pounds per square inch within thirty (30) days of entry of this Opinion and Order.

23. That Aqua Pennsylvania, Inc., and Aqua Pennsylvania Wastewater, Inc., shall require income documentation from an interested customer to certify income eligibility for participation in its customer assistance program and upon recertification in a manner similar to that of the Peoples Companies. Within sixty (60) days of the entry date of this Opinion and Order, Aqua Pennsylvania, Inc., and Aqua Pennsylvania Wastewater, Inc., shall file a written plan with the Commission's Secretary's Bureau at the Dockets in this proceeding, with a copy to be served on the Bureau of Consumer Services, describing the process it will use for certification and recertification of income eligibility for participation in its customer assistance program.

24. That Aqua Pennsylvania, Inc., and Aqua Pennsylvania Wastewater, Inc., shall implement its application process proposed in this proceeding to transition Helping Hand customers who qualify for the new customer assistance program, subject to

the modification that Aqua Pennsylvania, Inc., and Aqua Pennsylvania Wastewater, Inc., shall require income documentation for certification purposes rather than permitting potential program participants to confirm their income through self-attestation.

25. That within six (6) months of the entry date of this Opinion and Order, Aqua Pennsylvania, Inc., and Aqua Pennsylvania Wastewater, Inc., shall file its Community Education and Outreach Plan with the Commission's Secretary's Bureau at these Dockets with copies to be served on the Commission's Bureaus of Consumer Services and Office of Communications. Aqua Pennsylvania, Inc., and Aqua Pennsylvania Wastewater, Inc., shall also file an annual update of its Community Education and Outreach Plan, after the filing of its first Community Education and Outreach Plan at these Dockets until either the filing of its next base rate proceeding or another proceeding addressing its universal service programs.

26. That Aqua Pennsylvania, Inc., and Aqua Pennsylvania Wastewater, Inc., shall consult with the Office of Consumer Advocate and the Commission's Bureau of Investigation and Enforcement regarding the root cause analysis of customer complaint data and cooperatively discuss how this data will be developed to reflect meaningful trends in customer complaint data and potentially reduce contested issues in future proceedings.

27. That the request of Aqua Pennsylvania, Inc., and Aqua Pennsylvania Wastewater, Inc., to continue to record COVID-19 uncollectible expenses in their COVID-19 deferral accounts and to seek recovery in the next rate case proceeding filed by Aqua Pennsylvania, Inc., and Aqua Pennsylvania Wastewater, Inc., is granted. Any deferred amounts that Aqua Pennsylvania, Inc., and Aqua Pennsylvania Wastewater, Inc., seek to recover in their next rate case proceeding shall be subject to detailed review and investigation and the burden of proof will remain with Aqua Pennsylvania, Inc., and

Aqua Pennsylvania Wastewater, Inc., to establish the prudence and reasonableness of their incremental COVID-19 related financial impacts.

28. That the Formal Complaints filed by the Office of the Consumer Advocate at Docket Nos. C-2021-3028466 and C-2021-3028467 are sustained, in part, and dismissed, in part, and shall be marked closed.

29. That the Formal Complaints filed by the Office of Small Business Advocate at Docket Nos. C-2021-3028509 and C-2021-3028511 are dismissed and shall be marked closed.

30. That the Formal Complaints of the Masthope Mount Community Association at Docket Nos. C-2021-3028992 and C-2021-3028996 are dismissed and shall be marked closed.

31. That the Formal Complaint of the Aqua Large Users Group, at Docket No. C-2021-3029089 is dismissed and shall be marked closed.

32. That the following Formal Complaints against Aqua Pennsylvania, Inc., are dismissed and shall be marked closed:

Martha Bronson at Docket No. C-2021-3028132

Neil Kugelman at Docket No. C-2021-3028139

Geoffrey Rhine at Docket No. C-2021-3028170

Theodore Voltolina at Docket No. C-2021-3028194

Aaron Brown at Docket No. C-2021-3028279

Darren Distasio at Docket No. C-2021-3028285

Deena Denesowicz at Docket No. C-2021-3028288

Vivian George at Docket No. C-2021-3028310

Nick Panaccio at Docket No. C-2021-3028331
Richard Regnier at Docket No. C-2021-3028332
Gerald DiNunzio Jr. at Docket No. C-2021-3028362
Nancy Reedman at Docket No. C-2021-3028405
Michael McCall at Docket No. C-2021-3028413
Raymond Cavalieri at Docket No. C-2021-3028448
Byron Goldstein at Docket No. C-2021-3028463
John Grassie at Docket No. C-2021-3028663
Kyle Brophy at Docket No. C-2021-3028712
Daniel Savino at Docket No. C-2021-3028758
Michael Roberts at Docket No. C-2021-3028869
Treasure Lake Property Owners Association Inc. at
Docket No. C-2021-3029004
Gerardo Giannattasio at Docket No. C-2021-3029066
Erik McElwain at Docket No. C-2021-3029135
Judy Burton at Docket No. C-2021-3029152
Brian Edwards at Docket No. C-2021-3029159
Richard Gage at Docket No. C-2021-3029393
Joanne Smyth at Docket No. C-2021-3029411 and
Jane O'Donovan at Docket No. C-2021-3029532.

33. That the following Formal Complaints against Aqua Pennsylvania Wastewater, Inc., are dismissed and shall be marked closed:

Camp Stead Property Owners Association at
Docket No. C-2021-3028928
Dale Markowitz at Docket No. C-2021-3028280
Keith Anthony at Docket No. C-2021-3028444
Stephanie Boris at Docket No. C-2021-3028443

Jennifer Buckley at Docket No. C-2021-3028160
Carl Martinson at Docket No. C-2021-3028312
Elizabeth O'Neill at Docket No. C-2021-3028333
Erik and Ilisha Smith at Docket No. C-2021-3028334
Curtis and Michele Tabor at Docket No. C-2021-3028335
Gregory Valerio at Docket No. C-2021-3028336
Jerome Perch at Docket No. C-2021-3028356
Michael Brull at Docket No. C-2021-3028361
James Blessing at Docket No. C-2021-3028402
Elizabeth Yost at Docket No. C-2021-3028407
Timothy Nicholl at Docket No. C-2021-3028471
Alyssa Reinhart at Docket No. C-2021-3028493
James Kolb at Docket No. C-2021-3028497
Ronald Schneck at Docket No. C-2021-3028547
Matthew Cicalese at Docket No. C-2021-3028566
Ronald and Lora Roebuck at Docket No. C-2021-3028568
Kelly Frich at Docket No. C-2021-3028665
Adam Anders at Docket No. C-2021-3028670
Charleen Falsone at Docket No. C-2021-3028760
Stephen Grugeon at Docket No. C-2021-3028892
Lynne Germscheid at Docket No. C-2021-3028860
Deborah and James Popson at Docket No. C-2021-3028868
Masthope Mountain Community Association at
Docket No. C-2021-3028996
Treasure Lake Property Owners Association Inc.at
Docket No. C-2021-3029006
East Norriton Township at Docket No. C-2021-3029019
Kevin Amerman at Docket No. C-2021-3029063
James Wharton Jr. at Docket No. C-2021-3029065

Peter and Kim Ginopolas at Docket No. C-2021-3029096
Yefim Shnayder at Docket No. C-2021-3029134
Andrea and Matthew Rivera at Docket No. C-2021-3029154
Judy Burton at Docket No. C-2021-3029139
Brian Edwards at Docket No. C-2021-3029161
Edward Coccia at Docket No. C-2021-3028870
John Day at Docket No. C-2021-3028734
Robert Dolan at Docket No. C-2021-3028798
Anthony Giovannone at Docket Nos. C-2021-3028794,
C-2021-3028803, C-2021-3028802
Sheila Gutzait at Docket No. C-2021-3028634
Rudolph Hofbauer at Docket No. C-2021-3028666
Ronald and Alexis Koenig at Docket No. C-2021-3028483
Joan Lipski at Docket No. C-2021-3028475
William and Ana Loftus at Docket No. C-2021-3028617
Stephen and Teresa Mason at Docket No. C-2021-3028576
David Monroe at Docket No. C-2021-3028567
Lisa Rampone at Docket No. C-2021-3028804
Lorraine Rocci at Docket No. C-2021-3028499
David Ross at Docket No. C-2021-3028479
Carolyn Sica at Docket No. C-2021-3028446
Dean Swink at Docket No. C-2021-3028604
Francine Weiner at Docket No. C-2021-3028639
Tom Woodward at Docket No. C-2021-3028927
Joseph Torello at Docket No. C-2021-3029180
Donald Osinski at Docket No. C-2021-3029413
Lake Associates LLC at Docket Nos. C-2021-3029425
C-2021-3029422, C-2021-3029419
29 Estates LLC at Docket No. C-2021-3029417

David Bowers at Docket No. C-2021-3029466 and
Joanne Smyth at Docket No. C-2021-3029411.

34. That a copy of this Opinion and Order be served on the Bureau of Consumer Services, Division of Policy; the Bureau of Investigation and Enforcement; and the Bureau of Technical Utility Services, Finance/Tariff Division for monitoring and compliance.

BY THE COMMISSION,

A handwritten signature in black ink, appearing to read "Rosemary Chiavetta".

Rosemary Chiavetta
Secretary

(SEAL)

ORDER ADOPTED: May 12, 2022

ORDER ENTERED: May 16, 2022

LIST OF ABBREVIATIONS

ADIT	Accumulated Deferred Income Tax
ALJ	Administrative Law Judge
ANSI	American National Standards Institute
Aqua	Aqua Pennsylvania, Inc. and Aqua Pennsylvania Wastewater, Inc.
Aqua LUG	Aqua Large Users Group
ASSE	American Society of Sanitary Engineers
AWWA	American Water Works Association
BCS	Bureau of Consumer Services
CAC	customer advances for construction
CAP	Customer Assistance Program
CAPM	capital asset pricing model
CAUSE-PA	Coalition for Affordable Utility Services and Energy Efficiency in Pennsylvania
CE	comparable earnings
CEOP	Community Education and Outreach Plan
CIAC	contributions in aid of construction
CIS	customer information system
COSS	cost of service study
CPI	Consumer Price Index
CRR	Competitive Rate Rider
CSIC	Collection System Improvement Charge
CWC	Cash Working Capital
DCF	discounted cash flow
DCNR	Department of Conservation and Natural Resources
DRS	Demand Based Resale Service
DSIC	Distribution System Improvement Charge
ECA	Energy Cost Adjustment
ECAM	Energy Cost Adjustment Mechanism
EDC	Electric Distribution Company
EDU	Equivalent Dwelling Unit
FERC	Federal Energy Regulatory Commission
FMV	Fair Market Value
FPFTY	fully projected future test year
FPL	Federal Poverty Level
FTAS	Federal Tax Adjustment Surcharge
FTY	future test year
FY	Fiscal Year
GDP	gross domestic product

GIS	Geographic Information System
gpm	gallons per minute
HTY	historical test year
I&E	Bureau of Investigation and Enforcement
I&I	inflow and infiltration
IRS	Internal Revenue Service
IVR	Interactive Voice Response
LEP	Limited English proficient/proficiency
M&S	Materials and Supplies
Masthope	Masthope Mountain Community Association
NFG	National Fuel Gas Distribution Corporation
NGDC	Natural Gas Distribution Company
NOPR	Notice of Proposed Rulemaking
O&M	Operating and Maintenance
OCA	Office of Consumer Advocate
OSBA	Office of Small Business Advocate
PADEP	Pennsylvania Department of Environmental Protection
PAWC	Pennsylvania-American Water Company
PFAS	per and poly-fluoro alkyl substances
PGC	Purchased Gas Cost
PIP	Percentage of Income Payment Plan
psi	per square inch
PWA	Purchased Water Adjustment
PWAC	Purchased Water Adjustment Clause
PWSA	Pittsburgh Water and Sewer Authority
RCA	Root Cause Analysis
Rf	risk-free rate of return
ROE	return on equity
RP	risk premium
RROR	Relative Rate of Return
SEPA	Southeast Pennsylvania
SERP	Supplemental Executive Retirement Plan
STAS	State Tax Adjustment Surcharge
TCJA	Tax Cuts and Jobs Act of 2017
TUS	Bureau of Technical Utility Services
UFW	Unaccounted For Water
UPAA	utility plant acquisition adjustments
US OMB	United States Office of Management and Budget
USECP	Universal Service Energy and Conservation Plan

USP	Universal Service Program
USPS	United States Postal Service
USR	Universal Service Rider
WWTP	Wastewater Treatment Plant

Pennsylvania Public Utility Commission

v.

**Aqua Pennsylvania, Inc.
Aqua Pennsylvania Wastewater, Inc
Docket Nos. R-2021-3027385
R-2021-2027386**

Commission Tables Calculating Allowed Revenue Increase

**Table Act 11 Act 11 Water and Wastewater Revenue
Requirement Summary**

Table RevSum Water and Wastewater Revenue Summary

Water Tables

**Table I Income Summary
Table IA Rate of Return
Table IB Revenue Factor
Table II Adjustments
Table III Interest Synchronization
Table IV Cash Working Capital: Interest and Dividends
Table V Cash Working Capital: Taxes
Table VI Cash Working Capital: O&M Expense**

Wastewater-Base Tables

Table I	Income Summary
Table IA	Rate of Return
Table IB	Revenue Factor
Table II	Adjustments
Table III	Interest Synchronization
Table IV	Cash Working Capital: Interest and Dividends
Table V	Cash Working Capital: Taxes
Table VI	Cash Working Capital: O&M Expense

Wastewater-Limerick Tables

Table I	Income Summary
Table IA	Rate of Return
Table IB	Revenue Factor
Table II	Adjustments
Table III	Interest Synchronization
Table IV	Cash Working Capital: Interest and Dividends
Table V	Cash Working Capital: Taxes
Table VI	Cash Working Capital: O&M Expense

Wastewater-East Bradford Tables

Table I	Income Summary
Table IA	Rate of Return
Table IB	Revenue Factor
Table II	Adjustments
Table III	Interest Synchronization
Table IV	Cash Working Capital: Interest and Dividends
Table V	Cash Working Capital: Taxes
Table VI	Cash Working Capital: O&M Expense

Wastewater-Cheltenham Tables

Table I	Income Summary
Table IA	Rate of Return
Table IB	Revenue Factor
Table II	Adjustments
Table III	Interest Synchronization
Table IV	Cash Working Capital: Interest and Dividends
Table V	Cash Working Capital: Taxes
Table VI	Cash Working Capital: O&M Expense

Wastewater-East Norriton Tables

Table I	Income Summary
Table IA	Rate of Return
Table IB	Revenue Factor
Table II	Adjustments
Table III	Interest Synchronization
Table IV	Cash Working Capital: Interest and Dividends
Table V	Cash Working Capital: Taxes
Table VI	Cash Working Capital: O&M Expense

Wastewater-New Garden Tables

Table I	Income Summary
Table IA	Rate of Return
Table IB	Revenue Factor
Table II	Adjustments
Table III	Interest Synchronization
Table IV	Cash Working Capital: Interest and Dividends
Table V	Cash Working Capital: Taxes
Table VI	Cash Working Capital: O&M Expense

Commission Final Allowance
AQUA PENNSYLVANIA, INC.

TABLE ACT 11 - WATER AND WASTEWATER REVENUE REQUIREMENT - SUMMARY

Line No.	Description	Total Company (a)	Water Operations (b)	Wastewater Base Operations (c)	Wastewater Limerick (d)	Wastewater East Bradford (e)	Wastewater Cheltenham (f)	Wastewater East Norriton (g)	Wastewater New Garden (h)
1	Present Rate Revenue	\$ 548,225,086	\$ 511,148,592	\$ 19,011,761	\$ 3,378,573	\$ 1,014,569	\$ 1,258,740	\$ 2,323,770	\$ 2,889,080
2	Additional Revenue Requirement	<u>69,328,876</u>	<u>39,323,400</u>	<u>15,616,886</u>	<u>5,581,376</u>	<u>777,094</u>	<u>2,752,339</u>	<u>2,739,266</u>	<u>2,538,455</u>
3	Act 11 Allocation, Gross, Unadjusted ⁽¹⁾	(0)	11,264,498	(8,779,582)	(2,310,744)	(128,024)	2,033,271	(1,080,283)	(999,136)
4	Revenue Factor ⁽²⁾	-	70.27%	69.78%	69.78%	69.78%	69.78%	69.78%	69.78%
5	Net Income Available for Return ⁽³⁾	54,601	7,915,126	(6,126,516)	(1,612,470)	(89,337)	1,418,845	(753,837)	(697,211)
6	Act 11 Allocation Adjustment, Gross ⁽⁴⁾	(77,706)	(77,706)	-	-	-	-	-	-
7	Act 11 Allocation, Gross, Adjusted ⁽⁵⁾	(77,706)	11,186,792	(8,779,582)	(2,310,744)	(128,024)	2,033,271	(1,080,283)	(999,136)
8	Proposed Revenues ⁽⁶⁾	<u>\$ 617,476,255</u>	<u>\$ 561,658,784</u>	<u>\$ 25,849,065</u>	<u>\$ 7,249,205</u>	<u>\$ 1,663,639</u>	<u>\$ 12,044,410</u>	<u>\$ 4,582,752</u>	<u>\$ 4,428,399</u>
9	Rate Increase/(Decrease) - \$	\$ 69,251,169	\$ 50,510,192	\$ 6,837,304	\$ 3,270,632	\$ 649,070	\$ 4,785,671	\$ 1,658,983	\$ 1,539,319
10	Rate Increase/(Decrease) - %	12.63%	9.88%	35.96%	82.21%	63.97%	65.93%	56.74%	53.28%
11	Total Rate Increase/(Decrease) - \$ For Wastewater Operations			\$ 18,740,978					
12	Total Rate Increase/(Decrease) - % For Wastewater Operations			50.55%					

Notes to accompany Table Act 11 – Water and Wastewater Revenue Requirement – Summary

- (1) The allocation between wastewater and water operations is achieved by the proposed consolidation of water and wastewater revenue requirements to derive the water and wastewater rates in this case.
- (2) See the revenue factors in Table 1B for each rate group to determine the gross, unadjusted Act 11 Allocation.
- (3) Line No. 3 x Line No. 4.
- (4) Reduce the gross water revenue requirement resulting from the Act 11 Allocation by dividing Line No. 5, Column (a) by Line No. 4, Column (b) and assigning this adjustment to water. This provides the Company the same net income from water customers as if the revenue requirement were charged to wastewater customers, since water customers have a lower uncollectible account rate.
- (5) Line No. 3 + Line No. 6.
- (6) Line No. 1 + Line No. 2 + Line No. 7.

Commission Final Allowance
AQUA PENNSYLVANIA, INC.

TABLE REVSUM - WATER AND WASTEWATER REVENUE SUMMARY

Line No.	Description	Total Company (a)	Water Operations (b)	Wastewater Base Operations (c)	Wastewater Limerick (d)	Wastewater East Bradford (e)	Wastewater Cheltenham (f)	Wastewater East Morriton (g)	Wastewater New Garden (h)
1	Current General Service Revenues ^{(1)(II)}	\$ 546,633,727	\$ 509,635,526	\$ 18,388,325	\$ 3,369,765	\$ 1,013,716	\$ 7,238,362	\$ 2,916,335	\$ 2,871,638
2	Proposed General Service Revenues	\$ 615,823,068	\$ 560,132,914	\$ 25,817,242	\$ 7,233,172	\$ 1,662,240	\$ 12,010,593	\$ 4,571,144	\$ 4,401,756
3	Rate Increase/(Decrease) - \$	\$ 69,193,342	\$ 50,497,388	\$ 6,828,917	\$ 3,263,407	\$ 648,524	\$ 4,772,231	\$ 1,654,809	\$ 1,530,058
4	Rate Increase/(Decrease) - %	12.65%	9.90%	35.96%	82.21%	63.97%	65.93%	56.74%	53.28%
5	Current Forfeited Discount Revenues ^(II)	\$ 813,782	\$ 735,710	\$ 23,317	\$ 8,788	\$ 853	\$ 20,377	\$ 7,355	\$ 17,382
6	Proposed Forfeited Discount Revenues	\$ 929,610	\$ 808,513	\$ 31,703	\$ 16,012	\$ 1,393	\$ 33,812	\$ 11,528	\$ 26,643
7	Rate Increase/(Decrease) - \$	\$ 115,828	\$ 12,803	\$ 8,386	\$ 7,224	\$ 546	\$ 13,435	\$ 4,173	\$ 9,261
8	Rate Increase/(Decrease) - %	12.65%	9.90%	35.96%	82.21%	63.97%	65.93%	56.74%	53.28%
9	Current Miscellaneous Revenues ^{(1)(II)}	\$ 717,517	\$ 717,357	\$ 120	\$ 20	\$ -	\$ -	\$ 80	\$ -
10	Proposed Miscellaneous Revenues	\$ 717,517	\$ 717,357	\$ 120	\$ 20	\$ -	\$ -	\$ 80	\$ -
11	Rate Increase/(Decrease) - \$	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
12	Rate Increase/(Decrease) - %	0.00%	0.00%	0.00%	0.00%			0.00%	
13	Total Operating Revenues ^(II)	\$ 617,476,255	\$ 561,658,784	\$ 25,849,065	\$ 7,243,205	\$ 1,663,633	\$ 12,044,410	\$ 4,582,752	\$ 4,428,399
14	Proposed Revenues ^(II)	\$ 617,476,255	\$ 561,658,784	\$ 25,849,065	\$ 7,243,205	\$ 1,663,633	\$ 12,044,410	\$ 4,582,752	\$ 4,428,399
15	Difference, Lines 14 and 13	-	-	-	-	-	-	-	-

Notes and Sources to Accompany Table RevSum

The Company will need to increase General Service and Forfeited Discount revenues by the same percentage to achieve the total indicated operating revenues, as evidenced by a proof of revenue.

- (1) See Aqua Exhibits 1-A to 1-F(f) at Schedule B-1, Line "Total Sales to General Customers". Water general service revenues are adjusted for imputed revenues. *See* Table II - Water, Notes 2 and 6.
- (2) See Aqua Exhibits 1-A to 1-F(f) at Schedule B-1, Line "Forfeited Discounts". For water, Aqua indicated that \$735,710 was attributable to forfeited discount revenue in the historic test year. *See* Aqua St. 2-R at 29.
- (3) For Wastewater - East Bradford, General Service revenues are increased by \$15,525 and Miscellaneous revenues are decreased by the same amount. This amount represents charges for General Service described as "Contract Sales for Resale - Unmetered - Single Family - Birmingham Twp.". *See* Aqua's rate filing at Schedule EB-4, Page 1 and Exhibit 1-D(d), Schedule B-1, Line No. 9.
- (4) See Aqua Exhibits 1-A to 1-F(f) at Schedule B-1, Lines "Other WW Revenues" and "Miscellaneous WW Service Revenues". Unlike Forfeited Discount revenues, Miscellaneous revenues aren't expected to increase proportionately with General Service revenues. For water, miscellaneous revenues are reduced by forfeited discount revenues. *See* Note 2.
- (5) Sum of Line Nos. 2, 6, and 10.
- (6) *See* Table Act 11, Line No. 8.

Commission Final Allowance

TABLE I - Water
Aqua Pennsylvania, Inc.
INCOME SUMMARY
R-2021-3027385, R-2021-3027386

	Pro Forma Present Rates ⁽¹⁾	Company Adjustments ⁽¹⁾⁽²⁾	Pro Forma Present Rates (Revised) ⁽¹⁾⁽³⁾	Commission Adjustments	Commission Pro Forma Present Rates	Commission Revenue Increase ⁽¹⁾	Total Allowable Revenues
	\$	\$	\$	\$	\$	\$	\$
Operating Revenue	\$ 510,006,687	\$ -	\$ 510,006,687	\$ 1,141,906	\$ 511,148,592	\$ 39,323,400	\$ 550,471,992
Expenses:							
O & M Expense	116,459,234	-	116,459,234	(1,895,043)	114,564,192	201,431	114,765,623
Depreciation	122,166,578	-	122,166,578	(121,865)	122,044,713	-	122,044,713
Taxes, Other	12,450,066	-	12,450,066	7,669	12,457,734	264,080	12,721,814
Income Taxes:							
State	5,345,514	11,184	5,356,698	318,777	5,675,475	3,881,903	9,557,378
Federal	7,677,005	21,161	7,698,166	603,160	8,301,326	7,344,957	15,646,283
Total Expenses	264,093,397	32,345	264,130,742	(1,087,302)	263,043,440	11,692,371	274,735,811
Net Inc. Available for Return	245,908,290	\$ (32,345)	\$ 245,875,945	\$ 2,229,207	\$ 248,105,152	\$ 27,631,028	\$ 275,736,181
Rate Base	3,818,456,012	(6,077,218)	3,812,378,794	(2,161,832)	3,810,216,962		3,810,216,962
Rate of Return	6.44%		6.45%		6.51%		7.23675800%

⁽¹⁾ Company Main Brief

⁽²⁾ Company Main Brief Section III.E.2 & AP Stmt. 8-R

⁽³⁾ Revenue increases before Section 1311(c) allocation from water to wastewater

Pre-Act 11 Allocation Revenue Change (%): 7.69%

Commission Final Allowance
TABLE I(A) - Water
Aqua Pennsylvania, Inc.
RATE OF RETURN
R-2021-3027385, R-2021-3027386

	Structure	Cost	After-Tax Weighted Cost	Effective Tax Rate Complement	Pre-Tax Weighted Cost Rate
Total Cost of Debt			1.84216100%		1.84%
Long-term Debt	46.05%	4.00%	1.84216100%		1.84%
Short-term Debt	0.00%	0.00%	0.00000000%		0.00%
Preferred Stock	0.00%	0.00%	0.00000000%	0.711079	0.00%
Common Equity	53.95%	10.00%	5.39459700%	0.711079	7.59%
	<u>100.00%</u>		<u>7.23675800%</u>		<u>9.43%</u>
Pre-Tax Interest Coverage	5.12				
After-Tax Interest Coverage	3.93				
Tax Rate Complement (1-(21%+(9.99% X (1-21%)))	71.10790%				

Commission Final Allowance
Aqua Pennsylvania, Inc.
TABLE I(B) - Water
REVENUE FACTOR
R-2021-3027385, R-2021-3027386

100%	<u>1.00000000</u>
Less:	
Uncollectible Accounts Factor ^(*)	0.00512242
PUC, OCA, OSBA, DPC Assessment Factors ^(*)	0.00671560
Gross Receipts Tax	0.00000000
Other Tax Factors	<u>0.00000000</u>
	0.98816198
State Income Tax Rate ^(*)	<u>0.09990000</u>
Effective State Income Tax Rate	<u>0.09871738</u>
Factor After Local and State Taxes	0.88944460
Federal Income Tax Rate ^(*)	<u>0.21000000</u>
Effective Federal Income Tax Rate	<u>0.18678337</u>
Revenue Factor (100% - Effective Tax Rates)	<u><u>0.70266123</u></u>

^(*) Company Main Brief

Commission Final Adjustments
TABLE II - Water
SUMMARY OF ADJUSTMENTS
R-2021-3027385, R-2021-3027386

<u>Adjustments</u>	<u>Rate Base</u>	<u>Revenues</u>	<u>Expenses</u>	<u>Depreciation</u>	<u>Taxes-Other</u>	<u>State Income Tax</u>	<u>Federal Income Tax</u>
	\$	\$	\$	\$	\$	\$	\$
RATE BASE:							
C/W/C:							
Int. & Div. (Table IV)	4,950						
Taxes (Table V)	431,945						
O & M (Table VI)	(161,422)						
Acquis. Adj. - Phoenixville ⁽¹⁾	(2,437,305)						
REVENUES:							
Water Contract Revenue ⁽¹⁾⁽¹⁾⁽¹⁾		1,136,086	5,820		7,630	112,151	212,202
Negotiated Water Contracts ⁽¹⁾		0	0		0	0	0
Concomitant Forfeited Discounts ⁽¹⁾⁽¹⁾		5,820	30		39	574	1,087
EXPENSES:							
Supp. Exec. Retire. Program ⁽¹⁾			(635,612)			0	0
General Inflation ⁽¹⁾			(864,335)			69,492	131,465
Gen. Liab. Insurance ⁽¹⁾			(340,945)			86,347	163,377
			0			34,050	64,446
			0			0	0
			0			0	0
			0			0	0
			0			0	0
			0			0	0
			0			0	0
			0			0	0
			0			0	0
			0			0	0
Amort. Phoenixville Acquis. Adj. ⁽¹⁾⁽¹⁾				(121,865)		0	0
						12,174	23,035
TAXES:						0	0
Interest Synchronization (Table III)				0		0	0
						3,979	7,528
TOTALS	<u>(2,161,832)</u>	<u>1,141,906</u>	<u>(1,895,043)</u>	<u>(121,865)</u>	<u>7,669</u>	<u>318,777</u>	<u>603,160</u>

Notes to Accompany Table II - Water

- (1) Remove Phoenixville acquisition adjustment and associated amortization expense.
- (2) Add imputed general service revenue for Rider DRS contracts for New Wilmington [\$348,904] and Masury [\$787,182]. [$\$348,904 + \$787,182 = \$1,136,086$]. See I&E Exh. 4-SR, Sch. 1. However, as we are granting Aqua's Exception No. 3, in part, imputed general service revenue for Rider DRS contracts associated with Chemung, Horsham, and Sharpsville are not added back.
- (3) Remove Supplemental Executive Retirement Program expenses.
- (4) Remove general inflation adjustment.
- (5) Adopt I&E's position regarding general liability insurance expense.
- (6) Grant Aqua's Exception No. 4, which removes the ALJ's recommended upward adjustment
- (7) Revenues increased by the sum of one plus the uncollectible accounts factor in Table IB Water to include additional imputed forfeited discount revenue. Expenses includes additional bad debt expense as the product of additional revenues times the uncollectible accounts factor in Table IB Water. Taxes-Other includes additional assessment expenses as the product of additional revenues times the assessment factor in Table IB Water. Expenses and Taxes-Other are deducted from revenue when determining State and Federal Income Taxes.
- (8) Cash working capital is not adjusted for non-cash expenses (*i.e.*, incremental bad debt expense and amortization expense).

Commission Final Allowance
TABLE III - Water
Aqua Pennsylvania, Inc.
INTEREST SYNCHRONIZATION
R-2021-3027385, R-2021-3027386

	Amount \$
Company Rate Base Claim ⁽¹⁾	3,812,378,794
Commission Rate Base Adjustments (From Table II)	<u>(2,161,832)</u>
Commission Rate Base (Line 1 - Line 2)	3,810,216,962
Weighted Cost of Debt (From Table IA)	<u>1.84216100%</u>
Commission Interest Expense (Line 3 x Line 4)	70,190,331
Company Claim ⁽¹⁾	<u>70,342,109</u>
Total Commission Adjustment (Line 6 - Line 5)	151,778
Company Adjustment ⁽¹⁾⁽²⁾	<u>111,952</u>
Net Commission Interest Adjustment (Line 7 - Line 8)	39,826
State Income Tax Rate	<u>9.99%</u>
State Income Tax Adjustment (Line 9 x Line 10) (Flow to Table II)	<u>3,979</u>
Net Commission Interest Adjustment (Line 9)	39,826
State Income Tax Adjustment (Line 11)	<u>3,979</u>
Net Commission Adjustment for F.I.T. (Line 9 - Line 11)	35,847
Federal Income Tax Rate	<u>21.00%</u>
Federal Income Tax Adjustment (Line 12 x Line 13) (Flow to Table II)	<u><u>7,528</u></u>

⁽¹⁾ Company Main Brief

⁽²⁾ Rate Base Company Adjustment times weighted cost of debt

Commission Final Allowance
TABLE IV - Water
Aqua Pennsylvania, Inc.
CASH WORKING CAPITAL - Interest and Dividends
R-2021-3027385, R-2021-3027386

Accrued Interest			Preferred Stock Dividends		
	Long-Term Debt	Short-Term Debt			
Company Rate Base Claim	\$3,812,378,794	\$3,812,378,794	Company Rate Base Claim	\$3,812,378,794	
Commission Rate Base Adjustments	<u>(\$2,161,832)</u>	<u>(\$2,161,832)</u>	Commission Rate Base Adjustments:	<u>(\$2,161,832)</u>	
Commission Rate Base	\$3,810,216,962	\$3,810,216,962	Commission Rate Base	\$3,810,216,962	
Weighted Cost of Debt	<u>1.84216100%</u>	<u>0.00%</u>	Weighted Cost Pref. Stock	<u>0.00000000%</u>	
Commission Annual Interest Exp.	<u>\$10,190,331</u>	<u>\$0</u>	Commission Preferred Dividends	<u>\$0</u>	
Average Revenue Lag Days	45.1	45.1	Average Revenue Lag Days	45.1	
Average Expense Lag Days	<u>90.3</u>	<u>90.3</u>	Average Expense Lag Days	<u>90.3</u>	
Net Lag Days	<u>-45.2</u>	<u>-45.2</u>	Net Lag Days	<u>-45.2</u>	
Working Capital Adjustment					
Commission Daily Interest Exp.	\$192,302	\$0	Commission Daily Dividends	\$0	
Net Lag Days	<u>-45.2</u>	<u>-45.2</u>	Net Lag Days	<u>-45.2</u>	
Commission Working Capital	(\$8,692,050)	\$0		\$0	
Company Claim ⁽¹⁾⁽²⁾	<u>(\$8,691,000)</u>	<u>\$0</u>	Company Claim ⁽¹⁾⁽²⁾	<u>\$0</u>	
Commission Adjustment	<u>\$4,950</u>	<u>\$0</u>		<u>\$0</u>	
Total Interest & Dividend Adj.	<u>\$4,950</u>				

⁽¹⁾ Company Main Brief.

⁽²⁾ Company claim rounded to nearest thousandth

Commission Final Allowance
TABLE V - Water
Aqua Pennsylvania, Inc.
CASH WORKING CAPITAL - TAXES
R-2021-3027385, R-2021-3027386

Description	Company Proforma Tax Expense Present Rates	Commission Adjustments	Commission Pro forma Tax Expense Present Rates	Commission Allowance	Commission Adjusted Taxes at Present Rates	Daily Expense	Net Lead/ Lag Days ⁽²⁾	Accrued Tax Adjustment
Assessments ⁽²⁾	\$3,425,001	\$7,669	\$3,432,670	\$264,080	\$3,696,750	\$10,128.08	-197.50	(\$2,000,296)
Public Utility Realty	\$4,800,000	\$0	\$4,800,000		\$4,800,000	\$13,150.68	-11.30	(\$148,503)
Capital Stock Tax	\$0	\$0	\$0		\$0	\$0.00	0.00	\$0
Local property taxes & misc.	\$1,073,227		\$1,073,227		\$1,073,227	\$2,940.35	-167.00	(\$491,038)
FICA Taxes - Hourly	\$2,470,719		\$2,470,719		\$2,470,719	\$6,769.09	8.50	\$57,537
FICA Taxes - Executive & Exempt	\$1,729,006		\$1,729,006		\$1,729,006	\$4,737.00	12.00	\$56,844
Federal Unemployment Tax	\$26,883		\$26,883		\$26,883	\$73.65	75.00	\$5,524
PA Unemployment Tax	\$276,017		\$276,017		\$276,017	\$756.21	75.00	\$56,716
	\$0	\$0	\$0		\$0	\$0.00	0.00	\$0
	\$0	\$0	\$0		\$0	\$0.00	0.00	\$0
	\$0	\$0	\$0		\$0	\$0.00	0.00	\$0
State Income Tax	\$5,783,096	\$318,777	\$6,101,873	\$3,881,903	\$9,983,776	\$27,352.81	45.20	\$1,236,347
Federal Income Tax	\$13,101,742	\$603,160	\$13,704,902	\$7,344,957	\$21,049,859	\$57,670.85	33.40	\$1,926,206
	<u>\$32,685,691</u>	<u>\$929,606</u>	<u>\$33,615,296</u>	<u>\$11,490,940</u>	<u>\$45,106,236</u>	<u>\$123,578.72</u>	<u>5.66</u>	<u>\$699,237</u>
⁽¹⁾ Company Main Brief								
⁽²⁾ See Table II - Water, Note 2.								
					Average Lag Days in Receipt of Revenues		45.1	
					Average Lag in Payment of Taxes		5.7	
					Net Lag		39	
					Average Daily Tax Expense		123,579	
					Commission Cash Working Capital for Taxes		4,873,945	
					Less Company Claim ⁽¹⁾		4,442,000	
					Commission Adjustment		431,945	

Commission Final Allowance
TABLE VI - Water
Aqua Pennsylvania, Inc.
CASH WORKING CAPITAL -- O & M EXPENSE
R-2021-3027385, R-2021-3027386

Description	Company Pro forma F.T.Y. Expense	Commission	Commission Pro forma Expenses	Lag Days	Lag Dollars
Hourly Labor	\$21,691,942	\$0	\$21,691,942	7.50	\$162,689,568
Non-Union Labor	\$14,922,316	\$0	\$14,922,316	11.00	\$164,145,477
Management Fee ⁽¹⁾	\$18,159,655	(\$695,612)	\$17,464,043	16.00	\$279,424,681
Electric Power	\$8,264,721	\$0	\$8,264,721	20.73	\$171,297,822
Water Purchased	\$4,148,773	\$0	\$4,148,773	32.55	\$135,036,763
Employee Group Insurance	\$5,966,463	\$0	\$5,966,463	16.00	\$95,463,405
Liability Insurance ⁽¹⁾	\$7,021,825	(\$340,945)	\$6,680,880	-1.37	(\$9,151,630)
SFI Postage	\$1,344,879	\$0	\$1,344,879	-7.96	(\$10,706,644)
Pension	\$3,990,000	\$0	\$3,990,000	300.60	\$1,199,377,034
SFAS106	\$27,361	\$0	\$27,361	365.67	\$10,005,097
All Other Expenses	\$27,451,796	\$0	\$27,451,796	25.50	\$700,020,787
General Inflation ⁽¹⁾	\$0	(\$864,335)	(\$864,335)	25.90	(\$22,386,273)
	\$0		\$0	0.00	\$0
	\$0		\$0	0.00	\$0
	\$0		\$0	0.00	\$0
	\$0		\$0	0.00	\$0
	\$0		\$0	0.00	\$0
	<u>\$112,989,731</u>	<u>(\$1,900,892)</u>	<u>\$111,088,839</u>	<u>25.90</u>	<u>\$2,875,216,087</u>
Commission Average Revenue Lag	45.1				
Less: Commission Avg. Expense Lag	25.9				
Net Difference	19.2	Days			
Commission Pro forma O & M Expense per Day	<u>\$304,353</u>				
Commission CWC for O & M	\$5,843,578				
Less: Company Claim ⁽¹⁾⁽²⁾	<u>\$6,005,000</u>				
Commission Adjustment	<u>(\$161,422)</u>				

Notes and Sources to Accompany Table VI – Water

⁽¹⁾ Company Main Brief

⁽²⁾ Company claim rounded to nearest thousandth

⁽³⁾ See Table II- Water, Note 3. Most SERP expenses are under the management fee account. OCA Exhibit LA-3 at Page 63.

⁽⁴⁾ See Table II - Water, Note 4. We reject increases Aqua made to all expense accounts included in its general inflation claim. Since Exhibits 1-A to 1-G at Schedules C-4.1 and G-5.2 use different item descriptions, the number of lag days used for this adjustment is equal to the weighted average O & M Expense lag days for this rate zone after all other adjustments are applied.

⁽⁵⁾ See Table II - Water, Note 5.

Commission Final Allowance
TABLE I - Wastewater - Base
Aqua Pennsylvania Wastewater, Inc. - Base
INCOME SUMMARY
R-2021-3027385, R-2021-3027386

	Pro Forma Present Rates ⁽¹⁾	Company Adjustments ⁽¹⁾	Pro Forma Present Rates (Revised) ⁽¹⁾	Commission Adjustments	Commission Pro Forma Present Rates	Commission Revenue Increase ⁽¹⁾	Total Allowable Revenues
	\$	\$	\$	\$	\$	\$	\$
Operating Revenue	\$ 19,011,761	\$ -	\$ 19,011,761	\$ -	\$ 19,011,761	\$ 15,616,886	\$ 34,628,647
Expenses:							
O & M Expense	9,830,816	-	9,830,816	(150,101)	9,680,715	186,452	9,867,167
Depreciation	7,780,016	-	7,780,016	-	7,780,016	-	7,780,016
Taxes, Other	303,529	-	303,529	-	303,529	104,877	408,406
Income Taxes:							
State	(1,181,921)	-	(1,181,921)	14,597	(1,167,324)	1,531,023	363,699
Federal	(1,036,251)	-	(1,036,251)	27,620	(1,058,631)	2,896,852	1,838,221
Total Expenses	15,646,188	-	15,646,188	(107,884)	15,538,304	4,719,204	20,257,508
Net Inc. Available for Return	3,365,573	\$ -	\$ 3,365,573	\$ 107,884	\$ 3,473,458	\$ 10,897,682	\$ 14,371,140
Rate Base	198,368,990	-	198,368,990	216,340	198,585,330		198,585,330
Rate of Return	1.70%		1.70%		1.75%		7.23675800%

⁽¹⁾ Company Main Brief

⁽¹⁾ Revenue increases before Section 1311(c) allocation from water to wastewater

Pre-Act 11 Allocation Revenue Change (%): 82.14%

Commission Final Allowance
TABLE I(A) - Wastewater - Base
Aqua Pennsylvania Wastewater, Inc. - Base
RATE OF RETURN
R-2021-3027385, R-2021-3027386

	<u>Structure</u>	<u>Cost</u>	<u>After-Tax Weighted Cost</u>	<u>Effective Tax Rate Complement</u>	<u>Pre-Tax Weighted Cost Rate</u>
Total Cost of Debt			1.84216100%		1.84%
Long-term Debt	46.05%	4.00%	1.84216100%		1.84%
Short-term Debt	0.00%	0.00%	0.00000000%		0.00%
Preferred Stock	0.00%	0.00%	0.00000000%	0.711079	0.00%
Common Equity	53.95%	10.00%	5.39459700%	0.711079	7.59%
	<u>100.00%</u>		<u>7.23675800%</u>		<u>9.43%</u>
Pre-Tax Interest Coverage	5.12				
After-Tax Interest Coverage	3.93				
Tax Rate Complement (1-(21%+(9.99% X (1-21%)))	71.10790%				

Commission Final Allowance Aqua Pennsylvania Wastewater, Inc. - Base TABLE I(B) - Wastewater - Base REVENUE FACTOR R-2021-3027385, R-2021-3027386	
100%	<u>1.00000000</u>
Less:	
Uncollectible Accounts Factor ^(*)	0.01193911
PUC, OCA, OSBA, DPC Assessment Factors ^(*)	0.00671560
Gross Receipts Tax	0.00000000
Other Tax Factors	<u>0.00000000</u>
	0.98134529
State Income Tax Rate ^(*)	<u>0.09990000</u>
Effective State Income Tax Rate	<u>0.09803639</u>
Factor After Local and State Taxes	0.88330890
Federal Income Tax Rate ^(*)	<u>0.21000000</u>
Effective Federal Income Tax Rate	<u>0.18549487</u>
Revenue Factor (100% - Effective Tax Rates)	<u><u>0.69781403</u></u>

^(*) Company Main Brief

Commission Final Adjustments
TABLE II - Wastewater - Base
SUMMARY OF ADJUSTMENTS
R-2021-3027385, R-2021-3027386

<u>Adjustments</u>	<u>Rate Base</u>	<u>Revenues</u>	<u>Expenses</u>	<u>Depreciation</u>	<u>Taxes-Other</u>	<u>State Income Tax</u>	<u>Federal Income Tax</u>
	\$	\$	\$	\$	\$	\$	\$
RATE BASE:							
CWC:							
Int. & Div. (Table IV)	(945)						
Taxes (Table V)	226,646						
O & M (Table VI)	(9,361)						
REVENUES:							
					0	0	0
EXPENSES:							
						0	0
Supp. Exec. Retire. Program ⁽¹⁾			(23,373)			2,335	4,418
General Inflation ⁽²⁾			(145,368)			14,522	27,478
Gen. Liab. Insurance ⁽³⁾			18,640			(1,862)	(3,523)
			0			0	0
			0			0	0
			0			0	0
			0			0	0
			0			0	0
			0			0	0
			0			0	0
			0			0	0
TAXES:							
						0	0
Interest Synchronization (Table III)						(398)	(753)
TOTALS	<u>216,340</u>	<u>0</u>	<u>(150,101)</u>	<u>0</u>	<u>0</u>	<u>14,597</u>	<u>27,620</u>

Notes to Accompany Table II – Wastewater - Base

- (1) Remove SERP Expenses. The OCA's \$57,050 adjustment is allocated to each wastewater rate zone based on the relative percentage of management fees assigned to each rate zone per Aqua Exhibits 1-B to 1-G at Schedule C-1. Since Wastewater - Base is assigned \$714,262 of \$1,743,416 in total management fees, this adjustment is calculated as follows: $[-\$57,050 \times (\$714,262 / \$1,743,416) = -\$23,373]$.
- (2) Remove general inflation adjustment.
- (3) Adopt I&E's position regarding general liability insurance expense.

Commission Final Allowance
TABLE III - Wastewater - Base
Aqua Pennsylvania Wastewater, Inc. - Base
INTEREST SYNCHRONIZATION
R-2021-3027385, R-2021-3027386

	Amount \$
Company Rate Base Claim ⁽¹⁾	198,368,990
Commission Rate Base Adjustments (From Table II)	<u>216,340</u>
Commission Rate Base (Line 1 - Line 2)	198,585,330
Weighted Cost of Debt (From Table IA)	<u>1.84216100%</u>
Commission Interest Expense (Line 3 x Line 4)	3,658,261
Company Claim ⁽¹⁾	<u>3,654,276</u>
Total Commission Adjustment (Line 6 - Line 5)	(3,985)
Company Adjustment ⁽¹⁾	<u>0</u>
Net Commission Interest Adjustment (Line 7 - Line 8)	(3,985)
State Income Tax Rate	<u>9.99%</u>
State Income Tax Adjustment (Line 9 x Line 10) (Flow to Table II)	<u>(398)</u>
Net Commission Interest Adjustment (Line 9)	(3,985)
State Income Tax Adjustment (Line 11)	<u>(398)</u>
Net Commission Adjustment for F.I.T. (Line 9 - Line 11)	(3,587)
Federal Income Tax Rate	<u>21.00%</u>
Federal Income Tax Adjustment (Line 12 x Line 13) (Flow to Table II)	<u><u>(753)</u></u>

⁽¹⁾ Company Main Brief

Commission Final Allowance
TABLE IV - Wastewater - Base
Aqua Pennsylvania Wastewater, Inc. - Base
CASH WORKING CAPITAL - Interest and Dividends
R-2021-3027385, R-2021-3027386

Accrued Interest			Preferred Stock Dividends	
	Long-Term Debt	Short-Term Debt		
Company Rate Base Claim	\$198,368,990	\$198,368,990	Company Rate Base Claim	\$198,368,990
Commission Rate Base Adjustments	\$216,340	\$216,340	Commission Rate Base Adjustmer	\$216,340
Commission Rate Base	\$198,585,330	\$198,585,330	Commission Rate Base	\$198,585,330
Weighted Cost of Debt	1.84216100%	0.00%	Weighted Cost Pref. Stock	0.00000000%
Commission Annual Interest Exp.	<u>\$3,658,261</u>	<u>\$0</u>	Commission Preferred Dividends	<u>\$0</u>
Average Revenue Lag Days	50.2	50.2	Average Revenue Lag Days	50.2
Average Expense Lag Days	<u>31.3</u>	<u>31.3</u>	Average Expense Lag Days	<u>31.3</u>
Net Lag Days	<u>-41.1</u>	<u>-41.1</u>	Net Lag Days	<u>-41.1</u>
Working Capital Adjustment				
Commission Daily Interest Exp.	\$10,023	\$0	Commission Daily Dividends	\$0
Net Lag Days	<u>-41.1</u>	<u>-41.1</u>	Net Lag Days	<u>-41.1</u>
Commission Working Capital	(\$411,945)	\$0		\$0
Company Claim ⁽¹⁾	<u>(\$411,000)</u>	<u>\$0</u>	Company Claim ⁽¹⁾	<u>\$0</u>
Commission Adjustment	<u>(\$945)</u>	<u>\$0</u>		<u>\$0</u>
Total Interest & Dividend Adj.	<u>(\$945)</u>			

⁽¹⁾ Company Main Brief.

Commission Final Allowance
TABLE V - Wastewater -Base
Aqua Pennsylvania Wastewater, Inc. - Base
CASH WORKING CAPITAL -TAXES
R-2021-3027385, R-2021-3027386

Description	Company Proforma Tax Expense Present Rates	Commission Adjustments	Commission Pro forma Tax Expense Present Rates	Commission Allowance	Commission Adjusted Taxes at Present Rates	Daily Expense	Net Lead/ Lag Days	Accrued Tax Adjustment
Assessments	\$127,675	\$0	\$127,675	\$104,877	\$232,552	\$637.13	-197.50	(\$125,833)
Local, County, School, & Municipal Tax	\$175,853	\$0	\$175,853		\$175,853	\$481.79	-167.00	(\$80,459)
	\$0	\$0	\$0		\$0	\$0.00	0.00	\$0
	\$0	\$0	\$0		\$0	\$0.00	0.00	\$0
	\$0	\$0	\$0		\$0	\$0.00	0.00	\$0
	\$0	\$0	\$0		\$0	\$0.00	0.00	\$0
	\$0	\$0	\$0		\$0	\$0.00	0.00	\$0
	\$0	\$0	\$0		\$0	\$0.00	0.00	\$0
	\$0	\$0	\$0		\$0	\$0.00	0.00	\$0
	\$0	\$0	\$0		\$0	\$0.00	0.00	\$0
	\$0	\$0	\$0		\$0	\$0.00	0.00	\$0
State Income Tax	(\$1,178,637)	\$14,597	(\$1,164,040)	\$1,531,023	\$366,983	\$1,005.43	45.20	\$45,445
Federal Income Tax	(\$2,225,857)	\$27,620	(\$2,198,237)	\$2,896,852	\$698,615	\$1,914.01	33.40	\$63,928
	<u>(\$3,100,365)</u>	<u>\$42,217</u>	<u>(\$3,058,148)</u>	<u>\$4,532,752</u>	<u>\$1,474,004</u>	<u>\$4,038.36</u>	<u>(24.00)</u>	<u>(\$36,313)</u>
(1) Company Main Brief								
					Average Lag Days in Receipt of Revenues			50.2
					Average Lag in Payment of Taxes			<u>(24.0)</u>
					Net Lag			<u>74</u>
					Average Daily Tax Expense			4,038
					Commission Cash Working Capital for Taxes			299,646
					Less Company Claim ⁽¹⁾			<u>73,000</u>
					Commission Adjustment			<u>226,646</u>

TABLE VI - Wastewater - Base

Aqua Pennsylvania Wastewater, Inc. - Base
CASH WORKING CAPITAL -- O & M EXPENSE
B-2021-3027385, B-2021-3027386

[illegible]

Notes and Sources to Accompany Table VI – Wastewater - Base

⁽¹⁾ Company Main Brief

⁽²⁾ See Table II - Wastewater - Base, Note 2. We reject increases Aqua made to all expense accounts included in its general inflation claim. Since Exhibits 1-A to 1-G at Schedules C-4.1 and G-5.2 use different item descriptions, the number of lag days used for this adjustment is equal to the weighted average O & M Expense lag days for this rate zone after all other adjustments are applied.

⁽³⁾ See Table II - Wastewater - Base, Note 1. SERP expenses are under the management fee account. OCA Exhibit LA-3 at Page 63.

⁽⁴⁾ See Table II Wastewater - Base, Note 3.

Commission Final Allowance
TABLE I - Wastewater - Limerick
Aqua Pennsylvania Wastewater, Inc. - Limerick
INCOME SUMMARY
R-2021-3027385, R-2021-3027386

	Pro Forma Present Rates ⁽¹⁾	Company Adjustments ⁽¹⁾	Pro Forma Present Rates (Revised) ⁽¹⁾	Commission Adjustments	Commission Pro Forma Present Rates	Commission Revenue Increase ⁽¹⁾	Total Allowable Revenues
	\$	\$	\$	\$	\$	\$	\$
Operating Revenue	\$ 3,978,573	\$ -	\$ 3,978,573	\$ -	\$ 3,978,573	\$ 5,581,376	\$ 9,559,949
Expenses:							
O & M Expense	2,041,053	-	2,041,053	(27,778)	2,013,275	66,637	2,079,912
Depreciation	1,998,881	-	1,998,881	-	1,998,881	-	1,998,881
Taxes, Other	26,719	-	26,719	-	26,719	37,482	64,201
Income Taxes:							
State	(146,426)	-	(146,426)	2,634	(143,792)	547,178	403,386
Federal	(211,135)	-	(211,135)	4,984	(206,151)	1,035,317	829,166
Total Expenses	3,709,091	-	3,709,091	(20,160)	3,688,931	1,686,614	5,375,545
Net Inc. Available for Return	269,482	\$ -	\$ 269,482	\$ 20,160	\$ 289,642	\$ 3,894,762	\$ 4,184,405
Rate Base	57,744,861	-	57,744,861	76,673	57,821,534		57,821,534
Rate of Return	0.47%		0.47%		0.50%		7.23675800%

⁽¹⁾ Company Main Brief

⁽¹⁾ Revenue increases before Section 1311(c) allocation from water to wastewater

Pre-Act 11 Allocation Revenue Change (%): 140.29%

Commission Final Allowance
TABLE I(A) - Wastewater - Limerick
Aqua Pennsylvania Wastewater, Inc. - Limerick
RATE OF RETURN
R-2021-3027385, R-2021-3027386

	Structure	Cost	After-Tax Weighted Cost	Effective Tax Rate Complement	Pre-Tax Weighted Cost Rate
Total Cost of Debt			1.84216100%		1.84%
Long-term Debt	46.05%	4.00%	1.84216100%		1.84%
Short-term Debt	0.00%	0.00%	0.00000000%		0.00%
Preferred Stock	0.00%	0.00%	0.00000000%	0.711079	0.00%
Common Equity	53.95%	10.00%	5.39459700%	0.711079	7.59%
	<u>100.00%</u>		<u>7.23675800%</u> ⁽¹⁾		<u>9.43%</u>
Pre-Tax Interest Coverage	5.12				
After-Tax Interest Coverage	3.93				
Tax Rate Complement (1-(21%+(9.99% X (1-21%)))	71.10790%				

⁽¹⁾ The Company rounded the Total After-Tax Weighted Cost to 4 decimals places. The formula in the original presentation did not round the Total After-Tax Weighted Cost.

Commission Final Allowance Aqua Pennsylvania Wastewater, Inc. - Limerick TABLE I(B) - Wastewater - Limerick REVENUE FACTOR R-2021-3027385, R-2021-3027386	
100%	<u>1.00000000</u>
Less:	
Uncollectible Accounts Factor ^(*)	0.01193911
PUC, OCA, OSBA, DPC Assessment Factors ^(*)	0.00671560
Gross Receipts Tax	0.00000000
Other Tax Factors	<u>0.00000000</u>
	0.98134529
State Income Tax Rate ^(*)	<u>0.09990000</u>
Effective State Income Tax Rate	<u>0.09803639</u>
Factor After Local and State Taxes	0.88330890
Federal Income Tax Rate ^(*)	<u>0.21000000</u>
Effective Federal Income Tax Rate	<u>0.18549487</u>
Revenue Factor (100% - Effective Tax Rates)	<u><u>0.69781403</u></u>
^(*) Company Main Brief	

Commission Final Adjustments
TABLE II - Wastewater - Limerick
SUMMARY OF ADJUSTMENTS
R-2021-3027385, R-2021-3027386

<u>Adjustments</u>	<u>Rate Base</u>	<u>Revenues</u>	<u>Expenses</u>	<u>Depreciation</u>	<u>Taxes-Other</u>	<u>State Income Tax</u>	<u>Federal Income Tax</u>
	\$	\$	\$	\$	\$	\$	\$
RATE BASE:							
CWC:							
Int. & Div. (Table IV)	(389)						
Taxes (Table V)	78,550						
O & M (Table VI)	(1,488)						
REVENUES:							
					0	0	0
EXPENSES:							
Supp. Exec. Retire. Program ⁽¹⁾			(8,035)			0	0
General Inflation ⁽¹⁾			(23,275)			803	1,519
Gen. Liab. Insurance ⁽¹⁾			3,533			2,325	4,400
			0			(353)	(668)
			0			0	0
			0			0	0
			0			0	0
			0			0	0
			0			0	0
			0			0	0
			0			0	0
			0			0	0
			0			0	0
TAXES:							
Interest Synchronization (Table III)						0	0
						(141)	(267)
TOTALS	<u>78,673</u>	<u>0</u>	<u>(27,778)</u>	<u>0</u>	<u>0</u>	<u>2,634</u>	<u>4,984</u>

Notes to Accompany Table II -Wastewater - Limerick

- (1) Remove SERP Expenses. The OCA's \$57,050 adjustment is allocated to each wastewater rate zone based on the relative percentage of management fees assigned to each rate zone per Aqua Exhibits 1-B to 1-G at Schedule C-1. Since Limerick is assigned \$245,560 of \$1,743,416 in total management fees, this adjustment is calculated as follows:
$$[-\$57,050 \times (\$245,560 / \$1,743,416) = -\$8,035].$$
- (2) Remove general inflation adjustment.
- (3) Adopt I&E's position regarding general liability insurance expense.

Commission Final Allowance
TABLE III - Wastewater - Limerick
Aqua Pennsylvania Wastewater, Inc. - Limerick
INTEREST SYNCHRONIZATION
R-2021-3027385, R-2021-3027386

	Amount \$
Company Rate Base Claim ⁽¹⁾	57,744,861
Commission Rate Base Adjustments (From Table II)	<u>76,673</u>
Commission Rate Base (Line 1 - Line 2)	57,821,534
Weighted Cost of Debt (From Table IA)	<u>1.84216100%</u>
Commission Interest Expense (Line 3 x Line 4)	1,065,166
Company Claim ⁽¹⁾	<u>1,063,753</u>
Total Commission Adjustment (Line 6 - Line 5)	(1,412)
Company Adjustment ⁽¹⁾	<u>0</u>
Net Commission Interest Adjustment (Line 7 - Line 8)	(1,412)
State Income Tax Rate	<u>9.99%</u>
State Income Tax Adjustment (Line 9 x Line 10) (Flow to Table II)	<u>(141)</u>
Net Commission Interest Adjustment (Line 9)	(1,412)
State Income Tax Adjustment (Line 11)	<u>(141)</u>
Net Commission Adjustment for F.I.T. (Line 9 - Line 11)	(1,271)
Federal Income Tax Rate	<u>21.00%</u>
Federal Income Tax Adjustment (Line 12 x Line 13) (Flow to Table II)	<u><u>(267)</u></u>

⁽¹⁾ Company Main Brief

Commission Final Allowance
TABLE IV - Wastewater - Limerick
 Aquia Pennsylvania Wastewater, Inc. - Limerick
 CASH WORKING CAPITAL - Interest and Dividends
 R-2021-3027385, R-2021-3027386

Accrued Interest			Preferred Stock Dividends	
	Long-Term Debt	Short-Term Debt		
Company Rate Base Claim	\$57,744,861	\$57,744,861	Company Rate Base Claim	\$57,744,861
Commission Rate Base Adjustments	<u>\$76,673</u>	<u>\$76,673</u>	Commission Rate Base Adjustments	<u>\$76,673</u>
Commission Rate Base	\$57,821,534	\$57,821,534	Commission Rate Base	\$57,821,534
Weighted Cost of Debt	<u>1.84216100%</u>	<u>0.00%</u>	Weighted Cost Pref. Stock	<u>0.00000000%</u>
Commission Annual Interest Exp.	<u><u>\$1,065,166</u></u>	<u><u>\$0</u></u>	Commission Preferred Dividends	<u><u>\$0</u></u>
Average Revenue Lag Days	49.7	49.7	Average Revenue Lag Days	49.7
Average Expense Lag Days	<u>91.3</u>	<u>91.3</u>	Average Expense Lag Days	<u>91.3</u>
Net Lag Days	<u><u>-41.6</u></u>	<u><u>-41.6</u></u>	Net Lag Days	<u><u>-41.6</u></u>
Working Capital Adjustment				
Commission Daily Interest Exp.	\$2,318	\$0	Commission Daily Dividends	\$0
Net Lag Days	<u>-41.6</u>	<u>-41.6</u>	Net Lag Days	<u>-41.6</u>
Commission Working Capital	(\$121,389)	\$0		\$0
Company Claim ⁽¹⁾	<u>(\$121,000)</u>	<u>\$0</u>	Company Claim ⁽¹⁾	<u>\$0</u>
Commission Adjustment	<u><u>(\$389)</u></u>	<u><u>\$0</u></u>		<u><u>\$0</u></u>
Total Interest & Dividend Adj.	<u><u>(\$389)</u></u>			

⁽¹⁾ Company Main Brief.

Commission Final Allowance
TABLE V - Wastewater-Limerick
Aqua Pennsylvania Wastewater, Inc. - Limerick
CASH WORKING CAPITAL - TAXES
R-2021-3027385, R-2021-3027386

Description	Company Proforma Tax Expense Present Rates	Commission Adjustments	Commission Pro forma Tax Expense Present Rates	Commission Allowance	Commission Adjusted Taxes at Present Rates	Daily Expense	Net Lead/ Lag Days	Accrued Tax Adjustment
Assessments	\$26,719	\$0	\$26,719	\$37,482	\$64,201	\$175.89	-197.5	(\$34,738)
	\$0	\$0	\$0		\$0	\$0.00	0.0	\$0
	\$0	\$0	\$0		\$0	\$0.00	0.0	\$0
	\$0	\$0	\$0		\$0	\$0.00	0.0	\$0
	\$0	\$0	\$0		\$0	\$0.00	0.0	\$0
	\$0	\$0	\$0		\$0	\$0.00	0.0	\$0
	\$0	\$0	\$0		\$0	\$0.00	0.0	\$0
	\$0	\$0	\$0		\$0	\$0.00	0.0	\$0
	\$0	\$0	\$0		\$0	\$0.00	0.0	\$0
	\$0	\$0	\$0		\$0	\$0.00	0.0	\$0
	\$0	\$0	\$0		\$0	\$0.00	0.0	\$0
State Income Tax	(\$148,426)	\$2,634	(\$143,792)	\$547,178	\$403,386	\$1,105.17	45.2	\$49,354
Federal Income Tax	(\$277,054)	\$4,984	(\$272,070)	\$1,035,317	\$763,247	\$2,091.09	33.4	\$69,842
	<u>(\$356,762)</u>	<u>\$7,618</u>	<u>(\$369,144)</u>	<u>\$1,613,977</u>	<u>\$1,230,833</u>	<u>\$3,372.15</u>	<u>25.22</u>	<u>\$85,056</u>
⁽¹⁾ Company Main Brief								
					Average Lag Days in Receipt of Revenues			49.7
					Average Lag in Payment of Taxes			<u>25.2</u>
					Net Lag			<u>24.5</u>
					Average Daily Tax Expense			3,372
					Commission Cash Working Capital for Taxes			82,550
					Less Company Claim ⁽¹⁾			<u>4,000</u>
					Commission Adjustment			<u>78,550</u>

Commission Final Allowance
TABLE VI - Wastewater - Limerick
Aqua Pennsylvania Wastewater, Inc. - Limerick
CASH WORKING CAPITAL -- O & M EXPENSE
R-2021-3027385, R-2021-3027386

[illegible]

Notes and Sources to Accompany Table VI – Wastewater - Limerick

- ⁽¹⁾ Company Main Brief
- ⁽²⁾ See Table II - Wastewater - Limerick, Note 2. We reject increases Aqua made to all expense accounts included in its general inflation claim. Since Exhibits 1-A to 1-G at Schedules C-4.1 and G-5.2 use different item descriptions, the number of lag days used for this adjustment is equal to the weighted average O & M Expense lag days for this rate zone after all other adjustments are applied.
- ⁽³⁾ See Table II - Wastewater - Limerick, Note 1. SERP expenses are under the management fee account. OCA Exhibit LA-3 at Page 63.
- ⁽⁴⁾ See Table II - Wastewater - Limerick, Note 3.

Commission Final Allowance
TABLE I - Wastewater - East Bradford
Aqua Pennsylvania Wastewater, Inc. - East Bradford
INCOME SUMMARY
R-2021-3027385, R-2021-3027386

	Pro Forma Present Rates ¹⁴	Company Adjustments ¹⁵	Pro Forma Present Rates (Revised) 11	Commission Adjustments	Commission Pro Forma Present Rates	Commission Revenue Increase ¹⁵	Total Allowable Revenues
	\$	\$	\$	\$	\$	\$	\$
Operating Revenue	\$ 1,014,569	\$ -	\$ 1,014,569	\$ -	\$ 1,014,569	\$ 777,094	\$ 1,791,663
Expenses:							
O & M Expense	1,113,197	-	1,113,197	(7,802)	1,105,395	9,278	1,114,673
Depreciation	158,552	-	158,552	-	158,552	-	158,552
Taxes, Other	11,413	-	11,413	-	11,413	5,219	16,632
Income Taxes:							
State	(42,221)	-	(42,221)	761	(41,460)	76,183	34,723
Federal	(68,340)	-	(68,340)	1,441	(66,899)	144,147	77,248
Total Expenses	1,172,601	-	1,172,601	(5,600)	1,167,001	234,827	1,401,828
Net Inc. Available for Return	(158,032)	\$ -	\$ (158,032)	\$ 5,600	\$ (152,432)	\$ 542,267	\$ 389,835
Rate Base	5,377,205	-	5,377,205	9,669	5,386,874		5,386,874
Rate of Return	-2.34%		-2.34%		-2.83%		7.23675800%

¹⁴ Company Main Brief

¹⁵ Revenue increases before Section 1311(c) allocation from water to wastewater

Pre-Act 11 Allocation Revenue Change (%): 76.59%

Commission Final Allowance
TABLE I(A) - Wastewater - East Bradford
Aqua Pennsylvania Wastewater, Inc. - East Bradford
RATE OF RETURN
R-2021-3027385, R-2021-3027386

	<u>Structure</u>	<u>Cost</u>	<u>After-Tax Weighted Cost</u>	<u>Effective Tax Rate Complement</u>	<u>Pre-Tax Weighted Cost Rate</u>
Total Cost of Debt			1.84216100%		<u>1.84%</u>
Long-term Debt	46.05%	4.00%	1.84216100%		<u>1.84%</u>
Short-term Debt	0.00%	0.00%	0.00000000%		0.00%
Preferred Stock	0.00%	0.00%	0.00000000%	0.711079	0.00%
Common Equity	<u>53.95%</u>	<u>10.00%</u>	<u>5.39459700%</u>	<u>0.711079</u>	<u>7.59%</u>
	<u>100.00%</u>		<u>7.23675800%</u>		<u>9.43%</u>
Pre-Tax Interest Coverage	5.12				
After-Tax Interest Coverage	3.93				
Tax Rate Complement (1-(21%+(3.99% X (1-21%)))	71.10790%				

Commission Final Allowance	
Aqua Pennsylvania Wastewater, Inc. - East Bradford	
TABLE I(B) - Wastewater - East Bradford	
REVENUE FACTOR	
R-2021-3027385, R-2021-3027386	
100%	<u>1.00000000</u>
Less:	
Uncollectible Accounts Factor ^(*)	0.01193911
PUC, OCA, OSBA, DPC Assessment Factors ^(*)	0.00671560
Gross Receipts Tax	0.00000000
Other Tax Factors	<u>0.00000000</u>
	0.98134529
State Income Tax Rate ^(*)	<u>0.09990000</u>
Effective State Income Tax Rate	<u>0.09803639</u>
Factor After Local and State Taxes	0.88330890
Federal Income Tax Rate ^(*)	<u>0.21000000</u>
Effective Federal Income Tax Rate	<u>0.18549487</u>
Revenue Factor (100% - Effective Tax Rates)	<u><u>0.69781403</u></u>
 ^(*) Company Main Brief	

Commission Final Adjustments
TABLE II - Wastewater - East Bradford
SUMMARY OF ADJUSTMENTS
R-2021-3027385, R-2021-3027386

<u>Adjustments</u>	<u>Rate Base</u>	<u>Revenues</u>	<u>Expenses</u>	<u>Depreciation</u>	<u>Taxes-Other</u>	<u>State Income Tax</u>	<u>Federal Income Tax</u>
	\$	\$	\$	\$	\$	\$	\$
RATE BASE:							
CWC:							
Int. & Div. (Table IV)	250						
Taxes (Table V)	9,729						
O & M (Table VI)	(310)						
REVENUES:							
					0	0	0
EXPENSES:							
Supp. Exec. Retire. Program ⁽¹⁾			(1,763)			0	0
General Inflation ⁽²⁾			(6,828)			176	333
Gen. Liab. Insurance ⁽³⁾			785			682	1,231
			0			(75)	(143)
			0			0	0
			0			0	0
			0			0	0
			0			0	0
			0			0	0
			0			0	0
			0			0	0
			0			0	0
TAXES:							
Interest Synchronization (Table III)						0	0
						(18)	(34)
TOTALS	<u>9,669</u>	<u>0</u>	<u>(7,802)</u>	<u>0</u>	<u>0</u>	<u>761</u>	<u>1,441</u>

Notes and Sources to Accompany Table II – Wastewater – East Bradford

- (1) Remove SERP Expenses. The OCA's \$57,050 adjustment is allocated to each wastewater rate zone based on the relative percentage of management fees assigned to each rate zone per Aqua Exhibits 1-B to 1-G at Schedule C-2. Since East Bradford is assigned \$53,881 of \$1,743,416 in total management fees, this adjustment is calculated as follows:
$$[-\$57,050 \times (\$53,881 / \$1,743,416) = -\$1,763].$$
- (2) Remove general inflation adjustment.
- (3) Adopt I&E's position regarding general liability insurance expense.

Commission Final Allowance
TABLE III - Wastewater -East Bradford
Aqua Pennsylvania Wastewater, Inc. - East Bradford
INTEREST SYNCHRONIZATION
R-2021-3027385, R-2021-3027386

	Amount \$
Company Rate Base Claim ⁽¹⁾	5,377,205
Commission Rate Base Adjustments (From Table II)	<u>9,669</u>
Commission Rate Base (Line 1 - Line 2)	5,386,874
Weighted Cost of Debt (From Table IA)	<u>1.84216100%</u>
Commission Interest Expense (Line 3 x Line 4)	99,235
Company Claim ⁽¹⁾	<u>99,057</u>
Total Commission Adjustment (Line 6 - Line 5)	(178)
Company Adjustment ⁽¹⁾	<u>0</u>
Net Commission Interest Adjustment (Line 7 - Line 8)	(178)
State Income Tax Rate	<u>9.99%</u>
State Income Tax Adjustment (Line 9 x Line 10) (Flow to Table II)	<u>(18)</u>
Net Commission Interest Adjustment (Line 9)	(178)
State Income Tax Adjustment (Line 11)	<u>(18)</u>
Net Commission Adjustment for F.I.T. (Line 9 - Line 11)	(160)
Federal Income Tax Rate	<u>21.00%</u>
Federal Income Tax Adjustment (Line 12 x Line 13) (Flow to Table II)	<u><u>(34)</u></u>

⁽¹⁾ Company Main Brief

Commission Final Allowance
TABLE IV - Wastewater - East Bradford
Aqua Pennsylvania Wastewater, Inc. - East Bradford
CASH WORKING CAPITAL - Interest and Dividends
R-2021-3027385, R-2021-3027386

Accrued Interest	Preferred Stock Dividends	
	Long-Term Debt	Short-Term Debt
Company Rate Base Claim	\$5,377,205	\$5,377,205
Commission Rate Base Adjustments	<u>\$9,669</u>	<u>\$9,669</u>
Commission Rate Base	\$5,386,874	\$5,386,874
Weighted Cost of Debt	<u>1.84216100%</u>	<u>0.00%</u>
Commission Annual Interest Exp.	<u><u>\$99,235</u></u>	<u><u>\$0</u></u>
Average Revenue Lag Days	48.1	48.1
Average Expense Lag Days	<u>91.3</u>	<u>91.3</u>
Net Lag Days	<u><u>-43.2</u></u>	<u><u>-43.2</u></u>
Working Capital Adjustment		
Commission Daily Interest Exp.	\$272	\$0
Net Lag Days	<u>-43.2</u>	<u>-43.2</u>
Commission Working Capital	(\$11,750)	\$0
Company Claim ⁽¹⁾	<u>(\$12,000)</u>	<u>\$0</u>
Commission Adjustment	<u><u>\$250</u></u>	<u><u>\$0</u></u>
Total Interest & Dividend Adj.	<u><u>\$250</u></u>	

⁽¹⁾ Company Main Brief.

Commission Final Allowance
TABLE V - Wastewater - East Bradford
Aqua Pennsylvania Wastewater, Inc. - East Bradford
CASH WORKING CAPITAL - TAXES
R-2021-3027385, R-2021-3027386

Description	Company Proforma Tax Expense Present Rates	Commission Adjustments	Commission Proforma Tax Expense Present Rates	Commission Allowance	Commission Adjusted Taxes at Present Rates	Daily Expense	Net Lead/ Lag Days	Accrued Tax Adjustment
PA PUC - General Assessments	\$6,813	\$0	\$6,813	\$5,219	\$12,032	\$32.37	-197.50	(\$6,512)
Local, County, School, & Municipal Tax	\$4,600	\$0	\$4,600		\$4,600	\$12.60	-167.00	(\$2,104)
	\$0	\$0	\$0		\$0	\$0.00	0.00	\$0
	\$0	\$0	\$0		\$0	\$0.00	0.00	\$0
	\$0	\$0	\$0		\$0	\$0.00	0.00	\$0
	\$0	\$0	\$0		\$0	\$0.00	0.00	\$0
	\$0	\$0	\$0		\$0	\$0.00	0.00	\$0
	\$0	\$0	\$0		\$0	\$0.00	0.00	\$0
	\$0	\$0	\$0		\$0	\$0.00	0.00	\$0
	\$0	\$0	\$0		\$0	\$0.00	0.00	\$0
	\$0	\$0	\$0		\$0	\$0.00	0.00	\$0
State Income Tax	(\$42,221)	\$761	(\$41,460)	\$76,183	\$34,723	\$95.13	45.20	\$4,300
Federal Income Tax	(\$79,886)	\$1,441	(\$78,445)	\$144,147	\$65,702	\$180.00	33.40	\$6,012
	<u>(\$110,634)</u>	<u>\$2,202</u>	<u>(\$108,432)</u>	<u>\$225,549</u>	<u>\$117,057</u>	<u>\$320.70</u>	<u>5.29</u>	<u>\$1,696</u>
(1) Company Main Brief								
Average Lag Days in Receipt of Revenues								48
Average Lag in Payment of Taxes								<u>5.3</u>
Net Lag								<u>42.8</u>
Average Daily Tax Expense								321
Commission Cash Working Capital for Taxes								13,729
Less Company Claim (1)								<u>4,000</u>
Commission Adjustment								<u>3,729</u>

Company Pro forma F.T.Y. Expense	Commission	Commission Pro forma Expenses	Lag Days	Lag Dollars
\$161	\$0	\$161	11.00	\$1,775
\$53,881	(\$1,763)	\$52,118	16.00	\$833,889
\$12,168	\$0	\$12,168	20.73	\$252,196
\$97	\$0	\$97	16.00	\$1,549
\$1,760	\$789	\$2,549	-1.37	(\$3,491)
\$3,856	\$0	\$3,856	-7.96	(\$30,696)
\$1,027,433	\$0	\$1,027,433	25.50	\$26,199,540
\$0	(\$6,828)	(\$6,828)	24.80	(\$169,337)
\$0	\$0	\$0	0.00	\$0
\$0	\$0	\$0	0.00	\$0
\$0	\$0	\$0	0.00	\$0
\$0	\$0	\$0	0.00	\$0
\$0	\$0	\$0	0.00	\$0
\$0	\$0	\$0	0.00	\$0
\$0	\$0	\$0	0.00	\$0
\$0	\$0	\$0	0.00	\$0
\$0	\$0	\$0	0.00	\$0
<u>\$1,099,356</u>	<u>(\$7,802)</u>	<u>\$1,091,553</u>	<u>24.80</u>	<u>\$27,085,423</u>
48.1				
<u>24.8</u>				
23.3	Days			
<u>\$2,991</u>				
\$69,690				
<u>\$70,000</u>				
<u>(\$310)</u>				

Notes and Sources to Accompany Table VI – Wastewater – East Bradford

- ⁽¹⁾ Company Main Brief
- ⁽²⁾ See Table II - Wastewater - East Bradford, Note 2. We reject increases Aqua made to all expense accounts included in its general inflation claim. Since Exhibits 1-A to 1-G at Schedules C-4.1 and G-5.2 use different item descriptions, the number of lag days used for this adjustment is equal to the weighted average O & M Expense lag days for this rate zone after all other adjustments are applied.
- ⁽³⁾ See Table II - Wastewater East Bradford, Note 1. SERP expenses are under the management fee account. OCA Exhibit LA-3 at Page 63.
- ⁽⁴⁾ See Table II - Wastewater E Bradford, Note 3.

Commission Final Allowance
TABLE I - Wastewater - Cheltenham
Aqua Pennsylvania Wastewater, Inc. - Cheltenham
INCOME SUMMARY
R-2021-3027385, R-2021-3027386

	Pro Forma Present Rates ¹⁴¹	Company Adjustments ¹⁴¹	Pro Forma Present Rates (Revised) ¹⁴¹	Commission Adjustments	Commission Pro Forma Present Rates	Commission Revenue Increase ¹⁴¹	Total Allowable Revenues
	\$	\$	\$	\$	\$	\$	\$
Operating Revenue	\$ 7,258,740	\$ -	\$ 7,258,740	\$ -	\$ 7,258,740	\$ 2,752,399	\$ 10,011,139
Expenses:							
O & M Expense	4,552,450	-	4,552,450	(16,469)	4,535,981	32,861	4,568,842
Depreciation	1,011,770	-	1,011,770	-	1,011,770	-	1,011,770
Taxes, Other	48,747	-	48,747	-	48,747	18,484	67,231
Income Taxes:							
State	(10,260)	-	(10,260)	1,545	(8,715)	269,835	261,120
Federal	164,955	-	164,955	2,924	167,879	510,556	678,435
Total Expenses	5,767,861	-	5,767,861	(12,000)	5,755,862	831,736	6,587,398
Net Inc. Available for Return	1,491,079	\$ -	\$ 1,491,079	\$ 12,000	\$ 1,503,078	\$ 1,920,663	\$ 3,423,741
Rate Base	47,256,177	-	47,256,177	54,249	47,310,426		47,310,426
Rate of Return	3.16%		3.16%		3.18%		7.23675800%

¹⁴¹ Company Main Brief

¹⁴² Revenue increases before Section 1311(c) allocation from water to wastewater

Pre-Act 11 Allocation Revenue Change (%): 37.92%

Commission Final Allowance
TABLE I(A) - Wastewater - Cheltenham
Aqua Pennsylvania Wastewater, Inc. - Cheltenham
RATE OF RETURN
R-2021-3027385, R-2021-3027386

	<u>Structure</u>	<u>Cost</u>	<u>After-Tax Weighted Cost</u>	<u>Effective Tax Rate Complement</u>	<u>Pre-Tax Weighted Cost Rate</u>
Total Cost of Debt			1.84216100%		<u>1.84%</u>
Long-term Debt	46.05%	4.00%	1.84216100%		<u>1.84%</u>
Short-term Debt	0.00%	0.00%	0.00000000%		0.00%
Preferred Stock	0.00%	0.00%	0.00000000%	0.711079	0.00%
Common Equity	<u>53.95%</u>	10.00%	<u>5.39459700%</u>	0.711079	<u>7.59%</u>
	<u>100.00%</u>		<u>7.23675800%</u>		<u>9.43%</u>
Pre-Tax Interest Coverage	5.12				
After-Tax Interest Coverage	3.93				
Tax Rate Complement (1-(21%+(9.99% X (1-21%)))	71.10790%				

Commission Final Allowance Aqua Pennsylvania Wastewater, Inc. - Cheltenham TABLE I(B) - Wastewater - Cheltenham REVENUE FACTOR R-2021-3027385, R-2021-3027386	
100%	<u>1.00000000</u>
Less:	
Uncollectible Accounts Factor ^(*)	0.01193911
PUC, OCA, OSBA, DPC Assessment Factors ^(*)	0.00671560
Gross Receipts Tax	0.00000000
Other Tax Factors	<u>0.00000000</u>
	0.98134529
State Income Tax Rate ^(*)	<u>0.09990000</u>
Effective State Income Tax Rate	<u>0.09803639</u>
Factor After Local and State Taxes	0.88330890
Federal Income Tax Rate ^(*)	<u>0.21000000</u>
Effective Federal Income Tax Rate	<u>0.18549487</u>
Revenue Factor (100% - Effective Tax Rates)	<u>0.69781403</u>

^(*) Company Main Brief

Commission Final Adjustments
TABLE II - Wastewater - Cheltenham
SUMMARY OF ADJUSTMENTS
R-2021-3027385, R-2021-3027386

<u>Adjustments</u>	<u>Rate Base</u>	<u>Revenues</u>	<u>Expenses</u>	<u>Depreciation</u>	<u>Taxes-Other</u>	<u>State Income Tax</u>	<u>Federal Income Tax</u>
	\$	\$	\$	\$	\$	\$	\$
RATE BASE:							
CWC:							
Int. & Div. (Table IV)	(431)						
Taxes (Table V)	56,325						
O & M (Table VI)	(1,645)						
REVENUES:							
					0	0	0
EXPENSES:							
						0	0
Supp. Exec. Retire. Program ⁽¹⁾			(14,043)			1,403	2,656
General Inflation ⁽²⁾			(8,719)			871	1,648
Gen. Liab. Insurance ⁽³⁾			6,293			(629)	(1,191)
			0			0	0
			0			0	0
			0			0	0
			0			0	0
			0			0	0
			0			0	0
			0			0	0
			0			0	0
TAXES:							
Interest Synchronization (Table III)						0	0
						(100)	(189)
TOTALS	<u>54,249</u>	<u>0</u>	<u>(16,469)</u>	<u>0</u>	<u>0</u>	<u>1,545</u>	<u>2,324</u>

Notes and Sources to Accompany Table II – Wastewater - Cheltenham

- (1) Remove SERP Expenses. The OCA's \$57,050 adjustment is allocated to each wastewater rate zone based on the relative percentage of management fees assigned to each rate zone per Aqua Exhibits 1-B to 1-G at Schedule C-1. Since Cheltenham is assigned \$429,319 of \$1,743,416 in total management fees, this adjustment is calculated as follows:
 $[-\$57,050 \times (\$429,319 / \$1,743,416) = -\$14,049]$.
- (2) Remove general inflation adjustment.
- (3) Adopt I&E's position regarding general liability insurance expense.

Commission Final Allowance
TABLE III - Wastewater -Cheltenham
Aqua Pennsylvania Wastewater, Inc. - Cheltenham
INTEREST SYNCHRONIZATION
R-2021-3027385, R-2021-3027386

	Amount \$
Company Rate Base Claim ⁽¹⁾	47,256,177
Commission Rate Base Adjustments (From Table II)	<u>54,249</u>
Commission Rate Base (Line 1 - Line 2)	47,310,426
Weighted Cost of Debt (From Table IA)	<u>1.84216100%</u>
Commission Interest Expense (Line 3 x Line 4)	871,534
Company Claim ⁽¹⁾	<u>870,535</u>
Total Commission Adjustment (Line 6 - Line 5)	(999)
Company Adjustment ⁽¹⁾	<u>0</u>
Net Commission Interest Adjustment (Line 7 - Line 8)	(999)
State Income Tax Rate	<u>9.99%</u>
State Income Tax Adjustment (Line 9 x Line 10) (Flow to Table II)	<u>(100)</u>
Net Commission Interest Adjustment (Line 9)	(999)
State Income Tax Adjustment (Line 11)	<u>(100)</u>
Net Commission Adjustment for F.I.T. (Line 9 - Line 11)	(899)
Federal Income Tax Rate	<u>21.00%</u>
Federal Income Tax Adjustment (Line 12 x Line 13) (Flow to Table II)	<u><u>(189)</u></u>

⁽¹⁾ Company Main Brief

Commission Final Allowance
TABLE IV - Wastewater - Cheltenham
Aqua Pennsylvania Wastewater, Inc. - Cheltenham
CASH WORKING CAPITAL - Interest and Dividends
R-2021-3027385, R-2021-3027386

Accrued Interest	Preferred Stock Dividends	
	Long-Term Debt	Short-Term Debt
Company Rate Base Claim	\$47,256,177	\$47,256,177
Commission Rate Base Adjustments	<u>\$54,249</u>	<u>\$54,249</u>
Commission Rate Base	\$47,310,426	\$47,310,426
Weighted Cost of Debt	<u>1.84216100%</u>	<u>0.00%</u>
Commission Annual Interest Exp.	<u><u>\$871,534</u></u>	<u><u>\$0</u></u>
Average Revenue Lag Days	57.2	57.2
Average Expense Lag Days	<u>91.3</u>	<u>91.3</u>
Net Lag Days	<u><u>-34.1</u></u>	<u><u>-34.1</u></u>
Working Capital Adjustment		
Commission Daily Interest Exp.	\$2,388	\$0
Net Lag Days	<u>-34.1</u>	<u>-34.1</u>
Commission Working Capital	(\$81,431)	\$0
Company Claim ⁽¹⁾	<u>(\$81,000)</u>	<u>\$0</u>
Commission Adjustment	<u><u>(\$431)</u></u>	<u><u>\$0</u></u>
Total Interest & Dividend Adj.	<u><u>(\$431)</u></u>	

⁽¹⁾ Company Main Brief.

Commission Final Allowance
TABLE V - Wastewater - Cheltenham
Aqua Pennsylvania Wastewater, Inc. - Cheltenham
CASH WORKING CAPITAL - TAXES
R-2021-3027385, R-2021-3027386

Description	Company Proforma Tax Expense Present Rates	Commission Adjustments	Commission Pro forma Tax Expense Present Rates	Commission Allowance	Commission Adjusted Taxes at Present Rates	Daily Expense	Net Lead/ Lag Days	Accrued Tax Adjustment
PA PUC - General Assessments	\$48,747	\$0	\$48,747	\$18,484	\$67,231	\$164.19	-197.50	(\$36,378)
	\$0	\$0	\$0		\$0	\$0.00	0.00	\$0
	\$0	\$0	\$0		\$0	\$0.00	0.00	\$0
	\$0	\$0	\$0		\$0	\$0.00	0.00	\$0
	\$0	\$0	\$0		\$0	\$0.00	0.00	\$0
	\$0	\$0	\$0		\$0	\$0.00	0.00	\$0
	\$0	\$0	\$0		\$0	\$0.00	0.00	\$0
	\$0	\$0	\$0		\$0	\$0.00	0.00	\$0
	\$0	\$0	\$0		\$0	\$0.00	0.00	\$0
	\$0	\$0	\$0		\$0	\$0.00	0.00	\$0
	\$0	\$0	\$0		\$0	\$0.00	0.00	\$0
State Income Tax	(\$10,260)	\$1,545	(\$8,715)	\$269,835	\$261,120	\$715.40	45.20	\$32,336
Federal Income Tax	(\$19,413)	\$2,924	(\$16,489)	\$510,556	\$494,067	\$1,353.61	33.40	\$45,211
	<u>\$19,073</u>	<u>\$4,469</u>	<u>\$23,542</u>	<u>\$798,875</u>	<u>\$822,417</u>	<u>\$2,253.20</u>	<u>18.00</u>	<u>\$41,169</u>
(1) Company Main Brief								
					Average Lag Days in Receipt of Revenues			57.2
					Average Lag in Payment of Taxes			<u>18.0</u>
					Net Lag			<u>39.2</u>
					Average Daily Tax Expense			2,253
					Commission Cash Working Capital for Taxes			68,325
					Less Company Claim ⁽¹⁾			<u>32,000</u>
					Commission Adjustment			<u>56,325</u>

[illegible]

Notes and Sources to Accompany Table VI – Wastewater – Cheltenham

- ⁽¹⁾ Company Main Brief
- ⁽²⁾ See Table II - Wastewater Cheltenham, Note 2. We reject increases Aqua made to all expense accounts included in its general inflation claim. Since Exhibits 1-A to 1-G at Schedules C-4.1 and G-5.2 use different item descriptions, the number of lag days used for this adjustment is equal to the weighted average O & M Expense lag days for this rate zone after all other adjustments are applied.
- ⁽³⁾ See Table II - Wastewater Cheltenham, Note 1. SERP expenses are under the management fee account. OCA Exhibit LA-3 at Page 63.
- ⁽⁴⁾ See Table II - Wastewater Cheltenham, Note 3.

Commission Final Allowance
TABLE I - Wastewater - East Norriton
Aqua Pennsylvania Wastewater, Inc. - East Norriton
INCOME SUMMARY
R-2021-3027385, R-2021-3027386

	Pro Forma Present Rates ⁽¹⁾	Company Adjustments ⁽¹⁾	Pro Forma Present Rates (Revised) ⁽¹⁾	Commission Adjustments	Commission Pro Forma Present Rates	Commission Revenue Increase ⁽²⁾	Total Allowable Revenues
	\$	\$	\$	\$	\$	\$	\$
Operating Revenue	\$ 2,923,770	\$ -	\$ 2,923,770	\$ -	\$ 2,923,770	\$ 2,739,266	\$ 5,663,036
Expenses:							
O & M Expense	2,271,778	-	2,271,778	(14,318)	2,257,460	32,704	2,290,164
Depreciation	952,641	-	952,641	-	952,641	-	952,641
Taxes, Other	19,635	-	19,635	-	19,635	18,396	38,031
Income Taxes:							
State	(84,197)	-	(84,197)	1,386	(82,811)	268,548	185,737
Federal	(147,480)	-	(147,480)	2,621	(144,859)	508,120	363,261
Total Expenses	3,012,378	-	3,012,378	(10,311)	3,002,066	827,768	3,829,834
Net Inc. Available for Return	\$ (88,608)	\$ -	\$ (88,608)	\$ 10,311	\$ (78,297)	\$ 1,911,498	\$ 1,833,202
Rate Base	25,307,104	-	25,307,104	24,706	25,331,810		25,331,810
Rate of Return	-0.35%		-0.35%		-0.31%		7.23675800%

⁽¹⁾ Company Main Brief

⁽²⁾ Revenue increases before Section 1311(c) allocation from water to wastewater

Pre-Act II Allocation Revenue Change (%): 93.69%

Commission Final Allowance
TABLE I(A) - Wastewater - East Norriton
Aqua Pennsylvania Wastewater, Inc. - East Norriton
RATE OF RETURN
R-2021-3027385, R-2021-3027386

	<u>Structure</u>	<u>Cost</u>	<u>After-Tax Weighted Cost</u>	<u>Effective Tax Rate Complement</u>	<u>Pre-Tax Weighted Cost Rate</u>
Total Cost of Debt			1.84216100%		<u>1.84%</u>
Long-term Debt	46.05%	4.00%	1.84216100%		<u>1.84%</u>
Short-term Debt	0.00%	0.00%	0.00000000%		<u>0.00%</u>
Preferred Stock	0.00%	0.00%	0.00000000%	0.711079	<u>0.00%</u>
Common Equity	<u>53.95%</u>	<u>10.00%</u>	<u>5.39459700%</u>	<u>0.711079</u>	<u>7.59%</u>
	<u>100.00%</u>		<u>7.23675800%</u>		<u>9.43%</u>
Pre-Tax Interest Coverage	5.12				
After-Tax Interest Coverage	3.93				
Tax Rate Complement (1-(21%+(9.99% X (1-21%)))	71.10790%				

Commission Final Allowance	
Aqua Pennsylvania Wastewater, Inc. - East Norriton	
TABLE I(B) - Wastewater - East Norriton	
REVENUE FACTOR	
R-2021-3027385, R-2021-3027386	
100%	<u>1.00000000</u>
Less:	
Uncollectible Accounts Factor ^(*)	0.01193911
PUC, OCA, OSBA, DPC Assessment Factors ^(*)	0.00671560
Gross Receipts Tax	0.00000000
Other Tax Factors	<u>0.00000000</u>
	0.98134529
State Income Tax Rate ^(*)	<u>0.09990000</u>
Effective State Income Tax Rate	<u>0.09803639</u>
Factor After Local and State Taxes	0.88330890
Federal Income Tax Rate ^(*)	<u>0.21000000</u>
Effective Federal Income Tax Rate	<u>0.18549487</u>
Revenue Factor (100% - Effective Tax Rates)	<u><u>0.69781403</u></u>

^(*) Company Main Brief

Commission Final Adjustments
TABLE II - Wastewater - East Norriton
SUMMARY OF ADJUSTMENTS
R-2021-3027385, R-2021-3027386

<u>Adjustments</u>	<u>Rate Base</u>	<u>Revenues</u>	<u>Expenses</u>	<u>Depreciation</u>	<u>Taxes-Other</u>	<u>State Income Tax</u>	<u>Federal Income Tax</u>
	\$	\$	\$	\$	\$	\$	\$
RATE BASE:							
CWC:							
Int. & Div. (Table IV)	(369)						
Taxes (Table V)	25,827						
O & M (Table VI)	(752)						
REVENUES:							
					0	0	0
EXPENSES:							
						0	0
Supp. Exec. Retire. Program ⁽¹⁾			(7,036)			703	1,330
General Inflation ⁽²⁾			(8,665)			866	1,638
Gen. Liab. Insurance ⁽³⁾			1,382			(138)	(261)
			0			0	0
			0			0	0
			0			0	0
			0			0	0
			0			0	0
			0			0	0
			0			0	0
			0			0	0
TAXES:							
Interest Synchronization (Table III)						0	0
						(45)	(86)
TOTALS	<u>24,706</u>	<u>0</u>	<u>(14,318)</u>	<u>0</u>	<u>0</u>	<u>1,386</u>	<u>2,621</u>

Notes and Sources to Accompany Table II – Wastewater – East Norriton

- (1) Remove SERP Expenses. The OCA's \$57,050 adjustment is allocated to each wastewater rate zone based on the relative percentage of management fees assigned to each rate zone per Aqua Exhibits 1-B to 1-G at Schedule C-1. Since East Norriton is assigned \$215,006 of \$1,743,416 in total management fees, this adjustment is calculated as follows:
$$[-\$57,050 \times (\$215,006 / \$1,743,416) = -\$7,036].$$
- (2) Remove general inflation adjustment.
- (3) Adopt I&E's position regarding general liability insurance expense.

Commission Final Allowance

TABLE III - Wastewater -East Norriton
Aqua Pennsylvania Wastewater, Inc. - East Norriton
INTEREST SYNCHRONIZATION
R-2021-3027385, R-2021-3027386

	Amount \$
Company Rate Base Claim ⁽¹⁾	25,307,104
Commission Rate Base Adjustments (From Table II)	<u>24,706</u>
Commission Rate Base (Line 1 - Line 2)	25,331,810
Weighted Cost of Debt (From Table IA)	<u>1.84216100%</u>
Commission Interest Expense (Line 3 x Line 4)	466,653
Company Claim ⁽¹⁾	<u>466,198</u>
Total Commission Adjustment (Line 6 - Line 5)	(455)
Company Adjustment ⁽¹⁾	<u>0</u>
Net Commission Interest Adjustment (Line 7 - Line 8)	(455)
State Income Tax Rate	<u>9.99%</u>
State Income Tax Adjustment (Line 9 x Line 10) (Flow to Table II)	<u>(45)</u>
Net Commission Interest Adjustment (Line 9)	(455)
State Income Tax Adjustment (Line 11)	<u>(45)</u>
Net Commission Adjustment for F.I.T. (Line 9 - Line 11)	(410)
Federal Income Tax Rate	<u>21.00%</u>
Federal Income Tax Adjustment (Line 12 x Line 13) (Flow to Table II)	<u><u>(86)</u></u>

⁽¹⁾ Company Main Brief

Commission Final Allowance
TABLE IV - Wastewater - East Norriton
Aqua Pennsylvania Wastewater, Inc. - East Norriton
CASH WORKING CAPITAL - Interest and Dividends
R-2021-3027385, R-2021-3027386

Accrued Interest	Preferred Stock Dividends	
	Long-Term Debt	Short-Term Debt
Company Rate Base Claim	\$25,307,104	\$25,307,104
Commission Rate Base Adjustments	<u>\$24,706</u>	<u>\$24,706</u>
Commission Rate Base	\$25,331,810	\$25,331,810
Weighted Cost of Debt	<u>1.84216100%</u>	<u>0.00%</u>
Commission Annual Interest Exp.	<u><u>\$466,653</u></u>	<u><u>\$0</u></u>
Average Revenue Lag Days	44.1	44.1
Average Expense Lag Days	<u>31.3</u>	<u>31.3</u>
Net Lag Days	<u><u>-47.2</u></u>	<u><u>-47.2</u></u>
Working Capital Adjustment		
Commission Daily Interest Exp.	\$1,273	\$0
Net Lag Days	<u>-47.2</u>	<u>-47.2</u>
Commission Working Capital	(\$60,369)	\$0
Company Claim ⁽¹⁾	<u>(\$60,000)</u>	<u>\$0</u>
Commission Adjustment	<u><u>(\$369)</u></u>	<u><u>\$0</u></u>
Total Interest & Dividend Adj.	<u><u>(\$369)</u></u>	

⁽¹⁾ Company Main Brief.

Commission Final Allowance
TABLE V - Wastewater - East Norriton
Aqua Pennsylvania Wastewater, Inc. - East Norriton
CASH WORKING CAPITAL - TAXES
R-2021-3027385, R-2021-3027386

Description	Company Proforma Tax Expense Present Rates	Commission Adjustments	Commission Pro forma Tax Expense Present Rates	Commission Allowance	Commission Adjusted Taxes at Present Rates	Daily Expense	Net Lead/ Lag Days	Accrued Tax Adjustment
PA PUC - General Assessments	\$19,635	\$0	\$19,635	\$18,396	\$38,031	\$104	-197.50	(\$20,578)
	\$0	\$0	\$0		\$0	\$0	0.00	\$0
	\$0	\$0	\$0		\$0	\$0	0.00	\$0
	\$0	\$0	\$0		\$0	\$0	0.00	\$0
	\$0	\$0	\$0		\$0	\$0	0.00	\$0
	\$0	\$0	\$0		\$0	\$0	0.00	\$0
	\$0	\$0	\$0		\$0	\$0	0.00	\$0
	\$0	\$0	\$0		\$0	\$0	0.00	\$0
	\$0	\$0	\$0		\$0	\$0	0.00	\$0
	\$0	\$0	\$0		\$0	\$0	0.00	\$0
	\$0	\$0	\$0		\$0	\$0	0.00	\$0
State Income Tax	(\$84,197)	\$1,366	(\$82,811)	\$268,548	\$185,737	\$509	45.20	\$23,001
Federal Income Tax	(\$159,303)	\$2,621	(\$156,688)	\$508,120	\$351,432	\$963	33.40	\$32,159
	<u>(\$223,871)</u>	<u>\$4,007</u>	<u>(\$219,864)</u>	<u>\$795,054</u>	<u>\$575,200</u>	<u>\$1,576</u>	<u>21.94</u>	<u>\$34,582</u>

⁽¹⁾ Company Main Brief

Average Lag Days in Receipt of Revenues	44.1
Average Lag in Payment of Taxes	<u>22.0</u>
Net Lag	22.1
Average Daily Tax Expense	1,576
Commission Cash Working Capital for Taxes	34,827
Less Company Claim ⁽¹⁾	<u>9,000</u>
Commission Adjustment	<u><u>25,827</u></u>

R-2021-3027385, R-2021-3027386

Commission Average Revenue Lag	44.1	
Less: Commission Avg. Expense Lag	<u>22.8</u>	
Net Difference	21.3	Days
Commission Pro forma		
O & M Expense per Day	<u>\$6,068</u>	
Commission CWC for O & M	\$129,248	
Less: Company Claim ⁽¹⁾⁽²⁾	<u>\$130,000</u>	
Commission Adjustment	<u>(\$752)</u>	

Notes and Sources to Accompany Table VI – Wastewater – East Norriton

- (1) Company Main Brief
- (2) See Table II Wastewater - East Norriton, Note 2. Reject increases Aqua made to all expense accounts included in its general inflation claim. Since Exhibits 1-A to 1-G at Schedules C-4.1 and G-5.2 use different item descriptions, the number of lag days used for this adjustment is equal to the weighted average O & M Expense lag days for this rate zone after all other adjustments are applied.
- (3) See Table II Wastewater - East Norriton, Note 1. SERP expenses are under the management fee account. OCA Exhibit LA-3 at Page 63.
- (4) See Table II Wastewater East Norriton, Note 3.