

State of New Jersey  
Board of Public Utilities

Middlesex Water Company  
BPU Docket No. WR2105\_\_\_\_\_

Direct Testimony  
of  
John F. Guastella  
Regarding the Cost of  
Service Study and Tariff Design  
May 2021

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

2 A. John F. Guastella, Guastella Associates, LLC, 725 N. Highway A1A, Suite B103, Jupiter,  
3 Florida 33477.

4 **Q. By whom are you employed?**

5 A. I am President of Guastella Associates, LLC.

6 **Q. Please describe Guastella Associates, LLC.**

7 A. Guastella Associates, LLC provides utility management, valuation, and rate consulting  
8 services to both regulated and unregulated utilities.

9 **Q. Have you attached a detailed statement of your qualifications and experience?**

10 A. Yes, it is set forth in Appendix A.

11 **Q. What is the nature of your involvement in this proceeding?**

12 A. Guastella Associates, LLC has been retained by Middlesex Water Company  
13 (“Middlesex” or “Company”) to perform a customer class cost allocation study (“cost of  
14 service study” or “COSS”).

15 **Q. Have you completed the cost of service study?**

16 A. Yes, Exhibit JFG-1, included as part of Exhibit P-8 to this testimony, contains detailed  
17 schedules showing the results of the study.

1 **Q. Did you prepare a similar COSS on behalf of the Company in its last three rate**  
2 **cases using the same general methodology and concepts that you described in your**  
3 **testimony in those cases?**

4 A. Yes.

5 **Q. Although presented in the previous rate cases, I will ask you to again describe the**  
6 **method and concepts for convenience to the participants in this case and to establish**  
7 **a record in this case without simply referring to your testimony in those cases.**  
8 **Accordingly, what is the objective of a cost of service study?**

9 A. The objective of a COSS is to estimate the cost of serving each class of customer and to  
10 design rates that reasonably recover those costs.

11 **Q. Why does the COSS produce an estimated instead of actual cost to serve each**  
12 **customer class?**

13 A. Of the total cost of providing water service to all customers, there are few costs that are  
14 directly identifiable with specific customer classes. Accordingly, most costs must be  
15 allocated to customer classes on the basis of considerable judgment as to allocation  
16 methods and factors that, while reasonably determined, nonetheless produce only good  
17 estimates of costs applicable to each class.

18 In addition, water systems are designed and operated to meet average and maximum  
19 demands that reflect the diversity of the demands of all customers – not all customers  
20 impose their maximum demands at the same time. Customer demands also vary in terms  
21 of total quantity for any period. For example, Middlesex’s South River Basin Customers

1           tend to have their own storage which retail customers north of the Raritan River do not  
2           have, thus they would be expected to create different usage pressures on the water system  
3           even though the ultimate users might largely be residential customers. The allocation  
4           factors, therefore, require judgment that is applied to a complex array of design criteria,  
5           operational characteristics, demand data, and voluminous accounting and billing data.  
6           The data are organized to reflect the functions for which the water system is designed and  
7           operated, recognizing that various facilities serve multiple functions. Customer class  
8           allocations are made by applying the varying consumption patterns of the different  
9           customer classes, some of which are also estimated. Moreover, it is not uncommon that  
10          the direct results of cost allocations would be adjusted to reflect various policies of the  
11          utility and its regulator and that implicates tariff design rather than cost of service.

12   **Q.    What is the cost basis for your COSS?**

13   A.    My study has been performed on the basis of the pro-forma revenue requirement and its  
14          components that the Company has used to support its revenue requirement in this case.

15   **Q.    Would you briefly describe your scope of work?**

16   A.    Yes, all source data was obtained from the Company. We examined financial and  
17          operating data, including detailed asset, revenue and expense schedules as well as  
18          production data. We examined billing data to develop a pro forma summary billing  
19          analysis under present rates and utilized that billing analysis to design rates that would  
20          recover the pro-forma revenue requirement on the basis of customer class allocations, and  
21          to reflect the policy decisions regarding the proposed rate design.

22   **Q.    Would you please describe the methodology that you used to prepare the study?**

1 A. The COSS is based on the Base-Extra Capacity method. This method, which is described  
2 and illustrated in the American Water Works Association (“AWWA”) Water Rates  
3 Manual (M-1), identifies and classifies the various cost components which comprise the  
4 revenue requirement, functionalizes those cost components according to the general  
5 design criteria and operation of a water utility, and allocates the functionalized costs  
6 among the customer classes. It also incorporates a fire service cost allocation within the  
7 format of the study.

8 **Q. How did you classify and functionalize costs?**

9 A. The Company’s investment in utility plant in service was analyzed according to the  
10 primary plant accounts contained in the Uniform System of Accounts which classifies  
11 costs into different components of the utility system. Those components are then  
12 functionalized according to the design and use of the system in meeting the demands of  
13 the customers. As discussed in greater detail below, the functions used in the Base-Extra-  
14 Capacity method are: Base, Extra Capacity Maximum Day, Extra Capacity Peak Hour,  
15 Customer (Meters/Service and Billing and Accounting), and Fire Service costs.

16 Base costs are those that tend to vary according to average use.

17 Extra Capacity Maximum Day and Extra Capacity Peak Hour are costs that tend  
18 to vary according to the maximum day or peak hour demands on the system, in excess of  
19 the average day demands.

20 Customer costs for such items as billing, accounting, and collecting do not vary  
21 with either average or maximum demands but instead according to the number of bills or

1 Equivalent Residential Connections (ERCs). Similarly, customer costs for meters and  
2 services tend to vary according to the equivalent number of such units.

3 Fire Service costs include an allocation of the Capacity of facilities needed to  
4 meet fire demands and Hydrant costs.

5 After costs have been classified and functionalized, they are allocated using the Base-  
6 Extra Capacity method to the various customer classes according to the relative average,  
7 maximum day and peak hour demands of each class and the relative bills and equivalent  
8 meters of each class.

9 **Q. Is the Base-Extra Capacity method you describe set forth in Exhibit JFG-1?**

10 A. Yes.

11 **Q. Is your COSS the basis for the proposed rates?**

12 A. I have included two rate designs: one that would recover costs as allocated through  
13 implementing the specific results of the COSS without reflecting various public policy  
14 preferences (“designed rates”) and another that reflects the Company’s proposed rate  
15 structure which takes these public policy factors into account in developing the proposed  
16 rate design. I describe below those policy variations between the purely COSS results  
17 and the proposed rate design.

18 **Q. Referring to Exhibit JFG-1, would you please describe Schedule 1?**

19 A. Schedule 1 summarizes the allocation of the revenue requirement by functional  
20 classification to the customer classes. In other words, it quantifies the portion of the

1 revenue requirement that should be recovered through rates for service from each class of  
2 customer. As shown, the customer classes include Residential, Commercial and  
3 Industrial, or collectively as General Metered Service (“GMS”) customers, and the  
4 Wholesale (Sales to Other Systems), and Fire Service.

5 **Q. Is Schedule 1 used as the cost basis to develop the rate design?**

6 A. Yes, Schedule 1 shows the revenues to be generated by each class of customer through  
7 designed rates.

8 **Q. Would you please explain how you functionalized the costs that are allocated to**  
9 **customer classes in Schedule 1?**

10 A. Yes. The allocation of the revenue requirement components to the functions is  
11 summarized in Schedule 9, which contains allocation codes that are developed in other  
12 Schedules. Schedule 10 shows the Allocation of Rate Base to Functions. Schedule 11  
13 shows the Allocation of Utility Plant in Service. Schedule 12 shows the Allocation of  
14 Accumulated Depreciation. Schedule 13 shows the Allocation of Materials and Supplies.  
15 Schedule 14 shows the Allocation of Operation and Maintenance Expense. Schedule 15  
16 shows the Allocation of Depreciation Expense.

17 **Q. How did you establish the total system demands used for the functional cost**  
18 **allocations?**

19 A. A review of the total system historical water demands supports the system demand ratios  
20 of 1.7 and 2.0 established for maximum day and peak hour demands in relation to the  
21 average day demand, respectively.

1 Schedule 17 sets forth the average day, maximum day and peak hour system demands in  
2 million gallons per day (mgd) and the ratio of each to the average day. Also shown on  
3 Schedule 17 is the fire demand which has been estimated at 12,000 gallons per minute  
4 (gpm), as well as a maximum day fire flow of 7.2 million gallons for a 10-hour duration.  
5 The 12,000gpm fire demand equates to a rate of flow of 17.28 mgd. The fire demand is  
6 based on a review of guidelines established by the Insurance Service Organization (and  
7 its predecessor, the National Board of Fire Underwriters), and judgment as to the size and  
8 characteristics of the service area, the potential for coincidental fires and/or fires at  
9 multiple locations, and the capability of providing fire flows throughout the extreme  
10 margins of the water system.

11 **Q. Have you prepared schedules that summarize and explain the functional allocation**  
12 **factors?**

13 A. Yes. Schedule 16, Page 1, contains a summary of the functional allocation factors and  
14 pages 2-6, provide explanations of each factor.

15 **Q. Having allocated costs to the various functions, did you then allocate the**  
16 **functionalized costs to the customer classes?**

17 A. Yes. Schedule 2 contains a summary of the allocation of Base-Extra-Capacity functions  
18 and total revenue requirement to the customer classes. The basis for the allocation  
19 factors takes into account that not all customers are directly served by all the Company's  
20 plant and facilities. For example, factors are developed for facilities that serve all  
21 customers as well as facilities that do not serve customers directly such as East



1 Brunswick. There are also factors for specific components of costs and expenses directly  
2 allocable to certain classes, as shown on Schedule 18, pages 1-6.

3 **Q. How did you allocate the transmission mains that serve the South River Basin**  
4 **customers?**

5 A. As in past COSS, all transmission mains were allocated according to the relative demands  
6 of all customers because Middlesex has set rates for all of its plant and facilities as an  
7 integrated system. I would point out that an “integrated” system does not only apply to  
8 the physical assets used to serve all customers both current and future, but also integrated  
9 in terms of operations, financing, and management. There is also integration in terms of  
10 rate setting and the application of rates under which new customers are charged the same  
11 rates as existing customers, not rates based on the incremental cost of adding the new  
12 customers. The existing customers therefore benefit by having the new customer share  
13 the embedded costs of providing service to all customers.

14 **Q. Have you prepared a billing analysis and revenue comparison under existing rates**  
15 **and rates that reflect your customer class allocations?**

16 A. Yes. Schedule 19, Page 1, contains a summary of projected revenues under existing and  
17 designed rates that reflect the customer class cost allocations of the pro forma revenue  
18 requirement. The overall revenue increase is 37.79%, of which a slightly higher 37.89%  
19 increase is required for sales revenue because there is no increase projected for  
20 miscellaneous revenue. Page 1 also includes the percentage changes for each customer  
21 class, based on the allocated costs. Page 2 contains the billing analyses under present and  
22 “designed” rates that reflect the results of the allocations.

1 Q. **What is the overall result of the COSS?**

2 A. The COSS shows that on a cost basis, within GMS the existing rates for the Residential  
3 class are not recovering the costs to serve that class, and the Commercial and Industrial  
4 customers are significantly subsidizing the Residential customer class. With respect to  
5 fire service, while the Private Fire service customers are continuing to pay more than  
6 their practical share of the allocated costs, the Public Fire customers are paying  
7 considerably less than their practical share of the allocated costs. With respect to the  
8 Wholesale customers, the proposed rates are consistent with the results of the COSS.  
9 Edison/Highland Park would require a 26.94% increase, East Brunswick would require a  
10 32.71% increase, Rahway would require a 49.59% increase, Old Bridge would require a  
11 52.98% increase and Marlboro would require a 59.76% rate increase, primarily caused by  
12 the high allocated increase in the transmission rate. In addition to the general service  
13 increase, the Rahway, Old Bridge and Marlboro increases include significant increases to  
14 their transmission rates resulting from the results of the COSS.

15 Q. **Are there any significant differences in the results of this COSS in comparison with**  
16 **those in the last rate case?**

17 A. No. I would note, however, that the increases to the South River Basin customers  
18 continue to be higher not because of a change in the COSS methodology, but because of  
19 significant investment by the Company in utility plant, particularly in transmission mains  
20 that directly impacts the transmission rate.

1 **Q. Has Middlesex asked you to prepare its proposed rate structure for filing purposes**  
2 **that is based on, but that differs in some ways from, the designed rates based purely**  
3 **on the results of your COSS?**

4 A. Yes.

5 **Q. Have you prepared schedules to reflect the differences between the pure COSS**  
6 **results and the Tariff Design proposed based on the policy considerations identified**  
7 **by Middlesex?**

8 A. Yes. Exhibit P-8 includes Schedule 20 that reflects alternative calculations of rates and  
9 revenues.

10 **Q. What revisions are reflected in Schedule 20?**

11 A. In accordance with the Company's rate design policy request for this case, Schedule 20  
12 reflects the elimination of separate rates among the Residential, Commercial and  
13 Industrial classes, and essentially treats General Metered Service ("GMS") as one class of  
14 customer. The fire service customer rates have also been revised to limit the rates for  
15 Public Fire service to 4% and to keep Private Fire service rates at the existing level rather  
16 than reducing those rates

17 **Q. Do you support the Company's revisions for purposes of Rate Design?**

18 A. In general, I do, because tariff design involves considerable judgment, its results are  
19 considered a start to the rate design finally implemented, not the end point. Policy  
20 decisions of the utility and its regulator that depart from pure cost allocations are not  
21 unusual and are reasonable as long as they don't result in rates, in my opinion, that are

1 “unduly” discriminatory. With respect to Middlesex’s rates and various cost  
2 components, the two major adjustments affect Fire Service and GMS customers.

3 With respect to Public Fire Service, regulators in other jurisdictions have  
4 accommodated requests by municipalities to limit rate increases for public fire service by  
5 recovering those cost through fixed service charges for smaller size meters. The GMS  
6 customers, particularly residential customers, receive the benefit of fire protection and  
7 therefore, it is appropriate for them to be allocated those costs to pay for the benefit they  
8 receive. Revising the service charges instead of usage rates accurately reflects the fact  
9 that customers who use more or less water do not receive commensurately more or less  
10 fire protection. Similarly, customers with larger meters do not receive more fire  
11 protection in proportion to the maximum demand capacities of the meter sizes, which is  
12 the basis for the higher service charges for larger size meters.

13 With respect to GMS, it is a departure from cost of service rate setting principles  
14 to design a rate structure that contains the same rates for all customer classes within  
15 GMS, with the same increases to the current fixed service charges and usage rate. I am  
16 aware that for several years the regulators in New Jersey have been reluctant to break out  
17 rates for different kinds of customers within the GMS class, so I have reflected that  
18 posture in preparing Schedule 20. The use of the same volumetric or usage rates for  
19 Residential, Commercial and Industrial classes within GMS remains problematic because  
20 it continues the clear subsidization of the Residential class by the Commercial and  
21 Industrial classes, a circumstance that apparently has evolved in the settlement of past  
22 rate cases and one that seems to increase the subsidization in each case.

1 **Q. Would you please describe Schedule 20?**

2 A. Pages 1 of 4 of Schedule 20, contains a summary of projected revenues by class of  
3 customer. The increase for GMS is 43.26% with only minor different percentage for the  
4 Residential Commercial and Industrial classes. Those differences are attributable to the  
5 allocation of the shortfall in public fire service charges, due to the 4% limit, to fixed  
6 service charges up to the 2-inch meter size, and because the percentage of revenue from  
7 service charges and usage rates differ among the classes. Page 2 contains the billing  
8 analysis showing for all classes of customer a comparison of existing and proposed rates  
9 and revenues, along with the percentage differences. Page 3 contains a detailed  
10 comparison of the existing and proposed Wholesale rates. Page 4 contains the  
11 adjustments and analysis used to convert the designed rates, as allocated, and the  
12 proposed rates.

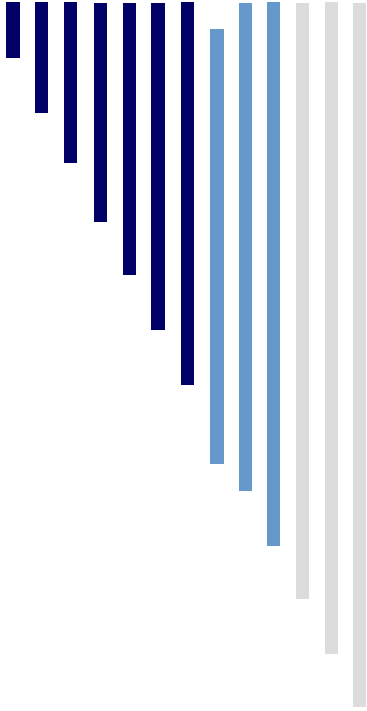
13 **Q. Does that conclude your testimony at this time?**

14 A. Yes.

# Guastella Associates, LLC

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## Qualifications & Experience



**Rate Setting**  
**Valuation**  
**Management**  
**Consulting**

*...SERVING REGULATED AND UNREGULATED WATER AND WASTEWATER UTILITIES SINCE 1978*

INTRODUCTION  
GUASTELLA ASSOCIATES, LLC

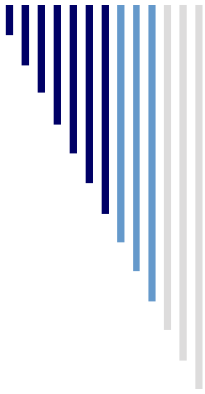
Guastella Associates, LLC (“formerly John F. Guastella Associates, Inc.”) is a consulting firm that specializes in providing utility rate setting, valuation and management services for public and privately-owned water and wastewater utilities.

John F. Guastella established Guastella Associates in 1978. Previously, Mr. Guastella was Director of the Water Division of the New York Public Service Commission. The Water Division provided the New York Commission with technical assistance in regulating the rates and service provided by approximately 450 privately-owned utilities. During the period from 1987 through 1991, Mr. Guastella also managed a 5,500 customer water utility in New York State. In 1989, Guastella Associates acquired the rates and valuation section of Coffin & Richardson, Inc., a general consulting firm that also provided a full range of services to water and wastewater utilities. Since 2009, Guastella Associates has served as the general manager of Daufuskie Island Utility Company, Inc. (“DIUC”), responsible for its day-to-day operations, billing, bookkeeping, financing, capital improvement projects and regulatory relations. DIUC provides water and wastewater service to some 550 connected customers and 600 availability customers located on Daufuskie Island, South Carolina. Guastella Associates also manages the Kiawah River Utility Company which provides wastewater services to a new development in South Carolina.

Key staff members have many years of combined experience in virtually every aspect of utility rate setting and valuation. The technical expertise of key staff, combined with their former employment by real estate and utility companies, a regulatory agency, and the management of water utilities, provides a total perspective towards addressing the rates and valuation needs of today’s water and wastewater utilities.

Guastella Associates has assisted the largest privately-owned utilities with respect to the most challenging issues, performing complex studies and providing expert testimony in administrative hearings as well as court proceedings. In addition, our client base has included hundreds of small water and wastewater utilities - - obtaining rate increases that turn operating losses into profits, posturing them for financing, correcting record keeping errors and, for some, negotiating their sale at multiples of their original cost net investment rate base. Some of our most successful assignments have been to help establish new developer-related water and wastewater utilities, applying the correct principles at the outset in order to develop fully compensatory initial rates, record keeping procedures and asset management, so they are structured to become self-sustaining utilities that will achieve the highest possible profit and ultimate market value.

Our wide-range of experience and expertise has enabled us to successfully address the special needs of large investor-owned utilities in rate cases and condemnation proceedings.



# OUTLINE OF SERVICES

## GUASTELLA ASSOCIATES, LLC

Guastella Associates, LLC (“formerly John F. Guastella Associates, Inc.”) is a consulting firm specializing in utility management, valuation, appraisals and rate determinations. Guastella Associates has been providing professional services to regulated and unregulated utilities since 1978.

Specific areas of expertise includes:

I. RATE ANALYSIS

A. Revenue Requirements

1. Examination of books and records -- revenues, expenses and capital investment.
2. Determination of the cost of providing service (revenue requirement) -- normalize historical data, establish known changes and perform projections.

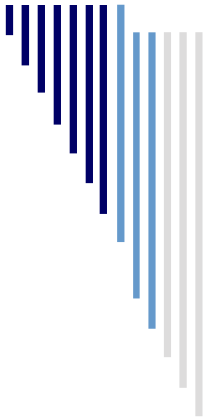
B. Rate Design

1. Perform cost allocation studies to establish cost of service for residential, commercial, industrial, wholesale and fire protection customers, and for other special users.
2. Develop rate structures -- combine billing analyses and cost allocations to form usage rates, flat rates, minimum service and facilities charges, and such other special charges as connection fees, availability rates, etc.

C. Reports

1. Investor-owned utilities -- prepare complete rate filings for submission to regulatory agencies; prepare testimony, exhibits, and assist in all aspects of adjudication process.
2. Municipal utilities -- prepare detailed rate reports in support of rate increases for use by municipal officials and presentation at municipal hearings.





# OUTLINE OF SERVICES

## GUASTELLA ASSOCIATES, LLC

### II. VALUATIONS

#### A. Appraisals

1. Eminent domain condemnation proceedings, negotiations for sale of utilities, damage claims for insurance and ad valorem tax and management purposes.
2. Determinations of original cost, replacement cost, reproduction cost and market value, including going concern value.
3. Calculation of the present value of cash flow under the income approach to market value determinations.
4. Analyses of market data under the sales comparison approach.

#### B. Depreciation

1. Actuarial studies using retirement rate or simulated plant balances methods to determine average service lives of physical property, theoretical depreciation reserve requirements and depreciation rates.
2. Establish affordable depreciation rates on the basis of comparative analyses of similar property of other utilities and practices of regulatory agencies and association

#### C. Feasibility Studies

1. Utility acquisitions by investors and municipalities.
2. Economic studies to establish extension of service costs and policy -- inside and outside service area.
3. Main extension agreements, guaranteed revenue contracts, refund provisions.

#### D. Financial Planning

1. Establish financing requirements for capital improvements.
2. Determine revenue and rate needs for various combinations of debt and equity financing.
3. Assist certain utilities in securing financing.
4. Establish financing needs, initial rates and regulatory approval of proposed new utilities.

### III. MANAGEMENT

#### A. Operations

1. Provides general management of water and wastewater utilities.
2. Assist in day-to-day decisions as to utility accounting and related impact on rates.
3. Solve problems as to record keeping in accordance with regulatory requirements and prescribed systems of accounts.
4. Establish general policy and tariff provisions for customer service, billing, collecting, meter testing, complaint handling, and customer and regulatory relations.

#### B. Administrative

1. Coordinate activities with regulatory agencies to assure compliance with rules, regulations and orders.
2. Negotiations for purchase or sale of utility property and special contracts.

#### C. Training

1. On-the-job training for employees while working on various projects.
2. Special educational seminars on all aspects of utility rate settings, financing, valuation and rules.

**PROFESSIONAL QUALIFICATIONS AND EXPERIENCE**  
**of**  
**JOHN F. GUASTELLA**

B.S., Mechanical Engineering, Stevens Institute of Technology, 1962

Member:

American Water Works Association, Lifetime Member  
National Association of Water Companies  
New England Water Works Association, Lifetime Member

Committees:

AWWA, Water Rates Committee (Water Rates Manual M-1, 1983 Edition)  
National Association of Regulatory Utility Commissioners (NARUC) and NAWC, Joint-Committee on Rate Design  
NAWC, Rates and Revenues Committee  
NAWC, Small Water Company Committee

Mr. Guastella is President of Guastella Associates, LLC (“formerly John F. Guastella Associates, Inc.”) which provides management, valuation and rate consulting services for municipal and investor-owned utilities, as well as regulatory agencies. His clients include utilities in the states of Alaska, Arizona, Arkansas, California, Connecticut, Delaware, Florida, Georgia, Idaho, Illinois, Indiana, Kentucky, Maine, Maryland, Massachusetts, Missouri, Michigan, Montana, Nevada, New Hampshire, New Jersey, New Mexico, New York, North Dakota, Ohio, Pennsylvania, Rhode Island, South Carolina, Texas, and Virginia. He has provided consulting services that include all aspects of utility regulation and rate setting, encompassing revenue requirements, revenues, operation and maintenance expenses, depreciation, taxes, return on investment, cost allocation and rate design. He has performed depreciation studies for the establishment of average service lives and depreciation rates of utility property. He has performed appraisals of utility companies for management purposes and in connection with condemnation proceedings. He has also negotiated the sale of utility companies. He directs the general management of a water and wastewater utility in South Carolina.

Mr. Guastella served for more than four years as President of Country Knolls Water Works, Inc., a water utility that served some 5,500 customers in Saratoga County, New York. He also served as a member of the Board of Directors of the National Association of Water Companies.

Mr. Guastella has qualified and testified as an expert witness before regulatory agencies and municipal jurisdictions in the states of Alaska, Arizona, California, Connecticut, Delaware, Florida, Georgia, Illinois, Kentucky, Indiana, Maryland, Massachusetts, Missouri, Montana, Nevada, New Hampshire, New Mexico, New Jersey, New York, North Dakota, Ohio, Pennsylvania, Rhode Island, South Carolina, Texas and Virginia.

Prior to establishing his own firm, Mr. Guastella was employed by the New York State Public Service Commission for sixteen years. For two years he was involved in the regulation of electric and gas utilities, with the remaining years devoted to the regulation of water utilities. In 1970, he was promoted to Chief of Rates and Finance in the Commission's Water Division. In 1972, he was made Assistant Director of the Water Division. In 1974, he was appointed by Alfred E. Kahn, then Chairman of the Commission, to be Director of the Water Division, a position he held until he resigned from the Commission in August 1978.

At the Commission, his duties included the performance and supervision of engineering and economic studies concerning rates and service of many public utilities. As Director of the Water Division, he was responsible for the regulation of more than 450 water companies in New York State and headed a professional staff of 32 engineers and three technicians. A primary duty was to attend Commission sessions and advise the Commission during its decision making process. In the course of that process, an average of about fifty applications per year would be reviewed and analyzed. The applications included testimony, exhibits and briefs

involving all aspects of utility valuation and rate setting. He also made legislative proposals and participated in drafting Bills that were enacted into law: one expanded the N.Y. Public Service Commission's jurisdiction over small water companies and another dealt specifically with rate regulation and financing of developer-related water systems.

In addition to his employment and client experience, Mr. Guastella served as Vice-Chairman of the Staff-Committee on Water of the National Association of Regulatory Utility Commissioners (NARUC). This activity included the preparation of the "Model Record-Keeping Manual for Small Water Companies," which was published by the NARUC. This manual provides detailed instruction on the kinds of operation and accounting records that should be kept by small water utilities, and on how to use those records.

Each year since 1974 he has prepared study material, assisted in program coordination and served as an instructor at the Eastern Annual Seminar on Water Rate Regulation sponsored over the years by the NARUC in conjunction with the University of South Florida, Florida Atlantic University, the University of Utah, Florida State University, the University of Florida, Michigan State University, and currently by NARUC directly. In 1980 he was instrumental in the establishment of the Western NARUC Rate Seminar and has annually served as an instructor since that time. This course is recognized as one of the best available for teaching rate-setting principles and methodology. More than 8,000 students have attended this course, including regulatory staff, utility personnel and members of accounting, engineering, legal and consulting firms throughout the country.

Mr. Guastella served as an instructor and panelist in a seminar on water and wastewater regulation conducted by the Independent Water and Sewer Companies of Texas. In 1998, he prepared and conducted a seminar on basic rate regulation on behalf of the New England Chapter of the National Association of Water Companies. In 2000 and 2001, Mr. Guastella developed and conducted a special seminar for developer related water and wastewater utilities in conjunction with Florida State University, and again in 2003 in conjunction with the University of Florida. It provided essential training for the financial structuring of small water and wastewater utilities, rate setting, financing and the establishment of their market value in the event of a negotiated sale or condemnation. In 2004, he prepared and conducted a special workshop seminar on behalf of the Office of Regulatory Staff of South Carolina, covering rate setting, valuation and general regulation of water and wastewater utilities. In 2006, he participated in an expert workshop on full cost pricing conducted by the U. S. Environmental Protection Agency in coordination with the Institute of Public Utilities, Michigan State University. In 2006 and again in 2013, he prepared and conducted a special seminar on rate setting and valuation on behalf of the New York Chapter of the NAWC. In 2007 and again in 2015, he prepared and conducted a special seminar on rate setting and valuation on behalf of the New England Chapter of NAWC.

Mr. Guastella has made presentations on a wide variety of rate, valuation and regulatory issues at meetings of the National Association of Regulatory Utility Commissioners, the American Water Works Association, the New England Water Works Association, the National Association of Water Companies, the New England Conference of Public Utilities Commissioners, the Florida, New England, New Jersey and New York Chapters of NAWC, the Mid-America Regulatory Conference, the Southeastern Association of Regulatory Utility Commissioners, the Pennsylvania Environmental Conference, the Public Utility Law Section of the New Jersey Bar Association, the U.S. Environmental Protection Agency Expert Workshop, the NAWC Water Utility Executive Council, and the National Drinking Water Symposium.

**John F. Guastella**  
**List of Proceedings in which**  
**Expert Testimony was Presented**

<b>Year</b>	<b>Client</b>	<b>State</b>	<b>Regulatory Docket/Case Number</b>
1966	Sunhill Water Corporation	New York	23968
1967	Amagansett Water Company	New York	24210
1967	Worley Homes, Inc.	New York	24466
1968	Amagansett Water Company	New York	24718
1968	Amagansett Water Company	New York	24883
1968	Sunhill Water Corporation	New York	23968
1968	Worley Homes, Inc.	New York	Supreme Court
1969	Amagansett Water Supply	New York	24883
1969	Citizens Water Supply Co.	New York	25049
1969	Worley Homes, Inc.	New York	24466/24992
1970	Brooklyn Union Gas Company	New York	25448
1970	Consolidated Edison of New York	New York	25185
1971	Hudson Valley Water Companies	New York	26093
1971	Jamaica Water Supply Company	New York	26094
1971	Port Chester Water Works, Inc.	New York	25797
1971	U & I Corp. - Merrick District	New York	26143
1971	Wanakah Water Company	New York	25873
1972	Spring Valley Water Company	New York	26226
1972	U & I Corp. - Woodhaven District	New York	26232
1973	Citizens Water Supply Company	New York	26366
1978	Rhode Island DPU&C (Bristol County)	Rhode Island	1367A
1979	Candlewick Lake Utilities Co.	Illinois	76-0218
1979	Candlewick Lake Utilities Co.	Illinois	76-0347
1979	Candlewick Lake Utilities Co.	Illinois	78-0151
1979	Jacksonville Suburban Utilities	Florida	770316-WS
1979	New York Water Service Corporation	New York	27594
1979	Salem Hills Sewerage Disposal Corp. v. V. of Voorheesville	New York	Supreme Court

**John F. Guastella**  
**List of Proceedings in which**  
**Expert Testimony was Presented**

<b>Year</b>	<b>Client</b>	<b>State</b>	<b>Regulatory Docket/Case Number</b>
1979	Seabrook Water Corporation	New Jersey	7910-846
1979	Southern Utilities Corporation	Florida	770317-WS
1979	Township of South Brunswick	New Jersey	Municipal
1979	Westchester Joint Water Works	New York	Municipal
1979	Woodhaven Utilities Corporation	Illinois	77-0109
1980	Crestwood Village Sewer Company	New Jersey	BPU 802-78
1980	Crestwood Village Water Company	New Jersey	BPU 802-77
1980	Gateway Water Supply Corporation	Texas	Municipal
1980	GWW-Central Florida District	Florida	800004-WS
1980	Jamaica Water Supply Company	New York	27587
1980	Rhode Island DPU&C (Newport Water)	Rhode Island	1480
1981	Briarcliff Utilities, Inc.	Texas	3620
1981	Candlewick Lake Utilities Co.	Illinois	81-0011
1981	Caroline Water Company, Inc.	Virginia	810065
1981	GDU, Inc. - Northport	Florida	Municipal
1981	GDU, Inc. - Port Charlotte	Florida	Municipal
1981	GDU, Inc. - Port Malabar	Florida	80-2192
1981	Hobe Sound Water Company	Florida	8000776
1981	Lake Buckhorn Utilities, Inc.	Ohio	80-999
1981	Lake Kiowa Utilities, Inc.	Texas	3621
1981	Lakengren Utilities, Inc.	Ohio	80-1001
1981	Lorelei Utilities, Inc.	Ohio	80-1000
1981	New York Water Service Corporation	New York	28042
1981	Rhode Island DPU&C (Newport Water)	Rhode Island	1581
1981	Shawnee Hills Utility Company	Ohio	80-1002
1981	Smithville Water Company, Inc.	New Jersey	808-541
1981	Spring Valley Water Company, Inc.	New York	27936
1981	Spring Valley Water Company, Inc.	New York	27936
1981	Sunhill Water Corporation	New York	27903

**John F. Guastella**  
**List of Proceedings in which**  
**Expert Testimony was Presented**

<b>Year</b>	<b>Client</b>	<b>State</b>	<b>Regulatory Docket/Case Number</b>
1981	Swan Lake Water Corporation	New York	27904
1982	Chesterfield Commons Sewer Company	New Jersey	822-84
1982	Chesterfield Commons Water Company	New Jersey	822-83
1982	Crescent Waste Treatment Corp.	New York	Municipal
1982	Crestwood Village Sewer Company	New Jersey	821-33
1982	Crestwood Village Water Company	New Jersey	821-38
1982	Salem Hills Sewerage Disposal Corp.	New York	Municipal
1982	Township of South Brunswick	New Jersey	Municipal
1982	Woodhaven Utilities Corporation	Illinois	82-0167
1983	Country Knolls Water Works, Inc.	New York	28194
1983	Heritage Hills Water Works Corp.	New York	28453
1984	Crestwood Village Sewer Company	New Jersey	8310-861
1984	Crestwood Village Water Company	New Jersey	8310-860
1984	Environmental Disposal Corp.	New Jersey	816-552
1984	GDU, Inc. - Port St. Lucie	Florida	830421
1984	Heritage Village Water (water/sewer)	Connecticut	84-08-03
1984	Hurley Water Company, Inc.	New York	28820
1984	New York Water Service Corporation	New York	28901
1985	Deltona Utilities (water/sewer)	Florida	830281
1985	J. Filiberto Sanitation, Inc.	New Jersey	8411-1213
1985	Sterling Forest Pollution Control	New York	Municipal
1985	Water Works Enterprise, Grand Forks	North Dakota	Municipal
1986	GDU, Inc. - Port Charlotte	Florida	Municipal
1986	GDU, Inc. - Sebastian Highlands	Florida	Municipal
1986	Kings Grant Water/Sewer Companies (settled)	New Jersey	WR8508-868
1986	Mt. Ebo Sewage Works, Inc.	New York	Municipal
1986	Sterling Forest Pollution Control	New York	Municipal
1987	Country Knolls Water Works, Inc.	New York	29443
1987	Crestwood Village Sewer Co. (settled)	New Jersey	WR8701-38

**John F. Guastella**  
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<b>Year</b>	<b>Client</b>	<b>State</b>	<b>Regulatory Docket/Case Number</b>
1987	Deltona Utilities – Marco Island	Florida	85151-WS
1987	Deltona Utilities, Inc. - Citrus Springs (settled)	Florida	870092-WS
1987	First Brewster Water Corp. v. Town of Southeast (settled)	New York	Supreme Court
1987	GDU, Inc. - Silver Springs Shores	Florida	870239-WS
1987	Ocean County Landfill Corporation	New Jersey	SR-8703117
1987	Palm Coast Utility Corporation	Florida	870166-WS
1987	Sanlando Utilities Corp. (settled)	Florida	860683-WS
1987	Township of South Brunswick	New Jersey	Municipal
1987	Woodhaven Utilities Corp. (settled)	Illinois	87-0047
1988	Crescent Estates Water Co., Inc.	New York	88-W-035
1988	Elizabethtown Water Co.	New Jersey	OAL PUC3464-88
1988	Heritage Village Water Company	Connecticut	87-10-02
1988	Instant Disposal Service, Inc.	New Jersey	SR-87080864
1988	J. Filiberto Sanitation v. Morris County Transfer Station	New Jersey	01487-88
1988	Ohio Water Service Co.	Ohio	86-1887-WW-CO1
1988	St. Augustine Shores Utilities	Florida	870980-WS
1989	Elizabethtown Water Co.	New Jersey	BPU WR89020132J
1989	GDU (FPSC generic proceeding as to rate setting procedures)	Florida	880883-WS
1989	Gordon's Corner Water Co.	New Jersey	OAL PUC479-89
1989	Heritage Hills Sewage Works	Connecticut	Municipal
1989	Heritage Village Water Company	Connecticut	87-10-02
1989	Palm Coast Utility Corporation	Florida	890277-WS
1989	Southbridge Water Supply Co.	Massachusetts	DPU 89-25
1989	Sterling Forest Water Co.	New York	PSC 88-W-263
1990	American Utilities, Inc. - United States Bankruptcy Court	New Jersey	85-00316
1990	City of Carson City	Nevada	Municipal
1990	Country Knolls Water Works, Inc.	New York	90-W-0458
1990	Elizabethtown Water Company	New Jersey	WR900050497J

**John F. Guastella**  
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<b>Year</b>	<b>Client</b>	<b>State</b>	<b>Regulatory Docket/Case Number</b>
1990	Kent County Water Authority	Rhode Island	1952
1990	Palm Coast Utility Corporation	Florida	871395-WS
1990	Southern States Utilities, Inc.	Florida	Workshop
1990	Trenton Water Works	New Jersey	WR90020077J
1990	Waste Management of New Jersey	New Jersey	SE 87070552
1990	Waste Management of New Jersey	New Jersey	SE 87070566
1991	City of Grand Forks	North Dakota	Municipal
1991	Gordon's Corner Water Co.	New Jersey	OAL PUC8329-90
1991	Southern States Utilities, Inc.	Florida	900329-WS
1992	Elizabethtown Water Co.	New Jersey	WR 91081293J
1992	General Development Utilities, Inc. - Port Malabar Division	Florida	911030-WS
1992	General Development Utilities, Inc. - West Coast Division	Florida	911067-WS
1992	Heritage Hills Water Works, Inc.	New York	92-2-0576
1993	General Development Utilities, Inc. - Port LaBelle Division	Florida	911737-WS
1993	General Development Utilities, Inc. - Silver Springs Shores	Florida	911733-WS
1993	General Waterworks of Pennsylvania - Dauphin Cons. Water Supply	Pennsylvania	R-00932604
1993	Kent County Water Authority	Rhode Island	2098
1993	Southern States Utilities - FPSC Rulemaking	Florida	911082-WS
1993	Southern States Utilities - Marco Island	Florida	920655-WS
1994	Capital City Water Company	Missouri	WR-94-297
1994	Capital City Water Company	Missouri	WR-94-297
1994	Elizabethtown Water Company	New Jersey	WR94080346
1994	Elizabethtown Water Company	New Jersey	WR94080346
1994	Environmental Disposal Corp.	New Jersey	WR94070319
1994	General Development Utilities - Port Charlotte	Florida	940000-WS
1994	General Waterworks of Pennsylvania	Pennsylvania	R-00943152



**John F. Guastella**  
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<b>Year</b>	<b>Client</b>	<b>State</b>	<b>Regulatory Docket/Case Number</b>
1994	Hoosier Water Company - Mooresville Division	Indiana	39839
1994	Hoosier Water Company - Warsaw Division	Indiana	39838
1994	Hoosier Water Company - Winchester Division	Indiana	39840
1994	West Lafayette Water Company	Indiana	39841
1994	Wilmington Suburban Water Corporation	Delaware	94-149 (stld)
1995	Butte Water Company	Montana	Cause 90-C-90
1995	Heritage Hills Sewage Works Corporation	New York	Municipal
1996	Consumers Illinois Water Company	Illinois	95-0342
1996	Elizabethtown Water Company	New Jersey	WR95110557
1996	Palm Coast Utility Corporation	Florida	951056-WS
1996	PenPac, Inc.	New Jersey	OAL-00788-93N
1996	Southern States Utilities, Marco Island	Florida	950495-WS
1997	Crestwood Village Water Company	New Jersey	BPU 96100739
1997	Indiana American Water Co., Inc.	Indiana	IURC 40703
1997	Missouri-American Water Company	Missouri	WR-97-237
1997	South County Water Corp	New York	97-W-0667
1997	United Water Florida	Florida	960451-WS
1998	Consumer Illinois Water Company	Illinois	98-0632
1998	Consumers Illinois Water Company	Illinois	97-0351
1998	Heritage Hills Water Company	New York	97-W-1561
1998	Missouri-American Wastewater Company	Missouri	SR-97-238
1999	Consumers Illinois Water Company	Illinois	99-0288
1999	Environmental Disposal Corp.	New Jersey	WR99040249
1999	Indiana American Water Co., Inc.	Indiana	IURC 41320
2000	South Haven Sewer Works, Inc.	Indiana	Cause: 41410
2000	Utilities Inc. of Maryland	Maryland	CAL 97-17811
2001	Artesian Water Company	Delaware	00-649
2001	Citizens Utilities Company	Illinois	01-0001
2001	Elizabethtown Water Company	New Jersey	WR-0104205

**John F. Guastella**  
**List of Proceedings in which**  
**Expert Testimony was Presented**

<b>Year</b>	<b>Client</b>	<b>State</b>	<b>Regulatory Docket/Case Number</b>
2001	Kiawah Island Utility, Inc.	South Carolina	2001-164-W/S
2001	Placid Lakes Water Company	Florida	011621-WU
2001	South Haven Sewer Works, Inc.	Indiana	41903
2001	Southlake Utilities, Inc.	Florida	981609-WS
2002	Artesian Water Company	Delaware	02-109
2002	Consumers Illinois Water- Grant Park	Illinois	02-0480
2002	Consumers Illinois Water- Village Woods	Illinois	02-0539
2002	Valencia Water Company	California	02-05-013
2003	Consumers Illinois Water - Indianola	Illinois	03-0069
2003	Elizabethtown Water Company	New Jersey	WR-030-70510
2003	Golden Heart Utilities, Inc.	Alaska	U-02-13, 14 & 15
2003	Utilities, Inc. – Georgia	Georgia	CV02-0495-AB
2004	Aquarion Water Company	Connecticut	04-02-14
2004	Artesian Water Company	Delaware	04-42
2004	El Dorado Utilities, Inc.	New Mexico	D-101-CU-2004-
2004	Environmental Disposal Corp.	New Jersey	DPU WR 03 070509
2004	Heritage Hills Water Company	New York	03-W-1182
2004	Sun Valley Water & Washoe County Dept. of Water Revenues	Nevada	TMWA Municipal
2004	Jersey City MUA	New Jersey	Municipal
2004	Rockland Electric Company	New Jersey	EF02110852
2005	Aquarion Water Company	New Hampshire	DW 05-119
2005	Intercoastal Utilities, Inc.	Florida	04-0007-0011-0001
2005	Haig Point Utility Company, Inc.	South Carolina	2005-34-W/S
2005	South Central Connecticut Regional Water Auth.	Connecticut	Municipal
2006	Pennichuck Water Works, Inc.	New Hampshire	DW-04048
2006	Village of Williston Park	New York	Municipal
2006	Jersey City MUA	New Jersey	Municipal
2006	Groton Utilities	Connecticut	Municipal

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<b>Year</b>	<b>Client</b>	<b>State</b>	<b>Regulatory Docket/Case Number</b>
2006	Connecticut Water Company	Connecticut	06-07-08
2006	Birmingham Utilities, Inc.	Connecticut	06-05-10
2006	Aqua Florida Utilities, Inc.	Florida	060368-WS
2007	Aquarion Water Company of CT	Connecticut	07-05-19
2007	Pennichuck Water Works, Inc.	New Hampshire	DW 04-048
2007	Aqua Indiana - Utility Center	Indiana	43331
2007	Environmental Disposal Corp.	New Jersey	WR 04 080760
2007	Aqua Florida Utilities, Inc.	Florida	07-0183
2007	Aqua Illinois, Inc. - Hawthorn Woods, Willowbrook & Vermilion	Illinois	07-0620/07-0621/08-0067
2008	Aqua Florida Utilities, Inc.	Florida	080121-WS
2008	Aquarion Water Company of MA	Massachusetts	D.P.U. 08-27
2008	Haig Point Utility Company, Inc.	South Carolina	2007-414-WS
2009	R.M.V. Land & C.M. Livestock, L.C.C.	New Jersey	EM02050313
2010	City of Griffin	Georgia	Civil Action No. 09V-2866
2010	Connecticut Water Company	Connecticut	09-12-11
2010	Montville WPCA	Connecticut	1400012464
2010	Milford Water Company	Massachusetts	DPU 10-78
2010	Arizona American Water Company	Arizona	W-01303A-10-0448
2011	Aqua Illinois	Illinois	ICC Docket (Consolidated)
2011	Artesian Water Company	Maryland	MPSC Case 9252
2011	Artesian Water Company	Delaware	PSC 11-207
2011	Kiawah Island Utility, Inc.	South Carolina	2011-317-WS
2012	Washington Gas Light	Maryland	Senate SB541
2012	Washington Gas Light	Maryland	House HB662
2012	Daufuskie Island Utility	South Carolina	2011-229-W/S
2012	Milford Water Company	Massachusetts	DPU 12-86
2013	Artesian Water Company	Pennsylvania	2:10-CV-07453-JP
2013	Aquarion Water Company - Oxford	Massachusetts	CA 09-00592E

**John F. Guastella**  
**List of Proceedings in which**  
**Expert Testimony was Presented**

<b>Year</b>	<b>Client</b>	<b>State</b>	<b>Regulatory Docket/Case Number</b>
2013	Water Management Services	Florida	110200-WU
2013	City of Fernandina Beach	Florida	Civil Action No. 13CA000485AXYX
2013	City of Elizabeth	New Jersey	Docket Nos. UNN-L-0556-10 and UNN-L-2608-11
2014	Daufuskie Island Utility Company, Inc.	South Carolina	Case No. 2013-CP-7-02255
2014	Artesian Water Company	Delaware	Docket No. PSC 14-132
2014	Aquarion Water Company - Hingham	New Hampshire	SUCU 2013-03159-BLS2
2015	EPCOR	Arizona	ACC Docket # WS-01303A-14-0010
2015	Mountain Water Company	Montana	Case # DV-14-352
2015	Daufuskie Island Utility Company, Inc.	South Carolina	Docket No. 2014-346-WS
2015	Housatonic Water Works	Massachusetts	D.P.U. 15-179
2016	Epcor Water Arizona	Arizona	Docket No. W501303A-16-0145
2016	Community Utilities of Indiana	Indiana	Case No. 44724
2016	Utilities Inc. of Florida	Florida	Docket No. 16101-WS
2017	Epcor Water Arizona	Arizona	Docket No. W10303A-17-0141
2017	Aquarion Water Company of Massachusetts	Massachusetts	D.P.U. 17-90
2017	Milford Water Company	Massachusetts	D.P.U. 17-107
2018	Water Services Corp. of Kentucky	Kentucky	Case No. 2018-00208
2018	Epcor Water New Mexico, Inc.	New Mexico	Case No. 18_00124-UT
2019	Daufuskie Island Utility Company, Inc.	South Carolina	Docket No. 2018-364
2020	Epcor-Johnson Utilities, LLC	Arizona	Docket No. WS-02987A-20
2020	Valley Water Systems, Inc.	Connecticut	Docket No. 20-11-14
2021	EPCOR of Arizona Inc.	Arizona	Docket No. WS-01303A-20-0177
2021	Epcor Water Arizona, Inc, San Tan	Arizona	Docket. Nos. WS-02987A-20-0025 WS-01303A-20-0025

**John F. Guastella**  
**Papers and Presentations**

Year	Title	Forum
1974 through 2021	1. Basics of Rate Setting 2. Cost Allocation and Rate Design 3. Revenue Requirements	Semi-annual seminars on utility rate regulation, National Association of Regulatory Utility Commissioners, sponsored by the University of South Florida, the University of Utah, Florida State University, The University of Florida and Michigan State University, and currently the NARUC Water Committee.
1974	Rate Design Studies: A Regulatory Point-of- View	Annual convention of the National Association of Water Companies, New Haven, Connecticut
1976	Lifeline Rates	Annual convention of the National Association of Water Companies, Chattanooga, Tennessee
1977	Regulating Water Utilities: The Customers' Best Interest	Annual symposium of the New England Conference of Public Utilities Commissioners, Mystic Seaport, Connecticut
1978	Rate Design: Preaching v. Practice	Annual convention of the National Association of Water Companies, Baton Rouge, Louisiana
1979	Small Water Companies	Annual symposium of the New England Conference of Public Utilities Commissioners, Newport, Rhode Island
1979	Rate Making Problems Peculiar to Private Water and Sewer Companies	Special educational program sponsored by Independent Water and Sewer Companies of Texas, Austin, Texas
1980	Water Utility Regulation	Annual meeting of the National Association of Regulatory Utility Commissioners, Houston, Texas
1981	The Impact of Water Rates on Water Usage	Annual Pennsylvania Environmental Conference, Harrisburg, Pennsylvania
1981	A Realistic Approach to Regulating Water Utilities	Mid-America Regulatory Conference, Clarksville, Indiana
1982	Issues in Water Utility Regulation	Annual symposium of the New England Conference of Public Utilities Commissioners, Rockport, Maine
1982	New Approaches to the Regulation of Water Utilities	Southeastern Association of Regulatory Utility Commissioners, Asheville, North Carolina
1983	Allocating Costs and Revenues Fairly and Effectively	Maryland Water and Sewer Finance Conference, Westminster, Maryland
1983	Lifeline and Social Policy Pricing	Annual conference of the American Water Works Association, Las Vegas, Nevada (published)
1984	The Real Cost of Service: Some Special Considerations	Annual New Jersey Section AWWA Spring Meeting, Atlantic City, New Jersey
1987	Margin Reserve: It's Not the Issue	Florida Waterworks Association Newsletter, April/May/June 1987 issue

**John F. Guastella**  
**Papers and Presentations**

Year	Title	Forum
1987	A "Current" Issue: CIAC	NAWC - New England Chapter November 6, 1987 meeting
1988	Small Water Company rate Setting: Take It or Leave It	NAWC - New York Chapter June 14, 1988 meeting
1989	The Solution to all the Problems of Good Small Water Companies	NAWC Quarterly magazine, Winter issue
1989	Current Issues Workshop - Panel	New England Conference of Public Utilities Commissioners, Kennebunkport, Maine
1991	Alternative Rate Structures	New Jersey Section 1991 Annual Conference, AWWA, Atlantic City, New Jersey
1994	Conservation Impact on Water Rates	New England NAWC and New England AWWA, Sturbridge, Massachusetts
1996	Utility Regulation - 21st Century	NAWC Annual Meeting, Orlando, Florida
1997	Current Status Drinking Water State Revolving Fund	NAWC Annual Meeting, San Diego, California
1998	Small Water Companies - Problems and Solutions	NAWC Annual Meeting, Indianapolis, Indiana
1998	Basic Rate Regulation Seminar	New England Chapter - NAWC, Rockport, Maine
2000	Developer Related Water and Sewer Utilities Seminar	Florida State University, Orlando, Florida
2001	Developer Related Water and Sewer Utilities Seminar	Florida State University, Orlando, Florida
2002	Regulatory Cooperation - Small Company Education	New England Chapter - NAWC, Annual Meeting
2003	Developer Related Water and Sewer Utilities Seminar	University of Florida, Orlando, Florida
2004	Basic Regulation & Rate Setting Training Seminar	Office of Regulatory Staff, Columbia, South Carolina
2005	Municipal Water Rates	Nassau-Suffolk Water Commissioners Association, Franklin Square, New York
2005	Innovations in Rate Setting and Procedures	NAWC New York Chapter, West Point, New York

**John F. Guastella**  
**Papers and Presentations**

<b>Year</b>	<b>Title</b>	<b>Forum</b>
2006	Basics of Rate Setting	The Connecticut Water Company, Clinton, Connecticut
2006	Innovations in Rate Setting and Procedures	NAWC New York Chapter, Catskill, New York
2006	Best Practices as Regulatory Policy	NAWC New England Chapter, Ogunquit, Maine
2006	Rate and Valuation Seminar	NAWC New York Chapter
2006	Full Cost Pricing	U.S. Environmental Protection Agency Expert Workshop, Lansing, Michigan
2006	Innovations in Rate Setting	NAWC New England Chapter, Portsmouth, New Hampshire
2007	Weather Sensitive Customer Demands	NAWC Water Utility Executive Council, Half Moon Bay, California
2007	Basics of Rate Setting and Valuation Seminar	NAWC New England Chapter, Ogunquit, Maine
2007	Small Company Characteristics	National Drinking Water Symposium, La Jolla, California
2013	Rate and Valuation Seminar	NAWC New York Chapter
2015	Rate and Valuation Seminar	NAWC New England Chapter

**PROFESSIONAL QUALIFICATIONS AND EXPERIENCE**  
**Of**  
**GARY C. WHITE**

B.S., Business Administration, Accounting, Valparaiso University, 1972

Member:

American Water Works Association

Over his professional career, Mr. White has been involved in various aspects of business management, accounting and finance. Since 1984, his experience has been in the area of utility management and rate regulation for water and wastewater systems. During this period he was responsible for the rate regulation department of the largest privately-owned water and wastewater utility in Florida, managed an investor-owned utility in upstate New York, and has been employed as a utility consultant.

Mr. White has extensive experience in utility ratemaking. He has prepared numerous rate studies providing cost of service and revenue requirement analyses for water and wastewater systems. He has performed cost allocation and bulk service analyses; revenue requirement forecasts; population growth and system capacity projections; and various plant operation and resource management evaluations. He has had experience with privately-owned and municipal utility systems. He also served as an instructor at a seminar for developer related water and sewer utilities, conducted by Florida State University and the University of Florida.

Mr. White has presented testimony in Connecticut, Florida, New Jersey, New York and South Carolina. He has qualified as an expert witness before several municipal regulatory agencies in the State of Florida, the New York Public Service Commission, Connecticut Department of Public Utilities Control, New Jersey Board of Public Utilities and the South Carolina Public Service Commission. He has appeared at both regulatory and municipal hearings representing investor-owned utilities on matters of ratemaking, regulation, rate design, finance, and utility management. Mr. White has also been active as a speaker on these subjects for community organizations and civic organizations.



**PROFESSIONAL QUALIFICATIONS AND EXPERIENCE**  
**Of**  
**GARY C. WHITE**

Year	Client	State
1985	General Development Utilities, Inc. – Port Charlotte	Florida
1986	General Development Utilities, Inc. – Silver Spring Shores	Florida
1986	General Development Utilities, Inc. – Port LeBelle	Florida
1987	General Development Utilities, Inc. – Sebastian Cove	Florida
1987	General Development Utilities, Inc. – Port Charlotte	Florida
1988	General Development Utilities, Inc. – Port St. Lucie	Florida
1988	General Development Utilities, Inc. – North Port	Florida
1989	General Development Utilities, Inc. – Port Malabar	Florida
1991	Country Knolls Water Works, Inc.	New York
1994	Environmental Disposal Corp.	New Jersey
1995	Environmental Disposal Corp.	New Jersey
1995	Hobe Sound Water Co.	Florida
1995	Heritage Hills Sewerage Works	New York
1996	Pen Pac Waste Disposal Co.	New Jersey
1996	Connecticut American Water Co.	Connecticut
1997	Crestwood Village Water Company	New York
1997	Pen Pac Waste Disposal Co.	New Jersey
1997	Hobe Sound Water Co.	Florida
1999	Environmental Disposal Corp.	New Jersey
2000	Placid Lakes Utilities, Inc.	Florida
2002	Kiawah Island Utility, Inc.	South Carolina
2003	Heritage Hills Water Works	New York
2004	Environmental Disposal Corp.	New Jersey
2004	Aquarion Water Co.	Connecticut
2005	Haig Point Utilities, Inc.	South Carolina
2011	Kiawah Island Utility, Inc.	South Carolina
2012	Daufuskie Island Utility Company	South Carolina
2014	Heritage Village – PURA Docket No. 14-11-07	Connecticut
2015	Daufuskie Island Utility Company – PSC Docket No. 2014-346-WS	South Carolina
2015	Housatonic Water Works Company	Massachusetts
2017	Milford Water Company – D.P.U. M-107	Massachusetts
2018	Hutchinson Water Company, LLC D.P.U. 18-156	Massachusetts

# MIDDLESEX WATER COMPANY

Schedules in Support of Cost of Service Study

MIDDLESEX WATER COMPANY

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MIDDLESEX WATER COMPANY

FUNCTIONAL ALLOCATION TO CUSTOMER CLASSES

Function	Total	Residential	Commercial	Industrial	Wholesale 1 (East Brunswick)	Wholesale 2 (Edison / Hld Pk)	Wholesale 3 (Rahway)	Wholesale 4 (So. River Basin)	Fire Service	
									Capacity	Hydrants
Base Extra Capacity	\$ 87,483,202	\$ 39,061,156	\$ 12,448,844	\$ 8,775,063	\$ 5,098,576	\$ 2,670,046	\$ 874,696	\$ 10,018,586	\$ 3,444,995	\$ 5,091,239
Small Mains	203,617	139,501	64,116	-	-	-	-	-	-	-
Contract Meters	1,237,239	-	-	-	150,572	203,031	-	883,636	-	-
Customer:										
Meters	9,739,762	5,262,829	1,381,545	652,124	-	-	-	-	2,443,264	-
Services	7,037,325	5,717,650	729,765	150,303	-	-	-	-	439,607	-
Billing & Accounting	5,467,522	4,609,667	559,327	65,610	-	547	-	547	228,542	3,281
Hydrants	2,957,606	-	-	-	-	-	-	-	-	2,957,606
Total	\$ 114,126,271	\$ 54,790,803	\$ 15,183,598	\$ 9,643,100	\$ 5,249,148	\$ 2,873,624	\$ 874,696	\$ 10,902,769	\$ 6,556,409	\$ 8,052,126
Misc. Revenues	\$ (227,236)	\$ (109,094)	\$ (30,232)	\$ (19,200)	\$ (10,452)	\$ (5,722)	\$ (1,742)	\$ (21,708)	\$ (13,054)	\$ (16,033)
Sales Revenue	\$ 113,899,035	\$ 54,681,709	\$ 15,153,366	\$ 9,623,899	\$ 5,238,696	\$ 2,867,902	\$ 872,955	\$ 10,881,061	\$ 6,543,354	\$ 8,036,093

MIDDLESEX WATER COMPANY

ALLOCATION OF PRO FORMA BASE, EXTRA CAPACITY AND TOTAL REVENUE REQUIREMENT TO CUSTOMER CLASSES

Function	Total	Factor	Residential	Commercial	Industrial	Wholesale 1 (East Brunswick)	Wholesale 2 (Edison / Hld Pk)	Wholesale 3 (Rahway)	Wholesale 4 (So. River Basin)	Fire Service	
										Capacity	Hydrants
UTILITY OPERATING INCOME	\$ 26,520,241	58	\$ 11,807,951	\$ 3,474,292	\$ 2,386,715	\$ 1,524,955	\$ 580,252	\$ 300,411	\$ 3,317,134	\$ 1,246,188	\$ 1,882,343
OPERATION & MAINTENANCE	35,189,592	55	15,423,166	5,357,975	3,875,687	2,513,948	1,332,214	318,351	3,817,597	1,050,220	1,500,436
DEPRECIATION	11,382,482		4,896,947	1,451,558	997,783	927,277	350,222	121,236	1,330,490	520,655	786,316
AMORTIZATION EXPENSE	2,560	57	1,229	361	247	119	45	21	235	121	182
PROPERTY TAXES-SOURCE	456,560	51	265,754	77,734	53,404	-	-	-	-	23,223	36,445
PROPERTY TAXES-PUMPING D&R RWPS	24,407	43	7,202	2,350	1,638	4,826	1,821	360	3,911	2,299	-
PROPERTY TAXES-PUMPING OTHER	36,691	51	21,357	6,247	4,292	-	-	-	-	1,866	2,929
PROPERTY TAXES-TREATMENT	687,712	51	400,303	117,090	80,442	-	-	-	-	34,980	54,897
PROPERTY TAXES-STORAGE	93,323	54	55,583	3,518	691	-	-	-	-	12,253	21,278
PROPERTY TAXES-TRANSMISSION MAINS	11,805	71	5,430	1,542	1,051	-	-	194	2,108	595	885
PROPERTY TAXES-GENERAL PLANT	212,413	57	101,977	29,921	20,534	9,871	3,732	1,763	19,466	10,009	15,141
PAYROLL TAXES	956,872	85	428,955	150,386	109,563	74,086	28,102	7,245	92,296	27,468	38,771
FRANCHISE & OTHER	11,152,145	80	4,931,338	1,573,824	1,110,395	744,914	337,926	110,767	1,267,853	433,255	641,873
INCOME TAX	756,401	58	336,782	99,092	68,073	43,494	16,550	8,568	94,610	35,543	53,688
TOTAL BASE, EXTRA CAPACITY PORTION	87,483,202	80	38,683,974	12,345,888	8,710,514	5,843,489	2,650,864	868,917	9,945,699	3,398,674	5,035,182
PERCENTS	100.00%	80	44.22%	14.11%	9.96%	6.68%	3.03%	0.99%	11.37%	3.88%	5.76%
Small Mains	203,617	48	139,501	64,115.97	-	-	-	-	-	-	-
Meters-Wholesale	1,237,239	66	-	-	-	150,572	203,031	-	883,636	-	-
Meters-Retail	9,739,762	68	5,262,829	1,381,545	652,124	-	-	-	-	2,443,264	-
Services-Retail	7,037,325	69	5,717,650	729,765	150,303	-	-	-	-	439,607	-
Billing	5,467,522	67	4,609,667	559,327	65,610	-	547	-	547	228,542	3,281
Fire Hydrants	2,957,606	70	-	-	-	-	-	-	-	-	2,957,606
Adjust FRANCHISE TAX to Excl E. Brunswick		63	377,181	102,956	64,549	(744,914)	19,182	5,779	72,887	46,321	56,058
TOTAL REVENUE REQUIREMENT	\$ 114,126,271		\$ 54,790,803	\$ 15,183,598	\$ 9,643,100	\$ 5,249,148	\$ 2,873,624	\$ 874,696	\$ 10,902,769	\$ 6,556,409	\$ 8,052,126
LESS MISC. REVENUES	227,236		109,094	30,232	19,200	10,452	5,722	1,742	21,708	13,054	16,033
REVENUE FROM SALES	\$ 113,899,035		\$ 54,681,709	\$ 15,153,366	\$ 9,623,899	\$ 5,238,696	\$ 2,867,902	\$ 872,955	\$ 10,881,061	\$ 6,543,354	\$ 8,036,093
PERCENTS	100.00%		48.01%	13.30%	8.45%	4.60%	2.52%	0.77%	9.55%	5.74%	7.06%

MIDDLESEX WATER COMPANY

ALLOCATION OF BASE, EXTRA CAPACITY AND TOTAL RATE BASE ELEMENTS TO CUSTOMER CLASSES

Function	Total	Factor	Residential	Commercial	Industrial	Wholesale 1 (East Brunswick)	Wholesale 2 (Edison / Hld Pk)	Wholesale 3 (Rahway)	Wholesale 4 (So. River Basin)	Fire Service	
										Capacity	Hydrants
UTILITY PLANT - Base, Extra Capacity	\$ 520,289,545	57	\$ 232,732,293 44.73%	\$ 68,283,701 13.12%	\$ 46,863,622 9.01%	\$ 31,398,467 6.03%	\$ 11,873,968 2.28%	\$ 5,605,290 1.08%	\$ 61,927,050 11.90%	\$ 24,514,879 4.71%	\$ 37,090,276 7.13%
UPIS ALLOCATED TO SUBSIDIARIES	-	57	-	-	-	-	-	-	-	-	-
INTANGIBLE ASSETS (prepaids/deposits)	-	57	-	-	-	-	-	-	-	-	-
ACCUMULATED DEPRECIATION	(110,286,506)		(48,546,522)	(14,222,867)	(9,761,471)	(8,698,439)	(3,290,746)	(1,056,216)	(11,743,059)	(5,157,003)	(7,810,183)
ADVANCES FOR CONSTRUCTION	(2,427,650)	51	(1,413,087)	(413,332)	(283,962)	-	-	-	-	(123,482)	(193,787)
CIAC - TRANSMISSION MAINS	(8,640,577)	71	(3,974,147)	(1,128,632)	(769,616)	-	-	(141,878)	(1,543,121)	(435,485)	(647,698)
CIAC - OTHER	(9,420,031)	51	(5,483,212)	(1,603,854)	(1,101,861)	-	-	-	-	(479,150)	(751,954)
DEFERRED INCOME TAXES	(15,958,987)	57	(7,138,662)	(2,094,485)	(1,437,461)	(963,095)	(364,213)	(171,933)	(1,899,506)	(751,952)	(1,137,681)
DEFERRED ITC	-	57	-	-	-	-	-	-	-	-	-
MATERIAL & SUPPLIES	4,490,342		2,248,374	650,690	445,755	21,320	8,092	46,378	507,729	223,161	338,842
CASH WORKING CAPITAL	4,847,162	55	2,124,463	738,029	533,866	346,281	183,514	43,867	525,869	144,639	206,635
ROAD OPENING PERMIT DEPOSIT	381,068	71	175,268	49,775	33,942	-	-	6,257	68,055	19,206	28,565
INJURIES & DAMAGES RESERVE	(23,764)	57	(10,630)	(3,119)	(2,140)	(1,434)	(542)	(256)	(2,828)	(1,120)	(1,694)
PENSION / RETIREMENT PLAN RESERVE	(2,879,754)	85	(1,356,940)	(425,340)	(288,839)	(231,532)	(87,832)	(22,750)	(262,922)	(80,057)	(123,541)
UNAMORTIZED ACQUISITION ADJUSTMENT	120,435	57	53,872	15,806	10,848	7,268	2,749	1,297	14,335	5,675	8,586
TOTAL BASE, EXTRA CAPACITY PORTION	\$ 380,491,284	58	\$ 169,411,071	\$ 49,846,373	\$ 34,242,682	\$ 21,878,837	\$ 8,324,989	\$ 4,310,056	\$ 47,591,602	\$ 17,879,310	\$ 27,006,365
PERCENTS	100.00%	58	44.52%	13.10%	9.00%	5.75%	2.19%	1.13%	12.51%	4.70%	7.10%



MIDDLESEX WATER COMPANY

ALLOCATION OF ACCUMULATED DEPRECIATION TO CUSTOMER CLASSES

	Function	Total	Factor	Residential	Commercial	Industrial	Wholesale 1 (East Brunswick)	Wholesale 2 (Edison / Hld Pk)	Wholesale 3 (Rahway)	Wholesale 4 (So. River Basin)	Fire Service	
											Capacity	Hydrants
395.000	Lab Equipment	\$ 1,104,901	46	\$ 322,300	\$ 148,057	\$ 115,131	\$ 222,859	\$ 84,083	\$ 16,574	\$ 180,651	\$ 9,281	\$ 5,966
316.000	Supply Mains-Other	88,196	49	51,127	17,075	12,021	-	-	-	-	3,237	4,736
314.000	Wells-CJO	17,408	42	6,558	2,152	1,509	-	1,666	329	3,579	649	966
321.000	Structures - CJO Thermal	1,205	42	454	149	104	-	115	23	248	45	67
325.000	Electric Pumping Equipment - CJO Thermal	8,550	42	3,221	1,057	741	-	818	162	1,758	319	475
311.000	Supply Structures-D&R	111,768	43	32,980	10,760	7,502	22,102	8,339	1,649	17,910	4,224	6,303
313.000	Intakes	338,435	43	99,865	32,581	22,716	66,926	25,251	4,992	54,231	12,789	19,084
316.000	Supply Mains-D&R	2,011,673	43	593,604	193,664	135,023	397,808	150,091	29,672	322,350	76,021	113,438
321.000	Structures - D&R	1,623,946	43	479,194	156,337	108,999	321,135	121,163	23,953	260,221	61,369	91,574
325.000	Electric Pumping Equipment - D&R	1,372,049	43	404,864	132,087	92,092	271,323	102,369	20,238	219,857	51,850	77,370
325.000	Electric Pumping Equipment - CJO Filter	2,140,509	43	631,621	206,067	143,671	423,286	159,703	31,573	342,995	80,890	120,703
331.000	Structures - CJO	6,044,479	43	1,783,605	581,902	405,705	1,195,296	450,979	89,156	968,567	228,421	340,848
332.000	Water Treatment Equipment - CJO	17,519,712	43	5,169,717	1,686,623	1,175,923	3,464,523	1,307,146	258,416	2,807,359	662,070	987,937
346.200	Meters-Other	38,234	43	11,282	3,681	2,566	7,561	2,853	564	6,127	1,445	2,156
325.000	Electric Pumping Equipment - East Brunswick	3,592	37	-	-	-	3,592	-	-	-	-	-
343.000	T&D Mains - East Brunswick	35,266	37	-	-	-	35,266	-	-	-	-	-
321.000	Structures - Oak St Booster	50,918	39	-	-	-	-	-	-	50,918	-	-
325.000	Electric Pumping Equipment - Oak St	133,219	39	-	-	-	-	-	-	133,219	-	-
325.000	Electric Pumping Equipment - North Meter Pit	240	39	-	-	-	-	-	-	240	-	-
331.000	Structures - North Meter Pit	9,181	39	-	-	-	-	-	-	9,181	-	-
332.000	Water Treatment Equipment - No. Meter Pit	3,093	39	-	-	-	-	-	-	3,093	-	-
332.000	Water Treatment Equipment - Tices Lane	1,631	39	-	-	-	-	-	-	1,631	-	-
343.000	T&D Mains - Oak St PS	29,703	39	-	-	-	-	-	-	29,703	-	-
343.000	T&D Mains - North Meter Pit	2,330	39	-	-	-	-	-	-	2,330	-	-
311.000	Supply Structures-Other	240,176	51	139,802	40,892	28,093	-	-	-	-	12,217	19,172
314.000	Wells-Other	494,162	51	287,642	84,136	57,802	-	-	-	-	25,136	39,446
321.000	Structures - Other Pumping	2,332,285	51	1,357,576	397,095	272,807	-	-	-	-	118,632	186,175
323.000	Power Production Equipment - Other	443,686	51	258,261	75,542	51,898	-	-	-	-	22,568	35,417
325.100	Electric Pumping Equipment - Other	3,660,606	51	2,130,766	623,255	428,181	-	-	-	-	186,197	292,208
328.000	Other Pumping Equipment	148,293	51	86,319	25,248	17,346	-	-	-	-	7,543	11,838
331.000	Structures - Other	737,426	51	429,241	125,554	86,257	-	-	-	-	37,509	58,865
332.000	Water Treatment Equipment - Other	2,312,158	51	1,345,861	393,668	270,453	-	-	-	-	117,608	184,568
343.000	Distribution Mains	18,664,975	51	10,864,509	3,177,899	2,183,242	-	-	-	-	949,394	1,489,932
349.000	Other T&D	115,532	51	67,249	19,670	13,514	-	-	-	-	5,877	9,222
343.000	Transmission Mains	18,108,467	71	8,328,808	2,365,328	1,612,921	-	-	297,341	3,233,991	912,667	1,357,411
321.000	Structures - CJO Booster	2,032,392	44	641,423	174,582	117,675	381,683	144,097	28,453	309,330	95,929	139,219
323.000	Power Production Equipment - CJO	2,238,329	44	706,417	192,272	129,599	420,358	158,698	31,337	340,674	105,649	153,326
325.000	Electric Pumping Equipment - CJO Booster	1,016,640	44	320,852	87,329	58,863	190,925	72,080	14,233	154,733	47,985	69,640
343.000	T&D Mains - CJO PS	121,535	44	38,356	10,440	7,037	22,824	8,617	1,701	18,498	5,736	8,325
343.000	T&D Mains - Edison & HP	218,961	52	88,620	24,186	16,348	-	19,943	3,937	42,844	9,542	13,541
342.000	Reservoirs and Standpipes - Other	667,322	54	397,457	25,158	4,938	-	-	-	-	87,619	152,149
342.000	Reservoirs and Standpipes - CJO	1,570,289	45	677,894	42,869	8,323	206,650	77,886	15,389	167,393	157,657	216,229
	SUBTOTAL	87,813,473		37,757,443	11,057,315	7,589,003	7,654,117	2,895,894	869,690	9,683,630	4,098,074	6,208,305
				43.00%	12.59%	8.64%	8.72%	3.30%	0.99%	11.03%	4.67%	7.07%
	BASE, EXTRA CAPACITY											
	Office and Warehouse Building	4,614,616	57	2,215,431	650,015	446,095	214,441	81,079	38,301	422,883	217,441	328,930
	Office Furniture	11,173,283	57	5,364,182	1,573,869	1,080,121	519,222	196,315	92,738	1,023,920	526,485	796,432
	Transportation Equipment	4,365,131	57	2,095,656	614,872	421,977	202,848	76,695	36,231	400,021	205,685	311,147
	Stores	47,629	57	22,866	6,709	4,604	2,213	837	395	4,365	2,244	3,395
	Tools, Shop and Garage Equipment	804,754	57	386,354	113,358	77,796	37,397	14,140	6,679	73,748	37,920	57,363
	Power Operated Equipment	310,943	57	149,281	43,799	30,059	14,450	5,463	2,581	28,495	14,652	22,164
	Communication Equipment	936,295	57	449,506	131,887	90,512	43,510	16,451	7,771	85,802	44,118	66,739
	Miscellaneous Equipment	220,381	57	105,803	31,043	21,304	10,241	3,872	1,829	20,196	10,384	15,709
	SUBTOTAL	22,473,033		10,789,078	3,165,551	2,172,468	1,044,322	394,851	186,526	2,059,429	1,058,929	1,601,878
				48.01%	14.09%	9.67%	4.65%	1.76%	0.83%	9.16%	4.71%	7.13%
	TOTAL BASE, EXTRA CAPACITY	110,286,506		48,546,522	14,222,867	9,761,471	8,698,439	3,290,746	1,056,216	11,743,059	5,157,003	7,810,183
				44.02%	12.90%	7.89%	7.89%	2.98%	0.96%	10.65%	4.68%	7.08%
	Small Mains	861,214	48	590,030	271,184	-	-	-	-	-	-	-
	Meters-Wholesale	1,506,962	66	-	-	-	183,397	247,293	-	1,076,272	-	-
	Meters-Retail	7,150,655	68	3,863,819	1,014,291	478,771	-	-	-	-	1,793,775	-
	Services-Retail	24,017,712	69	19,513,788	2,490,619	512,970	-	-	-	-	1,500,336	-
	Fire Hydrants	5,745,014	70	-	-	-	-	-	-	-	-	5,745,014
	SUBTOTAL	39,281,557		23,967,637	3,776,094	991,740	183,397	247,293	-	1,076,272	3,294,110	5,745,014
	TOTAL	\$ 149,568,063		\$ 72,514,159	\$ 17,998,960	\$ 10,753,211	\$ 8,881,836	\$ 3,538,038	\$ 1,056,216	\$ 12,819,332	\$ 8,451,114	\$ 13,555,197
	PERCENTS	100.00%		48.48%	12.03%	7.19%	5.94%	2.37%	0.71%	8.57%	5.65%	9.06%



MIDDLESEX WATER COMPANY

ALLOCATION OF MATERIALS AND SUPPLIES TO CUSTOMER CLASSES

	Function	Total	Factor	Residential	Commercial	Industrial	Wholesale 1 (East Brunswick)	Wholesale 2 (Edison / Hld Pk)	Wholesale 3 (Rahway)	Wholesale 4 (So. River Basin)	Fire Service	
											Capacity	Hydrants
154.001	T & D Materials	\$ 4,406,788	56	\$ 2,226,750	\$ 640,747	\$ 438,035	\$ 2,203	\$ 881	\$ 44,949	\$ 492,238	\$ 222,543	\$ 338,441
163.001	Stores	83,554	41	21,624	9,943	7,720	19,117	7,211	1,429	15,491	618	401
		\$ 4,490,342		\$ 2,248,374	\$ 650,690	\$ 445,755	\$ 21,320	\$ 8,092	\$ 46,378	\$ 507,729	\$ 223,161	\$ 338,842
	13-Month Average Balance	\$ 4,490,342		\$ 2,248,374	\$ 650,690	\$ 445,755	\$ 21,320	\$ 8,092	\$ 46,378	\$ 507,729	\$ 223,161	\$ 338,842
	PERCENTS	100.00%		50.07%	14.49%	9.93%	0.47%	0.18%	1.03%	11.31%	4.97%	7.55%

MIDDLESEX WATER COMPANY

ALLOCATION OF PRO FORMA OPERATION AND MAINTENANCE EXPENSES TO CUSTOMER CLASSES

	Function	Total	Factor	Customer Class				Wholesale 1 (East Brunswick)	Wholesale 2 (Edison / Hld Pk)	Wholesale 3 (Rahway)	Wholesale 4 (So. River Basin)	Fire Service	
				Residential	Commercial	Industrial						Capacity	Hydrants
603	Miscellaneous Expense & Labor	69,041	46	\$ 20,139	\$ 9,252	\$ 7,194	\$ 13,926	\$ 5,254	\$ 1,036	\$ 11,288	\$ 580	\$ 373	
620	Supervision Labor - Oper	127,573	46	37,213	17,095	13,293	25,731	9,708	1,914	20,858	1,072	689	
624	Operation Labor	1,726,828	46	503,716	231,395	179,935	348,301	131,412	25,902	282,336	14,505	9,325	
624	Operation Expense	23,639	46	6,895	3,168	2,463	4,768	1,799	355	3,865	199	128	
626	Miscellaneous Labor	344,894	46	100,606	46,216	35,938	69,565	26,246	5,173	56,390	2,897	1,862	
626	Miscellaneous Expense	-	46	-	-	-	-	-	-	-	-	-	
640	Supervision Labor - Oper	582,335	46	169,867	78,033	60,679	117,457	44,316	8,735	95,212	4,892	3,145	
642	Operation Labor	542,813	46	158,339	72,737	56,561	109,485	41,308	8,142	88,750	4,560	2,931	
642	Operation Expense	2,429,774	46	708,765	325,590	253,182	490,085	184,906	36,447	397,268	20,410	13,121	
643	Miscellaneous Expense	11,141	46	3,250	1,493	1,161	2,247	848	167	1,822	94	60	
641	Chemicals - Wells	1,353,070	47	725,922	333,667	259,248	-	-	-	-	20,702	13,531	
602	Purchased Water - NJWSA	3,389,671	40	1,137,573	522,687	406,760	-	379,304	74,912	814,877	32,202	21,355	
641	Chemicals - CJO	-	41	-	-	-	-	-	-	-	-	-	
623	Power - CJO Plant	1,219,482	43	359,845	117,400	81,852	241,153	90,986	17,987	195,410	46,084	68,677	
623	Power - CJO D&R Intake	351,054	43	103,589	33,796	23,563	69,421	26,192	5,178	56,253	13,266	19,796	
666	Rents	219,210	39	-	-	-	-	-	-	219,210	-	-	
602	Purchased Water - E'town	3,282,392	51	1,910,615	558,860	383,941	-	-	-	-	166,959	262,017	
623	Power - Other	761,180	51	443,068	129,598	89,035	-	-	-	-	38,717	60,761	
662	Operation Labor T & D - Distribution	1,734,857	51	1,009,826	295,377	202,926	-	-	-	-	88,244	138,485	
662	Operation Expense - T & D - Distribution	232,055	51	135,074	39,510	27,143	-	-	-	-	11,903	18,524	
673	Maint. Labor T & D - Distribution	139,522	51	81,213	23,755	16,320	-	-	-	-	7,097	11,137	
673	Maint. Expense - T & D - Distribution	1,088,454	51	633,567	185,320	127,316	-	-	-	-	55,364	86,886	
662	Operation Labor T & D - Transmission	810,607	71	372,831	105,882	72,201	-	-	13,310	144,766	40,855	60,763	
662	Operation Expense - T & D - Transmission	108,428	71	49,870	14,163	9,658	-	-	1,780	19,364	5,465	8,128	
673	Maint. Labor T & D - Transmission	65,191	71	29,984	8,515	5,807	-	-	1,070	11,642	3,286	4,887	
673	Maint. Expense - T & D - Transmission	508,578	71	233,916	66,430	45,299	-	-	8,351	90,827	25,632	38,123	
623	Power - CJO Booster	6,945	44	2,192	597	402	1,304	492	97	1,057	328	476	
662	Operation Labor T & D - Edison & HP	12,825	52	5,191	1,417	958	-	1,168	231	2,510	559	793	
662	Operation Expense - T & D - Edison & HP	1,716	52	694	190	128	-	156	31	336	75	106	
673	Maint.Labor T & D - Edison & HP	1,032	52	418	114	77	-	94	19	202	45	64	
673	Maint. Expense - T & D - Edison & HP	8,047	52	3,257	889	601	-	733	145	1,574	351	498	
631	Maint Expense - Structures-Labor	-	59	-	-	-	-	-	-	-	-	-	
631	Maint Expense - Structures-Expense	165,424	59	67,807	19,818	13,581	19,570	7,378	1,456	16,658	7,626	11,530	
633	Maint Expense - Equipment-Labor	-	60	-	-	-	-	-	-	-	-	-	
633	Maint Expense - Equipment-Expense	149,859	60	66,815	19,921	13,714	13,630	5,131	1,014	12,360	6,822	10,452	
651	Maint Expense - Structures-Labor	-	61	-	-	-	-	-	-	-	-	-	
651	Maint Expense - Structures-Expense	14,945	61	4,488	1,459	1,016	2,901	1,094	217	2,354	568	849	
652	Maint Expense - Equipment-Labor	155	62	48	15	11	29	11	2	24	6	9	
652	Maint Expense - Equipment-Expense	46,135	62	14,145	4,577	3,188	8,752	3,303	655	7,100	1,767	2,648	
660	Supervision Labor - Oper	302,987	87	164,371	47,690	32,692	-	151	1,606	17,452	15,361	23,663	
660	Supervision Labor - Oper	-	87	-	-	-	-	-	-	-	-	-	
665	Miscellaneous Labor - Oper	47,341	87	25,682	7,451	5,108	-	24	251	2,727	2,400	3,697	
665	Miscellaneous Expense - Oper	200,413	87	108,724	31,545	21,625	-	100	1,062	11,544	10,161	15,652	
670	Supervision Labor - Maint	29,024	88	15,746	4,568	3,132	-	15	154	1,672	1,472	2,267	
670	Supervision Expense - Maint	135,560	88	73,542	21,337	14,627	-	68	718	7,808	6,873	10,587	
	SUBTOTAL	22,244,197		9,488,801	3,381,524	2,472,336	1,538,326	962,197	218,117	2,596,516	659,297	928,083	
				42.66%	15.20%	11.12%	6.92%	4.33%	0.98%	11.67%	2.96%	4.17%	
	BASE, EXTRA CAPACITY												
930	Miscellaneous Gen Expense	869,725	84	399,888	136,689	99,584	67,338	25,543	6,586	83,890	24,966	35,241	
920	Admin and Gen Salaries	3,962,695	84	1,776,433	622,793	453,733	306,812	116,380	30,006	382,226	113,753	160,559	
920	Admin and Gen Expenses	333,685	84	149,587	52,443	38,207	25,836	9,800	2,527	32,186	9,579	13,520	
921	Office Supplies and Exp	948,398	84	425,156	149,054	108,593	73,430	27,854	7,181	91,479	27,225	38,426	
923	Outside Services	(1,086,642)	84	(487,130)	(170,781)	(124,422)	(84,133)	(31,914)	(8,228)	(104,813)	(31,193)	(44,028)	
928	Regulatory Comm Expense	176,716	84	79,220	27,773	20,234	13,682	5,190	1,338	17,045	5,073	7,161	
932	General Maint. - Labor	359,953	84	161,363	56,572	41,215	27,869	10,571	2,726	34,720	10,333	14,584	
932	General Maint. - Expense	1,602,632	84	718,442	251,876	183,503	124,084	47,068	12,135	154,583	46,005	64,936	
931	Office Rentals	600,639	84	269,260	94,399	68,774	46,504	17,640	4,548	57,935	17,242	24,337	
	Variance (Antenna Revenue)	(60,923)	84	(27,311)	(9,575)	(6,976)	(4,717)	(1,789)	(461)	(5,876)	(1,749)	(2,469)	
925	Worker's Compensation	352,280	85	165,994	52,032	35,334	28,323	10,745	2,783	32,163	9,793	15,113	
926	Pensions and Benefits	3,640,865	85	1,715,576	537,756	365,179	292,726	111,046	28,763	332,411	101,216	156,193	
924	Property Insurance	266,362	57	127,877	37,519	25,750	12,377	4,681	2,210	24,411	12,550	18,989	
925	Injuries and Damages	979,009	57	470,010	137,901	94,643	45,491	17,203	8,121	89,721	46,129	69,790	
	SUBTOTAL	12,945,394		5,934,365	1,976,451	1,403,350	975,622	370,017	100,234	1,222,081	390,923	572,351	
				45.84%	15.27%	10.84%	7.54%	2.86%	0.77%	9.44%	3.02%	4.42%	
	TOTAL BASE, EXTRA CAPACITY	35,189,591	55	15,423,166	5,357,975	3,875,687	2,513,948	1,332,214	318,351	3,817,597	1,050,220	1,500,435	
			55	43.83%	15.23%	11.01%	7.14%	3.79%	0.91%	10.85%	2.98%	4.27%	
	Small Mains	34,020	48	23,308	10,713	-	-	-	-	-	-	-	
	Meters-Wholesale	28,253	66	-	-	-	3,438	4,636	-	20,179	-	-	
	Meters-Retail	2,516,458	68	1,359,755	356,949	168,489	-	-	-	-	631,265	-	
	Services-Retail	556,467	69	452,115	57,705	11,885	-	-	-	-	34,761	-	
	Billing & Accounting	4,582,285	67	3,863,324	468,768	54,987	-	458	-	458	191,540	2,749	
	Fire Hydrants	406,398	70	-	-	-	-	-	-	-	-	406,398	
		8,123,881		5,698,502	894,135	235,361	3,438	5,095	-	20,637	857,566	409,148	
	TOTAL	\$ 43,313,473		\$ 21,121,668	\$ 6,252,109	\$ 4,111,048	\$ 2,517,386	\$ 1,337,309	\$ 318,351	\$ 3,838,233	\$ 1,907,786	\$ 1,909,582	
	PERCENTS	100.00%		48.76%	14.43%	9.49%	5.81%	3.09%	0.73%	8.86%	4.40%	4.41%	



MIDDLESEX WATER COMPANY

ALLOCATION OF PRO FORMA REVENUE REQUIREMENT TO FUNCTIONAL CLASSIFICATIONS

Description	Total Amount	Code	Base		Extra - Capacity				Small Mains	Contract Meters	Customer			Hydrants
			1 Usage	2 Production	Maximum Day		Peak Hour				Meters	Services	Billing and Accounting	
					1 Usage	2 Production	1 Usage	2 Production						
UTILITY OPERATING INCOME	\$ 35,639,436	31.0	\$ 9,298,964	\$ 4,605,424	\$ 6,956,830	\$ 3,192,074	\$ 2,330,864	\$ 136,085	\$ 71,940	\$ 658,237	\$ 3,810,877	\$ 3,171,592	\$ 5,747	\$ 1,400,802
OPERATION & MAINTENANCE	43,313,474	74.0	21,197,894	4,797,096	5,714,685	985,133	2,452,268	42,517	34,020	28,253	2,516,458	556,467	4,582,285	406,398
DEPRECIATION	16,729,174	83.0	3,246,689	2,821,829	2,244,008	1,975,007	966,956	127,992	67,615	369,372	1,916,978	2,281,975	-	710,752
AMORTIZATION EXPENSE	3,440	31.0	898	445	671	308	225	13	7	64	368	306	1	135
PROPERTY TAXES-SOURCE	456,560	2.1	268,549	-	188,011	-	-	-	-	-	-	-	-	-
PROPERTY TAXES-PUMPING D&R RWPS	24,407	4.1	12,203	-	8,542	-	3,661	-	-	-	-	-	-	-
PROPERTY TAXES-PUMPING OTHER	36,691	4.1	18,346	-	12,842	-	5,504	-	-	-	-	-	-	-
PROPERTY TAXES-TREATMENT	687,712	2.1	404,512	-	283,200	-	-	-	-	-	-	-	-	-
PROPERTY TAXES-STORAGE	93,323	5.1	-	-	-	-	93,323	-	-	-	-	-	-	-
PROPERTY TAXES-TRANSMISSION MAIN	11,805	4.1	5,902	-	4,132	-	1,771	-	-	-	-	-	-	-
PROPERTY TAXES-GENERAL PLANT	284,753	41.0	72,894	38,150	50,568	26,675	22,204	1,923	797	4,819	26,043	29,544	-	11,136
PAYROLL TAXES	1,280,465	75.0	715,469	5,294	162,164	3,706	69,499	740	1,229	-	118,744	9,880	182,339	11,402
FRANCHISE & OTHER	14,548,538	21.0	5,187,734	1,811,609	2,311,934	916,638	878,477	45,752	25,957	157,720	1,241,601	897,101	696,986	377,028
INCOME TAX	1,016,495	31.0	265,222	131,354	198,420	91,043	66,480	3,881	2,052	18,774	108,692	90,459	164	39,953
TOTAL OPERATING REVENUE	114,126,271	21.0	40,695,275	14,211,200	18,136,007	7,190,584	6,891,232	358,904	203,617	1,237,239	9,739,762	7,037,325	5,467,522	2,957,606
LESS MISC. REVENUES	(227,236)	21.0	(81,028)	(28,296)	(36,110)	(14,317)	(13,721)	(715)	(405)	(2,463)	(19,393)	(14,012)	(10,886)	(5,889)
REVENUE FROM SALES	\$ 113,899,035	21.0	\$ 40,614,247	\$ 14,182,904	\$ 18,099,896	\$ 7,176,267	\$ 6,877,511	\$ 358,190	\$ 203,211	\$ 1,234,775	\$ 9,720,369	\$ 7,023,313	\$ 5,456,635	\$ 2,951,717
PERCENTS	100.00%	21.0	35.66%	12.45%	15.89%	6.30%	6.04%	0.31%	0.18%	1.08%	8.53%	6.17%	4.79%	2.59%

MIDDLESEX WATER COMPANY

ALLOCATION OF RATE BASE ELEMENTS TO FUNCTIONAL CLASSIFICATIONS

Description	Total Amount	Code	Base		Extra - Capacity				Small Mains	Contract Meters	Customer			Hydrants
			1 Usage	2 Production	Maximum Day		Peak Hour				Meters	Services	Billing and Accounting	
					1 Usage	2 Production	1 Usage	2 Production						
UTILITY PLANT	\$ 697,479,403	41.0	\$ 178,547,010	\$ 93,444,570	\$ 123,862,629	\$ 65,338,017	\$ 54,386,468	\$ 4,710,851	\$ 1,952,004	\$ 11,803,638	\$ 63,790,354	\$ 72,366,712	\$ -	\$ 27,277,150
UPIS ALLOCATED TO SUBSIDIARIES	-	41.0	-	-	-	-	-	-	-	-	-	-	-	-
INTANGIBLE ASSETS (prepaids/deposits)	-	41.0	-	-	-	-	-	-	-	-	-	-	-	-
ACCUMULATED DEPRECIATION, NET	(149,568,063)	51.0	(32,606,776)	(25,248,411)	(22,002,929)	(17,672,603)	(10,137,842)	(2,617,945)	(861,214)	(1,506,962)	(7,150,655)	(24,017,712)	-	(5,745,014)
ADVANCES FOR CONSTRUCTION	(2,767,551)	32.0	(1,213,825)	-	-	-	(1,213,825)	-	-	-	-	(382,588)	-	42,687
CIAC - TRANSMISSION MAINS	(8,640,577)	33.0	(4,320,288)	-	-	-	(4,320,288)	-	-	-	-	-	-	-
CIAC - OTHER	(10,849,637)	33.0	(4,710,016)	-	(119,330)	-	(4,590,685)	-	-	(507,816)	(11,504)	(228,562)	-	(681,724)
DEFERRED INCOME TAXES	(21,393,981)	41.0	(5,476,622)	(2,866,251)	(3,799,273)	(2,004,131)	(1,668,211)	(144,497)	(59,874)	(362,056)	(1,956,659)	(2,219,724)	-	(836,680)
DEFERRED ITC (pre-1971)	-	41.0	-	-	-	-	-	-	-	-	-	-	-	-
MATERIAL & SUPPLIES	4,490,342	61.0	2,203,394	83,554	1,542,376	-	661,018	-	-	-	-	-	-	-
CASH WORKING CAPITAL	5,966,180	74.0	2,919,887	660,772	787,165	135,696	337,786	5,856	4,686	3,892	346,627	76,650	631,183	55,979
ROAD OPENING PERMIT DEPOSIT	411,232	33.0	190,534.08	-	2,517.80	-	188,016.28	-	-	10,714.62	242.73	4,822.53	-	14,383.97
CUSTOMER DEPOSITS	(77,482)	6.0	-	-	-	-	-	-	-	-	-	(77,482)	-	-
INJURIES & DAMAGES RESERVE	(31,857)	41.0	(8,155)	(4,268)	(5,657)	(2,984)	(2,484)	(215)	(89)	(539)	(2,914)	(3,305)	-	(1,246)
PENSION / RETIREMENT PLAN RESERVE	(3,853,624)	75.0	(2,153,240)	(15,932)	(488,042)	(11,153)	(209,161)	(2,228)	(3,698)	-	(357,367)	(29,733)	(548,759)	(34,314)
UNAMORTIZED ACQUISITION ADJUSTMENT	161,848	31.0	42,229	20,914	31,593	14,496	10,585	618	327	2,989	17,306	14,403	26	6,361
TOTALS	\$ 511,326,233	31.0	\$ 133,414,132	\$66,074,949	\$ 99,811,048	\$ 45,797,338	\$ 33,441,377	\$1,952,441	\$ 1,032,142	\$ 9,443,860	\$ 54,675,431	\$ 45,503,481	\$ 82,450	\$ 20,097,585
PERCENTS	100.00%	31.0	26.09%	12.92%	19.52%	8.96%	6.54%	0.38%	0.20%	1.85%	10.69%	8.90%	0.02%	3.93%

MIDDLESEX WATER COMPANY

ALLOCATION OF UTILITY PLANT TO FUNCTIONAL CLASSIFICATIONS

Account No.	Description	Total Amount	Code	Base		Extra - Capacity				Small Mains	Contract Meters	Customer			Hydrants
				1 Usage	2 Production	Maximum Day		Peak Hour				Meters	Services	Billing and Accounting	
						1 Usage	2 Production	1 Usage	2 Production						
310.000	SOURCE OF SUPPLY	\$ 105,088	1.2	\$ -	\$ 105,088	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
	Water Rights - CJO	11,152	2.2	-	6,560	-	4,592	-	-	-	-	-	-	-	-
	ROW - Supply Main	16,968	1.1	16,968	-	-	-	-	-	-	-	-	-	-	-
	Water Rights - Other	166,511	4.1	83,256	-	58,279	-	24,977	-	-	-	-	-	-	-
311.000	Well Field Land	281,282	2.2	-	165,450	-	115,832	-	-	-	-	-	-	-	-
	Supply Structures-D&R	1,026,026	4.1	513,013	-	359,109	-	153,904	-	-	-	-	-	-	-
313.000	Supply Structures-Other	381,429	2.2	-	224,357	-	157,072	-	-	-	-	-	-	-	-
314.000	Intakes	38,859	2.2	-	22,857	-	16,002	-	-	-	-	-	-	-	-
	Wells-CJO	608,635	4.1	304,318	-	213,022	-	91,295	-	-	-	-	-	-	-
	Wells-Other	8,956,480	2.2	-	5,268,202	-	3,688,278	-	-	-	-	-	-	-	-
316.000	Supply Mains-D&R	1,644,909	2.1	967,535	-	677,374	-	-	-	-	-	-	-	-	-
	Supply Mains-Other														
	PUMPING PLANT														
320.000	Land - D&R	2,947	2.2	-	1,733	-	1,214	-	-	-	-	-	-	-	-
	Land - Oak St	6,272	4.1	3,136	-	2,195	-	941	-	-	-	-	-	-	-
	Land - Other	82,970	4.1	41,485	-	29,040	-	12,446	-	-	-	-	-	-	-
321.000	Structures - D&R	2,753,758	2.2	-	1,619,760	-	1,133,998	-	-	-	-	-	-	-	-
	Structures - CJO Thermal	1,094	2.2	-	643	-	451	-	-	-	-	-	-	-	-
	Structures - CJO Booster	4,442,067	4.2	-	2,221,034	-	1,554,723	-	666,310	-	-	-	-	-	-
	Structures - Oak St Booster	56,127	4.1	28,064	-	19,644	-	8,419	-	-	-	-	-	-	-
	Structures - Other Pumping	4,404,589	4.1	2,202,295	-	1,541,606	-	660,688	-	-	-	-	-	-	-
323.000	Power Production Equipment - CJO	3,530,607	4.2	-	1,765,304	-	1,235,712	-	529,591	-	-	-	-	-	-
	Power Production Equipment - Other	655,520	4.1	327,760	-	229,432	-	98,328	-	-	-	-	-	-	-
325.000	Electric Pumping Equipment - D&R	2,015,322	2.2	-	1,185,412	-	829,910	-	-	-	-	-	-	-	-
	Electric Pumping Equipment - CJO Thermal	9,486	2.2	-	5,580	-	3,906	-	-	-	-	-	-	-	-
	Electric Pumping Equipment - CJO Filter	3,755,451	2.2	-	2,208,956	-	1,546,495	-	-	-	-	-	-	-	-
	Electric Pumping Equipment - CJO Booster	2,225,118	4.2	-	1,112,559	-	778,791	-	333,768	-	-	-	-	-	-
	Electric Pumping Equipment - Oak St	153,628	4.1	76,814	-	53,770	-	23,044	-	-	-	-	-	-	-
	Electric Pumping Equipment - North Meter Pit	419	4.1	210	-	147	-	63	-	-	-	-	-	-	-
	Electric Pumping Equipment - East Brunswick	6,258	4.1	3,129	-	2,190	-	939	-	-	-	-	-	-	-
	Electric Pumping Equipment - Other	9,044,023	4.1	4,522,012	-	3,165,408	-	1,356,603	-	-	-	-	-	-	-
325.100	Other Pumping Equipment - CJO Booster	261,430	2.2	-	153,773	-	107,657	-	-	-	-	-	-	-	-
328.000	Other Pumping Equipment - Other	499,164	2.1	293,608	-	205,556	-	-	-	-	-	-	-	-	-
	WATER TREATMENT														
330.000	Land - CJO	143,861	2.2	-	84,619	-	59,242	-	-	-	-	-	-	-	-
331.000	Structures - CJO	60,433,666	2.2	-	35,547,082	-	24,886,584	-	-	-	-	-	-	-	-
	Structures - North Meter Pit	13,551	4.1	6,776	-	4,743	-	2,033	-	-	-	-	-	-	-
	Structures - Other	1,129,085	4.1	564,543	-	395,180	-	169,363	-	-	-	-	-	-	-
332.000	Water Treatment Equipment - CJO	53,733,573	2.2	-	31,606,088	-	22,127,485	-	-	-	-	-	-	-	-
	Water Treatment Equipment - No. Meter Pit	4,582	4.1	2,291	-	1,604	-	687	-	-	-	-	-	-	-
	Water Treatment Equipment - Tices Lane	2,766	4.1	1,383	-	968	-	415	-	-	-	-	-	-	-
	Water Treatment Equipment - Other	2,265,234	4.1	1,132,617	-	792,832	-	339,785	-	-	-	-	-	-	-
	TRANSMISSION & DISTRIBUTION														
340.000	Land - ROW 48' Main	61,673	4.2	-	30,837	-	21,586	-	9,251	-	-	-	-	-	-
	Land - ROW SRB	583,859	4.1	291,930	-	204,351	-	87,579	-	-	-	-	-	-	-
	Land - ROW Other	155,805	4.1	77,903	-	54,532	-	23,371	-	-	-	-	-	-	-
	Land - Storage	64,547	5.1	-	-	-	-	64,547	-	-	-	-	-	-	-
342.000	Reservoirs and Standpipes - CJO	2,568,671	5.2	-	-	-	-	2,568,671	-	-	-	-	-	-	-
	Reservoirs and Standpipes - Other	1,481,241	5.1	-	-	-	-	1,481,241	-	-	-	-	-	-	-
343.000	Small Mains	1,749,541	6.0	-	-	-	-	1,749,541	-	-	-	-	-	-	-
	T&D Mains - East Brunswick	76,982	4.1	38,491	-	26,944	-	11,547	-	-	-	-	-	-	-
	T&D Mains - Edison & HP	437,922	4.2	-	218,961	-	153,273	-	65,688	-	-	-	-	-	-
	T&D Mains - CJO PS	326,397	4.2	-	163,199	-	114,239	-	48,960	-	-	-	-	-	-
	T&D Mains - Oak St PS	80,494	4.1	40,247	-	28,173	-	12,074	-	-	-	-	-	-	-
	T&D Mains - North Meter Pit	8,186	4.1	4,093	-	2,865	-	1,228	-	-	-	-	-	-	-
	Transmission Mains	182,505,712	4.1	91,252,856	-	63,876,999	-	27,375,857	-	-	-	-	-	-	-
	Distribution Mains	110,422,283	4.1	55,211,142	-	38,647,799	-	16,563,342	-	-	-	-	-	-	-
345.000	Services-Retail	64,860,792	9.0	-	-	-	-	-	-	-	-	-	64,860,792	-	-
345.100	Services-Wholesale	7,193,615	7.0	-	-	-	-	-	-	7,193,615	-	-	-	-	-
346.000	Meters-Retail	57,173,979	8.0	-	-	-	-	-	-	-	57,173,979	-	-	-	-
346.100	Meters-Wholesale	3,380,742	7.0	-	-	-	-	-	-	-	3,380,742	-	-	-	-
346.200	Meters-Other	58,464	2.2	-	34,389	-	24,075	-	-	-	-	-	-	-	-
348.000	Fire Hydrants	24,447,947	11.0	-	-	-	-	-	-	-	-	-	-	-	24,447,947
349.000	Other T&D	1,205,028	4.1	602,514	-	421,760	-	180,754	-	-	-	-	-	-	-
	GENERAL														
389.000	General Land	1,121,028	41.0	286,971	150,189	199,079	105,015	87,413	7,572	3,137	18,971	102,527	116,312	-	43,841
390.000	Office and Warehouse Building	17,702,479	41.0	4,531,639	2,371,684	3,143,714	1,658,321	1,380,364	119,564	49,543	299,584	1,619,041	1,836,714	-	692,312
391.000	Office Furniture	32,977,855	41.0	8,441,966	4,418,197	5,856,408	3,089,278	2,571,472	222,736	92,294	558,093	3,016,102	3,421,605	-	1,289,704
392.000	Transportation Equipment	8,139,720	41.0	2,083,678	1,090,516	1,445,501	762,507	634,701	54,977	22,780	137,751	744,446	844,534	-	318,330
393.000	Stores	63,850	41.0	16,345	8,554	11,339	5,981	4,979	431	179	1,081	5,840	6,625	-	2,497
394.000	Tools, Shop and Garage Equipment	2,594,621	41.0	664,194	347,613	460,769	243,057	202,317	17,524	7,261	43,909	237,300	269,204	-	101,471
395.000	Lab Equipment	1,417,619	1.1	1,417,619	-	-	-	-	-	-	-	-	-	-	-
396.000	Power Operated Equipment	424,370	41.0	108,634	56,855	75,362	39,754	33,091	2,866	1,188	7,182	38,812	44,030	-	16,596
397.000	Communication Equipment	9,012,509	41.0	2,307,103	1,207,448	1,800,496	844,268	702,757	60,871	25,223	152,521	824,270	935,089	-	352,463
398.000	Miscellaneous Equipment	306,565	41.0	78,477	41,072	54,442	28,718	23,905	2,071	658	5,188	28,038	31,808	-	11,989
	TOTALS	\$ 697,479,403	41.0	\$ 178,547,010	\$ 93,444,570	\$ 123,862,629	\$ 65,338,017	\$ 54,386,468	\$ 4,710,851	\$ 1,952,004	\$ 11,803,638	\$ 63,790,354	\$ 72,366,712	\$ -	\$ 27,277,150
	PERCENTS	100.00%	41.0	25.60%	13.40%	17.76%	9.37%	7.80%	0.68%	0.28%	1.69%	9.15%	10.38%	0.00%	3.91%

MIDDLESEX WATER COMPANY

ALLOCATION OF ACCUMULATED DEPRECIATION TO FUNCTIONAL CLASSIFICATIONS

Account No.	Description	Total Amount	Code	Base		Extra - Capacity				Small Mains	Contract Meters	Customer			Hydrants
				1 Usage	2 Production	Maximum Day		Peak Hour				Meters	Services	Billing and Accounting	
						1 Usage	2 Production	1 Usage	2 Production						
310.000	SOURCE OF SUPPLY														
	Water Rights - CJO	\$ -		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
	ROW - Supply Main	-		-	-	-	-	-	-	-	-	-	-	-	-
	Water Rights - Other	-		-	-	-	-	-	-	-	-	-	-	-	-
	Well Field Land	-		-	-	-	-	-	-	-	-	-	-	-	-
311.000	Supply Structures-D&R	111,768	2.2	-	65,742	-	46,026	-	-	-	-	-	-	-	-
	Supply Structures-Other	240,176	4.1	120,088	-	84,062	-	36,026	-	-	-	-	-	-	-
313.000	Intakes	338,435	2.2	-	199,067	-	139,368	-	-	-	-	-	-	-	-
314.000	Wells-CJO	17,408	2.2	-	10,239	-	7,169	-	-	-	-	-	-	-	-
	Wells-Other	494,162	4.1	247,081	-	172,957	-	74,124	-	-	-	-	-	-	-
316.000	Supply Mains-D&R	2,011,673	2.2	-	1,183,266	-	828,407	-	-	-	-	-	-	-	-
	Supply Mains-Other	88,196	2.1	51,877	-	36,319	-	-	-	-	-	-	-	-	-
	PUMPING PLANT														
320.000	Land - D&R	-		-	-	-	-	-	-	-	-	-	-	-	-
	Land - Oak St	-		-	-	-	-	-	-	-	-	-	-	-	-
	Land - Other	-		-	-	-	-	-	-	-	-	-	-	-	-
321.000	Structures - D&R	1,623,946	2.2	-	955,205	-	668,741	-	-	-	-	-	-	-	-
	Structures - CJO Thermal	1,205	2.2	-	709	-	496	-	-	-	-	-	-	-	-
	Structures - CJO Booster	2,032,392	4.2	-	1,016,196	-	711,337	-	304,859	-	-	-	-	-	-
	Structures - Oak St Booster	50,918	4.1	25,459	-	17,821	-	7,638	-	-	-	-	-	-	-
	Structures - Other Pumping	2,332,285	4.1	1,166,143	-	816,300	-	349,843	-	-	-	-	-	-	-
323.000	Power Production Equipment - CJO	2,238,329	4.2	-	1,119,165	-	783,415	-	335,749	-	-	-	-	-	-
	Power Production Equipment - Other	443,686	4.1	221,843	-	155,290	-	66,553	-	-	-	-	-	-	-
325.000	Electric Pumping Equipment - D&R	1,372,049	2.2	-	807,039	-	565,010	-	-	-	-	-	-	-	-
	Electric Pumping Equipment - CJO Thermal	8,550	2.2	-	5,029	-	3,521	-	-	-	-	-	-	-	-
	Electric Pumping Equipment - CJO Filter	2,140,509	2.2	-	1,259,047	-	881,462	-	-	-	-	-	-	-	-
	Electric Pumping Equipment - CJO Booster	1,016,640	4.2	-	508,320	-	355,824	-	152,496	-	-	-	-	-	-
	Electric Pumping Equipment - Oak St	133,219	4.1	66,610	-	46,627	-	19,983	-	-	-	-	-	-	-
	Electric Pumping Equipment - North Meter Pit	240	4.1	120	-	84	-	36	-	-	-	-	-	-	-
	Electric Pumping Equipment - East Brunswick	3,592	4.1	1,796	-	1,257	-	539	-	-	-	-	-	-	-
325.100	Electric Pumping Equipment - Other	3,660,606	4.1	1,830,303	-	1,281,212	-	549,091	-	-	-	-	-	-	-
328.000	Other Pumping Equipment - CJO Booster	51,022	2.2	-	30,011	-	21,011	-	-	-	-	-	-	-	-
	Other Pumping Equipment - Other	97,271	4.1	48,636	-	34,045	-	14,591	-	-	-	-	-	-	-
	WATER TREATMENT														
330.000	Land - CJO	-		-	-	-	-	-	-	-	-	-	-	-	-
331.000	Structures - CJO	6,044,479	2.2	-	3,555,362	-	2,489,116	-	-	-	-	-	-	-	-
	Structures - North Meter Pit	9,181	4.1	4,591	-	3,213	-	1,377	-	-	-	-	-	-	-
	Structures - Other	737,426	4.1	368,713	-	258,099	-	110,614	-	-	-	-	-	-	-
332.000	Water Treatment Equipment - CJO	17,519,712	2.2	-	10,305,095	-	7,214,618	-	-	-	-	-	-	-	-
	Water Treatment Equipment - No. Meter Pit	3,093	4.1	1,546	-	1,082	-	464	-	-	-	-	-	-	-
	Water Treatment Equipment - Tices Lane	1,631	4.1	816	-	571	-	245	-	-	-	-	-	-	-
	Water Treatment Equipment - Other	2,312,158	4.1	1,156,079	-	809,255	-	346,824	-	-	-	-	-	-	-
	TRANSMISSION & DISTRIBUTION														
340.000	Land - ROW 48" Main	-		-	-	-	-	-	-	-	-	-	-	-	-
	Land - ROW SRB	-		-	-	-	-	-	-	-	-	-	-	-	-
	Land - ROW Other	-		-	-	-	-	-	-	-	-	-	-	-	-
	Land - Storage	-		-	-	-	-	-	-	-	-	-	-	-	-
342.000	Reservoirs and Standpipes - CJO	1,570,289	5.2	-	-	-	-	1,570,289	-	-	-	-	-	-	-
	Reservoirs and Standpipes - Other	667,322	5.1	-	-	-	-	667,322	-	-	-	-	-	-	-
343.000	Small Mains	776,900	6.0	-	-	-	-	-	776,900	-	-	-	-	-	-
	T&D Mains - East Brunswick	35,266	4.1	17,633	-	12,343	-	5,290	-	-	-	-	-	-	-
	T&D Mains - Edison & HP	218,961	4.2	-	109,480	-	76,636	-	32,844	-	-	-	-	-	-
	T&D Mains - CJO PS	121,535	4.2	-	60,767	-	42,537	-	18,230	-	-	-	-	-	-
	T&D Mains - Oak St PS	29,703	4.1	14,851	-	10,396	-	4,455	-	-	-	-	-	-	-
	T&D Mains - North Meter Pit	2,330	4.1	1,165	-	816	-	350	-	-	-	-	-	-	-
	Transmission Mains	18,108,467	4.1	9,054,234	-	6,337,964	-	2,716,270	-	-	-	-	-	-	-
	Distribution Mains	18,664,975	4.1	9,332,488	-	6,532,741	-	2,799,746	-	-	-	-	-	-	-
345.000	Services-Retail	20,891,953	9.0	-	-	-	-	-	-	-	-	20,891,953	-	-	-
345.100	Services-Wholesale	631,604	7.0	-	-	-	-	-	-	-	631,604	-	-	-	-
346.000	Meters-Retail	4,395,338	8.0	-	-	-	-	-	-	-	-	4,395,338	-	-	-
346.100	Meters-Wholesale	365,520	7.0	-	-	-	-	-	-	-	-	-	-	-	-
346.200	Meters-Other	38,234	2.2	-	22,489	-	15,745	-	-	-	365,520	-	-	-	-
348.000	Fire Hydrants	4,566,823	11.0	-	-	-	-	-	-	-	-	-	-	-	4,566,823
349.000	Other T&D	115,532	4.1	57,766	-	40,436	-	17,330	-	-	-	-	-	-	-
	GENERAL														
389.000	General Land	-		-	-	-	-	-	-	-	-	-	-	-	-
390.000	Office and Warehouse Building	6,186,170	41.0	1,583,591	828,790	1,098,578	579,504	482,371	41,782	17,313	104,690	565,777	641,844	-	241,930
391.000	Office Furniture	14,978,458	41.0	3,834,320	2,006,734	2,659,966	1,403,142	1,167,956	101,166	41,920	253,485	1,369,906	1,554,084	-	585,780
392.000	Transportation Equipment	5,851,720	41.0	1,497,976	783,982	1,039,184	548,174	456,292	39,523	16,377	99,030	535,189	607,143	-	228,850
393.000	Stores	63,850	41.0	16,345	8,554	11,339	5,981	4,979	431	179	1,081	5,840	6,625	-	2,497
394.000	Tools, Shop and Garage Equipment	1,078,821	41.0	276,166	144,535	191,584	101,061	84,122	7,286	3,019	18,257	98,667	111,933	-	42,191
395.000	Lab Equipment	1,104,901	1.1	1,104,901	-	-	-	-	-	-	-	-	-	-	-
396.000	Power Operated Equipment	416,838	41.0	106,706	55,846	74,025	39,048	32,503	2,815	1,167	7,054	38,123	43,249	-	16,302
397.000	Communication Equipment	1,255,160	41.0	321,307	168,160	222,899	117,580	97,872	3,513	21,241	114,795	130,229	-	-	49,087
398.000	Miscellaneous Equipment	295,434	41.0	75,628	39,581	52,465	27,675	23,037	1,995	827	5,000	27,020	30,653	-	11,554
	TOTAL	\$ 149,568,063		\$ 32,606,776	\$ 25,248,411	\$ 22,002,929	\$ 17,672,603	\$ 10,137,842	\$ 2,617,945	\$ 861,214	\$ 1,506,962	\$ 7,150,655	\$ 24,017,712	\$ -	\$ 5,745,014

PERCENTS	100.00%	51.0	21.80%	16.88%	14.71%	11.82%	6.78%	1.75%	0.58%	1.01%	4.78%	16.06%	0.00%	3.84%
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MIDDLESEX WATER COMPANY

ALLOCATION OF PRO FORMA OPERATION AND MAINTENANCE EXPENSES TO FUNCTIONAL CLASSIFICATIONS

Account No.	Description	Total Amount	Code	Base		Extra - Capacity				Small Mains	Contract Meters	Customer			Hydrants
				Usage	Production	Maximum Day		Peak Hour				Meters	Services	Billing and Accounting	
						Usage	Production	Usage	Production						
	CUSTOMER ACCOUNTS														
901	Supervision Labor	226,129	69.0	-	-	-	-	-	-	-	-	52,643	-	173,486	-
901	Supervision Expense	14,218	69.0	-	-	-	-	-	-	-	-	3,310	-	10,908	-
902	Meter Reading Labor	489,814	8.0	-	-	-	-	-	-	-	-	489,814	-	-	-
902	Meter Reading Expense	116,598	8.0	-	-	-	-	-	-	-	-	116,598	-	-	-
903	Customer Records Labor	1,039,429	10.0	-	-	-	-	-	-	-	-	-	-	1,039,429	-
903	Customer Records Expense	324,596	10.0	-	-	-	-	-	-	-	-	-	-	324,596	-
904	Uncollectible Accounts	634,407	10.0	-	-	-	-	-	-	-	-	-	-	634,407	-
905	Customer Account Expenses	134,969	10.0	-	-	-	-	-	-	-	-	-	-	134,969	-
	ADMINISTRATION AND GENERAL														
930	Miscellaneous Exp - Labor	-	73.0	-	-	-	-	-	-	-	-	-	-	-	-
930	Miscellaneous Gen Expense	1,151,653	73.0	-	10,408	147,693	7,286	63,297	1,204	1,075	-	82,954	15,187	169,678	13,033
920	Admin and Gen Salaries	5,247,232	73.0	2,915,266	47,422	672,927	33,198	288,397	5,485	4,900	-	377,962	69,194	773,098	59,383
920	Admin and Gen Expenses	441,852	73.0	245,485	3,993	56,665	2,796	24,285	462	413	-	31,827	5,827	65,100	5,000
921	Office Supplies and Exp	1,255,829	73.0	697,715	11,350	161,053	7,945	69,023	1,313	1,173	-	90,458	16,560	185,027	14,212
923	Outside Services	(1,438,885)	73.0	(799,418)	(13,004)	(184,529)	(9,104)	(79,084)	(1,504)	(1,344)	-	(103,644)	(18,974)	(211,997)	(16,284)
928	Regulatory Comm Expense	234,000	73.0	130,006	2,115	30,009	1,480	12,861	245	219	-	16,855	3,086	34,476	2,648
950	Transportation Clearing - Labor	-	73.0	-	-	-	-	-	-	-	-	-	-	-	-
950	Transportation Clearing - Expense	-	73.0	-	-	-	-	-	-	-	-	-	-	-	-
924	Life Insurance	-	73.0	-	-	-	-	-	-	-	-	-	-	-	-
924	Property Insurance	357,074	41.0	91,407	47,839	63,411	33,450	27,843	2,412	999	6,043	32,657	37,048	-	13,965
925	Injuries and Damages	1,312,421	41.0	335,965	175,831	233,068	122,944	102,337	8,864	3,673	22,210	120,032	136,170	-	51,326
925	Worker's Compensation	471,413	75.0	263,406	1,949	59,702	1,364	25,587	272	452	-	43,717	3,637	67,130	4,198
926	Pensions and Benefits	4,872,126	75.0	2,722,335	20,142	617,030	14,101	264,441	2,816	4,675	-	451,818	37,591	693,795	43,382
931	Office Rentals	795,341	73.0	441,877	7,188	101,998	5,032	43,713	831	743	-	57,289	10,488	117,181	9,001
932	General Maint. - Labor	476,634	73.0	264,809	4,308	61,126	3,016	26,197	498	445	-	34,332	6,285	70,225	5,394
932	General Maint. - Expense	2,122,137	73.0	1,179,020	19,179	272,152	13,426	116,636	2,218	1,982	-	152,859	27,984	312,664	24,016
932	Maint of Grounds - Labor	-	73.0	-	-	-	-	-	-	-	-	-	-	-	-
953	Heating Fuel	-	73.0	-	-	-	-	-	-	-	-	-	-	-	-
965	Variance (Antenna Revenue)	(80,671)	73.0	(44,819)	(729)	(10,346)	(510)	(4,434)	(84)	(75)	-	(5,811)	(1,064)	(11,886)	(913)
	TOTAL	\$ 43,313,474	74.0	\$ 21,197,894	\$ 4,797,096	\$ 5,714,685	\$ 985,133	\$ 2,452,268	\$ 42,517	\$ 34,020	\$ 28,253	\$ 2,516,458	\$ 556,467	\$ 4,582,285	\$ 406,398
	PERCENTS	100.00%	74.0	48.94%	11.08%	13.19%	2.27%	5.66%	0.10%	0.08%	0.07%	5.81%	1.28%	10.58%	0.94%

MIDDLESEX WATER COMPANY

ALLOCATION OF DEPRECIATION EXPENSE TO FUNCTIONAL CLASSIFICATIONS

Account No.	Description	Total Amount	Code	Base		Extra - Capacity				Small Mains	Contract Meters	Customer			Hydrants
				1 Usage	2 Production	Maximum Day		Peak Hour				Meters	Services	Billing and Accounting	
						1 Usage	2 Production	1 Usage	2 Production						
SOURCE OF SUPPLY															
311.000	Supply Structures-D&R	\$ 8,354	2.2	\$ -	\$ 4,914	\$ -	\$ 3,440	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
	Supply Structures-Other	30,473	4.1	15,236	-	10,666	-	4,571	-	-	-	-	-	-	-
313.000	Intakes	9,383	2.2	-	5,519	-	3,864	-	-	-	-	-	-	-	-
314.000	Wells-CJO	1,337	2.2	-	786	-	550	-	-	-	-	-	-	-	-
	Wells-Other	20,937	4.1	10,468.52	-	7,327.97	-	3,140.56	-	-	-	-	-	-	-
316.000	Supply Mains-D&R	103,000	2.2	-	60,584	-	42,415	-	-	-	-	-	-	-	-
	Supply Mains-Other	18,916	2.1	11,127	-	7,790	-	-	-	-	-	-	-	-	-
PUMPING PLANT															
321.000	Structures - D&R	85,917	2.2	-	50,537	-	35,381	-	-	-	-	-	-	-	-
	Structures - CJO Thermal	34	2.2	-	20	-	14	-	-	-	-	-	-	-	-
	Structures - CJO Booster	138,592	4.2	-	69,296	-	48,507	-	20,789	-	-	-	-	-	-
	Structures - Oak St Booster	1,751	4.1	876	-	613	-	263	-	-	-	-	-	-	-
	Structures - Other Pumping	126,750	4.1	63,375	-	44,362	-	19,012	-	-	-	-	-	-	-
323.000	Power Production Equipment - CJO	103,800	4.2	-	51,900	-	36,330	-	15,570	-	-	-	-	-	-
	Power Production Equipment - Other	19,272	4.1	9,636	-	6,745	-	2,891	-	-	-	-	-	-	-
325.000	Electric Pumping Equipment - D&R	57,840	2.2	-	34,021	-	23,818	-	-	-	-	-	-	-	-
	Electric Pumping Equipment - CJO Thermal	272	2.2	-	160	-	112	-	-	-	-	-	-	-	-
	Electric Pumping Equipment - CJO Filter	107,781	2.2	-	63,397	-	44,384	-	-	-	-	-	-	-	-
	Electric Pumping Equipment - CJO Booster	63,861	4.2	-	31,930	-	22,351	-	9,579	-	-	-	-	-	-
	Electric Pumping Equipment - Oak St	4,409	4.1	2,205	-	1,543	-	661	-	-	-	-	-	-	-
	Electric Pumping Equipment - North Meter Pit	12	4.1	6	-	4	-	2	-	-	-	-	-	-	-
	Electric Pumping Equipment - East Brunswick	180	4.1	90	-	63	-	27	-	-	-	-	-	-	-
325.100	Electric Pumping Equipment - Other	259,498	4.1	129,749	-	90,824	-	38,925	-	-	-	-	-	-	-
328.000	Other Pumping Equipment - CJO Booster	13,176	4.1	6,588	-	4,612	-	1,976	-	-	-	-	-	-	-
	Other Pumping Equipment - Other	25,158	4.1	12,579	-	8,805	-	3,774	-	-	-	-	-	-	-
WATER TREATMENT															
331.000	Structures - CJO	1,645,629	2.2	-	967,959	-	677,670	-	-	-	-	-	-	-	-
	Structures - North Meter Pit	367	4.1	184	-	129	-	55	-	-	-	-	-	-	-
	Structures - Other	30,598	4.1	15,299	-	10,709	-	4,590	-	-	-	-	-	-	-
332.000	Water Treatment Equipment - CJO	1,461,553	2.2	-	859,686	-	601,868	-	-	-	-	-	-	-	-
	Water Treatment Equipment - No. Meter Pit	125	4.1	62	-	44	-	19	-	-	-	-	-	-	-
	Water Treatment Equipment - Tices Lane	75	4.1	38	-	26	-	11	-	-	-	-	-	-	-
	Water Treatment Equipment - Other	72,937	4.1	36,469	-	25,528	-	10,941	-	-	-	-	-	-	-
TRANS & DIST PLANT															
342.000	Reservoirs and Standpipes - CJO	49,575	5.2	-	-	-	-	49,575	-	-	-	-	-	-	-
	Reservoirs and Standpipes - Other	28,588	5.1	14,294	-	10,006	-	4,288	-	-	-	-	-	-	-
343.000	Small Mains	54,761	6.0	-	-	-	-	-	54,761	-	-	-	-	-	-
	T&D Mains - East Brunswick	978	4.1	489	-	342	-	147	-	-	-	-	-	-	-
	T&D Mains - Edison & HP	5,562	4.2	-	2,781	-	1,947	-	834	-	-	-	-	-	-
	T&D Mains - CJO PS	4,145	4.2	-	2,073	-	1,451	-	622	-	-	-	-	-	-
	T&D Mains - Oak St PS	1,022	4.1	511	-	358	-	153	-	-	-	-	-	-	-
	T&D Mains - North Meter Pit	104	4.1	52	-	36	-	16	-	-	-	-	-	-	-
	Transmission Mains	2,160,112	4.1	1,080,056	-	756,039	-	324,017	-	-	-	-	-	-	-
	Distribution Mains	1,211,065	4.1	605,533	-	423,873	-	181,660	-	-	-	-	-	-	-
345.000	Services-Retail	1,805,415	9.0	-	-	-	-	-	-	-	-	1,805,415	-	-	-
345.100	Services-Wholesale	203,128	7.0	-	-	-	-	-	-	203,128	-	-	-	-	-
346.000	Meters-Retail	1,496,896	8.0	-	-	-	-	-	-	-	1,496,896	-	-	-	-
346.100	Meters-Wholesale	88,513	7.0	-	-	-	-	-	-	88,513	-	-	-	-	-
346.200	Meters-Other	1,530	2.2	-	900	-	630	-	-	-	-	-	-	-	-
348.000	Fire Hydrants	531,122	11.0	-	-	-	-	-	-	-	-	-	-	-	531,122
349.000	Other T&D	51,093	4.1	25,547	-	17,883	-	7,664	-	-	-	-	-	-	-
GENERAL PLANT															
390.000	Office and Warehouse Building	401,846	41.0	102,868	53,837	71,362	37,644	31,334	2,714	1,125	6,801	36,752	41,693	-	15,715
391.000	Office Furniture	2,313,396	41.0	592,204	309,936	410,827	216,713	180,389	15,625	6,474	39,150	211,580	240,026	-	90,473
392.000	Transportation Equipment	1,127,435	41.0	288,611	151,048	200,217	105,615	87,913	7,615	3,155	19,080	103,113	116,977	-	44,092
393.000	Stores	-	41.0	-	-	-	-	-	-	-	-	-	-	-	-
394.000	Tools, Shop and Garage Equipment	107,668	41.0	27,562	14,425	19,120	10,086	8,395	727	301	1,822	9,847	11,171	-	4,211
395.000	Lab Equipment	30,426	1.1	30,426	-	-	-	-	-	-	-	-	-	-	-
396.000	Power Operated Equipment	25,844	41.0	6,616	3,462	4,590	2,421	2,015	175	72	437	2,364	2,681	-	1,011
397.000	Communication Equipment	616,456	41.0	157,806	82,589	109,474	57,748	48,069	4,164	1,725	10,432	56,380	63,960	-	24,108
398.000	Miscellaneous Equipment	505	41.0	129	68	90	47	39	3	1	9	46	52	-	20
<b>TOTAL</b>		<b>\$ 16,729,174</b>	<b>83</b>	<b>\$ 3,246,689</b>	<b>\$ 2,821,829</b>	<b>\$ 2,244,008</b>	<b>\$ 1,975,007</b>	<b>\$ 966,956</b>	<b>\$ 127,992</b>	<b>\$ 67,615</b>	<b>\$ 369,372</b>	<b>\$ 1,916,978</b>	<b>\$ 2,281,975</b>	<b>\$ -</b>	<b>\$ 710,752</b>
<b>PERCENTS</b>		<b>100.00%</b>	<b>83</b>	<b>19.41%</b>	<b>16.87%</b>	<b>13.41%</b>	<b>11.81%</b>	<b>5.78%</b>	<b>0.77%</b>	<b>0.40%</b>	<b>2.21%</b>	<b>11.46%</b>	<b>13.64%</b>	<b>0.00%</b>	<b>4.25%</b>

MIDDLESEX WATER COMPANY  
SUMMARY OF FUNCTIONAL ALLOCATION FACTORS

Description	Code	Base 1	Base 2	Extra - Capacity				Small Mains	Contract Meters	Customer			Hydrants
				Maximum Day 1	Maximum Day 2	Peak Hour 1	Peak Hour 2			Meters	Services	Billing and Accounting	
BASE 1 - CONSUMPTION	1.1	1.000000											
BASE 2 - PRODUCTION	1.2		1.000000										
BASE / MAXIMUM DAY - CONSUMPTION	2.1	0.588200		0.411800									
BASE / MAXIMUM DAY - PRODUCTION	2.2		0.588200		0.411800								
BASE / PEAK HOUR - CONSUMPTION	3.1	0.500000				0.500000							
BASE / PEAK HOUR - PRODUCTION	3.2		0.500000				0.500000						
BASE / MAXIMUM DAY / PEAK HOUR - CONSUMPTION	4.1	0.500000		0.350000		0.150000							
BASE / MAXIMUM DAY / PEAK HOUR - PRODUCTION	4.2		0.500000		0.350000		0.150000						
PEAK HOUR - CONSUMPTION	5.1					1.000000							
PEAK HOUR - PRODUCTION	5.2						1.000000						
SMALL MAINS	6							1.000000					
CONTRACT METERS	7								1.000000				
CUSTOMER - METERS	8									1.000000			
CUSTOMER - SERVICES	9										1.000000		
CUSTOMER - BILLING & ACCOUNTING	10											1.000000	
HYDRANTS	11												1.000000
TOTAL OPERATING REVENUE	21	0.356581	0.124522	0.158912	0.063006	0.060383	0.003145	0.001784	0.010841	0.085342	0.061663	0.047908	0.025915
RATE BASE	31	0.260918	0.129223	0.195200	0.089566	0.065401	0.003818	0.002019	0.018469	0.106929	0.088991	0.000161	0.039305
ADVANCES	32	0.438592	0.000000	0.000000	0.000000	0.438592	0.000000	0.000000	0.000000	0.000000	0.138241	0.000000	-0.015424
CIAC	33	0.463325	0.000000	0.006123	0.000000	0.457202	0.000000	0.000000	0.026055	0.000590	0.011727	0.000000	0.034978
UTILITY PLANT IN SERVICE	41	0.255989	0.133975	0.177586	0.093677	0.077976	0.006754	0.002799	0.016923	0.091458	0.103755	0.000000	0.039108
ACCUMULATED DEPRECIATION	51	0.218006	0.168809	0.147110	0.118158	0.067781	0.017503	0.005758	0.010075	0.047809	0.160580	0.000000	0.038411
PUMPING STRUCTURES	52	0.191322	0.329521	0.133925	0.230679	0.057396	0.057157	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
PUMPING EQUIPMENT	53	0.267327	0.262309	0.187129	0.183636	0.080198	0.019402	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
TREATMENT STRUCTURES	54	0.009278	0.577285	0.006495	0.404158	0.002783	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
TREATMENT EQUIPMENT	55	0.020289	0.564332	0.014202	0.395090	0.006087	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
MATERIALS AND SUPPLIES	61	0.490696	0.018607	0.343487	0.000000	0.147209	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
SUPERVISION - CUSTOMER SERVICE	69	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.232800	0.000000	0.767200	0.000000
OTHER T&D - OPERATIONS	70	0.440674	0.002220	0.308472	0.001554	0.132202	0.000666	0.002398	0.000000	0.111813	0.000000	0.000000	0.000000
OTHER T&D - MAINTENANCE	71	0.409245	0.002062	0.286472	0.001443	0.122774	0.000619	0.002227	0.000000	0.014633	0.086387	0.000000	0.074139
O&M - EXCL POWER, CHEM & PURCH WATER	73	0.555582	0.009037	0.128244	0.006327	0.054962	0.001045	0.000934	0.000000	0.072031	0.013187	0.147334	0.011317
TOTAL OPERATING EXPENSE	74	0.489406	0.110753	0.131938	0.022744	0.056617	0.000982	0.000785	0.000652	0.058099	0.012847	0.105794	0.009383
ALL LABOR	75	0.558757	0.004134	0.126645	0.002894	0.054276	0.000578	0.000960	0.000000	0.092735	0.007716	0.142401	0.008904
DEPRECIATION EXPENSE	83	0.194073	0.168677	0.134137	0.118058	0.057801	0.007651	0.004042	0.022080	0.114589	0.136407	0.000000	0.042486

MIDDLESEX WATER COMPANY  
EXPLANATION OF FUNCTIONAL ALLOCATION FACTORS

- 1.1 Applicable to items considered to be related to "Base" or average day system demands, and allocable among the various functional service areas. Allocated 100% to base.
- 1.2 Applicable to items considered to be related to "Base" or average day CJO production, and allocable among the various functional service areas. Allocated 100% to base.
- 2.1 Applicable to items considered to be related to meeting the maximum day system demands. The calculation of the factor is as follows:
- 2.2 Applicable to items considered to be related to meeting the maximum day CJO production.
- 3.1 Applicable to mains, considered to be related to meeting the peak hour system demands. The calculation of the factor is as follows:
- 3.2 Applicable to mains, considered to be related to meeting the peak hour CJO production.
- 4.1 Applicable to pumping plant, considered to be related to meeting the max day and peak hour system demands. The calculation of the factor is as follows:
- 4.2 Applicable to pumping plant, considered to be related to meeting the max day and peak hour CJO production.
- 5.1 Applicable to items considered to be related entirely to meeting peak hour system demands. Allocated 100% to Extra-Capacity/Peak Hour.
- 5.2 Applicable to items considered to be related entirely to meeting peak hour CJO production. Allocated 100% to Extra-Capacity/Peak Hour.
- 6 Applicable to items considered to be related entirely to small mains. Allocation 100% to "Small Mains".
- 7 Applicable to items considered to be related entirely to contract (wholesale) meters. Allocation 100% to "Contract Meters".
- 8 Applicable to items considered to be related entirely to meters. Allocation 100% to "Meters".
- 9 Applicable to items considered to be related entirely to services. Allocation 100% to "Services".
- 10 Applicable to items considered to be entirely related to customer billing and accounting. Allocated 100% to "Billing and Accounts".
- 11 Applicable to items considered to be related entirely to Company owned fire hydrants. Allocated 100% to "Hydrants".
- 21 Applicable to the other taxes including Regulatory Fees. Factors are based on the overall weighted allocation of revenue requirement.
- 31 Applicable to items considered to be related to the Rate Base. Factors are based on the overall weighted allocation of all elements of the rate base.
- 32 Applicable to total Advances. Factors are based on the overall weighted allocation of advances by type of plant.

	Ratio	%
Maximum Day Demand	1.70	100.00%
Average Day Demand	1.00	58.82%
Extra Capacity / Maximum Day:	0.70	41.18%

	Ratio	%
Peak Hour Demand	2.00	100.00%
Average Day Demand	1.00	50.00%
Extra Capacity/Peak Hour	1.00	50.00%

	Ratio	%
Peak Hour Demand	2.00	100.00%
Max Day Demand	1.70	-
Excess Peak Hour over Max Day	0.30	15.00%
Extra Capacity / Maximum Day:	0.70	35.00%
Average Day Demand	1.00	50.00%

Description	Total Amount	Code	Base	Base 2	Extra - Capacity				Small Mains	Contract Meters	Customer			Hydrants
					Maximum Day	Maximum Day 2	Peak Hour	Peak Hour 2			Meters	Services	Billing and Accounting	
ADVANCES														
Mains	\$ 2,427,650	3	\$ 1,213,825	\$ -	\$ -	\$ -	\$ 1,213,825	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Services	382,588	9	-	-	-	-	-	-	-	-	-	382,588	-	-
Meters	-	8	-	-	-	-	-	-	-	-	-	-	-	-
Hydrants	(42,687)	11	-	-	-	-	-	-	-	-	-	-	-	(42,687)
TOTAL	\$ 2,767,551	32	\$ 1,213,825	\$ -	\$ -	\$ -	\$ 1,213,825	\$ -	\$ -	\$ -	\$ -	\$ 382,588	\$ -	\$ (42,687)
PERCENT	100.00%		43.86%	0.00%	0.00%	0.00%	43.86%	0.00%	0.00%	0.00%	0.00%	13.82%	0.00%	-1.54%

33 Applicable to total CIAC. Factors are based on the overall weighted allocation of CIAC by type of plant.

Description	Total Amount	Code	Base	Base 2	Extra - Capacity				Small Mains	Contract Meters	Customer			Hydrants
					Maximum Day	Maximum Day 2	Peak Hour	Peak Hour 2			Meters	Services	Billing and Accounting	
CIAC														
Land - Easements SRB	\$ 507,816	7	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 507,816	\$ -	\$ -	\$ -	\$ -
Wells	-	2	-	-	-	-	-	-	-	-	-	-	-	-
Pumping	340,944	4	170,472	-	119,330	-	51,142	-	-	-	-	-	-	-
Storage	-	5	-	-	-	-	-	-	-	-	-	-	-	-
Transmission Mains	8,640,577	3	4,320,288	-	-	-	4,320,288	-	-	-	-	-	-	-
Distribution Mains	9,079,087	3	4,539,544	-	-	-	4,539,544	-	-	-	-	-	-	-
Services	228,562	9	-	-	-	-	-	-	-	-	-	228,562	-	-
Meters	11,504	8	-	-	-	-	-	-	-	-	11,504	-	-	-
Hydrants	681,724	11	-	-	-	-	-	-	-	-	-	-	-	681,724
TOTAL	\$ 19,490,214	33	\$ 9,030,304	\$ -	\$ 119,330	\$ -	\$ 8,910,973	\$ -	\$ -	\$ 507,816	\$ 11,504	\$ 228,562	\$ -	\$ 681,724
PERCENT	100.00%		46.33%	0.00%	0.61%	0.00%	45.72%	0.00%	0.00%	2.61%	0.06%	1.17%	0.00%	3.50%



MIDDLESEX WATER COMPANY  
 EXPLANATION OF FUNCTIONAL ALLOCATION FACTORS

61 Resulting overall weighted factors for materials and supplies.

69 Applicable to Customer Services Supervision Labor and Expense. Factors are based on the overall weighted allocation of meter reading and customer record labor and expenses and uncollectible accounts.

Description	Total Amount	Code	Base	Base 2	Extra - Capacity				Small Mains	Contract Meters	Customer			Hydrants
					Maximum Day	Maximum Day 2	Peak Hour	Peak Hour 2			Meters	Services	Billing and Accounting	
Meter Reading - Expenses & Labor	\$ 606,412		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 606,412	\$ -	\$ -	\$ -
Customer Records - Expenses & Labor	1,364,024		-	-	-	-	-	-	-	-	-	-	1,364,024	-
Uncollectible Accounts	634,407		-	-	-	-	-	-	-	-	-	-	634,407	-
TOTAL	\$ 2,604,844	69	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 606,412	\$ -	\$ 1,998,432	\$ -
PERCENT	100.00%		0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	23.28%	0.00%	76.72%	0.00%

70 Applicable to Other Transmission and Distribution Operations Expense. Factors are based on the overall weighted allocation of Storage, Mains, and Meters operations expense.

Description	Total Amount	Code	Base	Base 2	Extra - Capacity				Small Mains	Contract Meters	Customer			Hydrants
					Maximum Day	Maximum Day 2	Peak Hour	Peak Hour 2			Meters	Services	Billing and Accounting	
T&D - Storage, Mains, Meters Services & Hydrants	\$ 3,274,468	70	\$ 1,442,973	\$ 7,270	\$ 1,010,081	\$ 5,089	\$ 432,892	\$ 2,181	\$ 7,852	\$ -	\$ 366,128	\$ -	\$ -	\$ -
TOTAL	\$ 3,274,468		\$ 1,442,973	\$ 7,270	\$ 1,010,081	\$ 5,089	\$ 432,892	\$ 2,181	\$ 7,852	\$ -	\$ 366,128	\$ -	\$ -	\$ -
PERCENT	100.00%		44.07%	0.22%	30.85%	0.16%	13.22%	0.07%	0.24%	0.00%	11.18%	0.00%	0.00%	0.00%

71 Applicable to Other Transmission and Distribution Maintenance Expense. Factors are based on the overall weighted allocation of Storage, Mains, Meters, Services and Hydrants maintenance expense.

Description	Total Amount	Code	Base	Base 2	Extra - Capacity				Small Mains	Contract Meters	Customer			Hydrants
					Maximum Day	Maximum Day 2	Peak Hour	Peak Hour 2			Meters	Services	Billing and Accounting	
T&D - Storage, Mains, Meters Services & Hydrants	\$ 2,201,303	71	\$ 900,873	\$ 4,539	\$ 630,611	\$ 3,178	\$ 270,262	\$ 1,362	\$ 4,902	\$ -	\$ 32,212	\$ 190,164	\$ -	\$ 163,202
TOTAL	\$ 2,201,303		\$ 900,873	\$ 4,539	\$ 630,611	\$ 3,178	\$ 270,262	\$ 1,362	\$ 4,902	\$ -	\$ 32,212	\$ 190,164	\$ -	\$ 163,202
PERCENT	100.00%		40.92%	0.21%	28.65%	0.14%	12.28%	0.06%	0.22%	0.00%	1.46%	8.64%	0.00%	7.41%

73 Applicable to operation and maintenance expenses considered to be of an overhead nature. Factors are based on the overall weighted allocation of all other operation and maintenance expenses except power, chemicals and purchased water.

Description	Total Amount	Code	Base 1	Base 2	Extra - Capacity				Small Mains	Contract Meters	Customer			Hydrants
					Maximum Day	Maximum Day 2	Peak Hour	Peak Hour 2			Meters	Services	Billing and Accounting	
TOTAL	\$ 15,731,524	73	\$ 8,740,147	\$ 142,174	\$ 2,017,476	\$ 99,530	\$ 864,633	\$ 16,443	\$ 14,691	\$ -	\$ 1,133,152	\$ 207,448	\$ 2,317,795	\$ 178,035
PERCENT	100.00%		55.56%	0.90%	12.82%	0.63%	5.50%	0.10%	0.09%	0.00%	7.20%	1.32%	14.73%	1.13%

74 Resulting overall weighted allocation of all operation and maintenance expenses. Applicable to cash working capital.

75 Applicable to employee benefit. Factors are based on the overall weighted allocation of all labor expense.

Description	Total Amount	Code	Base 1	Base 2	Extra - Capacity				Small Mains	Contract Meters	Customer			Hydrants
					Maximum Day	Maximum Day 2	Peak Hour 1	Peak Hour 2			Meters	Services	Billing and Accounting	
TOTAL	\$ 14,439,789	75	\$ 8,068,335	\$ 59,697	\$ 1,828,725	\$ 41,791	\$ 783,739	\$ 8,347	\$ 13,855	\$ -	\$ 1,339,078	\$ 111,412	\$ 2,056,237	\$ 128,575
PERCENT	100.00%		55.88%	0.41%	12.66%	0.29%	5.43%	0.06%	0.10%	0.00%	9.27%	0.77%	14.24%	0.89%

83 Resulting overall allocation of Depreciation Expense. Applicable to deferred income taxes.



MIDDLESEX WATER COMPANY

SUMMARY OF SYSTEM WATER DEMANDS

Description	Factor	Quantity	Unit
Average Day	1.00	39.301	MGD
Maximum Day	1.70	66.811	MGD
Peak Hour	2.00	78.601	MGD
Fire Demand		12,000	GPM
Maximum Day Fire Use		7.200	MG
Max Day Plus Fire Demand		84.09	MGD

MIDDLESEX WATER COMPANY  
CUSTOMER CLASS ALLOCATION FACTORS  
Based on Water Usage by All Customers

Customer Class	AF 46 Base - Average Consumption			Maximum Day				Peak Hour				Weighted Percentage				
	Annual (TG)	MGD	AF46 %	Ratio	MGD	Extra MGD	%	Ratio	MGD	Extra MGD	%	Average	Maximum	Peak	%	
												0.5	0.35	0.1500		
METERED SERVICE:																
Residential	3,683,758	10.092	29.170	2.00	20.184	10.092	38.540	3.45	34.817	14.6330	41.830	14.585	13.489	6.275	34.349	
Commercial	1,693,092	4.639	13.400	1.40	6.495	1.856	7.090	1.60	7.422	0.9270	2.650	6.700	2.482	0.398	9.580	
Industrial	1,315,781	3.605	10.420	1.25	4.506	0.901	3.440	1.30	4.687	0.1810	0.520	5.210	1.204	0.078	6.492	
Wholesale 1 (East Brunswick)	2,548,109	6.981	20.170	1.50	10.472	3.491	13.330	2.00	13.962	3.4900	9.980	10.085	4.666	1.497	16.248	
Wholesale 2 (Edison / Highland Park)	961,380	2.634	7.610	1.50	3.951	1.317	5.030	2.00	5.268	1.3170	3.760	3.805	1.761	0.564	6.130	
Wholesale 3 (Rahway)	189,944	0.520	1.500	1.50	0.780	0.260	0.990	2.00	1.040	0.2600	0.740	0.750	0.347	0.111	1.208	
Wholesale 4 (So. River Basin)	2,065,009	5.658	16.350	1.50	8.487	2.829	10.800	2.00	11.316	2.8290	8.090	8.175	3.780	1.214	13.169	
Subtotal	12,457,073	34.129	98.620		54.875	20.746	79.220		78.512	23.6370	67.570	49.310	27.729	10.137	87.176	
FIRE SERVICE																
Private	104,654	0.287	0.840		2.365	2.078	7.940		6.904	4.5387	12.970	0.420	2.779	1.946	5.145	
Public	68,659	0.188	0.540		3.548	3.360	12.840		10.356	6.8080	19.460	0.270	4.492	2.917	7.679	
Total	12,630,386	34.604	100.000		60.789	26.185	100.000		95.772	34.984	100.000	50.000	35.000	15.000	100.000	

Based on CJO Production for All Customers

Customer Class	AF 41 Base Average Consumption			Maximum Day				AF 43 Avg - Max Weighted Percentage			AF 45 Peak Hour			AF44 Avg - Max - Peak Weighted Percentage				
	Annual (TG)	MGD	AF 41 %	Ratio	MGD	Extra MGD	%	Average	Maximum	AF 43	Ratio	MGD	Extra MGD	AF 45 %	Average	Maximum	Peak	AF 44
								0.5882	0.4118	%					0.5	0.35	0.1500	%
METERED SERVICE:																		
Residential	2,882,287	7.897	25.880	2.00	15.794	7.897	34.690	15.223	14.285	29.508	3.45	27.245	11.4510	43.170	12.940	12.142	6.476	31.560
Commercial	1,324,728	3.629	11.900	1.40	5.081	1.452	6.380	7.000	2.627	9.627	1.60	5.806	0.7250	2.730	5.950	2.233	0.410	8.590
Industrial	1,029,508	2.821	9.240	1.25	3.526	0.705	3.100	5.435	1.277	6.712	1.30	3.667	0.1410	0.530	4.620	1.085	0.080	5.790
Wholesale 1 (East Brunswick)	2,548,109	6.981	22.880	1.50	10.472	3.491	15.340	13.458	6.317	19.775	2.00	13.962	3.4900	13.160	11.440	5.369	1.974	18.780
Wholesale 2 (Edison / Highland Park)	961,380	2.634	8.630	1.50	3.951	1.317	5.790	5.076	2.384	7.461	2.00	5.268	1.3170	4.960	4.315	2.027	0.744	7.090
Wholesale 3 (Rahway)	189,944	0.520	1.710	1.50	0.780	0.260	1.140	1.006	0.470	1.475	2.00	1.040	0.2600	0.980	0.855	0.399	0.147	1.400
Wholesale 4 (So. River Basin)	2,065,009	5.658	18.540	1.50	8.487	2.829	12.430	10.905	5.119	16.024	2.00	11.316	2.8290	10.660	9.270	4.351	1.599	15.220
Subtotal	11,000,965	30.140	98.780		48.091	17.951	78.870	58.102	32.479	90.582		68.304	20.2130	76.190	49.390	27.606	11.430	88.430
FIRE SERVICE																		
Private	81,884	0.224	0.740		2.073	1.849	8.120	0.435	3.344	3.779		6.006	2.663	10.040	0.370	2.843	1.506	4.720
Public	53,721	0.147	0.480		3.110	2.963	13.010	0.282	5.358	5.639		9.010	3.652	13.770	0.240	4.551	2.064	6.850
Total	11,136,571	30.511	100.000		53.274	22.763	100.000	58.820	41.180	100.000		83.320	26.528	100.000	50.000	35.000	15.000	100.000

MIDDLESEX WATER COMPANY  
 CUSTOMER CLASS ALLOCATION FACTORS  
 Based on Water Usage Excluding East Brunswick

Customer Class	Base Average Consumption			Maximum Day				Peak Hour				Weighted Percentage				
	Annual (TG)	MGD	%	Ratio	MGD	Extra MGD	%	Ratio	MGD	Extra MGD	%	Average 0.5	Maximum 0.35	Peak 0.1500	%	
METERED SERVICE:																
Residential	3,683,758	10.092	<b>36.540</b>	2.00	20.184	10.092	<b>46.800</b>	3.45	34.817	14.6330	<b>49.510</b>	18.270	16.380	7.430	<b>42.080</b>	
Commercial	1,693,092	4.639	<b>16.790</b>	1.40	6.495	1.856	<b>8.610</b>	1.60	7.422	0.9270	<b>3.140</b>	8.400	3.010	0.470	<b>11.880</b>	
Industrial	1,315,781	3.605	<b>13.050</b>	1.25	4.506	0.901	<b>4.180</b>	1.30	4.687	0.1810	<b>0.610</b>	6.530	1.460	0.090	<b>8.080</b>	
Wholesale 1 (East Brunswick)	0	0.000	<b>0.000</b>	1.50	0.000	0.000	<b>0.000</b>	2.00	0.000	-	<b>0.000</b>	-	-	-	<b>0.000</b>	
Wholesale 2 (Edison / Highland Park)	961,380	2.634	<b>9.540</b>	1.50	3.951	1.317	<b>6.110</b>	2.00	5.268	1.3170	<b>4.460</b>	4.770	2.140	0.670	<b>7.580</b>	
Wholesale 3 (Rahway)	189,944	0.520	<b>1.880</b>	1.50	0.780	0.260	<b>1.210</b>	2.00	1.040	0.2600	<b>0.880</b>	0.940	0.420	0.130	<b>1.490</b>	
Wholesale 4 (So. River Basin)	2,065,009	5.658	<b>20.480</b>	1.50	8.487	2.829	<b>13.120</b>	2.00	11.316	2.8290	<b>9.570</b>	10.240	4.590	1.440	<b>16.270</b>	
Subtotal	9,908,964	27.148	<b>98.280</b>		44.403	17.255	<b>80.010</b>		64.550	20.1470	<b>68.170</b>	49.140	28.000	10.230	<b>87.380</b>	
FIRE SERVICE	173,313	0.475	<b>1.720</b>		4.785	4.310	<b>19.990</b>		14.191	9.4057	<b>31.830</b>	0.860	7.000	4.770	<b>12.630</b>	
Total	10,082,277	27.623	<b>100.000</b>		49.188	21.565	<b>100.000</b>		78.741	29.5527	<b>100.000</b>	50.000	35.000	15.000	<b>100.000</b>	

Based on CJO Production Excluding East Brunswick

Customer Class	AF 40 Base - Average Consumption			Maximum Day				AF 42 Avg - Max Weighted Percentage			Peak Hour				AF 52 Avg - Max - Peak Weighted Percentage			
	Annual (TG)	MGD	AF40 %	Ratio	MGD	Extra MGD	%	Average 0.5882	Maximum 0.4118	AF 42 %	Ratio	MGD	Extra MGD	%	Average 0.5	Maximum 0.35	Peak 0.1500	AF 52 %
METERED SERVICE:																		
Residential	2,882,287	7.897	<b>33.560</b>	2.00	15.794	7.897	<b>43.530</b>	19.740	17.926	<b>37.670</b>	3.45	27.245	11.4510	<b>56.380</b>	16.780	15.236	8.457	<b>40.473</b>
Commercial	1,324,728	3.629	<b>15.420</b>	1.40	5.081	1.452	<b>8.000</b>	9.070	3.294	<b>12.360</b>	1.60	5.806	0.7250	<b>3.570</b>	7.710	2.800	0.536	<b>11.046</b>
Industrial	1,029,508	2.821	<b>12.000</b>	1.25	3.526	0.705	<b>3.890</b>	7.058	1.602	<b>8.670</b>	1.30	3.667	0.1410	<b>0.690</b>	6.000	1.362	0.104	<b>7.466</b>
Wholesale 1 (East Brunswick)	0	0.000	<b>0.000</b>	1.50	0.000	0.000	<b>0.000</b>	-	-	<b>0.000</b>	2.00	0.000	-	<b>0.000</b>	-	-	-	<b>0.000</b>
Wholesale 2 (Edison / Highland Park)	961,380	2.634	<b>11.190</b>	1.50	3.951	1.317	<b>7.260</b>	6.582	2.990	<b>9.570</b>	2.00	5.268	1.3170	<b>6.480</b>	5.595	2.541	0.972	<b>9.108</b>
Wholesale 3 (Rahway)	189,944	0.520	<b>2.210</b>	1.50	0.780	0.260	<b>1.430</b>	1.300	0.589	<b>1.890</b>	2.00	1.040	0.2600	<b>1.280</b>	1.105	0.501	0.192	<b>1.798</b>
Wholesale 4 (So. River Basin)	2,065,009	5.658	<b>24.040</b>	1.50	8.487	2.829	<b>15.590</b>	14.140	6.420	<b>20.560</b>	2.00	11.316	2.8290	<b>13.930</b>	12.020	5.457	2.090	<b>19.567</b>
Subtotal	8,452,856	23.159	<b>98.420</b>		37.619	14.460	<b>79.700</b>	57.891	32.821	<b>90.720</b>		54.342	16.7230	<b>82.330</b>	49.210	27.897	12.351	<b>89.458</b>
FIRE SERVICE																		
Private	81,884	0.224	<b>0.950</b>		1.622	1.398	<b>7.700</b>	0.559	3.171	<b>3.730</b>		4.779	1.608	<b>7.920</b>	0.475	2.695	1.188	<b>4.358</b>
Public	53,721	0.147	<b>0.630</b>		2.432	2.285	<b>12.600</b>	0.371	5.189	<b>5.550</b>		7.168	1.979	<b>9.750</b>	0.315	4.408	1.461	<b>6.184</b>
Total	8,588,462	23.530	<b>100.000</b>		41.673	18.143	<b>100.000</b>	58.820	41.180	<b>100.000</b>		66.289	20.310	<b>100.000</b>	50.000	35.000	15.000	<b>100.000</b>

MIDDLESEX WATER COMPANY

CUSTOMER CLASS ALLOCATION FACTORS

Based on Water Usage Excluding East Brunswick, Edison and Highland Park

Customer Class	Base Average Consumption			Maximum Day				Peak Hour				AF 71 Weighted Percentage			
	Annual (TG)	MGD	%	Ratio	MGD	Extra MGD	%	Ratio	MGD	Extra MGD	%	Average 0.5	Maximum 0.35	Peak 0.1500	AF 71 %
<b>METERED SERVICE:</b>															
Residential	3,683,758	10.092	<b>40.390</b>	2.00	20.184	10.092	<b>50.910</b>	3.45	34.817	14.6330	<b>53.200</b>	20.195	17.819	7.980	<b>45.994</b>
Commercial	1,693,092	4.639	<b>18.560</b>	1.40	6.495	1.856	<b>9.360</b>	1.60	7.422	0.9270	<b>3.370</b>	9.280	3.276	0.506	<b>13.062</b>
Industrial	1,315,781	3.605	<b>14.430</b>	1.25	4.506	0.901	<b>4.550</b>	1.30	4.687	0.1810	<b>0.660</b>	7.215	1.593	0.099	<b>8.907</b>
Wholesale 1 (East Brunswick)	0	0.000	<b>0.000</b>	1.50	0.000	0.000	<b>0.000</b>	2.00	0.000	-	<b>0.000</b>	-	-	-	<b>0.000</b>
Wholesale 2 (Edison / Highland Park)	0	0.000	<b>0.000</b>	1.50	0.000	0.000	<b>0.000</b>	2.00	0.000	-	<b>0.000</b>	-	-	-	<b>0.000</b>
Wholesale 3 (Rahway)	189,944	0.520	<b>2.080</b>	1.50	0.780	0.260	<b>1.310</b>	2.00	1.040	0.2600	<b>0.950</b>	1.040	0.459	0.143	<b>1.642</b>
Wholesale 4 (So. River Basin)	2,065,009	5.658	<b>22.640</b>	1.50	8.487	2.829	<b>14.270</b>	2.00	11.316	2.8290	<b>10.290</b>	11.320	4.995	1.544	<b>17.859</b>
Subtotal	8,947,584	24.514	<b>98.100</b>		40.452	15.938	<b>80.400</b>		59.282	18.8300	<b>68.460</b>	49.050	28.142	10.272	<b>87.464</b>
<b>FIRE SERVICE</b>															
Private	104,654	0.287	<b>1.150</b>		1.744	1.457	<b>7.350</b>		5.213	3.4694	<b>12.610</b>	0.575	2.573	1.892	<b>5.040</b>
Public	68,659	0.188	<b>0.750</b>		2.616	2.428	<b>12.250</b>		7.820	5.2040	<b>18.930</b>	0.375	4.285	2.836	<b>7.496</b>
Total	9,120,897	24.989	<b>100.000</b>		44.811	19.822	<b>100.000</b>		72.315	27.503	<b>100.000</b>	50.000	35.000	15.000	<b>100.000</b>

Based on CJO Production Excluding East Brunswick, Edison and Highland Park

Customer Class	Base Average Consumption			Maximum Day				Peak Hour				AF 53 Weighted Percentage			
	Annual (TG)	MGD	%	Ratio	MGD	Extra MGD	%	Ratio	MGD	Extra MGD	%	Average 0.5	Maximum 0.35	Peak 0.1500	AF 53 %
<b>METERED SERVICE:</b>															
Residential	2,882,287	7.897	<b>37.790</b>	2.00	15.794	7.897	<b>48.150</b>	3.45	27.245	11.4510	<b>49.920</b>	18.895	16.853	7.490	<b>43.240</b>
Commercial	1,324,728	3.629	<b>17.370</b>	1.40	5.081	1.452	<b>8.850</b>	1.60	5.806	0.7250	<b>3.160</b>	8.685	3.098	0.470	<b>12.250</b>
Industrial	1,029,508	2.821	<b>13.500</b>	1.25	3.526	0.705	<b>4.300</b>	1.30	3.667	0.1410	<b>0.610</b>	6.750	1.505	0.090	<b>8.350</b>
Wholesale 1 (East Brunswick)	0	0.000	<b>0.000</b>	1.50	0.000	0.000	<b>0.000</b>	2.00	0.000	-	<b>0.000</b>	-	-	-	<b>0.000</b>
Wholesale 2 (Edison / Highland Park)	0	0.000	<b>0.000</b>	1.50	0.000	0.000	<b>0.000</b>	2.00	0.000	-	<b>0.000</b>	-	-	-	<b>0.000</b>
Wholesale 3 (Rahway)	189,944	0.520	<b>2.490</b>	1.50	0.780	0.260	<b>1.590</b>	2.00	1.040	0.2600	<b>1.130</b>	1.245	0.557	0.170	<b>1.970</b>
Wholesale 4 (So. River Basin)	2,065,009	5.658	<b>27.070</b>	1.50	8.487	2.829	<b>17.250</b>	2.00	11.316	2.8290	<b>12.330</b>	13.535	6.038	1.850	<b>21.420</b>
Subtotal	7,491,476	20.525	<b>98.220</b>		33.668	13.143	<b>80.140</b>		49.074	15.4060	<b>67.170</b>	49.110	28.049	10.070	<b>87.230</b>
<b>FIRE SERVICE</b>															
Private	81,884	0.224	<b>1.070</b>		1.451	1.227	<b>7.480</b>		4.315	3.088	<b>13.460</b>	0.535	2.618	2.020	<b>5.170</b>
Public	53,721	0.147	<b>0.710</b>		2.177	2.030	<b>12.380</b>		6.473	4.443	<b>19.370</b>	0.355	4.333	2.910	<b>7.600</b>
Total	7,627,082	20.896	<b>100.000</b>		37.296	16.400	<b>100.000</b>		59.863	22.937	<b>100.000</b>	50.000	35.000	15.000	<b>100.000</b>

MIDDLESEX WATER COMPANY  
 CUSTOMER CLASS ALLOCATION FACTORS  
 Based on Water Usage - Franchise Customers

Customer Class	AF 47 Base - Average Consumption			Maximum Day				AF 49 Avg - Max Weighted Percentage			AF 54 Peak Hour				AF 51 Avg - Max - Peak Weighted Percentage			
	Annual (TG)	MGD	AF 47 %	Ratio	MGD	Extra MGD	%	Average <b>0.5882</b>	Maximum <b>0.4118</b>	AF 49 %	Ratio	MGD	Extra MGD	AF 54 %	Average <b>0.5</b>	Maximum <b>0.35</b>	Peak <b>0.1500</b>	AF 51 %
METERED SERVICE:																		
Residential	3,683,758	10.092	<b>53.650</b>	2.00	20.184	10.092	<b>64.140</b>	31.557	26.413	<b>57.970</b>	3.45	34.817	14.6330	<b>59.560</b>	26.825	22.449	8.934	<b>58.208</b>
Commercial	1,693,092	4.639	<b>24.660</b>	1.40	6.495	1.856	<b>11.800</b>	14.505	4.859	<b>19.360</b>	1.60	7.422	0.9270	<b>3.770</b>	12.330	4.130	0.566	<b>17.026</b>
Industrial	1,315,781	3.605	<b>19.160</b>	1.25	4.506	0.901	<b>5.730</b>	11.270	2.360	<b>13.630</b>	1.30	4.687	0.1810	<b>0.740</b>	9.580	2.006	0.111	<b>11.697</b>
Wholesale 1 (East Brunswick)	0	0.000	<b>0.000</b>	1.50	0.000	0.000	<b>0.000</b>	-	-	<b>0.000</b>	2.00	0.000	-	<b>0.000</b>	-	-	-	<b>0.000</b>
Wholesale 2 (Edison / Highland Park)	0	0.000	<b>0.000</b>	1.50	0.000	0.000	<b>0.000</b>	-	-	<b>0.000</b>	2.00	0.000	-	<b>0.000</b>	-	-	-	<b>0.000</b>
Wholesale 3 (Rahway)	0	0.000	<b>0.000</b>	1.50	0.000	0.000	<b>0.000</b>	-	-	<b>0.000</b>	2.00	0.000	-	<b>0.000</b>	-	-	-	<b>0.000</b>
Wholesale 4 (So. River Basin)	0	0.000	<b>0.000</b>	1.50	0.000	0.000	<b>0.000</b>	-	-	<b>0.000</b>	2.00	0.000	-	<b>0.000</b>	-	-	-	<b>0.000</b>
Subtotal	6,692,631	18.336	<b>97.470</b>		31.185	12.849	<b>81.660</b>	57.332	33.628	<b>90.960</b>		46.926	15.7410	<b>64.070</b>	48.735	28.581	9.611	<b>86.931</b>
FIRE SERVICE																		
Private	104,654	0.287	<b>1.530</b>		1.344	1.057	<b>6.720</b>	0.900	2.767	<b>3.670</b>		4.127	3.2265	<b>13.130</b>	0.765	2.352	1.970	<b>5.087</b>
Public	68,659	0.188	<b>1.000</b>		2.016	1.828	<b>11.620</b>	0.589	4.785	<b>5.370</b>		6.190	5.6008	<b>22.800</b>	0.500	4.067	3.420	<b>7.982</b>
Total	6,865,944	18.811	<b>100.000</b>		34.546	15.735	<b>100.000</b>	58.821	41.180	<b>100.000</b>		57.242	24.568	<b>100.000</b>	50.000	35.000	15.000	<b>100.000</b>

Based on CJO Production - Franchise Customers

Customer Class	Base Average Consumption			Maximum Day				Peak Hour				Weighted Percentage			
	Annual (TG)	MGD	%	Ratio	MGD	Extra MGD	%	Ratio	MGD	Extra MGD	%	Average <b>0.5</b>	Maximum <b>0.35</b>	Peak <b>0.1500</b>	%
METERED SERVICE:															
Residential	2,882,287	7.897	<b>53.650</b>	2.00	15.794	7.897	<b>64.140</b>	3.45	27.245	11.4510	<b>63.160</b>	26.830	22.450	9.470	<b>58.750</b>
Commercial	1,324,728	3.629	<b>24.660</b>	1.40	5.081	1.452	<b>11.790</b>	1.60	5.806	0.7250	<b>4.000</b>	12.330	4.130	0.600	<b>17.060</b>
Industrial	1,029,508	2.821	<b>19.160</b>	1.25	3.526	0.705	<b>5.730</b>	1.30	3.667	0.1410	<b>0.780</b>	9.580	2.010	0.120	<b>11.710</b>
Wholesale 1 (East Brunswick)	0	0.000	<b>0.000</b>	1.50	0.000	0.000	<b>0.000</b>	2.00	0.000	-	<b>0.000</b>	-	-	-	<b>0.000</b>
Wholesale 2 (Edison / Highland Park)	0	0.000	<b>0.000</b>	1.50	0.000	0.000	<b>0.000</b>	2.00	0.000	-	<b>0.000</b>	-	-	-	<b>0.000</b>
Wholesale 3 (Rahway)	0	0.000	<b>0.000</b>	1.50	0.000	0.000	<b>0.000</b>	2.00	0.000	-	<b>0.000</b>	-	-	-	<b>0.000</b>
Wholesale 4 (So. River Basin)	0	0.000	<b>0.000</b>	1.50	0.000	0.000	<b>0.000</b>	2.00	0.000	-	<b>0.000</b>	-	-	-	<b>0.000</b>
Subtotal	5,236,523	14.347	<b>97.480</b>		24.401	10.054	<b>81.660</b>		36.718	12.3170	<b>67.930</b>	48.740	28.590	10.190	<b>87.520</b>
FIRE SERVICE															
Private	81,884	0.224	<b>1.520</b>		1.052	0.828	<b>6.720</b>		3.229	2.401	<b>13.240</b>	0.760	2.350	1.990	<b>5.100</b>
Public	53,721	0.147	<b>1.000</b>		1.578	1.431	<b>11.620</b>		4.843	3.413	<b>18.830</b>	0.500	4.060	2.820	<b>7.380</b>
Total	5,372,129	14.718	<b>100.000</b>		27.031	12.313	<b>100.000</b>		44.790	18.131	<b>100.000</b>	50.000	35.000	15.000	<b>100.000</b>

MIDDLESEX WATER COMPANY  
CUSTOMER CLASS ALLOCATION FACTORS

Customer Class	Small Mains AF 48		T&D Mains AF 56		General Plant AF 57			Pumping Structures AF 59		Pumping Equipment AF 60		
	Annual (TG)	%	Original Cost	%	Original Cost	Factor	Factored Cost	%	Original Cost	%	Original Cost	%
<b>METERED SERVICE:</b>												
Residential	3,683,758	<b>68.511</b>	148,496,531	<b>50.530</b>	23,934,464	1.08245	25,907,802	<b>48.009</b>	4,778,731	<b>40.990</b>	7,673,005	<b>44.585</b>
Commercial	1,693,092	<b>31.489</b>	42,715,804	<b>14.540</b>	7,022,374	1.08245	7,601,351	<b>14.086</b>	1,396,738	<b>11.980</b>	2,287,698	<b>13.293</b>
Industrial	0	<b>0.000</b>	29,223,472	<b>9.940</b>	4,819,511	1.08245	5,216,868	<b>9.667</b>	957,328	<b>8.210</b>	1,574,870	<b>9.151</b>
Wholesale 1 (East Brunswick)	0	<b>0.000</b>	138,279	<b>0.050</b>	3,343,365	0.75000	2,507,524	<b>4.647</b>	1,378,776	<b>11.830</b>	1,565,306	<b>9.096</b>
Wholesale 2 (Edison / Highland Park)	0	<b>0.000</b>	63,027	<b>0.020</b>	1,264,362	0.75000	948,271	<b>1.757</b>	520,505	<b>4.460</b>	589,226	<b>3.424</b>
Wholesale 3 (Rahway)	0	<b>0.000</b>	3,009,187	<b>1.020</b>	596,861	0.75000	447,646	<b>0.830</b>	102,828	<b>0.880</b>	116,450	<b>0.677</b>
Wholesale 4 (So. River Basin)	0	<b>0.000</b>	32,817,741	<b>11.170</b>	6,594,099	0.75000	4,945,574	<b>9.164</b>	1,173,697	<b>10.070</b>	1,419,369	<b>8.248</b>
Subtotal	5,376,849	<b>100.000</b>	256,464,042	<b>87.270</b>	47,575,036		47,575,036	<b>88.159</b>	10,308,602	<b>88.420</b>	15,225,924	<b>88.473</b>
<b>FIRE SERVICE</b>												
Private	0	<b>0.000</b>	14,849,408	<b>5.050</b>	2,542,701	1.0000	2,542,701	<b>4.712</b>	537,810	<b>4.610</b>	783,481	<b>4.553</b>
Public	0	<b>0.000</b>	22,544,526	<b>7.680</b>	3,847,029	1.0000	3,847,029	<b>7.129</b>	811,223	<b>6.970</b>	1,200,300	<b>6.975</b>
Total	5,376,849	<b>100.000</b>	293,857,976	<b>100.000</b>	53,964,766		53,964,766	<b>100.000</b>	11,657,635	<b>100.000</b>	17,209,705	<b>100.000</b>

Customer Class	Treatment Structures AF 61		Treatment Equipment AF 62		Contract Meters AF 66		Labor Expense AF 85		T&D Expense AF 87/88	
	Original Cost	%	Original Cost	%	Original Cost	%	Original Cost	%	Original Cost	%
<b>METERED SERVICE:</b>										
Residential	18,489,984	<b>30.030</b>	17,174,250	<b>30.660</b>	-	<b>0.000</b>	5,893,973	<b>47.120</b>	2,555,840	<b>54.250</b>
Commercial	6,010,187	<b>9.760</b>	5,558,610	<b>9.920</b>	-	<b>0.000</b>	1,847,876	<b>14.770</b>	741,561	<b>15.740</b>
Industrial	4,188,377	<b>6.800</b>	3,871,562	<b>6.910</b>	-	<b>0.000</b>	1,254,952	<b>10.030</b>	508,434	<b>10.790</b>
Wholesale 1 (East Brunswick)	11,950,757	<b>19.410</b>	10,625,814	<b>18.970</b>	29,500	<b>12.170</b>	1,005,221	<b>8.040</b>	-	<b>0.000</b>
Wholesale 2 (Edison / Highland Park)	4,508,956	<b>7.320</b>	4,009,062	<b>7.160</b>	39,768	<b>16.410</b>	381,478	<b>3.050</b>	2,151	<b>0.050</b>
Wholesale 3 (Rahway)	891,397	<b>1.450</b>	792,570	<b>1.420</b>	-	<b>0.000</b>	99,239	<b>0.790</b>	24,937	<b>0.530</b>
Wholesale 4 (So. River Basin)	9,697,442	<b>15.750</b>	8,617,616	<b>15.390</b>	173,035	<b>71.420</b>	1,141,549	<b>9.130</b>	271,222	<b>5.760</b>
Subtotal	55,737,099	<b>90.520</b>	50,649,484	<b>90.430</b>	242,303	<b>100.000</b>	11,624,288	<b>92.930</b>	4,104,144	<b>87.120</b>
<b>FIRE SERVICE</b>										
Private	2,341,219	<b>3.800</b>	2,145,813	<b>3.830</b>	-	<b>0.000</b>	347,577	<b>2.780</b>	238,775	<b>5.070</b>
Public	3,497,984	<b>5.680</b>	3,210,858	<b>5.740</b>	-	<b>0.000</b>	536,747	<b>4.290</b>	368,393	<b>7.810</b>
Total	61,576,302	<b>100.000</b>	56,006,155	<b>100.000</b>	242,303	<b>100.000</b>	12,508,611	<b>100.000</b>	4,711,312	<b>100.000</b>

MIDDLESEX WATER COMPANY  
CUSTOMER CLASS ALLOCATION FACTORS

Customer Class	Customer					
	Franchise Meters and Services				All Billing and Accting	
	Meter ERCs	AF 68 %	Services ERCs	AF 69 %	Number of Bills	AF67 %
METERED SERVICE:						
Residential	63,591.5	54.034	60,857.7	81.247	224,748	84.310
Commercial	16,693.4	14.185	7,767.5	10.370	27,264	10.230
Industrial	7,879.7	6.695	1,599.8	2.136	3,192	1.200
Wholesale 1 (East Brunswick)	-	0.000	-	0.000	12	0.000
Wholesale 2 (Edison / Highland Park)	-	0.000	-	0.000	24	0.010
Wholesale 3 (Rahway)	-	0.000	-	0.000	12	0.000
Wholesale 4 (So. River Basin)	-	0.000	-	0.000	36	0.010
Subtotal	88,164.6	74.915	70,225.0	93.753	255,288	95.760
FIRE SERVICE						
Private	29,522.3	25.086	4,679.1	6.247	11,148	4.180
Public	0.0	0.000	0.0	0.000	192	0.060
Total	117,686.9	100.000	74,904.1	100.000	266,628	100.000

Graft Tax AF 63	Total	Residential	Commercial	Industrial	E.B	ED / H.P.	Rahway	SRB	Fire Service	
									Capacity	Hydrants
Pre-GRAFT Revenue Requirement	102,974,127	49,482,283	13,506,818	8,468,156	5,249,148	2,516,516	758,150	9,562,029	6,076,833	7,354,195
Revenue Excluding East Brunswick	97,724,979 100.00%	49,482,283 50.63%	13,506,818 13.82%	8,468,156 8.67%	- 0.00%	2,516,516 2.58%	758,150 0.78%	9,562,029 9.78%	6,076,833 6.22%	7,354,195 7.53%

A&G Expense AF 84	Total	Residential	Commercial	Industrial	E.B	ED / H.P.	Rahway	SRB	Fire Service	
									Capacity	Hydrants
Base, Extra portion of O&M, Excl A&G	22,244,197	9,488,801	3,381,524	2,472,336	1,538,326	962,197	218,117	2,595,516	659,297	928,083
Less:										
Chemicals - Wells	(1,353,070)	(725,922)	(333,667)	(259,248)	-	-	-	-	(20,702)	(13,531)
Purchased Water - NJWSA	(3,389,671)	(1,137,573)	(522,687)	(406,760)	-	(379,304)	(74,912)	(814,877)	(32,202)	(21,355)
Chemicals - CJO	-	-	-	-	-	-	-	-	-	-
Power - CJO Plant	(1,219,482)	(359,845)	(117,400)	(81,852)	(241,153)	(90,986)	(17,987)	(195,410)	(46,084)	(68,767)
Power - CJO D&R Intake	(351,054)	(103,589)	(33,796)	(23,563)	(69,421)	(26,192)	(5,178)	(56,253)	(13,266)	(19,796)
Purchased Water - E'town	(3,282,392)	(1,910,615)	(558,860)	(383,941)	-	-	-	-	(166,959)	(262,017)
Power - Other	(761,180)	(443,068)	(129,598)	(89,035)	-	-	-	-	(38,717)	(60,761)
Power - CJO Booster	(6,945)	(2,192)	(597)	(402)	(1,304)	(492)	(97)	(1,057)	(328)	(476)
Expense	11,880,403	4,805,997	1,684,919	1,227,535	1,226,448	465,223	119,942	1,527,919	341,039	481,381
Economy of Scales Factor		1.10817	1.10817	1.10817	0.75000	0.75000	0.75000	0.75000	1.00000	1.00000
Factored Expense	11,880,403 100.00%	5,325,851 44.83%	1,867,170 15.72%	1,360,312 11.45%	919,836 7.74%	348,917 2.94%	89,957 0.76%	1,145,939 9.65%	341,039 2.87%	481,381 4.05%

- Customer Class Allocation Factor 37 - Allocated only to Wholesale Customer #1 (East Brunswick).
- Customer Class Allocation Factor 39 - Allocated only to Wholesale Customer #4 (South River Basin).
- Customer Class Allocation Factor 55 - Allocated based on Base-Extra Capacity portion of O&M Expenses (Schedule 7).
- Customer Class Allocation Factor 58 - Allocated based on Base-Extra Capacity portion of Rate Base (Schedule 3).
- Customer Class Allocation Factor 70 - Allocated only to Public Fire Protection (Hydrants).
- Customer Class Allocation Factor 80 - Allocated based on Base-Extra Capacity portion of Revenue Requirement (Schedule 2).

MIDDLESEX WATER COMPANY

SUMMARY OF PROJECTED REVENUES  
Designed Rates Reflect the Customer Cost Allocation Study

	<u>PRESENT RATES</u>	<u>DESIGN RATES</u>	<u>DIFFERENCE</u>	<u>% CHANGE</u>
RESIDENTIAL	\$34,600,942	\$54,681,709	\$20,080,767	58.04%
COMMERCIAL	13,533,722	15,153,367	1,619,644	11.97%
INDUSTRIAL	<u>9,554,924</u>	<u>9,623,899</u>	<u>68,976</u>	0.72%
SUBTOTAL	57,689,588	79,458,975	21,769,387	37.74%
PRIVATE FIRE SERVICE	6,223,017	6,543,354	320,337	5.15%
PUBLIC FIRE SERVICE	<u>4,968,849</u>	<u>8,036,093</u>	<u>3,067,244</u>	61.73%
SUBTOTAL	11,191,867	14,579,447	3,387,581	30.27%
EDISON / HIGHLAND PARK	2,259,243	2,867,902	608,659	26.94%
EAST BRUNSWICK	3,947,352	5,238,696	1,291,344	32.71%
OLD BRIDGE MUA	2,795,372	4,276,223	1,480,851	52.98%
MARLBORO TOWNSHIP	4,134,229	6,604,838	2,470,609	59.76%
RAHWAY	<u>583,571</u>	<u>872,955</u>	<u>289,384</u>	49.59%
SUBTOTAL	13,719,767	19,860,613	6,140,847	44.76%
SALES REVENUE	82,601,221	113,899,036	31,297,815	37.89%
MISCELLANEOUS	123,233	123,233	0	
BAYVIEW	104,003	104,003	0	
ROUNDING	<u>1</u>	<u>2</u>	<u>1</u>	
GRAND TOTAL	<u>82,828,458</u>	<u>114,126,274</u>	<u>31,297,816</u>	37.79%



MIDDLESEX WATER COMPANY  
Designed Rates Reflect the Customer Cost Allocation Study

	MONTHLY BILLS	QTRLY BILLS	EXISTING			DESIGN			INCREASE
			MONTHLY RATE	QTRLY RATE	REVENUE	MONTHLY RATE	QTRLY RATE	REVENUE	
RESIDENTIAL									
5/8"		185,952		\$ 47.25	\$ 8,786,232		\$ 61.29	\$ 11,396,500	29.71%
3/4"		31,892		70.89	2,260,824		91.95	2,932,483	29.71%
1"		5,904		118.14	697,499		153.24	904,716	29.71%
1 1/2"		728		236.25	171,990		306.44	223,086	29.71%
2"		272		378.00	102,816		490.30	133,361	29.71%
USAGE (CCF)		492,480,957		0.0458527	12,019,360		0.079376801	15,590,146	73.11%
					<u>22,581,582</u>			<u>39,091,563</u>	58.04%
					<u>\$34,600,942</u>			<u>\$ 54,681,709</u>	
COMMERCIAL									
5/8"	3,192		\$ 15.75		\$ 50,274	\$ 13.33		\$ 42,556	-15.35%
3/4"	2,124		23.63		50,190	20.00		42,485	-15.35%
1"	2,892		39.38		113,887	33.33		96,403	-15.35%
1 1/2"	3,888		78.75		306,180	66.66		259,174	-15.35%
2"	11,496		126.00		1,448,496	106.66		1,226,119	-15.35%
3"	2,796		236.25		660,555	199.98		559,145	-15.35%
4"	672		393.75		264,600	333.30		223,978	-15.35%
6"	48		787.50		37,800	666.60		31,997	-15.35%
8"	108		1,260.00		136,080	1,066.56		115,189	-15.35%
10"	48		1,811.25		86,940	1,533.18		73,593	-15.35%
USAGE (CCF)		226,349,166		0.0458527	3,155,002		0.055148111	2,670,638	20.27%
					<u>10,378,720</u>			<u>12,482,729</u>	11.97%
					<u>\$13,533,722</u>			<u>\$ 15,153,367</u>	
INDUSTRIAL									
5/8"	0		\$ 15.75		\$ -	\$ 9.18		\$ -	-41.71%
3/4"	24		23.63		567	13.77		331	-41.71%
1"	96		39.38		3,780	22.96		2,204	-41.71%
1 1/2"	264		78.75		20,790	45.90		12,119	-41.71%
2"	444		126.00		55,944	73.45		32,611	-41.71%
3"	468		236.25		110,565	137.71		64,450	-41.71%
4"	960		393.75		378,000	229.52		220,342	-41.71%
6"	648		787.50		510,300	459.05		297,461	-41.71%
8"	204		1,260.00		257,040	734.47		149,832	-41.71%
10"	84		1,811.25		152,145	1,055.80		88,688	-41.71%
USAGE (CCF)		175,906,590		0.0458527	1,489,132		0.049775637	868,037	8.56%
					<u>8,065,792</u>			<u>8,755,863</u>	0.72%
					<u>\$ 9,554,924</u>			<u>\$ 9,623,899</u>	
GENERAL METERED SERVICE REVENUE					<u>\$57,689,588</u>			<u>\$ 79,458,975</u>	
PRIVATE FIRE WITH HOSE									
1"			\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
2"	12	8	75.25	225.75	2,709	41.95	125.84	1,510	-44.25%
3"	0	0	165.52	496.56	0	92.27	276.81	0	-44.25%
4"	120	32	276.31	828.93	59,683	154.03	462.09	33,270	-44.25%
6"	960	4	565.43	1,696.29	549,598	315.20	945.60	306,375	-44.25%
8"	1,476	0	809.59	2,428.77	1,194,955	451.31	1,353.92	666,131	-44.25%
10"	504	0	1,298.61	3,895.83	654,499	723.91	2,171.74	364,852	-44.25%
					<u>2,461,444</u>			<u>1,372,138</u>	
PRIVATE FIRE WITHOUT HOSE									
1"	12	44	\$ 25.10	\$ 75.30	\$ 3,614	\$ 13.99	\$ 41.98	\$ 2,015	-44.25%
2"	324	92	62.07	186.21	37,242	34.60	103.80	20,761	-44.25%
3"	396	28	124.29	372.87	59,659	69.29	207.86	33,257	-44.25%
4"	2,724	156	206.23	618.69	658,286	114.96	344.89	366,963	-44.25%
6"	2,148	192	419.14	1,257.42	1,141,737	233.65	700.95	636,464	-44.25%
8"	1,752	8	599.27	1,797.81	1,064,304	334.06	1,002.19	593,299	-44.25%
10"	144	0	959.59	2,878.77	138,181	534.93	1,604.78	77,029	-44.25%
12"	12	0	1,418.20	4,254.60	17,018	790.58	2,371.74	9,487	-44.25%
					<u>3,120,042</u>			<u>1,739,275</u>	
					<u>5,581,486</u>			<u>3,111,413</u>	-44.25%
USAGE (CCF)		13,991,133		0.0458527	641,531		0.245294001	3,431,941	434.96%
					<u>\$ 6,223,017</u>			<u>\$ 6,543,354</u>	
PUBLIC FIRE	INCH FEET	HYDRANTS	RATE	HYD. CHG	REVENUE	RATE	HYD. CHG	REVENUE	
	35,141,067	4,775	\$0.040560	\$ 742.10	\$ 4,968,849	\$0.040560	\$ 1,384.45	\$ 8,036,093	61.73%
WHOLESALE 1	E.Brunswick	2,548.109	\$ 1,549.13		\$ 3,947,351	\$ 2,055.92		\$ 5,238,696	32.71%
WHOLESALE 2	Edison/Hld Pk	961.380	\$ 2,350.00		\$ 2,259,243	\$ 2,983.11		\$ 2,867,902	26.94%
WHOLESALE 3	Rahway	189.944	\$ 2,350.00	\$ 722.33	\$ 583,572	\$ 2,983.11	\$ 1,612.73	\$ 872,955	49.59%
WHOLESALE 4	Old Bridge	880.987	\$ 2,350.00	\$ 823.00	\$ 2,795,372	\$ 2,983.11	\$ 1,870.79	\$ 4,276,223	52.98%
	Marlboro	1,184.022	\$ 2,350.00		\$ 2,782,451	\$ 2,983.11		\$ 3,532,067	26.94%
	Marlboro	1,642.500		\$ 823.00	\$ 1,351,778		\$ 1,870.79	\$ 3,072,772	127.31%
		<u>7,406.942</u>			<u>\$13,719,767</u>			<u>\$ 19,860,613</u>	44.76%
MISCELLANEOUS					\$82,601,221			\$ 113,899,036	
BAYVIEW					123,233			123,233	
ROUNDING					104,003			104,003	
					<u>1</u>			<u>2</u>	
					<u>\$82,828,458</u>			<u>\$ 114,126,274</u>	37.99%

MIDDLESEX WATER COMPANY

SUMMARY OF PROJECTED REVENUES

Uniform Rates to General Metered Service Customers / Reallocation of Fire Service and No Revenue Reductions

	<u>PRESENT RATES</u>	<u>PROPOSED RATES</u>	<u>DIFFERENCE</u>	<u>% CHANGE</u>
RESIDENTIAL	\$34,600,942	\$49,728,865	\$15,127,923	43.72%
COMMERCIAL	13,533,722	19,330,274	5,796,552	42.83%
INDUSTRIAL	<u>9,554,924</u>	<u>13,588,811</u>	<u>4,033,888</u>	42.22%
SUBTOTAL	57,689,588	82,647,951	24,958,362	43.26%
PRIVATE FIRE SERVICE	6,223,017	6,223,017	0	0.00%
PUBLIC FIRE SERVICE	<u>4,968,849</u>	<u>5,167,585</u>	<u>198,736</u>	4.00%
SUBTOTAL	11,191,867	11,390,602	198,736	1.78%
EDISON / HIGHLAND PARK	2,259,243	2,867,902	608,659	26.94%
EAST BRUNSWICK	3,947,352	5,238,696	1,291,344	32.71%
OLD BRIDGE MUA	2,795,372	4,276,222	1,480,850	52.98%
MARLBORO TOWNSHIP	4,134,229	6,604,839	2,470,610	59.76%
RAHWAY	<u>583,571</u>	<u>872,953</u>	<u>289,382</u>	49.59%
SUBTOTAL	13,719,767	19,860,612	6,140,846	44.76%
SALES REVENUE	82,601,221	113,899,165	31,297,944	37.89%
MISCELLANEOUS	123,233	123,233	0	
BAYVIEW	104,003	104,003	0	
ROUNDING	<u>1</u>	<u>(127)</u>	<u>(128)</u>	
GRAND TOTAL	<u>\$ 82,828,458</u>	<u>\$ 114,126,274</u>	<u>\$ 31,297,816</u>	37.79%

MIDDLESEX WATER COMPANY  
 Across-the-Board to General Metered Service Customers / Reallocation of Fire Service and No Revenue Reductions

			EXISTING			PROPOSED			PERCENTAGE INCREASE
			MONTHLY RATE	QTRLY RATE	REVENUE	MONTHLY RATE	QTRLY RATE	REVENUE	
RESIDENTIAL	MONTHLY BILLS	QTRLY BILLS	MONTHLY RATE	QTRLY RATE	REVENUE	MONTHLY RATE	QTRLY RATE	REVENUE	
	5/8"	185,952		\$ 47.25	\$ 8,786,232		64.95	\$ 12,077,582	37.46%
	3/4"	31,892		70.89	2,260,824		97.45	3,107,875	37.47%
	1"	5,904		118.14	697,499		162.39	958,751	37.46%
	1 1/2"	728		236.25	171,990		324.75	236,418	37.46%
	2"	272		378.00	102,816		519.60	141,331	37.46%
					12,019,360			16,521,958	
USAGE (CCF)		492,480,957		0.0458527	<u>22,581,582</u>		0.0674278	<u>33,206,907</u>	47.05%
					<u>\$34,600,942</u>			<u>\$ 49,728,865</u>	
COMMERCIAL	MONTHLY BILLS	QTRLY BILLS	MONTHLY RATE	QTRLY RATE	REVENUE	MONTHLY RATE	QTRLY RATE	REVENUE	
	5/8"	3,192	\$ 15.75		\$ 50,274	\$ 21.65		\$ 69,107	37.46%
	3/4"	2,124	23.63		50,190	32.48		68,988	37.45%
	1"	2,892	39.38		113,887	54.13		156,544	37.46%
	1 1/2"	3,888	78.75		306,180	108.25		420,876	37.46%
	2"	11,496	126.00		1,448,496	173.20		1,991,107	37.46%
	3"	2,796	236.25		660,555	271.20		758,275	14.79%
	4"	672	393.75		264,600	452.00		303,744	14.79%
	6"	48	787.50		37,800	904.01		43,392	14.79%
	8"	108	1,260.00		136,080	1,446.41		156,212	14.79%
	10"	48	1,811.25		86,940	2,079.22		99,803	14.79%
					3,155,002			4,068,048	
USAGE (CCF)		226,349,166		0.0458527	<u>10,378,720</u>		0.0674278	<u>15,262,226</u>	47.05%
					<u>\$13,533,722</u>			<u>\$ 19,330,274</u>	
INDUSTRIAL	MONTHLY BILLS	QTRLY BILLS	MONTHLY RATE	QTRLY RATE	REVENUE	MONTHLY RATE	QTRLY RATE	REVENUE	
	5/8"	0	\$15.75		\$ -	\$ 21.65		\$ -	
	3/4"	24	23.63		567	32.48		780	37.45%
	1"	96	39.38		3,780	54.13		5,196	37.46%
	1 1/2"	264	78.75		20,790	108.25		28,578	37.46%
	2"	444	126.00		55,944	173.20		76,901	37.46%
	3"	468	236.25		110,565	271.20		126,922	14.79%
	4"	960	393.75		378,000	452.00		433,920	14.79%
	6"	648	787.50		510,300	904.01		585,798	14.79%
	8"	204	1,260.00		257,040	1,446.41		295,068	14.79%
	10"	84	1,811.25		152,145	2,079.22		174,654	14.79%
					1,489,132			1,727,817	
USAGE (CCF)		175,906,590		0.0458527	<u>8,065,792</u>		0.0674278	<u>11,860,994</u>	47.05%
					<u>\$ 9,554,924</u>			<u>\$ 13,588,811</u>	
GENERAL METERED SERVICE REVENUE					<u>\$57,689,588</u>			<u>\$ 82,647,951</u>	43.26%
PRIVATE FIRE WITH HOSE	MONTHLY BILLS	QTRLY BILLS	MONTHLY RATE	QTRLY RATE	REVENUE	MONTHLY RATE	QTRLY RATE	REVENUE	
	1"		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
	2"	12	75.25	225.75	2,709	71.18	213.54	2,562	-5.41%
	3"	0	165.52	496.56	0	156.57	469.70	0	
	4"	120	276.31	828.93	59,683	261.37	784.10	56,455	-5.41%
	6"	960	565.43	1,696.29	549,598	534.85	1,604.55	519,874	-5.41%
	8"	1,476	809.59	2,428.77	1,194,955	765.81	2,297.42	1,130,329	-5.41%
	10"	504	1,298.61	3,895.83	654,499	1,228.38	3,685.13	619,103	-5.41%
					2,461,444			2,328,323	
PRIVATE FIRE WITHOUT HOSE	MONTHLY BILLS	QTRLY BILLS	MONTHLY RATE	QTRLY RATE	REVENUE	MONTHLY RATE	QTRLY RATE	REVENUE	
	1"	12	\$ 25.10	\$ 75.30	\$ 3,614	\$ 23.74	\$ 71.23	\$ 3,419	-5.41%
	2"	324	62.07	186.21	37,242	58.71	176.14	35,228	-5.41%
	3"	396	124.29	372.87	59,659	117.57	352.70	56,433	-5.41%
	4"	2,724	206.23	618.69	658,286	195.08	585.23	622,684	-5.41%
	6"	2,148	419.14	1,257.42	1,141,737	396.47	1,189.42	1,079,989	-5.41%
	8"	1,752	599.27	1,797.81	1,064,304	566.86	1,700.58	1,006,743	-5.41%
	10"	144	959.59	2,878.77	138,181	907.69	2,723.08	130,708	-5.41%
	12"	12	1,418.20	4,254.60	17,018	1,341.50	4,024.50	16,098	-5.41%
					3,120,042			2,951,303	
					5,581,486			5,279,626	-5.41%
USAGE (CCF)		13,991,133		0.0458527	<u>641,531</u>		0.0674278	<u>943,391</u>	47.05%
					<u>\$ 6,223,017</u>			<u>\$ 6,223,017</u>	0.00%
PUBLIC FIRE	INCH FEET	HYDRANTS	RATE	HYD. CHG	REVENUE	RATE	HYD. CHG	REVENUE	
	35,141,067	4,775	\$0.040560	\$ 742.10	\$ 4,968,849	\$0.040560	\$ 783.72	\$ 5,167,585	4.00%
WHOLESALE 1	E.Brunswick	2,548,109	\$ 1,549.13		\$ 3,947,352	\$ 2,055.92		\$ 5,238,696	32.71%
WHOLESALE 2	Edison/Hld Pk	961,380	\$ 2,350.00		\$ 2,259,243	\$ 2,983.11		\$ 2,867,902	26.94%
WHOLESALE 3	Rahway	189,944	\$ 2,350.00	\$ 722.33	\$ 583,571	\$ 2,983.11	\$ 1,612.73	\$ 872,953	49.59%
WHOLESALE 4	Old Bridge	880,987	\$ 2,350.00	\$ 823.00	\$ 2,795,372	\$ 2,983.11	\$ 1,870.79	\$ 4,276,222	52.98%
	Marlboro	1,184,022	\$ 2,350.00		\$ 2,782,452	\$ 2,983.11		\$ 3,532,068	26.94%
	Marlboro	1,642,500		\$ 823.00	\$ 1,351,778		\$ 1,870.79	\$ 3,072,772	127.31%
		7,406,942			<u>\$13,719,767</u>			<u>\$ 19,860,612</u>	59.76%
MISCELLANEOUS					\$82,601,221			\$ 113,899,165	
BAYVIEW					123,233			123,233	
ROUNDING					104,003			104,003	
					1			(127)	
					<u>\$82,828,458</u>			<u>\$ 114,126,274</u>	37.99%

MIDDLESEX WATER COMPANY  
Wholesale Rate Design

EXISTING RATE STRUCTURE							
		DEMAND USAGE (MG)	BASE RATE	BASE REVENUE	TRANSMISSION RATE	TRANSMISSION REVENUE	WHOLESALE REVENUE
WHOLESALE 1	E.Brunswick	2,548.109	\$1,549.13	\$ 3,947,352		\$ -	\$ 3,947,352
WHOLESALE 2	Edison/Hld Pk	961.380	\$2,350.00	\$ 2,259,243		\$ -	\$ 2,259,243
WHOLESALE 3	Rahway	189.944	\$2,350.00	\$ 446,368	\$722.33	\$ 137,202	\$ 583,571
WHOLESALE 4	Old Bridge	880.987	\$2,350.00	\$ 2,070,319	\$823.00	\$ 725,052	\$ 2,795,372
	Marlboro	1,184.022	\$2,350.00	\$ 2,782,452		\$ -	\$ 2,782,452
	Marlboro	1,642.500			\$823.00	\$ 1,351,778	\$ 1,351,778
		<u>7,406.942</u>		\$ 11,505,735		\$ 2,214,032	\$ 13,719,767
				83.862%		16.138%	
	Factor	Factored Demand		Rate / MG			
Rahway	1.00000	189.944		\$ 722.33			
Old Bridge	1.13937	1,003.769		\$ 823.00			
Marlboro	1.13937	<u>1,871.413</u>		\$ 823.00			
		3,065.125		\$ 2,214,032	Transmission Revenue		
				\$ 722.33	Rate / MG		

RATE DESIGN							
		DEMAND USAGE (MG)	BASE RATE	BASE REVENUE	TRANSMISSION RATE	TRANSMISSION REVENUE	WHOLESALE REVENUE
WHOLESALE 1	E.Brunswick	2,548.109	\$2,055.92	\$ 5,238,696		\$ -	\$ 5,238,696
WHOLESALE 2	Edison/Hld Pk	961.380	\$2,983.11	\$ 2,867,902		\$ -	\$ 2,867,902
WHOLESALE 3	Rahway	189.944	\$2,983.11	\$ 566,624	\$ 1,612.73	\$ 306,329	\$ 872,953
WHOLESALE 4	Old Bridge	880.987	\$2,983.11	\$ 2,628,081	\$ 1,870.79	\$ 1,648,141	\$ 4,276,222
	Marlboro	1,184.022	\$2,983.11	\$ 3,532,068			\$ 3,532,068
	Marlboro	1,642.500		\$ -	\$ 1,870.79	\$ 3,072,772	\$ 3,072,772
		<u>7,406.942</u>		\$ 14,833,371		\$ 5,027,242	\$ 19,860,612
				74.687%		25.313%	
	Factor	Factored Demand		Rate / MG			
Rahway	1.00000	189.944		\$ 1,612.73			
Old Bridge	1.13937	1,003.769		\$ 1,870.79			
Marlboro	1.13937	<u>1,871.413</u>		\$ 1,870.79			
		3,065.125		\$ 5,027,243	Transmission Revenue		
				\$ 1,640.14	Rate / MG		

MIDDLESEX WATER COMPANY

REVENUE ADJUSTMENTS REQUIRED TO ESTABLISH ALTERNATIVE RATES

	PRESENT RATES	COS RATES	Change	DIFFERENCE	ADJUSTMENT 1	ADJUSTED DIFFERENCE	ADJUSTMENT 2	ADJUSTED DIFFERENCE	ADJUSTMENT 3	ADJUSTED DIFFERENCE	ALTERNATIVE RATES	Change
RESIDENTIAL	\$34,600,942	\$54,681,709	58.04%	\$20,080,767	\$0	\$20,080,767	\$295,489	\$20,376,256	\$2,645,985	\$23,022,241	\$57,623,183	66.54%
COMMERCIAL	13,533,722	15,153,367	11.97%	1,619,644	0	1,619,644	23,833	1,643,477	213,416	1,856,893	15,390,616	13.72%
INDUSTRIAL	9,554,924	9,623,899	0.72%	68,976	0	68,976	1,015	69,991	9,089	79,079	9,634,003	0.83%
SUBTOTAL	57,689,588	79,458,975	37.74%	21,769,387	0	21,769,387	320,337	22,089,724	2,868,490	24,958,214	82,647,802	43.26%
PRIVATE FIRE SERVICE	6,223,017	6,543,354	5.15%	320,337	0	320,337	(320,337)	0	0	0	6,223,017	0.00%
PUBLIC FIRE SERVICE	4,968,849	8,036,093	61.73%	3,067,244	0	3,067,244	0	3,067,244	(2,868,490)	198,754	5,167,603	4.00%
SUBTOTAL	11,191,867	14,579,447	30.27%	3,387,581	0	3,387,581	(320,337)	3,067,244	(2,868,490)	198,754	11,390,621	1.78%
EDISON / HIGHLAND PARK	2,259,243	2,867,902	26.94%	608,659	0	608,659	0	608,659	0	608,659	2,867,902	26.94%
EAST BRUNSWICK	3,947,352	5,238,696	32.71%	1,291,344	0	1,291,344	0	1,291,344	0	1,291,344	5,238,696	32.71%
OLD BRIDGE MUA	2,795,372	4,276,223	52.98%	1,480,851	0	1,480,851	0	1,480,851	0	1,480,851	4,276,223	52.98%
MARLBORO TOWNSHIP	4,134,229	6,604,838	59.76%	2,470,609	0	2,470,609	0	2,470,609	0	2,470,609	6,604,838	59.76%
RAHWAY	583,571	872,955	49.59%	289,384	0	289,384	0	289,384	0	289,384	872,955	49.59%
SUBTOTAL	13,719,767	19,860,613	44.76%	6,140,847	0	6,140,847	0	6,140,847	0	6,140,847	19,860,613	44.76%
SALES REVENUE	82,601,221	113,899,036	37.89%	31,297,815	-	31,297,815	-	31,297,815	-	31,297,815	113,899,036	37.89%

ADJUSTMENT 1 - THE ALLOCATIONS DO NOT PRODUCE DECREASES TO ANY WHOLESALE CUSTOMERS SO NO ADJUSTMENT IS NEEDED TO ELIMINATE DECREASES.  
 ADJUSTMENT 2 - ELIMINATES DECREASE TO PRIVATE FIRE CUSTOMERS AND SPREADS BENEFITS TO GENERAL METERED CUSTOMERS.  
 ADJUSTMENT 3 - LIMIT INCREASE TO 4% FOR PUBLIC FIRE CUSTOMERS AND SPREADS REVENUE SHORTFALL TO GENERAL METERED CUSTOMERS.

	COST OF SERVICE			REVENUE ADJUSTMENTS			ALTERNATIVE RATE REVENUES			BASE REV BY SIZE METER CALC.	
	BASE	USAGE	TOTAL	BASE	USAGE	TOTAL	BASE	USAGE	TOTAL		
GENERAL METERED SERVICE	19,128,821	60,330,154	79,458,975	3,188,827	0	3,188,827	22,317,648	60,330,154	82,647,802	Base Service Reqmt	22,317,648
Increase	14.8%	47.1%	37.7%				33.9%	47.1%	43.3%	Proposed >3" Res	0
PRIVATE FIRE SERVICE	3,111,413	3,431,941	6,543,354	(320,337)	0	(320,337)	2,791,076	3,431,941	6,223,017	Proposed >3" Com.	(1,361,427)
Increase	-44.3%	435.0%	5.1%				-50.0%	435.0%	0.0%	Proposed >3" Ind	(1,616,362)
Rate Design Adjustment (B)							2,488,550	(2,488,550)	0	5/8" - 2" Serv Rev	19,339,859
							5,279,626	943,391	6,223,017	Existing 5/8-2"	(14,069,469)
							-5.4%	47.1%	0.0%	Remaining Rev Req'd	5,270,390
PUBLIC FIRE SERVICE	8,036,093		8,036,093	(2,868,490)	0	(2,868,490)	5,167,603		5,167,603	Serv Chg Incr 5/8-2"	37.460%
Increase	61.7%		61.7%				4.0%		4.0%		
EDISON / HIGHLAND PARK		2,867,902	2,867,902		0	0	0	2,867,902	2,867,902	PROOF:	
Increase		26.9%	26.9%					26.9%	26.9%	Res	16,521,958
EAST BRUNSWICK		5,238,696	5,238,696		0	0	0	5,238,696	5,238,696	Com	2,706,621
Increase		32.7%	32.7%					32.7%	32.7%	Ind	111,455
OLD BRIDGE MUA		4,276,223	4,276,223		0	0	0	4,276,223	4,276,223	5/8" - 2" Serv Rev	19,340,034
Increase		53.0%	53.0%					53.0%	53.0%	Res	0
MARLBORO TOWNSHIP		6,604,838	6,604,838		0	0	0	6,604,838	6,604,838	Com	1,361,427
Increase		59.8%	59.8%					59.8%	59.8%	Ind	1,616,362
RAHWAY		872,955	872,955		0	0	0	872,955	872,955	>3" Serv Rev	2,977,789
Increase		49.6%	49.6%					49.6%	49.6%	TOTAL Base Serv Rev	22,317,823
SALES REVENUE	30,276,327	83,622,709	113,899,036	0	0	0	32,764,877	81,134,159	113,899,036		
Increase	11.25%	50.98%	37.89%				20.40%	46.48%	37.89%		

ADJUSTMENT A - DESIGN RATES THAT PRODUCE THE SAME PERCENTAGE INCREASE FOR BOTH SERVICE CHARGE AND USAGE RATES, AS REFLECTED IN THE EXISTING RATE STRUCTURE.  
 ADJUSTMENT B - DESIGN PRIVATE FIRE USAGE RATES AT THE SAME RATE AS GENERAL METERED CUSTOMERS, AS REFLECTED IN THE EXISTING RATE STRUCTURE.