

STATE OF NEW JERSEY
BOARD OF PUBLIC UTILITIES

IN THE MATTER OF THE
REVISION OF RATES FILED BY
MIDDLESEX WATER COMPANY
BPU DOCKET NO. WR2105_____

PREFILED TESTIMONY

OF

ROBERT J. CAPKO
CORPORATE CONTROLLER

MAY 2021

**MIDDLESEX WATER COMPANY
PETITION FOR APPROVAL OF AN INCREASE IN RATES FOR WATER
SERVICE AND OTHER TARIFF CHANGES
MAY 2021
DIRECT TESTIMONY OF ROBERT J. CAPKO**

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

2 A. Robert J. Capko, 485C Route 1 South, Suite 400, Iselin, New Jersey 08830.

3 Q. **Please state your professional qualifications and experience.**

4 A. I am a Certified Public Accountant and Corporate Controller of Middlesex Water
5 Company (“Middlesex”). I have been employed with Middlesex since 2009. Prior to
6 2009, I was an Audit Senior Manager at Deloitte & Touche LLP in their Energy and
7 Public Utilities Group, with a focus on publicly traded regulated utilities, which
8 included several regulated public utilities clients subject to the jurisdiction of the New
9 Jersey Board of Public Utilities (the “Board” or “NJBPU”). My overall responsibilities
10 include accounting, taxes, payroll, internal and external financial reporting, external
11 audit coordination, and financial enterprise resource planning system management,
12 implementation and upgrade. My responsibilities also include assisting with
13 Middlesex’s cash management, budget and forecasting, financing program, and
14 regulatory and rate case filings.

15 Q. **Have you ever testified before or submitted testimony to the New Jersey
16 Board of Public Utilities (“NJBPU” or “Board”)?**

17 A. I have previously submitted testimony on behalf of Middlesex’s subsidiary regulated
18 water and wastewater utilities for their base rate proceedings. I have also previously
19 participated in Distribution System Improvement Charge filings, Purchased Water
20 Adjustment Clause filings and equity and long-term debt securities filings made by
21 Middlesex to the NJBPU.

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1 **Q. Have you prepared exhibits to the Petition containing balance sheets and**
2 **statements of income for the Company?**

3 A. Yes. Exhibits to the Petition entitled Balance Sheets as of December 31, 2020, 2019
4 and 2018 (Exhibit C), Statements of Income for the Years Ended December 31, 2020,
5 2019 and 2018 (Exhibit D) and Balance Sheet as of March 31, 2021 (Exhibit E) were
6 prepared under my supervision, direction and control. The Balance Sheets as of
7 December 31, 2020, 2019 and 2018 have also been identified as Exhibit P-3 to my
8 testimony and the Statements of Income for the Years Ended December 31, 2020, 2019
9 and 2018 as Exhibit P-4.

10 **Q. Were these exhibits prepared in accordance with generally accepted**
11 **accounting principles and the uniform system of accounts prescribed by the**
12 **NJBPU for a Class A Water Utility?**

13 A. Yes.

14 **Q. Is the financial information contained in these exhibits true and correct to the**
15 **best of your knowledge and belief?**

16 A. Yes.

17 **Q. Have you prepared a pro forma income statement for the Twelve Months Ended**
18 **September 30, 2021?**

19 A. An Exhibit entitled “Statement of Income for the Twelve Months Ended September 30,
20 2021,” which includes with adjustments at present and proposed rates, designated as

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1 Exhibit F to the Petition, was prepared under my direct supervision. Exhibit F has also
2 been designated as Exhibit P-5 to my testimony.

3 **Q. Can you describe Exhibit P-5?**

4 A. Exhibit P-5 is a pro forma income statement reflecting operating income at present
5 and proposed rates, including adjustments the Company deems appropriate to more
6 accurately reflect revenues and expenses during the Test Year. It also
7 includes a calculation showing the Company's proposed rate of return on rate base. For
8 a detailed discussion on Exhibit P-5, see the pre-filed direct testimony sponsored by Mr.
9 A. Bruce O'Connor.

10 **Q. Which Test Year Adjustment schedules of Exhibit P-5 are you testifying to?**

11 A. I plan to describe the bad debt expense adjustment (page 8), the retirement plans
12 adjustments (page 9 and 10) and the rate of return calculation (page 17). Testimony for
13 remaining adjustment schedules will be sponsored by either Mr. O'Connor or Ms.
14 Michele Tilley in their respective pre-filed direct testimony

15 **Q. Why are you proposing to adjust the allowance for bad debt expense?**

16 A. There are three Test Year adjustments that are shown on Exhibit P-5, page 8.

- 17 1) The first adjustment is formulaic and is linked to the proposed overall increase in
18 the revenue requirement utilizing a normalized bad debt expense.
- 19 2) The second adjustment is necessary in order to properly identify COVID-19 related
20 bad debt expenses and normalized bad debt expenses. This adjustment breaks out
21 and shows separately the COVID-19 related bad debt expense recorded during the

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1 Test Year from the non-COVID-19 bad debt expense recorded during the Test
2 Year. In November 2020, the Company reclassified COVID-19 related bad debt
3 expense from the general bad debt expense into a separate tracking account that
4 included COVID-19 bad debt expenses from the four month period before the
5 beginning of Test Year (June 1, 2020 thru September 30, 2020).

6 3) The third adjustment represents the proposed recovery of COVID-19 related
7 increased bad debt expenses over an amortization period of 24 months, which
8 approximates the expected life of rates set in this rate case.

9 **Q. How did you determine the allowance for COVID-19 bad debt expense?**

10 A. As shown in the table below (\$ in millions), Middlesex has experienced a significant
11 increase in its aged customer accounts receivables (> 90 days outstanding), which can
12 be attributed to the moratorium on water service terminations for unpaid bills as
13 directed in the State of Emergency Order issued by the Governor of New Jersey in
14 response to the national pandemic declaration. This table provides a quarterly
15 perspective of the aging trend from March 2019 to March 2021.

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As of	0-30	31-45	46-60	61-90	91-120	121+	TOTAL	>90	
3/31/2021	\$ 3.693	\$ 0.519	\$0.575	\$ 0.620	\$ 0.399	\$ 1.621	\$ 7.427	\$2.020	
12/31/2020	4.022	1.215	0.531	0.584	0.468	1.407	8.227	1.875	
9/30/2020	5.447	0.727	0.525	0.487	0.316	0.981	8.481	1.296	
6/30/2020	3.890	0.371	0.649	0.654	0.294	0.738	6.595	1.032	
3/31/2020	3.518	0.414	0.454	0.390	0.203	0.522	5.501	0.725	
12/31/2019	3.901	0.452	0.417	0.319	0.320	0.552	5.960	0.872	
9/30/2019	4.277	0.431	0.361	0.382	0.204	0.509	6.164	0.713	
6/30/2019	4.646	0.243	0.373	0.373	0.216	0.505	6.355	0.721	
3/31/2019	3.875	0.431	0.334	0.320	0.192	0.599	5.750	0.791	
				3/31/19-3/31/20 > 90 Day Average				\$0.764	A
				3/31/2021 > 90 Days O/S				\$2.020	B
				\$ Increase Above Average				\$1.256	C=B-A
				% Increase Above Average				264%	D=B/A

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Due to the significant increase in aged customer receivables beginning in the June 2020 quarter, when the shut off moratorium became effective, Middlesex established an allowance for bad debt attributable to COVID-19. Each quarter since June 2020, Middlesex has reviewed the aging schedule to determine the adequacy of the COVID-19 bad debt reserve and adjusted it based on that review. Middlesex is proposing to recover the COVID-19 related bad debt expense over twenty four months. Middlesex has no reason to believe that this aging trend will not continue so long as the service termination moratorium remains in effect. Should the current moratorium expiration date be extended beyond June 30, 2021, the Company will update the COVID-19 bad debt expense recovery request to reflect that extension.

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1 **Q. How did the company arrive at the Defined Benefit Pension (“DB”) and Post-**
2 **Retirement Health Benefit Plan (“FAS 106”) Plans’ costs?**

3 A. DB and FAS 106 benefit costs are based on actuarial valuations that must be prepared
4 using variable assumptions, including discount rate, asset values, participant life
5 expectancy and health care cost trends, in place on January 1st of each year. The
6 January 1, 2021 actuary valuations for the DB and FAS 106 are the basis for the
7 adjusted Test Year costs, shown in Exhibit P-5, pages 9 and 10.

8 **Q. What are the causes for the decrease in the DB and FAS106 plans’ costs?**

9 A. The main reason for the cost decrease is the actual return on assets held in the DB and
10 FAS 106 Plans’ trust accounts.

11 **Q. What is the Pension Benefit Guaranty Corp premium?**

12 A. This is a Federal statutory annual payment required by pension plan sponsors to fund a
13 program that is designed to protect retiree pensions. This amount has been calculated
14 using the 2020 government-determined rates per participant.

15 **Q. Did you provide the information for the rate of return calculation found on**
16 **page 17 of Exhibit P-5?**

17 A. The Company information for the rate of return calculation was prepared under my
18 direct supervision and provided to the Company’s witness, Dylan D’Ascendis, whose
19 testimony and exhibits support the Fair Rate of Return that the Company should be
20 authorized the opportunity to earn. I direct you to Schedule DWD-1 of the exhibits to

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1 Mr. D'Ascendis's pre-filed direct testimony for the particulars of the information found
2 in this table.

3 **Q. Does this conclude your testimony?**

4 **A. Yes.**

MIDDLESEX WATER COMPANY
BALANCE SHEET
December 2018, 2019 AND 2020

	DECEMBER 2018	DECEMBER 2019	DECEMBER 2020
Utility Plant			
Utility Plant In Service	475,316,121	511,562,898	593,090,215
Acquisition Adjustment	171,309	167,868	164,428
Construction Work In Progress	27,119,183	67,676,385	73,597,920
TOTAL	<u>502,606,612</u>	<u>579,407,151</u>	<u>666,852,562</u>
Less: Accumulated Depreciation	123,591,605	132,155,414	144,611,229
Utility Plant - Net	<u>379,015,007</u>	<u>447,251,738</u>	<u>522,241,333</u>
Non-utility Property - Net	42,620	42,319	45,018
Other	3,309,298	3,561,396	3,952,415
Investment in Subsidiary	79,647,341	83,488,164	86,162,019
Current Assets			
Cash and Cash Equivalents	1,222,931	297,545	5,627
Accounts Receivable:			
Customer	6,836,977	7,243,236	9,387,485
Subsidiaries	2,368,164	5,468,054	7,830,694
Other	657,648	1,017,796	1,343,991
Accumulated Provision for Uncollectible Accounts	(505,001)	(942,692)	(1,531,379)
Materials and Supplies (at average cost)	4,879,536	4,795,043	4,477,405
Prepayments	2,025,266	1,669,789	2,170,510
Notes Receivable - Intercompany	3,347,401	4,351,227	22,850,002
Accrued Unbilled Revenues	4,885,463	4,829,395	4,818,580
Total Current Assets	<u>25,718,385</u>	<u>28,729,392</u>	<u>51,352,914</u>
Deferred Charges And Other Assets			
Unamortized Debt Expense	3,618,594	4,173,080	4,104,709
Lease Assets	-	5,944,099	5,208,637
Regulatory Asset - FAS 109	18,145,767	18,231,651	18,477,299
Regulatory Asset - FAS 158	39,158,391	44,280,994	45,418,424
Regulatory Asset - Deferred Debits	39,592,149	45,442,026	50,678,869
Preliminary Survey & Investigation Charges	4,064,946	1,265,427	3,876,815
Other Deferred Debits	91,375	94,921	66,279
Restricted Cash	1,955,685	44,269,063	5,913,431
Total Deferred Debits	<u>106,626,907</u>	<u>163,701,262</u>	<u>133,744,462</u>
Total Assets	<u>594,359,558</u>	<u>726,774,271</u>	<u>797,498,162</u>

MIDDLESEX WATER COMPANY
BALANCE SHEET
December 2018, 2019 AND 2020

	DECEMBER 2018	DECEMBER 2019	DECEMBER 2020
Capitalization			
Common Equity			
Common Stock, No Par Value	157,354,374	215,124,694	217,450,804
Cumulative Preferred Stock, No Par Value			
Nonredeemable, \$7.00 Series	78,400	78,400	78,400
Nonredeemable, \$4.75	1,000,000	1,000,000	1,000,000
Convertible, \$7.00 Series	1,005,165	1,005,165	1,005,165
Convertible, \$8.00 Series	349,714	-	-
Retained Earnings	91,433,236	108,666,554	128,756,601
Total Equity Capital	<u>251,220,889</u>	<u>325,874,813</u>	<u>348,290,970</u>
Long Term Debt			
Long-term Debt	115,559,070	196,490,278	242,531,667
Total Capitalization	<u>366,779,959</u>	<u>522,365,091</u>	<u>590,822,637</u>
Current Liabilities			
Current Portion of Long-term Debt	3,620,207	3,401,996	3,350,193
Accounts Payable Trade	15,418,217	18,927,759	24,998,987
Notes Payable	35,500,000	5,000,000	-
Customer Deposits	98,516	97,015	79,254
Accrued Taxes	14,397,863	8,150,857	10,045,687
Accrued Interest	1,002,749	1,747,685	1,929,489
Dividends Declared	36,000	30,000	29,999
Other Current Liabilities	1,408,853	2,280,177	2,410,685
Total Current Liabilities	<u>71,482,404</u>	<u>39,635,489</u>	<u>42,844,293</u>
Deferred Credits & Other Liabilities			
Customer Advances for Construction	3,552,211	2,663,816	2,767,552
Lease Obligations	-	5,732,150	5,041,925
Accumulated Deferred Investment Tax Credits	596,110	519,743	444,617
Accumulated Deferred State Income Taxes	-	-	(99,354)
Accumulated Deferred Federal Income Taxes	40,746,721	50,873,430	60,634,156
Postretirement Costs	13,851,089	14,552,687	7,883,975
Employee Pension Benefits	16,809,470	20,118,255	26,541,925
Regulatory Liabilities	60,764,980	50,058,247	40,180,029
Other Deferred Credits	993,662	919,112	910,300
Total Deferred Credits	<u>137,314,243</u>	<u>145,437,440.09</u>	<u>144,305,125</u>
Injuries & Damages Reserve	47,980	47,461	46,982
Contributions In Aid of Construction	18,734,972	19,288,790	19,479,124
Total Capitalization & Liabilities	<u><u>594,359,558</u></u>	<u><u>726,774,271</u></u>	<u><u>797,498,162</u></u>

MIDDLESEX WATER COMPANY
STATEMENT OF INCOME
FOR TWELVE MONTH ENDED DECEMBER 31, 2018, 2019 AND 2020

	DECEMBER 2018	DECEMBER 2019	DECEMBER 2020
Operating Revenues	81,061,198	81,045,001	84,181,704
Operating Expenses			
Operations & Maintenance	39,302,286	40,757,736	41,271,493
Depreciation and Amortization	10,375,811	11,686,626	13,233,277
Taxes, other than Income Taxes	12,737,118	12,886,171	13,271,428
Federal & State Income Taxes	(4,919,127)	(7,952,713)	(9,315,920)
Amortization of ITC	(78,438)	(76,367)	(75,127)
Total Operating Expense	<u>57,417,650</u>	<u>57,301,453</u>	<u>58,385,152</u>
Operating Income	<u>23,643,548</u>	<u>23,743,548</u>	<u>25,796,552</u>
Other Income (Expense)			
AFUDC - Equity	771,394	1,816,759	2,207,524
Interest Income	409,424	607,272	624,433
Other Income	35,640	109,355	52,943
Income From Subsidiaries Operations	11,662,108	11,426,188	14,592,907
Other Equity Investments	32,512	22,515	39,197
Other Expense	(45,115)	(93,819)	(950,623)
Income Before Interest Charges	<u>36,509,512</u>	<u>37,631,818</u>	<u>42,362,934</u>
Interest Charges			
Interest on Long-term Debt	2,962,688	3,767,622	5,337,005
Amortization of Debt Expense	(29,655)	(79,780)	(186,606)
AFUDC - Debt	(328,811)	(1,023,375)	(1,353,728)
Other Interest Charges	1,453,189	1,080,095	141,137
Total Interest Charges	<u>4,057,412</u>	<u>3,744,562</u>	<u>3,937,808</u>
Net Income	<u>32,452,100</u>	<u>33,887,257</u>	<u>38,425,126</u>
Preferred Stock Dividend Requirements	144,000	132,000	120,000
Earnings Applicable to Common Stock	<u>32,308,100</u>	<u>33,755,257</u>	<u>38,305,126</u>

MIDDLESEX WATER COMPANY
STATEMENT OF INCOME FOR THE TWELVE MONTHS ENDED
SEPTEMBER 30, 2021
(5 Months Actual /7 Months Budget)
BPU Docket No. WR2105XXXX

	TEST YEAR SEPTEMBER 30, 2021	ADJUSTMENTS	ADJUSTED TEST YEAR	37.79% PROPOSED ADJUSTMENT	AT PROPOSED RATES
MWC OPERATING REVENUES	\$ 83,478,104	\$ (649,646)	82,828,458	31,297,816	\$ 114,126,274
TOTAL OPERATING REVENUES	\$ 83,478,104	\$ (649,646)	\$ 82,828,458	\$ 31,297,816	\$ 114,126,274
OPERATING EXPENSES:					
SOURCE OF SUPPLY	6,761,952	(20,847)	6,741,104		6,741,104
PUMPING EXPENSE	2,827,526	95,413	2,922,940		2,922,940
WATER TREATMENT EXPENSE	4,396,810	(584,399)	3,812,411		3,812,411
TRANSMISSION & DISTRIBUTION	2,526,928	119,778	2,646,706		2,646,706
CUSTOMER ACCOUNTS	983,972	(22,117)	961,855	134,972	1,096,827
ADMINISTRATION & GENERAL	12,008,295	(57,942)	11,950,353		11,950,353
DEPREC & AMORTIZATION	14,499,559	2,233,055	16,732,614		16,732,614
SALARIES & WAGES	13,148,000	995,135	14,143,135		14,143,135
SUB TOTAL	57,153,042	2,758,076	59,911,118	134,972	60,046,090
TAXES OTHER THAN INCOME TAXES:					
PAYROLL	1,208,930	71,535	1,280,465	-	1,280,465
GRAFT	10,614,282	(87,660)	10,526,622	4,021,916	14,548,538
OTHER	1,461,611	49,502	1,511,113	84,138	1,595,251
TOTAL TAXES OTHER	13,284,823	33,377	13,318,199	4,106,054	17,424,253
TOTAL OPERATING EXPENSES	70,437,865	2,791,452	73,229,318	4,241,026	77,470,343
OPERATING INCOME BEFORE FIT	13,040,239	(3,441,098)	9,599,141	27,056,791	36,655,931
INCOME TAXES	(11,233,002)	6,567,571	(4,665,431)	5,681,926	1,016,495
NET OPERATING INCOME	\$ 24,273,242	\$ (10,008,670)	\$ 14,264,572	\$ 21,374,865	\$ 35,639,436
RATE BASE	\$ 511,326,235		\$ 511,326,235		\$ 511,326,235
RATE OF RETURN	4.75%		2.79%		6.97%

MIDDLESEX WATER COMPANY
REVENUES

	TEST YEAR SEPTEMBER 30, 2021	ADJUSTMENTS	ADJUSTED TEST YEAR
	\$ 83,478,104	\$ (649,646)	\$ 82,828,458
<u>ADJUSTMENTS</u>			
LESS: PWAC REVENUE IN TEST YEAR			\$ (647,289)
<u>ADD: CUSTOMER GROWTH</u>			
	<u>CONSUMPTION REVENUE</u>		
	60		
AVERAGE ANNUAL CONSUMPTION/CUSTOMER (CFT)	<u>8,765</u>		
		525,900	
BASE RATE PER TCF (W/O \$0.01 PER TG WATER QUALITY TAX)		<u>\$ 0.0458527</u>	
			\$ 24,114
	<u>FACILITY CHARGES</u>		
	60		
AVERAGE METER SIZE CURRENT BASE RATE -QUARTERLY	<u>\$ 47.25</u>		
			<u>\$ 11,340</u>
TOTAL REVENUES - NEW ACCOUNTS			35,454
ANNUALIZATION OF FACILITIES CHARGES FOR CHANGE IN BASE CUSTOMERS			(37,811)
			<u><u>\$ (649,646)</u></u>
		PRO FORMA ADJUSTMENT	

MIDDLESEX WATER COMPANY

SOURCE OF SUPPLY

PURCHASED WATER

	TEST YEAR SEPTEMBER 30, 2021	ADJUSTMENTS	ADJUSTED TEST YEAR	
	\$ 6,761,952	\$ (20,847)	\$ 6,741,104	
<u>ADJUSTMENTS</u>				
NEW JERSEY AMERICAN WATER COMPANY - BASE RATE:				
MILLION GALLONS PER DAY (MGD)			3.00	
NUMBER OF DAYS			365	
NJAW TARIFF - RATE SCHEDULE G (BPU DOCKET NO. 19121516)			<u>\$ 2,554.30</u>	\$2,796,959
NEW JERSEY AMERICAN WATER COMPANY - PWAC:				
MILLION GALLONS PER DAY (MGD)			3.00	
NUMBER OF DAYS			365	
PWAC RATE SCHEDULE O-1 (BPU DOCKET NO. WR19111465) (MG)	\$ 442.50			
RATE DECREASE	<u>-12.75%</u>			
PWAC RATE SCHEDULE O-1 (PROPOSED-BPU DOCKET NO. WR20110719) (MG)			<u>\$386.10</u>	\$422,780
NEW JERSEY AMERICAN WATER COMPANY - ADDITIONAL PURCHASES:				
MILLION GALLONS (MG)			8.59	
BASE RATE	\$ 2,554.30			
PWAC RATE	<u>386.10</u>			
			<u>\$ 2,940.40</u>	\$ 25,258
NEW JERSEY WATER SUPPLY AUTHORITY:				
BASE CONTRACT MINIMUM WATER PURCHASES				
MILLION GALLONS PER DAY (MGD)	20.0		7.0	
NUMBER OF DAYS	365		365	
RATE PER MILLION GALLONS (EFFECTIVE 7/1/17) (MG)	<u>\$336.00</u>		<u>\$405.37</u>	
	2,452,800.0		1,035,723.7	\$3,488,524
RETROACTIVE DEBT SERVICE CREDIT				(88,561)
MWC PURCHASED WATER ADJUSTMENT CLAUSE:				
UNRECOVERED DEFERRED PURCHASED WATER COSTS PER BPU DOCKET NO. WR20110722			54,205	
24 MTHS AMORTIZATION PERIOD			<u>50%</u>	\$27,103
PRO FORMA EXPENSE			\$ 6,672,063	
LESS TEST YEAR			<u>(6,692,910)</u>	
TOTAL PRO FORMA ADJUSTMENTS - PURCHASED WATER			<u>\$ (20,847)</u>	

MIDDLESEX WATER COMPANY
PUMPING

PURCHASED POWER

TEST YEAR		ADJUSTMENTS		ADJUSTED
SEPTEMBER 30, 2021				TEST
				YEAR
\$	2,827,526	\$	95,413	\$ 2,922,940

ADJUSTMENTS

	AVG PUMPAGE (MGD)	COST PER MG	TOTAL COST	
CJO TREATMENT PLANT	26.750	\$124.57	\$1,216,270	
CJO INTAKE STATION *	27.106	34.53	341,629	
CJO BOOSTER STATION *	1.497	229.33	125,307	
WELLS	8.527	192.02	597,634	
ALL OTHER			57,163	
NJAWC PURCHASED WATER	3.000		-	
TOTAL	38.277	\$167.35	\$2,338,003	
LESS TEST YEAR			(2,243,248)	
PRO FORMA ADJUSTMENT				\$ 94,755

* PUMPAGE EXCLUDED FROM TOTAL

ADD: CUSTOMER GROWTH

PUMPAGE (MG)	COST PER MG	
3.93 \$	167.35	\$ 658
		\$ 658

TOTAL PRO FORMA ADJUSTMENTS- PURCHASED POWER \$ 95,413

MIDDLESEX WATER COMPANY
WATER TREATMENT

	TEST YEAR SEPTEMBER 30, 2021	ADJUSTMENTS	ADJUSTED TEST YEAR
	\$ 4,396,810	\$ (584,399)	\$ 3,812,411

ADJUSTMENTS

CHEMICALS

	AVG PUMPAGE (MGD)	COST PER MG	TOTAL COST
CJO TREATMENT PLANT	26.750	\$ 52.79	\$ 515,428
CJO INTAKE STATION *	27.106	77.79	769,630
WELLS	8.527	21.73	67,631
NJAWC PURCHASED WATER	3.000		-
CHEMICAL COSTS	38.277	\$96.82	\$ 1,352,689
TEST YEAR		\$ (1,624,704)	
ADDBACK: SAVINGS IN THE TEST YEAR		(194,166)	
TEST YEAR EXCLUDING SAVINGS			\$ (1,818,870)
ANNUAL SAVINGS			\$ (466,181)
LESS: SAVINGS IN THE TEST YEAR			<u>194,166</u>
PRO FORMA ADJUSTMENT			\$ (272,015)
* PUMPAGE EXCLUDED FROM TOTAL			
<u>ADD: CUSTOMER GROWTH</u>	<u>PUMPAGE (MG)</u> 3.93	<u>COST PER MG</u> \$96.82	\$ 381
TOTAL PRO FORMA ADJUSTMENTS - WATER TREATMENT (CHEMICALS)			<u>\$ (271,634)</u>

MIDDLESEX WATER COMPANY
WATER TREATMENT

RESIDUALS REMOVAL

RESIDUALS REMOVAL

CJO TREATMENT PLANT - AVERAGE PUMPAGE (MGD)			26,750	
TOWNSHIP OF EDISON SEWER RATE PER MG		\$	218.98	
NUMBER OF DAYS			<u>365</u>	
		\$	2,138,066	
LESS TEST YEAR	\$	(2,451,692)		
ADDBACK: SAVINGS IN THE TEST YEAR		<u>(224,374)</u>		
TEST YEAR EXCLUDING SAVINGS			\$	<u>(2,676,066)</u>
ANNUAL SAVINGS			\$	(538,000)
LESS: SAVINGS IN THE TEST YEAR				<u>224,374</u>
PRO FORMA ADJUSTMENT				\$ (313,626)
<u>CUSTOMER GROWTH</u>	<u>PUMPAGE (MG)</u>	<u>COST PER MG</u>		
	3.93	\$ 218.98	\$	<u>861</u>
				\$ 861
TOTAL PRO FORMA ADJUSTMENTS - WATER TREATMENT (RESIDUALS)				<u>\$ (312,765)</u>
TOTAL PRO FORMA ADJUSTMENTS - WATER TREATMENT				<u><u>\$ (584,399)</u></u>

**MIDDLESEX WATER COMPANY
TRANSMISSION & DISTRIBUTION**

	TEST YEAR SEPTEMBER 30, 2021	ADJUSTMENTS	ADJUSTED TEST YEAR
	\$ 2,526,928	\$ 119,778	\$ 2,646,706

ADJUSTMENTS

DEFERRED TANK PAINTING

DEFERRED TANK PAINTING EXPENDITURES			
2MG GRANDVIEW TANK	\$	1,197,780	
CJO WASH WATER TANK (BPU DOCKET NO. 17101049)		<u>450,142</u>	
	\$	1,647,922	
10 YEAR AMORTIZATION PERIOD		<u>10</u>	
		164,792	
LESS TEST YEAR		<u>(45,014)</u>	
			119,778
TOTAL PRO FORMA ADJUSTMENTS- TRANSMISSION & DISTRIBUTION			<u>\$ 119,778</u>

MIDDLESEX WATER COMPANY

CUSTOMER ACCOUNTS

TEST YEAR SEPTEMBER 30, 2021	ADJUSTMENTS	ADJUSTED TEST YEAR
\$ 983,972	\$ (22,117)	\$ 961,855

ADJUSTMENTS

	TEST YEAR UNADJUSTED	ADJUSTED TEST YEAR ADJUSTMENT	PROPOSED RATES ADJUSTMENT
REVENUE	\$ 83,478,104	\$ (649,646)	\$ 31,297,816
NORMALIZED BAD DEBT	360,000		
BAD DEBT % OF REVENUE	0.43125%	0.43125%	0.43125%
		\$ (2,802)	\$ 134,972

NORMALIZED BAD DEBT	\$ 360,000		
TEST YEAR NORMALIZED BAD DEBT	(360,000)		
ADDBACK: RECLASS OF COVID BAD DEBT	257,893		
LESS: TEST YEAR	(102,107)		
PRO FORMA ADJUSTMENT		257,893	

COVID RELATED BAD DEBT	\$ 554,416		
24 MONTH AMORTIZATION PERIOD	50.00%		
	277,208		
LESS: TEST YEAR	(554,416)		
PRO FORMA ADJUSTMENT		(277,208)	

PRO FORMA ADJUSTMENT		\$ (22,117)	
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**MIDDLESEX WATER COMPANY
ADMINISTRATIVE & GENERAL EXPENSES**

	TEST YEAR SEPTEMBER 30, 2021	ADJUSTMENTS	ADJUSTED TEST YEAR
	\$ 12,008,295	\$ (57,942)	\$ 11,950,353
<u>ADJUSTMENTS</u>			
<u>REGULATORY COMMISSION EXPENSES</u>			
CURRENT RATE CASE EXPENDITURES		\$ 468,000	
24 MONTH AMORTIZATION PERIOD		50.00%	
		234,000	
LESS TEST YEAR		0	
PROFORMA ADJUSTMENT			234,000
<u>EMPLOYEE BENEFITS</u>			
MEDICAL, PRESCRIPTION & DENTAL PLANS (Net of Contributions)	\$ 3,264,051		
LESS: RETIREE COSTS		(627,105)	
INSURANCE PREMIUM FOR ACTIVE EMPLOYEES		2,636,945	
LESS: CAPITALIZED	-13.81%	(364,108)	
		\$ 2,272,837	
PLUS: RETIREE COSTS		627,105	
NET MEDICAL, PRESCRIPTION & DENTAL PLANS EXPENSE		2,899,942	
LESS: TEST YEAR		(2,934,737)	
PRO FORMA ADJUSTMENT MEDICAL, PRESCRIPTION & DENTAL PLANS			(34,794)
<u>EMPLOYEE BENEFITS (Net of Contributions) FOR PROPOSED POSITIONS</u>			
MEDICAL		163,957	
DENTAL		7,585	
PRO FORMA ADJUSTMENT MEDICAL, PRESCRIPTION & DENTAL PLANS		171,542	
LESS: CAPITALIZED	0.00%	-	
		\$ 171,542	
401K RETIREMENT PLAN		27,195	
EMPLOYEE BENEFITS FOR PROPOSED POSITIONS (Net of Contributions)			198,737
<u>NONPENSION RETIREMENT PLAN VALUATION (FAS No. 106)</u>			
NONPENSION RETIREMENT PLAN VALUATION (FAS No. 106)	\$ (486,318)		
LESS: EXPECTED BENEFIT PAYMENTS (PAY AS YOU GO)		(679,361)	
TOTAL FAS NO. 106 EXPENSE		(1,165,679)	
LESS: CAPITALIZED	-13.81%	160,956	
NET FAS NO. 106 EXPENSE		\$ (1,004,723)	
LESS TEST YEAR		395,226	
PRO FORMA ADJUSTMENT			(609,496)

**MIDDLESEX WATER COMPANY
ADMINISTRATIVE & GENERAL EXPENSES**

EMPLOYEE BENEFITS - CONTINUED

<u>PENSION PLAN VALUATION</u>	\$	402,433	
PLUS: PENSION BENEFIT GUARANTY CORP ANNUAL PREMIUM		<u>18,842</u>	
		421,275	
LESS: CAPITALIZED	-13.81%	<u>(58,169)</u>	
	\$		363,105
PLUS: SERP VALUATION			<u>1,111,377</u>
NET PENSION PLAN EXPENSE			1,474,482
LESS: TEST YEAR			<u>(1,639,614)</u>
PRO FORMA ADJUSTMENT			(165,132)

OTHER

<u>BUSINESS INSURANCE</u>	\$	2,139,242	
LESS: TEST YEAR		<u>(1,912,038)</u>	
PRO FORMA ADJUSTMENT			227,204
<u>GENERAL (SHARED) OVERHEAD CHARGED TO AFFILIATES</u>	\$	(1,702,991)	
LESS: TEST YEAR		<u>1,653,389</u>	
PRO FORMA ADJUSTMENT			(49,602)
<u>ERP SYSTEM SUPPORT CHARGE TO TIDEWATER</u>	\$	(702,305)	
LESS: TEST YEAR		<u>844,561</u>	
PRO FORMA ADJUSTMENT			142,256
<u>ANTENNA REVENUE (a/c 472)</u>	\$	(82,251)	
LESS: TEST YEAR		<u>79,557</u>	
PRO FORMA ADJUSTMENT			(2,694)
<u>INTEREST ON CUSTOMER ACCOUNTS</u>			1,580
TOTAL PRO FORMA ADJUSTMENTS - ADMINISTRATIVE & GENERAL	\$		<u>(57,942)</u>

MIDDLESEX WATER COMPANY

SALARIES AND WAGES

PAYROLL ADJUSTMENT

	TEST YEAR SEPTEMBER 30, 2021	ADJUSTMENTS	ADJUSTED TEST YEAR
	\$ 13,148,000	\$ 995,135	\$ 14,143,135

ADJUSTMENTS

BASE LABOR

PROJECTED ANNUAL SALARY AT 9/31/21 FOR PROGRESSION SCHEDULE EMPLOYEES	A \$	1,605,311	
ANNUAL SALARY AS OF 3/23/21 FOR PROGRESSION SCHEDULE EMPLOYEES		(1,515,414)	
SCHEDULED PROGRESSION INCREASES THROUGH 9/31/21			89,897

PROJECTED ANNUAL SALARIES AS OF 3/23/21 ROSTER AT 9/30/21 - ALL OTHER EMPLOYEES	A \$	15,311,291	
ANNUAL SALARIES OF ROSTER AS OF 3/23/21 - ALL OTHER EMPLOYEES		(14,795,151)	
APRIL, 2021 ANNUAL WAGE INCREASE PROJECTED AT 3.0% FOR ELIGIBLE EMPLOYEES			516,140

OVERTIME

TEST YEAR OVERTIME	A \$	1,329,579	
APRIL, 2021 ANNUAL WAGE INCREASE @ 3.0%		3.00%	
		A	39,887

CAPITALIZED LABOR & SUBSIDIARY ALLOCATION

CAPITALIZED LABOR	Total Labor = Sum of A	\$	18,286,068	
SUBSIDIARY/TRANSPORTATION LABOR ALLOCATION	Rate	-13.81%	\$	(2,524,932)
LESS: TEST YEAR AMOUNT	Rate	-15.14%		(2,767,794)
				5,191,991
				(100,735)

PROJECTED NEW POSITIONS (Net of Capitalized/Subsidiary Allocations)

	Salary	Capitalized/Subsidiary Allocation	
1. ASSISTANT CONTROLLER (FINANCE)	\$ 153,186	-15.14%	\$ 130,000
2. TRAINING COORDINATOR (PRODUCTION)	41,600	0.0%	41,600
3. MAINTENANCE PLANNER (PRODUCTION)	41,600	0.0%	41,600
4. USR BACKFILL - (7) POSITIONS (DISTRIBUTION)	236,746	0.0%	236,746
			449,946

PRO FORMA ADJUSTMENT

\$ 995,135

**MIDDLESEX WATER COMPANY
DEPRECIATION AND AMORTIZATION EXPENSE**

	TEST YEAR		ADJUSTMENTS		ADJUSTED TEST YEAR
	SEPTEMBER 30, 2021				
DEPRECIATION EXPENSE	\$	14,496,119	\$	2,233,055	\$ 16,729,174
BAVVIEW ACQUISITION ADJUSTMENT		3,440		0	3,440
TOTAL DEPRECIATION AND AMORTIZATION EXPENSE	\$	14,499,559	\$	2,233,055	\$ 16,732,614

PRO FORMA/ADJUSTED TEST YEAR DEPRECIATION EXPENSE 16,729,174
LESS: TEST YEAR DEPRECIATION EXPENSE (14,496,119)

PRO FORMA ADJUSTMENT \$ 2,233,055

**DEPRECIATION EXPENSE
DEPRECIABLE PLANT (NET OF CIAC & CAC)**

	DEPRECIABLE PLANT 12/31/20	NET PLANT ADDITIONS PER P-2	TOTAL DEPRECIABLE PLANT	DEPRECIATION RATE	TEST YEAR DEPRECIATION EXPENSE
310 LAND & LAND RIGHTS	\$ 299,719	\$ -	\$ 299,719	0.00%	\$ -
311 STRUCTURES & IMPROVEMENTS	1,307,308	-	1,307,308	2.97%	38,827
313 LAKES, RIVERS & OTHER INTAKES	381,429	-	381,429	2.46%	9,383
314 WELLS & SPRINGS	647,494	-	647,494	3.44%	22,274
316 SUPPLY MAINS	9,909,085	692,304	10,601,389	1.15%	121,916
TOTAL SOURCE OF SUPPLY	<u>12,545,035</u>	<u>692,304</u>	<u>13,237,340</u>		<u>192,400</u>
320 LAND & LAND RIGHTS	92,189	-	92,189.0	0.00%	-
321 STRUCTURES & IMPROVEMENTS	10,311,429	1,004,122	11,315,551	3.12%	353,045
323 OTHER POWER PRODUCTION EQUIPMENT	4,186,127	-	4,186,127	2.94%	123,072
325 ELECTRIC PUMPING EQUIPMENT	14,134,153	3,073,272	17,207,425	2.87%	493,853
328 OTHER PUMPING EQUIPMENT	760,594	-	760,594	5.04%	38,334
TOTAL PUMPING	<u>29,484,492</u>	<u>4,077,394</u>	<u>33,561,886</u>		<u>1,008,304</u>
330 LAND & LAND RIGHTS	143,861	-	143,861.5	0.00%	-
331 STRUCTURES & IMPROVEMENTS	16,014,429	45,852,536	61,866,965	2.71%	1,676,595
332 WATER TREATMENT PLANT	34,994,591	20,750,617	55,745,208	2.72%	1,516,270
332 CHEMICAL TREATMENT EQUIPMENT	259,807	-	259,807	7.09%	18,420
TOTAL WATER TREATMENT	<u>51,412,689</u>	<u>66,603,153</u>	<u>118,015,841</u>		<u>3,211,285</u>
340 LAND & LAND RIGHTS	865,884	-	865,884	0.00%	-
342 DISTR RESERVOIRS & STANDPIPES	4,049,912	-	4,049,912	1.93%	78,163
343 MAINS - 4" & UNDER	1,749,541	-	1,749,541	3.13%	54,761
343 MAINS - 6" TO 8"	121,270,018	7,793,277	129,063,295	1.27%	1,639,104
343 MAINS - 10" TO 16"	38,064,428	7,425,798	45,490,226	1.26%	573,177
343 MAINS - 18" TO 24"	16,143,156	563,042	16,706,198	1.13%	188,780
343 MAINS - 30" AND OVER	75,794,042	1,211,962	77,006,004	1.10%	847,066
343 RIVER CROSSINGS	810,949	-	810,949	1.26%	10,218
343 RAILROAD CROSSINGS	1,539,592	-	1,539,592	1.29%	19,861
343 STATION DISCHARGE PIPE	9,425	-	9,425	2.42%	228
343 METER VAULTS, ETC	2,680,859	-	2,680,859	3.90%	104,554
345 SERVICES	66,519,216	4,959,179	71,478,395	2.81%	2,008,543
346 METERS	17,515,727	-	17,515,727	3.35%	586,777
347 METER INSTALLATIONS	39,236,323	3,689,082	42,925,405	2.33%	1,000,162
348 HYDRANTS	22,971,706	845,423	23,817,130	2.23%	531,122
349 OTHER T. & D. EQUIPMENT	888,874	316,154	1,205,028	4.24%	51,093
TOTAL TRANS. & DISTRIB.	<u>410,109,652</u>	<u>26,803,917</u>	<u>436,913,569</u>		<u>7,693,609</u>
389 LAND & LAND RIGHTS	1,121,028	-	1,121,028	0.00%	-
390 STRUCTURES & IMPROVEMENTS	12,198,596	5,503,883	17,702,479	2.27%	401,846
391 OFFICE FURNITURE & EQUIP	1,935,624	-	1,935,624	0.00%	-
391 OFFICE FURNITURE & EQUIP	13,979,724	(428,498)	13,551,226	11.91%	1,613,951
391 COMPUTER EQUIPMENT - ERP	23,875,706	(6,389,587)	17,486,119	4.00%	699,445
392 TRANSPORTATION EQUIP.	1,855,223	-	1,855,223	0.00%	-
392 TRANSPORTATION EQUIP.	5,841,449	478,256	6,319,705	17.84%	1,127,435
393 STORES EQUIPMENT	63,850	-	63,850	0.00%	-
394 TOOLS, SHOP & GARAGE EQUIP.	2,505,138	89,272	2,594,410	4.15%	107,668
395 LABORATORY EQUIPMENT	1,022,964	-	1,022,964	0.00%	-
395 LABORATORY EQUIPMENT	337,321	59,885	397,207	7.66%	30,426
396 POWER OPERATED EQUIP.	424,370	-	424,370	6.09%	25,844
397 COMMUNICATION EQUIPMENT	2,113,299	6,899,210	9,012,509	6.84%	616,456
398 MISCELLANEOUS EQUIP.	298,696	-	298,696	0.00%	-
398 MISCELLANEOUS EQUIP.	7,870	-	7,870	6.42%	505
TOTAL GENERAL PLANT	<u>67,580,859</u>	<u>6,212,422</u>	<u>73,793,281</u>		<u>4,623,576</u>
CAC GROSS-UP (NON-DEPRECIABLE)	(289,188)	-	(289,188)	0.00%	-
	<u>\$ 570,843,539</u>	<u>\$ 104,389,190</u>	<u>\$ 675,232,728</u>		<u>\$ 16,729,174</u>

**MIDDLESEX WATER COMPANY
TAXES OTHER THAN INCOME TAXES**

PAYROLL TAXES

	TEST YEAR SEPTEMBER 30, 2021	ADJUSTMENTS	ADJUSTED TEST YEAR
	\$ 1,208,930	\$ 71,535	\$ 1,280,465

ADJUSTMENTS

	SOCIAL SECURITY	MEDICARE	
NET PAYROLL INCREASE	\$ 995,135	\$ 995,135	
LESS: AMTS. IN EXCESS OF SOCIAL SECURITY LIMIT OF \$142,800.	(74,066)	-	
INCREASE SUBJECT TO TAX	\$ 921,069	\$ 995,135	
			<u>TOTAL</u>
TAX RATE	6.20%	1.45%	7.65%
PRO FORMA ADJUSTMENT	\$ 57,106	\$ 14,429	\$ 71,535

**MIDDLESEX WATER COMPANY
TAXES OTHER THAN INCOME TAXES**

GROSS RECEIPTS & FRANCHISE TAXES

	TEST YEAR SEPTEMBER 30, 2021	ADJUSTMENTS	ADJUSTED TEST YEAR
	\$ 10,614,282	\$ (87,660)	\$ 10,526,622

ADJUSTMENTS

	PRESENT RATES ADJUSTMENT TO REVENUES	PROPOSED RATES ADJUSTMENT TO REVENUES
OPERATING REVENUES ADJUSTMENT	\$ (649,646)	\$ 31,297,816
PORTION OF MAINS IN PUBLIC RIGHT OF WAYS	89.885038%	89.885038%
TAXABLE BASE	\$ (583,935)	\$ 28,132,054
FRANCHISE EXCISE TAX: TAXABLE BASE * TAX RATE (.625%)	\$ (3,650)	\$ 167,445
GROSS RECEIPTS EXCISE TAX: OPERATING REVENUES ADJUSTMENT * TAX RATE (.9375%)	\$ (6,090)	\$ 279,433
FRANCHISE TAX: TAXABLE BASE * TAX RATE (5.0%)	\$ (29,197)	\$ 1,339,570
GROSS RECEIPTS TAX: OPERATING REVENUES ADJUSTMENT * TAX RATE (7.5%)	\$ (48,723)	\$ 2,235,468
TOTAL GROSS RECEIPTS AND FRANCHISE TAXES	\$ (87,660)	\$ 4,021,916

**MIDDLESEX WATER COMPANY
TAXES OTHER THAN INCOME TAXES**

TEST YEAR SEPTEMBER 30, 2021	ADJUSTMENTS	ADJUSTED TEST YEAR
\$ 1,461,611	\$ 49,502	\$ 1,511,113

ADJUSTMENTS

REAL ESTATE TAXES

REAL ESTATE TAXES	\$ 1,288,445	
LESS: TEST YEAR	(1,254,563)	
PRO FORMA ADJUSTMENT	\$ 33,882	

NEW JERSEY BOARD OF PUBLIC UTILITIES AND DIVISION OF RATE COUNSEL REGULATORY ASSESSMENTS

	ASSESSMENT RATE	
NJBPU ASSESSMENT (Present Rates + Adjustment to Revenue)	0.002153542443140	178,375
RC ASSESSMENT (Present Rates + Adjustment to Revenue)	0.000534759051924	44,293
		222,668
LESS: TEST YEAR		(207,048)
		\$ 15,620

TOTAL PRO FORMA ADJUSTMENTS - OTHER TAXES \$ 49,502

	ASSESSMENT RATE	
NJBPU & RC ASSESSMENT (Proposed Revenue Adjustment)	0.00268830149506400	\$ 84,138
TOTAL PROPOSED RATE ADJUSTMENT - OTHER TAXES		\$ 84,138

MIDDLESEX WATER COMPANY

FEDERAL INCOME TAXES

	TEST YEAR SEPTEMBER 30, 2021	ADJUSTMENTS	ADJUSTED TEST YEAR
	\$ (11,233,002)	\$ 6,567,571	\$ (4,665,431)
	<hr/>		
	TEST YEAR SEPTEMBER 30, 2021	ADJUSTED TEST YEAR	ADJUSTED AT PROPOSED RATES
OPERATING INCOME BEFORE FEDERAL INCOME TAX	\$ 13,040,239	\$ 9,599,141	\$ 36,655,931
DEDUCTIONS:			
TPR FLOW THRU TAX DEDUCTION	27,944,423	27,944,423	27,944,423
INTEREST EXPENSE	6,289,313	6,289,313	6,289,313
PREFERRED DIVIDEND DEDUCTION	6,800	6,800	6,800
TOTAL DEDUCTIONS	\$34,240,536	\$34,240,536	\$34,240,536
TAXABLE INCOME	\$ (21,200,296)	\$ (24,641,395)	\$ 2,415,396
FEDERAL INCOME TAX	\$ (4,452,062)	\$ (5,174,693)	\$ 507,233
AMORT. OF TPR LOOK BACK PERIOD & PRE 2018 TPR DEDUCTIONS	(6,105,850)	708,675	708,675
AMORT. OF POST 2017 TPR DEDUCTIONS	0	408,548	408,548
AMORT. OF 2017 TCJA REGULATORY LIABILITY	(602,242)	(535,114)	(535,114)
AMORT. OF ITC	(72,848)	(72,848)	(72,848)
TOTAL INCOME TAXES	\$ (11,233,002)	\$ (4,665,431)	\$ 1,016,495
	21.0000%	21.0000%	21.0000%

MIDDLESEX WATER COMPANY

RATE OF RETURN CALCULATION

	PRO FORMA CAPITAL RATIOS	COST RATE	WEIGHTED COST RATE
LONG TERM DEBT	46.00%	2.68%	1.23%
PREFERRED STOCK	0.16%	5.01%	0.01%
COMMON EQUITY	53.84%	10.65%	5.73%
	<u>100.00%</u>		<u>6.97%</u>

MIDDLESEX WATER COMPANY

TAX GROSS UP CALC

	All Customers			
Public/Private	89.885038%			
	Tax Rates	Adjusted		
Franchise - Excise	0.6250%	0.5350%		
Franchise	5.0000%	4.2801%		
Gross Receipts	0.9375%	0.8928%		
Gross Receipts - Excise	7.5000%	7.1426%		
Total GRAFT Rate	<u>14.0625%</u>	<u>12.8505%</u>		
NJBPU/RC ASSESSMENT	0.2688%	0.2688%		
Bad Debt	0.4313%	0.4313%		
Total		<u>13.5505%</u>		
			<u>East Brunswick</u>	
		100%	100%	
		-13.5505%	-13.5505%	
		<u>86.4495%</u>	<u>86.4495%</u>	
Federal Income Tax Rate		21.000%	21.000%	
Federal Income Tax (FIT)		18.154%	18.154%	
Net Income		68.2951%	68.2951%	
Gross Up Factor (1/FIT)		146.4234%	146.4234%	
		95.2343%	4.7657%	
		1.39445352	0.069780944	1.46423446

3,947,351 East Brunswick Revenues
82,828,458 Adjusted Test Year Revenue
4.7657% % East Brunswick to Total

MIDDLESEX WATER COMPANY

PROPOSED REVENUE INCREASE CALCULATION

RATE BASE	511,326,235
RATE OF RETURN	6.9700%
INCOME REQUIREMENT	<u>35,639,439</u>
PROFORMA OPERATING INCOME	14,264,572
DEFICIENCY	<u>21,374,867</u>
REVENUE FACTOR	1.464234
PROPOSED REVENUE INCREASE	<u><u>31,297,816</u></u>