

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

IN THE MATTER OF THE NEW
FOUNDATIONAL FILING FOR UNITED
WATER TOMS RIVER, INC.'S
DISTRIBUTION SYSTEM IMPROVEMENT
CHARGE PURSUANT TO N.J.A.C. 14:9-10.4¹

BPU DOCKET NO. WR15091103

**STIPULATION
OF SETTLEMENT**

APPEARANCES:

Stephen B. Genzer, Esq., and Colleen A. Foley, Esq., Saul Ewing LLP, on behalf of United Water Toms River, Petitioner

Christopher M. Psihoules, Deputy Attorney General and Veronica Beke, Deputy Attorney General (John J. Hoffman, Acting Attorney General of New Jersey), on behalf of the Staff of the Board of Public Utilities

Debra F. Robinson, Esq., Deputy Rate Counsel and Christine M. Juarez, Esq., Assistant Deputy Rate Counsel, on behalf of the Division of Rate Counsel (Stefanie A. Brand, Director)

TO THE HONORABLE BOARD OF PUBLIC UTILITIES:

The Parties in this proceeding are United Water Toms River, Inc. (the “Company”, “UWTR” or “Petitioner”), the Division of Rate Counsel (“Rate Counsel”), and the Staff of the Board of Public Utilities (“Board Staff” or “Staff”). As a result of an analysis of Petitioner's Foundational Filing, as well as a discovery meeting, and a public hearing held in the service territory on November 17, 2015, the Company, Board Staff, and Rate Counsel (collectively, the “Parties”) have come to an agreement on this matter. The Parties hereto agree and stipulate as follows:

¹ Filed following In the Matter of the Petition of United Water Toms River, Inc. for Approval of an Increase in Rates For Water Service and Other Tariff Changes, BPU Docket No. 15020269.

1. Petitioner is a public utility corporation of the State of New Jersey subject to the jurisdiction of the New Jersey Board of Public Utilities. Petitioner's principal business office is located at 1451 Rt. 37, Suite 2, Toms River, NJ 08755.

2. Petitioner is engaged in the business of collecting, treating and distributing water for retail service to approximately 50,000 customers. The Company's customers are located in portions of Ocean County, New Jersey.

3. The Parties agree that the Company has satisfied the Foundational Filing requirement specified in N.J.A.C. 14:9-10.4(b). The Parties agree that as required at N.J.A.C. 14:9-10.4(c), the Company has recently concluded a base rate proceeding and implemented base rates pursuant to an Order of the Board dated August 19, 2015 in BPU Docket No. WR15020269.

4. The Parties agree that this Distribution System Improvement Charge ("DSIC") Foundational Filing is made pursuant to the Board's DSIC rules generally found at N.J.A.C. 14:9-10.4 et. seq., and was filed subsequent to, but in the context of, the Company's previous base rate case to establish a new, updated Foundational Filing. The Board approved new rates in the Company's prior base rate case effective August 29, 2015, which pursuant to the DSIC regulations, incorporated (by resetting the DSIC surcharges to zero) the Company's previous DSIC surcharges pursuant to the Company's previous Foundational Filing.

5. The Parties stipulate the projects contained in Exhibit P-1 to the Foundational Filing have been reviewed. The Parties further stipulate that the projects in Exhibit P-1 that begin construction after the Board's approval of this Foundational Filing are DSIC-eligible projects as defined at N.J.A.C. 14:9-10.2, and are eligible to be included in the Company's DSIC filings pursuant to N.J.A.C. 14:9-10.5.

6. Pursuant to N.J.A.C. 14:9-10.4(b)(1), the Company provided as Exhibit P-1 an engineering evaluation report which identifies the rationale for the work to be performed; demonstrates that the proposed plan is cost-effective; identifies elements of the distribution system that require investment including assets which might be susceptible to failure; and identifies efforts to extend the life of the distribution system assets. Pursuant to N.J.A.C. 14:9-10.4(b)(2), also included with Exhibit P-1 is DSIC project information which included the following elements:

- a. a list of DSIC-eligible projects by asset class;
- b. project descriptions, including the nature, location, estimated in-service dates, as well as the vintage and condition of the facilities being replaced or rehabilitated, estimated project costs, and descriptions and reasons for the projects; and
- c. aggregate information capturing blanket-type, DSIC-eligible infrastructure projects and the estimated annual cost of such blanket-type replacement programs.

7. Attached as Exhibit A to this Stipulation is the revised Table 1 containing more detail concerning certain projects and the renewal method which might be used for those projects.

8. The Parties agree that the Attached Exhibit B to this Stipulation accurately reflects the corrected P-3 DSIC Assessment Schedule. Pursuant to that corrected schedule, the maximum amount of Annual DSIC revenues is \$1,685,354 should the Company invest the maximum pursuant to the DSIC regulations and the Parties agree that the Board should so FIND.

9. The Parties agree that nothing in this Foundational Filing shall be considered Confidential.

10. Subject to the DSIC rules, the Parties recommend that the Board authorize the recovery in the DSIC of the revenue requirement, calculated in accordance with N.J.A.C. 14:9-10.8, of the actual costs associated with the projects contained in Exhibit P-1 and this Stipulation and that construction may begin after the Board approves this Foundational Filing. The Parties acknowledge that the Company may commence construction of some of the projects listed on Exhibit P-1 prior to the Board's approval of the Foundational Filing. In that event, the Parties agree that costs incurred for construction activities performed after the effective date of the Board's approval of the Foundational Filing may be used to satisfy the Company's base spending requirement. These costs are not, however, eligible for recovery through the DSIC charge.

11. The Parties agree that the Company's base spending requirement is \$925,424 as calculated in Exhibit P-2 of the Foundational Filing.

12. The Company agrees to continue its acoustic and other survey processes on an ongoing schedule to be discussed regularly with Staff and Rate Counsel.

13. The Company agrees to provide an expanded discussion of its project ranking system in its next Foundational Filing. The project ranking system should also include appropriate weightings for customer service based criteria like water quality complaints and low-pressure complaints.

14. The Company agrees that pressure transient assessments should be incorporated in the long term management of the system. The Company's next Foundational Filing will include a discussion of pressure transient assessments and the potential impact on water main service life.

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 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.

UNITED WATER TOMS RIVER, INC.



November 24, 2015
Date

By: _____
Saul Ewing LLP
Stephen B. Genzer, Esq.
Attorney for Petitioners

JOHN J. HOFFMAN
ACTING ATTORNEY GENERAL OF NEW JERSEY
Attorney for the Staff of the Board of Public Utilities

Date

By: _____
Christopher M. Psihoules
Deputy Attorney General

STEFANIE A. BRAND, ESQ.
DIRECTOR - RATE COUNSEL


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11/26/15
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By: 
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DIRECTOR - RATE COUNSEL

11/30/15
Date

By: 
Christine M. Juarez, Esq.
Assistant Deputy Rate Counsel

EXHIBIT A



ENGINEERING EVALUATION REPORT & DISTRIBUTION SYSTEM IMPROVEMENT CHARGE (DSIC) PROJECT INFORMATION FOR UNITED WATER TOMS RIVER

AUGUST 2015



United Water Toms River (UWTR) supplies potable water for domestic use and fire protection to residents of Toms River Township, the Borough of South Toms River, a portion of Berkeley Township, and a portion of Brick Township all in Ocean County, NJ. Figure 1 shows the location of the service area in reference to Ocean County. The Company has approximately 50,000 residential, commercial and fire protection customers, which serve about 120,000 people.

The network consists of the following:

- 531 miles of pipeline;
- 54.6% made of asbestos cement (AC);
- 43.3% made of plastic (PVC);
- 2.1% made of cast or ductile iron (CI/DI);
- 3,452 hydrants;
- 8,494 valves (system and blow-off);
- 49,830 service lines;
- One booster pump station; and
- Ten storage tanks.

UWTR is different from other northern New Jersey systems in its size and material and how the system developed over time. The system is relatively unique in its pipeline material inventory having a large percentage of asbestos cement mains. This material was the choice for main installations in the system in the 1950's, 1960's and 1970's during a time of significant growth in the region. According to a November 2010 report entitled "AC pipe in North America: inventory, breakage and working environments" by Y Hu, et al., asbestos cement was a common choice for potable water main construction from the 1940's to the 1970's.

Figure 2 illustrates pipe material by size showing that a majority of the 6" pipe throughout the distribution system is asbestos cement pipe with the balance being plastic. About half of the 4" pipe is asbestos cement. Also for 8" and 12" main, the distribution is about equally split between plastic and asbestos cement.

Figure 3 shows the age distribution of the overall system. This figure shows about equal growth for the first half of the 1960's, second half of the 1960's and the second half of the 1970's, with the first half of the 1970's showing a spike in growth. Also, of note is that the last half of the 1980's shows nearly double the growth of the previous decade.

Figure 4 illustrates the distribution of pipe size throughout the distribution system as a portion of the whole system with the length of each size.

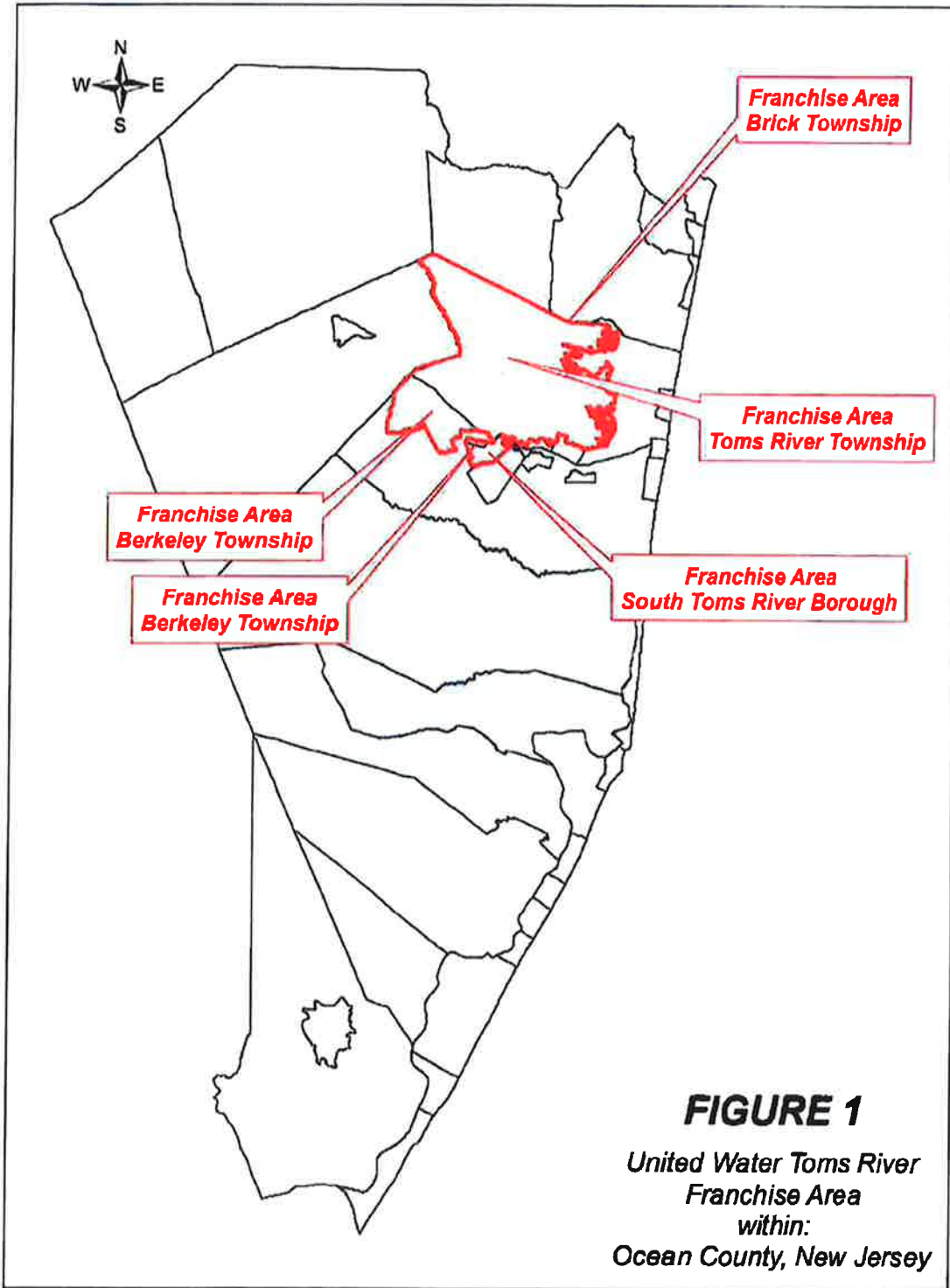




Figure 2 – Pipe Material by Size

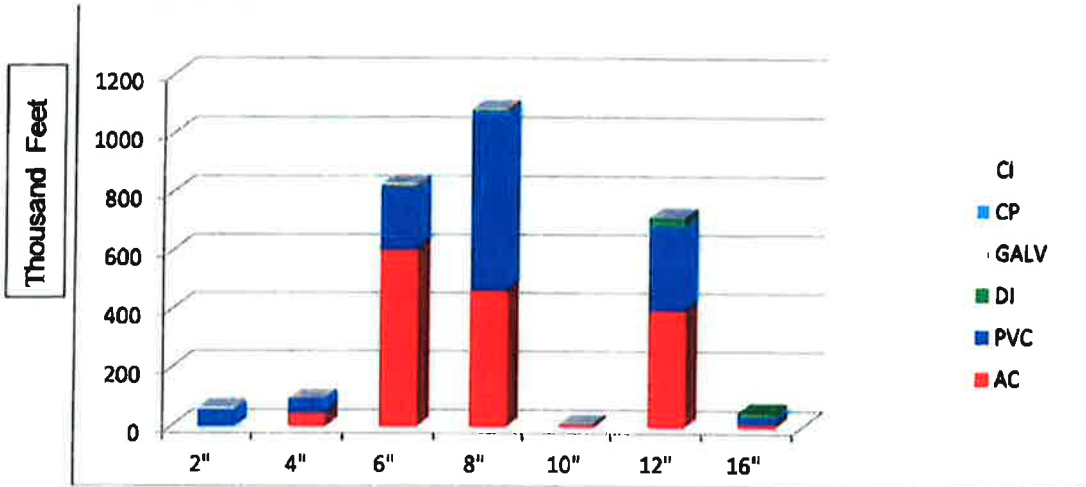
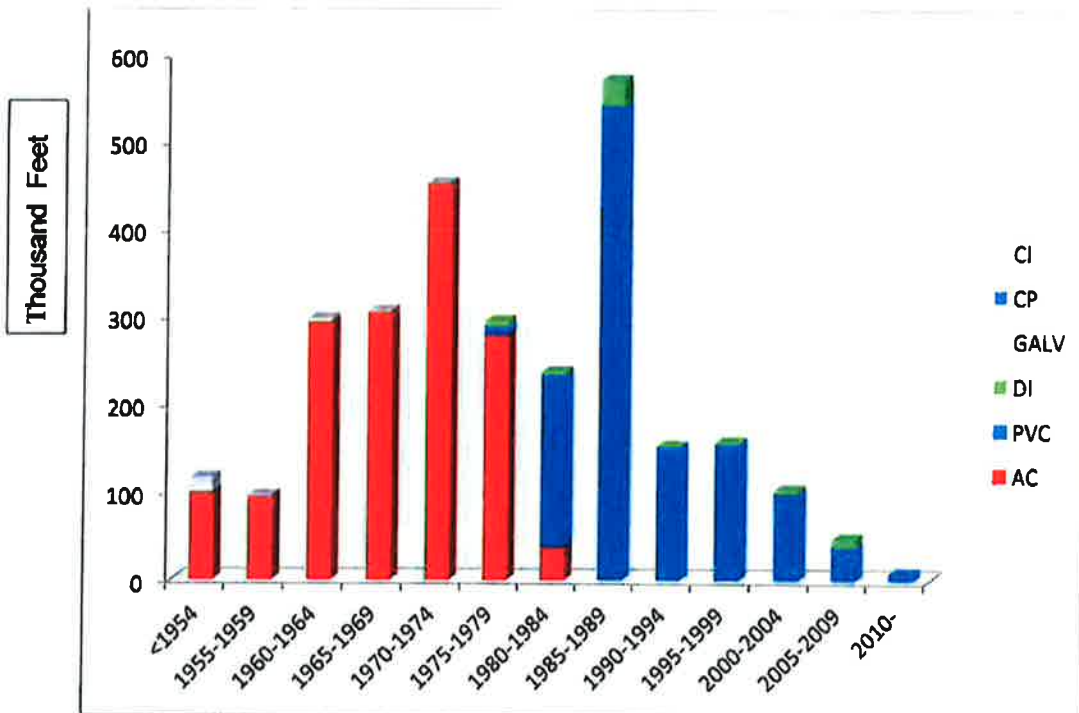
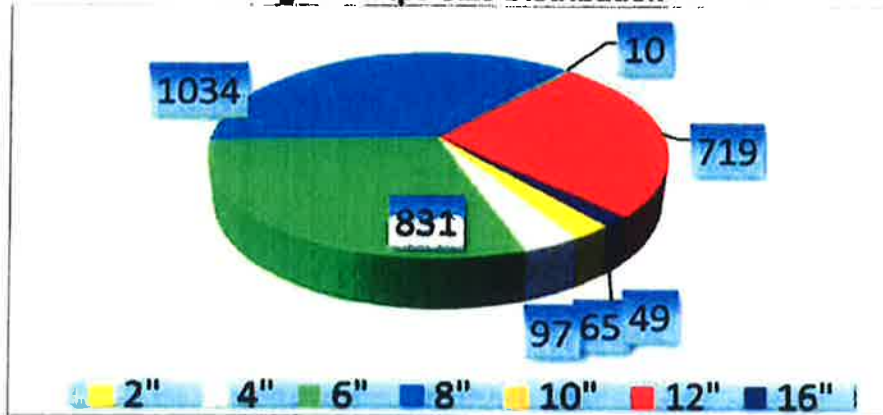


Figure 3– Pipe Age Distribution



**Figure 4 Pipe Size Distribution**

Note to Figures 2, 3 and 4: all boxes in numbers and axis represent 1000 ft of pipe

Regarding the pipe age, it is important to note that while a small percentage, there are pipes that date back to the late nineteen and early twentieth century within the older parts of the downtown area. These mains do not present significant maintenance concern, and leaks are repaired as they are identified.

As part of UWTR's 2012- 2013 Master Planning process, the Company initiated an assessment of the physical characteristics of the asbestos cement water mains within the Company's system using non-destructive acoustical analysis. This initiative is being implemented in order to contribute to the decision making protocol for pipeline replacement. Starting out with a relatively small study of nearly 28,000 feet, the non-destructive study allows pipe assessments with state of the art technology. Additionally, the initial assessment has enabled the Company to perform key main assessments used to identify the 2014 improvements while also gaining the experience necessary to prepare for the annual assessments operationally and integrate the results into a meaningful plan of action.

The initial results show the rate of degradation of asbestos cement is fairly similar throughout the distribution system, so that over the same number of years, the asbestos cement material will degrade at a somewhat similar rate. However, since the six inch pipe is starting with a thinner pipe, these sections are more likely to reach the end of the useful life sooner than an eight or twelve inch pipe. While this generality seems to be fairly effective for high level planning purposes, the difference in structural thickness could be twenty years between using the average degradation rate and the acoustical evaluation method. Thus, the acoustical methods of evaluation and remaining service life estimates will allow for proper timing of specific asbestos cement main replacements and most the most efficient use of replacement main capital dollars.

The 2015 Master Plan update (not finalized) continued the Company's assessment of water main criticality. Coupled with the information obtained from the preparation of the 2013 Master Planning Process and the completion of an asbestos cement water main break curve analysis, critical



infrastructure has been identified for replacement. The analysis used the following Factors and Weights to determine likelihood of failure:

Likelihood of Failure

| Factor | Weight |
|--------------------------|------------|
| 1. Pipe Material: | 15% |
| 2. Year of Installation: | 15% |
| 3. Traffic Load: | 5% |
| 4. Peak Day Pressure: | 15% |
| 5. Main Break Hot Spots: | 35% |
| 6. <u>Diameter:</u> | <u>15%</u> |
| Total | 100% |

Consequence of Failure

| Factor | Weight |
|------------------------------|------------|
| 1. Diameter: | 30% |
| 2. Critical Customers: | 50% |
| 3. <u>Repair Difficulty:</u> | <u>20%</u> |
| Total | 100% |

The weights and factors are based upon experience with main breaks for the United Water Toms River system. Multiple iterations of the analysis were completed and the weights were revised based on the break curve analysis completed previously and utilizing engineering judgment.

It should be noted that in addition to the structural thickness, soil conditions, depth of bury, and anticipated live loading are important factors impacting the remaining service life, and have been incorporated into main replacement selection. Shallow mains are most susceptible to live load pressures, and the analyses reveal that these mains are critical about ten to twenty years sooner compared to deeper bury mains.

Using the acoustical analysis completed as a guide, in 2013 - 2014, approximately 2% of the system has reached its useful life. For asbestos cement, the analyses are dependent upon the structural thickness of the pipe and the loads placed upon it. The plan is to continue to assess the condition of the asbestos cement pipe, but if the early assessments are any indication of the future life, by 2033, this number will rise to approximately 25%.

Main replacement projects are coordinated with the Townships and County so that to the greatest extent possible, we are assessing the water main condition and the timing of the Township paving and drainage projects to expend capital in the most effective manner and to reduce the impact to customers as much as feasible. Over the five year period, there may be some substitutions of main replacements when it is effective and efficient to do so in response to the Township and County paving program. The Township of Toms River has committed to performing the final pavement and has extended relief in temporary pavement conditions as well on the main replacements that are within the Township paving program. The Company will endeavor to coordinate in the same manner



with South Toms River as well. Berkeley Township mains have additional useful life. Table 1 lists all main replacements planned for the end of 2015 through 2020. Main size is another criterion used for replacement since fire protection is compromised in locations with significant amount of 4" main. The selected mains are both aged and small.

UWTR maintains a hydrant and valve testing program to identify where regular maintenance work may be required to prevent valve or hydrant failure. While, not necessary to operate all valves and hydrants annually, UWTR operates on average 3,000 system valves, and approximately 2,500 hydrants, representing over 35 percent and 72 percent respectively, annually. The Company replaces deteriorated, damaged, and un-repairable valves to improve customer service and maintain system integrity. UWTR exercises all system blow-off valves at least every year. Interconnections are tested every year including operating the valves and visually observing water flow through the system. UWTR works closely with the towns it serves to resolve any concerns that may arise during the use of its hydrants during firefighting efforts and training or during authorized hydrant usage. Additionally, United Water has a flow testing program that it conducts on an annual basis so that at least fifty hydrants are flow tested each year. These hydrants are selected based upon requests from developers and Insurance Services Office, as well as those selected internally for investigation. United Water personnel conduct tests and share results with the appropriate departments.

UWTR manages "blanket projects" for hydrant, short main and valve, domestic service, and fire service replacement projects. Short main replacement projects are classified as those major main breaks requiring the replacement of existing water pipe. United Water maintains this formatting for controlling and tracking capital costs as it is not possible to pre-determine the quantity of such replacements or where these replacements will be needed. The average expenditures for these projects can be seen in Table 2.



Table 1 - United Water Toms River - Main Replacement Projects - D600

Replace asbestos concrete mains with fifteen years or less remaining service life selected either from mains that have been condition assessed from a list of roads on the Townships road replacement and renewal program, or through an analysis of aged, asbestos cement, small diameter mains in high density zoning. For 2016 most of the roads slated for replacement have been determined by the Township Engineer's through the annual roadway assessment. For subsequent years, the main replacements have been selected based upon main size, age and housing density and analysis completed for Master Plan Amendment. On an annual basis, this list will be reassessed using various tools including the accoustical analysis, operational data, and pavement schedules due to moratoriums. This list represents the type, character and length of mains to be replaced through this program.

| Project Limits | Project Number | Project No. Ext | Town | Original Main | | | Length | Proposed Main | | Install Year | Est. Cost | Performance Criteria | Renewal Method |
|-----------------------------|----------------|-----------------|------------|---------------|----------|----------------|--------|---------------|----------|--------------|------------|----------------------|-----------------------|
| | | | | Size | Material | Year Inst. | | Size | Material | | | | |
| Lockout Drive | C16D601 | 0.01 | Toms River | 8 | AC | 1963 thru 1967 | 1800 | 8 | DI | 2016 | \$ 360,000 | Age and Material | Lining or Replacement |
| Starboard Court | C16D601 | 0.02 | Toms River | 6 | AC | 1965 | 1150 | 6 | DI | 2016 | \$ 230,000 | Age and Material | Lining or Replacement |
| Compass Court | C16D601 | 0.03 | Toms River | 6 | AC | 1967 | 1150 | 6 | DI | 2016 | \$ 230,000 | Age and Material | Lining or Replacement |
| Ensign Court | C16D601 | 0.04 | Toms River | 6 | AC | 1970 | 1150 | 6 | DI | 2016 | \$ 230,000 | Age and Material | Lining or Replacement |
| Indian Head Road | C16D601 | 0.06 | Toms River | 12 | AC | 1966 | 2400 | 16 | DI | 2016 | \$ 660,000 | Age and Material | Replacement |
| Route 9 Crossing And Lining | C16D601 | 0.07 | Toms River | 12/16 | AC | 1966 | 975 | 16 | DI | 2016 | \$ 285,000 | Age and Material | Replacement |



Table 1 - United Water Toms River - Main Replacement Projects - DSIC

Replace asbestos concrete mains with fifteen years or less remaining service life selected either from mains that have been condition assessed from a list of roads on the Townships road replacement and renewal program, or through an analysis of aged, asbestos cement, small diameter mains in high density zoning. For 2016 most of the roads slated for repavement have been determined by the Township Engineer's through the annual roadway assessment. For subsequent years, the main replacements have been selected based upon main size, age and housing density and analysis completed for Master Plan Amendment. On an annual basis, this list will be reassessed using various tools including the accoustical analysis, operational data, and pavement schedules due to moratoriums. This list represents the type, character and length of mains to be replaced through this program.

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|-------------------|----------------|-----------------|------------|---------------|----------|------------|--------|---------------|----------|------------|----------------------|----------------|
| | | | | Size | Material | Year Inst. | | Size | Material | | | |
| HOLLY ST | C16D601 | 0.08 | Toms River | 4 | AC | 1950 | 700 | 6 | DI | \$ 158,000 | Age and Material | Replacement |
| Hollywood Avenue | C16D601 | 0.09 | Toms River | 6 | AC | 1954 | 1600 | 8 | DI | \$ 360,000 | Age and Material | Replacement |
| Vine Avenue | C16D601 | 0.10 | Toms River | 6 | AC | 1958 | 1600 | 8 | DI | \$ 360,000 | Age and Material | Replacement |
| Helen Street | C16D601 | 0.11 | Toms River | 6 | AC | 1955 | 850 | 8 | DI | \$ 192,000 | Age and Material | Replacement |
| South Shore Drive | C17D601 | 0.01 | Toms River | 6 | AC | 1965 | 2750 | 8 | DI | \$ 627,000 | Age and Material | Replacement |
| South Shore Drive | C17D601 | 0.02 | Toms River | 6 | AC | 1965 | 2500 | 8 | DI | \$ 570,000 | Age and Material | Replacement |



Table 1 - United Water Toms River - Main Replacement Projects - D600

Replace asbestos concrete mains with fifteen years or less remaining service life selected either from mains that have been condition assessed from a list of roads on the Townships road replacement and renewal program, or through an analysis of aged, asbestos cement, small diameter mains in high density zoning. For 2016 most of the roads slated for repavement have been determined by the Township Engineer's through the annual roadway assessment. For subsequent years, the main replacements have been selected based upon main size, age and housing density and analysis completed for Master Plan Amendment. On an annual basis, this list will be reassessed using various tools including the accoustical analysis, operational data, and pavement schedules due to moratoriums. This list represents the type, character and length of mains to be replaced through this program.

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|----------------|----------------|-----------------|------------|---------------|----------|------------|--------|---------------|----------|--------------|------------|----------------------|----------------|
| | | | | Size | Material | Year Inst. | | Size | Material | | | | |
| Crammoor | C17D601 | 0.03 | Toms River | 6 / 8 | AC | 1950 | 2300 | 8 | DI | 2017 | \$ 525,000 | Age and Material | Replacement |
| Holly Brook | C17D601 | 0.04 | Toms River | 6 | AC | 1956 | 500 | 6 | DI | 2017 | \$ 114,000 | Age and Material | Replacement |
| HYERS ST | C17D601 | 0.05 | Toms River | 4 | AC | 1950 | 1400 | 6 | DI | 2017 | \$ 320,000 | Age and Material | Replacement |
| Middle Drive | C17D601 | 0.06 | Toms River | 6 | AC | 1965 | 475 | 6 | DI | 2017 | \$ 109,000 | Age and Material | Replacement |
| SEWARD AVE | C17D601 | 0.07 | Toms River | 4 | AC | 1950 | 850 | 6 | DI | 2017 | \$ 194,000 | Age and Material | Replacement |
| FRANKLIN AVE | C17D601 | 0.08 | Toms River | 8 | AC | 1958 | 1000 | 8 | DI | 2017 | \$ 228,000 | Age and Material | Replacement |



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|------------------|----------------|-----------------|------------|---------------|----------|----------------|--------|---------------|----------|--------------|------------|----------------------|----------------|
| | | | | Size | Material | Year Inst. | | Size | Material | | | | |
| WATER ST | C17D601 | 0.09 | Toms River | 4 | AC | 1950 | 500 | 6 | DI | 2017 | \$ 114,000 | Age and Material | Replacement |
| CENTRAL AVE | C17D601 | 0.10 | Toms River | 4 | AC | 1950 thru 1966 | 450 | 6 | DI | 2017 | \$ 103,000 | Age and Material | Replacement |
| BACHELOR ST | C17D601 | 0.11 | Toms River | 4 | AC | 1950 thru 1964 | 400 | 6 | DI | 2017 | \$ 92,000 | Age and Material | Replacement |
| Marian Street | C18D601 | 0.01 | Toms River | 6 | AC | 1956 thru 1969 | 2300 | 8 | DI | 2018 | \$ 529,000 | Age and Material | Replacement |
| Lafayette Avenue | C18D601 | 0.02 | Toms River | 6 | AC | 1952 | 2050 | 8 | DI | 2018 | \$ 472,000 | Age and Material | Replacement |
| MAIDEN LA | C18D601 | 0.03 | Toms River | 4 | AC | 1950 | 650 | 6 | DI | 2018 | \$ 150,000 | Age and Material | Replacement |



Table 1 - United Water Toms River - Main Replacement Projects - D600

Replace asbestos concrete mains with fifteen years or less remaining service life selected either from mains that have been condition assessed from a list of roads on the Townships road replacement and renewal program, or through an analysis of aged, asbestos cement, small diameter mains in high density zoning. For 2016 most of the roads slated for replacement have been determined by the Township Engineer's through the annual roadway assessment. For subsequent years, the main replacements have been selected based upon main size, age and housing density and analysis completed for Master Plan Amendment. On an annual basis, this list will be reassessed using various tools including the accountical analysis, operational data, and pavement schedules due to moratoriums. This list represents the type, character and length of mains to be replaced through this program.

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|----------------|----------------|-----------------|------------|---------------|----------|----------------|---------------|------|----------|-----------|----------------------|------------------|--------------|
| | | | | Size | Material | Year Inst. | Length | Size | Material | | | | Install Year |
| BROOKS DR | C18D601 | 0.04 | Toms River | 4 | AC | 1950 | 300 | 6 | DI | 2018 | \$ 69,000 | Age and Material | Replacement |
| MESSENGER ST | C18D601 | 0.05 | Toms River | 4 | AC | 1950 | 1000 | 6 | DI | 2018 | \$ 230,000 | Age and Material | Replacement |
| SNYDER ST | C18D601 | 0.06 | Toms River | 4 | AC | 1950 | 500 | 6 | DI | 2018 | \$ 115,000 | Age and Material | Replacement |
| MADISON AVE | C18D601 | 0.07 | Toms River | 4 | AC | 1950 | 1600 | 6 | DI | 2018 | \$ 368,000 | Age and Material | Replacement |
| GRAND AVE | C18D601 | 0.08 | Toms River | 4 | AC | 1952 thru 1954 | 1000 | 6 | DI | 2018 | \$ 230,000 | Age and Material | Replacement |
| HADLEY AVE | C18D601 | 0.09 | Toms River | 4 | AC | 1950 thru 1964 | 300 | 6 | DI | 2018 | \$ 69,000 | Age and Material | Replacement |



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|-------------------|----------------|-----------------|------------|---------------|----------|----------------|--------|---------------|----------|--------------|------------|----------------------|----------------|
| | | | | Size | Material | Year Inst. | | Size | Material | | | | |
| HAINES COVE DR | C18D601 | 0.10 | Toms River | 4 | AC | 1963 | 300 | 6 | DI | 2018 | \$ 69,000 | Age and Material | Replacement |
| GRANT AVE | C18D601 | 0.11 | Toms River | 2 / 6 | GAL/AC | 1950 thru 1952 | 1700 | 8 | DI | 2018 | \$ 391,000 | Age and Material | Replacement |
| GRANT AVE | C18D601 | 0.12 | Toms River | 8 | AC | 1953 | 1400 | 8 | DI | 2018 | \$ 322,000 | Age and Material | Replacement |
| N. CENTRAL AVE | C19D601 | 0.01 | Toms River | 4 / 6 | AC | 1950 thru 1964 | 2200 | 8 | DI | 2019 | \$ 517,000 | Age and Material | Replacement |
| HEDGE ST | C19D601 | 0.02 | Toms River | 4 | AC | 1950 thru 1955 | 450 | 6 | DI | 2019 | \$ 106,000 | Age and Material | Replacement |
| Wake Forest Drive | C19D601 | 0.03 | Toms River | 6 | AC | 1969 thru 1972 | 700 | 8 | DI | 2019 | \$ 165,000 | Age and Material | Replacement |



Table 1 - United Water Toms River - Main Replacement Projects - D600

Replace asbestos concrete mains with fifteen years or less remaining service life selected either from mains that have been condition assessed from a list of roads on the Townships road replacement and renewal program, or through an analysis of aged, asbestos cement, small diameter mains in high density zoning. For 2016 most of the roads slated for replacement have been determined by the Township Engineer's through the annual roadway assessment. For subsequent years, the main replacements have been selected based upon main size, age and housing density and analysis completed for Master Plan Amendment. On an annual basis, this list will be reassessed using various tools including the accoustical analysis, operational data, and pavement schedules due to moratoriums. This list represents the type, character and length of mains to be replaced through this program.

| Project Limits | Project Number | Project No. Ext | Town | Original Main | | | Length | Proposed Main | | Install Year | Est. Cost | Performance Criteria | Renewal Method |
|----------------|----------------|-----------------|------------|---------------|----------|----------------|--------|---------------|----------|--------------|------------|----------------------|----------------|
| | | | | Size | Material | Year Inst. | | Size | Material | | | | |
| Barnes Lane | C19D601 | 0.04 | Toms River | 6 | AC | 1975 | 800 | 8 | DI | 2019 | \$ 188,000 | Age and Material | Replacement |
| Alden Drive | C19D601 | 0.05 | Toms River | 6 | AC | 1966 thru 1969 | 1050 | 8 | DI | 2019 | \$ 247,000 | Age and Material | Replacement |
| Colfax Street | C19D601 | 0.06 | Toms River | 4 | AC | 1950 | 500 | 6 | DI | 2019 | \$ 118,000 | Age and Material | Replacement |
| Dean Street | C19D601 | 0.07 | Toms River | 6 | AC | 1953 thru 1956 | 700 | 8 | DI | 2019 | \$ 165,000 | Age and Material | Replacement |
| Dunham Avenue | C19D601 | 0.08 | Toms River | 4 | AC | 1950 thru 1952 | 500 | 6 | DI | 2019 | \$ 118,000 | Age and Material | Replacement |
| UNION ST | C19D601 | 0.09 | Toms River | 4 | AC | 1950 | 600 | 6 | DI | 2019 | \$ 141,000 | Age and Material | Replacement |



Table 1 - United Water Toms River - Main Replacement Projects - D600

Replace asbestos concrete mains with fifteen years or less remaining service life selected either from mains that have been condition assessed from a list of roads on the Townships road replacement and renewal program, or through an analysis of aged, asbestos cement, small diameter mains in high density zoning. For 2016 most of the roads slated for replacement have been determined by the Township Engineer's through the annual roadway assessment. For subsequent years, the main replacements have been selected based upon main size, age and housing density and analysis completed for Master Plan Amendment. On an annual basis, this list will be reassessed using various tools including the accoustical analysis, operational data, and pavement schedules due to moratoriums. This list represents the type, character and length of mains to be replaced through this program.

| Project Limits | Project Number | Project No. Ext | Town | Original Main | | | Length | Proposed Main | | Install Year | Est. Cost | Performance Criteria | Renewal Method |
|--------------------|----------------|-----------------|------------|---------------|----------|----------------|--------|---------------|----------|--------------|------------|----------------------|----------------|
| | | | | Size | Material | Year Inst. | | Size | Material | | | | |
| Robbins Parkway | C19D601 | 0.10 | Toms River | 4 | AC | 1950 | 500 | 6 | DI | 2019 | \$ 118,000 | Age and Material | Replacement |
| TERRACE AVE | C19D601 | 0.11 | Toms River | 4 | AC | 1950 thru 1964 | 500 | 6 | DI | 2019 | \$ 118,000 | Age and Material | Replacement |
| Coral Bell Hollow | C19D601 | 0.12 | Toms River | 6 | AC | 1969 | 850 | 8 | DI | 2019 | \$ 200,000 | Age and Material | Replacement |
| Golden Glow Circle | C19D601 | 0.13 | Toms River | 6 | AC | 1971 | 1300 | 8 | DI | 2019 | \$ 306,000 | Age and Material | Replacement |
| Hummingbird Lane | C19D601 | 0.14 | Toms River | 6 | AC | 1969 | 900 | 8 | DI | 2019 | \$ 212,000 | Age and Material | Replacement |
| Morningside Drive | C19D601 | 0.15 | Toms River | 6 | AC | 1960 thru 1964 | 1300 | 8 | DI | 2019 | \$ 306,000 | Age and Material | Replacement |



Table 1 - United Water Toms River - Main Replacement Projects - D600

Replace asbestos concrete mains with fifteen years or less remaining service life selected either from mains that have been condition assessed from a list of roads on the Townships road replacement and renewal program, or through an analysis of aged, asbestos cement, small diameter mains in high density zoning. For 2016 most of the roads slated for repavement have been determined by the Township Engineer's through the annual roadway assessment. For subsequent years, the main replacements have been selected based upon main size, age and housing density and analysis completed for Master Plan Amendment. On an annual basis, this list will be reassessed using various tools including the acoustical analysis, operational data, and pavement schedules due to moratoriums. This list represents the type, character and length of mains to be replaced through this program.

| Project Limits | Project Number | Project No. Ext | Town | Original Main | | | Length | Proposed Main | | Install Year | Est. Cost | Performance Criteria | Renewal Method |
|----------------|----------------|-----------------|------------|---------------|----------|----------------|--------|---------------|----------|--------------|------------|----------------------|----------------|
| | | | | Size | Material | Year Inst. | | Size | Material | | | | |
| Ross Street | C20D601 | 0.01 | Toms River | 6 | AC | 1961 | 800 | 8 | DI | 2020 | \$ 191,000 | Age and Material | Replacement |
| Hirnd's Road | C20D601 | 0.02 | Toms River | 6 | AC | 1966 thru 1972 | 1500 | 8 | DI | 2020 | \$ 357,000 | Age and Material | Replacement |
| Cheddar Pink | C20D601 | 0.03 | Toms River | 6 | AC | 1969 | 350 | 8 | DI | 2020 | \$ 84,000 | Age and Material | Replacement |
| SPRUCE ST | C20D601 | 0.04 | Toms River | 4 | AC | 1950 thru 1968 | 500 | 6 | DI | 2020 | \$ 119,000 | Age and Material | Replacement |
| HADLEY AVE | C20D601 | 0.05 | Toms River | 4 | AC | 1950 thru 1954 | 300 | 6 | DI | 2020 | \$ 72,000 | Age and Material | Replacement |
| FAIRWAY DR | C20D601 | 0.06 | Toms River | 4 | AC | 1950 | 1100 | 6 | DI | 2020 | \$ 262,000 | Age and Material | Replacement |



Table 1 - United Water Toms River - Main Replacement Projects - D600

Replace asbestos concrete mains with fifteen years or less remaining service life selected either from mains that have been condition assessed from a list of roads on the Townships road replacement and renewal program, or through an analysis of aged, asbestos cement, small diameter mains in high density zoning. For 2016 most of the roads slated for repavement have been determined by the Township Engineer's through the annual roadway assessment. For subsequent years, the main replacements have been selected based upon main size, age and housing density and analysis completed for Master Plan Amendment. On an annual basis, this list will be reassessed using various tools including the accoustical analysis, operational data, and pavement schedules due to moratoriums. This list represents the type, character and length of mains to be replaced through this program.

| Project Limits | Project Number | Project No. Ext | Town | Original Main | | | Length | Proposed Main | | Install Year | Est. Cost | Performance Criteria | Renewal Method |
|----------------|----------------|-----------------|------------|---------------|----------|------------|--------|---------------|----------|--------------|------------|----------------------|----------------|
| | | | | Size | Material | Year Inst. | | Size | Material | | | | |
| MESSENGER ST | C20D601 | 0.07 | Toms River | 4 | AC | 1950 | 950 | 6 | DI | 2020 | \$ 227,000 | Age and Material | Replacement |
| THOMAS ST | C20D601 | 0.08 | Toms River | 4 | AC | 1950 | 400 | 6 | DI | 2020 | \$ 96,000 | Age and Material | Replacement |
| BROAD STREET | C20D601 | 0.09 | Toms River | 4 | AC | 1950 | 1000 | 6 | DI | 2020 | \$ 238,000 | Age and Material | Replacement |
| PARK STREET | C20D601 | 0.10 | Toms River | 4 | AC | 1950 | 950 | 6 | DI | 2020 | \$ 227,000 | Age and Material | Replacement |
| DOVER STREET | C20D601 | 0.11 | Toms River | 4 | AC | 1950 | 750 | 6 | DI | 2020 | \$ 179,000 | Age and Material | Replacement |
| UNION STREET | C20D601 | 0.12 | Toms River | 4 | AC | 1950 | 600 | 6 | DI | 2020 | \$ 143,000 | Age and Material | Replacement |
| WALTON STREET | C20D601 | 0.13 | Toms River | 4 | AC | 1950 | 500 | 6 | DI | 2020 | \$ 119,000 | Age and Material | Replacement |



Table 1 - United Water Toms River - Main Replacement Projects - D600

Replace asbestos concrete mains with fifteen years or less remaining service life selected either from mains that have been condition assessed from a list of roads on the Townships road replacement and renewal program, or through an analysis of aged, asbestos cement, small diameter mains in high density zoning. For 2016 most of the roads slated for repavement have been determined by the Township Engineer's through the annual roadway assessment. For subsequent years, the main replacements have been

| Project Limits | Project Number | Project No. Ext | Town | Original Main | | | Length | Proposed Main | | Install Year | Est. Cost | Performance Criteria | Renewal Method |
|----------------|----------------|-----------------|------------|---------------|----------|----------------|--------|---------------|----------|--------------|------------|----------------------|----------------|
| | | | | Size | Material | Year Inst. | | Size | Material | | | | |
| FAIRACRES DR | C17D601 | 0.14 | Toms River | 4 | AC | 1952 thru 1958 | 1300 | 6 | DI | 2020 | \$ 310,000 | Age and Material | Replacement |
| DICKINSON AVE | C18D601 | 0.15 | Toms River | 4 | AC | 1950 | 550 | 6 | DI | 2020 | \$ 131,000 | Age and Material | Replacement |
| Lucy Lane | C20D601 | 0.16 | Toms River | 6 | AC | 1960 thru 1962 | 400 | 8 | DI | 2020 | \$ 96,000 | Age and Material | Replacement |
| Onyx Drive | C20D601 | 0.17 | Toms River | 6 | AC | 1968 | 900 | 8 | DI | 2020 | \$ 215,000 | Age and Material | Replacement |



| Table 2 - United Water Toms River Blanket Project Details | | | | | |
|--|-------------------|-------------------|-------------------|-------------------|-------------------|
| DSIC Classification | 2016 | 2017 | 2018 | 2019 | 2020 |
| Hydrant Replacement - D501 | \$ 127,300 | \$ 128,100 | \$ 127,100 | \$ 128,300 | \$ 127,800 |
| Short Main & Valve Replacement - D502 | \$ 397,700 | \$ 400,300 | \$ 397,100 | \$ 400,800 | \$ 399,400 |
| Domestic Services - F501 | \$ 1,533,900 | \$ 1,315,200 | \$ 1,304,800 | \$ 1,317,100 | \$ 1,312,200 |

Blanket projects will be undertaken throughout the three municipalities within the service area.

Table 3 is a summary of all DSIC eligible expenditures by year.

| Table 3 - United Water Toms River Summary of DSIC Planned Expenditures | | | | | |
|---|---------------------|---------------------|---------------------|---------------------|---------------------|
| DSIC Classification | 2016 | 2017 | 2018 | 2019 | 2020 |
| Main Replacement Projects - D600 | \$ 3,065,000 | \$ 2,996,000 | \$ 3,014,000 | \$ 3,025,000 | \$ 3,066,000 |
| Blanket Structured Projects | | | | | |
| Hydrant Replacement - D501 | \$ 127,300 | \$ 128,100 | \$ 127,100 | \$ 128,300 | \$ 127,800 |
| Short Main & Valve Replacement - D502 | \$ 397,700 | \$ 400,300 | \$ 397,100 | \$ 400,800 | \$ 399,400 |
| Domestic Services - F501 | \$ 1,533,900 | \$ 1,315,200 | \$ 1,304,800 | \$ 1,317,100 | \$ 1,312,200 |
| TOTAL | \$ 5,128,900 | \$ 4,839,600 | \$ 4,843,000 | \$ 4,871,200 | \$ 4,905,400 |

EXHIBIT B

**United Water Toms River
 DSIC Foundational Filing
 DSIC Assessment Schedule**

**Exhibit B
 Exhibit P-3
 Revised 9/29/15**

| | Total Number of Meters (3) | Meter Equivalent Ratios | Equivalent 5/8" inch Meters | Annual Maximum DSIC Amount by equivalent Meter | Maximum Monthly Charge per Meter |
|----------------|-------------------------------|-------------------------------|--------------------------------|--|--|
| Metered Sales: | | | | | |
| 5/8" | 40,106 | 1.00 | 40,106 | \$1,140,615 | \$2.37 |
| 3/4" | 6,290 | 1.50 | 9,435 | 270,973 | 3.59 |
| 1" | 1,461 | 2.50 | 3,653 | 103,965 | 5.93 |
| 1 1/2" | 259 | 5.00 | 1,295 | 36,830 | 11.85 |
| 2" | 259 | 8.00 | 2,072 | 58,928 | 18.96 |
| 3" | 59 | 15.00 | 885 | 25,169 | 35.55 |
| 4" | 40 | 25.00 | 1,000 | 28,440 | 59.25 |
| 6" | 8 | 50.00 | 400 | 11,376 | 118.50 |
| 8" | 4 | 80.00 | 320 | 9,101 | 189.60 |
| 10" | | 115.00 | | | 272.55 |
| 12" | | 165.00 | | | 391.05 |
| | <u>48,486</u> | | <u>59,166</u> | <u>\$1,685,397</u> [1] | |

\$1,685,354
 28.48518 [2]
 2.3738

[1] Approved revenues from Docket No. WR15020269 effective 8/29/15.

\$33,707,087

Five percent "DSIC Cap" per 44 NJR 1723(a)

X 5%

Maximum amount of Annual DSIC Revenues

\$1,685,354

[2] Amount per equivalent meter (\$1,685,354 /

59,166)

[3] Active meters pro forma at December 31, 2015