BEFORE THE TENNESSEE REGULATORY AUTHORITY

November 27, 2007
Nashville, Tennessee

IN RE:	)	
	)	
PETITION OF AQUA UTILITIES COMPANY	)	
FOR APPROVAL OF ADJUSTMENT OF ITS	)	**DOCKET NO. 06-00187**
RATES AND CHARGES AND REVISED	)	
TARIFF	)	

FINAL ORDER APPROVING RATE INCREASE AND RATE DESIGN

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This matter came before Chairman Sara Kyle, Director Pat Miller, and Director Ron Jones of the Tennessee Regulatory Authority ("Authority" or "TRA"), the voting panel assigned to this docket, for consideration of the *Petition of Aqua Utilities Company for Approval of Adjustment of its Rates and Charges and Revised Tariff* ("*Petition*") filed by Aqua Utilities Company ("Aqua" or "Company"). A hearing was held on December 4, 2006 and the *Petition* was considered at the regularly scheduled Authority Conference held on February 5, 2007. As more fully described herein and for the reasons set forth below, a majority of the panel voted to approve a rate increase for Aqua.[1]

Upon consideration of the entire record, including all exhibits and the testimony of witnesses, a majority of the panel concluded that Aqua should be granted a rate increase. The decisions concerning the test period, attrition period, revenues, expenses, taxes, net operating income, rate base, fair rate of return, rate restructure, tariff adjustments, rate design, tariff issues, and other issues are fully described below. The revised rates were filed on February 21, 2007 and put into effect according to the tariff filed by Aqua on March 1, 2007.

I. TRAVEL OF THE CASE

On July 19, 2006, Aqua Utilities Company filed the *Petition* requesting an adjustment of its rates and charges and approval of its revised tariff. Aqua is a public utility providing water and wastewater services pursuant to the laws of the State of Tennessee and its public utility operations are subject to the jurisdiction of the TRA. Through its *Petition*, Aqua claimed it would incur a $559,109 revenue deficiency for the attrition period ending December 31, 2007. Further, Aqua proposed to phase-in rates to eliminate this revenue deficiency and therefore, requested in this rate case an increase of $300,000 in its base water and wastewater rates or approximately one-half (½) of the total forecasted revenue deficiency of $559,109. Aqua stated that it planned to file a future rate increase to recover the remaining revenue deficiency and to achieve a return on equity of fifteen percent (15.00%). Aqua proposed the additional revenues

[1] Director Jones concurs in part and dissents in part with this Order and filed a separate Opinion explaining his particular analysis.

would be recovered by increased charges to all classes of customers. In the *Petition*, the Company used current rates to project a net operating loss of $95,642 on a rate base of $2,876,422 which would result in an overall return of -3.33%.

The current tariff rates for Aqua were set when it was originally granted a Certificate of Public Convenience and Necessity ("CCN") in Docket No. 90-04334. Aqua stated that its wholesale water supplier has increased its rates multiple times since the original CCN application was approved and Aqua's owner has invested over $1.8 million in capital to extend its service lines and provide water and wastewater service to its customers.[2] For these reasons, the Company requested rate relief in an effort to eliminate the need for additional capital investment by the owner to continue water/wastewater service to its customers. Aqua requested that the proposed tariff rates be effective on August 15, 2006.

During the August 7, 2006 Authority Conference, the panel voted unanimously to suspend the tariff for 90 days and appointed the Authority's General Counsel or his designee to act as the Hearing Officer to prepare the case for a hearing before the panel.[3] No persons or entities filed petitions to intervene in this docket. On August 21, 2006, the Authority Staff issued a data request to Aqua for additional information concerning the requested rate case. Aqua filed responses on August 31, 2006 and September 12, 2006. On August 29, 2006, the Hearing Officer issued an *Order Establishing Procedural Schedule* in this matter. On September 15, 2006, the Authority issued additional data requests to Aqua. Aqua filed its responses on September 22, 2006. On September 25, 2006, Aqua filed a *Motion to Amend Procedural Schedule* requesting a change in the October 16, 2006 hearing date because its attorney had a

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[2] *In re: Petition of Aqua Utilities Company for Approval of Adjustment of its Rates and Charges and Revised Tariff ("Petition")*, p. 2 (July 19, 2006).

[3] By appointing General Counsel or his designee as the Pre-Hearing Officer in this docket, the panel acknowledged that a contested case was being convened in accordance with Tenn. Code Ann. § 65-5-203.

scheduling conflict and some of its witnesses would not be available. The Hearing Officer granted the motion, re-suspended the tariff and scheduled the hearing in this matter for November 6, 2006.

On October 6, 2006 and November 1, 2006, the Authority issued additional data requests to which Aqua provided responses on October 16, 2006 and November 13, 2006, respectively. A *Re-Notice of Hearing* was issued on November 3, 2006 setting the hearing in this matter for December 4, 2006. The Hearing Officer found that the change in hearing date necessitated the tariff being re-suspended. An order was issued on December 4, 2006 and amended on December 11, 2006 which re-suspended the tariff from December 12, 2006 through January 22, 2007. The hearing in this matter was held on December 4, 2006.

The Hearing in this matter was conducted before the TRA voting panel on December 4, 2006. Participating in the Hearing was the following party and its counsel:

> **Aqua Utilities Company** – J. Gilbert Parrish, Esq., 60 Brazelton Street, Unit 9, Savannah, Tennessee 38372.

Expert testimony was provided on behalf of Aqua by witnesses James E. Clausel, Mark Godwin, and Hal Novak. At the conclusion of the hearing, Aqua was directed to file late-filed exhibits by December 8, 2006.[4]

On January 18, 2007, a notice was issued by the Authority that changed the date of the scheduled Authority Conference from January 22, 2007 to January 23, 2007 wherein Aqua's *Petition* would be considered and deliberated. On January 22, 2007, Director Miller filed a written motion in this docket prior to the deliberations outlining his recommendation. The Hearing Officer issued an Order in this docket that the tariff was to be re-suspended through January 23, 2007 so that the panel may deliberate this matter at the rescheduled Authority

Conference on January 23, 2007. On January 23, 2007, the voting panel assigned to this docket was going to consider the *Petition* filed by Aqua; however, Gilbert Parrish, Esq., Counsel for Aqua, requested that the panel deferred the action on this matter until the next regularly scheduled Authority Conference set for February 5, 2007. Mr. Parrish agreed that the Company would not place its tariff into effect until action had been taken by the Authority on this matter. Mr. Parrish also agreed to file documentation that Aqua would not place its tariff into effect until action was taken by the panel on February 5, 2007. The Hearing Officer entered an *Order Re-Suspending Tariff* from January 23, 2007 to February 5, 2007. On February 5, 2007, the panel deliberated this matter at a regularly scheduled Authority Conference and voted in favor of Director Miller's motion.[5]

II. CRITERIA FOR ESTABLISHING JUST AND REASONABLE RATES

Under Tenn. Code Ann. § 65-2-109(5)[6] and TRA Rule 1220-1-2-.16(2)[7], the burden of proof is on the party asserting the affirmative of an issue. In this proceeding before the TRA, the burden of proof rests upon the proponent or party seeking the affirmative relief, unless or until declared otherwise by the General Assembly. Aqua is the proponent or party seeking relief in this docket, and therefore, it carries the burden of proof.

In determining just and reasonable rates for public utilities, the Authority is obligated to balance the interests of the utilities subject to its jurisdiction with the interests of Tennessee

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[4] Late filed exhibits consist of Customers' Water Usage analysis chart.

[5] Director Jones concurred in part and dissented in part.

[6] Tenn. Code Ann. § 65-2-109(5) provides "[t]he burden of proof shall be on the party or parties asserting the affirmative of an issue; provided, that when the authority has issued a show cause order pursuant to the provisions of this chapter, the burden of proof shall be on the parties thus directed to show cause."

[7] TRA Rule 1220-1-2-.16(2) states that the "burden of proof shall be on the party asserting the affirmative of an issue, provided that when the Authority has issued a show cause order pursuant to T.C.A. § 65-2-106, the burden of proof shall be on the party thus directed to show cause."

consumers.[8] The Authority must also approve rates that provide regulated utilities the opportunity to earn a just and reasonable return on their investments.[9]

When the Authority considers petitions for rate increases filed pursuant to Tenn. Code Ann. § 65-5-103, it considers the following criteria:

1. The investment or rate base upon which the utility should be permitted to earn a fair rate of return;
2. The proper level of revenues for the utility;
3. The proper level of expenses for the utility; and
4. The rate of return the utility should earn.

III. TEST PERIOD AND ATTRITION PERIOD

The TRA has the discretion to choose a historical test period, a forecast test period, a combination of the two, or any other accepted method in ratemaking. Aqua proposed the twelve (12) months ending December 2005 as its test period. In arriving at its test period revenues and expenses, the Company used the amounts found in its General Ledger adjusted for removal of sales tax erroneously paid to the City of Savannah, Tennessee and included the recurring annual regulatory expense.

The Company also proposed the twelve (12) months ending December 2007 as its forward looking attrition period. The law in this matter is clear, neither the courts nor the legislature has established any precise method or formula in setting rates and the Authority is not bound by one particular approach.[10] The Authority must set rates that are just and reasonable and that take into account known changes that are likely to occur in the immediate future. The

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[8] Tenn. Code Ann. § 65-5-101.
[9] *See Bluefield Water Works and Improvement Company v. Public Service Commission of the State of West Virginia*, 262 U.S. 679 (1923).
[10] *See CF Industries v. Tennessee Public Service Commission*, 599 S.W.2d 536 (Tenn. 1980).

fact that the Authority must set rates that include forward looking attrition adjustments does not lead one to the conclusion that the TRA must use a forecast test year ending on December 31, 2007 (a period that is 12 months forward). The Tennessee Court of Appeals in *South Central Bell* has stated:

> Where the order of the Commission entered on December 30, 1977 sets the rate for the company, the court is of the opinion that the year 1978 is a "reasonable time in the immediate future" which must be taken into account in the Commission's order. This does not mean that the year 1978 must be the test period; it simply means that the test period results must be adjusted to take into account known changes that are likely to occur in the immediate future.[11]

Based on the case law, it is clear that the Authority is not compelled to use a forecast test period in order to account for attrition. In setting rates, the Authority must consider known changes likely to occur in the immediate future. While the Authority is not obligated to use a forecast period to predict period rates, it determined in this rate case that using a forecast period of the twelve months ending December 31, 2007 was the best method for examining and setting rates.

The Authority adopted the twelve (12) months ending December 2005 as a reasonable test period because this period contains the most current annual financial data available to the Company in preparing its rate case. Also, the panel in this docket accepted the adjusted test period revenues and expenses used by the Company.

IV. ISSUES

IV(a) REVENUES

IV(a)(1) Customer Growth

Aqua forecasts twenty-seven (27) additional water/wastewater customers in 2006 and twenty-seven (27) additional customers in 2007 based on historical growth experienced from

[11] *South Central Bell Tel. Co. v. Tennessee Pub. Serv. Comm'n*, 579 S.W.2d 429, 434 (Tenn. Ct. App. 1979).

2004 to 2005. Aqua asserts that all growth will be water/wastewater customers with no additional growth in "water only" customers (customers who choose to have a second water meter installed for purposes such as irrigation). Based on the Company's updated information regarding customer levels as of October 31, 2006, the Company had a growth in "water only" customers. Therefore, the Authority adopted both a customer growth of twenty-seven (27) water/wastewater meters and an additional twelve (12) "water only" meters during the attrition period.

IV(a)(2) Water/Wastewater Revenue

The Company used a projected customer growth of 27 customers (27 water/wastewater meters) during the attrition period and projects 2007 total water/wastewater revenue of $72,727 at current rates. The panel adopted a projected customer growth of twenty-seven (27) customers (water/wastewater meters) and an additional twelve (12) "water only" meters during the attrition period. As a result of this alteration in customer growth results in 2007, the total water/wastewater revenue has been determined to be $74,173 at current rates.

IV(a)(3) Other Revenue (Forfeited Discounts)[12]

The Company calculated a forfeited discount ratio of 0.834% based upon the actual test year amount of $466 revenue from forfeited discounts. The Company did not apply this ratio to its projected attrition period revenues. Using the actual test period amount, the Company projected "Other Revenue" of $466 at current rates for the attrition period. The Authority accepted the ratio proposed by Aqua as reasonable since it is based on actual test year results. However, in applying the Company's forfeited discount ratio to adopted forecasted revenues at current rates, the Authority arrives at a forfeited discount revenue amount of $619 at current rates

[12] Forfeited discounts are amounts that customers indirectly receive when other customers pay late fees on overdue accounts.

for the attrition period.

IV(a)(4) Total Operating Revenues at Current Rates

The Company, using its projected customer growth and its test period dollar amount of forfeited discounts,[13] projected 2007 Total Operating Revenues of $73,193 at current rates for the attrition period. Since the Authority changed Aqua's proposed customer growth and forfeited discounts, the Authority adopted a Total Operating Revenue amount of $74,791 at current rates for the attrition period.

IV(b) EXPENSES AND TAXES OTHER THAN INCOME

Expenses and taxes are direct costs which are necessarily incurred by a Company in order to produce revenues. Expenses and taxes are deducted from the gross margin in order to determine a company's Net Operating Income.

IV(b)(1) Purchased Water Expense

The Company projects water sales volumes of 13,658,955 gallons. The Company forecasts its Purchased Water Expense by grossing up its forecasted water volume sales of 13,658,955 gallons by 49.94% to account for "lost and unaccounted-for water" to arrive at its forecasted purchased water volumes of 20,479,652. The Company states that its management first became aware of the significant unaccounted-for water during the preparation of the rate case as a result of the Company's regulatory consultant's comparison of water volumes purchased to water volumes sold. To date, responses to Authority data requests did not identify

[13] The Company projected for the attrition period at current rates the same dollar amount of forfeited discounts calculated in the test period while the Authority applies the Company's forfeited discounts ratio to operating revenues at current rates for the attrition period. As a result, the Company's forfeited discounts are understated by $153.

the source(s) of the unaccounted-for water.[14] The Company projects 2007 Purchased Water Expense of $41,512.

The Authority finds that projected 2007 water sales volume is 15,797,697 gallons. The difference between the water volumes is due to the Authority's calculation of an increased number of customer meters, resulting from the addition of one (1) water-only meter per month during the attrition period. Generally, the Authority finds a ten percent (10%) unaccounted-for water level, as recommended by the American Water Works Association,[15] is the proper percentage for purposes of setting rates, absent good cause shown. Therefore, the Authority finds that an unaccounted-for water percentage of approximately fifty percent (50%) is imprudent and should not be included in customer rates. For the purposes of this rate case only, the Authority has determined the appropriate unaccounted-for water percentage to be fifteen percent (15%) which produces 18,167,351 gallons as the forecasted purchased water volumes for the attrition period. Based upon the 18,167,351 gallons as the calculated forecasted purchased water volumes and the fifteen percent (15%) lost and unaccounted-for water factor, the Authority found a Purchased Water Expense of $36,888 at current rates for the attrition period.[16]

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[14] *Company's Response to the TRA Advisory Staff's Data Request of October 31, 2006*, Questions #65 and #66 (November 13, 2006).

[15] *Water Loss Determination: For What it's Worth*, By Joan Kenny, Kansas Water Office and U.S. Geological Survey. This article was filed in the docket file and moved into the record at the hearing.

[16] Director Jones concurs in the result only and filed a separate Opinion explaining his position.

(IV)(b)(2) Purchased Power Expense

The Company projects Purchased Power Expense of $15,521 for the attrition period. This projection is based upon actual electric bills for the test period reduced to a per customer amount and forecasted for the attrition period using projected customer levels. The Company supplied documentation of its expense during the test period. The Authority accepted the Company's projection since it is based on actual electric bills paid during the test period. The Authority adopted a Purchased Power Expense of $15,521 for the attrition period.[17]

(IV)(b)(3) Contractual Services Expense

The Company contracts with outside vendors to provide the following services: billing, professional accounting, TRA regulatory assistance, sampling and maintaining utility operation records, meter reading and on-call utility service, federal and state tax preparation, ad valorem report preparation, and TRA annual report preparation. The Company provided documentation to support the fees to be charged during the attrition period by all contractors. The contractual services expenses forecasted by the Company for the attrition period are $45,548. Based upon a review of the documentation of actual cost provided by the Company, the Authority accepted a contractual services expenses of $45,548 for the attrition period.

(IV)(b)(4) Miscellaneous Expense

The Company forecasts miscellaneous expenses for the attrition period of $2,600. The Company provided documentation of actual miscellaneous expenses of $2,513.33 during the test period. These expenses include postage, phone service, bank fees, taxes, and other fees. To forecast miscellaneous expense for the attrition period, the Company added additional postage expense of $86.66. Based on a review of the documentation provided by the Company, the

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[17] Director Jones dissents from this determination and filed a separate Opinion explaining his position.

Authority accepted the Company's projection and accepted miscellaneous expenses of $2,600 for the attrition period.

(IV)(b)(5) Administrative and General Expense

The administrative and general expense category represents the management fee paid to the Company's owner, James E. Clausel. In January 2006, the Company entered into a contract with its affiliate Montana Utility Management, Inc. in the amount of $30,000 per year. Essentially, this agreement is by and between James E. Clausel and himself for management services. Management functions include oversight of the day-to-day operations, monitoring the work of subcontractors, preparation and review of regulatory filings, and providing an emergency contact person on a twenty-four hour basis. All other contractual service expenses are provided by outside contractors at a cost of $12.91 per customer per month.[18] Therefore, the TRA determined that the compensation sought by Mr. Clausel for general oversight of contractual services is imprudent. This management fee of $30,000 per year results in an additional charge of $8.50 per customer per month based on the projected average customers for the 2007 attrition period.[19] The management fee has been reduced to a prudent level of $1.70 per customer per month or $6,000 per year to approximate fifteen percent (15%)[20] of the contractual service expense of $45,548 for the attrition period. Based on the level of contractual services, the limited management functions and time Mr. Clausel will be required to devote to the utility, the Authority adopted an Administrative and General Expense of $6,000 ($500 per month) for the attrition period.[21]

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[18] Contractual services expense of $45,548 divided by 294 customers divided by 12 months.
[19] Management fee of $30,000 was divided by 294 customers divided by 12 months.
[20] *Company's Response to the TRA Advisory Staff's Data Request of September 15, 2006*, Question #38 (September 22, 2006).
[21] Director Jones dissents from this determination and filed a separate Opinion explaining his analysis.

(IV)(b)(6) Regulatory Commission Expense

The Company included in its filing $46,250 for the cost of preparing this rate case. This amount will be amortized over a three-year period resulting in an annual amortization of $15,417. Also, the Company forecasted as a recurring expense consulting services for "TRA Regulatory Assistance" of $1,200 for the attrition period. Based on projected average attrition period customers, the total rate case expense per customer is $157.31. Even with a three-year amortization period, the rate case cost per customer per month is $4.37. The Authority recognizes the Company's right to due process and retention of outside consultants and attorneys. Therefore, the panel accepted the Company's amount for Regulatory Commission Expense. However, the panel has serious concerns about the high rate case cost per customer and presents ideas for consideration in the "Other Issues" section of this Order. Based on the Company work papers, the Authority accepted $46,250 as actual cost of preparing this rate case. This amount is to be amortized over a 3-year period. Additionally, the Authority accepted the $1,200 annual TRA Regulatory Assistance expense. This results in a Regulatory Commission Expense of $16,617 for the attrition period.[22]

(IV)(b)(7) Depreciation Expense

Depreciation and Amortization Expense represents the systematic recovery of capital invested in assets placed in service by the Company. As Depreciation and Amortization Expenses are recognized, the balance of Accumulated Depreciation is increased in determining the proper level of the Rate Base.

The Company's attrition period forecast includes $16,996 for Depreciation Expense, after adjusting for amortization of Contributions In Aid of Construction (CIAC). The Company

[22] Rate Case Expense was $15,417 plus consultant fees for regulatory assistance of $1,200.

proposed a composite depreciation rate of 2.9%. Based on independent calculations of Utility Plant in Service, the Authority's plant forecast differs from the Company forecast because the Authority used updated October 2006 actual balances and forecasted additions to plant for the estimated cost of service connections and grinder pumps for customers. The Authority found the Company composite depreciation rate of 2.9% as reasonable. Using treatment of service connection costs after adjusting for the amortization of CIAC and grinder pump installation, the Authority adopted a Depreciation Expense of $19,057 for the attrition period.

(IV)(b)(8) <u>Taxes Other Than Income</u>

Taxes Other Than Income includes Property Tax, State Gross Receipts Tax, Payroll Taxes, State Franchise Taxes, other general taxes and the TRA Inspection Fee. The Company projects Total Taxes Other Than Income for the attrition period of $6,690. This amount is comprised of a property tax of $905, franchise tax of $3,999, TRA inspection fee of $1,296, and miscellaneous "other" taxes of $490. Based on documentation provided, the panel accepted the Company's projection of property tax and "other" tax. The recalculated franchise tax and TRA Inspection Fee are based on forecasted Rate Base and Revenues which results in a total projected Taxes Other Than Income amount of $3,149. After a review and independent calculations were made, a majority of the panel adopted a Taxes Other Than Income in the amount of $3,149 at current rates for the attrition period.[23]

(IV)(b)(9) <u>Excise Tax</u>

The Company projects Excise Tax of $-6,649 for the attrition period based on current rates. However, the Authority determined that the Excise Tax should be -$4,588. This is based

[23] As a result of his disagreement on other issues that affect the calculation of Taxes Other Than Income, Director Jones does not agree with the calculation of this item.

on the statutory rate to projected operating loss before excise tax based on revenue and expense projections at current rates. The Authority adopted an Excise Tax of -$4,588 at current rates for the attrition period.[24]

(IV)(b)(10) Federal Income Taxes

The Company included no federal income tax expense in its forecast because Aqua is a sole proprietorship and all federal income taxes flow through the owner's personal return.

(IV)(c) NET OPERATING INCOME

The Company projected Total Operating Expenses of $168,835. Based on the above, however, the Authority adopted Total Operating Expenses of $140,793 for the attrition period. The Authority has determined that the appropriate Net Operating Income under current rates for Aqua results in a loss of $66,002 for the forecasted attrition period.[25]

IV(d) RATE BASE

(IV)(d)(1) Utility Plant in Service

Aqua proposed an average attrition period Utility Plant in Service balance of $976,200. Aqua based its calculations on the December 31, 2005 plant balances with additions for service connection charges at the current tariff rate of $250 per connection. Additions for new grinder pump installation were not included since the Company proposes that the customers will own their equipment.

The Authority used updated October 2006 actual balances and forecasted additions to plant for the estimated cost of service connections, the cost of grinder pumps, and grinder pump installation during the attrition period. The Company's forecasted average attrition period Utility

[24] As a result of his disagreement on other issues that affect the calculation of Excise Taxes, Director Jones does not agree with the majority's calculation of this item.

[25] As a result of his disagreement on other issues that affect the calculation of Net Operating Income, Director Jones does not agree with the calculation of this item.

Plant in Service is $976,200 compared to the Authority's forecast of $1,038,735. Currently, grinder pumps are the property of customers and the customers are responsible for any repair or replacement of the pumps.[26] TRA Rule 1220-4-13-.06(1) requires all wastewater utilities to ". . .design, construct, maintain, and operate wastewater systems. . . ." A wastewater system is defined in 1220-4-13-.02(7) as including "tanks, pipes, *pumps* and filters." [Emphasis added] Replacements or major repairs of grinder pumps should be capitalized. The Company should include in operation and maintenance any costs associated with minor repairs. Since the Company did not include a forecast of grinder pumps, there was no associated maintenance expense forecasted. The maintenance costs are minimal and the on-call utility service included in contractual services should cover these minor repairs. The actual cost of service connections shall be added to Utility Plant in Service in the period incurred as any other plant addition. The Company is directed to fund the cost of grinder pumps and their installation and book these actual expenses to Utility Plant in Service. These costs will be recovered through the allowed return on Rate Base. The maintenance and repair of these grinder pumps is the responsibility of the Company as required in TRA Rule 1220-4-13-.06(1) for wastewater companies. Costs associated with minor maintenance and repair of these pumps shall be included in the Company's cost of service. This results in an average attrition period Utility Plant in Service balance of $1,038,735.[27]

(IV)(d)(2) <u>Construction Work in Progress (CWIP)</u>[28]

In its Exhibits filed with Aqua's *Petition*, the Company included as an addition to Rate Base, the average attrition period Construction Work in Progress ("CWIP") in the amount of $2,454,968. The CWIP amount is to serve the estimated 650 new customers in the new

[26] William H. Novak, Pre-Filed Direct Testimony, p. 11 (July 19, 2006).
[27] Director Jones dissents with regard to the conclusions as to maintenance and repair expenses and filed a separate Opinion explaining his analysis.
[28] Construction Work in Process ("CWIP") represents the cost of investment that is currently under construction and will be transferred to Plant in Service when completed.

development known as "The Preserve."[29] The Company's response to a Staff data request states that these costs are based on management's estimate. The Company is unable to provide any plans or forecasts to support the estimated cost.[30] Further, the Company states "that it will take approximately five to seven years before the full build-out of end use customers into this development is completed."[31] The Company forecasted an annual customer growth rate of 27 residential customers for the attrition period. This number is based on historical growth information without taking into account the expansion of its system to service customers in the new development known as "The Preserve." According to the Company, it is expected that 50 lots in The Preserve would be built out in 2006 and 100 lots will be built out in 2007.[32] At the hearing, however, Mr. Clausel stated "[t]here's two houses that's been started in The Preserve now, and there's house plans for two more waiting to be approved."[33] Therefore, the Authority rejects the average CWIP forecasted by the Company during the attrition period.

Under the doctrine of "used and useful" which was first articulated in the U.S. Supreme Court Case *Smyth v. Ames,*[34] forecasted plant is not used and useful. In *Smyth*, the court stated the rights of the public would be ignored if rates are exacted without reference to the fair value of the property used. The Authority recognizes that there will be an eventual build out of the expansion known as "The Preserve," however, responses to data requests did not reveal the penetration levels during the attrition period. In every response, the Company referred to its normal growth experienced during 2004-2005 in the current development which excluded The

[29] *Company's Response to the TRA Advisory Staff's Data Request of August 21, 2006*, Question #2 (August 31, 2006).
[30] *Company's Response to the TRA Advisory Staff's Data Request of September 15, 2006*, Question #38 (September 22, 2006).
[31] *Company's Response to the TRA Advisory Staff's Data Request of September 15, 2006*, Question #2 (September 22, 2006).
[32] *Company's Response to the TRA Advisory Staff's Data Request of August 21, 2006*, Question #13 (August 31, 2006).
[33] Transcript, page18, line 25 through page 19, line 2.
[34] 169 U. S. 466, 544 (1898)

Preserve. The burden of proof rests squarely on the shoulders of Aqua. Since Aqua has failed to provide evidence to support its forecast that 50 customers will be added in 2006 and that 100 customers will be added in 2007 to The Preserve, the Company has failed to prove that any plant associated with The Preserve is used and useful and should be included in Utility Plant in Service for purposes of determining customer rates in this proceeding.

The Authority finds that the average attrition period CWIP balance is $0. Also, the Company should be allowed to transition CWIP for The Preserve to Utility Plant in Service based on a ratio of new customers added to the 650 total projected new customers. This methodology will allow the Company to earn a fair and reasonable return on plant as it becomes used and useful. [35]

(IV)(d)(3) **Deferred Rate Case Expense**

Deferred Rate Case Expense represents the unamortized portion of costs the Company has incurred as a result of regulatory proceedings before the Authority. The Company capitalizes these costs and amortizes them over a previously prescribed period. The amortization of these costs is then treated in the income statement as an expense. The Company has projected an average attrition period deferred rate case expense balance of $38,542. This is based upon a thirteen (13) month-end average and an amortization of 36 months. The Authority finds that the reasonable average attrition period based upon three-year amortization period for the Deferred Rate Case Expense balance is $38,542 after reviewing the Company's calculations of deferred rate case expenses.

[35] Director Jones concurs in part and dissents in part and filed a separate Opinion explaining his analysis.

(IV)(d)(4) <u>Cash Working Capital</u>

Aqua forecasted average attrition period Cash Working Capital of $25,685 which represents one-eighth (1/8th) of attrition period total operating expenses. The Authority rejected the Company's inclusion of depreciation expense in the calculation of Cash Working Capital since depreciation expense is a non-cash expense. With this adjustment and using the Company's methodology, the Authority found that the average attrition period Cash Working Capital balance is $16,156 based upon the attrition period Operating Expenses as determined by the Authority.

(IV)(d)(5) <u>Accumulated Depreciation</u>

The Accumulated Depreciation represents the amount of plant that has previously been recovered from utility customers through the annual depreciation expense charges on the income statement. Aqua forecasted an average attrition period Accumulated Depreciation balance of $307,643 based upon the December 31, 2005 Utility Plant in Service balance with additions for service connection charges at the current tariff rate of $250 per connection. However, Aqua did not include additions for new grinder pump installations. The Company's forecast does not take into account the actual balances updated as of October 2006. This results in the forecasted plant balance to be greater than that of the Company. Depreciation Expense is also greater resulting in a higher average Accumulated Depreciation balance for the attrition period. Using October 2006 actual balances and adjusting for service connections and grinder pumps, the Authority found that the average attrition period Accumulated Depreciation balance is $308,430.

(IV)(d)(6) Contribution In Aid Of Construction (CIAC)[36]

Aqua forecasted an average attrition period Contribution In Aid of Construction ("CIAC") balance of $311,329 based upon the December 31, 2005 CIAC balance with additions for Service Connection Charges at the current tariff rate of $250 per connection. The Company books a plant addition and a corresponding CIAC addition for Service Connection Charges. The panel adjusted the Company forecast to reflect no additions to CIAC for Service Connection Charges beginning in February 2007 to correspond with the timing of the decision in this matter.

The Service Connection Charges shall be booked as Revenue at the tariff rate and added to Utility Plant in Service at actual cost. Under this methodology, CIAC would not be impacted by Service Connection Charges. For these reasons, the Authority finds that the average attrition period CIAC balance is $305,652.

(IV)(d)(7) Total Rate Base

Rate Base is the Company's net investment, which is financed through investor-supplied funds, in property used and useful in providing utility service. This is the amount of investment on which the Company should be allowed the opportunity to earn a fair and reasonable rate of return. The Company projected a total Rate Base of $559,109. The Authority found the average attrition period Rate Base to be $479,350.[37]

(IV)(e) RATE OF RETURN

Aqua stated that the Company is entitled to a fair rate of return on all of its investment used and useful in providing service to the customers it serves.[38] Fair rate of return is based

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[36] CIAC represents funds that are received from ratepayers for certain construction projects. These projects are undertaken when the Company's facilities are either extended or relocated at the customer's request in an area that is not likely to be economically feasible to serve under normal conditions.

[37] As a result of his disagreement on other issues that affect the calculation of Rate Base, Director Jones does not agree with the calculation of this item.

[38] *Petition*, p. 2.

upon the capital structure, the cost of each component of the structure, long term debt, short term debt, and equity. The controlling legal standard for determining rate of return that is just and reasonable was set forth by the U.S. Supreme Court and relied upon by the Tennessee Supreme Court[39] in *Bluefield Water Works & Improvement Company v. Public Service Commission* and *Federal Power Commission v. Hope Natural Gas Company.*[40] The Authority must conduct an in-depth analysis and give proper consideration to capital structure, cost of capital, and changes that can be reasonably anticipated in the foreseeable future. In *Hope*, the Supreme Court refined the guidelines for establishing a fair rate of return for a public utility. The Court held that not only was it important that there be enough revenue for operating expenses, but also for capital costs, including service on debt and dividends on the stock. The Court stated that the return on equity should be commensurate with returns investors could achieve by investing in other enterprises of corresponding risk.[41] Lastly, the Court held in *Denver Union Stock Yard Co. v. United States* that a utility is only entitled to a return on plant that is actually serving ratepayers.[42]

(IV)(e)(1) <u>Capital Structure</u>

With respect to capital structure, the Company states that it is funded solely by the equity investment of Mr. Clausel.[43] Aqua states that it does not finance its operations with debt obligations.[44] Aqua's witness Mr. Novak stated that the Company is funded entirely by the investment of Mr. Clausel.

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[39] *Southern Bell Telephone & Telegraph Co. v. Public Service Commission*, 304 S.W. 2d 640, 647 (1957).
[40] 262 U.S. 679, 43 S.Ct. 675 (1923) and 320 U.S. 591 (1944).
[41] 320 U.S. 591, 603 (1944).
[42] *Denver Union Stock Yard Co. v. United States*, 304 U.S. 470, 475, 58 S.Ct. 990 (1938). The Court stated "[t]he utility is entitled to rates, not per se excessive and extortionate, sufficient to yield a reasonable rate of return upon the value of property used, at the time it is being used, to render the service. But it is not entitled to have included any property not used and useful for that purpose."
[43] William H. Novak, Pre-Filed Direct Testimony, p. 9 (July 19, 2006).
[44] *Id.*

In a response to data requests, the Company indicated that it did not plan to incur debt before the end of the attrition year and has not owed any debts for the past three years.[45] Given that the Company currently does not have any debt, does not plan to incur debt before the end of the attrition year, and has a three-year history of having no debt, the Authority adopted a capital structure that consists of 100% equity for Aqua.

(IV)(e)(2) Equity Return

Witness Novak claims that a fifteen percent (15.00%) return on equity is reasonable for Aqua.[46] The Company justifies the fifteen percent (15.00%) return on equity by noting that the TRA awarded a fifteen percent (15.00%) equity return to Antioch Water in TRA Docket No. 99-00584.[47] The Company supports adoption of the fifteen (15.00%) equity return previously set by the Authority claiming that there is a "minimal amount of information available for small water or wastewater utilities, and the fact that a large percentage of the utility plant of Aqua has already been contributed to the utility."[48] The proposed return of fifteen percent (15.00%) was not supported by adequate analysis. Because there are no intervening parties in this case and no other suggested methodology for determining the cost of capital for Aqua, the fair rate of return for Aqua has been determined by the Authority.

The commonly accepted models to estimate the appropriate return on equity are the Discounted Cash Flow[49] ("DCF") and Capital Asset Pricing Model[50] ("CAPM"). These

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[45] *Company's Response to the TRA Advisory Staff's Data Request of August 21, 2006*, Questions #26 & 27 (August 31, 2006).
[46] William H. Novak, Pre-Filed Direct Testimony, p. 9 (July 19, 2006).
[47] *Id.*
[48] *Id.*
[49] DCF Analysis
The DCF model is expressed through the following equation: $K = D/P + g$
Where: K = cost of equity
D = dividend per share
P = price per share
g = dividend growth rate

methodologies and previous Authority decisions provide guidance in evaluating the proper return for Aqua. There is neither a single correct model, nor does one model produce only one possible rate of return. The DCF and CAPM analyses serve primarily to create a range of reasonable returns. The CAPM estimates the risk between an asset or portfolio and the market as a whole. It measures the relative cost of or necessary return on the asset relative to the market. Therefore, it is helpful to evaluate the returns achieved by comparable companies under these models and in the market to ensure a just equity return.

Determining the appropriate cost of equity for a small Water and Wastewater ("WAW") utility leads to difficulties not incurred when determining fair equity return for larger water and wastewater utilities. To calculate the required equity return using the CAPM and DCF, information derived from trading of company stock is required. For example, the statistic β used in the CAPM is derived by analyzing how the price of a company's stock varies compared to the performance of the stock market in general. Unlike the larger natural gas and water utilities regulated by the Authority, small WAW utilities, like Aqua do not have stock that is publicly traded. Thus, without data from stock trading, it is not possible to directly determine the fair equity return using the CAPM and DCF model.

One approach to overcome the lack of stock price data for a small WAW utility is to use information from a company or group of companies that are thought to have similar business characteristics. Ideally, other small WAW utilities should be used as a proxy. However, other companies like Aqua, do not have stock listed on public exchanges. Therefore, using a natural gas distribution utility as a proxy group for a small WAW utility is appropriate in this instance as

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[50] The CAPM is calculated as: $K = R_f + \beta(R_m - R_f)$
Where: K = expected return
R_f = risk free return
R_m = overall market return

both types of utility operations are involved in distributing a regulated product.[51] Thus, in this docket it was found that the equity cost for Aqua Utilities should be set by calculating the CAPM and DCF model for a representative group of natural gas distribution utilities.

To implement the CAPM, measurements of β, the risk-free market return and the overall market return are required. Measures of the statistic β were taken from Valueline Investment Survey. The risk free return was set at 4.78%, which was the average rate for November for the twenty year Treasury Note.[52] The market risk premium was set at 7.1%.[53]

To use the DCF model, data on stock price and dividends are necessary to calculate the dividend yield component of the DCF model. Additional information to quantify the growth of dividends or earnings per share is required to complete the DCF calculations. Data for long term growth rates for earnings per share and dividends per share were taken from Valueline Investment Survey. Stock price data was extrapolated from the December 5, 2006 publication of the Wall Street Journal that reflected data from December 4, 2006 (the date of the hearing in this matter).

After calculating the results of the CAPM and two variants of the DCF model, the cost of equity measure was determined by averaging the results of the analysis. Since the capital structure of Aqua Utilities is composed entirely of equity, the overall return is the same as the equity return of 8.77%. The Authority determines that the equity cost of Aqua Utilities be set at 8.77%.[54]

β = measure of asset risk relative to market risk

[51] Another state commission also used natural gas distribution utilities as a proxy group for small WAW utilities. For example, the Florida Public Service Commission in Docket No. 06-0006-WS utilized natural gas distribution utilities as a proxy group for small WAW's.

[52] December 26, 2006 Federal Reserve statistical release of table H.15.

[53] Table C-1, Key Variables in Estimating the Cost of Capital found in Ibbotson Assoc. Valuation Edition 2006 Yearbook.

[54] Director Jones dissents from this determination and filed a separate Opinion explaining his analysis.

IV(f) REVENUE REQUIREMENT

IV(f)(1) Revenue Deficiency

Aqua calculated its Revenue Deficiency to be $559,109 for the attrition period and was requesting approximately one-half of this amount in this proceeding. Aqua states that collecting the full revenue deficiency from customers would create a "rate shock"[55] and believed it would be best to request a revenue increase of $300,000 at this time. The Company stated that at a later date, it would file a future rate case to recover the remaining Revenue Deficiency. The Authority calculated the Company's Revenue Deficiency to be $114,596 for the attrition period and adopted a Revenue Deficiency of $114,596 for Aqua for the 2007 attrition year.[56]

IV(f)(2) Rate Design

The Company's tariff allows a $250 tap charge for water and $250 tap charge for wastewater. These charges are currently booked as additions to Rate Base by debiting Utility Plant in Service and deducting from Rate Base by crediting CIAC. The Authority has determined that the tariff rates for Service Connection Charges should be booked as Revenue when it is incurred. The Uniform System of Accounts ("USOA") permits this treatment. If the Service Connection Charges are booked as Revenue, the recurring revenue requirement would be greatly reduced. In the proposed tariff, the Company increases water tap charges to between $575 and $1,500 (depending on the diameter of the service line). The proposed tariff also includes a wastewater tap charge of $850 to $1,300 (depending on whether a road bore is necessary for the wastewater service line). The Service Connection Revenues of $1,000 for water service and $1,000 for wastewater service was adopted by the Authority and resulted in attrition period Revenue of $61,000. The Authority included as additions to Plant in Service of

[55] Aqua's rates were set in 1990. *See* Mr. Clausel's Pre-filed Direct Testimony, pages 2 and 3.

$1,000 for Service Connection and $675 for Wastewater Service Connection.[57] The actual cost of installing the water and wastewater service should be recorded as an addition to Utility Plant in Service in the period incurred. If the Service Connection Charges are increased, it lowers the Revenue Deficiency and thereby reduces the customers' monthly bills. The Authority approved a Service Connection Charge of $1,000 for water service and $1,000 for wastewater service. Service Connection Revenues cover $61,000 of the approved $114,596 Revenue Deficiency. This leaves a balance of $53,596 to be collected through monthly rates.

The calculated Revenue Deficiency of $114,596 discussed above, is adopted as follows:[58]

1. Service Connection Charges shall be treated as Revenue for Aqua, resulting in projected Service Connection Revenue of $61,000. Therefore, the annual recurring revenue from water/wastewater sales is projected to be $128,277.

2. The Company is instructed to book tariffed Service Connection Charges (Tap Charges) as Revenue in a separate identifiable account in the period incurred.

3. The proposed Reconnection Charge of $400 is rejected and the rate set for Reconnection Charge for seasonal disconnections is $60 for "water only" meters and $120 for water/wastewater customer meters to cover five (5) months of the base rates. This is based on the Company's assertion that five months is the typical length of time for seasonal disconnects.

4. The Reconnection Charge for non-payment of bill shall remain at $15.

5. The proposed returned check charge of $20 is accepted.

6. The proposed forfeited discount rate of five percent (5%) is accepted.

7. The proposed elimination of the security deposit is accepted.

8. The Authority adopted the following rates:

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[56] As a result of his disagreement on other issues that affect the calculation of the revenue deficiency, Director Jones does not agree with the calculation of this item.

[57] Based on estimated installation costs provided in *Company's Response to the TRA Advisory Staff's Data Request of October 31, 2006*, Question #64 (November 13, 2006).

[58] Director Jones dissents from the majority's rate design and filed a separate Opinion explaining his position.

Monthly Water Service:	
First 1,000 gallons per month	$12.00
Monthly usage in excess of 1,000 gallons (Applied pro rata)	$2.89 per 1,000 gallons
Monthly Wastewater Service:	
First 1,000 gallons per month	$12.00
Monthly usage in excess of 1,000 gallons (Applied pro rata)	$2.89 per 1,000 gallons
Service Connection Charge:	
Water	$1,000
Wastewater	$1,000
Reconnects due to Seasonal Disconnects:	
Water	$60
Wastewater	$60
Reconnects due to Non-Payment of Bill:	
Water	$15
Wastewater	$15

V. TARIFF ISSUES

The Company submitted a revised tariff that included the proposed rates and a complete revision of the Company's Rules and Regulations. In addition to a disagreement with the rates proposed, the Authority found that there were formatting errors and inconsistencies in language in the tariff labeled TRA #2 of the tariff that need to be addressed. The Company was ordered to re-file the tariff labeled TRA #1, which is a tariff page listing the rates, to reflect the Authority's decision in this case. The remainder of the proposed tariff is denied (tariff labeled TRA #2), and the Company is instructed to work with Staff to develop a proper and consistent tariff that complies with all federal, state, and local laws and all TRA Rules and Regulations, including the decisions set forth in this Order. Subsequently, Aqua was instructed to submit its tariff to the Authority for approval. The Company's Proposed Rules and Regulations (tariff labeled TRA #2) can be submitted within a reasonable period of time after the Company has the opportunity to work with the Staff on the necessary revisions.

VI. OTHER ISSUES

Although this Authority allowed the Company's Rate Case Expense of $46,250 or approximately $157 per customer in this proceeding, it is still of great concern to this Authority. The Authority invited the Company to request that the Chairman of the Authority ask the Chief of the Utilities Division to designate a Staff member to informally discuss rate issues at any time it desires, but no later than such time as the Company has 500 customers. This procedure will allow the Company to adjust rates without the need for consulting and attorney fees that are exorbitant on a per customer basis for a company this size.

Additionally, the Company violated TRA Rule 1220-4-1-.01 regarding the filing of projected expenditures on capital construction projects in 2005 and 2006 because the Company failed to make the required filings with the TRA. However, the Authority determined that there should be no assessment of a monetary penalty by the TRA for the violation of TRA Rule 1220-4-1-.01 in 2005 and 2006, given the decision to disallow CWIP as part of Rate Base. Therefore, the omission of required filings has no effect on customers' rates. The Authority further directs the Company to file the information regarding capital additions as required by TRA Rule 1220-4-1-.01 for 2007.

VII. CONCLUSION

At the regularly scheduled Authority Conferences on February 5, 2007, the panel deliberated the issues identified and discussed herein. Aqua is permitted to earn an overall rate of return of 8.77 percent (8.77%) during the attrition year ending December 31, 2007. Based on the facts and circumstances revealed through the evidence and testimony submitted by the parties in this matter, the Authority found that a rate increase is warranted and that Aqua is entitled to a rate increase of $114,596. The Authority further found that the rate design for implementing this rate increase will be as follows:

1. The rate design set forth in Exhibit Number 1 of this Order would be used to allocate $114,596 of the rate increase.

2. The amount of $114,596 would be recovered directly from the ratepayers of Aqua Utilities Company.

IT IS THEREFORE ORDERED THAT:

1. The Petition of Aqua Utility Company is denied.

2. The Authority finds that Aqua is entitled to a revenue increase of $114,596.

3. The rate design set forth in Exhibit 1 is adopted to generate the approved revenue increase.

4. Aqua shall revise its tariff consistent with this Order and the decisions herein.[59]

5. Any party aggrieved by the Authority's decision in this matter may file a Petition for Reconsideration with the Authority within fifteen (15) days from the date of this Order.

6. Any party aggrieved by the Authority's decision in this matter has the right of judicial review by filing a Petition for Review in the Tennessee Court of Appeals, Middle Section, within sixty (60) days from the date of this Order.

IT IS SO ORDERED.

Sara Kyle, Chairman

Pat Miller, Director

Ron Jones, Director[60]

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[59] Aqua has filed its revised tariff and the tariff went into effect on March 1, 2007.

[60] Director Jones concurs in part and dissents in part with the findings and conclusions contained in this Order. Director Jones signed this Order to signify agreement with those issues that are not specifically addressed in his separately filed Opinion.

EXHIBIT 1

Exhibit 1

Rate Design to Recover the Revenue Deficiency of $114,596.

Monthly Water Service:	
First 1,000 gallons per month	$12.00
Monthly usage in excess of 1,000 gallons (Applied pro rata)	$2.89 per 1,000 gallons
Monthly Wastewater Service:	
First 1,000 gallons per month	$12.00
Monthly usage in excess of 1,000 gallons (Applied pro rata)	$2.89 per 1,000 gallons
Service Connection Charge:	
Water	$1,000
Wastewater	$1,000
Reconnects due to Seasonal Disconnects:	
Water	$60
Wastewater	$60
Reconnects due to Non-Payment of Bill:	
Water	$15
Wastewater	$15