



Agenda Date: 10/9/24
Agenda Item: 5A

STATE OF NEW JERSEY
Board of Public Utilities
44 South Clinton Avenue, 1st Floor
Trenton, New Jersey 08625-0350
www.nj.gov/bpu/

WATER

IN THE MATTER OF THE PETITION OF AQUA NEW)
JERSEY, INC. FOR APPROVAL OF AN INCREASE IN)
RATES FOR WATER SERVICE, COVID-19 DEFERRED)
COST RECOVERY, ADJUSTMENT OF CERTAIN)
DEPRECIATION RATES, AND OTHER TARIFF)
CHANGES)
ORDER APPROVING INITIAL
DECISION AND STIPULATION
DOCKET NO. WR24010057
OAL DOCKET NO. PUC 02300-24

Parties of Record:

Brian O. Lipman, Esq., Director, New Jersey Division of Rate Counsel
Courtney L. Schultz, Esq., Saul Ewing Arnstein and Lehr, LLP, on behalf of Aqua New Jersey, Inc.

BY THE BOARD:

By this Decision and Order, the New Jersey Board of Public Utilities (“Board”) considers an Initial Decision (“Initial Decision”) issued by Administrative Law Judge (“ALJ”) Jacob S. Gertsman approving a Stipulation of Settlement (“Stipulation”) signed by Aqua New Jersey, Inc. (“Aqua” or “Company”), Board Staff (“Staff”), and the New Jersey Division of Rate Counsel (“Rate Counsel”) (collectively, “Parties”) resolving all issues in controversy in this matter.

BACKGROUND AND PROCEDURAL HISTORY

On January 19, 2024, Aqua filed a petition with the Board seeking approval of an increase in its base rates for water service of \$8,329,647 for services rendered on and after February 19, 2024 (“Petition”).

Aqua is engaged in the business of collecting, treating, and distributing water for retail service to approximately 55,350 customers in Warren, Hunterdon, Mercer, Morris, Burlington, Monmouth, Camden, Ocean, Sussex, Gloucester, and Atlantic Counties, New Jersey.¹

¹ Aqua is also engaged in the business of wastewater collection, treatment, and transmission, serving approximately 6,600 wastewater customers. The Company did not request to update its wastewater rates in the Petition.

According to the Petition, the Company's request is driven by several factors including increased operating and maintenance expenses; increased costs related to new regulatory, legal, and environmental requirements not currently recovered in rates; and significant capital investments required to continue to provide safe, adequate and proper water service.

The Company asserted that present rates for water service are not adequate to meet its increased expenses, support Aqua's capital improvement programs, and provide the Company with a reasonable return on its utility plant investments.

As part of the Petition, Aqua also sought approval: 1) to reset to zero its current Distribution System Improvement Charge ("DSIC"); 2) of recovery of Aqua's deferred costs related to the COVID-19 pandemic; 3) of the Company's plan for recovering customer-side lead service line replacement ("LSLR") costs through an LSLR surcharge; 4) use deferred accounting for the expenses incurred to remediate per- and polyfluoroalkyl substances ("PFAS"); 5) to address the ratemaking impact of the Company's tax treatment of repair deductions and related flow through accounting; and 6) to capitalize the costs of tank painting consistent with the Board's adoption of the Uniform System of Accounts promulgated by the National Association of Regulatory Utility Commissioners.

In addition, Aqua submitted a new DSIC Foundational Filing as part of the Petition. To support this request, the Company submitted an engineering evaluation report ("DSIC Report"). Aqua requested that the Board review and approve the new Foundational Filing and authorize the Company to implement a new DSIC surcharge in semi-annual filings consistent with the requirements of N.J.A.C. 14:9-10.1 et seq.

By Order dated February 14, 2024, the Board suspended the proposed rates until June 19, 2024.² The matter was subsequently transmitted to the Office of Administrative Law ("OAL") for hearing as a contested case and assigned to ALJ Jacob S. Gertsman.

On March 18, 2024, Aqua filed an update to include nine (9) months of actual, and three (3) months of projected, data ("9+3 Update"). Based upon the 9+3 Update, Aqua modified its revenue requirement to \$7,560,280.

On April 4, 2024, ALJ Gertsman issued a Prehearing Order in this matter setting a procedural schedule.

Following publication of notice in newspapers of general circulation within Aqua's service territory and service of notice upon affected municipalities and counties within the Company's service area, two (2) virtual public hearings were held at 4:30 p.m. and 5:30 p.m. on May 14, 2024. No members of the public attended. Additionally, the Board received no written comments in this matter.

² In re the Petition of Aqua New Jersey, Inc. for Approval of an Increase in Rates for the Water Service, COVID-19 Deferred Cost Recovery, Adjustment of Certain Depreciation Rates, and Other Tariff Changes. BPU Docket No. WR24010057, Order dated February 14, 2024.

By Order dated May 22, 2024, the Board further suspended the proposed rates until October 19, 2024.³

On June 11, 2024, Aqua updated the Petition to include twelve (12) months of actual information ("12+0 Update"). Based upon the 12+0 Update, Aqua modified its proposed revenue requirement to an increase of \$7,728,148.

STIPULATION

Following comprehensive discovery and settlement discussions, the Parties executed the Stipulation, the key elements of which are as follows:⁴

1. For the purposes of this proceeding only, the Company's total rate base is agreed to be approximately \$265,000,000 with a test year ending April 30, 2024, adjusted for certain known and measurable changes. The Parties further agree that this rate base amount does not reflect any particular ratemaking adjustment proposed by any Party for incorporation into the overall revenue requirement calculation.
2. The Parties agree that, for the purposes of resolving this proceeding only, the Company shall have an overall rate of return of 7.09%, which is based on the end of the test year (April 30, 2024) capital structure consisting of 47% long term debt with a cost rate of 4.25%, and 53% common equity with a cost rate of 9.60%.
3. The Parties stipulate that a revenue increase for the Company of \$2,250,000 is an appropriate resolution of this matter and is just and reasonable.
4. The Parties acknowledge that the stipulated revenue increase reflects consideration of a consolidated income tax adjustment.
5. The Parties agree and recommend that the attached tariff pages implementing the terms of the Stipulation, included as Exhibit A of the Stipulation, should be adopted by the Board in their entirety. Attached as Exhibit B of the Stipulation is a Proof of Revenues for the Company. Final tariff pages implementing these rates will be submitted upon Board approval of the Stipulation. Based on the rate design in Exhibit A of the Stipulation, the monthly impact of this rate change on the total bill for a typical General Metered Service residential customer using 6,000 gallons per month is approximately \$2.72 or 4.77% percent.
7. The Parties further agree and recommend that the Board approve the Company's new DSIC Foundational Filing, which is attached to the Stipulation as Exhibit C, and the DSIC charge shall be reset to zero. The Parties have reviewed the Company's DSIC investments and recommend that the Board find Aqua's DSIC investments to be

³ In re the Petition of Aqua New Jersey, Inc. for Approval of an Increase in Rates for the Water Service, COVID-19 Deferred Cost Recovery, Adjustment of Certain Depreciation Rates, and Other Tariff Changes, BPU Docket No. WR24010057, Order dated May 22, 2024.

⁴ Although summarized in this Order, should there be any conflict between this summary and the Stipulation, the terms of the Stipulation control, subject to the findings and conclusions in this Order. Paragraphs are numbered to coincide with the Stipulation. A paragraph numbered 6 has been skipped here deliberately in order to match the errant omission of a paragraph numbered 6 in the Stipulation.

reasonable and prudent. The Parties also recommend that the Board find that Aqua's recovery of its DSIC investments through its currently approved provisional DSIC surcharge is final and no longer subject to refund. For the DSIC Foundational Filing proposed in this proceeding, the Parties agree that the maximum amount of annual DSIC revenue that may be collected by Aqua is \$2,468,336, which is 5% of the Company's annual revenues (\$49,366,736) as shown on Exhibit B of the Stipulation, the Proof of Revenues. Using this revenue cap, the Company estimates that an average residential customer with a 5/8-inch meter would be subject to a maximum monthly DSIC surcharge of approximately \$2.90. This proposed rate impact is estimated and is subject to change depending on the Company's level of DSIC-eligible investments.

8. The Parties further agree that the Company shall be permitted to recover deferred customer-owned LSLR costs incurred as of June 30, 2024, in addition to future customer-owned LSLR costs, through an LSLR surcharge to appear as a separate line item on the monthly bills of customers, pursuant to the following terms:
 - a. The Company will recover \$11,535,255 in LSLR costs that have been deferred for the period April 22, 2021 through June 30, 2024 ("Deferred Balance") over a three (3)-year period (*i.e.*, approximately \$3,845,085 per year). The fixed monthly LSLR surcharge will become effective on the same date as the base rates set in this proceeding. For a residential customer with a 5/8" or 3/4" meter, the initial LSLR surcharge will be \$4.51 per month.
 - b. In addition to the unrecovered amount of the Deferred Balance, the amount of the fixed monthly LSLR surcharge will be adjusted to reflect additional LSLR costs incurred from July 1, 2024 through December 31, 2027 as follows:
 - i. No later than October 1, 2024, the Company will make an initial semi-annual filing with the Board which will include its actual and forecasted customer-side LSLR costs for the period July 1, 2024 through December 31, 2024, as well as the total estimated future remaining costs for the period July 1, 2024 through December 31, 2027. In this initial semi-annual filing, Aqua will provide public notice for the estimated \$5,107,656 of remaining LSLR costs (beginning with costs Aqua expects to incur on and after July 1, 2024 through December 31, 2027). The Parties agree that Staff and Rate Counsel's review period for this LSLR Surcharge initial semiannual filing shall be extended from thirty (30) days to forty-five (45) days to allow for the public comment hearing process to proceed. No additional public comment hearings shall be required for subsequent semi-annual LSLR surcharge filings, as defined in the Stipulation. The fixed monthly LSLR surcharge reflecting actual and forecasted customer-side LSLR replacements for the period July 1, 2024 through December 31, 2024, shall become effective on January 1, 2025.
 - ii. No later than May 1, 2025, the Company will make its second semiannual filing which shall include a true up for actual customer-side LSLR costs for the prior six-month period (July 1, 2024 through December 31, 2024) and actual and forecasted LSLR costs for the second semi-annual period (January 1, 2025 through June 30, 2025). The fixed monthly LSLR surcharge reflecting actual and forecasted customer-side LSLR costs for the period January 1, 2025 through June 30, 2025, plus the remaining unrecovered Deferred Balance, shall become effective on July 1, 2025.

- iii. Subsequent semi-annual filings will be made no later than November 1 and May 1 for the remainder of the LSLR program period, with the effective date of the LSLR surcharge resulting from said filings to occur thirty (30) days after filing.
 - iv. Any grants or other funding to defray customer-side LSLR costs received by the Company will be reflected in the applicable subsequent semi-annual surcharge filings.
9. The Parties agree and recommend that the Board approve recovery of the Company's deferred COVID-19 expense regulatory asset balance of \$678,774, which will be recovered in base rates using a two (2)-year amortization period.
10. The Parties agree and recommend that the Board authorize the capitalization of the Company's costs of tank painting, consistent with the Board's adoption of the Uniform System of Accounts promulgated by the National Association of Regulatory Utility Commissioners.
11. The Parties agree that this filing included review of the Company's change in its tax accounting method as a result of the allowable Section 481(a) adjustment relating to flow through accounting and tax repair elections consistent with the procedure set forth in the Stipulation of Settlement in Aqua's 2018 water base rate case; specifically, that: Aqua made the Tax Repair method change for tax year 2022, and filed it with the IRS in 2023; the ten (10)-year amortization of the Section 481(a) Adjustment commenced in 2022 and the Company has continued the amortization through 2023, thus completing two (2) full years of amortization; and the remaining amortization has been included in rates such that customers will get the benefit of this adjustment through the remaining amortization. Furthermore, the Parties agree that this filing included a review of the current and ongoing tax impacts related to the Company's Tax repair method change and that the estimated ongoing tax repair impacts have been included in cost-of service rates.
12. The Parties agree and recommend that the Board approve the Company's request to use deferred accounting for the costs related to PFAS treatment, including capital investments and ongoing Operations & Maintenance expenses. The Company will create a regulatory asset for those deferred costs and will seek recovery of those costs in a future base rate case or Resiliency and Environmental System Investment Charge filing.
13. The Parties agree and recommend that the Board approve a change in the authorized depreciation rates applicable to the Company as reflected in Exhibit D of the Stipulation, which rates are supported by the comprehensive Depreciation Study submitted by the Company in this case and reflect the resolution of issues raised by the Parties during the settlement process related to such rates.

INITIAL DECISION

By the Initial Decision, ALJ Gertsman found that the Parties voluntarily agreed to the Stipulation and that the Stipulation fully disposes of all issues and is consistent with the law. As such, ALJ Gertsman recommended the Initial Decision to the Board for adoption, modification, or rejection in accordance with N.J.S.A. 52:14B-10.

DISCUSSION AND FINDINGS

The Board, upon careful review of the record in this matter, including the Petition, updates to the Petition, the Stipulation, and the Initial Decision, agrees with ALJ Gertsman's finding that the Stipulation is just and reasonable, voluntarily agreed to by the Parties, and fully disposes of all issues in this proceeding and is consistent with the law.

In evaluating a proposed settlement for a requested rate increase pursuant to N.J.S.A. 48:2-21, the Board must independently review the record and determine, based upon substantial evidence therein, that the figures to which the signatory parties have stipulated are just and reasonable.⁵ The Board recognizes that the Parties worked diligently to negotiate a compromise that meets the needs of as many stakeholders as possible. The Board further recognizes that the Stipulation represents a balanced solution considering the many complex issues addressed during the pendency of this proceeding.

Therefore, based upon the Board's review and consideration of the record in this proceeding, the Board **HEREBY FINDS** the Initial Decision and Stipulation to be reasonable, in the public interest, and in accordance with the law. Accordingly, the Board **HEREBY ADOPTS** the Initial Decision and Stipulation attached hereto, including all attachments and schedules, as its own, incorporating by reference the terms and conditions of the Stipulation, as if fully set forth herein.

The Board **FURTHER ORDERS** the Company to comply with the base spending requirements set forth in the Stipulation. Failure to comply with the base spending requirements will result in a reduction and refund, where appropriate, of the DSIC surcharge. Thus, Aqua's DSIC surcharge is \$2.90, it is interim, subject to refund, and shall not exceed the annual maximum revenue requirement of \$2,468,336 as set forth in the Stipulation.

The Board **FURTHER ORDERS** that, in accordance with N.J.A.C. 14:9-10.4(e), if within three (3) years after the effective date of this Order the Company has not filed a petition in accordance with the Board's rules for setting base rates, all interim charges collected under DSIC shall be deemed an over-recovery and shall be credited to customers in accordance with the Board's rules.

Based upon the foregoing, the Board **HEREBY APPROVES** the Company's 2024 DSIC Foundational Filing and **ORDERS** that the Company may implement a DSIC, subject to this Order and Company's ongoing compliance with the DSIC regulations, as well as conformity of the base spending requirement and semi-annual true-up submissions.

Based upon the Stipulation, the average bill for a typical residential customer with a 5/8" meter using 6,000 gallons per month will increase by \$2.72. In addition, the average bill for a typical residential customer with a 5/8" or 3/4" meter will increase by \$4.51 as a result of the LSLR deferral.

The Board **HEREBY DIRECTS** the Company to file tariff pages conforming to the terms and conditions of the Stipulation and this Order by October 11, 2024, for rates effective October 15, 2024.

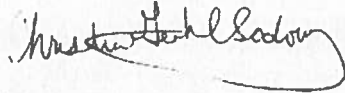
⁵ In re Petition of Pub. Serv. Elec. & Gas, 304 N.J. Super. 247, 270 (App. Div.), certif. denied, 152 N.J. 12 (1997); N.J.S.A. 48:2-21(d).

The Company's rates remain subject to audit by the Board. This Decision and Order shall not preclude the Board from taking any actions deemed to be appropriate as a result of any Board audit.

This Order shall be effective on October 9, 2024.

DATED: October 9, 2024

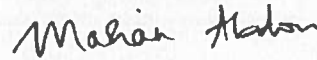
BOARD OF PUBLIC UTILITIES
BY:



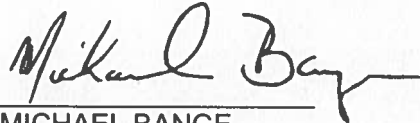
CHRISTINE GUHL-SADOVY
PRESIDENT



DR. ZENON CHRISTODOULOU
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MICHAEL BANGE
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ATTEST:

SHERRI L. GOLDEN
SECRETARY

I HEREBY CERTIFY that the within
document is a true copy of the original
in the files of the Board of Public Utilities.

IN THE MATTER OF THE PETITION OF AQUA NEW JERSEY, INC. FOR APPROVAL OF AN INCREASE IN RATES FOR WATER SERVICE, COVID-19 DEFERRED COST RECOVERY, ADJUSTMENT OF CERTAIN DEPRECIATION RATES, AND OTHER TARIFF CHANGES

BPU DOCKET NO. WR24010057
OAL DOCKET NO. PUC 02300-24

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State of New Jersey
OFFICE OF ADMINISTRATIVE LAW

INITIAL DECISION SETTLEMENT

OAL DKT. NO. PUC 02300-24

AGENCY DKT. NO. WR24010057

**IN THE MATTER OF THE PETITION OF
AQUA NEW JERSEY, INC. FOR APPROVAL
OF AN INCREASE IN RATES FOR WATER
SERVICE, COVID-19 DEFERRED COST
RECOVERY, ADJUSTMENT OF CERTAIN
DEPRECIATION RATES, AND OTHER
TARIFF CHANGES.**

Courtney L. Schultz, Esq. and **Colleen Foley, Esq.**, for petitioner, Aqua New Jersey Inc. (Saul Ewing LLP, attorneys)

Meliha Arnautovic, Deputy Attorney General, for Staff of the Board of Public Utilities (Matthew J. Platkin, Attorney General of New Jersey, attorney)

Susan E. McClure, Managing Attorney for Division of Rate Counsel (Brian Lipman, Director)

Record Closed: August 28, 2024

Decided: August 29, 2024

BEFORE **JACOB S. GERTSMAN**, ALJ t/a:

This proceeding involves a petition by Aqua New Jersey Inc. (Aqua) for approval of an increase in its base rates for water service, pursuant to N.J.S.A. 48:2-21, N.J.S.A.

48:2-21.1, N.J.S.A. 48:2-18, and N.J.A.C. 14:1-5.12. The petition was filed with the Board of Public Utilities (Board) on January 19, 2024, and transmitted to the Office of Administrative Law (OAL) on February 20, 2024, for determination as a contested case.

The matter was assigned to the undersigned who conducted the initial case management conference on March 26, 2024. Duly noticed public hearings were held via Zoom Video Communications (Zoom) on May 14, 2024, at 4:30 p.m. and 5:30 p.m. No members of the public appeared at either hearing, and no written comments were received.

Evidentiary hearings were scheduled for October 7, 8, 10 and 17, 2024. Prior to the commencement of the hearings, the parties filed a Stipulation of Settlement (J-1) on August 28, 2024, which resolves all issues in this proceeding. Said Stipulation of Settlement has been signed by petitioner, Staff of the Board of Public Utilities and the Division of Rate Counsel. It indicates the terms of settlement and is attached and fully incorporated herein.

I have reviewed the terms of settlements and I **FIND:**

1. The parties have voluntarily agreed to the settlements as evidenced by their signatures or their representatives' signatures on the attached document.
2. The settlements fully dispose of all issues in controversy between the parties and is consistent with the law.

I hereby **FILE** my initial decision with the **BOARD OF PUBLIC UTILITIES** for consideration.

This recommended decision may be adopted, modified or rejected by the **BOARD OF PUBLIC UTILITIES**, which by law is authorized to make a final decision in this matter. If the Board of Public Utilities does not adopt, modify or reject this decision within forty-

five days and unless such time limit is otherwise extended, this recommended decision shall become a final decision in accordance with N.J.S.A. 52:14B-10.

August 29, 2024 _____
DATE



JACOB S. GERTSMAN, ALJ t/a

Date Received at Agency: _____

Date Mailed to Parties: _____

JSG/cab

APPENDIX

EXHIBITS

Jointly Submitted

J-1 Stipulation of Settlement

August 27, 2024

VIA ELECTRONIC MAIL

Honorable Jacob S. Gertsman, ALJ
Office of Administrative Law
3444 Quakerbridge Road – Bldg. 9
Mercerville, NJ 08619

Re: In the Matter of the Petition of Aqua New Jersey, Inc.
For Approval of an Increase in Rates and Charges for Water
Service, COVID-19 Deferred Cost Recovery, Adjustment of
Certain Depreciation Rates, and Other Tariff Changes
OAL Docket No. PUC 02300-24
BPU Docket No.: WR24010057

Dear Judge Gertsman:

Enclosed for filing please find a Stipulation of Settlement (“Stipulation”) which has been executed by all parties in the above-referenced matter. This Stipulation fully resolves all matters in this proceeding. The Company would greatly appreciate Your Honor’s prompt issue of the Initial Decision adopting the Stipulation as the Company hopes to obtain approval of the Stipulation at the Board of Public Utilities’ September 25, 2024 Public Agenda Meeting.

Thank you for your attention to this matter.

Respectfully submitted,


Colleen A. Foley

CAF/jg
Enclosures
cc: Attached Service List (w/encls., via email only)

SERVICE LIST

I/M/O the Petition of Aqua New Jersey, Inc. for
Approval of an Increase in Rates for Water Service, COVID-19 Deferred Cost Recovery,
Adjustment of Certain Depreciation Rates, and Other Tariff Changes
OAL Docket No. PUC 02300-2024 S
BPU Docket No. WR24010057

BPU

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**STATE OF NEW JERSEY
BOARD OF PUBLIC UTILITIES**

IN THE MATTER OF THE PETITION OF	:	
AQUA NEW JERSEY, INC. FOR	:	STIPULATION OF SETTLEMENT
APPROVAL OF AN INCREASE IN RATES	:	
FOR WATER SERVICE, COVID-19 DEFERRED	:	OAL DOCKET NO. PUC 02300-24
COST RECOVERY, ADJUSTMENT OF	:	BPU DOCKET NO. WR24010057
CERTAIN DEPRECIATION RATES, AND	:	
OTHER TARIFF CHANGES	:	
	:	

APPEARANCES:

Colleen A. Foley, Esq., and Courtney L. Schultz, Esq., Saul Ewing LLP, on behalf of Aqua New Jersey, Inc., Petitioner,

Meliha Arnautovic, Deputy Attorney General (Matthew J. Platkin, Attorney General of New Jersey), on behalf of the Staff of the Board of Public Utilities, and

Brian O. Lipman, Esq., Director, and Susan E. McClure, Esq., Managing Attorney, Water, on behalf of the New Jersey Division of Rate Counsel.

TO THE HONORABLE JACOB GERTSMAN:

The Parties to this proceeding are as follows: Aqua New Jersey, Inc. (“Company,” “Aqua” or “Petitioner”), the New Jersey Division of Rate Counsel (“Rate Counsel”), and the Staff of the New Jersey Board of Public Utilities (“Staff”). As a result of an analysis of Petitioner’s pre-filed testimony and exhibits, extensive discovery, and two public comment hearings held on May 14, 2024, the Company, Board Staff and Rate Counsel (collectively, “Parties”) have come to an agreement on the issues in dispute in this matter. The Parties hereto agree and stipulate as follows:

Procedural History

On January 19, 2024, Petitioner, a public utility corporation of the State of New Jersey, pursuant to N.J.S.A. 48:2-21 and N.J.A.C. 14:1-5.12, filed a petition seeking among other things to increase rates for water service and to make other tariff changes (“Petition”).

Specifically, in the Petition, the Company requested the following relief: to increase rates by approximately \$8,328,380, or approximately 17.3%, above the adjusted annual level of revenues for the test year ending April 30, 2024; to reset its current Distribution System Improvement Charge (“DSIC”) to zero at the conclusion of this proceeding and implement a new DSIC Foundational Filing and associated DSIC; to recover certain costs related to the COVID-19 global pandemic; to implement new depreciation rates for the Company; to implement the Company’s plan for recovering customer-side lead service line replacement (“LSLR”) costs through an LSLR surcharge; to use deferred accounting for the costs incurred to remediate per- and polyfluoroalkyl substances (“PFAS”); to address the ratemaking impact of the Company’s tax treatment of repair deductions and related flow through accounting; to authorize the capitalization of the costs of tank painting; and to revise the Company’s tariffs to reflect the proposed rate increase and changes to the Board’s regulations, as well as to address shared service lines and requirements related to cross connections.

By Order dated February 14, 2024, the Board suspended the implementation of changes the Company sought to make to its tariffs until June 19, 2024.¹ On February 20, 2024, the Board transmitted the Petition to the Office of Administrative Law (“OAL”), and Administrative Law Judge (“ALJ”) Jacob Gerstman was assigned to hear the case. Two (2) telephone pre-hearing conferences were convened by ALJ Gertsman on March 26 and July 9, 2024, and a procedural schedule was agreed to by the Parties. ALJ Gertsman issued a Pre-Hearing Order on April 4, 2024. On May 22, 2024, the Board entered an Order further suspending until October

¹ In re the Petition of Aqua New Jersey, Inc. for Approval of an Increase in Rates for Water Service, COVID-19 Deferred Cost Recovery, Adjustment of Certain Depreciation Rates, and Other Tariff Changes, BPU Docket No. WR24010057, Order dated February 14, 2024.

19, 2024, the implementation of changes the Company sought to make to its tariffs.² The procedural schedule was amended on July 11, 2024 to permit the Parties additional time to reach a settlement of this matter.

Extensive discovery was conducted by the Parties with the Company providing responses to numerous data requests. After proper notice, two (2) public comment hearings were held via Zoom on the afternoon and evening of May 14, 2024. No members of the public appeared at the hearings to provide comments. The hearings were transcribed and made a part of the record.

Settlement discussions were held, and the agreements reached during those discussions have resulted in the following Stipulation of Settlement (“Stipulation”) agreed to by the Parties:

1. For the purposes of this proceeding only, the Company’s total rate base is agreed to be approximately \$265,000,000 with a test year ending April 30, 2024, adjusted for certain known and measurable changes. The Parties further agree that this rate base amount does not reflect any particular ratemaking adjustment proposed by any Party for incorporation into the overall revenue requirement calculation.

2. The Parties agree that, for the purposes of resolving this proceeding only, the Company shall have an overall rate of return of 7.09%, which is based on the end of the test year (April 30, 2024) capital structure consisting of 47% long term debt with a cost rate of 4.25%, and 53% common equity with a cost rate of 9.60%.

3. The Parties stipulate that a revenue increase for the Company of \$2,250,000 is an appropriate resolution of this matter and is just and reasonable.

² In re the Petition of Aqua New Jersey, Inc. for Approval of an Increase in Rates for the Water Service, COVID-19 Deferred Cost Recovery, Adjustment of Certain Depreciation Rates, and Other Tariff Changes, BPU Docket No. WR24010057, Order dated May 22, 2024.

4. The Parties acknowledge that the stipulated revenue increase reflects consideration of a consolidated income tax adjustment.

5. The Parties agree and recommend that the attached tariff pages implementing the terms of this Stipulation, included hereto as **Exhibit A**, should be adopted by the Board in their entirety. Attached hereto as **Exhibit B** is a Proof of Revenues for the Company. Final tariff pages implementing these rates will be submitted upon Board approval of this Stipulation. Based on the rate design in **Exhibit A**, the monthly impact of this rate change on the total bill for a typical General Metered Service residential customer using 6,000 gallons per month is approximately \$2.72 or 4.77% percent.

7. The Parties further agree and recommend that the Board approve the Company's new DSIC Foundational Filing, which is attached to this Stipulation as **Exhibit C**, and the DSIC charge shall be reset to zero. The Parties have reviewed the Company's DSIC investments and recommend that the Board find Aqua's DSIC investments to be reasonable and prudent. The Parties also recommend that the Board find that Aqua's recovery of its DSIC investments through its currently approved provisional DSIC surcharge is final and no longer subject to refund. For the DSIC Foundational Filing proposed in this proceeding, the Parties agree that the maximum amount of annual DSIC revenue that may be collected by Aqua is \$2,468,336, which is 5% of the Company's annual revenues (\$49,366,736) as shown on Exhibit B, the Proof of Revenues. Using this revenue cap, the Company estimates that an average residential customer with a 5/8-inch meter would be subject to a maximum monthly DSIC surcharge of approximately \$2.90. This proposed rate impact is estimated and is subject to change depending on the Company's level of DSIC-eligible investments.

8. The Parties further agree that the Company shall be permitted to recover deferred customer-owned LSLR costs incurred as of June 30, 2024, in addition to future customer-owned

LSLR costs, through an LSLR surcharge to appear as a separate line item on the monthly bills of customers, pursuant to the following terms:

a. The Company will recover \$11,535,255 in LSLR costs that have been deferred for the period April 22, 2021 through June 30, 2024 (“Deferred Balance”) over a three (3)-year period (*i.e.*, approximately \$3,845,085 per year). The fixed monthly LSLR surcharge will become effective on the same date as the base rates set in this proceeding. For a residential customer with a 5/8” or 3/4” meter, the initial LSLR surcharge will be \$4.51 per month.

b. In addition to the unrecovered amount of the Deferred Balance, the amount of the fixed monthly LSLR surcharge will be adjusted to reflect additional LSLR costs incurred from July 1, 2024 through December 31, 2027 as follows:

i. No later than October 1, 2024, the Company will make an initial semi-annual filing with the Board which will include its actual and forecasted customer-side LSLR costs for the period July 1, 2024 through December 31, 2024, as well as the total estimated future remaining costs for the period July 1, 2024 through December 31, 2027. In this initial semi-annual filing, Aqua will provide public notice for the estimated \$5,107,656 of remaining LSLR costs (beginning with costs Aqua expects to incur on and after July 1, 2024 through December 31, 2027). The Parties agree that Staff and Rate Counsel’s review period for this LSLR Surcharge initial semi-annual filing shall be extended from thirty (30) days to forty-five (45) days to allow for the public comment hearing process to proceed. No additional public comment hearings shall be required for subsequent semi-annual LSLR surcharge filings, as defined in this Stipulation. The fixed monthly LSLR surcharge reflecting actual and forecasted customer-side LSL replacements for the period July 1, 2024 through December 31, 2024, shall become effective on January 1, 2025.

ii. No later than May 1, 2025, the Company will make its second semi-annual filing which shall include a true up for actual customer-side LSLR costs for the prior six-

month period (July 1, 2024 through December 31, 2024) and actual and forecasted LSLR costs for the second semi-annual period (January 1, 2025 through June 30, 2025). The fixed monthly LSLR surcharge reflecting actual and forecasted customer-side LSLR costs for the period January 1, 2025 through June 30, 2025, plus the remaining unrecovered Deferred Balance, shall become effective on July 1, 2025.

iii. Subsequent semi-annual filings will be made no later than November 1 and May 1 for the remainder of the LSLR program period, with the effective date of the LSLR surcharge resulting from said filings to occur thirty (30) days after filing.

iv. Any grants or other funding to defray customer-side LSLR costs received by the Company will be reflected in the applicable subsequent semi-annual surcharge filings.

9. The Parties agree and recommend that the Board approve recovery of the Company's deferred COVID-19 expense regulatory asset balance of \$678,774, which will be recovered in base rates using a two (2)-year amortization period.

10. The Parties agree and recommend that the Board authorize the capitalization of the Company's costs of tank painting, consistent with the Board's adoption of the Uniform System of Accounts promulgated by the National Association of Regulatory Utility Commissioners.

11. The Parties agree that this filing included review of the Company's change in its tax accounting method as a result of the allowable Section 481(a) adjustment relating to flow through accounting and tax repair elections consistent with the procedure set forth in the Stipulation of Settlement in Aqua's 2018 water base rate case; specifically, that: Aqua made the Tax Repair method change for tax year 2022, and filed it with the IRS in 2023; the ten (10)-year amortization of the Section 481(a) Adjustment commenced in 2022 and the Company has continued the amortization through 2023, thus completing two (2) full years of amortization; and

the remaining amortization has been included in rates such that customers will get the benefit of this adjustment through the remaining amortization. Furthermore, the Parties agree that this filing included a review of the current and ongoing tax impacts related to the Company's Tax repair method change and that the estimated ongoing tax repair impacts have been included in cost-of-service rates.

12. The Parties agree and recommend that the Board approve the Company's request to use deferred accounting for the costs related to PFAS treatment, including capital investments and ongoing Operations & Maintenance expenses. The Company will create a regulatory asset for those deferred costs and will seek recovery of those costs in a future base rate case or Resiliency and Environmental System Investment Charge filing.

13. The Parties agree and recommend that the Board approve a change in the authorized depreciation rates applicable to the Company as reflected in **Exhibit D** to this Stipulation, which rates are supported by the comprehensive Depreciation Study submitted by the Company in this case and reflect the resolution of issues raised by the Parties during the settlement process related to such rates.

14. The Parties understand that a Board Order adopting this Stipulation will become effective upon the service of said Board Order, or upon such date after the service thereof as the Board may specify, in accordance with N.J.S.A. 48:2-40.

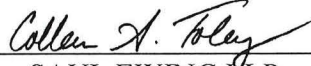
15. This Stipulation is the product of extensive negotiations by the Parties, and it is an express condition of the settlement embodied by this Stipulation that it be presented to the Board in its entirety without modification or condition. It is also the intent of the Parties to this Stipulation that this settlement, once accepted and approved by the Board, shall govern all issues specified and agreed to herein. The Parties to this Stipulation specifically agree that if adopted in its entirety by the Board, no appeal shall be taken by them from the order adopting same as to those issues

upon which the Parties have stipulated herein. The Parties agree that the within Stipulation reflects a mutual balancing of various issues and positions and is intended to be accepted and approved in its entirety. Each term is vital to this Stipulation as a whole, since the Parties hereto expressly and jointly state that they would not have signed this Stipulation had any terms been modified in any way. In the event any particular aspect of this Stipulation is not accepted and approved by the Board, then any Party hereto materially affected thereby shall not be bound to proceed under this Stipulation. The Parties further agree that the purpose of this Stipulation is to reach fair and reasonable rates, with any compromises being made in the spirit of reaching an agreement. None of the Parties shall be prohibited from or prejudiced in arguing a different policy or position before the Board in any other proceeding, as such agreements pertain only to this matter and to no other matter.

16. This Stipulation may be executed in as many counterparts as there are Parties of this Stipulation, each of which counterparts shall be an original, but all of which shall constitute one and the same instrument.

AQUA NEW JERSEY, INC.

Date: August 27, 2024


By: SAUL EWING LLP
Colleen A. Foley, Esq.
Attorney for Petitioner


MATHEW J. PLATKIN
ATTORNEY GENERAL OF NEW JERSEY
Attorney for the Staff of the Board of
Public Utilities

Date: August 27, 2024


By: Meliha Arnautovic, Deputy Attorney General

BRIAN O. LIPMAN, ESQ., DIRECTOR
NEW JERSEY DIVISION OF RATE COUNSEL

Date: August 27, 2024


By: Susan E. McClure, Esq.
Deputy Rate Counsel

AQUA NEW JERSEY, INC.
B.P.U. NO. 18 – WATER

FIRST REVISED TITLE PAGE
CANCELLING ORIGINAL TITLE PAGE

AQUA NEW JERSEY, INC.

TARIFF FOR

WATER SERVICE

APPLICABLE IN

ALL OR PART OF

WARREN, HUNTERDON, MERCER, BURLINGTON, CAMDEN, OCEAN,
SUSSEX, MONMOUTH, GLOUCESTER, ATLANTIC AND MORRIS COUNTIES
NEW JERSEY

Issued:

Effective Date:

By: Natalie Chesko, President
10 Black Forest Road
Hamilton, NJ 08691

Filed pursuant to decision and order of the Board of Public Utilities dated _____, in Docket
No. WR24010057.

AQUA NEW JERSEY, INC.
B.P.U. NO. 18 - WATER

FIRST REVISED SHEET NO. 1
CANCELLING ORIGINAL SHEET NO. 1

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Territory Served	Sheet No
Standard Terms and Conditions	2 3 – 19

Rate Schedule as listed below

<u>Applicable To</u>	<u>For</u>	<u>Schedule</u>	<u>Sheet No</u>
All Territories Served	General Metered Service	1	20
All Territories Served	Distribution System Improvement Charge	2	21
All Territories Served	Private Fire Protection	3	22 & 22A
All Territories Served	Public Fire Protection	4	23 & 23A

Issued:

Effective Date:

By: Natalie Chesko, President
10 Black Forest Road
Hamilton, NJ 08691

Filed pursuant to decision and order of the Board of Public Utilities dated _____, in
Docket No. WR24010057.

AQUA NEW JERSEY, INC.
B.P.U. NO. 18 - WATER

FIRST REVISED SHEET NO. 2
CANCELLING ORIGINAL SHEET NO. 2

TERRITORY SERVED

ATLANTIC COUNTY

Egg Harbor Township*

BURLINGTON COUNTY

Chesterfield Township *
North Hanover Township*
Borough of Wrightstown*

CAMDEN COUNTY

Gloucester Township *

GLOUCESTER COUNTY

Woolwich Township

HUNTERDON COUNTY

Bloomsbury Borough*
Califon Borough
Holland Township*
Lebanon Township*

MERCER COUNTY

Hamilton Township *
Lawrence Township*
Robbinsville Township *

MONMOUTH COUNTY

Upper Freehold*

MORRIS COUNTY

Washington Township*

OCEAN COUNTY

Berkeley Township

SUSSEX COUNTY

Byram Township*
Fredon Township*
Green Township*
Hardyston Township *
Vernon Township *

WARREN COUNTY

Alpha Borough*
Greenwich Township
Harmony Township
Lopatcong Township
Mansfield Township*
Town of Phillipsburg
Pohatcong Township

*Partially served

Issued:

By: Natalie Chesko, President
10 Black Forest Road
Hamilton, NJ 08691

Effective Date:

Filed pursuant to decision and order of the Board of Public Utilities dated _____, in
Docket No. WR24010057.

TERMS AND CONDITIONS OF SERVICE**1. DEFINITIONS:**

1.1 “Aqua” or “Company” shall be used herein to refer to Aqua New Jersey, Inc., the party rendering water service.

1.2 “BPU” or “Board” shall be used herein to refer to the New Jersey Board of Public Utilities.

1.3 “Classes of General Metered Service.” There are five classes of general metered service, based on the nature of the Customer and the use of the property receiving service, as follows:

1.3.1 **Residential Class:** An individually-metered dwelling unit intended for human habitation (including a detached house, rowhome, townhouse, condominium and mobile home) or an individually-metered home or building consisting of not more than two dwelling units.

1.3.2 **Commercial Class:** A building, store, restaurant or office which is primarily a site for the buying or selling of goods or the provision of professional or consumer services. In addition, apartments, condominium complexes, colleges, private and public schools, car washes, laundromats, construction sites, hotels, motels, and tanks filled at the Company’s premises are included in this class.

1.3.3 **Industrial Class:** A building or factory which is primarily a site for the manufacture or production of goods.

1.3.4 **Other Water Utility:** A public water utility, Municipal Corporation or water authority which purchases water for resale to their customers.

1.3.5 **Public:** A public building, library, park or playground which is owned by a governmental unit which has the power of taxation.

1.4 “Connecting line” is the portion of pipe that starts at the curb stop and conveys domestic water and/or fire service to the customer. The customer owns, and is responsible for the operation and maintenance of the connecting line .

Issued:

Effective Date:

By: Natalie Chesko, President
10 Black Forest Road
Hamilton, NJ 08691

Filed pursuant to decision and order of the Board of Public Utilities dated _____, in Docket No. WR24010057.

TERMS AND CONDITIONS OF SERVICE

1. DEFINITIONS (CONTINUED):

1.5 “Cross Connection” refers to physical connections between an approved public potable water supply and an unapproved water supply. Pursuant to N.J.S.A. 58:11-9.1 *et seq.* Cross Connections are prohibited unless Cross Connection Controls, or Backflow Prevention devices, are first installed and a Permit has been obtained from the New Jersey State Department of Health pursuant to N.J.S.A. 58:11-9.2 or a permit has been issued pursuant to N.J.A.C. 7:10-10.1 *et seq.* Further, Cross Connections shall not be permitted without the Company’s written consent thereto.

1.6 “Curb stop” is the fitting attached to the service line, and is used primarily for turning on and shutting off water at the curb in emergencies, for purposes of repair or to discontinue service to a customer.

1.7 “Customer” shall be used herein to refer to the party contracting for service to a property, or the party receiving and paying for the service, as appropriate.

1.8 “DSIC” shall be used herein to refer to the Distribution System Improvement Charge. (N.J.A.C. 14:9-10.2).

1.9 “Diversion” shall be used herein to refer to an unauthorized connection to pipes by which utility service registers on the Tenant-Customer’s meter although such service is being used by other than the Tenant-Customer of record without his or her knowledge or cooperation. The unauthorized connection must not be apparent from the premises. (N.J.A.C. 14:3-7.8).

1.10 “DPA” shall be used herein to refer to a Deferred Payment Agreement, which will be offered by the Company to a Customer upon request, as appropriate and in accordance with the Board’s regulations. DPAs shall be limited to one DPA per year for each utility service received by a Customer (i.e., one for water service and one for wastewater service, as appropriate).

1.11 “Extension” is an addition to the existing system of mains, intended to service more than one customer, either at the time of installation or in the future.

1.12 “Interruptible Service” means service which may be interrupted in the sole discretion of the Company on not less than three (3) hours’ notice to the customer by telephone or otherwise.

1.13 “Main” is a pipe or conduit for conveying water or wastewater. A “water main” will exclusively convey water and a “sewer main” will exclusively convey wastewater.

1.14 “Meter” is a device to measure the quantity of water, wastewater and/or the rate of flow delivered to or from a customer.

Issued: Effective Date:
By: Natalie Chesko, President
10 Black Forest Road
Hamilton, NJ 08691
Filed pursuant to decision and order of the Board of Public Utilities dated _____, in
Docket No. WR24010057.

TERMS AND CONDITIONS OF SERVICE**1. DEFINITIONS (CONTINUED):**

1.15 “Meter pit” is a structure that houses a small meter or meters less than or equal to 2-inches. Unless agreed to by the Company and the customer, it is installed, furnished and maintained by the Customer.

1.16 “Meter vault” is a structure that houses a meter or meters larger than 2-inches. Unless explicitly agreed to by the Company and the customer in writing, it is located and designed by the Company, and constructed, installed, furnished and maintained by the Customer at the sole expense to the customer.

1.17 “Multi-use service” shall be used herein to refer to water service that is supplied to a structure through one water line extending from the water main to the structure, and which is used inside the structure for both domestic water service and fire suppression service. (N.J.A.C. 14:9-8.1).

1.18 “NJ DEP” shall be used herein to refer to the New Jersey Department of Environmental Protection.

1.19 “PSTAC” or “Purchased wastewater treatment adjustment clause” is a provision that authorizes a utility to adjust its rates to compensate for an increase or decrease in the cost of wastewater treatment purchased from a wastewater treatment purveyor. (N.J.A.C. 14:9-7.2).

1.20 “PWAC” or “Purchased water adjustment clause” is a provision that authorizes a utility to adjust its rates to compensate for an increase or decrease in the cost of water purchased from a water purveyor. (N.J.A.C. 14:9-7.2).

1.21 “PWAC Year” and “PSTAC Year” shall mean the twelve-month period beginning each January 1 and ending December 31 of the following calendar year.

1.22 “Residential Customer” shall be used herein to refer to Customers who receive service for use in a residence. (N.J.A.C. 14:3-1.1).

1.23 “Service line” is the portion of pipe that starts from a main and ends at the curb stop. The service line is owned, operated and maintained by the Company. (N.J.A.C. 14:3-8)

1.24 “Shared Service Line” is a single service line that is used to provide service to customers located at multiple premises such that water service via the shared service line cannot be curtailed to one customer premises without also curtailing service to customers located at other premises. Shared service lines are strictly prohibited absent an agreement in writing by Aqua that the shared service line is in the public interest and that appropriate safeguards are in place to protect the interests of all customers served by the shared service line.

Issued:

Effective Date:

By: Natalie Chesko, President
10 Black Forest Road
Hamilton, NJ 08691

Filed pursuant to decision and order of the Board of Public Utilities dated _____, in Docket No. WR24010057.

AQUA NEW JERSEY, INC.
B.P.U. NO. 18 - WATER

FIRST REVISED SHEET NO. 6
CANCELLING ORIGINAL SHEET NO. 6

TERMS AND CONDITIONS OF SERVICE

1. DEFINITIONS (CONTINUED):

1.25 “Tap” is the fitting inserted in the main to which the service line is attached. It is used to facilitate the tapping of the main and for shutting off water in case of repairs to the service line.

1.26 “Tariff,” as referred to herein, is the entire “Tariff for Water Service” as the same may be amended or revised from time to time in accordance with N.J.A.C. 14:3-1.3, Tariffs.

1.27 “Tenant-Customer” shall be used herein to refer to a Residential Customer of record at the time of the complaint who rents a dwelling unit in a multifamily building or owns a condominium. (N.J.A.C. 14:3-7.8).

2. GENERAL INFORMATION:

2.1 Aqua is regulated by the Board. The Company’s provision of service is governed by New Jersey statutes and the pertinent rules and regulations promulgated by the Board, which statutes and rules and regulations are hereby adopted and incorporated by reference, as well as the terms of this tariff. If there is an inconsistency between the Company’s tariff and the Board’s regulations, the Board’s regulations supersede the tariff provision absent specific approval to the contrary by the Board. However, if the tariff provides for more favorable treatment of a customer than the Board’s regulations, the tariff shall control. (N.J.A.C. 14:3-1.3(i)).

2.2 The current Board-approved “Customer Bill of Rights” can be found on the Board’s website at <http://www.bpu.state.nj.us/bpu/assistance/rights/>.

2.3 A copy of this Board-approved tariff can be found on the Company’s website, www.aquaamerica.com, and is also available for public inspection both at the Company’s offices and at the Board, 44 S. Clinton Avenue, Trenton, New Jersey 08625. (N.J.A.C. 14:3-1.3(h)). If after you review this tariff and discuss it with appropriate Company employees, you still have questions regarding this tariff or your service, you may contact the Board’s Division of Customer Assistance by phone, toll free, at (800) 624-0241, by email at <http://www.state.nj.us/bpu/assistance/complaints/inquiry.html>, or by mail. If you choose to email or write to the Board, please be sure to include your name, address and phone number (including the area code), and, if you are a Customer, please also include your account number.

2.4 The Company will endeavor to provide a regular and uninterrupted supply of water through its facilities. However, if service shall be interrupted, irregular, or defective, or fail because of breakdown or emergency, the Company will not be liable for damage, inconvenience or lost income resulting there from.

Issued:

Effective Date:

By: Natalie Chesko, President
10 Black Forest Road
Hamilton, NJ 08691

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AQUA NEW JERSEY, INC.
B.P.U. NO. 18 - WATER

FIRST REVISED SHEET NO. 6A
CANCELLING ORIGINAL SHEET NO. 6A

TERMS AND CONDITIONS OF SERVICE

2. GENERAL INFORMATION (CONTINUED):

2.5 A customer's responsibility to pay for service continues from the time service is commenced, pursuant to his/her application, until notice is received by the Company of a change of ownership or occupancy of the premises or notice is received by the Company to discontinue the applicable service. Upon receipt of such notice, the Company will arrange for a final meter reading and billing. No allowance will be made in case of non-occupancy, unless the Company is notified as stated above.

2.6 The Company does not undertake to render any special service or maintain any fixed pressure. In the event of an accident or for other reasons, the Company may shut off the water in its mains and pipes and may restrict the use of water whenever the public welfare may require it. All customers requiring an uninterrupted supply or a uniform pressure of water for any purpose, such as steam boilers, are cautioned to provide their own means of providing such special uninterrupted service. When the supply is to be interrupted or curtailed, the Company will endeavor to give notice.

2.7 The Company does not undertake to supply any uniform quality of water for special purposes, such as laboratories, manufacturing or processing plants, swimming pools, bleaching or dyeing plants, or laundries. Customers requiring water of special quality, or water free from discoloration or turbidity, are required to provide their own means of treating water, or provide such other protection as may be deemed necessary for the purpose required.

2.8 The location of meters and the arrangement of the fittings and piping are subject to inspection and approval of the Company and should meet the Company's requirements presented herein.

2.9 Neither by inspection approval nor failure to approve, nor in any other way, does the Company give any guarantee, or assume any responsibility, expressed or implied, as to the adequacy, safety or characteristics of any structures, equipment, pipes, appliances or devices owned, installed or maintained by the customer or leased by the customer from third parties.

2.10 The Company will not be liable for any loss, injury, casualty, or damage resulting from the supply or use of water service, or from the presence or operation of the Company's structures, equipment, pipes, appliances or devices on the customer's premises.

Issued:

Effective Date:

By: Natalie Chesko, President
10 Black Forest Road
Hamilton, NJ 08691

Filed pursuant to decision and order of the Board of Public Utilities dated _____, in
Docket No. WR24010057.

TERMS AND CONDITIONS OF SERVICE**2. GENERAL INFORMATION (CONTINUED):**

2.11 From time to time, the Company may provide public notices, specific notices, correspondence or other notifications ("Notices") regarding the presence of conditions affecting the quality and/or quantity of water service provided by the Company. (Examples of such Notices include, but are not limited to, boil water alerts, notice of hydrant and main flushing, and notice of water quality testing results.) These Notices may contain information about actions members of the public may wish to, are recommended to, or should take in response to the conditions identified in the Notice. In the event the Company issues a Notice, the Company will not be liable for any expenses or costs incurred by a customer or end-user for any action taken in response to any condition identified in the Notice.

3. BILLING, FEES AND CHARGES:

3.1 The Company will not place the name of a second individual on the account of a Residential Customer unless specifically requested by said second individual. (N.J.A.C. 14:3-3.2(b)).

3.2 The Company shall not assess a late payment charge on a Residential Customer, or on a State, county or municipal government entity. Any late payment charges, as appropriate, will not be applied before 25 days have elapsed from the date the bill is rendered. (N.J.A.C. 14:3-7.1(e)).

3.3 The Company shall not impose any fees or charges for any fire protection system to a Residential Customer served by a water service line of two inches or less in diameter. Nor will the Company impose any fees in excess of the cost of water actually used for any sprinkler system required by State statutes or regulations to be installed in any residential health care facility or rooming or boarding house. The Company may, however, require separate, dedicated lines for fire protection and that those lines be metered. (N.J.S.A. 48:19-18).

3.4 Tenant-Customers shall not be required to pay for charges associated with a Diversion where, after investigation, Aqua New Jersey, Inc. has determined a Diversion of service has occurred. (N.J.A.C. 14:3-7.8(b)).

3.5 The Distribution System Improvement Charge (DSIC) is a Board-approved charge that allows the Company to more timely recover costs of rehabilitating, improving, or replacing non-revenue producing water distribution infrastructure needed for conservation, continued system safety and reliability, improved water quality, and sustained economic growth in New Jersey. (N.J.A.C. 14:9-10.1). The DSIC rate (as specified in Rate Schedule No. 1D) is reflected as a separate line item on Customer bills, and is calculated in accordance with N.J.A.C. 14:9-10.9(a)3.

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10 Black Forest Road
Hamilton, NJ 08691

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TERMS AND CONDITIONS OF SERVICE**3. BILLING, FEES AND CHARGES (CONTINUED):**

3.6 Restoration Charge. Prior to restoration of service following discontinuance of service at the Company's direction, including but not limited to discontinuance for non-payment, a Customer may be required to pay a Restoration Charge in the amount of \$50.00.

3.7 Bad Checks Charge. Where the Customer submits a negotiable instrument to the Company in payment of a bill, charge, or deposit due and such instrument is subsequently dishonored or uncollectible for any reason, the Customer may be required to pay a Bad Check Charge equal to the costs incurred by the Company from the financial institution.

3.8 Non-Standard Meter Connection Fees.

3.8.1 For metered connections which are set up for the temporary, short term sale of water such as to contractors or lawn care specialists, the Company will charge for the water taken based on the "General Metered Service" tariff. The Company shall have the right to designate where, how, when and if such water may be obtained. Anyone granted permission to obtain water in such a manner must have in place a Cross Connection Control mechanism acceptable to the Company that will protect against the backflow of water into the Company's system and is compliant with all applicable rules and regulations concerning Cross Connections.

3.8.2 In addition, the Company shall require a \$1,600 deposit for any temporary meter obtained from the Company. This deposit shall be refunded upon return of the temporary meter, provided that the meter is returned in the same condition in which it was borrowed. The Company reserves the right to retain all or a portion of the deposit if the meter is returned in a condition other than that which it was borrowed and/or if the meter is not returned at all.

3.9 Bulk Water Purchase. For bulk water purchases, such as the filling of tanker trucks, the Company will charge for the water taken based on the "General Metered Service" tariff.

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By: Natalie Chesko, President
10 Black Forest Road
Hamilton, NJ 08691

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TERMS AND CONDITIONS OF SERVICE**4. DEPOSITS:**

4.1 While the Company does not typically request a deposit from a Customer upon initiation of new service, it reserves the right to do so consistent with the Board's regulations.

4.2 The Company may require that an existing Customer pay a deposit, or increase their existing deposit, if the Customer fails to pay a bill within thirty (30) days after the due date printed on the bill, or after service has been discontinued for non-payment. (N.J.A.C. 14:3-3.4).

4.3 Deposits shall be calculated in accordance with the Board's regulations. (N.J.A.C. 14:3-3.4(b)).

5. DISCONTINUANCE OF SERVICE:

5.1 **Customer Request:** Within 48 hours of notice to the Company by the Customer of a request to discontinue service, the Company shall discontinue service or obtain a meter reading for purposes of calculating the final bill. Where such notice is not provided by the Customer to the Company, the Customer shall be liable for service until the final meter reading is taken. A notice to discontinue service provided by the Customer shall not relieve the Customer from any minimum or guaranteed payment under any contract or rate. (N.J.A.C. 14:3-3A.1(b)).

5.2 **At the Company's Direction (For Reasons Other Than Nonpayment):** The Company may curtail, suspend or discontinue service, upon reasonable notice, to the extent reasonably possible, for the following reasons (N.J.A.C. 14:3-3A.1(a)):

- 5.2.1 In order to make permanent or temporary repairs, changes or improvements in any part of the Company's system;
- 5.2.2 For compliance in good faith with any governmental order or directive, regardless of whether such order or directive subsequently may be held to be invalid;
- 5.2.3 For the purpose of replacing any shared service line with service lines to individual customer premises;
- 5.2.4 For the purpose of inspecting the adequacy of any installed Cross Connection Controls, and for correcting or preventing any unauthorized or unpermitted Cross Connection; or

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10 Black Forest Road
Hamilton, NJ 08691

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TERMS AND CONDITIONS OF SERVICE**5. DISCONTINUANCE OF SERVICE (CONTINUED):**

5.3 For any of the following acts or omissions on the part of the Customer:

- Refusal of reasonable access to the Customer's premises;
- Refusal to permit access to the Company's metering equipment, including for the purpose of conducting regular meter reading, inspection, installation and removal activities;
- Tampering with any facility of the Company;
- Fraudulent representation in relation to use of service;
- Theft of service;
- Failure to test and/or maintain all required Cross Connection Controls, backflow prevention devices, and permits related thereto;
- Providing the Company's service to others without approval of the Company;
- Refusal to contract for service where such contract is required;
- Connecting and operating in such a manner as to interfere with the service of the Company or other Customers, including, but not limited to, failure to cooperate in the remediation of shared service lines;
- Failure to comply with any reasonable standard terms and conditions contained in the Company's tariff;
- Where the condition of the Customer's installation presents a hazard to life or property; or
- Failure to repair or replace any faulty facility of the Customer.

5.4 **At the Company's Direction (For Nonpayment):** The Company has the right to curtail, suspend or discontinue service for nonpayment of water charges or for nonpayment of a deposit, upon due notice given, where the Residential Customer's arrearage is (i) more than \$200.00, or (ii) more than three (3) months in arrears. (N.J.A.C. 14:3-3A.2(a)).

5.4.1 Customers shall be provided with at least twenty (20) days from the postmark date of the outstanding bill to pay the water bill, or any deposit amount requested by the Company, except for those Customers receiving fire protection or multi-use service. (N.J.A.C. 14:3-3A.3).

5.4.2 Where payment is not received within twenty (20) days, the Company shall provide the Residential Customer with at least ten (10) days' notice prior to discontinuance of service.

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TERMS AND CONDITIONS OF SERVICE**5. DISCONTINUANCE OF SERVICE (CONTINUED):**

- 5.4.3 The Company shall make good faith efforts to contact all Residential Customers by phone prior to discontinuance of service, in addition to notice by first class mail.
- 5.4.4 The Company shall send the notice of discontinuance of service to the Residential Customer and also to any third party previously designated by the Residential Customer upon request to the Company. (N.J.A.C. 14:3-3A.4).
- 5.4.5 The Company shall not discontinue service to any Residential Customer for up to 90 days if a medical emergency exists within the residential premises, which would be aggravated by a discontinuance of service, provided that the Residential Customer has: (i) provided reasonable proof of inability to pay; and (ii) submitted the requisite Medical Certificate to the Company. At the end of such period of emergency, the Residential Customer shall remain liable for payment of all services rendered. (N.J.A.C. 14:3-3A.2(i)). The Medical Certificate can be found on the Company's website at <https://www.aquaamerica.com/customer-service-center/forms.aspx>.

5.5 A Customer is responsible for payment of all undisputed charges. If a Customer disputes a charge, and after notice to the Company the dispute is unable to be resolved, the Customer has the right to make a request to the Board for an investigation of the disputed charge within five (5) business days after notice to the Company of the dispute. If such a request is not made within five (5) business days, the Customer's service may be discontinued for nonpayment in accordance with the Board's regulations. (N.J.A.C. 14:3-7.6).

5.6 The Company shall not discontinue service to Residential Customers involuntarily except between the hours of 8:00 a.m. and 4:00 p.m., Monday through Thursday, unless there is a safety-related emergency. There shall be no involuntary termination of service on Fridays, Saturdays, and Sundays or on the day before a New Jersey State holiday or on a New Jersey state holiday absent such emergency. (N.J.A.C. 14:3-3A.1(c)).

5.7 **Winter Termination Program:** The Company shall not discontinue service to Residential Customers for non-payment during the period from November 15 through March 15 (the "Winter Termination Period"), unless otherwise ordered by the Board, where a customer meets the enumerated criteria set forth in N.J.A.C 14:3-3A.5(a).

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AQUA NEW JERSEY, INC.
B.P.U. NO. 18 - WATER

FIRST REVISED SHEET NO. 12
CANCELLING ORIGINAL SHEET NO. 12

TERMS AND CONDITIONS OF SERVICE

5. DISCONTINUANCE OF SERVICE (CONTINUED):

5.8 The Company shall make every reasonable effort to determine if a landlord/tenant situation exists at the residential premises being served and to provide notice to tenants prior to discontinuance of service. Where feasible, the Company shall offer affected tenants continued service to be billed in the tenant's name. (N.J.A.C. 14:3-3A.6).

5.9 **Service Restoration:** In cases where service has been discontinued at the Company's direction, as set forth herein, a charge for reconnection will be made as specified in Paragraph 3 herein, except where such discontinuance has been made by the Company in order to effectuate repairs, changes or improvements in any part of the Company's system.

6. DEFERRED PAYMENT AGREEMENTS:

6.1 Aqua will offer any Customer who is unable to pay an outstanding bill and/or deposit an opportunity to enter into one DPA per year per utility service. Customers who enter into a DPA for past due charges, however, are not relieved of the obligation to pay current bills on time. In the event that a Customer defaults on the terms of the DPA, Aqua New Jersey, Inc. may discontinue service upon due notice. (N.J.A.C. 14:3-7.7(d))

6.2 **Residential Customers.** Where a Residential Customer receives more than one service from Aqua (for example, water and sewer) and is in arrears as to both of those services, a separate DPA shall be offered for each service. In such situations, the Residential Customer may elect to enter into a DPA for one service and to discontinue the other service until satisfactory payment arrangements can be made so as not to add to the arrearage balance. The Company will renegotiate or amend the terms of an existing DPA upon satisfactory evidence provided by the Residential Customer that his or her financial circumstances have changed significantly due to factors beyond his or her control. Where a Residential Customer has DPAs for two services, default on one such DPA constitutes grounds for discontinuance of only that service. (N.J.A.C. 14:3-7.7).

6.3 **Non-Residential Customers.** DPAs will not be offered for a term of longer than three (3) months. (N.J.A.C. 14:3-7.7).

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10 Black Forest Road
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AQUA NEW JERSEY, INC.
B.P.U. NO. 18 - WATER

FIRST REVISED SHEET NO. 13
CANCELLING ORIGINAL SHEET NO. 13

TERMS AND CONDITIONS OF SERVICE

7. METERS:

7.1 Upon Customer request, the Company will provide one free meter test per year. Where a billing dispute exists, the Customer may request that the meter test be witnessed by the Board, or a third-party. A meter test arising from a billing dispute may be appropriate in instances which include, but are not limited to: unexplained increased consumption, crossed meters, consumption while an account is vacant or any other instance where the meter's accuracy might be an issue in a bill dispute. Upon application, a Customer may also request that his, her or its meter test be witnessed by the Board. (N.J.A.C. 14:3-4.5).

7.2 Where a Customer has filed a complaint with the Board regarding meter accuracy or performance, Aqua shall not remove the Customer's meter from service during the pendency of said complaint, or during the thirty (30) days following the Board's decision on the complaint, unless otherwise authorized or directed by the Board (N.J.A.C. 14:3-4.8(c)).

7.3 Aqua shall make an adjustment of charges, to be determined consistent with N.J.A.C. 14:3-4.6, whenever a water meter is found to be registering fast by more than one and one-half percent.

8. EMERGENCY INTERRUPTIONS DUE TO EXTRAORDINARY DEMAND AND/OR DIMINISHED SUPPLY:

8.1 The Company endeavors to provide a regular and uninterrupted supply of water through its facilities to its Customers. However, if because of emergencies beyond Aqua's control, including but not limited to, governmental mandate, service is interrupted, irregular, restricted, defective or fails, the Company shall not be liable for any damage or inconvenience resulting therefrom. In the event of an emergency for extraordinary demand and/or diminished supply, the Company may restrict the use of water whenever the public welfare may require it and, if necessary, may shut off the water in its mains and pipes. In such cases, the Company will provide Customers, by phone, with detailed information regarding the conditions and restrictions, and the purpose and probable duration of the usage restriction or service interruption, curtailment or discontinuance.

8.2 Aqua New Jersey, Inc. may restrict or interrupt water service during certain periods in order to protect the public water supply, or to otherwise comply with any regulations or orders issued pursuant to the Water Supply Management Act, N.J.S.A. 58:1A-1 *et seq.* The Company will provide notice and subsequent outage reports to the Board in accordance with N.J.A.C. 14:3-3.7, as appropriate.

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By: Natalie Chesko, President
10 Black Forest Road
Hamilton, NJ 08691

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AQUA NEW JERSEY, INC.
B.P.U. NO. 18 - WATER

FIRST REVISED SHEET NO. 14
CANCELLING ORIGINAL SHEET NO. 14

TERMS AND CONDITIONS OF SERVICE

9. MULTI-USE SERVICE:

9.1 By applying for Multi-use service, the Customer agrees to be responsible for all claims, costs, and liability for personal injury, death and/or property damage, resulting from the Customer's individual water system, unless caused by the negligence of the Company. (N.J.A.C. 14:9-8.3(d)).

9.2 Terms of Payment: The Company may terminate a Customer's Multi-use service for non-payment of a valid water bill for Multi-use service, in accordance with the Board's rules governing discontinuance of service at N.J.A.C. 14:3-3A.4(j). (N.J.A.C. 14:9-8.3(b)).

9.3 Conditions: By applying for Multi-use service, the Customer or builder certifies that:

9.3.1 The Customer or builder has hydraulically calculated the demand for the Customer's or builder's water system, based on the simultaneous domestic demand and fire sprinkler demand. The Customer or builder shall make this calculation in accordance with the Uniform Construction Code; and

9.3.2 The Customer or builder will ensure that the system is installed in accordance with the Uniform Construction Code at N.J.A.C. 5:23; and

9.3.3 The Customer will, prior to installation of the meter, obtain a construction permit in accordance with the Uniform Construction Code from the enforcing agency having jurisdiction over the system. (N.J.A.C. 14:9-8.3(c)).

9.4 Provision of Services: By applying for Multi-use service, and operating the same, the Customer agrees:

9.4.1 To include a backflow prevention device(s) as defined at N.J.A.C. 7:10-1.3, and as specified at N.J.A.C. 7:10-10.3 or required to obtain a permit pursuant to N.J.S.A. 58:11-9.2;

9.4.2 To be solely responsible for all costs and expenses relating to the installation, operation, maintenance, repair and replacement of the Customer's water system, including the fire suppression system and backflow prevention device(s);

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B.P.U. NO. 18 - WATER

FIRST REVISED SHEET NO. 15
CANCELLING ORIGINAL SHEET NO. 15

TERMS AND CONDITIONS OF SERVICE

9. MULTI-USE SERVICE (CONTINUED):

- 9.4.3 To ensure that the Customer's water system complies with the applicable requirements of the Uniform Construction Code in effect at the time of system installation, including any applicable building, plumbing and fire protection subcodes; and
- 9.4.4 To ensure that the Customer's water system is maintained in accordance with all applicable laws so as to protect against Cross Connections, backflow, back-siphonage and contamination of the potable water system. (N.J.A.C. 14:9-8.3(e)).

10. WATER SERVICE AND CONNECTING LINES

10.1 Company Side – Service Lines:

- 10.1.1 The Company is responsible for the installation and maintenance of the service line. N.J.A.C. 14 :3-8.1 et seq.
- 10.1.2 Only employees of the Company or persons duly authorized to do so by the Company are permitted to operate or otherwise access the curb stop.
- 10.1.3 No service line shall be used to supply more than one customer unless authorized in advance by the Company in writing.
- 10.1.4 Where the Company has agreed that two or more customers may be supplied through a single shared service line, the customers must provide a suitable location(s) for a separate meter and separate shut-off valve that will be dedicated to each customer. The piping of the building(s) must be so arranged that each customer can be supplied through an independent meter, shut off valve and piping system as may be required by the Company, at the Company's discretion. The meter pit or vault shall be installed at a location acceptable to, and with the express approval of, the Company.
- 10.1.5 No single building or single group of buildings in one common enclosure and under one ownership shall be supplied by more than one shared service line.

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By: Natalie Chesko, President
10 Black Forest Road
Hamilton, NJ 08691

Filed pursuant to decision and order of the Board of Public Utilities dated _____, in
Docket No. WR24010057.

TERMS AND CONDITIONS OF SERVICE**10. WATER SERVICE AND CONNECTING LINES (CONTINUED):**10.2 Customer Side – Connecting Lines:

10.2.1 Connecting lines are owned, installed, maintained and repaired by the customer at the customer's sole expense. The connecting line should be maintained in a condition conducive for the Company to perform the services required to serve the customer. If the connecting pipe is not so maintained, any failure of this pipe following the operation of the curb stop by the Company will be the responsibility of the customer. While performing its duties, if the Company observes that the connecting pipe or other customer owned and maintained appurtenances appear to be in poor condition, the Company will attempt to notify the customer of such, including that the customer may desire to contact a licensed plumber for a professional evaluation and/or repair of the connecting pipe and appurtenances. Failure to repair a leaking connecting line is grounds for discontinuance of water service. (N.J.A.C. 14:3-3A.1(a)5.x).

10.2.2 Connecting lines should be installed, without sharp bends, at right angles to the line of the street and shall be installed in the trench not less than 3-1/2 feet in depth to avoid damage and possible interruption to service caused by freezing. Other utility service lines shall not be installed in the same trench as the connecting line.

10.2.3 No attachment shall be made to the connecting line between the curb stop and the meter except as otherwise authorized by the Company. Unauthorized attachments are grounds for termination of service. (N.J.A.C. 14:3-3A.1(a)5.ii). Connecting lines should not be less than 3/4 inch in inside diameter.

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10 Black Forest Road
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TERMS AND CONDITIONS OF SERVICE

10. WATER SERVICE AND CONNECTING LINES (CONTINUED):

10.2.4 A Customer must install a water pressure reducing valve where required by State of New Jersey plumbing code. If a water pressure reducing valve is required to be installed, the customer must install a pressure relief valve (collectively both are referred to as the "Valves"). In all cases, the costs of installation and maintenance of the Valves shall be borne by the Customer. The Customer shall own and be obligated to maintain the Valves. The Company will not be liable for damage due to meter failures if the Customer is located in a high pressure zone and does not have a pressure reducing valve or has a pressure reducing valve downstream from a water meter that is installed inside the premises. For meters less than or equal to 2 inches the pressure reducing valve will be located on the downstream side of the meter if the meter is located outside of the Customer's premises and on the upstream side of the meter, if the meter is located inside of the Customer's premises. For meters greater than 2 inches the pressure reducing valve will always be located on the upstream side of the meter.

10.2.5 The Customer is required to make all changes in the connecting line due to changes in grade, relocation of mains, or other causes only if such changes are mandated by a municipality, county, state or other governmental body.

11. WATER MAIN EXTENSIONS:

11.1 The Company will extend water service in accordance with all applicable laws of the State of New Jersey and Board regulations and orders including N.J.A.C. 14:3-8.1 *et seq.* Upon request, an application will be provided to the applicant, which must be returned to the Company.

12. CUSTOMER'S PREMISES:

12.1 The Company may refuse to provide a water connection, or furnish water through a connection pipe already installed, when a customer's piping system is not installed in accordance with the regulations of the Company and of the municipality in which the premises are located; or when the system on the premises is not at sufficient depth to prevent freezing.

Issued: May 28, 2019
By: John Hildabrant, President
10 Black Forest Road
Hamilton, NJ 08691

Effective Date: June 1, 2019

Filed pursuant to decision and order of the Board of Public Utilities dated May 28, 2019, in Docket No. WR18121351.

AQUA NEW JERSEY, INC.
B.P.U. NO. 18 - WATER

FIRST REVISED SHEET NO. 18
CANCELLING ORIGINAL SHEET NO. 18

TERMS AND CONDITIONS OF SERVICE

12. CUSTOMER'S PREMISES (CONTINUED):

12.2 The Company shall have the right of reasonable access to Customer's premises, and to all property furnished by the Company, at all reasonable times for the purpose of inspection of Customer's premises incident to the rendering of service, reading meters, or installing, relocating, inspecting, testing, replacing or repairing its facilities used in connection with supplying the service, or for the removal of its property. (N.J.A.C. 14:3-3.6). Service can be discontinued for refusal of reasonable access to the Customer's premises for necessary purposes in connection with rendering of service, including meter installation, reading or testing, installation, replacement or relocation of meter reading devices, or the maintenance or removal of the Company's property. (N.J.A.C. 14:3-3A.1(a)5.i). A charge for reconnection will be made as specified in Paragraph 3 herein upon restoration of service.

12.3 Customers shall not permit access to the meter and other appliances of the Company except by authorized employees of the Company or properly authorized state or local inspectors.

12.4 In all cases the Customers should not interfere with property of the Company, but should immediately notify the Company of any problem.

12.5 It is the sole responsibility of each Customer to ensure that all piping and appurtenances within a Customer's premises comply with state, municipal and other public health regulations in force with respect hereto including state and local plumbing codes. The piping and appurtenances shall be maintained in a condition conducive for the Company to perform the services required to serve the Customer.

12.6 In any premises where devices are used which might produce a back pressure, such as steam boilers, carbonation equipment for soft drinks, booster pumps, etc., a check valve shall be installed by the Customer at the meter. In the event such check valve is installed, pressure relief valves should be provided by the Customer in the system.

12.7 In any premises where an auxiliary water source is available, the pipes carrying water from the mains of the Company are required to be marked in some distinctive manner for ready identification.

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B.P.U. NO. 18 - WATER

FIRST REVISED SHEET NO. 19
CANCELLING ORIGINAL SHEET NO. 19

TERMS AND CONDITIONS OF SERVICE

12. CUSTOMER'S PREMISES (CONTINUED):

12.8 Physical connections, such as Cross Connections, interconnections, valves, pumps, or similar devices, either permanent or temporary, connecting the pipelines or facilities of the Company with other pipelines or facilities supplied with water from other sources will not be permitted without the express written consent of the Company and full compliance with all applicable regulations concerning such connections. Water which has once been drawn from the Company's distribution network and used for any purpose or stored in tanks, is considered an unapproved source of supply.

12.9 The Company may require installation of a Cross Connection Control or backflow prevention protective device on a customer's service, in accordance with N.J.A.C. 7:10-10.1 *et seq.* and N.J.S.A. 58:11-9.1 *et seq.*, as applicable, which shall be purchased and installed at the expense of the customer. The Cross Connection and/or backflow prevention device shall be of the type approved by the Company and required to be installed to obtain any required permit. Inspection and testing at regular intervals shall be performed at the expense of the customer.

12.10 No device or connection is permitted between pipes carrying water from the mains of the Company and any portion of the plumbing system of the premises, which may under any condition permit back-flow or back-siphonage, unless prior written permission has been granted by the Company. Further, any such device or connection must comply fully with all applicable permits, statutes and regulations.

12.11 Failure to comply with any of these provisions is grounds for discontinuance of service on an emergent basis to prevent harm to the Company's system and its customers.

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Docket No. WR24010057.

AQUA NEW JERSEY, INC.
B.P.U. NO. 18 - WATER

FIRST REVISED SHEET NO. 20
CANCELLING ORIGINAL SHEET NO. 20

RATE SCHEDULE NO. 1
GENERAL METERED SERVICE

APPLICABILITY:

Applicable to the use of water supplied through meters to all customers served by the Company including those supplied through approved Multi-Use Services.

CHARACTER OF SERVICE: Continuous

RATE:

Size of Meter

5/8"

3/4"

1"

1 1/2"

2"

3"

4"

6"

8"

10"

12"

Bulk Water Purchase

Flat Rate for Unmetered Customers

Residential

Commercial, Industrial, Other Water Utility, and Public

Fixed Service Charge

Amount Per Month

\$ 20.17

30.26

50.43

100.85

161.36

302.55

504.25

1,008.50

1,613.60

2,319.55

4,336.55

37.92

\$ 54.91

85.17

Usage Charge Rate/1000 Gallons

All Service Areas (Except as noted below)

\$ 6.730

Wallkill Only

5.721

Byram Township and Seaview Harbor Only

10.10

Non-Potable Water

1.346

Resale

6.72

*The above rates, excepting the Resale rate, include a water tax of \$0.01 per 1,000 gallons of water, which water tax was established by the State of New Jersey with the passage of the Safe Drinking Water Act. (N.J.S.A. 58:12A-21).

TERMS OF PAYMENT:

PAYMENT FOR ALL BILLS RENDERED IS DUE TWENTY (20) DAYS AFTER THE ORIGINAL POSTMARK DATE OF THE BILL. Bills for metered service will be rendered at the close of the billing period.

Issued:

Effective Date:

By: Natalie Chesko, President
10 Black Forest Road
Hamilton, NJ 08691

Filed pursuant to decision and order of the Board of Public Utilities dated _____, in Docket No. WR24010057.

AQUA NEW JERSEY, INC.
B.P.U. NO. 18 - WATER

SECOND REVISED SHEET NO. 21
CANCELLING FIRST REVISED SHEET NO. 21

RATE SCHEDULE NO. 2
DISTRIBUTION SYSTEM IMPROVEMENT CHARGE
GENERAL METERED SERVICE

APPLICABILITY:

Applicable to the use of water supplied through meters to all Customers served by the Company.

CHARACTER OF SERVICE:

Continuous

RATE:

<u>Size of Meter</u>	<u>DSIC</u> <u>Amount Per Month</u>
5/8"	\$ 0.00
3/4"	0.00
1"	0.00
1 1/2"	0.00
2"	0.00
3"	0.00
4"	0.00
6"	0.00
8"	0.00
10"	0.00
12"	0.00

TERMS OF PAYMENT

PAYMENT FOR ALL BILLS RENDERED IS DUE TWENTY (20) DAYS AFTER THE ORIGINAL POSTMARK DATE OF THE BILL. The DSIC is assessed monthly for metered service, and is reflected on the Customer's bill rendered at the close of the billing period.

Issued:

Effective Date:

By: Natalie Chesko, President
10 Black Forest Road
Hamilton, NJ 08691

Filed pursuant to decision and order of the Board of Public Utilities dated _____, in
Docket No. WR24010057.

AQUA NEW JERSEY, INC.
B.P.U. NO. 18 - WATER

FIRST REVISED SHEET NO. 22
CANCELLING ORIGINAL SHEET NO. 22

RATE SCHEDULE NO. 3
PRIVATE FIRE PROTECTION SERVICE

APPLICABILITY:

Applicable to all Customers for service furnished exclusively to private fire protection facilities served by the Company, except as specifically provided elsewhere in this tariff.

CHARACTER OF SERVICE:

The Company will use due diligence at all times to provide Customers with service of the character or quality proposed to be supplied. However, if the service shall be interrupted, irregular, restricted, defective or fails, the Company shall not be liable for any damage or inconvenience resulting therefrom and is obligated only to use reasonably diligent efforts in the light of the circumstances then-existing to restore service.

RATE:

<u>Size of Service</u>	<u>Fixed Service Charge</u> <u>Amount Per Month</u>
Sprinklers	
2" or less	\$ 0.00
3"	104.11
4"	173.51
6"	347.03
8"	555.23
10"	798.14
12"	1,492.19
 Private Hydrants (per hydrant)	 \$ 49.42

TERMS OF PAYMENT:

PAYMENT FOR ALL BILLS RENDERED IS DUE TWENTY (20) DAYS AFTER THE ORIGINAL POSTMARK DATE OF THE BILL. Bills for metered service will be rendered at the close of the billing period.

SPECIAL PROVISIONS:

Private fire service lines shall be equipped with special meters or detection devices and are to be used exclusively for fire protection purposes. No water shall be used through these fire protection connections except for testing purposes or in case of fire. However, the Company shall be provided with at least 72 hours (or 3 days) notice prior to the testing of any fire protection connection and shall be given the opportunity to witness such testing.

Issued:

Effective Date:

By: Natalie Chesko, President
10 Black Forest Road
Hamilton, NJ 08691

Filed pursuant to decision and order of the Board of Public Utilities dated _____, 2024 in Docket No. WR24010057.

AQUA NEW JERSEY, INC.
B.P.U. NO. 18 - WATER

FIRST REVISED SHEET NO. 22A
CANCELLING ORIGINAL SHEET NO. 22A

SPECIAL PROVISIONS (CONTINUED):

Customers desiring a separate service connection for private fire service are required to make separate written application for such service on forms prescribed by the Company. Private fire service installations must be made in accordance with the provisions of this tariff regarding the installation of service and connecting pipes and other facilities necessary for the provision of such service.

Service lines designated for private fire protection are installed for customers requiring a private fire service to supply sprinkler heads or hose connections. Any connection in which sprinkler heads and/or hose connections are supplied through a domestic service connection are not considered as part of a private fire protection service and shall not be subject to the requirements as set forth herein (i.e., limited fire protection). Residential Customers served by a 2-inch water service line or less in diameter will not be imposed a standby fee for a fire protection system.

The connection shall be in accordance with the applicable laws including but not limited to those of the BPU, NJ DEP and all federal, state and local agencies.

The Company shall not be liable for any loss, injury, casualty or damage resulting from fire or water, resulting from the supply or use of water service or the failure thereof, which may occur on account of the installation or presence of a private fire service connection, or from the presence or operation of the Company's structures, equipment, pipes, appliances or devices on the customer's premises, or connected therewith.

The Company may not discontinue fire protection service unless it has provided written notice giving the customer at least thirty (30) days' notice, by certified mail, prior to the proposed discontinuance. (N.J.A.C. 14:3-3A.4(k)). However, in case of fraud, illegal use, or when it is clearly indicated that the customer is preparing to leave, immediate payment of accounts may be required, and service may be discontinued without further notice.

When hydrants are attached between the main and the meter, a charge per hydrant will be made. The installation and maintenance of fire hydrants and the supplying of water through such hydrants is for the sole use of authorized fire-fighting personnel for the control and extinguishment of any fire.

No additional charge shall be made for water used in testing or for fire. However, should it be determined by Aqua that water is being, or has been, used through a fire protection connection for other than fire protection or testing purposes, the Company shall have the right to charge for the water used based on its "General Metered Service" tariff and to order said unauthorized use to cease immediately subject to the termination of the service.

Issued:

Effective Date:

By: Natalie Chesko, President
10 Black Forest Road
Hamilton, NJ 08691

Filed pursuant to decision and order of the Board of Public Utilities dated _____,
2024 in Docket No. WR24010057.

AQUA NEW JERSEY, INC.
B.P.U. NO. 18 - WATER

FIRST REVISED SHEET NO. 23
CANCELLING ORIGINAL SHEET NO. 23

RATE SCHEDULE NO. 4
PUBLIC FIRE PROTECTION SERVICE

APPLICABILITY:

This schedule is applicable to all municipal Customers served by the Company, for public fire protection service.

CHARACTER OF SERVICE:

The installation and maintenance of fire hydrants, and the supplying of water through such hydrants, is for the sole use of authorized fire-fighting personnel for the control and extinguishment of any fire. The Company will use due diligence at all times to provide Customers with service of the character or quality proposed to be supplied. However, if the service shall be interrupted, irregular, restricted, defective or fails, the Company shall not be liable for any damage or inconvenience resulting therefrom and is obligated only to use reasonably diligent efforts in the light of the circumstances then-existing to restore service.

RATE:

For each fire hydrant installed there shall be made a Monthly Fixed Fire Protection Charge of:

All Service Areas (Except as noted below)	\$ 53.65
Alpha Borough	30.26
Bayville Township	24.23
Fredon Township	30.26
Hardyston Township	22.38
Holland Township – Fox Hill Dr.	41.16
Lawrenceville Township	33.12
Upper Freehold Township	39.96

For Byram Township only, the following Monthly Fixed Fire Protection Charge shall apply, per customer: \$6.94

TERMS OF PAYMENT:

PAYMENT FOR ALL BILLS RENDERED IS DUE TWENTY (20) DAYS AFTER THE ORIGINAL POSTMARK DATE OF THE BILL. Bills for metered service will be rendered at the close of the billing period.

Issued: _____ Effective Date: _____
By: Natalie Chesko, President
10 Black Forest Road
Hamilton, NJ 08691
Filed pursuant to decision and order of the Board of Public Utilities dated _____, 2024
in Docket No. WR24010057.

AQUA NEW JERSEY, INC.
B.P.U. NO. 18 - WATER

ORIGINAL SHEET NO. 23A

SPECIAL PROVISIONS:

All hydrants, lead valves, branches and other appurtenances shall be and remain the property of the Company.

Upon application or request by a duly authorized representative of a municipality in the Company's service area, the Company will install fire hydrants for purposes of public fire protection. The locations of such hydrants shall be selected upon agreement between the necessary municipal official(s) and representatives of the Company after careful consideration. Municipalities shall pay the Company a charge for service to public fire hydrants as provided in this tariff.

Issued: May 28, 2019

Effective Date: June 1, 2019

By: John Hildabrant, President
10 Black Forest Road
Hamilton, NJ 08691

Filed pursuant to decision and order of the Board of Public Utilities dated May 28, 2019, in Docket No. WR18121351.

Aqua New Jersey Inc.
 Settlement Rates and Proof of Revenue

	Billing Determinants	Present Rate	Present Revenue	Settlement Rate	Settlement Revenue	% Increase
	(1)	(2)	(3)	(4)	(5)	(6)
Metered Sales						
<u>Main</u>						
Fixed			\$ 13,663,185		\$ 16,702,627	22.25%
Usage	4,047,720	\$ 6.45	\$ 26,115,889	\$ 6.73	\$ 27,241,156	4.31%
<u>Byram</u>						
Fixed			\$ 29,898		\$ 36,548	
Usage	7,713	\$ 11.56	\$ 89,162	\$ 10.10	\$ 77,901	-12.63%
<u>Seaview Harbor</u>						
Fixed			\$ 21,483		\$ 26,262	
Usage	6,716	\$ 11.56	\$ 77,637	\$ 10.10	\$ 67,832	-12.63%
<u>Walkkill</u>						
Fixed			\$ 125,433		\$ 153,334	
Usage	34,946	\$ 4.53	\$ 158,235	\$ 5.72	\$ 199,926	26.35%
<u>Non-Potable</u>						
Fixed	12	\$ 412.50	\$ 4,950	\$ 504.25	\$ 6,051	22.24%
Usage	25,050	\$ 1.29	\$ 32,315	\$ 1.35	\$ 33,717	4.34%
DSIC	838,794	\$ 2.62	\$ 2,197,640	\$ -	\$ -	-100.00%
Total Metered			\$ 42,515,828		\$ 44,545,354	4.77%

Aqua New Jersey Inc.
 Settlement Rates and Proof of Revenue

	Billing	Present		Settlement	Settlement	% Increase
	Determinants	Rate	Revenue	Rate	Revenue	
	(1)	(2)	(3)	(4)	(5)	(6)
Public Fire						
Main	39,060	\$ 53.65	\$ 2,095,569	\$ 53.65	\$ 2,095,569	0.00%
Alpha Boro	12	\$ 23.28	\$ 279	\$ 30.26	\$ 363	29.98%
Bayville	3,876	\$ 18.64	\$ 72,249	\$ 24.23	\$ 93,915	29.99%
Califon Boro	324	\$ 51.23	\$ 16,599	\$ 53.65	\$ 17,383	4.72%
Fredon Twp	240	\$ 23.28	\$ 5,587	\$ 30.26	\$ 7,262	29.98%
Holland Twp - Church St	300	\$ 51.23	\$ 15,369	\$ 53.65	\$ 16,095	4.72%
Holland Twp - Fox Hill Dr	48	\$ 31.66	\$ 1,520	\$ 41.16	\$ 1,976	30.01%
Hardyston Twp	576	\$ 13.37	\$ 7,701	\$ 22.38	\$ 12,891	67.39%
Lawrenceville	2,784	\$ 25.48	\$ 70,936	\$ 33.12	\$ 92,206	29.98%
Tranquility Springs	216	\$ 46.57	\$ 10,059	\$ 53.65	\$ 11,588	15.20%
Upper Freehold	540	\$ 30.74	\$ 16,600	\$ 39.96	\$ 21,578	29.99%
Byram	1,812	\$ 5.34	\$ 9,676	\$ 6.94	\$ 12,575	29.96%
Total Public Fire			\$ 2,322,144		\$ 2,383,402	2.64%
Private Fire						
<i>Main</i>						
Hydrants	2,928	\$ 41.28	\$ 120,868	\$ 49.42	\$ 144,702	19.72%
3"	144	\$ 96.40	\$ 13,882	\$ 104.11	\$ 14,992	8.00%
4"	1,968	\$ 160.66	\$ 316,179	\$ 173.51	\$ 341,468	8.00%
6"	2,052	\$ 321.32	\$ 659,349	\$ 347.03	\$ 712,106	8.00%
8"	804	\$ 514.10	\$ 413,336	\$ 555.23	\$ 446,405	8.00%
10"	312	\$ 739.02	\$ 230,574	\$ 798.14	\$ 249,020	8.00%
12"	36	\$ 1,381.66	\$ 49,740	\$ 1,492.19	\$ 53,719	8.00%
Total Private Fire			\$ 1,803,927		\$ 1,962,410	8.79%
Total Rate Revenue			\$ 46,641,899		\$ 48,891,166	4.82%

Aqua New Jersey Inc.
 Settlement Rates and Proof of Revenue

DETAILED Fixed Charges	Billing Determinants	Present Rate	Present Revenue	Settlement Rate	Settlement Revenue	% Increase
	(1)	(2)	(3)	(4)	(5)	(6)
<i>MAIN</i>						
5/8x3/4"	551,676	\$ 16.50	\$ 9,102,654	\$ 20.17	\$ 11,127,305	22.24%
3/4"	68,904	\$ 24.75	\$ 1,705,374	\$ 30.26	\$ 2,085,035	22.26%
1"	16,956	\$ 41.25	\$ 699,435	\$ 50.43	\$ 855,091	22.25%
1-1/2"	4,008	\$ 82.50	\$ 330,660	\$ 100.85	\$ 404,207	22.24%
2"	8,172	\$ 132.00	\$ 1,078,704	\$ 161.36	\$ 1,318,634	22.24%
3"	756	\$ 247.50	\$ 187,110	\$ 302.55	\$ 228,728	22.24%
4"	384	\$ 412.50	\$ 158,400	\$ 504.25	\$ 193,632	22.24%
6"	192	\$ 825.00	\$ 158,400	\$ 1,008.50	\$ 193,632	22.24%
8"	180	\$ 1,320.00	\$ 237,600	\$ 1,613.60	\$ 290,448	22.24%
10"	-	\$ 1,897.50	\$ -	\$ 2,319.55	\$ -	
Bulk	156	\$ 31.08	\$ 4,848	\$ 37.92	\$ 5,915	22.01%
Subtotal			\$ 13,663,185		\$ 16,702,627	22.25%
<i>BYRAM</i>						
5/8x3/4"	1,812	\$ 16.50	\$ 29,898	\$ 20.17	\$ 36,548	22.24%
3/4"	-	\$ 24.75	\$ -	\$ 30.26	\$ -	
1"	-	\$ 41.25	\$ -	\$ 50.43	\$ -	
1-1/2"	-	\$ 82.50	\$ -	\$ 100.85	\$ -	
2"	-	\$ 132.00	\$ -	\$ 161.36	\$ -	
3"	-	\$ 247.50	\$ -	\$ 302.55	\$ -	
4"	-	\$ 412.50	\$ -	\$ 504.25	\$ -	
6"	-	\$ 825.00	\$ -	\$ 1,008.50	\$ -	
8"	-	\$ 1,320.00	\$ -	\$ 1,613.60	\$ -	
10"	-	\$ 1,897.50	\$ -	\$ 2,319.55	\$ -	
Subtotal			\$ 29,898		\$ 36,548	22.24%
<i>SEAVIEW HARBOR</i>						
5/8x3/4"	1,056	\$ 16.50	\$ 17,424	\$ 20.17	\$ 21,300	22.24%
3/4"	-	\$ 24.75	\$ -	\$ 30.26	\$ -	
1"	36	\$ 41.25	\$ 1,485	\$ 50.43	\$ 1,815	22.25%
1-1/2"	12	\$ 82.50	\$ 990	\$ 100.85	\$ 1,210	22.24%
2"	12	\$ 132.00	\$ 1,584	\$ 161.36	\$ 1,936	22.24%
3"	-	\$ 247.50	\$ -	\$ 302.55	\$ -	
4"	-	\$ 412.50	\$ -	\$ 504.25	\$ -	
6"	-	\$ 825.00	\$ -	\$ 1,008.50	\$ -	
8"	-	\$ 1,320.00	\$ -	\$ 1,613.60	\$ -	
10"	-	\$ 1,897.50	\$ -	\$ 2,319.55	\$ -	
Subtotal			\$ 21,483		\$ 26,262	22.24%
<i>WALKKILL</i>						
5/8x3/4"	4,644	\$ 16.50	\$ 76,626	\$ 20.17	\$ 93,669	22.24%
3/4"	144	\$ 24.75	\$ 3,564	\$ 30.26	\$ 4,357	22.26%
1"	252	\$ 41.25	\$ 10,395	\$ 50.43	\$ 12,708	22.25%
1-1/2"	-	\$ 82.50	\$ -	\$ 100.85	\$ -	
2"	264	\$ 132.00	\$ 34,848	\$ 161.36	\$ 42,599	22.24%
3"	-	\$ 247.50	\$ -	\$ 302.55	\$ -	
4"	-	\$ 412.50	\$ -	\$ 504.25	\$ -	
6"	-	\$ 825.00	\$ -	\$ 1,008.50	\$ -	
8"	-	\$ 1,320.00	\$ -	\$ 1,613.60	\$ -	
10"	-	\$ 1,897.50	\$ -	\$ 2,319.55	\$ -	
Subtotal			\$ 125,433		\$ 153,334	22.24%
Total Fixed Charges			\$ 13,839,999		\$ 16,918,771	

Aqua New Jersey Inc.

Settlement Rates and Proof of Revenue

	Present Revenue	Settlement	
	(2)	Revenue	% Increase
<u>Summary</u>		(4)	(5)
Metered Sales	\$ 42,515,828	\$ 44,545,354	4.77%
Public Fire	\$ 2,322,144	\$ 2,383,402	2.64%
Private Fire	\$ 1,803,927	\$ 1,962,410	8.79%
Miscellaneous	\$ 50,246	\$ 50,246	0.00%
Antenae	\$ 424,590	\$ 424,590	0.00%
Total	\$ 47,116,736	\$ 49,366,002	4.77%

Target	\$ 49,366,736
Difference	\$ (733)

<u>Monthly Bill Impacts</u> (5/8" Meter @ 5kgals)	Present	Settlement	Increase (\$)	Increase (%)
Main	51.38	53.82	2.44	4.75%
Byram	76.92	70.67	(6.25)	-8.13%
Seaview Harbor	76.92	70.67	(6.25)	-8.13%
Walkkill	41.76	48.78	7.02	16.80%



AQUA NEW JERSEY, INC.

DSIC FOUNDATIONAL FILING REPORT

JANUARY 2024

Prepared by:



Entech Engineering, Inc.
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Project No. 4101.004

Dated: January 2024

**AQUA NEW JERSEY
DSIC FOUNDATIONAL FILING REPORT
January 2024**

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➤ **Transmission and Distribution Assessment**

Introduction

Aqua owns and operates water systems throughout the State of New Jersey. Three main operating divisions serve approximately 44,000 customers in Warren, Mercer, and Camden counties. Other satellite operating divisions serving customers in Sussex, Ocean, and Gloucester Counties include numerous smaller systems. Aqua distribution systems have approximately 835 miles of pipe, serving more than 61,000 water and wastewater customers.

The characteristics of Aqua's systems vary across the state. The oldest three systems include the original Garden State Water Company, derived primarily through the previous acquisitions of People's Water Company (Phillipsburg), Hamilton Square Water Company, and Blackwood Water Company. These companies, now identified as the Northern, Central, and Southern Divisions, have expanded over the years. Still, these original companies contain the largest share of the distribution assets and the oldest assets. The other systems are much smaller and are scattered throughout the state. The largest of these other systems are the Berkeley Water Company, Lawrenceville Water Company, and Woolwich Water Company. Lawrenceville is typical of an older community with deteriorating infrastructure. The Woolwich Water Company is a newer system that has grown tremendously over the past fifteen years. Some of these acquired systems' water distribution systems are in poor condition and have high water loss. Corrective measures, including water main replacement, are needed to curb the ongoing system losses.

Aqua NJ's ongoing water main renewal program includes replacing aged pipes and cleaning and lining unlined cast iron pipes when appropriate. The renewal program is both reactive and proactive. The reactive renewal includes targeting specific pipes that have experienced performance issues or exhibit customer service problems. For example, pipes with multiple main breaks are targeted for replacement to eliminate service interruptions and mitigate the risk of water quality problems associated with main breaks. Similarly, dirty or red water complaints due to unlined cast iron pipes can typically be addressed by cleaning and lining that pipe, provided the pipe wall is structurally adequate. The renewal program is also proactive by targeting broad categories of pipe that have historically been problematic. An example of proactive renewal at Aqua NJ is targeting undersized water mains and asbestos cement water mains for replacement. Undersized Water mains, typically 2", 4", and 6" water mains, do not meet the current Safe Drinking Water regulations for systems with an average demand greater than 1 MGD. Asbestos Cement (AC) water mains tend to have a higher incidence of main breaks, demonstrating a shorter life expectancy than cast iron or ductile iron. AC pipe failures often require extensive repair efforts and recur over time in adjacent, compromised pipe segments. Targeting this category of pipe for proactive replacement is more cost-effective to our customers and less disruptive to

communities than dealing with emergency response measures associated with main breaks.

The proposed water main renewal program for 2025 and 2026 will be primarily funded through the Distribution System Improvement Charge (DSIC) mechanism. All projects previously approved under the current Foundational Filing may not be complete at the time this proposed Foundational Filing is approved in a Board Order. Consequently, some projects have been carried over from the current Foundational Filing to the proposed Foundational Filing. The DSIC spending would be in addition to a base level of spending required by the existing regulation. On average, Aqua New Jersey has renewed just over one mile of pipe per year before implementing the DSIC program. Aqua has increased its investment in DSIC-related assets to improve infrastructure.

The DSIC program contains a spending limit of a 5% surcharge "ceiling" between rate cases, which creates the regulatory framework needed to increase the rate of capital investment in the water main infrastructure. The regulations require both a base level of spending and the DSIC eligible spending to ensure that water utility companies increase their investment in the DSIC eligible spending categories and not just receive the 5% surcharge on capital each company had already planned to spend. For Aqua New Jersey, the base spending will be approximately \$6.1 million/year. The increase in expenditures above the base will include increasing the number of water main replacement projects, water main cleaning and lining projects, service line renewal projects, lead service line replacements, and fire hydrant and valve replacement efforts. Projects may be accelerated or deferred depending on the field conditions and the ability to complete a specific project within the allowed time. Also, projects from new acquisitions may be added to this schedule as needed pursuant to existing regulations. The details of this engineering analysis will identify the rationale for accelerating the particular work needed, demonstrate that the accelerated work is the most cost-effective, identify possible failure mechanisms and identify practices that will extend the life of the distribution system assets.

➤ **Water Main Background**

Aqua NJ initiated coordination of the water main infrastructure records in 2009. Aqua NJ has created mapping to centrally track the location of all water main and service leaks/breaks across all operating divisions. Each division has an AutoCAD map that contains the location of all the pipes, hydrants, and valves and is updated regularly to show main rehabilitation projects and developer main extension projects. This type of tracking allows Aqua to target the most problematic areas of the system with "needle mapping" so that the most problematic areas are addressed on a priority basis for the most prudent expenditure of DSIC funds.

The following tables describe the Aqua pipe inventory in terms of material, diameter, and age.

**Table 1
 Breakdown of Water Pipe in Aqua NJ**

Area	Length (Miles)	% Of Total
Berkeley Eastern System	57.58	6.90
Blackwood System	188.52	22.58
Hamilton System	241.42	28.92
Lawrenceville System	44.30	5.31
Miscellaneous Systems	79.08	9.47
Phillipsburg System	224.00	26.83
Total	834.90	100

**Table 2
 Breakdown of Aqua NJ Water Pipe by Material**

Material	Phillipsburg System		Hamilton System		Blackwood System		All Others	
	Length (Miles)	% of Total	Length (Miles)	% of Total	Length (Miles)	% of Total	Length (Miles)	% of Total
Asbestos Cement	0.00	0.00	12.47	5.17	6.32	3.35	34.60	19.12
Cast Iron	103.23	46.09	25.05	10.38	29.75	15.78	22.72	12.55
Ductile Iron	119.33	53.27	203.29	84.20	147.75	78.37	99.85	55.18
Other (PVC, HDPE, GALV)	1.29	0.58	0.52	0.21	4.24	2.25	23.37	12.92
Unknown	0.14	0.06	0.09	0.04	0.47	0.25	0.41	0.23
Total	224	100	241	100	189	100	181	100

Table 3
Breakdown of Aqua NJ Water Pipe by Diameter

Size	Phillipsburg System		Hamilton System		Blackwood System		All Others	
	Length (Miles)	% of Total	Length (Miles)	% of Total	Length (Miles)	% of Total	Length (Miles)	% of Total
<=4	8.91	3.98	10.51	4.35	16.43	8.72	14.68	8.11
6	53.44	23.86	34.48	14.28	30.29	16.07	61.53	34.00
8	67.54	30.15	110.13	45.62	90.44	47.97	73.73	40.74
10	12.10	5.40	2.17	0.90	0.08	0.04	2.71	1.50
12	50.38	22.49	70.93	29.38	49.19	26.09	26.19	14.47
>12	31.63	14.12	13.15	5.45	1.88	1.00	2.12	1.17
Unknown	0.00	0.00	0.05	0.02	0.22	0.12	0.00	0.00
Total	224	100	241	100	189	100	181	100

Table 4
Breakdown of Aqua NJ Water Pipe by Vintage

Year	Phillipsburg System		Hamilton System		Blackwood System		All Others	
	Length (Miles)	% of Total	Length (Miles)	% of Total	Length (Miles)	% of Total	Length (Miles)	% of Total
1885-1899	4.87	2.17	0.00	0.00	0.00	0.00	0.00	0.00
1900-1930	40.37	18.02	1.65	0.68	0.00	0.00	2.35	1.30
1931-1950	9.59	4.28	1.09	0.45	3.45	1.83	3.18	1.76
1951-1980	52.10	23.26	76.50	31.69	76.86	40.77	49.09	27.13
1981-2000	67.37	30.08	82.44	34.15	69.68	36.96	35.30	19.51
>=2001	35.86	16.01	68.40	28.33	33.65	17.85	7.91	4.37
Unknown Year	13.83	6.17	11.35	4.70	4.89	2.59	83.13	45.94
Total	224	100	241	100	189	100	181	100

Table 1 shows that most of the water mains within Aqua NJ, approximately 78% of the 835 miles, are located in the three core Aqua systems of Phillipsburg, Hamilton, and Blackwood. Table 2 breaks down the pipe inventory by material. Of particular interest in the "All Others" systems is the 35 miles of AC pipe. AC pipe has been shown to be more problematic than other types of pipe from this vintage. Typically used during the years preceding and immediately following World War II and up to the late 1950s, this material has proven to be more susceptible to main breaks than other pipes of the same age in New Jersey. Much of this pipe is now over 60 years of age and considered problematic due to the frequency and severity of main breaks. Since the last rate filing, Aqua NJ has replaced

approximately 7,000 LF of AC pipe in its systems. Funding for these much-needed replacement projects was through the DSIC funding mechanism.

Table 3 provides a breakdown of the pipe inventory by size and shows that between 4% and 9% of all the main systems are \leq 4-inch diameter. Over 8% of the pipe in the "Other" systems is also this small diameter pipe. This small-diameter pipe continues to be problematic because it has a high break frequency (see Table 8) and often results in severe hydraulic restrictions, limiting the potential for fire protection. Again, both 4-inch and 6-inch diameter mains do not meet the minimum standards of NJAC 7:10-11.10 for systems with an average demand of 1.0 MGD or higher.

Table 4 provides a breakdown of pipe age. The installation date for most of the pipes is known and presented in the table. Some assumptions were made regarding the installation years based on pipe material to populate this table.

➤ **System Analysis**

Unlike treatment plants or other above-ground facilities, it is not practical or technically feasible to accurately assess the condition of buried assets like pipe. However, pipe conditions can be assessed indirectly by examining specific performance measures. Examples of pipe performance measures include water main breaks and leaks, reduced hydraulic capacity (typically due to tuberculation), higher than acceptable non-revenue water levels, and customer water quality complaints.

Several mechanisms cause failures in water distribution system assets. One key mechanism causing failures is the mechanical degradation of the water main infrastructure over time. Mechanical degradation can affect all types of water infrastructure and manifests itself in various forms depending on the component. For instance, valves may become dysfunctional depending on the traffic loading and underlain soil conditions. Hydrants will fail, become difficult to operate, and/or leak over time requiring repairs and/or replacement. Service laterals will develop leaks at the corporation and/or the curb stop due to traffic loading and soil conditions and require replacement. Water mains will also experience mechanical degradation based on the soil bedding techniques used, the corrosivity of the soil, quality of the construction techniques, type of construction joints, etc. This does not necessarily mean that the oldest water mains must be rehabilitated first. Some older assets that were originally constructed soundly and sized properly are still performing well today. These cases, however, are the exception to the norm.

Further analysis on a case-by-case basis is needed on all the indirect measures to properly assess when a water main should be rehabilitated or replaced. A scoring matrix has been created by Aqua NJ, utilizing an AWWA framework, on an approximate scale of 0-25 to prioritize water main rehabilitation projects. The indirect measures are only one set of reasons why water main infrastructure needs

to be rehabilitated. Other reasons such as inadequate original hydraulic capacity, inadequate fire protection coverage, and non-conformance with NJDEP Safe Drinking Water sizing standards are accepted principles for upgrading the water main infrastructure.

Aqua NJ maintains a detailed database of main breaks for the main water distribution systems. This database includes the available records of water main breaks, some dating back to the 1990s. The data provides a valuable resource for analyzing main break trends. In acquired systems, Aqua has started tracking water main breaks to ascertain the needs of those systems since the acquisition date.

Table 5 shows break occurrences in the main Aqua NJ systems by pipe material. The table compares the percentage of total breaks represented by each material and the percentage of the total length of pipe represented by each material. If all pipe materials were performing equally well, these percentages would be approximately equal. For example, if 20% of the pipe length were "Material A," we would expect 20% of the main breaks to occur on "Material A". When these percentages differ, it indicates that, in general, pipes of that material are either performing well (% of breaks < % of length) or poorly (% of breaks > % of length).

Table 5 shows that cast iron pipes in the Phillipsburg, Hamilton and Blackwood systems were particularly problematic. Furthermore, AC pipe in the Hamilton and Blackwood systems demonstrate an abnormally high break frequency for their percentage of length. In the Berkely system, ductile iron pipe in the vicinity of an area of the distribution system known to experience pressure surges and water hammer due to sudden demands imposed by certain facilities is the cause for the higher-than-expected break frequency. Aqua NJ is in the process of addressing those issues.

Table 5
Main Breaks in Major Aqua NJ Water Systems by Pipe Material

Material	Phillipsburg System		Hamilton System		Blackwood System		Berkeley System	
	% of Breaks	% of Length	% of Breaks	% of Length	% of Breaks	% of Length	% of Breaks	% of Length
Asbestos Cement	0.00	0.00	10.71	5.17	11.39	3.35	55.56	59.53
Cast Iron	74.14	46.09	17.86	10.38	49.37	15.78	0.00	0.00
Ductile Iron	22.41	53.27	71.43	84.20	35.44	78.37	27.78	12.13
Other (PVC, HDPE, GALV)	1.72	0.58	0.00	0.21	3.80	2.25	16.67	27.8
Unknown	1.72	0.06	0.00	0.04	0.00	0.25	0.00	0.54
Total	100	100	100	100	100	100	100	100

Although Table 5 focuses on the pipe material, pipe age is also generally viewed as a contributing factor in how often a pipe fails, which is reflected in the data. Cast iron pipe and AC pipe are the two oldest types of pipes in the Aqua NJ systems. As previously mentioned, Table 5 clearly shows that some cast iron pipes and AC pipes are performing poorly in terms of break frequency. AC pipe represents about 60% of the total length of pipe in the Berkeley system and accounts for 56% of the main breaks in that system. Breaks on AC pipes tend to be more serious when they occur, resulting in more prolonged water outages and requiring more extensive repairs to community roads or immediate emergency replacement.

Cast iron pipes also appear to be failing at a higher rate than their length percentage would indicate. This is not unexpected since the cast iron pipe represents some of the oldest pipes in the system. Most notably in the Phillipsburg System, cast iron pipes amount to roughly 46% of the total length of all pipe in the system but yet account for 74% of the system's main breaks. The same pattern is apparent in the Blackwood System where 16% of pipe is cast iron and almost 50% of all main breaks are cast iron.

Cast iron pipe also warrants a more detailed analysis due to changes in manufacturing processes and joint types over the years. The oldest cast iron pipes were produced using a "pit cast" method, where molten iron was poured into vertical molds suspended in sandpits. This resulted in a pipe with non-uniform wall thicknesses. To compensate for the variations in thickness, the walls were thicker (0.75 inches or more depending on diameter and pressure rating). In late 1920, a new casting process was introduced using centrifugally spun molds. This allowed for thinner and more uniform pipe walls. It should be noted that the "thin" wall is somewhat of a misnomer, given that the pipe walls were still approximately 0.5 inches or more in thickness.

A more detailed analysis of cast iron main breaks was conducted for the Phillipsburg system break data using breaks occurring between 1999 and 2015. The data was segregated into four categories based on the installation year of the pipe. The categories represented the different pit and spun cast pipe combinations with various joint types. The results are presented in Figure 1 below. Figure 1 presents the percentage of all cast iron pipes represented by each category and the percentage of all cast iron breaks represented by each category. As noted previously, if all the material/joint combinations were performing equally, these percentages would be the same. However, this is not the case, indicating that certain categories of cast iron pipes are performing better than others. For example, approximately 48% of the cast iron pipe in Phillipsburg is pit cast, yet only 28% of the cast iron breaks are from this category. This indicates that this category of cast iron pipe, although the oldest category, is performing reasonably well. This can be attributed to the thicker pipe walls, which provide additional strength to the pipe. On the other hand, spun cast iron pipe represents nearly 72% of the cast iron main breaks even though it only accounts for 52% of the evaluated

cast iron pipe. This is believed to be due to the "new" spun cast manufactured pipe combined with the continued use of rigid joints during this period.

Figure 1: Phillipsburg System Main Breaks

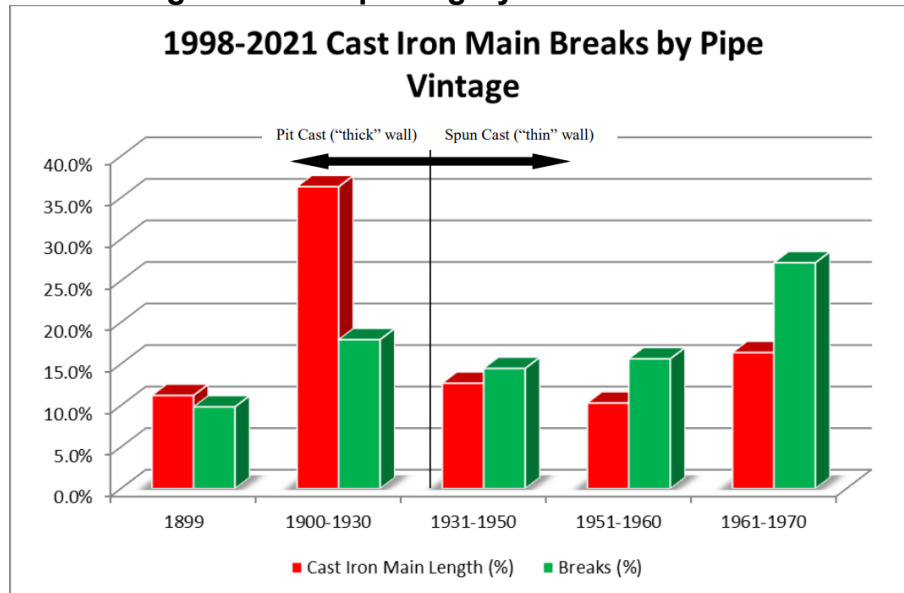


Table 6 presents data comparing breaks and pipe diameter. The table shows that smaller diameter pipes tend to break more often than larger diameter pipes. The table shows that pipes 8-inch in diameter and smaller account for most main breaks in the Aqua NJ systems listed. 72% of the main breaks within the Berkeley System were experienced on the 6-inch pipe. Also, note that although the 8-inch pipe in Blackwood also has experienced the highest percentage of mains breaks, it constitutes the majority of the pipe within that distribution system.

**Table 6
 Main Breaks in Major Aqua NJ Water Systems by Pipe Diameter**

Diameter	Phillipsburg System		Hamilton System		Blackwood System		Berkeley System	
	% of Breaks	% of Length	% of Breaks	% of Length	% of Breaks	% of Length	% of Breaks	% of Length
<=4	1.72	3.98	5.36	4.35	14.92	8.72	0.00	0.00
6	43.10	23.86	37.50	14.28	22.78	16.07	72.22	61.74
8	18.97	30.15	41.07	45.62	54.43	47.97	22.22	24.61
10	0.00	5.40	0.00	0.90	0.00	0.04	0.00	2.74
12	18.97	22.49	16.07	29.38	7.59	26.09	5.56	10.89
>12	17.24	14.12	0.00	5.45	0.00	1.00	0.00	0.00
Unknown	0.00	0.00	0.00	0.02	0.00	0.12	0.00	0.00
Total	100	100	100	100	100	100	100	100

Leakage from pipes is a measure that can be used to ascertain the condition of a distribution system generally and, when quantified, is one component of the calculation of unaccounted-for water (UAW). In a small system with low water demand, even a single small leak that goes undetected can result in a high UAW percentage. Distribution system infrastructure, including services, valves, and mains in systems with excessive UAW, warrants further investigation as candidates for replacement. In 2009, the Delaware River Basin Commission (DRBC) amended its Comprehensive Plan and Water Code to implement an updated water audit approach to identify and control water loss in the Basin. This approach is consistent with the International Water Association (IWA) and American Water Works Association (AWWA) Water Audit Methodology, considered a best management practice in water loss control. NJDEP is expected to adopt the same practice in the future. Aqua NJ completes water audits on its systems annually.

NJDEP regulation NJAC 7:19-6.4, as part of its water conservation policy, requires systems to maintain unaccounted-for water below 15%. While most of Aqua's systems meet the NJDEP's requirements, the DSIC program will provide the incentive to continue to reduce the unaccounted-for water in the smaller systems acquired by Aqua and help address the long-standing issues in Phillipsburg. The high unaccounted-for water in Phillipsburg has been isolated to the low side service gradient covering an area of 40 miles. This specific 40-mile stretch is an area that continues to be a focus of Aqua NJ's leak detection efforts, and main replacement projects have been targeted in this area. This section of the distribution system contains the oldest water main and the largest collection of small-diameter water mains.

The hydraulic capacity of the pipe is typically evaluated using fire hydrant flow tests. Computer hydraulic models of the system are also utilized to evaluate hydraulic capacity issues. These tools help Aqua NJ identify candidate water mains with reduced hydraulic carrying capacity for replacement. Small diameter pipe serving areas with insufficient flow, low pressure, or fire hydrants is another priority for water main rehabilitation.

Finally, the additional data requested during a previous foundational filing submission is presented below. The statistics of breaks/100 miles/year for the main operating division can be found in Tables 7, 8, and 9 below for material, size, and vintage. Table 7 shows that ductile iron pipe continues to perform in this statistical category compared to other pipe materials. Note that the breaks/100 miles/year statistic is skewed for the ductile iron pipe within the pressure surge area of the Berkely system previously mentioned in this report. The length of the newer ductile iron pipe in each system is driving down the break rate in each division. That does not mean the areas of concern should not be addressed, such as cast iron pipe installed after 1931 in Phillipsburg, Hamilton, and Blackwood.

Furthermore, other areas of concern, such as AC pipes in Blackwood and Hamilton, have elevated break rates. Some areas identified in a previous foundational filing can be curtailed given the lower break metric such as the AC pipe in the Blackwood Division, which presented a break rate of 15.82 breaks/100 miles/year. Similarly, cast iron pipe also shows high break rates per 100 miles/year. Much of this AC and cast iron pipe, especially 4" and 6", which have the highest break frequencies (See Table 7), will be considered in the candidate pool for replacement. This is not only for structural integrity reasons but, in the case of smaller diameter pipe, rather for NJAC size requirements and availability of fire flows.

**Table 7
 Main Breaks in Major Aqua NJ Water Systems by Material**

Material	Phillipsburg System (2015 - 2023)			Hamilton System (2016 - 2023)			Blackwood System (2015 - 2023)			Berkeley System (2015 - 2023)		
	Length (Miles)	Breaks	Brks/100 Mi/Yr	Length (Miles)	Breaks	Brks/100 Mi/Yr	Length (Miles)	Breaks	Brks/100 Mi/Yr	Length (Miles)	Breaks	Brks/100 Mi/Yr
Asbestos Cement	0.00	0	0.00	12.47	6	6.01	6.32	9	15.82	34.28	10	3.24
Cast Iron	103.23	43	4.63	25.05	10	4.99	29.75	39	14.57	0.00	0	0.00
Ductile Iron	119.33	13	1.21	203.29	40	2.46	147.75	28	2.11	6.98	5	7.96
Other (PVC, HDPE, GALV)	1.29	1	8.61	0.52	0	0.00	4.24	3	7.86	16.00	3	2.08
Unknown	0.14	1	79.37	0.09	0	0.00	0.47	0	0.00	0.31	0	0.00
Total	223.99	58	2.88	241.42	56	2.90	188.53	79	4.66	57.57	18	3.47

Table 8
Main Breaks in Major Aqua NJ Water Systems by Diameter

Diameter	Phillipsburg System (2015 - 2023)			Hamilton System (2016 - 2023)			Blackwood System (2015 - 2023)			Berkeley System (2015 - 2023)		
	Length (Miles)	Breaks	Brks/100 Mi/Yr	Length (Miles)	Breaks	Brks/100 Mi/Yr	Length (Miles)	Breaks	Brks/100 Mi/Yr	Length (Miles)	Breaks	Brks/100 Mi/Yr
<=4	8.91	1	1.25	10.51	3	3.57	16.43	12	8.12	0.00	0	0.00
6	53.44	25	5.20	34.48	21	7.61	30.29	18	6.60	35.55	13	4.06
8	67.54	11	1.81	110.13	23	2.61	90.44	43	5.28	14.17	4	3.14
10	12.10	0	0.00	2.17	0	0.00	0.08	0	0.00	1.58	0	0.00
12	50.38	11	2.43	70.93	9	1.59	49.19	6	1.36	6.27	1	1.77
>12	31.63	10	3.51	13.15	0	0.00	1.88	0	0.00	0.00	0	0.00
Unknown	0.00	0	0.00	0.05	0	0.00	0.22	0	0.00	0.00	0	0.00
Total	224.00	58	2.88	241.42	56	2.90	188.53	79	4.66	57.57	18	3.47

Table 9
Main Breaks in Major Aqua NJ Water Systems by Vintage

Year	Phillipsburg System (2015 - 2023)			Hamilton System (2016 - 2023)			Blackwood System (2015 - 2023)			Berkeley System (2015 - 2023)		
	Length (Miles)	Breaks	Brks/100 Mi/Yr	Length (Miles)	Breaks	Brks/100 Mi/Yr	Length (Miles)	Breaks	Brks/100 Mi/Yr	Length (Miles)	Breaks	Brks/100 Mi/Yr
1885-1899	4.87	2	4.56	0.00	0	0.00	0.00	0	0.00	0.00	0	0.00
1900-1930	40.37	7	1.93	1.65	0	0.00	0.00	0	0.00	0.00	0	0.00
1931-1950	9.59	3	3.48	1.09	0	0.00	3.45	4	12.88	0.00	0	0.00
1951-1980	52.10	25	5.33	76.5	36	5.88	76.86	56	8.10	35.42	9	2.82
1981-2000	67.37	4	0.66	82.44	13	1.97	69.68	7	1.12	15.52	3	2.15
>=2001	35.86	5	1.55	68.40	4	0.73	33.65	7	2.31	5.31	4	8.37
Unknown Year	13.83	12	9.64	11.35	3	3.30	4.89	5	11.36	1.33	2	16.71
Total	223.99	58	2.88	241.43	56	2.90	188.53	79	5.99	57.58	18	3.47

➤ **System Improvement Plan**

Recognizing the need for continual renewal of the distribution system to maintain quality service to customers, Aqua has rehabilitated the water main, services, hydrants, and valves in its systems for many years. Between 2005 and 2010, Aqua replaced approximately 8 miles of pipe in its systems, equating to approximately a 400-year renewal rate (or a 0.25% renewal rate). This rate is longer than expected for any pipe materials, notwithstanding the specific issues outlined above. The creation of the DSIC rule has allowed the company to accelerate the replacement of certain assets based on macro and micro information. Prior to the implementation of the DSIC program between 2005 and 2010, Aqua maintained a 1.6 mile-per-year average replacements pace. During the first year of the DSIC, Aqua rehabilitated 8 miles of water main, or 1.2% of the overall system. Since the 2022 DSIC filing, Aqua has rehabilitated 6.5 miles of water main.

Aqua has prioritized water main rehabilitation "candidates" at both a macro and micro level. At the macro level, general categories of pipe (for example, thin-walled cast iron from 1936-1960 and AC and galvanized pipe of all vintages) and geographic areas within a system have been identified as areas of concern. Any pipe meeting this criterion is considered a potential candidate for rehabilitation. The macro examination also eliminates certain pipes from consideration for rehabilitation. For example, ductile iron pipe less than 30 years old is typically unlikely to need rehabilitation.

Micro-level main replacement planning addresses the order in which specific pipes within the broader categories are replaced. This requires considering existing performance characteristics of the pipe, such as main break history, customer complaints, size, criticality, and other performance criteria. Needle maps have been developed for all major systems to evaluate trends and identify unique failure mechanisms causing main breaks or other operational issues. All listed water mains have been scored based on the included matrix to properly prioritize the work and create minimum standards for mains needing rehabilitation. The minimum score for a water main that will be considered for replacement is a 7 out of 20+. During the first DSIC interval, the lowest score for a project was a 7, and the highest score was a 24. Since its original inception, the Aqua NJ scoring matrix was improved to include more weight on water quality projects that would further enhance and demonstrate that cleaning and lining projects are an important component of the DSIC program as it extends the useful life of a water main in specific circumstances.

➤ Macro-Level Planning

It is helpful to define the pool of potential candidate pipes for rehabilitation at the macro level. From the previous discussion, there are two broad categories of pipe that Aqua is targeting for rehabilitation based on main break trends. These are the problematic areas of AC pipe and cast iron pipe installed between 1931 and 1950. The total length of AC pipe in all systems equals 53.39 miles (see Table 2). Cast Iron pipe installed between 1931 and 1950 is estimated to total 17.3 miles of main. By 2025, the "youngest" of these cast iron pipes will be approximately 75 years old, *i.e.*, installed in 1950, while the oldest thin-walled cast iron will be around 95 years old. AC pipe was typically installed between 1940 and 1980 and continues to show a significantly higher break rate than other materials even if those pipes are older. Berkeley AC pipe breaks account for 56% of all system breaks, with 44% of breaks occurring on other pipe materials (see Table 7). These potential candidates have demonstrated that the renewal rate for these classes should be shorter than one hundred years based on their ability to stand the test of time versus older materials and new ductile iron materials.

Another candidate pool is all pipes installed before 1900, regardless of material. This category has been reduced in the candidate pool to reflect the performance of this category over time. The Phillipsburg System has approximately 40 miles of pipe installed prior to 1930 but only 5 miles were installed before 1900 (see Table 4). Mains in these vintages will remain in the candidate pool for replacement. Much of this pipe is already over 100 years old, and over the next 15 years, the remainder will reach the 100-year age. Any pipe reaching a 100-year service life at a macro level should be considered a candidate for rehabilitation.

The last broad category of pipes to be considered are the smaller pipes (≤ 6 -inch). As shown in Table 8, these pipes are experiencing some elevation in break rate and can contribute to hydraulic issues, *i.e.*, low pressure or low flow. Some of this pipe was already accounted for in the Pre-1900 and AC pipe categories, so they are not included in the total pipe in Table 10. Each specific pipe identified will be shown in the micro section and the appendices.

Table 10 summarizes these broad categories of pipes for rehabilitation or replacement. Together this totals approximately 103 miles of pipe. The additional ≤ 6 -inch not contained in other categories is listed separately to demonstrate the need to still address these sizes of pipe for structural and/or hydraulic reasons. Over the four major systems (Phillipsburg, Hamilton, Blackwood, and Berkeley), there are roughly 230 miles of pipe ≤ 6 -inch (see Table 10). This macro approach yields general categories of pipes that are candidates for rehabilitation but doesn't prioritize specific pipes within those categories. At the same time, there may be legitimate reasons for not rehabilitating individual pipes in one of these categories. For example, a 4-inch PVC pipe installed in the 1980s serving a small residential cul-de-sac with no fire hydrants may be perfectly acceptable. The selection of specific pipes for replacement is addressed later in this report.

Table 10
Aqua NJ Candidate Pool of Water Pipe for Replacement

Pipe Category	Miles of Pipe			
	Phillipsburg System	Hamilton System	Blackwood System	Berkeley System
Asbestos Cement Pipe	0.00	12.47	6.32	34.60
Cast Iron 1931-1950	9.59	2	4	0
1885-1899 pipe	4.87	0.00	0.00	0.00
Other (Galvanized, Plastics)	1.29	0.52	4.24	23.37
Total	15.75	14.99	14.56	57.97
≤ 6-inch pipe (partially included in above)	62.35	44.99	46.72	76.21

This macro approach suggests that Aqua NJ has a near-term need to replace approximately 103 miles of pipe and up to 230 miles of smaller diameter mains that are potentially undersized.

As noted earlier, Aqua had rehabilitated 8 miles of the pipe over the five years before implementing DSIC. During the past DSIC filing period, 6.5 miles were replaced each year, increasing the replacement rate considerably, showing increased investment. Virtually all of the mains in the 103-mile "Candidate Pool" shown in Table 10 will require rehabilitation over the next 20 years. At the original 1.6 mile-per-year average pace that Aqua replaced pipe between 2005 and 2010, it would take over 60 years to replace just the 103 miles of pipe, or 12% of the system's pipe, identified as candidates for near term replacement and, over this time, the other 88% of Aqua's pipe inventory will continue to age adding to the "Candidate Pool". However, the DSIC program allows this rate to increase significantly, thereby showing a path forward to address these areas of concern at a rate of 6.5 miles per year. Assuming the DSIC program continues, the entire "Candidate Pool" could be addressed over the next sixteen years. The following Foundational Filing template includes approximately 39 miles of water main that will be addressed from the candidate pool. This represents that 38% of the candidates will be addressed over the next six years of the DSIC program, assuming the program continues.

➤ **Micro-Level Planning**

Increased weight has been given to low-pressure conditions and customer water quality complaints. The weight of these categories is worth 10 possible points on Aqua NJ's water main scoring matrix. Aqua has developed and is applying detailed mapping tools to help identify and prioritize specific pipes for replacement. Material, diameter, age, the criticality of the main, hydrant coverage, water quality complaints, and main break history are used to assign scores to pipe segments

based on the pipe's characteristics. Generally speaking, the higher the score, the greater the need for rehabilitation. The individual scores are developed from the needle mapping and are created for all the main breaks, discolored water complaints, and inventory information. This information targets the streets/areas in the most need of rehabilitation. The complete listing of all projects for the Aqua DSIC program is contained in the attached document. The needle mapping for the major company divisions is also attached to this Foundation Filing. The major categories conform to the macro-level planning outlined above and are further subdivided into Rehabilitation Projects, Hydraulic Improvement Projects, Service/Hydrant/Valve Renewal Programs, and Un-reimbursed Relocations. The issue of UAW is primarily captured in the hydraulic improvement sections below. The attached listing of projects outlines the specific nature of the rehabilitation project, including the information on the existing main, the proposed main and the estimated cost for the individual project. For all types of projects, Aqua performs several critical functions to extend the life of the water utility's distribution network assets. At many of Aqua's well stations, the corrosion inhibitor is added to provide a film on the water main to protect the pipe from internal corrosion. Flushing is performed on a semiannual basis in all systems to minimize tuberculation accumulation. All systems are surveyed for leaks at various intervals depending on the amount of non-revenue water in the system. The water main rehabilitation scoring system ensures that the water mains in the most need of capital investment are addressed first.

➤ **Rehabilitation Projects**

Water mains are identified as rehabilitation type projects when the water main has a history of leakage or breaks and/or history of water quality complaints, the mains were constructed with obsolete material, poor construction standards were in place at the time the mains were constructed, or in many cases, all of these factors combined. Historical main break records are reviewed to identify categories of mains with higher break rates. The elevated break rates compared to length are indicators of the aging infrastructure issue that is well recognized and widely accepted across the utility industry. Higher break rates per mile also indicate pockets of issues that will lead to higher rates in the next decade. Needle mapping surveys identify main break clusters and areas to be analyzed for either replacement or rehabilitation. The appendix contain detailed lists of all the projects that fit each category; a scoring matrix that outlines the need for each project is individually listed in the appendix. In certain instances, main rehabilitation projects are spread out, so that only certain township areas are affected at any one construction season to lessen community impacts. In addition, in some systems, even one main break can cause significant disruption to the system if the wells are sized only to handle the system demands. A criticality component has been incorporated into the scoring matrix to address this issue. Aqua has acquired systems that experienced periods of no water pressure because one main break usually occurred due to poor craftsmanship at the time of construction. These

systems need to be upgraded to provide a safe and reliable service to those customers.

Several mechanisms have been found through system operating experience as causing the failures in the targeted areas of the distribution system. The mechanisms typically found are poor construction practices at the time of original installation, such as improper bedding, poor joint connection, and mismatched and random materials. Also, inferior materials utilized at the time of construction are a failure mechanism. Thin-walled cast iron has been shown to have a shorter service life than a thick-walled pipe but is less likely to break compared to the specific vintages outlined in Figure 2. AC pipe, in most instances, will have a shorter service life than typically expected with other materials. Aqua intends to budget \$11,603,518.60, \$10,074,444.48, and \$7,455,555.60 for the years 2024, 2025 and 2026, respectively, for the replacement of service lines. This effort includes the removal and replacement of service lines which have been identified as being constructed of lead. The work under this effort includes the removal and replacement of the identified services lines from the existing water main to the customer's water meter including a new corporation stop, curb stop, copper water service and all work required for the installation, including but not limited to excavation and backfill and restoration. Based on an estimated cost of \$8,000 to remove and replace a water service completely, Aqua anticipates removing and replacing up to 1,450 water services in the first year, 1,259 water services in the second year, and 931 water services in the third year. Note, however, that any costs spent on replacement of the customer side for any lead service lines will not be recovered through the DSIC (it will be recovered in a separate surcharge mechanism), and such work is not included in the above estimates.

➤ **Hydraulic Improvements**

Aqua NJ's system hydraulic model identifies mains requiring improvements within the following areas: Transmission, fire flow, undersized mains, and criticality/redundancy. Improvements can involve installing a new main, replacing the existing main, and/or cleaning/lining. These projects aim to remedy existing deficiencies, and they all have a relatively high priority to complete. Projects to improve fire flow, water quality, and transmission problems are generally given higher priority and scheduled earliest. Hydraulic Bottlenecks are used as an analysis criterion when hydraulic modeling demonstrates that the fire flow conditions are restrained due to high-pressure drop sections of the distribution system in accordance with NJAC 7:10-11.10. The undersized pipe is an analysis criterion when water mains do not meet the criteria set forth in NJAC 7:10-11.10. The timing of renewal projects may coincide with a municipal paving project. Appendix 1 contains a detailed list of all projects that fit this category and a scoring matrix that outlines the need for each project. The scoring matrix comprises age, the main size, break history, water quality complaints, dead ends, inferior pipe materials, and divergence from the acceptable distribution main size regulations. These criteria provide a solid basis for the water main selection process. By

accelerating these hydraulic improvements, customers will benefit from higher pressure and higher fire flow availability, sustaining the water distribution system. The Insurance Services Office (ISO) rating score for the water supply section typically can also be positively affected when distribution system assets are upgraded. The specific hydraulic improvements proposed are the most cost-effective solution because the program targets specific regions of the water system in which hydraulic improvements are needed. Over the DSIC program life, entire neighborhoods in Phillipsburg, Hamilton, Lawrenceville, and Gloucester Township will experience noticeable increases in flow and fire protection. To increase the amount of flow, the water main must be replaced in all cases to increase cross-sectional surface area. In reference to the statistics above, many of the smaller water mains, 4" and 6" are more susceptible to leakage and failure. By replacing these sections due to hydraulic limitations, two issues are addressed simultaneously.

➤ **Cleaning and Lining Projects**

The decision to select a lining is based on the protocol outlined in AWWA Manual M-28. Internal pipe corrosion, known as tuberculation, reduces hydraulic capacity and can produce red water complaints in metallic water mains. Mains in this structurally sound category have no graphitization or external corrosion evidence, have specific service issues and are candidates for nonstructural cement mortar linings. Mains with structural issues are candidates for fully structural lining or replacement per the matrix presented in AWWA Manual M-28. The needle mapping documents the locations of all discolored water complaints and taste and odor complaints for the past three years. Per the recommendations of a previous foundational filing, the scoring matrix has been re-evaluated, and cleaning lining projects are now presented in the Appendix of this report.

➤ **Service/Hydrant/Valve Renewals**

The renewal of services, hydrants, and valves are integral to sustainable infrastructure. Aqua replaces all these components on a routine basis to maintain safe and reliable service. Service replacement also reduces leakage and prevents future breaks. Service connections of lead and galvanized are obsolete and required to be replaced as per EPA regulations. Aqua NJ intends to focus on replacing galvanized service lines to eliminate lead fittings sometimes found on galvanized service lines. Hydrants support community fire protection and need to be replaced when deteriorated or obsolete. Proper fire protection saves lives, reduces property damage, and, with increased ISO ratings, lowers insurance rates. Aqua intends to budget \$161,823.00, \$176,500.00, and \$162,500.00 for 2024, 2025, and 2026, respectively, for the replacement of fire hydrants. This effort includes the removal and replacement of fire hydrants which have been damaged or exceeded their useful life, or the addition of fire hydrants identified by Aqua or government entities in need of installation, including but not limited to excavation, backfill and restoration. Based on an estimated cost of \$10,000 to remove and

replace a fire hydrant completely, Aqua anticipates removing and replacing roughly 16 fire hydrants per year.

Valves are critical components of distribution systems and need to be replaced when broken. Valves are used to isolate mains when repairs are needed. If valves are not operational or do not seal, shutdowns take longer to execute, and a larger customer area is impacted.

As part of the DSIC program, regularly scheduled leak surveys for all divisions will continue to identify service renewal areas better. The highest focus areas will come from known problem areas identified on the needle mapping. Aqua intends to budget \$400,000 for each of the years 2024, 2025 and 2026 for the replacement of various valves. This effort includes the removal and replacement of valves which Aqua has identified as inoperable, damaged, or having exceeded their useful life. The work under this effort includes a new valve, valve box and all work required for the installation, including cost of \$10,000 to remove and replace a valve completely, Aqua anticipates removing and replacing 40 valves per year.

➤ **Un-reimbursed Utility Relocations**

Counties and Townships often require water mains to be relocated at the cost of the utility to accommodate community improvement projects such as road construction and storm and sanitary sewer improvement projects. Notification for this work varies widely and is often relayed to the utility after funding decisions on water main projects have already been reached. Because this work cannot be postponed, the priority and timing will often result in the shifting of other priorities. Rehabilitations of water utility infrastructure in coordination with these activities of others are beneficial to the community and general public by minimizing multiple disruptions of the same area. The foundation filing template captures all known water main relocation projects. It is estimated that \$300,000 of unreimbursed utility relocation work will occur in the filing period (2024-2026). This encompasses four projects with an average cost of \$75,000 each.

➤ **Conclusions**

Aqua will maximize, to the extent possible, the amount of water main renewal possible using the DSIC mechanism. However, a pool of 103 miles of pipe (or 12% of the system) is in near-term need of renewal. This pool targets:

- AC pipe due to its high main break frequency and severe customer service disruptions and peripheral property damage when failures occur,
- Cast iron pipe installed between 1931 and 1950 due to its greater frequency of breaks than other cast iron pipe in the system,
- Pipes of all materials installed before 1900 that are over 100 years old and at the end of their expected service life,

- Alternate pipe materials, such as galvanized steel and plastics that are of smaller diameter and have a higher break frequency, may have lead service fittings and sources of water quality and low-pressure complaints.
- Pipe in small, troubled systems where wholesale replacement of pipe may be the best remedy to excessive lost water due to leaks and service outages,
- Cleaning and Lining projects that meet the necessary criteria, address water quality complaints, and extend the useful life of the infrastructure,
- Smaller mains, especially in the larger systems, to increase system pressure and fire flows and satisfy state sizing regulations.

At the pre-DSIC historical average pace of 1.6 miles per year, it would take about 65 years to replace this targeted 103 miles of pipe and 144 years to replace the potentially undersized pipe. At average historic replacement costs, the DSIC should allow Aqua NJ to replace pipe at a pace nearly four times the pre-DSIC average pace and achieve the level of system renewal necessary to address this current backlog in 20 years. A DSIC will also help offset the inordinately high-cost escalation for necessary materials and increased costs for municipal permitting, which have had, and will continue to have, a direct impact on Aqua NJ's main replacement program.

Figure 2 below illustrates the makeup of Aqua's distribution system in 2009 before the DSIC program. Figure 3 below shows the current makeup of Aqua's distribution after eight years of rehabilitation under the DSIC program. The requested main replacement program will allow Aqua to continue to address the 103-mile backlog of distribution system water mains requiring near-term replacement on a timely basis. When the DSIC period work is completed over the next two (2) years, the makeup of Aqua's distribution system will be as shown in Figure 4. Over 69% of the mains would be ductile iron pipes. The problematic AC pipe would be reduced to approximately 6% in the system, and cast iron water mains would be reduced to under 22%. Also, the Other (galvanized and plastic) mains would be reduced to about 3% of all pipe.

The benefits of the DSIC program are apparent from the tables below. Approving the proposed Foundation Filing would further improve these values and allow continued focus on the other areas of need to decrease service interruptions and improve water quality and fire flows.

Figure 2: Prior to the DSIC Program, Miles of Main (by Material)

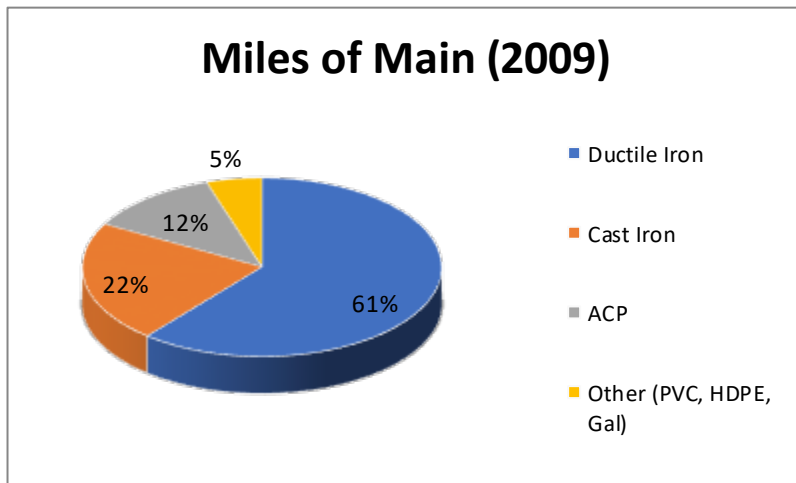


Figure 3: Current Miles of Main (by Material)

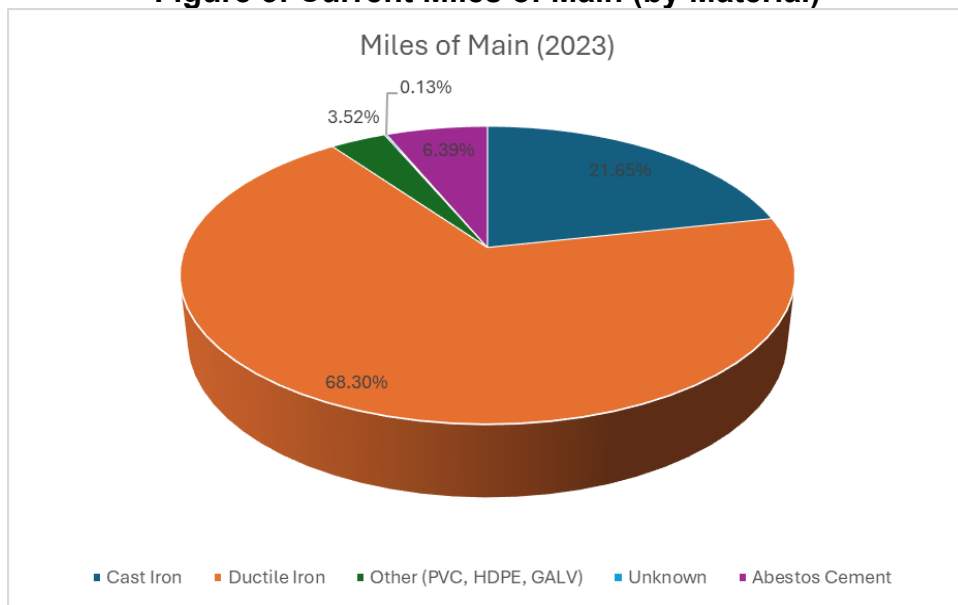
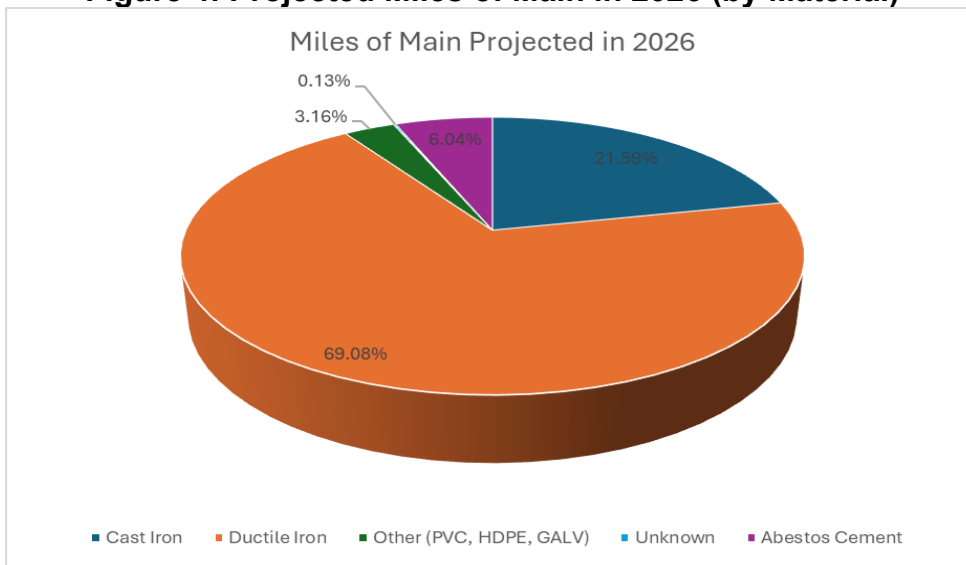


Figure 4: Projected Miles of Main in 2026 (by Material)



Division	WQ Number	Streets	Location Parameters	Type	Design Year	Construction Year Planned	System	Township	Pressure Zone	Total Length per Zone	Length (LF)	Original Size	Original Material	Age/Era	Proposed Size	Proposed Material	Performance Criteria	Est Cost
Northern		High Bridge-Califon Road (SB)	Main Street to Dan-Ly Way	Replacement			Califon	Lebanon Twp	Califon_Service_Area		1,720	8"	CI	N/A		CLDIP	Material	
Northern		High Bridge-Califon Road (NB)		Replacement			Califon	Lebanon Twp	Califon_Service_Area		900	2"	Galvanized	N/A		CLDIP	Size & Material	
Northern		School Street	High Bridge-Califon Road to School Street	Replacement			Califon	Lebanon Twp	Califon_Service_Area		1,550	6"	CI	N/A		CLDIP	Material	
Northern		School Street	Dead End to Pershing Street	Replacement			Califon	Lebanon Twp	Califon_Service_Area		1,500	2", 6"	CI & Galvanized	N/A		CLDIP	Size & Material	
Northern		Glover Hill Drive	School Street to Crestmore Street	Replacement			Califon	Lebanon Twp	Califon_Service_Area		850	6"	CI	N/A		CLDIP	Material	
Northern		Crestmore Street	Glover Hill Drive to Lime Rock Lane	Replacement			Califon	Lebanon Twp	Califon_Service_Area		400	6"	CI	N/A		CLDIP	Material	
Northern		Lime Rock Lane	School Street to Crestmore Street	Replacement			Califon	Lebanon Twp	Califon_Service_Area		800	6"	CI	N/A		CLDIP	Material	
Northern		Pershing Street	School Street to Dead End	Replacement			Califon	Lebanon Twp	Califon_Service_Area		900	6"	CI	N/A		CLDIP	Material	
Northern		Pershing Street	2nd Street to Dead End	Replacement			Califon	Lebanon Twp	Califon_Service_Area		350	2"	Galvanized	N/A		CLDIP	Size & Material	
Northern		2nd Street	Main Street to Eisenhower Lane	Replacement			Califon	Lebanon Twp	Califon_Service_Area		1,100	6"	CI	N/A		CLDIP	Material	
Northern		Coolidge Ct	2nd Street to Dead End	Replacement			Califon	Lebanon Twp	Califon_Service_Area		700	2"	Galvanized	N/A		CLDIP	Size & Material	
Northern		Eisenhower Lane	Hoffman Drive to Dead End	Replacement			Califon	Lebanon Twp	Califon_Service_Area		500	2", 6"	CI & Galvanized	N/A		CLDIP	Size & Material	
Northern		Hoffman Drive	All	Replacement			Califon	Lebanon Twp	Califon_Service_Area		1,600	2", 6"	CI & Galvanized	N/A		CLDIP	Size & Material	
Northern		Main Street	2nd Stree to River Road	Replacement			Califon	Lebanon Twp	Califon_Service_Area		1,000	6"	CI	N/A		CLDIP	Material	
Northern		1st Street	End to Main Street	Replacement			Califon	Lebanon Twp	Califon_Service_Area		1,300	2"	Galvanized	N/A		CLDIP	Size & Material	
Northern		River Road	Main Street to Parking Lot	Replacement			Califon	Lebanon Twp	Califon_Service_Area		1,000	2"	Galvanized	N/A		CLDIP	Size & Material	
Northern		Center Street	Dead End to River Road	Replacement			Califon	Lebanon Twp	Califon_Service_Area		400	2"	Galvanized	N/A		CLDIP	Size & Material	
Northern		Mill Street	Main Street to Bank Street	Replacement			Califon	Lebanon Twp	Califon_Service_Area		800	6"	Galvanized	N/A		CLDIP	Material	
Northern		Bank Street	Main Street to end of existing main	Replacement			Califon	Lebanon Twp	Califon_Service_Area		830	2", 6"	CI & Galvanized	N/A		CLDIP	Size & Material	
Northern		Pillhowever Ave	Main Street to end of existing main	Replacement			Califon	Lebanon Twp	Califon_Service_Area		1,300	2", 4", 6"	CI & Galvanized	N/A		CLDIP	Size & Material	
Northern		Main Street	Pillhowever Ave to Academy Street	Replacement			Califon	Lebanon Twp	Califon_Service_Area		1,800	6", 8"	CI	N/A		CLDIP	Material	
Northern		Academy Street	Main Street to end of existing main	Replacement			Califon	Lebanon Twp	Califon_Service_Area		1,500	6"	CI	N/A		CLDIP	Material	
Northern		Railroad Ave	Dead end to Main Street	Replacement			Califon	Lebanon Twp	Califon_Service_Area		2,400	6"	CI	N/A		CLDIP	Material	
Northern		Off of Academy Steet		Replacement			Califon	Lebanon Twp	Califon_Service_Area		1,400	2"	Galvanized	N/A		CLDIP	Size & Material	
Northern		Willow Lane		Replacement			Warren Glenn	Holland Twp	Warren_Glen_Service_Area		1,500	4"	CI			CLDIP	Undersized	
Northern		Mill Road		Replacement			Warren Glenn	Holland Twp	Warren_Glen_Service_Area		1,250	2"	CI & Galvanized			CLDIP	Undersized	
Northern		Cyphers Road		Replacement			Warren Glenn	Holland Twp	Warren_Glen_Service_Area		750	2"	CI & Galvanized			CLDIP	Undersized	
Northern		Riegelsville-Warren Glenn Road (Warren County 6274)		Replacement			Warren Glenn	Holland Twp	Warren_Glen_Service_Area		500	2"	Galvanized			CLDIP	Undersized	

Aqua New Jersey, Inc. Distribution System Improvement Charge Baseline Depreciation Docket No. WR2401_____ Mains, Services, Hydrants
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	Plant Balances as of 4/30/2024	Depreciation Rate	DSIC Base Spending Requirement
Account #343: Mains	\$ 189,723,621	1.98%	\$ 3,756,528
Account #345: Services	\$ 76,615,258	3.83%	\$ 2,934,364
Account #348: Hydrants	\$ 12,756,743	2.22%	\$ 283,200
	\$ 279,095,622		\$ 6,974,092
CIAC & CAC Mains	\$ (58,862,368)	1.42%	\$ (835,846)
CIAC & CAC Services	\$ (1,109,227)	0.20%	\$ (2,218)
CIAC & CAC Hydrants	\$ (38,239)	0.87%	\$ (333)
	\$ (60,009,834)		\$ (838,397)
Total	\$ 219,085,788	2.80%	\$ 6,135,695

Date of Foundational Filing Submission 1/19/2024
 Date of Most Recent BPU Annual Report at the time the Foundational Filing was Submitted 12/31/2022

Note: The above amounts agree to Aqua New Jersey Inc.'s filed rate case and depreciation rates proposed in Docket No. WR2401_____.

Aqua New Jersey, Inc. Monthly DSIC Assessment Revenues at 5.00% Docket No. WR24010057
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Applicable to General Metered Service Connections noted below:

DSIC Eligible Revenues	\$49,366,736
Maximum Annual DSIC Revenue Surcharge at 5.00%	\$2,468,337
Annual Assessment per Meter Equivalent at 5.00%	\$34.77
Monthly Assessment per Meter Equivalent at 5.00%	\$2.90**

Class	Size	Customers	Meter Equivalents	Monthly DSIC Assessment \$	Weighted Meter Equivalents	Monthly DSIC Assessment Revenues at 5.00%
Residential						
	5/8x3/4"	45,596	1.0	\$2.90	45,596	\$132,228
	3/4"	5,619	1.5	\$4.35	8,429	\$24,444
	1"	1,171	2.5	\$7.25	2,928	\$8,491
	1-1/2"	144	5.0	\$14.50	720	\$2,088
	2"	152	8.0	\$23.20	1,216	\$3,526
	3"	5	15.0	\$43.50	75	\$218
	4"	0	25.0	\$72.50	0	\$0
	6"	1	50.0	\$145.00	50	\$145
	8"	1	80.0	\$232.00	80	\$232
	Total Base RES	52,689			59,094	\$171,373
Commercial						
	5/8x3/4"	1,292	1.0	\$2.90	1,292	\$3,747
	3/4"	166	1.5	\$4.35	249	\$722
	1"	361	2.5	\$7.25	903	\$2,619
	1-1/2"	182	5.0	\$14.50	910	\$2,639
	2"	531	8.0	\$23.20	4,248	\$12,319
	3"	55	15.0	\$43.50	825	\$2,393
	4"	23	25.0	\$72.50	575	\$1,668
	6"	5	50.0	\$145.00	250	\$725
	8"	10	80.0	\$232.00	800	\$2,320
	Total Base COM	2,625			10,052	\$29,151
Industrial						
	5/8x3/4"	10	1.0	\$2.90	10	\$29
	3/4"	1	1.5	\$4.35	2	\$6
	1"	1	2.5	\$7.25	3	\$9
	1-1/2"	3	5.0	\$14.50	15	\$44
	2"	13	8.0	\$23.20	104	\$302
	3"	0	15.0	\$43.50	0	\$0
	4"	7	25.0	\$72.50	175	\$508
	6"	2	50.0	\$145.00	100	\$290
	8"	1	80.0	\$232.00	80	\$232
	10"	0	115.0	\$333.50	0	\$0
	Total Base IND	38			489	\$1,418
Public Authority						
	5/8x3/4"	19	1.0	\$2.90	19	\$55
	3/4"	0	1.5	\$4.35	0	\$0
	1"	3	2.5	\$7.25	8	\$23
	1-1/2"	10	5.0	\$14.50	50	\$145
	2"	57	8.0	\$23.20	456	\$1,322
	3"	4	15.0	\$43.50	60	\$174
	4"	3	25.0	\$72.50	75	\$218
	6"	9	50.0	\$145.00	450	\$1,305
	8"	3	80.0	\$232.00	240	\$696
	Total Base PUB	108			1,358	\$3,938
Totals		55,460			70,993	\$205,880

Aqua New Jersey, Inc. - BPU Docket No. WR24010057
 Water Systems
 Depreciation Rates

NARUC Acct#		Description	Settlement Authorized Depreciation Rates
301100	301	Organization	0.00%
302100	302	Franchises	0.00%
303210	303	Land & Land Rights-Source	0.00%
303220		Land & Land Rights-Pumping	0.00%
303300		Land & Land Rights-Treatment	0.00%
303400		Land & Land Rights-T&D	0.00%
303510		Land & Land Rights-Office	0.00%
304200	304	Structures & Imp-SoS&Pump	0.00%
304220		Structures & Imp-Pumping	1.50%
304300		Structures & Imp-Treatment	2.02%
304400		Structures & Imp-T&D	1.68%
304500		Structures & Imp-General	3.69%
304510		Structures & Imp-Gen-Office	1.64%
307200	307	Wells & Springs	1.26%
309200	309	Supply Mains	1.73%
310200	310	Power Generation Equip-Solar	2.47%
310201		Power Generation Equip-Solar	2.47%
310300		Power Generation Equip-Treat	2.47%
310400		Power Generation Equip-T&D	2.47%
311200	311	Pumping Equip-SoS&Pumping	1.36%
311250		Pumping Equip-SoS&P-Diesel	1.36%
311300		Pumping Equip-Treatment	1.83%
311400		Pumping Equip-T&D	1.83%
320300	320	Water Treatment Equipment	1.96%
320.PFAS	320	Water Treatment Equipment - PFAS	6.65%
330400	330	Dist Reservoirs & Standpipes	1.68%
330410	330	Dist Reservoirs & Standpipes - Tank Painting	7.81%
331400	331	T&D Mains	1.64%
333400	333	Services	3.27%
334400	334	Meters & Meter Installations	3.81%
334420		Meter Installations	3.47%
334430		Meters-ERT	3.49%
334440		Meters-Other	2.52%
335400	335	Hydrants	1.70%
336400	336	Backflow Prevention Devices	2.88%
339200	339	Oth Plnt & Misc Eq-SoS&Pump	2.86%
339400		Oth Plnt & Misc Eq-T&D	0.17%
340500	340	Office Furniture & Equipment	5.03%
340550		OF&E-Computer Equipment	0.00%
340600		SAP Software	6.73%
341500	341	Transportation Equipment	3.04%
342500	342	Stores Equipment	6.20%
343500	343	Tools, Shop & Garage Equip	7.08%
344500	344	Laboratory Equipment	5.69%
345500	345	Power Operated Equipment	9.75%
346500	346	Communication Equipment	6.75%
347500	347	Miscellaneous Equipment	4.42%
348500	348	Other Tangible Plant	1.22%
Total Utility Plant in Service			
Contributions in Aid of Construction & Customer Advances			<u>1.42%</u> *

* => Average of all accounts (refer to detailed rpt for specific accounts)