BEFORE THE
STATE OF NEW JERSEY
BOARD OF PUBLIC UTILITIES

IN THE MATTER OF THE PETITION OF
NEW JERSEY-AMERICAN WATER COMPANY, INC.
FOR APPROVAL OF INCREASED TARIFF RATES
AND CHARGES FOR WATER AND WASTEWATER SERVICE,
CHANGE IN DEPRECIATION RATES AND
OTHER TARIFF MODIFICATIONS

BPU Docket No. WR1709____

DIRECT TESTIMONY OF

FRANK X. SIMPSON

Exhibit PT-4

NEW JERSEY-AMERICAN WATER COMPANY, INC.

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NEW JERSEY-AMERICAN WATER COMPANY, INC.

1. Q. Please state your name and business address.

A. My name is Frank X. Simpson, and my business address is 1025 Laurel Oak Road, Voorhees, New Jersey 08043.

2. Q. By whom are you employed and in what capacity?

A. I am employed by the American Water Works Service Company, Inc. (hereinafter referred to as "AWWSC" or the "Service Company") as the Senior Director of Rates & Regulation for New Jersey-American Water Company, Inc. ("NJAWC" or the "Company"), New York American Water Company, Inc. ("NYAW"), Virginia American Water Company, Inc. ("VAWC"), and Maryland American Water Inc. ("MAW").

3. Q. What are your responsibilities in this position?

A. My present responsibilities include managing the rates and regulatory issues for NJAWC, including planning, forecasting, monitoring and implementation. As Senior Director of Rates and Regulation I am also a member of the Senior Management Team at NJAWC and participate in all functional areas of the Company from a strategic focus and planning perspective. I also oversee the rates and regulatory issues for NYAW, VAWC, and MAW.

4. Q. Please discuss your educational background and experience.

A. I have been licensed as a Certified Public Accountant in the State of New Jersey since 1980; however, on a temporary basis, from 2009 through 2014, my status was inactive. I earned a Bachelor of Science degree in Accounting from the

College of New Jersey in 1978 and a Master of Science degree in Taxation from Drexel University in 1986. I have approximately thirty-two years of experience in the water and wastewater industry, starting in August of 1982, when I was employed by Garden State Water Company, a predecessor Company to Consumers New Jersey Water Company, as Controller, and subsequently, in 1987, appointed Vice President, Financial; and additionally Treasurer in 1989 and Chief Financial Officer in 1995. In March of 1999 Consumers Water Company merged with Philadelphia Suburban Water Company, subsequently becoming Aqua America, and I was transferred to the Bryn Mawr, Pennsylvania location and assumed a number of financial and regulatory roles, including Vice President-Rates for Consumers Water Company, and CFO North Carolina & New Jersey. Additionally, I was actively involved in the acquisition activities that brought Aqua America into a number of new states. In March 2005 I joined the AWWSC as Manager of Rates and Planning for New Jersey and New York, and in January of 2010 I was made an employee of NJAWC and relinquished my responsibilities for New York. In 2012 I was reassigned responsibility for New York and was transferred back to the Service Company and subsequently promoted to Director Rates and Regulation. In 2017 I was assigned the responsibility for two additional states, Virginia and Maryland and promoted to Senior Director Rates and Regulation. I have served as Chairman for both the New Jersey Chapter of the National Association of Water Companies (“NAWC”) and the New Jersey Utility Association's (“NJUA”) Tax & Accounting Committee, and have served on the national level as the Chairman of NAWC's Rates & Revenue Committee for the

three years ended October 2001. Prior to August 1982, I was employed as an Accounting Officer for Provident National Bank and a Senior Accountant for Withum, Smith and Brown, P.A., Certified Public Accountants. I have also had the opportunity to teach accounting as an adjunct Professor at Rowan University.

5. Q. Have you ever testified before the New Jersey Board of Public Utilities ("Board")?

A. Yes. I have had the opportunity to testify before this Board on a number of occasions, and I have also testified before the New York Public Service Commission, the New Hampshire Public Utility Commission, the Pennsylvania Public Utility Commission, the Illinois Commerce Commission, the North Carolina Utilities Commission and the Connecticut Public Utilities Commission.

6. Q. Are you generally familiar with the books and records of NJAWC?

A. Yes, I am.

7. Q. What system is followed in keeping the general books of account and related records of the Company?

A. The general books of account and related records of the Company are kept in conformity with the Uniform System of Accounts for water companies.

8. Q. What is the purpose of your testimony?

A. I present comparative financial data for NJAWC in conformance with the New Jersey Board of Public Utilities Rules and Regulations, describe and present the calculation of the Company's revenue deficiency and resulting request for rate

relief. I also sponsor the calculation of rate base, capital structure, depreciation and amortization expense. I also present the major drivers of the Company's requested rate relief and identify some of the regulatory requirements imposed by prior Board Orders that are addressed as part of the Company's filing in this proceeding. I will present the financial aspects of the initial acquisitions of the Borough of Haddonfield's water and wastewater systems by NJAWC and Shorelands Water Company ("Shorelands") by American Water Works Company, Inc. ("AWW") and the subsequent merger of Shorelands into NJAWC in conformance with the Board's Rules and Regulations. I will also comment on the capital and operational efficiencies that will directly and entirely benefit our existing and newly acquired customers as a result of these acquisitions and the associated acquisition adjustments.

9. Q. Have you prepared, or caused to be prepared, financial exhibits in support of the Company's application to increase rates?

A. Yes, I have. The Company has filed exhibits, which reflect its accounting and financial condition and which support the Company's petition for increased rates. The exhibits and schedules that I am supporting with my direct testimony were prepared by me or under my supervision and direction. These exhibits are Exhibit P-2, Schedules 1-4, and Schedules 9 (Summary of Operations & Maintenance Expense), 47-49 (Depreciation and Amortization Expense), 58 (Rate Base), 59 (Payments to Affiliates), 60 (Cost of Capital), and portions of Schedules 10 (Labor) & 24-30 (Service Company) as they relate to Annual Performance

Plan and Long Term Performance Plan Compensation, and Schedule 21 (Engineered Coating of Steel Structures) as to the appropriate accounting treatment. Applicable work papers are contained in the Company's SIR responses.

10. Q. Are the exhibits as currently filed correct to the best of your knowledge and belief?

A. Yes, they are.

INTRODUCTORY COMMENTS

11. Q. How does this filing compare to the Company's 2015 base rate case filing?

A. This base rate case is similar to the 2015 filing in that it is primarily a capital driven case; that is the rate increase's main drivers are capital additions and infrastructure rehabilitation or replacement. Also, as in 2015, the revenue erosion associated with the well-established trend of declining water consumption is a driver of this case. Please see the testimony of Company Witness Roach (Exhibit PT-10) for more information on the declining consumption trend and the need for a Revenue Stabilization Mechanism ("RSM"). Please see the testimony of Company Witness DeStefano, Exhibit PT-5, for a detailed explanation of the need for a RSM. Additionally, as in the 2015 base rate case the Company has also maximized its use of the DSIC mechanism. Please see the testimony of Company Witnesses Shields (Exhibit PT-3) and DeStefano (Exhibit PT-5) for more information on the DSIC.

NEW JERSEY-AMERICAN WATER COMPANY, INC.

HISTORIC AND PROJECTED CAPITAL STRUCTURE AND COST DATA

12. Q. What is the structure of the rate making, financial exhibits?

A. We are proposing a test year in this case of the twelve months ending March 31, 2018. The test year has been developed utilizing the general books and records of the Company and other supporting data, starting with the actual twelve months ended March 31, 2017, the base year. We believe that this test year is appropriate and consistent with Board policy. We have made certain post-test year adjustments that will be in service by the end of the six-months ended September 30, 2018 that are major in nature and consequence for NJAWC and can be substantiated with very reliable data. We have not requested any capital additions beyond the test year that are not major in nature and consequence.

The Company has projected its rate base through March 31, 2018, for all capital additions and to September 30, 2018 for a selected number of capital additions that are major in nature and consequence. Revenues have been calculated based on the number of customers anticipated at September 30, 2018, and then annualized. The capital structure utilized is the projected debt and equity at September 30, 2018. These adjustments will be explained below. For known and measurable changes to income and expense items, the Company has made adjustments six-months beyond the test year for most items; however, for changes reflected in signed contracts such as union labor agreements, we have reflected changes through December 31, 2018.

13. Q. Do you believe that it is appropriate to use September 30, 2018 as the basis for establishing Revenues, Expenses and Capital Structure?

A. Yes. In so doing, the Company is properly matching the anticipated annualized expenses with the associated annualized revenue and capital structure. We are annualizing the revenue based on the number of customers at September 30, 2018, reflecting customer growth six months beyond the test year. We are adjusting the operating expenses, up or down, based on the Company's annualized operating expenses at September 30, 2018. We have reflected all actual and anticipated changes in capital structure through September 30, 2018. We believe this to appropriately match revenues, operating expenses and capital structure in the rate setting process.

14. Q. How have revenue, expense and rate base been calculated for the test year?

A. Revenue, expense and rate base have been calculated based upon five months' actual (through August 31, 2017) and seven months' projected (through March 31, 2018).

15. Q. Do you believe that test year revenue, expense and rate base items should be adjusted to actual amounts as the case progresses?

A. Yes, and the Company will do so.

16. Q. Do you have any general comments regarding this filing?

A. Yes, the Company has continued to invest high levels of needed capital since the September 11, 2015, Board Order in the Company's last base rate case, and it is

projecting to continue these high levels of capital investment beyond the conclusion of this case. Actual capital above what was approved in the Company's most recent base rate case through the pendency of this proceeding will be approximately $630 million excluding DSIC investments, and approximately $870 million including DSIC investments. The details regarding the capital expenditures can be found in Company Witness Shields' Direct Testimony, Exhibit PT-3.

The Company's capital investments, together with the continuing decline in consumption per customer, contribute to the Company's overall revenue requirement, and are addressed through the testimony and supporting exhibits contained in this filing.

17. Q. Are there any other items of discussion relevant to this case?

A. The Company continues to commit its resources and capital to providing safe, adequate and reliable water service to its customers at just and reasonable rates while providing a fair return to its shareholders. As a result of this commitment, which translates into the continued need for investment in new and rehabilitated infrastructure, as well as the ability to attract capital, the Company finds it necessary to request a rate adjustment at this time. As a way of demonstrating this need in quantitative terms, the Company's earned return on pro forma rate base at present rates is 5.69 percent.

NEW JERSEY-AMERICAN WATER COMPANY, INC.

PROJECTED INCOME STATEMENT/REVENUE REQUIREMENT DATA

18. Q. Should the book test year data for the twelve months ending March 31, 2018 be the basis for setting rates in this case?

A. No. Book test year data will not reflect levels of expenses or revenues on a fully annualized or normalized basis. Therefore, the test year results must be annualized. That is, known changes to revenues and expenses occurring during the test year must be reflected on an annual basis, and must also be normalized.

19. Q. What are the overall results shown on the exhibits that you are sponsoring?

A. The total effect of the pro forma adjustments on the operations of the Company results in a required revenue increase of $129.3 million. This represents a 17.54% percent increase in revenue over projected, pro forma present rate revenue. This is the increase that we are requesting, measured against total pro forma present rate revenues.

20. Q. Have you prepared a "Comparative Balance Sheet" of the Company as of December 31, 2014, 2015 and 2016, and March of 2017, referenced on Exhibit P-2, Schedule 1?

A. Yes, I have. Comparative Balance Sheets have been prepared for the Company from the books and records of the Company.

21. Q. Please explain Exhibit P-2, Schedule 2 "Comparative Statement of Income".

A. Schedule 2 is a "Comparative Statement of Income" for the twelve months ended December 31, 2014, 2015, 2016 and March 31, 2017, as recorded on the

Company's books and records. Schedule 2 also includes dividends paid on the preferred and common stock of the Company for each twelve-month period.

22. Q. Have you also provided more recent financial statements?

A. Yes, Exhibit P-2, Schedule 3, pages 1 and 2 of 3, referenced as "Balance Sheet at March 31, 2018" represents a more recent balance sheet for the Company. Page 3 of 3 is a projected income statement for the test year ending March 31, 2018.

23. Q. Will you now explain Exhibit P-2, Schedule 4, "Pro Forma Statement of Income Under Present and Proposed Rates and Actual" and for the Year Ended March 31, 2017?

A. This schedule reflects the Company's income statement on a pro forma basis under present and proposed rates. Column (2) on Schedule 4 indicates the actual results for the base year period ended March 31, 2017. Annualized and normalized adjustments are made to the base year reflecting known or projected changes in the Company's operations consistent with the approach described above in my testimony.

The result is a pro forma income statement that is representative of the Company's prospective financial condition. Schedule 4 summarizes supporting Schedules 5 through 61.

Schedule 4 shows the Company's rate base projected to March 31, 2017, and through September 30, 2018, for a limited number of projects that are major in nature and consequence. In accordance with the Board's rules of practice, the

Company has calculated a rate of return of 5.69 percent under present rates, and 8.071 percent under proposed rates when calculated on the net investment rate base of $3,024,473,424.

24. Q. Exhibit No. P-2, Schedule 4 calculates the rate of return under present and proposed rates. How was the pro forma rate of 8.071% determined?

A. The overall rate of return of 8.071% is based on the projected capital structure at September 30, 2018, six months beyond the test year. The September 30, 2018 capital structure incorporates a return on equity of 10.80%, as recommended in the Direct Testimony of Mr. Paul Moul, Exhibit PT-16, and the projected debt outstanding. The capital structure and the weighted cost at September 30, 2018 are as follows:

Type of Capital	Balance Outstanding	Ratios	Cost Rate	Weighted Cost Rate
Long-Term Debt	1,412,251,790	46.00%	4.8677%	2.2392%
Common Equity	1,657,860,796	54.00%	10.80%	5.8320%
	$3,070,112,586	100.00%		8.0712%

25. Q. In the above schedule, the Company is proposing a capital structure of 46.00% debt and 54.00% equity. Is this appropriate, and who is the capital structure witness?

A. Yes, it is appropriate, and I am the capital structure witness. I have supplied Company Witness Moul, Exhibit PT-16, with the proposed capital structure of

46.00% debt and 54.00% equity. Company Witness Moul, Exhibit PT-16, supports this capital structure in is direct testimony. Please see Exhibit P-2, Schedules 60 and 61 for the calculation of the rate of return and the cost of debt utilized in the Company's proposed capital structure. The Company's actual capital structure at August 31, 2017 was 53.98% equity and 46.02% debt.

26. Q. Has the Company included the issuance of any new debt?

A. Yes, the Company has included the issuance of $192.8 million of additional new long-term debt ranging from 20 to 30 years prior to September 30, 2018. Please see Exhibit P-2, Schedule 61. The Company has issued $76.0 million of new debt between April 1, 2017 and September 15, 2017 and anticipates a $25 million issue to occur in December of 2017, a $21.8 million issue to occur in January of 2018 and a $70.0 million issue to occur in August of 2018. The Company will update Exhibit P-2, Schedules 60 and 61 as more definitive rates, terms and issuance costs become available.

The Company has reduced its cost of debt from 5.1658% in the last base rate case to 4.8677% in this base rate case, a reduction in the revenue requirement of $4.7million. This reduction is a direct result of refinancing and the issuance of new debt, both taxable and tax-exempt, at favorable market rates.

NEW JERSEY-AMERICAN WATER COMPANY, INC.

ANNUAL PERFORMANCE PLAN ("APP") & LONG TERM PERFORMANCE PLAN ("LTPP")

27. Q. What is American Water's overall compensation philosophy?

A. American Water's compensation philosophy is to generally pay salaries that are competitive with those of comparable organizations for jobs of similar responsibility. To carry out this philosophy, American Water's objective is to target total compensation (i.e. base, short-term at-risk compensation, and long-term at-risk compensation) at the median (50th percentile) of the market with greater earning opportunity for exceptional performance for fully qualified individuals who are able to satisfactorily perform their duties and responsibilities. The policy is also to relate salaries directly to measured job performance and to administer pay programs within the Company on a consistent basis.

28. Q. Would you please explain the Annual Performance Plan ("APP") and the Long Term Performance Plan ("LTPP") and where the related costs are included in this proceeding?

A. APP and LTPP are components of American Water's overall compensation program. They represent the at-risk portion of the employee's annual compensation which is dependent on achieving certain key performance objectives. The employee's base salary, which is established at the 50th percentile of the market, plus any achieved APP and LTPP, are what the employee considers his or her annual compensation. For NJAWC employees, the costs of these salary-based programs are included under labor, and for the Service Company employees, the cost is included under the employee's actual function within the

Service Company. Additionally, please see the Direct Testimony of Company Witness Cephas.

29. Q. Please generally describe the purpose of the APP and the LTPP.

A. Generally, the plans are designed to provide compensation for financial and operational performance, and to focus plan participants on delivering safe and reliable water services.

30. Q. Is the Company supplying support and documentation as to why the Commission should approve the recovery of the at-risk portion of the employee's annual compensation?

A. Yes. Company Witness Mustich of Willis Towers Watson is supplying testimony addressing the appropriateness of the at-risk portion of the employee's annual compensation. See the direct testimony of Mr. Mustich, Exhibit PT-19.

31. Q. Please describe the key performance objectives underlying the APP and the individual award process.

A. Each employee's performance pay is determined by that individual's performance. Each APP participant must meet with his or her supervisor at the beginning of each year to jointly develop performance goals related to his/her position and responsibilities for the upcoming year — safety and people, environmental leadership, customer satisfaction, and technology and operational effectiveness. Customers benefit from the APP participant's individual performance objectives being met, because operational performance is improved

by controlling costs, capturing efficiencies, promoting effective safety and risk management practices, and enhancing customer service. Each individual's performance is measured by goals that directly benefit customers by creating a more productive workforce that is focused on customer satisfaction and achieving efficiency, environmental and safety goals. Direct testimony submitted by Company Witness Mustich of Willis Towers Watson, as well as the compensation study provided as Exhibit PT-19 evaluates and supports the reasonableness of these plans, and supports NJAWC's request to recover 100% of variable compensation expense in the Company's revenue requirement.

32. Q. Do customers also benefit from the financial performance objective underlying the APP?

A. Yes. Given the capital intensive nature of the water industry, it is appropriate to consider the impact of financial performance on the availability of internally-generated funds and on maintaining credit ratings at a level necessary to access capital at reasonable rates. The use of internal capital or low-cost debt mitigates the Company's financing costs for its substantial ongoing investment in new and replacement facilities. In addition, attention to safety, customer relations and cost controls is determinative to a considerable extent in achieving financial goals. Consequently, when financial performance is achieved through efficiency, the interests of customers and shareholders are aligned.

33. Q. Does the Company's compensation plan benefit customers?

A. Yes. The plan is designed to provide compensation for performance and to focus plan participants on delivering clean, safe, reliable and affordable water service. The compensation plan includes components of financial, operational, and individual measures. The operational components measure performance that can most directly influence customer satisfaction, health and safety, environmental performance, and operational efficiency. Customers derive a direct benefit from our focus on these key measures in the plan. Further, well-grounded financial measures keep the organization focused on improved performance at all levels of the organization, particularly in increasing efficiency, decreasing waste, and boosting overall productivity.

Finally, a financially healthy utility focused on efficiency and customer satisfaction is able to attract the capital investments necessary to provide safe and reliable service and to maintain the technological expertise necessary to operate the Company and comply with increasing water quality standards. A financially healthy utility is very much in the interest of NJAWC's customers, as it helps ensure NJAWC the ability to provide safe and reliable service at the lowest reasonable cost. Our performance compensation plan is not an addition to reasonable compensation; our performance compensation plan makes our compensation reasonable.

34. Q. Are there other benefits of variable pay?

A. Yes. Variable pay provides NJAWC with not only a means of focusing its employees on the organization's goals, but also a means of measuring attainment of those goals.

FASB'S RETIREMENT BENEFITS (TOPIC 715 & SHORELANDS' FAS 158)

35. Q. Has the Financial Accounting Standards Board ("FASB") issued any new standards regarding retirement benefits, specifically those related to pension and other post-retirement benefits?

A. Yes. The FASB's Accounting Standards Update for Compensation – Retirement Benefits (Topic 715), issued in March 2017 ("Update"), which amends the presentation of net periodic benefit cost for pension and other post-retirement benefits, with an effective date for annual periods beginning after December 15, 2017. The main provisions in this Update include:

1) For Generally Accepted Accounting Principles ("GAAP"), employers are required to report the service cost component of the net periodic benefit costs in the same line item as other compensation costs arising from services rendered by the pertinent employees during the period; the other components of the net periodic benefit costs (interest cost, expected return on plan assets, amortization of prior service cost/credit, actuarial gain/loss, transition asset/obligation, amortization on settlement or curtailment) are required to be presented in the income statement separately from the service

cost component and outside a subtotal of income from operations, if one is presented.

For GAAP purposes, only the service cost component of the net periodic costs for pension and other post-retirement benefits ("OPEB") is allowed to be capitalized.

36. Q. What is the practical effect of this change?

A. It will reduce the Company's ability to capitalize the portion of pension and OPEB costs that are directly related to capitalized labor and it will increase expense.

37. Q. Does the Commission have to accept FASB's Topic 715 related to the treatment of pension and OPEB costs?

A. No. The Commission could require the utilities to not adopt FASB's Topic 715 for regulatory purposes.

38. Q. What is the Company Proposing in this case?

A. The Company is proposing the historical method in this case. Please see the testimony of Ms. Cephas. The historical method capitalizes both the service cost and the other costs components of the net benefit cost for pension and OPEBs.

39. Q. Why is the Company proposing the historical method?

A. The obligation to pay pension/OPEB benefits to employees after they retire relates solely to a compensation plan; therefore, the total cost of those benefits is by nature compensation earned by employees at the time they perform services

for the employer. Recovery of total compensation should follow the same principles we have with other labor components and thus continue to be capitalized. Therefore, the Company is proposing to capitalize the total net benefit cost as it has always done in the past.

40. Q. Does NJAWC believe that the adoption of FASB's Topic 715 will impact the GAAP presentation of pension and OPEB on the income statement and the capitalization of such costs?

A. Yes, FASB's Topic 715 Update, will alter the way NJAWC has previously presented pension and OPEB costs for GAAP income statement presentation and for capitalization purposes. Specifically, NJAWC believes pension and OPEB net periodic benefit costs will be impacted by the implementation of FASB's Topic 715 as follows:

a) Capitalized pension costs under Topic 715 for GAAP purposes, based on the current forecast, will be less than before, resulting from the requirement that only the service cost components of the net periodic costs are subject to capitalization. NJAWC believes that the portion of pension & OPEB costs that is no longer capitalized will need to be addressed by the Commission to assure appropriate recovery of costs that were traditionally recorded as a component of construction work in progress ("CWIP").

b) Capitalized OPEBs benefits under Topic 715 for GAAP purposes will be more than before, based on the current forecast, resulting from the

requirement that only the service cost components of the net periodic costs are subject to capitalization.

c) Pension & OPEB expense which has traditionally been shown as a component of Operating Income, will now be bifurcated for GAAP purposes, with the service cost component reported in Operating Income and all other components of net benefit cost below Operating Income. However, the combination of the components in and out of Operating Income will equate to the same amount that has traditionally been depicted entirely in Operating Income, prior to capitalization.

41. Q. If the Commission chooses to recommend FASB's Topic 715 as Board policy, should NJAWC and other utilities be made whole?

A. Yes. If the adoption of FASB's Topic 715 is recommended or treated as Board policy by the Commission, NJAWC and the other utilities it regulates, should be made whole..

42. Q. What is the Shorelands FAS 158 cost?

A. The Shorelands FAS 158 amount reflects the fair value of the unfunded pension benefit obligation. The benefits were earned by employees who worked for Shorelands Water Company prior to its acquisition by American Water in 2017. The amount of the unfunded obligation at the time of acquisition was $2,612,577.

43. Q. Why is the Company requesting an amortization of the Shorelands FAS 158 amount as a component of pension expense?

A. Because the Shorelands pension plan is frozen, and no further benefits will be accrued, NJAWC does not anticipate future recovery in rates of the FAS 158 amount through normal pension expense accruals. Consequently, the Company requests that a regulatory asset be established for the balance, with a recovery period of twenty years, to allow for recovery of these benefit obligations. The twenty years is consistent with other pension related amortizations approved for the Company in the past.

ENGINEERED COATING OF STEEL STRUCTURES

44. Q. Please explain Exhibit P-2, Schedule 21, "Engineered Coating of Steel Structures".

A. Exhibit P-2, Schedule 21, presents the Company's pro forma engineered coating of steel structures expense. Line 3 sets forth total pro forma Forms expense by water operations. Actual base year expense is shown on line 5. The last line is simply the difference between the pro forma operating expense and base year. The schedule reflects the normalized annual cost of coating the Company's numerous tanks and standpipes. All of the Company's steel and concrete structures, which vary in size from 5,000 gallons to 12 million gallons, store potable water used for fire protection service, peak demand equalization and emergency storage throughout the Company's system, and are explained in more

detail in the direct testimony of Company Witness Shields, Exhibit PT-3, under the section entitled "Water Storage Tank Reinvestment Program".

45. Q. What is the Company proposing with respect to the recognition of costs associated with coating the tanks and standpipes with a protective coating?

A. The Company requests that the Board allow for the capitalization of this protective coating, similar to what other Commissions throughout the country have approved. This capitalization would be for the coating of the entire structure, which can range from $30,000 to over $4,000,000, depending on the size, location and type of coating currently on the tank; the capitalization will not be utilized for touch-ups and minor spot painting. The depreciation rate for the capitalized tank painting would be 5.0% (utilizing a 20-year useful life), which is supported by Mr. Shields' Pre-Filed Testimony, Exhibit PT-3.

46. Q. Do the Company's pro forma revenue requirement or rate base exhibits reflect the capitalization of engineered coating of steel structures?

A. No. However, the Company will present schedules supporting recognition of this capitalization in our nine and three update.

47. Q. What then is reflected in the Company's exhibits with respect to coating of steel structures?

A. For ratemaking purposes, in this base rate case proceeding, the Company has prioritized the top thirty-three (33) out of 207 tanks that require engineered coating over the next five-year period, which is approximately six or seven tanks

per year. Coating the total 207 steel structures requiring engineered coating at a rate of six or seven per year will take the Company approximately 30 years to coat all tanks, which is significantly longer than the average life of 15 to 20 years for a steel structure. The Company believes the appropriate vehicle to address the engineered coating of steel structures is capitalization; however, in the event the Commission does not agree, the amount allocated for cost of service needs to be increased over that previously allowed. Please refer to the response to SIR-29 for the development of the pro forma engineered coating of steel structure costs.

48. Q. How is the engineered coating of steel structures treated in the other states in which American Water Works Company, Inc. has regulated operations?

A. The regulatory treatment for the engineered coating of steel structures is treated as follows in the other states where American Water Works, Inc. has regulated operations:

- Maryland – Deferred and amortized;
- New York – Deferred and amortized with unamortized balance included in rate base;
- Illinois - Deferred and amortized with unamortized balance included in rate base;
- Indiana – Capitalized;
- Iowa – Capitalized;
- Tennessee – Capitalized;
- Kentucky - Deferred and amortized with unamortized balance included in rate base;
- Pennsylvania – Capitalized;
- West Virginia – Deferred and amortized.

49. Q. Is New Jersey the only state that does not defer or capitalize the engineered coating of steel structures?

A. Yes.

50. Q. Why is a normalization methodology utilized in the pro forma revenue requirement and not the capitalization methodology?

A. The Company believes the capitalization methodology is the best and most appropriate approach, but has not had capitalized steel coating included in its authorized cost of service in the past. If the capitalization methodology is not adopted in this proceeding, the Company would propose the normalization methodology.

51. Q. Does the IRS or Treasury Department have a position on capitalization vs. expense for engineered costing of steel structures?

A. Yes. Please refer to the IRS "Capitalization v Repairs Audit Technique Guide" dated November 2010, where it sets out that the engineered coating of our steel structures should be treated as a capital project for federal income tax purposes.

52. Q. Does the guide give any reference to specific Treasury Regulations?

A. Yes. The guide states the following regarding Treas. Reg. § 1.263(a) which was enacted in 1986:

> Section 263(a)(1) provides that no deduction shall be allowed for any amounts paid out for new buildings or for permanent improvements or betterments made to increase the value of any property or estate. See also Treas. Reg. § 1.263(a)-1(a)(1). Section

263(a)(2) prohibits a deduction for amounts expended in restoring property or in making good the exhaustion thereof for which an allowance is or has been made.

Section 263A, enacted in 1986, also applies to property produced by the taxpayer for use in its business or an activity conducted for profit. For example, if a company constructs an addition to their building, § 263A requires that direct and indirect costs of construction be added to the building's basis. This includes the requirement for capitalization of construction period interest. Section 263A(g)(1) defines the term "produce" to include construct, build, install, manufacture, develop or improve.

Capitalization is the proper treatment for expenditures incurred in new construction. See §§ 263(a) and 263A. Capitalization is also generally required for additions to existing buildings or for installations of material components to buildings or equipment.

Treas. Reg. § 1.263(a)-1(b) provides that capital expenditures include amounts paid or incurred to (1) add to the value, or substantially prolong the useful life of property owned by the taxpayer, such as plant or equipment or (2) adapt property to a new or different use.

53. Q. Does the IRS Audit Guide give any examples of capital vs. expense?

A. Yes. See chart from the guide below.

Capital	Repair
Improvements that "put" property in a better operating condition	Improvements that "keep" property in efficient operating condition
Restores the property to a "like new" condition	Restores the property to its previous condition

NEW JERSEY-AMERICAN WATER COMPANY, INC.

Capital	Repair
Addition of new or replacement components or material sub-components to property	Protects the underlying property through routine maintenance
Addition of upgrades or modifications to property	Incidental Repair to property
Enhances the value of the property in the nature of a betterment	
Extends the useful life of the property	
Improves the efficiency of the property	
Improves the quality of the property	
Increases the strength of the property	
Increases the capacity of the property	
Ameliorates a material condition or defect	
Adapts the property to a new use	
Plan of Rehabilitation Doctrine	

54. Q. After reviewing the chart for the IRS Guide, do you believe engineered costing of steel structures should be capital or expense?

A. Based on the capitalization requirements contained within the IRS chart above, and as described in my testimony and the testimony of Company Witness Shields, it is clear that the expenditures associated with the engineered costing of steel structures should be recognized as capital additions.

DEPRECIATION & AMORTIZATION

55. Q. Please explain Exhibit P-2, Schedule 47, "Summary Statement of Depreciation and Amortization".

A. Schedule 47 is a summary of the pro forma levels of depreciation expense, amortization of investment tax credit, and the amortization of plant acquisition adjustments. These adjustments are further detailed on Schedules 48 and 49.

56. Q. Please explain Exhibit P-2, Schedule 48, "Statement of Depreciation".

A. Schedule 48 details the calculations of base year depreciation expense and pro forma expense by service area. The depreciation rates used in the calculations are the combination of the life rates and cost of removal rates, as calculated by the depreciation study prepared by Company Witness Spanos, Exhibit PT-18. Plant balances as of the base year, March 31, 2017, were multiplied by the composite depreciation rates approved in the Company's most recent base rate case, WR15010035, to calculate annual base year depreciation expense by service area for the base year. The depreciation rates utilized to calculate total pro forma depreciation expense by service area were based on the depreciation study prepared by Company Witness Spanos.

Pro forma book depreciation expense based on units of production depreciation has been calculated on the Delaware River Regional Water Treatment Plant, Howell Township Water Treatment Plant, and Logan Treatment Plant. Units of production ("UOP") depreciation has been utilized for these plants since the late 1990's and is continued in this proceeding. The Company averaged five year

actual UOP production history to calculate pro forma expense for these plants. Adjustments have also been included to eliminate depreciation expense on contributed property. Pro forma depreciation expense was compared to actual base year expense for the 12 months ended March 31, 2017 to arrive at a pro forma depreciation adjustment by service area. Please see Company Witness Spanos' testimony and supporting schedules in Exhibit PT-18 that show this calculation.

57. Q. Mr. Simpson, are you familiar with that portion of the stipulation of settlement in the Company's 2008 rate case, Board Docket No. WR08010020, which established the currently used method for calculating net negative salvage ("NNS")?

A. Yes, I am.

58. Q. How was NNS calculated in Board Docket WR08010020?

A. While the Company disagreed with this method, it was agreed for purposes of that settlement to utilize the 3-year average net salvage approach.[1] For purposes of that settlement the years 2004 to 2006 were utilized.

59. Q. Were these rates updated?

A. Yes. The cost of removal rates were updated in Board Docket Nos. WR11070460 and WR15010035.

[1] This was erroneously described in the text of the stipulation as 5 years. However, the underlying schedules make it clear that it is 3 years.

60. Q. Were such updates envisioned by the settlement in Board Docket No. WR08010020?

A. Yes. The stipulation envisioned that we would be made whole from its implementation. In fact, the following was provided in item number 15 of the stipulation:

> Depreciation. The parties stipulate that the Company's current water composite depreciation rate is 2.33% and the rate will remain at 2.33%. This rate reflects a return to customers of "Non-Legal Asset Retirement Obligation" of $48,000,000 at $1,200,000 per year over a forty (40) year period, which NJAWC will recognize as a regulatory liability.
>
> Rate Counsel and the parties further stipulate that by virtue of the proposed methodology change with respect to Non-legal Asset Retirement Obligations, the Company will be made whole for actual future cost of removal by continuing use of the [3]-year average net salvage allowance approach as stipulated to in this proceeding. For example, in the event of an unforeseen retirement where the prudently-incurred net negative salvage is in excess of the Non-Legal Asset Retirement Obligations balance on the Company's balance sheet, the Company would not be required to absorb a loss for the amount of the net negative salvage in excess of the balance sheet balance.
>
> It shall be noted for purposes of this Order that the Company is accepting this adjustment for purposes of settlement only, and not because it accepts the rationale advanced by Rate Counsel in this proceeding.

61. Q. Has the Company been amortizing the $48,000,000 Regulatory Liability at $1,200,000 per year since the Order in Board Docket No. WR08010020?

A. Yes.

62. Q. What is the status of the Company's current Non-Legal Asset Retirement Obligation in this proceeding?

A. The $48,000,000 Non-Legal Asset Retirement Obligation agreed to in Board Docket No. WR08010020 as a Regulatory Liability has been reduced by the annual amortization of $1,200,000 per year; however, since the Board Order in WR08010020 the Non-Legal Asset Retirement Obligation ("Non-Legal ARO") has switched from a Regulatory Liability to a Regulatory Asset position, where actual net negative salvage costs have significantly exceeded the amounts required from customers. As a result the Company has a shortfall in its Non-Legal ARO recoveries. The $48,000,000 Non-Legal ARO, established in Board Docket No. WR08010020, has been reduced to $36,800,000 as of March 31, 2018, the end of the Company's test year in this proceeding. This $36,800,000 Regulatory Liability at March 31, 2018 needs to be offset by a projected Regulatory Asset balance of $125,000,000 at March 31, 2018. This is a direct result of actual net negative salvage costs that have been in excess of the amounts provided for in the Commission approved depreciation rates. The result is a net Regulatory Asset of $88,162,000, which needs to be amortized over the remainder of the forty (40) year period established in WR08010020, or approximately thirty (30) years.

63. Q. What would the annual amortization be for the net Regulatory Asset of $86,200,000?

A. The annual amortization will be $2,922,481.

64. Q. Please explain Exhibit P-2, Schedule 49, "Amortizations".

A. The first item on Schedule 49 is the pro forma annual amortization of investment tax credit ("ITC") calculated on plant in service through December 31, 1985. Consistent with the Tax Reform Act of 1986, the 10 percent investment tax credit has not been calculated on utility plant placed in service subsequent to December 31, 1985. The pro forma amount is equal to the actual total ITC amortized during the base year, the 12 months ended June 30, 2014.

The second item on Schedule 49 is the pro forma annual amortization of plant acquisition adjustments. The pro forma amount includes an annual amortization expense of $44,949, $668,074, and $4,617 on the Haddonfield, Shorelands, and Roxiticus acquisitions, respectively. The total pro forma acquisition adjustment amount is equal to the actual amortization recorded during the base year, the 12 months ended March 31, 2017, adjusted for the Haddonfield and Shorelands Water acquisitions.

RATE BASE

65. Q. What is the structure of the financial exhibits for Rate Base?

A. The Test Year Rate Base has been developed utilizing the general books and records of the Company and other supporting data, commencing with the actual

twelve months ended March 31, 2017, the Base Year. The Company has projected its rate base to March 31, 2018, the Test Year. We have made certain post-test year adjustments for projects that will be in service by the end of the six-month period ending September 30, 2018 that are major in nature and consequence.

The Rate Base information is presented on a Total Company basis, as well as by Total Water and Total Wastewater Groups.

66. Q. Please describe any acquisitions included in the exhibits and schedules you are sponsoring.

A. Exhibit P-2, Schedules 47, 48 and 58 reflect the acquisitions of the Borough of Haddonfield's water and wastewater collection systems and the water operations of Shorelands Water Company. NJAWC previously acquired these systems after approval by the Board.

67. Q. Can you describe the rate base treatment that NJAWC is seeking for the Haddonfield and Shorelands acquisitions?

A. The Company is seeking full rate base recognition, as depicted on Exhibit P-2, Schedule 58, for the Haddonfield and Shorelands Water acquisitions. Included in the Test Year Rate Base is the original cost of the Borough of Haddonfield acquired assets less accumulated depreciation, as presented by Company Witness Cuthbert of Remington & Vernick Engineers in Exhibit PT-20. The assets of Shorelands Water Company, acquired through a stock transaction, were recorded

at the original cost less depreciation per the Board-regulated books of the company. Additionally, the Company is requesting rate base recognition of the acquisition premiums associated with these acquisitions, the difference between the original cost of the acquired assets less depreciation and the price paid for the assets of the Borough of Haddonfield and Shorelands Water. The Company is seeking to amortize these premiums over 40 years for an annual amortization of $713,033.

68. Q. Please explain Exhibit P-2, Schedule 58, "Statement of Rate Base at March 31, 2017 and Pro Forma at March 31, 2018 and September 30, 2018".

A. Since the September 11, 2015 Board Order of the Company's last base rate case, Board Docket No. WR15010035, the Company has continued to invest high levels of needed capital and is projecting sustained high levels of capital investment beyond the conclusion of this case. Schedule 58 details the rate base components by service area as of the base year (March 31, 2017), the test year (March 31, 2018), and the post-test year period through September 30, 2018. The projected utility plant in service includes the actual balance as of March 31, 2017, plus all committed construction through March 31, 2018 and certain post-test year adjustments that will be in service by the end of the six-months ended September 30, 2018 that are major in nature and consequence for NJAWC and can be substantiated with very reliable data. Please refer to the pre-filed testimony of Company Witness Shields, Exhibit PT-3, for details regarding capital expenditures included in the pro forma utility plant in service amounts.

69. Q. Please describe how the "Accumulated Depreciation and Amortization UPIS" reduction to rate base was determined.

A. The projected balance of accumulated depreciation and amortization reserves at March 31, 2018 includes the actual reserve balance as of March 31, 2017, plus an additional twelve months of depreciation and amortization expense on the depreciable property recorded through March 31, 2018.

The pro forma plant additions through March 31, 2018 were depreciated at the proposed rates based on projected in-service dates. Please refer to Exhibit P-2, Schedule 48, for further detail on the pro forma depreciation calculations and the testimony provided by Company Witness Spanos in Exhibit PT-18.

Depreciation on post-test year pro forma significant investment project additions through September 30, 2018 was calculated at the proposed rates and is included in the accumulated reserves as of September 30, 2018.

The Company commences depreciation in the month following the in-service date of the project and depreciates through the month of retirement. The accumulated depreciation and amortization reserve balances as of March 31, 2018 have been reduced for estimated property retirements and removal costs. The accumulated depreciation and amortization reserve balances as of September 30, 2018 were only adjusted to reflect the impact of certain post-test year adjustments that are considered major in nature and consequence for NJAWC and can be substantiated with very reliable data.

70. Q. Please explain how the addition to rate base for "Cash Working Capital" was determined.

A. The Cash Working Capital amount included in rate base was calculated by Company Witness Walker. Please refer to his pre-filed testimony, Exhibit PT-15.

71. Q. Please explain how the addition to rate base for "Utility Plant Acquisition Adjustments" was determined.

A. The Utility Plant Acquisition Adjustments at March 31, 2017 reflects the unamortized balances on the Company's books for previous approved acquisitions of water and wastewater utility assets. The pro forma balance of unamortized acquisition adjustments at March 31, 2018 includes the actual unamortized balances as of March 31, 2017, less an additional Twelve months of amortization expense. Additionally, the Company is seeking rate base recognition of the Haddonfield, Shorelands Water, and Roxiticus acquisition adjustments of $1,798,369, $26,722,978, and $184,662, respectively.

72. Q. Please describe what NJAWC recorded for the value of the Haddonfield water and wastewater system assets.

A. NJAWC recorded the original cost less depreciation of the assets acquired. Please see Company Witness Cuthbert's testimony, Exhibit PT-20, and report that supports this valuation.

73. Q. Is the Company's acquisition of Haddonfield in the public interest? Please explain your reasoning.

A. Yes, the acquisition of the Haddonfield water and wastewater system assets is clearly in the public interest, as supported by the pre-filed testimony of Company Witnesses Forcinito (Exhibit PT-13) and Cuthbert (Exhibit PT-20).

74. Q. Is the Company's acquisition of Roxiticus in the public interest? Please explain your reasoning.

A. Yes. Roxiticus' customers benefited from lower rates because they were immediately transitioned to NJAWC's SA-1 rate tariff post-closing. The need to comply with increasingly stringent water quality and environmental standards, while also rehabilitating and replacing aging water infrastructure, has created substantial demands for capital investment by water utilities. The financial resources and backing of NJAWC is a benefit to Roxiticus' customers in the replacement of infrastructure and compliance with the Safe Drinking Water Act. It is often difficult for small water companies to effectively access capital or expertise to plan for and respond to the broad range of issues that face the water industry. NJAWC, on its own and through its parent, American Water, provides the customers of Roxiticus with the ability to effectively address their water needs into the future. Roxiticus customers have access to the Company's customer payment assistance programs – H_2O Help to Others and the Low Income Payment Plan – which seek to help customers during times of need. They also have emergency service from NJAWC 24/7 and receive the benefit of NJAWC's best industry practices.

75. Q. Were the utility plant assets of Haddonfield, Shorelands Water and Roxiticus recorded by NJAWC at "original cost" less depreciation in conformance with Board Rules and Regulations?

A. Yes. The utility plant assets were recorded at original cost less depreciation. Original cost is defined as "*the cost incurred by the person who first devoted the property to utility service.*"

76. Q. How did NJAWC, record the difference between original cost less depreciation and the price paid for the assets of Haddonfield and Roxiticus, and the stock of Shorelands Water?

A. The price paid for the assets of Haddonfield and Roxiticus, and the stock of Shorelands Water was greater than original cost less depreciation, creating a differential which will be charged to Account 117, Utility Plant Acquisition Adjustments ("UPAA"). UPAA is defined by the Board in the Uniform System of Accounts as – "*this account shall include the difference between (a) the cost of the accounting utility of utility plant acquired as an operating unit or system by purchase, merger, consolidation, liquidation, or otherwise, and (b) the original cost, estimated if not known, of such property, less the amount or amounts credited by the accounting utility at the time of acquisition to accumulated provision for depreciation and amortization and contributions in aid of construction with respect to such property*."

77. Q. Does the Company expect the Board to rule on the ratemaking treatment of the UPAA in this proceeding?

A. Yes. The Company fully expects ratemaking treatment to be ruled upon in conjunction with this base rate case proceeding. The Company has provided calculations depicting the net benefit of the Shorelands acquisition, depicting the avoided and deferred costs, including the rate base treatment and amortization of the UPAA, on an actual and present value basis over a 20-year period. Please see attached Schedule FXS-1.

78. Q. Please explain Schedule FXS-1.

A. Schedule FXS-1, consists of five pages: pages one through four show the calculation of the positive revenue requirement of the avoided and deferred capital additions on an annual basis associated with the acquisition of Shorelands, offset by the negative revenue requirement associated with the rate base treatment and amortization of the associated UPAA. The Company has determined that it will avoid the construction of approximately $29.0 million of planned capital projects and defer the construction of approximately $18.9 million of planned capital projects for a period of 5 to 10 years. The UPAA for the Shorelands acquisition was $26.7 million**.** Page five of Schedule FXS-1 lists the specific projects comprising the avoided and deferred capital balances used on page one. The project details are presented in the testimony of Company Witness Shields.

79. Q. Please summarize the results of Schedule FXS-1.

A. The revenue requirement reduction attributable to the avoided and deferred capital additions over the 40-year amortization period of the UPAA is approximately $112 million. This positive benefit to our customers is offset by the negative

revenue requirement of the rate base treatment and 40-year amortization of the UPAA of approximately $96million. The net benefit in actual dollars of the avoided and deferred capital, offset by the rate base treatment and 40-year amortization of the UPAA is a positive benefit to our customers of approximately $16 million. The net benefit on a present value basis is approximately $6.6 million, using a discount rate of 3%.

80. Q. Can you describe the regulatory treatment that NJAWC will be requesting in this base rate case proceeding?

A. The Company will be seeking full rate base recognition of the UPAA in this base rate case proceeding and will request that the UPAA be amortized over 40 years, as depicted in Schedule FXS-1. Please note that upon approval of the UPAA in rate base the Company will be required to gross-up the UPAA for tax purposes, establishing a regulatory asset and a deferred tax liability for the exact same amount. The regulatory asset and the deferred tax liability will net to $0.00 and will be amortized to the income statement as a debit and credit for the same amount with $0.00 impact on operating income. The gross-up has no impact on rate base or the requested revenue requirement.

81. Q. Will the Company be able to demonstrate that the acquisition of Haddonfield, Shorelands, and Roxiticus including the UPAA differential, will be to the benefit of its existing and newly acquired customers?

A. Yes, as discussed above. Please refer to the pre-filed testimonies of Company Witnesses Shields (Exhibit PT-3), Keane (Exhibit PT-12) and Forcinito (Exhibit

PT-13) for examples of such operational and capital synergies created as a direct result of the Haddonfield and Shorelands Water acquisitions.

82. Q. Please explain how the addition to rate base for "Prepayments" was determined.

A. The Prepayments amount in the rate base calculation is the thirteen-month average (March 31, 2016 through March 31, 2017) of the month-end balances of prepaid insurance, prepaid property taxes and other prepayment accounts.

83. Q. Please explain how the addition to rate base for "Materials and Supplies" was determined.

A. The Materials and Supplies amount in the rate base calculation is the thirteen-month average (March 31, 2016 through March 31, 2017) of the month-end balances as recorded on the Company's books. Materials and supplies include chemicals, gasoline for Company vehicles, and other items, such as various sizes of pipe, fittings, valves, hydrants, etc. These materials and supplies are necessary to enable the Company to provide reliable service, react promptly to service disruptions, and to respond to community needs for fire service and/or main extension installations.

84. Q. Please explain the deductions to rate base for "Customer Advances for Construction and Contributions in aid of Construction".

A. The pro forma balance of customer advances for construction represents the balance on the books of the Company as of March 31, 2017, adjusted to include

additional projected advances to be received under deposit agreements and to deduct projected deposit refunds through March 31, 2018.

Pro forma contributions in aid of construction represent the balance on the books of the Company at March 31, 2017, adjusted to include additional transfers from customer advances for construction through March 31, 2018. The contributions in aid of construction balance is net of accumulated amortization.

85. Q. Please explain the deduction to rate base for "MTBE Settlement".

A. The base year MTBE Settlement amount deducted from rate base represents the unamortized regulatory liability balance recorded on the Company's books as of March 31, 2017, of the Methyl tert-butyl ether ("MTBE") litigation proceeds awarded to the Company. The pro forma MTBE balance as of March 31, 2018, includes an additional twelve months of amortization activity. The Company's accounting for the MTBE settlement is in accordance with the treatment afforded by the Board in Board Docket No. WR10040260.

86. Q. Please explain how the reduction to rate base for "Pre-1971 Investment Tax Credit ("ITC")" was determined.

A. The March 31, 2017 amount for pre-1971 investment tax credit is the computed, unamortized balance recorded on the Company's books as of this date. The Company uses the normalization method of accounting for investment tax credits subsequent to 1970, whereby the applicable credits are amortized over the useful

life of the property. The pro forma balance as of March 31, 2018, includes an additional twelve months of amortization.

87. Q. Please explain how the reduction to rate base for "Consolidated FIT" was determined.

A. Consistent with Board policy under Docket No. EO12121772, the Company has calculated the adjustment based on the parameters contained in the Board Order dated October 22, 2014.

88. Q. Please explain how the reduction to rate base for "Deferred Federal Income Taxes ("Deferred F.I.T.") (accelerated depreciation)" was determined.

A. Base Year Deferred F.I.T. (accelerated depreciation) on plant in service at March 31, 2017 represents the actual balance per the books and records of the Company. Test year activity through March 31, 2018, and certain post test year additions through September 30, 2018, have been calculated based on current year experience and committed construction. Tax depreciation on 2017 and 2018 committed construction has been calculated on a twenty-five year straight-line basis as specified for water utility property in the Small Business, Health Insurance and Welfare Reform Acts of 1996. The Company has factored in bonus depreciation at the 50% rate for all property added or projected in 2017 and 40% for all property projected in 2018.

CUSTOMER SIDE LEAD SERVICE REPLACEMENT

89. Q. Has the Company requested any UPIS related to Customer Side Lead Service Replacement in this proceeding?

A. Yes, the Company has requested $440,000 of capital expenditures related to customer side lead service replacement through the end of the Test Year, March 31, 2018.

90. Q. Has the Company filed a petition with the Board regarding customer side lead service replacement?

A. Yes, on April 19, 2017 the Company filed a petition (BPU Docket No. WF17040402) requesting the following as stated in the petition:

1. NJAWC respectfully requests authority from the BPU to defer on its books the actually incurred costs associated with the customer-owned lead services that were replaced while the Company was replacing its own service or main in front of the customer's property. The Company proposes that the appropriate recovery for such deferred costs will be addressed in the Company's next base rate case. Such costs represent prudently incurred costs associated with the replacement of said service lines. The Company proposes to continue to replace lead service lines within the context of its main and service replacement program as discussed below. The customer would continue to own its customer service line, notwithstanding the fact that NJAWC retained the contractor to perform the replacement.

2. The Company proposes to include the cost of the removal of the customer-owned portion of the lead service line as restoration costs charged to Account 345, services. However, in the interim, prior to its next base rate case filing, the Company will charge these costs to Account 186.

91. Q. How much did the Company have deferred in Account 186 at the end of the Base Year, March 31, 2017?

A. The Company had $70,000 deferred in Account 186 at March 31, 2017 and expects this balance to increase to approximately $440,000 by March 31, 2018. This balance represents the replacement of approximately 115 customer side lead service line replacements. The Company has included the $440,000 in UPIS in this base rate case proceeding and is seeking recovery of this investment as a component of rate base.

92. Q. Do you think it is appropriate to record Customer Side Lead Service Replacements to account 345 (Services) and seek recovery of this investment as a component of Rate Base?

A. Yes, I believe it to be very appropriate and the right thing to do from a regulatory and customer safety prospective. Please see the testimony of Company Witness Shields, Exhibit PT-3, for a detailed explanation of why NJAWC needs to replace these customer side service line replacements and why it is appropriate for the Company to receive a return on this investment. Additionally, NJAWC respectfully requests that the Board expand the current revenue cap for the Distribution System Improvement Charge ("DSIC") mechanism to appropriately include customer side lead service line replacements as an eligible DSIC expenditure.

CLOUD COMPUTING

93. Q. What is cloud computing?

A. Cloud computing is the term used to describe off-premise computing solutions. This can include software, platform, or infrastructure solutions that are part of a

pool of configurable resources made available to individuals and businesses. Cloud computing often allows for more rapid, flexible, and efficient deployment of technologies and innovations than on-premise solutions can provide.

Cloud computing is becoming the primary means of delivering technology and is slowly replacing on-premise computing solutions in the market place. Even SAP, the Company's enterprise software provider, is now offered as a cloud application.

94. Q. Why is cloud computing a topic of interest for utility regulation?

A. Cloud computing has become an important topic of regulatory discussion not only because of its benefits and increasing prevalence, but also because of its unique accounting issues. In April 2015, ASU 2015-05, an Accounting Standards Update ("ASU"), was issued by the Financial Accounting Standards Board, which clarified how cloud computing arrangements should be treated. The ASU specified that in certain circumstances, the costs associated with cloud computing should be treated as operating expense.

For utilities, expensing periodic cloud computing investments creates a few barriers. For example, this practice could create periodic spikes in expense with no regulatory recovery or the customer paying too much, depending on when the regulatory recovery is effective. This would result in a permanent lag for the Company or the customer paying too much in base rates, the threat of which can be a barrier to the deployment of cloud computing solutions. Since cloud-based

investments will have multi-year benefits for our customers, the appropriate accounting treatment would be to recognize these costs over the same period the benefits are derived. Typically, utility investments with a multi-year benefit are treated as rate base assets and amortized, so that the costs are born equitably by the customers who benefit from the investment. This is done in part to preserve intergenerational equity, a ratemaking principle that could be lost if periodic investments are expensed. Expensing periodic investments in the first year also serves as a barrier to establishing a representative year of expense for ratemaking purposes, as some years may have very high cost and other years very little cost. Customers could either pay too much or too little for technology, rather than merely paying their normalized, equitable share.

A ratemaking treatment for off-premise cloud computing investments that is the same as the treatment for on-premise investments would resolve these issues and effectively remove barriers to the efficient deployment of new technologies and innovations. Due to concerns over "permanent lag", intergenerational equity, and finding a fair representative expense, the Company recommends this solution.

95. Q. Has the National Association of Regulatory Utility Commissioners ("NARUC") taken a position on cloud computing accounting?

A. At the NARUC Annual Meeting in November 2016, the water, gas, and electric committees all passed a resolution on cloud computing. The document resolved that "NARUC encourages State regulators to consider whether cloud computing and on-premise solutions should receive similar regulatory accounting treatment, in that

both would be eligible to earn a rate of return and would be paid for out of a utility's capital budget."

96. Q. Is there a good example of this issue as it relates to NJAWC?

A. Yes. NJAWC is planning to invest in SAP's SuccessFactors Employee Central module. Employee Central is essentially a bolt-on to the Company's existing capitalized SAP asset platform.

Employee Central will unite several core SuccessFactors HCM (Human Capital Management) applications and is intended to serve as NJAWC's human resources system of record. There are multiple applications within the integrated SuccessFactors suite like Talent Management, Workforce Analytics, and Onboarding. Employee Central will be an improved, cloud-based hub for this data and will ultimately replace the on-premise SAP HCM module. Indeed, SAP will no longer be supporting the on-premise HCM module after 2025.

Clearly, cloud computing is part of SAP's strategic direction. They are transitioning in this direction, and American Water will be as well.

97. Q. Is NJAWC requesting the SuccessFactors Employee Central project in this proceeding?

A. No.

98. Q. What are you requesting in this proceeding for NJAWC?

A. We are requesting that NJAWC be granted the authority to account for off-premise cloud-based technology solutions the same way it accounts for on-premise technology solutions. This would mean that the Company would capitalize implementation services, internal labor, and other fees (such as those for licenses, maintenance and support) that were necessary to bring the asset into service. We recommend that a five-year amortization be used for assets like this and that they be recorded to NARUC account 303, intangible plant, for ease of tracking and identification.

AFFILIATED TRANSACTIONS

99. Q. Please explain Exhibit P-2, Schedule 59, regarding the schedule of affiliated Company transactions filed pursuant to N.J.A.C. 13:1-6.16.

A. This schedule was prepared from the books and records of the Company and sets forth the charges for the twelve months ended March 31, 2017 from the Service Company to NJAWC for services rendered in accordance with the current contract, and as previously described herein. This schedule also lists charges from American Water Capital Corp. (long and short-term borrowings) and AWW (rental income).

100. Q. Do you have a conclusion about your exhibits?

A. Yes. The Service Company fees do not include a profit mark-up, meaning that the recovery from NJAWC ratepayers is at the actual cost of the service. The Service Company contract provides for indirect charges to be spread over a larger

customer base than that of NJAWC alone. Please also see the testimony of Mr. Baryenbruch, Exhibit PT-17, which supports the reasonableness of Service Company charges.

101. Q. Does this conclude your direct testimony?

A. Yes it does.

New Jersey American Water Company
Analysis of Net Benefit to Customers of Utility Plant Acquisition Adjustment over 40 Years

Cost Savings to Existing Customers:

		2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
Avoided Capital:													
Eliminate need to replace Navy Tank			$ 3,700,000	$ 3,700,000	$ 3,700,000	$ 3,700,000	$ 3,700,000	$ 3,700,000	$ 3,700,000	$ 3,700,000	$ 3,700,000	$ 3,700,000	$ 3,700,000
Eliminate need to replace 5 Pressure Reducing Valves (PRV) serving Aberdeen					2,500,000	2,500,000	2,500,000	2,500,000	2,500,000	2,500,000	2,500,000	2,500,000	2,500,000
Utilize Shorelands gradient tank to serve Aberdeen low pressure zone					3,500,000	3,500,000	3,500,000	3,500,000	3,500,000	3,500,000	3,500,000	3,500,000	3,500,000
Eliminate (3) PRV stations for new Middletown Zone					800,000	800,000	800,000	800,000	800,000	800,000	800,000	800,000	800,000
Union Beach Tank repurposing/utilization					5,000,000	5,000,000	5,000,000	5,000,000	5,000,000	5,000,000	5,000,000	5,000,000	5,000,000
Shorten the Raritan-Middlesex line										10,000,000	10,000,000	10,000,000	10,000,000
Avoid development of 2 Englishtown wells					3,500,000	3,500,000	3,500,000	3,500,000	3,500,000	3,500,000	3,500,000	3,500,000	3,500,000
Total Avoided Capital		$ -	$ 3,700,000	$ 3,700,000	$ 19,000,000	$ 19,000,000	$ 19,000,000	$ 19,000,000	$ 19,000,000	$ 29,000,000	$ 29,000,000	$ 29,000,000	$ 29,000,000
Annual Depreciation Expense on Avoided Capital at	2.50%		92,500	92,500	475,000	475,000	475,000	475,000	475,000	725,000	725,000	725,000	725,000
Cumulative Depreciation Expense			92,500	185,000	660,000	1,135,000	1,610,000	2,085,000	2,560,000	3,285,000	4,010,000	4,735,000	5,460,000
Net Avoided Capital			$ 3,607,500	$ 3,515,000	$ 18,340,000	$ 17,865,000	$ 17,390,000	$ 16,915,000	$ 16,440,000	$ 25,715,000	$ 24,990,000	$ 24,265,000	$ 23,540,000
Deferred Capital:													
Deferment of Newman Springs Clear well replacement and reduce criticality of Station							4,000,000	4,000,000	4,000,000	4,000,000	4,000,000	4,000,000	4,000,000
Deferment of Swimming River Aquifer Storage and Recovery (ASR) Well 2 for 5		-	-	2,483,333	4,966,667	7,450,000	9,933,333	12,416,666.67	14,900,000	12,416,667	9,933,333	7,450,000	4,966,667
Total Deferred Capital		$ -	$ -	$ 2,483,333	$ 4,966,667	$ 7,450,000	$ 13,933,333	$ 16,416,667	$ 18,900,000	$ 16,416,667	$ 13,933,333	$ 11,450,000	$ 8,966,667
Annual Depreciation Expense on Deferred Capital at	2.50%	-	-	62,083	124,167	186,250	348,333	410,417	472,500	410,417	348,333	286,250	224,167
Cumulative Depreciation Expense		-	-	62,083	186,250	372,500	720,833	1,131,250	1,603,750	2,014,167	2,362,500	2,648,750	2,872,917
Net Deferred Capital		-	-	2,421,250	4,780,417	7,077,500	13,212,500	15,285,417	17,296,250	14,402,500	11,570,833	8,801,250	6,093,750
Total Avoided and Deferred Net Capital		$ -	$ 3,607,500	$ 5,936,250	$ 23,120,417	$ 24,942,500	$ 30,602,500	$ 32,200,417	$ 33,736,250	$ 40,117,500	$ 36,560,833	$ 33,066,250	$ 29,633,750
Pre-Tax Rate of Return grossed up for Revenue Tax		11.94%	11.94%	11.94%	11.94%	11.94%	11.94%	11.94%	11.94%	11.94%	11.94%	11.94%	11.94%
Total Revenue Requirement on Avoided & Deferred Net Capital		-	430,613	708,587	2,759,793	2,977,288	3,652,899	3,843,636	4,026,963	4,788,667	4,364,122	3,946,988	3,537,264
Total Depreciation Expense on Avoided & Deferred Net Capital		-	107,259	179,248	694,767	766,756	954,700	1,026,689	1,098,678	1,316,578	1,244,589	1,172,600	1,100,611
Total Annual Savings on Avoided & Deferred Capital		**$ -**	**$ 537,872**	**$ 887,835**	**$ 3,454,559**	**$ 3,744,043**	**$ 4,607,600**	**$ 4,870,326**	**$ 5,125,641**	**$ 6,105,245**	**$ 5,608,711**	**$ 5,119,587**	**$ 4,637,874**

Cost of Utility Plant Acquisition Adjustment to Existing Customers:

	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
Balance of Utility Plant Acquisition Adjustment:	$ 26,722,978	$ 26,054,904	$ 25,386,829	$ 24,718,755	$ 24,050,680	$ 23,382,606	$ 22,714,531	$ 22,046,457	$ 21,378,382	$ 20,710,308	$ 20,042,234	$ 19,374,159
Annual Revenue Requirement on UPAA	3,189,816	3,110,071	3,030,325	2,950,580	2,870,835	2,791,089	2,711,344	2,631,598	2,551,853	2,472,108	2,392,362	2,312,617
Annual Cost of UPAA Amortization (40 y of $26,722,978 including Revenue Tax	774,669	774,669	774,669	774,669	774,669	774,669	774,669	774,669	774,669	774,669	774,669	774,669
Total Revenue Requirement for UPAA	**$ 3,964,485**	**$ 3,884,740**	**$ 3,804,994**	**$ 3,725,249**	**$ 3,645,504**	**$ 3,565,758**	**$ 3,486,013**	**$ 3,406,267**	**$ 3,326,522**	**$ 3,246,777**	**$ 3,167,031**	**$ 3,087,286**
Annual Difference between Cost Savings and Cost of UPAA	**$ (3,964,485)**	**$ (3,346,868)**	**$ (2,917,160)**	**$ (270,690)**	**$ 98,540**	**$ 1,041,841**	**$ 1,384,313**	**$ 1,719,374**	**$ 2,778,723**	**$ 2,361,934**	**$ 1,952,556**	**$ 1,550,589**
Cumulative Difference between Cost Savings and Cost of UPAA	**$ (3,964,485)**	**$ (7,311,353)**	**$ (10,228,513)**	**$ (10,499,203)**	**$ (10,400,663)**	**$ (9,358,821)**	**$ (7,974,509)**	**$ (6,255,135)**	**$ (3,476,412)**	**$ (1,114,477)**	**$ 838,079**	**$ 2,388,668**

NPV **3.0%** **$6,644,277**

New Jersey American Water Company
Analysis of Net Benefit to Customers of Utility Plant Acquisition Adjustment over 40 Years

Cost Savings to Existing Customers:

		2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040
Avoided Capital:													
Eliminate need to replace Navy Tank		$ 3,700,000	$ 3,700,000	$ 3,700,000	$ 3,700,000	$ 3,700,000	$ 3,700,000	$ 3,700,000	$ 3,700,000	$ 3,700,000	$ 3,700,000	$ 3,700,000	$ 3,700,000
Eliminate need to replace 5 Pressure Reducing Valves (PRV) serving Aberdeen		2,500,000	2,500,000	2,500,000	2,500,000	2,500,000	2,500,000	2,500,000	2,500,000	2,500,000	2,500,000	2,500,000	2,500,000
Utilize Shorelands gradient tank to serve Aberdeen low pressure zone		3,500,000	3,500,000	3,500,000	3,500,000	3,500,000	3,500,000	3,500,000	3,500,000	3,500,000	3,500,000	3,500,000	3,500,000
Eliminate (3) PRV stations for new Middletown Zone		800,000	800,000	800,000	800,000	800,000	800,000	800,000	800,000	800,000	800,000	800,000	800,000
Union Beach Tank repurposing/utilization		5,000,000	5,000,000	5,000,000	5,000,000	5,000,000	5,000,000	5,000,000	5,000,000	5,000,000	5,000,000	5,000,000	5,000,000
Shorten the Raritan-Middlesex line		10,000,000	10,000,000	10,000,000	10,000,000	10,000,000	10,000,000	10,000,000	10,000,000	10,000,000	10,000,000	10,000,000	10,000,000
Avoid development of 2 Englishtown wells		3,500,000	3,500,000	3,500,000	3,500,000	3,500,000	3,500,000	3,500,000	3,500,000	3,500,000	3,500,000	3,500,000	3,500,000
Total Avoided Capital		$ 29,000,000	$ 29,000,000	$ 29,000,000	$ 29,000,000	$ 29,000,000	$ 29,000,000	$ 29,000,000	$ 29,000,000	$ 29,000,000	$ 29,000,000	$ 29,000,000	$ 29,000,000
Annual Depreciation Expense on Avoided Capital at	2.50%	725,000	725,000	725,000	725,000	725,000	725,000	725,000	725,000	725,000	725,000	725,000	725,000
Cumulative Depreciation Expense		6,185,000	6,910,000	7,635,000	8,360,000	9,085,000	9,810,000	10,535,000	11,260,000	11,985,000	12,710,000	13,435,000	14,160,000
Net Avoided Capital		$ 22,815,000	$ 22,090,000	$ 21,365,000	$ 20,640,000	$ 19,915,000	$ 19,190,000	$ 18,465,000	$ 17,740,000	$ 17,015,000	$ 16,290,000	$ 15,565,000	$ 14,840,000
Deferred Capital:													
Deferment of Newman Springs Clear well replacement and reduce criticality of Station		4,000,000	4,000,000	4,000,000									
Deferment of Swimming River Aquifer Storage and Recovery (ASR) Well 2 for 5		2,483,333											
Total Deferred Capital		$ 6,483,333	$ 4,000,000	$ 4,000,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Annual Depreciation Expense on Deferred Capital at	2.50%	162,083	100,000	100,000	-	-	-	-	-	-	-	-	-
Cumulative Depreciation Expense		3,035,000	3,135,000	3,235,000	3,235,000								
Net Deferred Capital		3,448,333	865,000	765,000	(3,235,000)	-	-	-	-	-	-	-	-
Total Avoided and Deferred Net Capital		$ 26,263,333	$ 22,955,000	$ 22,130,000	$ 17,405,000	$ 19,915,000	$ 19,190,000	$ 18,465,000	$ 17,740,000	$ 17,015,000	$ 16,290,000	$ 15,565,000	$ 14,840,000
Pre-Tax Rate of Return grossed up for Revenue Tax		11.94%	11.94%	11.94%	11.94%	11.94%	11.94%	11.94%	11.94%	11.94%	11.94%	11.94%	11.94%
Total Revenue Requirement on Avoided & Deferred Net Capital		3,134,950	2,740,048	2,641,571	2,077,566	2,377,175	2,290,634	2,204,094	2,117,554	2,031,013	1,944,473	1,857,933	1,771,392
Total Depreciation Expense on Avoided & Deferred Net Capital		1,028,622	956,633	956,633	840,677	840,677	840,677	840,677	840,677	840,677	840,677	840,677	840,677
Total Annual Savings on Avoided & Deferred Capital		**$ 4,163,572**	**$ 3,696,680**	**$ 3,598,203**	**$ 2,918,243**	**$ 3,217,852**	**$ 3,131,312**	**$ 3,044,771**	**$ 2,958,231**	**$ 2,871,690**	**$ 2,785,150**	**$ 2,698,610**	**$ 2,612,069**

Cost of Utility Plant Acquisition Adjustment to Existing Customers:

	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040
Balance of Utility Plant Acquisition Adjustment:	$ 18,706,085	$ 18,038,010	$ 17,369,936	$ 16,701,861	$ 16,033,787	$ 15,365,712	$ 14,697,638	$ 14,029,563	$ 13,361,489	$ 12,693,415	$ 12,025,340	$ 11,357,266
Annual Revenue Requirement on UPAA	2,232,871	2,153,126	2,073,381	1,993,635	1,913,890	1,834,144	1,754,399	1,674,654	1,594,908	1,515,163	1,435,417	1,355,672
Annual Cost of UPAA Amortization (40 y of $26,722,978 including Revenue Tax	774,669	774,669	774,669	774,669	774,669	774,669	774,669	774,669	774,669	774,669	774,669	774,669
Total Revenue Requirement for UPAA	**$ 3,007,540**	**$ 2,927,795**	**$ 2,848,049**	**$ 2,768,304**	**$ 2,688,559**	**$ 2,608,813**	**$ 2,529,068**	**$ 2,449,322**	**$ 2,369,577**	**$ 2,289,832**	**$ 2,210,086**	**$ 2,130,341**
Annual Difference between Cost Savings and Cost of UPAA	**$ 1,156,032**	**$ 768,885**	**$ 750,154**	**$ 149,939**	**$ 529,293**	**$ 522,498**	**$ 515,703**	**$ 508,908**	**$ 502,113**	**$ 495,318**	**$ 488,524**	**$ 481,729**
Cumulative Difference between Cost Savings and Cost of UPAA	**$ 3,544,699**	**$ 4,313,585**	**$ 5,063,739**	**$ 5,213,678**	**$ 5,742,971**	**$ 6,265,469**	**$ 6,781,173**	**$ 7,290,081**	**$ 7,792,195**	**$ 8,287,513**	**$ 8,776,037**	**$ 9,257,765**

NPV **3.0%**

New Jersey American Water Company
Analysis of Net Benefit to Customers of Utility Plant Acquisition Adjustment over 40 Years

Cost Savings to Existing Customers:

		2041	2042	2043	2044	2045	2046	2047	2048	2049	2050	2051	2052
Avoided Capital:													
Eliminate need to replace Navy Tank		$ 3,700,000	$ 3,700,000	$ 3,700,000	$ 3,700,000	$ 3,700,000	$ 3,700,000	$ 3,700,000	$ 3,700,000	$ 3,700,000	$ 3,700,000	$ 3,700,000	$ 3,700,000
Eliminate need to replace 5 Pressure Reducing Valves (PRV) serving Aberdeen		2,500,000	2,500,000	2,500,000	2,500,000	2,500,000	2,500,000	2,500,000	2,500,000	2,500,000	2,500,000	2,500,000	2,500,000
Utilize Shorelands gradient tank to serve Aberdeen low pressure zone		3,500,000	3,500,000	3,500,000	3,500,000	3,500,000	3,500,000	3,500,000	3,500,000	3,500,000	3,500,000	3,500,000	3,500,000
Eliminate (3) PRV stations for new Middletown Zone		800,000	800,000	800,000	800,000	800,000	800,000	800,000	800,000	800,000	800,000	800,000	800,000
Union Beach Tank repurposing/utilization		5,000,000	5,000,000	5,000,000	5,000,000	5,000,000	5,000,000	5,000,000	5,000,000	5,000,000	5,000,000	5,000,000	5,000,000
Shorten the Raritan-Middlesex line		10,000,000	10,000,000	10,000,000	10,000,000	10,000,000	10,000,000	10,000,000	10,000,000	10,000,000	10,000,000	10,000,000	10,000,000
Avoid development of 2 Englishtown wells		3,500,000	3,500,000	3,500,000	3,500,000	3,500,000	3,500,000	3,500,000	3,500,000	3,500,000	3,500,000	3,500,000	3,500,000
Total Avoided Capital		$ 29,000,000	$ 29,000,000	$ 29,000,000	$ 29,000,000	$ 29,000,000	$ 29,000,000	$ 29,000,000	$ 29,000,000	$ 29,000,000	$ 29,000,000	$ 29,000,000	$ 29,000,000
Annual Depreciation Expense on Avoided Capital at	2.50%	725,000	725,000	725,000	725,000	725,000	725,000	725,000	725,000	725,000	725,000	725,000	725,000
Cumulative Depreciation Expense		14,885,000	15,610,000	16,335,000	17,060,000	17,785,000	18,510,000	19,235,000	19,960,000	20,685,000	21,410,000	22,135,000	22,860,000
Net Avoided Capital		$ 14,115,000	$ 13,390,000	$ 12,665,000	$ 11,940,000	$ 11,215,000	$ 10,490,000	$ 9,765,000	$ 9,040,000	$ 8,315,000	$ 7,590,000	$ 6,865,000	$ 6,140,000
Deferred Capital:													
Deferment of Newman Springs Clear well replacement and reduce criticality of Station													
Deferment of Swimming River Aquifer Storage and Recovery (ASR) Well 2 for 5													
Total Deferred Capital		$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Annual Depreciation Expense on Deferred Capital at	2.50%	-	-	-	-	-	-	-	-	-	-	-	-
Cumulative Depreciation Expense													
Net Deferred Capital		-	-	-	-	-	-	-	-	-	-	-	-
Total Avoided and Deferred Net Capital		$ 14,115,000	$ 13,390,000	$ 12,665,000	$ 11,940,000	$ 11,215,000	$ 10,490,000	$ 9,765,000	$ 9,040,000	$ 8,315,000	$ 7,590,000	$ 6,865,000	$ 6,140,000
Pre-Tax Rate of Return grossed up for Revenue Tax		11.94%	11.94%	11.94%	11.94%	11.94%	11.94%	11.94%	11.94%	11.94%	11.94%	11.94%	11.94%
Total Revenue Requirement on Avoided & Deferred Net Capital		1,684,852	1,598,311	1,511,771	1,425,231	1,338,690	1,252,150	1,165,609	1,079,069	992,529	905,988	819,448	732,908
Total Depreciation Expense on Avoided & Deferred Net Capital		840,677	840,677	840,677	840,677	840,677	840,677	840,677	840,677	840,677	840,677	840,677	840,677
Total Annual Savings on Avoided & Deferred Capital		**$ 2,525,529**	**$ 2,438,989**	**$ 2,352,448**	**$ 2,265,908**	**$ 2,179,367**	**$ 2,092,827**	**$ 2,006,287**	**$ 1,919,746**	**$ 1,833,206**	**$ 1,746,665**	**$ 1,660,125**	**$ 1,573,585**

Cost of Utility Plant Acquisition Adjustment to Existing Customers:

	2041	2042	2043	2044	2045	2046	2047	2048	2049	2050	2051	2052
Balance of Utility Plant Acquisition Adjustment:	$ 10,689,191	$ 10,021,117	$ 9,353,042	$ 8,684,968	$ 8,016,893	$ 7,348,819	$ 6,680,745	$ 6,012,670	$ 5,344,596	$ 4,676,521	$ 4,008,447	$ 3,340,372
Annual Revenue Requirement on UPAA	1,275,927	1,196,181	1,116,436	1,036,690	956,945	877,199	797,454	717,709	637,963	558,218	478,472	398,727
Annual Cost of UPAA Amortization (40 y of $26,722,978 including Revenue Tax	774,669	774,669	774,669	774,669	774,669	774,669	774,669	774,669	774,669	774,669	774,669	774,669
Total Revenue Requirement for UPAA	**$ 2,050,595**	**$ 1,970,850**	**$ 1,891,105**	**$ 1,811,359**	**$ 1,731,614**	**$ 1,651,868**	**$ 1,572,123**	**$ 1,492,378**	**$ 1,412,632**	**$ 1,332,887**	**$ 1,253,141**	**$ 1,173,396**
Annual Difference between Cost Savings and Cost of UPAA	**$ 474,934**	**$ 468,139**	**$ 461,344**	**$ 454,549**	**$ 447,754**	**$ 440,959**	**$ 434,164**	**$ 427,369**	**$ 420,574**	**$ 413,779**	**$ 406,984**	**$ 400,189**
Cumulative Difference between Cost Savings and Cost of UPAA	**$ 9,732,699**	**$ 10,200,837**	**$ 10,662,181**	**$ 11,116,730**	**$ 11,564,483**	**$ 12,005,442**	**$ 12,439,606**	**$ 12,866,974**	**$ 13,287,548**	**$ 13,701,327**	**$ 14,108,311**	**$ 14,508,499**

NPV **3.0%**

New Jersey American Water Company
Analysis of Net Benefit to Customers of Utility Plant Acquisition Adjustment over 40 Years

Cost Savings to Existing Customers:

		2053	2054	2055	2056	
Avoided Capital:						
Eliminate need to replace Navy Tank		$ 3,700,000	$ 3,700,000	$ 3,700,000	$ 3,700,000	
Eliminate need to replace 5 Pressure Reducing Valves (PRV) serving Aberdeen		2,500,000	2,500,000	2,500,000	2,500,000	
Utilize Shorelands gradient tank to serve Aberdeen low pressure zone		3,500,000	3,500,000	3,500,000	3,500,000	
Eliminate (3) PRV stations for new Middletown Zone		800,000	800,000	800,000	800,000	
Union Beach Tank repurposing/utilization		5,000,000	5,000,000	5,000,000	5,000,000	
Shorten the Raritan-Middlesex line		10,000,000	10,000,000	10,000,000	10,000,000	
Avoid development of 2 Englishtown wells		3,500,000	3,500,000	3,500,000	3,500,000	
Total Avoided Capital		$ 29,000,000	$ 29,000,000	$ 29,000,000	$ 29,000,000	
Annual Depreciation Expense on Avoided Capital at	2.50%	725,000	725,000	725,000	725,000	
Cumulative Depreciation Expense		23,585,000	24,310,000	25,035,000	25,760,000	
Net Avoided Capital		$ 5,415,000	$ 4,690,000	$ 3,965,000	$ 3,240,000	
Deferred Capital:						
Deferment of Newman Springs Clear well replacement and reduce criticality of Station						
Deferment of Swimming River Aquifer Storage and Recovery (ASR) Well 2 for 5						
Total Deferred Capital		$ -	$ -	$ -	$ -	
Annual Depreciation Expense on Deferred Capital at	2.50%	-	-	-	-	
Cumulative Depreciation Expense						
Net Deferred Capital		-	-	-	-	
Total Avoided and Deferred Net Capital		$ 5,415,000	$ 4,690,000	$ 3,965,000	$ 3,240,000	
Pre-Tax Rate of Return grossed up for Revenue Tax		11.94%	11.94%	11.94%	11.94%	
Total Revenue Requirement on Avoided & Deferred Net Capital		646,367	559,827	473,286	386,746	
Total Depreciation Expense on Avoided & Deferred Net Capital		840,677	840,677	840,677	840,677	
Total Annual Savings on Avoided & Deferred Capital		**$ 1,487,044**	**$ 1,400,504**	**$ 1,313,964**	**$ 1,227,423**	**$ 112,419,294**

Cost of Utility Plant Acquisition Adjustment to Existing Customers:

	2053	2054	2055	2056	
Balance of Utility Plant Acquisition Adjustment:	$ 2,672,298	$ 2,004,223	$ 1,336,149	$ 668,074	
Annual Revenue Requirement on UPAA	318,982	239,236	159,491	79,745	
Annual Cost of UPAA Amortization (40 y of $26,722,978 including Revenue Tax	774,669	774,669	774,669	774,669	
Total Revenue Requirement for UPAA	**$ 1,093,651**	**$ 1,013,905**	**$ 934,160**	**$ 854,414**	**$ 96,377,989**
Annual Difference between Cost Savings and Cost of UPAA	**$ 393,394**	**$ 386,599**	**$ 379,804**	**$ 373,009**	**$ 16,041,305**
Cumulative Difference between Cost Savings and Cost of UPAA	**$ 14,901,893**	**$ 15,288,492**	**$ 15,668,296**	**$ 16,041,305**	

NPV **3.0%**

New Jersey American Water Company - Shorelands Water Company Acquisition - Avoided & Deferred Capital Projects

Category	Item	Capital Value (est)	Avoided Capital Addition	Deferred Capital Addition	Year Originally Scheduled
Storage-Finished Water	Additional Water Distribution Gravity Storage--Eliminate the need to replace the Navy Tank.	$ 3,700,000	$ 3,700,000		2018
Storage-Finished Water	Eliminate the need to replace the 5 Pressure Reducing Valves (PRV's) serving the low pressure gradient in Aberdeen	$ 2,500,000	$ 2,500,000		2020
Storage-Finished Water	Utilize Shoreland's 185 gradient tank to serve Aberdeen Low Pressure Zone	$ 3,500,000	$ 3,500,000		2020
	Eliminate 3 PRV stations for new Middletown Zone	$ 800,000	$ 800,000		2020
Storage-Finished Water	Additional Water Storage-Ground Storage - Union Beach Tank utilization	$ 5,000,000	$ 5,000,000		2020
Source of Supply	Shorten the Raritan - Middlesex transmission line	$ 10,000,000	$ 10,000,000		2025
Source of Supply -ASR	Avoided need to develop 2 Englishtown Wells by enhancing ASR utilization	$ 3,500,000	$ 3,500,000		2020
Storage-Finished Water	Reduce the critical reliance on the Newman Springs (NS) station and eliminate the need for Newman Springs Clearwell	$ 4,000,000		$ 4,000,000	2022
Source of Supply -ASR	Defer Swimming River ASR Well 2 other ASR wells (6 total).	$ 14,900,000		$ 14,900,000	2022
		$ 47,900,000	$ 29,000,000	$ 18,900,000	