

NEW JERSEY WATER SUPPLY AUTHORITY

BASIS AND BACKGROUND STATEMENT

PROPOSED AMENDMENTS TO N.J.A.C. 7:11-4.1, et seq. IN THE  
SCHEDULE OF RATES, CHARGES AND DEBT SERVICE ASSESSMENTS  
FOR THE SALE OF WATER FROM THE  
MANASQUAN RESERVOIR WATER SUPPLY SYSTEM

ADJUSTMENT OF OPERATIONS AND MAINTENANCE EXPENSE COMPONENT TO  
REFLECT CHANGE IN SALES BASE AND OPERATING EXPENSE  
FOR FISCAL YEAR 2016

ADJUSTMENT OF SOURCE WATER PROTECTION FUND COMPONENT TO  
REFLECT REDUCTION IN COMPONENT RATE  
FOR FISCAL YEAR 2016

ADJUSTMENT OF DEBT SERVICE COST COMPONENT TO  
REFLECT BOND YEAR PAYMENTS DUE AND REQUIRED  
FOR FISCAL YEAR 2016 AND CHANGE IN SALES BASE

ADJUSTMENT OF NJEIFP DEBT COMPONENT TO  
REFLECT BOND YEAR PAYMENTS DUE AND REQUIRED  
FOR FISCAL YEAR 2016

Proposed Effective Date: July 1, 2015

Adopted by the Board: 1/5/2015

NEW JERSEY WATER SUPPLY AUTHORITY  
PROPOSED RATE ADJUSTMENTS FOR FISCAL YEAR 2016  
MANASQUAN RESERVOIR WATER SUPPLY SYSTEM

Table of Contents

<u>PART I - EXPLANATION OF PROPOSED REVISED RATE STRUCTURE</u>	<u>Page</u>
Overview of Rate Proposal for Fiscal Year 2016	1
Summary of Proposed Adjustments - Initial Water Purchase Contracts	1
Summary of Proposed Adjustments - Delayed Water Purchase Contracts	2
Schedule of Events	4
Distribution of Costs between Systems	5
Distribution of Costs between Reservoir & Treatment Plant	6
Analysis of Significant Changes in Operations & Maintenance Expenses And Sales Base	7
Insurance Program	9
Fees and Permits	9
Headquarters General and Administrative Expenses	10
Interest Income and Miscellaneous Revenue	10
Reserve Contributions	10
Review of Reserve Accounts	10
Source Water Protection Fund Rate Component	11
Optional Water Use Schedule	12
Overdraft Service	12
Other Rule Amendments	12
<u>PART II - DETAILED SUPPORTING INFORMATION</u>	
Table 1 - Summary of Proposed Rates - Fiscal Year 2016	13
Table 2 - Rate History of Water Charges (FY1997-FY2016)	14
Table 3 - Rate History - Delayed Water Purchase Contract (FY2002-FY2016)	15
Schedule of Events	16
Proposed Fiscal Year 2016 Budget Summary (7/1/2015-6/30/2016)	17
Schedule 1 Total Operations and Maintenance Budget - Fiscal Year 2016	18
Schedule 2 Labor Projection - Fiscal Year 2016	19

## Table of Contents (continued)

Page

Schedule 3	Manasquan Reservoir System Operations and Maintenance Direct Expense Budget - Proposed Fiscal Year 2016, Adopted Fiscal Year 2015 and Actual Fiscal Years 2012-2014	20
Schedule 4	Manasquan Treatment Plant/Transmission System Operations and Maintenance Direct Expense Budget - Proposed Fiscal Year 2016, Adopted Fiscal Year 2015 and Actual Fiscal Years 2012-2014	21
Schedule 5	Manasquan Reservoir System General and Administrative Expense Budget - Proposed Fiscal Year 2016, Adopted Fiscal Year 2015 and Actual Fiscal Years 2012-2014	22
Schedule 6	Recommended Service and Maintenance Contracts for Manasquan Reservoir System - Fiscal Year 2016	23
Schedule 7	Recommended Service and Maintenance Contracts for Manasquan Treatment Plant/Transmission System - Fiscal Year 2016	24
Schedule 8	Recommended Service & Maintenance Contracts for General and Administrative - Fiscal Year 2016	25
Schedule 9	Recommended Special and Professional Services for Manasquan Reservoir System - Fiscal Year 2016	26
Schedule 10	Recommended Special and Professional Services for Manasquan Treatment Plant/Transmission System - Fiscal Year 2016	27
Schedule 11	Recommended Special and Professional Services for General and Administrative - Fiscal Year 2016	28
Schedule 12	Projected Insurance Program - Fiscal Year 2016	29
Schedule 13	Recap of Allocation of Headquarters General and Administrative Expenses charged to the Manasquan Reservoir System - Fiscal Year 2016	30
Schedule 14	Proposed Capital Equipment Budget (Manasquan Reservoir System and Treatment Plant/Transmission System) Fiscal Year 2016	31
Schedule 15	General & Administrative Expenses Split - Actual FY2014	32
Schedule 16	Estimate of Interest Income - Fiscal Year 2016	35
Schedule 17	Unanticipated Revenue	36
Schedule 18	Fund Balances as of 6/30/14	37
Schedule 19	Operations and Maintenance and Debt Service Component Sales Base - Fiscal Year 2016	38
Schedule 20	Operations and Maintenance Rate Component - Fiscal Year 2016	39
Schedule 21	Computation of Base Debt Service Rates - Fiscal Year 2016	40

Table of Contents (Continued)

Page

Schedule 22	Computation of Delayed Water Purchase Contract Debt Service Rates - Fiscal Year 2016	41
Schedule 23	Computation of Base Debt Service Rates Intake Pump Station Building	42
Schedule 24	2005 Bond Debt Service Coverage	43
Schedule 25	Manasquan Reservoir System Rehabilitation Reserve and Capital Improvement Program	44

PART III - PROPOSED RULE AMENDMENTS TO THE SCHEDULE OF RATES,  
CHARGES AND DEBT SERVICE ASSESSMENTS FOR THE SALE OF WATER  
FROM THE MANASQUAN RESERVOIR WATER SUPPLY SYSTEM

52

Appendices

- I. Report of Mercadien PC - Allocation of Headquarters  
General and Administrative Expenses - FY2016
- II. Report of Mercadien PC - Allocation of Headquarters  
General and Administrative Expenses - Audited FY2014 Expenditures

**PART I - EXPLANATION OF PROPOSED REVISED RATE STRUCTURE**

**Overview of Rate Proposal for Fiscal Year 2016**  
**(July 1, 2015 - June 30, 2016)**

The New Jersey Water Supply Authority (Authority) is proposing to adjust its Schedule of Rates, Charges and Debt Service Assessments for the sale of water from the Manasquan Reservoir Water Supply System (System), to cover expenses for the Fiscal Year (FY) starting on July 1, 2015.

The Authority operates and maintains the System including the Intake Facilities located in Wall Township adjacent to Hospital Road, the Manasquan Reservoir located in Howell Township and 5 1/4 miles of 66-inch diameter pipeline which connects the Intake Facilities to the Reservoir. The Authority also operates and maintains a water treatment plant located on the same site as the Reservoir Intake Facilities and approximately 39,000 feet of transmission piping. This treatment plant/transmission system was constructed and is being operated by the Authority for the Southeast Monmouth Municipal Utilities Authority (SMMUA) on behalf of the Boroughs of Brielle, Spring Lake, Spring Lake Heights, Sea Girt and Wall Township, which have entered into agreements with SMMUA for the treatment/transmission of their portion of the supply from the System.

**Summary of Proposed Adjustments**

Initial Water Purchase Contracts Effective as of July 1, 1990 (15.695mgd) and Shorelands (.028mgd) delayed water contract effective July 1, 2006:

Component	Current (FY2015) Rates Per MG 7/1/2014 - 6/30/2015	Proposed (FY2016) Rates Per MG 7/1/2015 - 6/30/2016
Operations & Maintenance Component	\$356.61	\$386.00
Source Water Protection Fund Component	15.00	10.00
Debt Service Cost Component	619.87	636.61
NJEIFP Debt Component	24.42	24.79
TOTAL RATE	\$1,015.90/mg	\$1,057.40/mg

New Jersey American Water Delayed Water Purchase Contracts Effective July 1, 2001, October 1, 2002 and January 1, 2005 (4.435mgd):

Component	Current (FY2015) Rates Per MG 7/1/2014 - 6/30/2015	Proposed (FY2016) Rates Per MG 7/1/2015 - 6/30/2016
Operations & Maintenance Component	\$356.61	\$386.00
Source Water Protection Fund Component	15.00	10.00
Debt Service Cost Component	772.46	770.07
NJEIFP Debt Component	24.42	24.79
TOTAL RATE	\$1,168.49/mg	\$1,190.86/mg

\* \* \*

The General Rate Schedule for Operations and Maintenance (O&M) was last adjusted effective July 1, 2014 to cover the operating expenses of the System for FY2015. The FY2014 sales base was 20.560 million gallons per day (mgd). The Authority anticipates that the applicable raw water O&M sales base for FY2016 will decrease to approximately 20.158mgd, a reduction of 402,000 gallons per day. The Authority estimates the initial sales base will decrease from 16.125mgd to 15.723mgd. The delayed sales base will remain at 4.435mgd.

After the allocation of appropriate Headquarters General and Administrative costs to the System, the Authority anticipates \$2,803,068 in O&M component revenue required during FY2016 with an O&M rate component of \$386.00 per million gallons, an increase of \$29.39 per million gallons from FY2015, starting on July 1, 2015 (Schedule 20, page 39). The proposed operating expense budget for FY2016 is \$100,460 more than FY2015 and the proposed Capital Equipment Budget, net of depreciation reserve, is \$48,000 more than FY2015. In FY2016 there will be a \$10,000 contribution to the Sediment Reserve Fund, a \$120,000 contribution to the Renewal and Replacement Fund, a \$5,000 contribution to the Formal Dam Inspection Reserve, and a \$15,000 contribution to the High Voltage Testing Reserve Fund, a \$2,000 increase over FY2015. See Budget Summary on page 17.

A credit of \$51,292 is owed from the SMMUA Water Treatment Plant and Transmission System budget to the Reservoir System for actual FY2014 salaries and fringe expenses and will be applied to the CY2015 SMMUA budget (Schedule 15, pages 32-34).

Miscellaneous revenue and interest income in FY2016 is projected to decrease by \$32,855 relative to FY2015 reflecting stable interest earnings (Schedule 16, page 35) and a decrease in

the use of year end surplus available from FY2014. (Schedule 17, page 36).

The System was financed with loans from the State of New Jersey and a Debt Service Assessment for contracts, effective as of July 1, 1990, was established to cover debt service payments on the initial loan of \$63,600,000 at a set interest rate of 7.15 percent and payment of the interim completion loan of \$7,416,000 at an interest rate of 7.16 percent. During FY1992 the State of New Jersey reduced the interest rate on the completion loan to 6.24 percent. During FY1997, the Authority negotiated an agreement with the State of New Jersey, which reduced the interest rate on the \$63,600,000 original State Loan Notes from 7.15 percent to 5.93 percent effective for the payments due on or after August 1998. The Debt Service component of the rate has been adjusted in the past to reflect the revised debt service schedules.

In August of 2005, the Authority refunded the current portion of the State Loan Notes and the Completion Notes at an average coupon of 4.83 percent and net present value savings of \$6.187 million. The terms of the bonds are 15 and 25 years respectively. The bond proceeds also fully funded the Debt Service Reserve Account and debt service coverage must remain at 120 percent through the life of the bonds.

The Debt Service component of the rate for the Initial Water Purchase Contracts will be \$636.61 (an increase of \$16.74) and \$770.07 (a decrease of \$2.39) for the Delayed Water Purchase (DWP) Contracts in FY2016. These changes reflect 120 percent real debt service coverage.

The Authority established a Source Water Protection Fund Component in FY2004 dedicating \$15.00 per million gallons to protect the quality and quantity of water in the Manasquan Water Supply System. The Authority proposes decreasing the rate component by \$5.00 per million gallons from \$15.00 to \$10.00 for this fund in FY2016.

The Authority closed on a loan to the New Jersey Environmental Infrastructure Financing Program (NJEIFP) on May 3, 2012 to finance the construction of a building structure over the Intake Pump Station and traveling water screens to protect the infrastructure from degradation by the elements. The final interest on the loan is based on 75 percent at zero interest and 25 percent market rate with coupons up to 5 percent for an effective interest rate of .8 percent over the twenty year life of the loans. The rate component of \$24.79 per million gallons in FY2016 (an increase of \$.37) is required to cover debt service payments in accordance with the schedule.

The base contract O&M Rate (\$386.00), Source Water Protection Program Rate (\$10.00), Debt Service Rate (\$636.61) and NJEIFP Debt Rate (\$24.79) comprise the total base contract rate for raw water of \$1,057.40 per million gallons, and represents an increase of \$41.50 per million gallons relative to FY2015. This base contract rate is charged to all uninterrupted service contracts executed prior to July 1, 1990, the commencement date of Manasquan Reservoir System operations, and one Delayed Water Purchase contract with Shorelands Water Company executed on July 1, 2006. In order for its customers to be assessed the base contract rate on the .028mgd delayed contract, Shorelands Water Company prepaid the net present value of the difference between the initial water purchase contracts debt service schedule and the delayed water purchase contracts debt service schedule.

The total rate for delayed water purchase contracts in FY2016 is \$1,190.86 per million gallons representing an increase of \$22.37 per million gallons relative to the FY2015 delayed water purchase rate. The O&M Component (\$386.00), the Source Water Protection Fund Component (\$10.00), the Debt Service Rate Component (\$770.07) and NJEIFP Debt Rate (\$24.79) comprise the total rate.

Table 1 (page 13) contains a summary of the proposed base contract rate and delayed water purchase contract rate components. The proposed rates shown in Table 1 are effective July 1, 2015 through June 30, 2016. These rates are based upon the projected operating costs and reflect an estimated contracted sales base of 20.158mgd.

Table 2 (page 14) is a twenty-year history of the total initial water purchase contract annual water rate.

Table 3 (page 15) is a fifteen-year history of the combined delayed water purchase contract annual water rates.

Water use payments are to be made quarterly with due dates of October 10, 2014, January 10, 2015, April 10, 2015 and July 10, 2015.

The balance of this document contains a further discussion of the individual rate components, a Schedule of Events and detailed supporting information for the proposed rate adjustment.

#### Schedule of Events

A pre-public hearing on the proposed rate adjustment is scheduled at 11:00 a.m. on Thursday, January 8, 2015, at the Authority's Manasquan Administration Building, Hospital Road, Wall, New Jersey.



A public hearing on the proposed rate adjustment is scheduled at 11:00 a.m. on Thursday, February 5, 2015, also at the Authority's Manasquan Administration Building in Wall, New Jersey. The public hearing record is scheduled to close on March 16, 2015.

The Authority will take final action on the proposed rate adjustment at its June 1, 2015 meeting at the Authority's Administration Building in Clinton, New Jersey.

**Distribution of Headquarters General and Administrative  
Costs and Insurance Costs to all Operating Systems**

On July 1, 1990 the Authority placed the Manasquan Reservoir Water Supply System in operation to provide an untreated water supply for use throughout Monmouth County. In addition to this major System, the Authority also began operation of the Water Treatment Plant and Transmission System for the Monmouth County Improvement Authority (MCIA) on July 1, 1990. The Boroughs of Brielle, Spring Lake, Spring Lake Heights, Sea Girt and Wall Township entered into agreements with the MCIA for this treatment/transmission system, which treats and conveys their portion of the supply from the Manasquan Reservoir Water Supply System. In December 2008, the five member communities created the Southeast Monmouth Municipal Utilities Authority and in September 2009 purchased the Water Treatment Plant from the MCIA and the Authority continues to operate the Water Treatment Plant. The Authority also operates the Spruce Run/Round Valley Reservoirs Complex and the Delaware and Raritan Canal Water Supply Transmission Complex comprising the Raritan Basin System, headquartered in Clinton, New Jersey. As a result, the Authority is operating, maintaining and managing three distinct Systems each with its own budget, cost accountability and revenue stream.

The Authority's headquarters staff located in Clinton provides general and administrative support services for all three Systems. These services include, but are not limited to, Financial Management, Payroll, Human Resources, Purchasing, Contract Administration, Risk Management, and overall management.

In order to equitably assess the customers of each of the three Systems, the Authority previously retained the services of an auditing firm to develop a methodology for the allocation of the Headquarters General and Administrative costs to all three operating Systems. After the close of each fiscal year, the Authority's current Auditors provide the Authority with their findings as to the adjustment, if any, of the allocation factors and the actual audited expenditures for the fiscal year.

The audit report for the immediately preceding fiscal year ending June 30 is available during November. Each September the Authority formulates the proposed budgets for the upcoming fiscal year starting on the following July 1. The adjusted allocation factors, if any and the audited expenditures for the previous fiscal year are used to establish a debit or credit for each of the three operating Systems. This debit or credit is applied to the budgets being prepared each September for the upcoming fiscal year starting on July 1.

An independent auditor performed the Authority's fiscal year 2014 audit. The audit included a review of the allocation factors, as well as the actual audited expenditures. The appropriate adjustments have been made to the FY2016 budget based on the FY2014 audit. A copy of the Auditor's report on the allocation of the Headquarters General and Administrative costs is included in the Appendices to the rate proposal package for each System.

Insurance costs are also allocated to each System based upon the recommendations of the Authority's Risk Management Consultant. See the rate proposal package for additional information.

**Distribution of Costs Between the Manasquan Reservoir System and the Treatment Plant/Transmission System**

A common staff operates the System and the Treatment Plant/Transmission System. Salaries are allocated between the two Systems based upon time records that were kept during the fiscal year ending on June 30, 2014. The percentages used to provide the basis for the salary allocation for FY2016, were established from the time records from FY2011 through FY2014. A listing of all positions and the percentage of each position's time assigned to each of the two Systems appear on Schedule 2 (page 19).

Detailed budgets have been prepared for the Manasquan Reservoir System and the Treatment Plant/Transmission System. Each System's budget has three main categories of annual operational expenses in addition to the allocation of headquarters overhead. The three categories include (a) salaries and fringes (b) direct operation and maintenance expenses and (c) general and administrative expenses. Part 2 of this document provides more information on both Systems including detailed summaries of the projected line item budget figures for General and Administrative expenses and Operations and Maintenance expenses for FY2016.

**Analysis of Significant Changes in Operations and Maintenance  
Expenses and Sales Base - Manasquan Reservoir System**

Overview of Sales Base

On July 1, 1990 the Authority placed the Manasquan Reservoir Water Supply System in operation to provide an untreated water supply for use throughout Monmouth County. Twelve of the 13 original water purchase contracts are expiring after a 25-year term, on June 30, 2015. Five are two-party contracts with the New Jersey Water Supply Authority. These are the five treated water customers (Wall Township and the Boroughs of Brielle, Sea Girt, Spring Lake and Spring Lake Heights) of the Southeast Monmouth Municipal Utilities Authority's water treatment plant operated by the New Jersey Water Supply Authority. One is a three party contract (Keyport Borough) among the Authority, the customer and Shorelands Water Company for the delivery of water through Shorelands' distribution system. Six contracts (the Boroughs of Avon, Belmar, Matawan, Red Bank and Lake Como, and Shorelands Water Company) are three party contracts among the Authority, the customers and New Jersey American for the provision of treated water from New Jersey American. The final customer contract, New Jersey American, consolidated the initial water purchase and delayed water purchases for a total of 12.5mgd and has an expiration date of June 30, 2031. The total sales base through FY2015 is 20.560mgd.

The formal contract renewal process will begin in January of 2015. Preliminary discussions with the 12 affected customers indicate a drop in sales base of 402,000 gallons per day. The FY2016 rate proposal is based on an estimated sales base of \$20.158mgd incorporating the estimated reduction. Should the contract renewal process result in a sales base somewhat lower than estimated, it will be necessary for the Authority to compensate for the reduction in revenue during FY2016 by drawing from reserves until the sales base can be corrected during the FY2017 rate process.

Overview of Projected Operational Expenses

The Authority's proposed FY2016 Manasquan Reservoir Operating Expense budget is \$100,460 more than the current FY2015 budget. The allocation of Authority Headquarters General and Administrative Expenses in FY2016 is \$36,000 less than FY2015 and the Capital Equipment budget for FY2016 is \$48,000 more than FY2015. There will be no FY2016 contribution to the Depreciation Reserve account, Insurance Reserve, or Pumping Reserve. There will be a \$10,000 contribution to the Sediment Reserve, a \$5,000 contribution to the Formal Dam Inspection Reserve, and a \$120,000 contribution to the Renewal and Replacement Fund and a \$15,000 contribution to the Reserve for High Voltage Testing. Formal Dam Inspections and High

Voltage Testing are performed every three years and rather than raising the entire amount every third year, budget stability is created by raising one third of the cost every year. Miscellaneous revenue and interest income decreases by \$32,855. These factors contribute to a \$128,757 increase in the total FY2016 O&M Component requirement relative to FY2015 (\$2,674,311 vs. \$2,803,068). (Budget Summary on page 17)

Total O&M Direct Expenses are increasing by \$108,600 from FY2015. The largest contributors to the increase are the addition of a new water quality gaging station upstream at Squankum (\$48,900 increase in Special and Professional Services). This station will be operated by the USGS and will be useful to the Authority in attempting to determine the root cause of changes to water quality and color in the Manasquan River Basin over the past several years. The Authority will transfer \$40,000 per year from the Source Water Protection Fund to cover the cost of this gaging station. Insurance costs continue to rise. The Authority's Risk Manager recommended a 10.2 percent increase in FY2016. General and Administrative Expenses allocated to the Reservoir System are increasing by \$3,860 from FY2015.

Salaries, Overtime and Benefits

Authority employees and State employees are members of the same bargaining units. The International Federation of Professional and Technical Engineers (IFPTE), AFL-CIO, represents the Authority's Maintenance, Craft and Security Units and the Communications Workers of America (CWA) represents the Authority's Administrative and Clerical, Primary Level and Higher Level Supervisors Units. The contract is effective July 1, 2011 and will span four years. The following table reflects cost of living adjustments during the life of the expired collective bargaining agreements.

	July 2011	July 2012	July 2013	July 2014
<b>IFPTE/CWA</b>	0.0%	0.0%	1.0%	1.75%

The Authority did not include any cost of living adjustments in the FY2016 budget for management. The Authority is budgeting a one percent cost of living adjustment payable to Union employees on July 1, 2015. Salary and fringe is increasing by a total of \$108,200 for FY2016, however the portion allocated to the Reservoir System is decreasing by \$12,000 reflecting that the four-year averaging of allocation between the Reservoir System and the Treatment Plant projects the movement of more salary dollars to the Treatment Plant from the Reservoir System. The number of budgeted positions in FY2016 is 27, which is the same as FY2015. (Schedule 2, page 19) The Authority is budgeting 54.9 percent of the salary budget for fringe benefits in FY2016.

In FY2016, 47 percent of total salary and fringe is allocated to the Reservoir System which is a slight decrease from FY2015 (49 percent). This gradual shift in salary time (manager, facilities mechanics, and equipment operators) allocable from the Reservoir System to the Treatment Plant is due to construction of major water treatment plant upgrades including the ground level finished water storage, the caustic system and the lagoons during 2014 and 2015.

#### Retiree Health Benefits

Employees who retired with a minimum of 25 years of service prior to July 1, 1997 are entitled to paid health benefits. For those who retire after July 1, 1997, a co-payment is required. The Authority is leaving the retiree health benefits expense item flat in FY2016 at \$201,500. The original retirement estimates for FY2015 were not realized and unless there is an unusually high number of retirements in FY2016, the line item should be adequate. Because there are only four retirees at present in the Manasquan System, each additional retiree will drive a large increase on a percentage basis. The FY2016 budget plans for three additional retirees, the same number that was budgeted for FY2015 but not realized.

#### Insurance Program

The Authority is recommending a \$26,400 increase in insurance expenses for FY2016 reflecting general market conditions based on the advice of the Authority's insurance broker and consultant. The increase is not as large as FY2015. As always, the Authority will review the rate projection for FY2016 in February 2015 to determine if adjustments are necessary.

Allocation of the Primary, Umbrella and Public Officials Liability insurance costs between the three Systems is based upon proportionate water sales. The Automobile Liability cost is allocated based upon the assignment of vehicular equipment to each System. The cost of the Business Property coverage is allocated on the basis of insured values for each System and the Workers Compensation premiums are allocated on the basis of salaries for each System.

#### Fees and Permits

Staff proposes a FY2016 budgetary line item of \$33,600 for fees and permits reflecting no increase over FY2015.

### Headquarters General and Administrative Expenses

Budgeted Headquarters General and Administrative Expenses in FY2016 total \$794,353 of which, \$689,400 is charged to the Manasquan Reservoir System and \$104,953 is charged to the Manasquan Water Treatment Plant (Schedule 13, page 30). Because actual audited Headquarters Expenses were lower than the budget for FY2014 by \$57,158, that difference must be credited in FY2016 resulting in an adjusted charge to the Reservoir System of \$737,000. Headquarters charges are driven primarily by salary and fringe.

### Interest Income and Miscellaneous Revenue

The projected interest earnings on reserve funds for FY2016 are \$11,200. This reflects no change relative to FY2015 and is based upon an interest rate of .25 percent for short-term investments and a rate of 1.30 percent on long-term investments (See Schedule 16, page 35).

### Reserve Contributions

Consistent with FY2015, there will be no FY2016 contribution to the Depreciation Reserve account, the Insurance Reserve or the Pumping Reserve. There will be a \$10,000 contribution to the Sediment Reserve. There will be a \$120,000 contribution to the Renewal and Replacement Fund, a \$5,000 contribution to the Reserve for Formal Dam Inspections and a \$15,000 contribution to the Reserve for High Voltage Testing. Formal Dam Inspections and High Voltage Testing are performed every three years and rather than raising the entire amount every third year, budget stability is created by raising one third of the cost every year.

### Review of Reserve Accounts

#### Depreciation Reserve Account

This reserve is intended to provide for the replacement of Authority machinery and equipment with a value of \$1,000 or more and a useful life in a range from three to ten years and to cushion the impact of replacement equipment purchases in order to provide more stable rates. Depreciation Reserve should equal accumulated depreciation for this class of assets. At June 30, 2014, the balance in Depreciation Reserve of \$433,882 is equal to accumulated depreciation. Therefore, no contribution is required in FY2016.

### Self Insurance Reserve

The Self Insurance Fund (\$275,113 balance at June 30, 2014) was established for the System to allow the Authority to make choices between underwritten risk and self-insurance risk in the face of increased prices in the insurance market. No contribution is being made to the fund in FY2016.

### Reserve for Operations and Maintenance

A working cash reserve must be maintained at a level, which reflects the amount of the regular annual operating costs plus an allowance for possible extraordinary requirements. The level of this reserve is an amount equal to 25 percent of the Annual O&M Budget. An initial contribution of \$125,000 was budgeted in FY1991. A contribution of \$125,000 was budgeted in FY1992. The contribution for FY1993 was \$50,000 because of the availability of additional revenue from FY1991.

An additional \$100,000 was added during FY1993 from the receipt of delinquent revenue and resulted in full funding of this reserve. The Reserve for Operations and Maintenance Fund is fully funded as of June 30, 2014 at \$1,532,294 and as a result, no contribution will be needed in FY2016.

### Renewal & Replacement Reserve

The Renewal & Replacement Reserve is to be used for costs of capital improvements including repairs to facilities not covered by insurance and payment of extraordinary O&M costs. As per the terms of the project financing, this Reserve is to be funded by the excess debt service coverage revenue after the Debt Service Reserve requirement has been accumulated. An initial deposit of \$24,287 had been made into this account from overdue revenue received during FY1993. Excess annual debt service coverage amounts were later transferred into this fund. The balance in the Fund as of June 30, 2014 is \$2,922,248. Excess interest earnings on the Debt Service Reserve and Debt Service Funds and excess debt service coverage revenue as well as a direct deposit of \$120,000 provide the source of funds for this reserve account.

### Source Water Protection Fund Rate Component

The Authority established its Watershed Protection Unit in 1999 to implement a watershed management program for the Raritan River Basin pursuant to a Memorandum of Agreement with the New Jersey Department of Environmental Protection. Primary functions of the Unit are planning for watershed protection, development and implementation of projects that improve protection of water supply.

As an extension of that program during the period of FY2004, the Authority began the Manasquan Watershed Protection Initiative, and established the Source Water Protection Fund for the purpose of protecting the quality and quantity of water in the Manasquan Reservoir Water Supply System. The fund is used for three purposes in cooperation with State, local and nonprofit partners: (1) administrative assistance in the preservation of those properties in the Manasquan River Basin that are critical to the long-term protection of water quality and quantity in the Manasquan Reservoir Water Supply System as they may affect Authority customers; (2) improved management of land development by municipal, county, and State government to protect both water quality and flow to and within Authority facilities; and (3) remedial projects to improve water quality from existing conditions.

Whenever possible, the Authority will seek to obtain funding from other sources to augment or match its expenditures from the Source Water Protection Fund. The balance in the Source Water Protection Fund at June 30, 2014 is \$1,477,169. Because of this level of funding the Authority is proposing to reduce temporarily the Source Water Protection Fund Component from \$15.00 per million gallons in FY2015 to \$10.00 per million gallons in FY2016.

#### **Optional Water Use Schedule**

The Authority continues allowing the use of an Optional Water Use Schedule when the total of all uninterruptible supply contract diversions is equal to or less than 25mgd, the Purchaser may operate pursuant to an optional water use schedule wherein the Purchaser may divert up to 20 percent in excess of the total contracted amount for any given month.

#### **Overdraft Service**

The Authority continues to charge an Overdraft Service Rate by recognizing that daily overdraft service rates apply to all uninterruptible service contract customers, and by recognizing that the daily overdraft service rate is a multiple of the initial water purchase rate.

#### **Other Rule Amendments**

There are no other rule amendments for FY2016.



**PART II - DETAILED SUPPORTING INFORMATION**

TABLE 1

NEW JERSEY WATER SUPPLY AUTHORITY  
MANASQUAN RESERVOIR WATER SUPPLY SYSTEM

**SUMMARY OF PROPOSED FISCAL YEAR 2016 ADJUSTMENTS**

BASED ON PRESENT USAGE

The rates, charges and debt service assessments listed below shall be paid for raw water allocated by contract from the Manasquan Reservoir System for the **base contracts effective as of July 1, 2015 (15.695mgd), and Shorelands (.028mgd) delayed water contract effective July 1, 2006:**

I. July 1, 2015 to June 30, 2016

RATE COMPONENT	PRESENT	ORIGINAL PROPOSAL 12/01/14	DIFFERENCE	PERCENTAGE INCREASE (DECREASE)
Operations & Maintenance Expense Component	\$356.61	\$386.00	+29.39	8.24%
Source Water Protection Fund Component	\$ 15.00	\$ 10.00	-5.00	(33.33)
Debt Service Cost Component	\$619.87	\$636.61	+16.74	2.70
NJEIFP Debt Component	\$24.42	\$24.79	+.37	1.52
Total Rate	\$1,015.90/mg	\$1,057.40/mg	+41.50	4.09

The rates, charges and debt service assessments listed below shall be paid for raw water allocated by contract from the Manasquan Reservoir System for all **New Jersey American Water delayed water purchase contracts effective: July 1, 2001 (1mgd), October 1, 2002 (1.935mgd), January 1, 2005 (1.500mgd):**

II. July 1, 2015 to June 30, 2016

RATE COMPONENT	PRESENT	ORIGINAL PROPOSAL 12/01/14	DIFFERENCE	PERCENTAGE INCREASE (DECREASE)
Operations & Maintenance Expense Component	\$356.61	\$386.00	+29.39	8.24%
Source Water Protection Fund Component	\$ 15.00	\$ 10.00	-5.00	(33.33)
Debt Service Cost Component	\$772.46	\$770.07	-2.39	(.31)
NJEIFP Debt Component	\$24.42	\$24.79	+.37	1.52
Total Rate	\$1,168.49/mg	\$1,190.86/mg	+22.37	1.91

Table 2

**New Jersey Water Supply Authority**  
**Manasquan Reservoir Water Supply System**  
**Rate History of**  
**Water Charges per Million Gallons of Raw Water Daily**  
**FY1997-FY2016**  
**INITIAL WATER PURCHASER 15.695 mgd JULY 1, 2015**  
**SHORELANDS .028mgd JULY 1, 2006**

<u>Effective Date</u>	<u>O&amp;M Charge</u>	<u>Source Water Protection</u>	<u>Debt Repayment 2/1/91-8/01/20</u>	<u>NJEIFP Debt Component</u>	<u>Total Charge per MG</u>	<u>Percent Increase (Decrease)</u>
July 1, 1996	316.58		748.57		\$1,065.15	-3.65%
July 1, 1997	284.09		654.83		\$938.92	-11.85%
July 1, 1998	263.56		569.36		\$832.92	-11.29%
July 1, 1999	114.13		581.18		\$695.31	-16.52%
July 1, 2000	145.81		583.00		\$728.81	4.82%
July 1, 2001	212.29		585.63		\$797.92	9.48%
July 1, 2002	212.35		582.62		\$794.97	-0.37%
July 1, 2003	201.14	15.00	578.83		\$794.97	0.00%
July 1, 2004	321.69	15.00	584.95		\$921.64	15.93%
July 1, 2005	295.41	15.00	584.60		\$895.01	-2.89%
July 1, 2006	295.41	15.00	522.86		\$833.27	-6.90%
July 1, 2007	302.52	15.00	528.54		\$846.06	1.53%
July 1, 2008	302.52	15.00	566.59		\$884.11	4.50%
July 1, 2009	396.79	15.00	568.26		\$980.05	10.85%
July 1, 2010	396.79	15.00	568.69		\$980.48	0.04%
July 1, 2011	347.39	15.00	618.09	35.42	\$1,015.90	3.61%
July 1, 2012	345.95	15.00	619.53	35.42	\$1,015.90	0.00%
July 1, 2013	356.61	15.00	619.87	24.42	\$1,015.90	0.00%
July 1, 2014	356.61	15.00	619.87	24.42	\$1,015.90	0.00%
July 1, 2015	386.00	10.00	636.61	24.79	\$1,057.40	4.09%

**New Jersey Water Supply Authority  
Manasquan Reservoir Water Supply System  
Rate History of  
Water Charges per Million Gallons of Raw Water Daily  
FY2002-FY2016**

**DELAYED WATER PURCHASER NJ-AMERICAN 1mgd JULY 1, 2001  
1.935mgd OCTOBER 1, 2002  
1.500mgd JANUARY 1, 2005**

<u>Effective Date</u>	<u>O&amp;M Charge</u>	<u>Source Water Protection</u>	<u>Debt Repayment 2/1/02-8/01/31</u>	<u>NJEIFP Debt Component</u>	<u>Total Charge per MG</u>	<u>Percent Increase (Decrease)</u>
July 1, 2001	199.88		835.62		\$1,035.50	
July 1, 2002	212.35		835.61		\$1,047.96	1.20%
July 1, 2003	201.14	15.00	849.31		\$1,065.45	1.67%
July 1, 2004	321.69	15.00	849.31		\$1,186.00	11.31%
July 1, 2005	295.41	15.00	853.85		\$1,164.26	-1.83%
July 1, 2006	295.41	15.00	763.61		\$1,074.02	-7.75%
July 1, 2007	302.52	15.00	764.44		\$1,081.96	0.74%
July 1, 2008	302.52	15.00	762.28		\$1,079.80	-0.20%
July 1, 2009	396.79	15.00	763.24		\$1,175.03	8.82%
July 1, 2010	396.79	15.00	756.19		\$1,167.98	-0.60%
July 1, 2011	347.39	15.00	770.90	35.42	\$1,168.71	0.06%
July 1, 2012	345.95	15.00	772.12	35.42	\$1,168.49	-0.02%
July 1, 2013	356.61	15.00	772.46	24.42	\$1,168.49	0.00%
July 1, 2014	356.61	15.00	772.46	24.42	\$1,168.49	0.00%
July 1, 2015	386.00	10.00	770.07	24.79	\$1,190.86	1.91%

MANASQUAN RESERVOIR WATER SUPPLY SYSTEM

SCHEDULE OF EVENTS (N.J.A.C. 7:11-4.1 et.seq.)  
To become effective July 1, 2015

2014

SEPTEMBER 15 Advise Water Users of informal meeting.  
NOVEMBER 13 Informal meeting with Water Users - 11:00 AM.  
DECEMBER 19 Mail Official Notice to water customers, Rate Payer Advocate,  
interested parties and advertise in newspapers.

2015

JANUARY 5 Board reviews and approves proposed Rates.  
8 Pre-Pubic Hearing - 10:00 AM (within 45 days of Official Notice).  
Deadline for responses to inquires received prior to pre-public  
hearing.  
20 Publication in the New Jersey Register.  
26 Deadline for receipt of comments to be addressed at Public Hearing  
(15 days after pre-public hearing).  
FEBRUARY 5 Public Hearing Meeting. (SR Administration Building) - 10:00 AM  
Deadline for responses to inquires received between  
pre-public and public hearing.  
23 Written responses to questions raised at Hearing (within 10  
business days of the public hearing).  
MARCH 16 Public Hearing record closes (25 business days after  
Public Hearing).  
21 NJ Register Comment Period Ends.  
JUNE 1 Board approval of FY 2016 Rates and Budgets.  
JULY 1 Effective date.

NEW JERSEY WATER SUPPLY AUTHORITY  
MANASQUAN RESERVOIR WATER SUPPLY SYSTEM

PROPOSED

FISCAL YEAR 2016 BUDGET SUMMARY  
(07/01/15-06/30/16)

	<u>ADOPTED F/Y2015 RESERVOIR BUDGET</u>	<u>PROPOSED F/Y2016 RESERVOIR BUDGET</u>
Proposed Operating Expense Budget (Schedule 1)	\$ 2,519,000	\$ 2,619,460
Allocation of Headquarters General & Administrative Expenses to the Manasquan Reservoir System (Schedule 13)	<u>676,000</u>	<u>640,000</u>
Proposed Total Expense Budget	\$ 3,195,000	\$ 3,259,460
Proposed Capital Equipment Budget (Schedule 14)	48,100	96,100
Contribution to Reserve Funds:		
Sediment Reserve	10,000	10,000
Formal Dam Inspection Reserve	3,000	5,000
Renewal & Replacement Fund	120,000	120,000
High Voltage Testing Reserve	15,000	15,000
Pumping Reserve	0	0
Adjustment for F/Y13 Salary and Fringe Expenses to be paid from WTP/TS Account (Schedule 15)	(32,734)	0
Adjustment for F/Y14 Salary and Fringe Expenses to be paid to WTP/TS Account	<u>0</u>	<u>(51,292)</u>
Total Budget Requirements	\$ <u>3,358,366</u>	\$ <u>3,454,268</u>
Interest Earnings on Funds (except Renewal and Replacement and Depreciation Reserve Fund) (Schedule 16)	\$ (11,200)	\$ (11,200)
Unanticipated Revenue (Schedule 17)	<u>(672,855)</u>	<u>(640,000)</u>
Total Miscellaneous Revenue & Interest Income	\$ <u>(684,055)</u>	\$ <u>(651,200)</u>
Net Amount to be paid for O&M Component	\$ <u>2,674,311</u>	\$ <u>2,803,068</u>

NEW JERSEY WATER SUPPLY AUTHORITY  
MANASQUAN RESERVOIR WATER SUPPLY SYSTEM

TOTAL OPERATIONS & MAINTENANCE BUDGET

FISCAL YEAR 2016

	<u>F/Y2014 RESERVOIR ACTUAL</u>	<u>F/Y2015 RESERVOIR ADOPTED</u>	<u>F/Y2016 RESERVOIR PROPOSED</u>
Salaries & Fringe Benefits (Schedule 2)	\$1,154,171	\$1,444,000	\$1,432,000
O & M Direct Expense (Schedule 3)	830,453	963,900	1,072,500
G & A Expenses (Schedule 5)	<u>79,995</u>	<u>111,102</u>	<u>114,960</u>
Total Operations & Maintenance Budget	<u>\$2,064,619</u>	<u>\$2,519,002</u>	<u>\$2,619,460</u>
ESTIMATE		<u>\$2,519,000</u>	<u>\$2,619,460</u>

SUMMARY OF O & M EXPENSES FOR RESERVOIR AND TREATMENT PLANT/TRANSMISSION SYSTEM

	<u>F/Y2014 ACTUAL</u>		<u>F/Y2015 ADOPTED</u>		<u>F/Y2016 PROPOSED</u>	
	<u>RESERVOIR</u>	<u>WTP/TS</u>	<u>RESERVOIR</u>	<u>WTP/TS</u>	<u>RESERVOIR</u>	<u>WTP/TS</u>
Salaries/Fringe	\$1,154,171	\$1,428,478	\$1,444,000	\$1,484,150	\$1,432,000	\$1,604,350
O & M Direct Expense	830,453	820,901	963,900	1,086,600	1,072,500	1,094,200
G & A Expense	<u>79,995</u>	<u>58,128</u>	<u>111,102</u>	<u>86,298</u>	<u>114,960</u>	<u>85,540</u>
TOTAL	\$2,064,619	\$2,307,507	\$2,519,002	\$2,657,048	\$2,619,460	\$2,784,090

NEW JERSEY WATER SUPPLY AUTHORITY

MANASQUAN WATER SUPPLY SYSTEM

LABOR PROJECTION

FY16 (7/01/15- 6/30/16)

TITLES	RANGE	SALARY	FRINGE BENEFITS	OVERTIME	CLOTHING ALLOWANCE	SHIFT DIFFERENTIAL	TOTAL	ALLOCATION RESERVOIR %	AMOUNT RESERVOIR	ALLOCATION WTP/TS %	AMOUNT WTP/TS
Manager	34	110,000.00	72,828.00	0.00	0.00	0.00	182,828.00	54%	98,700.00	46%	84,128.00
Project Engineer III	23	75,400.00	49,920.00	0.00	0.00	0.00	125,320.00	50%	62,700.00	50%	62,820.00
Water Supply Tech.	14	49,800.00	33,335.00	0.00	550.00	0.00	83,685.00	56%	46,900.00	44%	36,785.00
Administrative Assistant	18	64,200.00	42,505.00	0.00	0.00	0.00	106,705.00	54%	57,700.00	46%	49,005.00
Supervisor Technical Facilities Maint	23	80,800.00	61,966.00	12,244.00	550.00	0.00	155,560.00	37%	57,500.00	63%	98,060.00
Water Supply Tech.	14	43,300.00	29,424.00	593.00	550.00	0.00	73,867.00	56%	41,400.00	44%	32,467.00
Maintenance Worker I	10	42,900.00	28,767.00	0.00	550.00	0.00	72,217.00	88%	63,500.00	12%	8,717.00
Supervisor Operations	28	89,000.00	58,924.00	0.00	0.00	0.00	147,924.00	24%	35,500.00	76%	112,424.00
Equipment Operator	12	48,300.00	32,584.00	386.00	550.00	0.00	81,800.00	83%	67,800.00	17%	14,000.00
Foreman Bldg & Grounds Maint	19	67,200.00	45,620.00	1,155.00	550.00	0.00	114,525.00	76%	87,100.00	24%	27,425.00
Foreman Facilities Maintenance	20	69,200.00	47,460.00	1,920.00	550.00	0.00	119,120.00	43%	51,200.00	57%	67,920.00
Facilities Mechanic (3 Positions)	18	190,500.00	129,127.00	2,885.00	1,650.00	0.00	324,162.00	45%	145,900.00	55%	178,262.00
Supervisor Plant Operator	21	73,700.00	52,055.00	4,304.00	550.00	71.00	130,680.00	34%	44,500.00	66%	86,180.00
Maintenance Worker I Operations	10	44,200.00	29,628.00	0.00	550.00	0.00	74,378.00	90%	67,000.00	10%	7,378.00
Reservoir System Operator (5 Positions)	15	259,400.00	193,656.00	28,523.00	2,750.00	1,828.00	486,158.00	98%	466,700.00	4%	19,458.00
Plant Operator (6 Positions)	18	398,400.00	301,711.00	54,010.00	3,300.00	0.00	757,421.00	5%	37,900.00	95%	719,521.00
<b>TOTAL:</b>		<b>1,705,300.00</b>	<b>1,209,500.00</b>	<b>108,000.00</b>	<b>12,950.00</b>	<b>1,900.00</b>	<b>3,036,350.00</b>		<b>1,432,000.00</b>		<b>1,604,350.00</b>

TOTAL = 27 Positions

- NOTE: A. PERCENTAGES ARE FROM THE AVERAGE OF FISCAL YEARS 2011 THROUGH 2014 BASED ON ACTUAL TIME RECORDS.  
 B. PLANT OPERATOR TIME STUDY PERCENTAGES WERE ADJUSTED TO ACCOUNT FOR THE VALUE OF THE SHIFT DIFFERENTIAL PROVIDED TO THE RESERVOIR

Cost Center: Reservoir Direct  
(40)

Schedule 3

MANASQUAN WATER SUPPLY SYSTEM  
RESERVOIR SYSTEM  
O & M DIRECT EXPENSE BUDGET

CODE	ACCOUNT	FY '12 ACTUAL	FY '13 ACTUAL	FY '14 ACTUAL	FY '15 ADOPTED	FY '16 PROPOSED
5110	Regular Salaries & Wages					
5120	Overtime-Salaries & Wages					
5130	New positions-Salaries & Wages					
5140	Seasonal Help-Salaries & Wages					
5150	Fringe Benefits					
5160	Retiree Health Benefits					
	Total Salary, Wages & Fringe					
5200	Residences					
5211	Heating Fuel	810				
5220	Utilities -Electrical Service	59,943	65,558	94,189	60,700	80,500
5230	-Gas Service	2,812	5,032	5,586	6,500	8,000
5240	-Propane					
5250	Electricity for Pumping Station	183,519	267,525	260,176	346,900	346,900
5260	Fuel - Vehicular					
5270	Oil & Grease					
5280	Tires					
5290	Maintenance Supplies	3,422	105	114	2,000	2,000
5300	Maint. Supplies - Vehicular					
5310	Major Vehicle Service & Repair					
5320	Agricultural Supplies					
5330	Maintenance Equipment	36,656	67,724	17,426	45,500	45,500
5340	Serv. & Maintenance Contracts	14,000	6,001	32,021	21,000	33,000
5350	Equipment Rental		664	1,789	6,500	6,500
5360	Household - Safety Supplies	471	460		500	500
5370	Uniforms					
5380	Special & Professional Services	63,458	67,009	56,293	76,000	124,900
5390	Protective Services	207,616	228,063	249,353	258,900	285,300
5400	Telephone	5,141	5,689	6,020	5,000	5,000
5410	Postage & Freight Out					
5420	Data Processing					
5430	Printing & Office Supplies	296	710	882	1,500	1,500
5440	Scientific & Photographic	1,188	5,060	2,171	5,000	5,000
5450	Dues & Subscriptions					
5460	Advertising & Promotional	287	506	321	1,500	1,500
5470	Travel & Subsistence					
5480	Staff Training & Tuition Aid					
5490	Fees & Permits	31,080	31,696	31,255	33,600	33,600
5500	In - Lieu Taxes	36,756	36,756	36,755	36,800	36,800
5510	Sediment Removal	38,585	23,947	36,102	56,000	56,000
5520	Chemicals					
5525	Carbon Filter Replacement					
	Total Other Expenses	\$686,039	\$812,505	\$830,453	\$963,900	\$1,072,500
	Total Operating Expenses	\$686,039	\$812,505	\$830,453	\$963,900	\$1,072,500
	ANNUAL BUDGET	\$952,000	\$946,400	\$934,700		



Cost Center: Treat/Trans Direct  
(50)

Schedule 4

MANASQUAN WATER SUPPLY SYSTEM  
WATER TREATMENT PLANT/TRANSMISSION SYS  
O & M DIRECT EXPENSE BUDGET

CODE	ACCOUNT	FY '12 ACTUAL	FY '13 ACTUAL	FY '14 ACTUAL	FY '15 ADOPTED	FY '16 PROPOSED
5110	Regular Salaries & Wages					
5120	Overtime-Salaries & Wages					
5130	New positions-Salaries & Wages					
5140	Seasonal Help-Salaries & Wages					
5150	Fringe Benefits					
5160	Retiree Health Benefits					
	Total Salary, Wages & Fringe					
5200	Residences					
5211	Heating Fuel	15,078	26,041	1,298	11,500	11,500
5220	Utilities -Electrical Service	438,782	403,869	383,124	504,500	520,500
5230	-Gas Service	24,850	34,998	42,188	30,000	40,000
5240	-Propane					
5250	Electricity for Pumping Station					
5260	Fuel - Vehicular					
5270	Oil & Grease			204		
5280	Tires					
5290	Maintenance Supplies	3,852	0	819	5,000	5,000
5300	Maint. Supplies - Vehicular					
5310	Major Vehicle Service & Repair			57		
5320	Agricultural Supplies					
5330	Maintenance Equipment	56,307	96,290	56,385	90,500	90,500
5340	Serv. & Maintenance Contracts	24,591	20,028	12,941	28,800	28,800
5350	Equipment Rental	5,276	9,250	4,203	3,000	4,800
5360	Household - Safety Supplies	740	585	209	1,000	1,000
5370	Uniforms					
5380	Special & Professional Services	22,850	27,942	44,950	34,100	34,100
5390	Protective Services	71,775	74,207	79,708	83,800	77,300
5400	Telephone	199	358	403	1,000	1,000
5410	Postage & Freight Out					
5420	Data Processing					
5430	Printing & Office Supplies	1,620	4,235	1,729	6,800	6,800
5440	Scientific & Photographic	16,190	11,087	10,120	14,500	14,500
5450	Dues & Subscriptions					
5460	Advertising & Promotional	777	750	1,531	1,000	1,000
5470	Travel & Subsistence	45				
5480	Staff Training & Tuition Aid				4,000	4,000
5490	Fees & Permits	6,205	6,533	5,726	8,000	8,000
5500	In - Lieu Taxes	140	140	140	400	400
5510	Residual Removal	18,363	23,884	23,226	38,000	41,000
5520	Water Treatment Chemicals	136,285	126,551	120,475	162,700	145,000
5525	GAC Replacement	47,622	49,700	461	58,000	59,000
5528	Reimb of O&M Capital Expenditures	9,729	10,025	31,004		
	Total Other Expenses	\$901,276	\$926,473	\$820,901	\$1,086,600	\$1,094,200
	Total Operating Expenses	\$901,276	\$926,473	\$820,901	\$1,086,600	\$1,094,200
	ANNUAL BUDGET	\$1,128,500	\$1,103,300	\$1,070,800		

MANASQUAN WATER SUPPLY SYSTEM  
GENERAL & ADMINISTRATIVE  
EXPENSE BUDGET

CODE	ACCOUNT	FY '12 ACTUAL	FY '13 ACTUAL	FY '14 ACTUAL	FY '15 ADOPTED	FY '16 PROPOSED
5110	Regular Salaries & Wages	\$1,560,929	\$1,516,318	\$1,580,123	\$1,678,050	\$1,720,850
5120	Overtime-Salaries & Wages	101,860	104,865	88,137	106,000	106,000
5130	New positions-Salaries & Wages					
5140	Seasonal Help-Salaries & Wages					
5150	Fringe Benefits	704,609	790,546	813,180	937,600	1,003,000
5160	Retiree Health Benefits	75,466	95,307	100,479	201,500	201,500
5168	Workers Comp. (Self-Insured)	3,544	1,544	730	5,000	5,000
	<b>Total Salary, Wages &amp; Fringe</b>	<b>\$2,446,407</b>	<b>\$2,508,580</b>	<b>\$2,582,649</b>	<b>\$2,928,150</b>	<b>\$3,036,350</b>
	Budget - salary and fringe					
5200	Residences					
5211	Heating Fuel					
5220	Utilities -Electrical Service					
5230	-Gas Service					
5240	-Propane					
5250	Electricity for Pumping Station					
5260	Fuel - Vehicular	28,758	35,036	32,447	35,000	35,000
5270	Oil & Grease	6,195	3,971	484	5,900	5,900
5280	Tires	4,067	7,442	2,500	6,000	6,000
5290	Maintenance Supplies	21,977	12,783	14,597	27,300	27,300
5300	Maint. Supplies - Vehicular	2,227	5,045	3,505	7,100	7,100
5310	Major Vehicle Service & Repair	37,291	26,761	28,487	22,000	29,000
5320	Agricultural Supplies	3,993	2,244	4,889	5,200	5,200
5330	Maintenance Equipment	6,167	5,641	2,566	12,000	10,000
5340	Serv. & Maintenance Contracts	8,380	11,871	9,308	16,500	12,500
5350	Equipment Rental	2,060	1,726	2,122	3,400	3,400
5360	Household - Safety Supplies	8,812	9,110	4,423	8,500	8,500
5370	Uniforms					
5380	Special & Professional Services	8,929	1,668	2,035	3,600	3,600
5390	Protective Services					
5400	Telephone	5,487	5,302	5,613	6,500	6,500
5410	Postage & Freight Out	1,007	708	311	1,000	1,000
5420	Data Processing	9,656	8,793	8,639	10,100	9,000
5430	Printing & Office Supplies	11,052	5,681	3,182	7,300	7,300
5440	Scientific & Photographic	28	1,080		300	300
5450	Dues & Subscriptions	570		229	2,500	2,500
5460	Advertising & Promotional	737	163	108	1,500	1,500
5470	Travel & Subsistence	534	345	648	500	500
5480	Staff Training & Tuition Aid	10,964	5,479	3,989	11,400	11,400
5490	Fees & Permits	2,450	2,566	8,041	3,800	7,000
5500	In - Lieu Taxes					
5510	Residual Removal					
5520	Water Treatment Chemicals					
5525	GAC Replacement					
	<b>Total Other Expenses</b>	<b>\$181,339</b>	<b>\$153,415</b>	<b>\$138,123</b>	<b>\$197,400</b>	<b>\$200,500</b>
	<b>Total Operating Expenses</b>	<b>\$2,627,746</b>	<b>\$2,661,995</b>	<b>\$2,720,772</b>	<b>\$3,125,550</b>	<b>\$3,236,850</b>
	Budget- other expenses	\$165,600	\$182,500			
	<b>TOTAL ANNUAL BUDGET</b>	<b>\$2,648,000</b>	<b>\$2,761,900</b>			
	Reservoir System	\$103,461	\$89,732	\$79,995	\$111,102	\$114,960
	Treatment/Transmission System	\$77,878	\$63,683	\$58,128	\$86,298	\$85,540

NEW JERSEY WATER SUPPLY AUTHORITY  
MANASQUAN RESERVOIR WATER SUPPLY SYSTEM

LIST OF CATEGORY 5340 ITEMS  
RECOMMENDED SERVICE & MAINTENANCE CONTRACTS  
FOR RESERVOIR (40)  
FISCAL YEAR 2016

	ADOPTED F/Y15	PROPOSED F/Y16
1. HVAC/Dehumidifier Service.....	\$ 500	\$ 500
2. Instrumentation & Control System Service/Upgrade.....	2,000	2,000
3. Electrical Upgrade & Repair.....	4,000	12,000
4. Overhead Crane Service & Inspection.....	1,000	2,000
5. Fire & Intrusion Alarm Service.....	1,500	1,500
6. Potable Well/Septic Service.....	500	1,500
7. Fertilization-Dam Dike.....	2,000	3,000
8. Roadway Crack Sealing.....	1,500	1,500
9. Wood Debris Removal.....	2,500	2,500
10. Access Roadway Repairs.....	2,500	2,500
11. Roofing System Maintenance & Repair.....	<u>3,000</u>	<u>4,000</u>
Total Service & Maintenance Contracts.	\$ <u>21,000</u>	\$ <u>33,000</u>

NEW JERSEY WATER SUPPLY AUTHORITY  
MANASQUAN RESERVOIR WATER SUPPLY SYSTEM

LIST OF CATEGORY 5340 ITEMS  
RECOMMENDED SERVICE & MAINTENANCE CONTRACTS  
FOR WTP/TS (50)  
FISCAL YEAR 2016

	ADOPTED F/Y15	PROPOSED F/Y16
	<u>          </u>	<u>          </u>
1. HVAC Service.....	\$ 1,000	\$ 1,000
2. Electrical Service Contract.....	1,000	1,000
3. Instrumentation & Control System Service & Upgrade....	1,000	1,000
4. Electrical Upgrade & Repair.....	2,000	2,000
5. Overhead Crane Service.....	1,000	1,000
6. UST Monitors Service and Upgrade.....	1,000	1,000
7. Fire & Intrusion Alarm System.....	1,200	1,200
8. Air Compressor Service.....	1,200	1,200
9. Boiler Service.....	1,500	1,500
10. Auxiliary Generator Service.....	2,500	2,500
11. Lab Equipment Service.....	2,000	2,000
12. Backflow Preventor Service.....	500	500
13. Gas-Fired Hot Water Heater Service.....	500	500
14. Instrumentation & Control Service/Upgrade (Transmission System).....	5,000	5,000
15. Electrical Upgrade & Repair (Transmission System)....	2,000	2,000
16. Meter Vault Internet Service (Transmission System)....	<u>5,400</u>	<u>5,400</u>
Total Service & Maintenance Contracts.	\$ <u>28,800</u>	\$ <u>28,800</u>

NEW JERSEY WATER SUPPLY AUTHORITY  
MANASQUAN RESERVOIR WATER SUPPLY SYSTEM

LIST OF CATEGORY 5340 ITEMS  
RECOMMENDED SERVICE & MAINTENANCE CONTRACTS  
FOR G & A (60)  
FISCAL YEAR 2016

	ADOPTED F/Y15	PROPOSED F/Y16
1. Refuse & Waste Disposal.....	\$ 2,200	\$ 1,700
2. Office Equipment/Computers.....	2,100	1,600
3. Waste Oil Disposal.....	1,600	1,100
4. Fire Extinguisher Service.....	1,100	1,100
5. UST Monitor Service.....	1,000	750
6. Building Maintenance.....	1,000	750
7. Internet Service.....	3,000	2,000
8. Janitorial Service.....	3,100	2,100
9. Vehicle Lift Inspection.....	400	400
10. Generator Service & Maintenance.....	<u>1,000</u>	<u>1,000</u>
Total Service & Maintenance Contracts	\$ <u>16,500</u>	\$ <u>12,500</u>

NEW JERSEY WATER SUPPLY AUTHORITY  
MANASQUAN RESERVOIR WATER SUPPLY SYSTEM

**LIST OF CATEGORY 5380 ITEMS  
RECOMMENDED SPECIAL & PROFESSIONAL SERVICES  
FOR RESERVOIR (40)  
FISCAL YEAR 2016**

	<u>ADOPTED</u> F/Y15	<u>PROPOSED</u> F/Y16
1. Laboratory Services-Water Quality Sampling.....	\$ 2,000	\$ 2,000
2. Consultant Services.....	7,000	15,000
3. Services-USGS Cooperative Agreement.....	30,800	31,700
4. Annual Trustee Fund.....	9,500	9,500
5. Dam Management-Surveying.....	2,500	2,500
6. Wetland Monitoring Management.....	1,200	1,200
7. Lake Management Consultants.....	19,500	19,500
8. Engineering Services.....	2,500	2,500
9. Financial Advisory Services.....	1,000	1,000
10. USGS Gaging Station Squankum.....	<u>0</u>	<u>40,000</u>
Total Special & Professional Services	\$ <u>76,000</u>	\$ <u>124,900</u>

NEW JERSEY WATER SUPPLY AUTHORITY  
 MANASQUAN RESERVOIR WATER SUPPLY SYSTEM

LIST OF CATEGORY 5380 ITEMS  
 RECOMMENDED SPECIAL & PROFESSIONAL SERVICES  
 FOR WTP/TS (50)  
 FISCAL YEAR 2016

	ADOPTED F/Y15	PROPOSED F/Y16
1. Water Quality Sampling.....	\$ 17,200	\$ 17,200
2. Residual Quality Analysis.....	800	800
3. Consultant Services.....	4,000	4,000
4. USGA Allenwood Gage-Parameters.....	10,500	10,500
5. Underground Markout Service (Transmission System).....	<u>1,600</u>	<u>1,600</u>
Total Special & Professional Services	\$ <u>34,100</u>	\$ <u>34,100</u>

NEW JERSEY WATER SUPPLY AUTHORITY  
 MANASQUAN RESERVOIR WATER SUPPLY SYSTEM

LIST OF CATEGORY 5380 ITEMS  
 RECOMMENDED SPECIAL & PROFESSIONAL SERVICES  
 FOR G & A (60)  
 FISCAL YEAR 2016

		ADOPTED F/Y15	PROPOSED F/Y16
1.	Pulmonary Testing.....	\$ 1,500	\$ 1,500
2.	CDL Medical Testing.....	500	500
3.	EAS Service.....	1,200	1,200
4.	Pre-Employment Physicals.....	<u>400</u>	<u>400</u>
	Total Special & Professional Services	\$ <u>3,600</u>	\$ <u>3,600</u>



**PROJECTED FY 2016 NEW JERSEY WATER SUPPLY AUTHORITY INSURANCE PROGRAM**

<u>Type of Coverage</u>	<u>Raritan Basin System</u>	<u>Manasquan Reservoir System</u>	<u>Manasquan Water Treatment Plant and Transmission System</u>	<u>Total Premium</u>
<b>Property</b> Limit \$150 million Deduct: \$100k all perils \$250k, dams, dikes, canal/\$1m flood	\$637,822	\$214,417	\$52,473	\$904,712
<b>General/Products Liability</b> Limit \$1 million Deduct: \$150k	\$100,650	\$9,410	\$1,954	\$112,014
<b>Environmental Impairment Liability</b> Limit \$10 million Deduct: \$100k	\$21,457	\$2,006	\$417	\$23,880
<b>Workers' Compensation</b> Limit \$1 million	\$206,961	\$26,606	\$27,877	\$261,444
<b>Employer Liability</b> Limit \$1 million	Included in Workers' Comp	Included in Workers' Comp	Included in Workers' Comp	Included in Workers' Comp
<b>Umbrella Liability</b> Limit \$23 million	\$275,135	\$25,723	\$5,341	\$306,199
<b>Business Automobile</b> Limit: \$1 million G/L, \$0 pd Deduct: \$50k, G/L	\$11,205	\$1,989	\$455	\$13,649
<b>Public Officials Liability</b> Limit \$5 million/\$1million crime Deduct: \$100k/\$50k c. crime	\$53,716	\$5,022	\$4,691	\$63,429
<b>Travel Accident</b> Limit \$2 million	<u>\$854</u>	<u>\$80</u>	<u>\$17</u>	<u>\$951</u>
<b>TOTAL:</b>	<u>\$1,307,800</u>	<u>\$285,253</u>	<u>\$93,225</u>	<u>\$1,686,278</u>
<b>ESTIMATE</b>	<b>\$1,307,800</b>	<b>\$285,300</b>	<b>\$93,200</b>	<b>\$1,686,300</b>

NEW JERSEY WATER SUPPLY AUTHORITY  
 RECAP OF ALLOCATION OF HEADQUARTERS  
 GENERAL AND ADMINISTRATIVE EXPENSES CHARGED  
 TO THE MANASQUAN RESERVOIR WATER SUPPLY SYSTEM

FISCAL YEAR 2016 (7/1/15-6/30/16)

	<u>TOTAL HEADQUARTERS CHARGE</u>	<u>MANASQUAN RESERVOIR SYSTEM</u>	<u>MANASQUAN WTP/TS</u>
Budgeted-Appendix I, Page 5, amount to be charged to Manasquan System for F/Y16 (7/1/15-6/30/16)	\$ 794,353	\$ 689,400	\$ 104,953
F/Y14 Adjustment as per audited Expenditures:			
Budgeted as per rate schedule for F/Y14 (7/1/13-6/30/14). Amounts paid during F/Y14 to Raritan Basin System.	776,545	673,945	102,600
Actual allocation based upon audited expenditures F/Y14 (7/1/13-6/30/14)- Appendix II, Page 5	<u>719,387</u>	<u>624,339</u>	<u>95,048</u>
Adjustments F/Y14	\$ <u>(57,158)</u>	\$ <u>(49,606)</u>	\$ <u>(7,552)</u>
Net Allocation for F/Y2016 Budget	\$ <u>737,195</u>	\$ <u>639,794</u>	\$ <u>97,401</u>
Estimate	\$ <u>737,000</u>	\$ <u>640,000</u>	\$ <u>97,000</u>

Manasquan Water Supply System  
**PROPOSED CAPITAL EQUIPMENT BUDGET**  
 Fiscal Year 2016

Description	(A)Addition (R)Replacement	Year of Purchase Vehicle/Equipment	Dollar Value	%	Manasquan Reservoir	Manasquan WTP/TS	Reservoir Depreciation Reserve	WTP/TS Depreciation Reserve
(1) NJWA-55 F250 UTILITY TRUCK	(R) TRN438	2006	34,000	45/55	15,300	18,700	12,533	8,355
(1) NJWA-63	(R) TRN394	2003	29,000	75/25	21,750	7,250	11,245	3,748
(1) NJWA-65	(R) TRN445	2006	29,000	60/40	17,400	11,600	8,846	5,897
(1) CRAWLER LOADER	(R) TRN217	1991	115,000	80/20	92,000	23,000	60,759	3,198
(1) SURFACE SCATTER TURBIDIMETER FOR INTAKE								
PUMP STATION SCADA	(A)		6,000	100/0	6,000	0		
(1) TOWABLE WOOD/BRUSH CHIPPER	(A)		37,000	100/0	37,000	0		
TOTAL			250,000					

*Per Resolution #861, dated 7/12/93 Asset Definition minimum is \$1,000.	0
Less Amount charged to Reservoir Depreciation Reserve	93,383
Less Amount charged to WTP/TS Depreciation Reserve	21,198

Total                      96,067              39,352

Estimate                      \$96,100              \$39,400

**MANASQUAN WATER SUPPLY SYSTEM**  
**JULY, 2013 - JUNE, 2014 FISCAL YEAR 2014**  
**G & A EXPENSES SPLIT**

EMPLOYEE NAME	TOTAL	BUDGETED %		ACTUAL % (Timesheets)		VARIANCE UNDER (OVER)		
		(40)	(50)	(40)	(50)	(40)	(50)	
		RESERVOIR	WTP/TS	RESERVOIR	WTP/TS	RESERVOIR	WTP/TS	
4 6738 BENNETT, C.			5%	95%	5%	95%		
PLANT OPERATOR								
	64,748.88	3,237.44	61,511.44	3,237.44	61,511.44	0.00	0.00	
	550.00	27.50	522.50	27.50	522.50	0.00	0.00	
	4,973.78	248.71	4,725.07	248.69	4,725.09	0.02	(0.02)	
	36,272.52	1,913.64	36,358.88	1,913.63	36,358.89	0.01	(0.01)	
21 7335 BOUSQUET, M.			95%	5%	100%	0%		
RESERVOIR								
REGULAR	51,239.36	48,677.39	2,561.97	51,239.36	0.00	(2,561.97)	2,561.97	
SYSTEM OPERATOR								
CLOTH.	550.00	522.50	27.50	550.00	0.00	(27.50)	27.50	
O.T.	5,110.19	4,854.68	255.51	5,110.19	0.00	(255.51)	255.51	
FRINGE	31,275.93	29,712.14	1,563.79	31,275.93	0.00	(1,563.79)	1,563.79	
20 7933 BRANCH, L.			5%	95%	7%	93%		
PLANT OPERATOR								
REGULAR	63,762.08	3,188.10	60,573.98	4,463.35	59,298.73	(1,275.25)	1,275.25	
CLOTH.	550.00	27.50	522.50	38.50	511.50	(11.00)	11.00	
O.T.	8,082.98	404.16	7,678.82	565.81	7,517.17	(161.65)	161.65	
FRINGE	39,665.14	1,983.25	37,681.89	2,776.56	36,888.58	(793.31)	793.31	
7 8172 BUTKUS, G.			95%	5%	98%	2%		
RESERVOIR								
REGULAR	54,595.60	51,865.82	2,729.78	53,503.69	1,091.91	(1,637.87)	1,637.87	
SYSTEM OPERATOR								
CLOTH.	550.00	522.50	27.50	539.00	11.00	(16.50)	16.50	
O.T.	6,940.15	6,593.14	347.01	6,801.35	138.80	(208.21)	208.21	
FRINGE	34,113.30	32,407.64	1,705.66	33,431.03	682.27	(1,023.39)	1,023.39	
9 12976 COMUNE, L.			45%	55%	45%	55%		
FAC MECHANIC II								
REGULAR	57,979.36	26,090.71	31,888.65	26,090.71	31,888.65	0.00	0.00	
CLOTH.	550.00	247.50	302.50	247.50	302.50	0.00	0.00	
O.T.	712.06	320.44	391.62	320.43	391.63	0.01	(0.01)	
FRINGE	32,574.96	14,658.72	17,916.24	14,658.73	17,916.23	(0.01)	0.01	
16 16220 DESIDERIO, R.			67%	33%	85%	15%		
FOREMAN BLDG. & GROUNDS MAINT.								
REGULAR	63,231.12	42,364.85	20,866.27	53,746.45	9,484.67	(11,381.60)	11,381.60	
CLOTH.	550.00	368.50	181.50	467.50	82.50	(99.00)	99.00	
O.T.	960.76	643.72	317.04	816.65	144.11	(172.93)	172.93	
FRINGE	35,695.17	23,915.77	11,779.40	30,340.89	5,354.28	(6,425.12)	6,425.12	
12 23959 FLETCHER, D.			45%	55%	45%	55%		
FAC. MECHANIC II								
REGULAR	57,979.36	26,090.71	31,888.65	26,090.71	31,888.65	0.00	0.00	
CLOTH.	550.00	247.50	302.50	247.50	302.50	0.00	0.00	
O.T.	858.68	386.40	472.28	386.41	472.27	(0.01)	0.01	
FRINGE	32,670.27	14,701.61	17,968.66	14,701.62	17,968.65	(0.01)	0.01	
8 23970 FLETCHER, I.			95%	5%	94%	6%		
RESERVOIR SYSTEM OPERATOR								
REGULAR	49,685.28	47,201.02	2,484.26	46,704.16	2,981.12	496.86	(496.86)	
CLOTH.	550.00	522.50	27.50	517.00	33.00	5.50	(5.50)	
O.T.	4,661.02	4,427.97	233.05	4,381.36	279.66	46.61	(46.61)	
FRINGE	29,968.92	28,470.48	1,498.44	28,170.78	1,798.14	299.70	(299.70)	
14 26529 GIFFORD, C.			43%	57%	44%	56%		
FOREMAN FACILITIES MAINT.								
REGULAR	65,198.56	28,035.40	37,163.16	28,687.37	36,511.19	(661.97)	651.97	
CLOTH.	550.00	236.50	313.50	242.00	308.00	(5.50)	5.50	
O.T.	1,596.20	686.37	909.83	702.33	893.87	(15.96)	15.96	
FRINGE	37,084.75	15,946.44	21,138.31	16,317.29	20,767.46	(370.85)	370.85	

MANASQUAN WATER SUPPLY SYSTEM  
JULY, 2013 - JUNE, 2014 FISCAL YEAR 2014  
G & A EXPENSES SPLIT

EMPLOYEE NAME	TOTAL	BUDGETED %		ACTUAL % (Timesheets)		VARIANCE UNDER (OVER)	
		(40)	(50)	(40)	(50)	(40)	(50)
		RESERVOIR	WTP/TS	RESERVOIR	WTP/TS	RESERVOIR	WTP/TS
5 36810 HIRSCH, C. MAINT WORKER 1		87%	13%	95%	5%		
TIME SPLIT							
REGULAR	40,078.50	34,868.28	5,210.22	38,074.58	2,003.92	(3,206.30)	3,206.30
CLOTH.	550.00	478.50	71.50	522.50	27.50	(44.00)	44.00
O.T.	0.00	0.00	0.00	0.00	0.00	0.00	0.00
FRINGE	22,345.38	19,440.48	2,904.90	21,228.11	1,117.27	(1,787.63)	1,787.63
17 41950 KARECKY, R. PLANT OPERATOR		5%	95%	5%	95%		
TIME SPLIT							
REGULAR	64,538.64	3,226.93	61,311.71	3,226.93	61,311.71	0.00	0.00
CLOTH.	550.00	27.50	522.50	27.50	522.50	0.00	0.00
O.T.	8,491.99	424.61	8,067.38	424.60	8,067.39	0.01	(0.01)
FRINGE	40,100.13	2,005.02	38,095.11	2,005.01	38,095.12	0.01	(0.01)
18 47397 KRIER, P. SUPERVISOR TECHNICAL ASST. FACILITIES MAINT.		42%	58%	40%	60%		
TIME SPLIT							
REGULAR	78,569.98	32,999.40	45,570.58	31,427.99	47,141.99	1,571.41	(1,571.41)
CLOTH.	550.00	231.00	319.00	220.00	330.00	11.00	(11.00)
O.T.	10,180.54	4,275.84	5,904.70	4,072.22	6,108.32	203.62	(203.62)
FRINGE	49,020.85	20,568.75	28,452.10	19,608.34	29,412.51	980.41	(980.41)
3 50121 LEROY, D. SUPERVISOR OPERATIONS, MWSS		23%	77%	25%	75%		
TIME SPLIT							
REGULAR	85,132.73	19,580.53	65,552.20	21,283.18	63,849.55	(1,702.65)	1,702.65
CLOTH.	0.00	0.00	0.00	0.00	0.00	0.00	0.00
O.T.	0.00	0.00	0.00	0.00	0.00	0.00	0.00
FRINGE	46,789.36	10,761.56	36,027.80	11,697.34	35,092.02	(935.78)	935.78
1 50461 MCKEON, P. MANAGER, MWSS		58%	42%	38%	62%		
TIME SPLIT							
REGULAR	110,011.84	63,806.86	46,204.98	41,804.50	68,207.34	22,002.36	(22,002.36)
CLOTH.	0.00	0.00	0.00	0.00	0.00	0.00	0.00
O.T.	0.00	0.00	0.00	0.00	0.00	0.00	0.00
FRINGE	60,742.36	35,230.58	25,511.78	23,082.10	37,660.26	12,148.48	(12,148.48)
2 12165 MEDLYN, R. ADMIN ASSISTANT WATER SUPPLY TECH.		58%	42%	38%	62%		
TIME SPLIT							
REGULAR	58,625.28	34,002.65	24,622.63	22,277.61	36,347.67	11,725.04	(11,725.04)
CLOTH.	0.00	0.00	0.00	0.00	0.00	0.00	0.00
O.T.	0.00	0.00	0.00	0.00	0.00	0.00	0.00
FRINGE	32,652.48	18,938.44	13,714.04	12,407.94	20,244.54	6,530.50	(6,530.50)
10 51483 OATES, J. EQUIPMENT OPERATOR		75%	25%	88%	12%		
TIME SPLIT							
REGULAR	45,548.96	34,161.72	11,387.24	40,083.08	5,465.88	(5,921.36)	5,921.36
CLOTH.	550.00	412.50	137.50	484.00	66.00	-7150%	7150%
O.T.	304.06	228.05	76.01	267.57	36.49	(39.52)	39.52
FRINGE	25,586.78	19,190.10	6,396.68	22,516.37	3,070.41	(3,326.27)	3,326.27
19 63738 OTREBA, E. PLANT OPERATOR		5%	95%	5%	95%		
TIME SPLIT							
REGULAR	61,126.32	3,056.32	58,070.00	3,056.32	58,070.00	0.00	0.00
CLOTH.	550.00	27.50	522.50	27.50	522.50	0.00	0.00
O.T.	5,685.84	284.30	5,401.54	284.29	5,401.55	0.01	(0.01)
FRINGE	36,514.19	1,825.70	34,688.49	1,825.71	34,688.48	(0.01)	0.01
6 69555 RIVERA, R. MAINT. WORKER I OPERATIONS		89%	11%	93%	7%		
TIME SPLIT							
REGULAR	42,732.96	38,032.33	4,700.63	39,741.65	2,991.31	(1,709.32)	1,709.32
CLOTH.	550.00	489.50	60.50	511.50	38.50	(22.00)	22.00
O.T.	0.00	0.00	0.00	0.00	0.00	0.00	0.00
FRINGE	23,816.32	21,196.53	2,619.79	22,149.18	1,667.14	(952.65)	952.65

MANASQUAN WATER SUPPLY SYSTEM  
JULY, 2013 - JUNE, 2014 FISCAL YEAR 2014  
G & A EXPENSES SPLIT

EMPLOYEE NAME	TOTAL	BUDGETED %		ACTUAL % (Timesheets)		VARIANCE UNDER (OVER)	
		(40)	(50)	(40)	(50)	(40)	(50)
		RESERVOIR	WTP/TS	RESERVOIR	WTP/TS	RESERVOIR	WTP/TS
22 75370 SIMMONS, T.		45%	55%	44%	56%		
FAC. MECHANIC-WSA							
REGULAR	62,198.64	27,989.39	34,209.25	27,367.40	34,831.24	621.99	(621.99)
CLOTH.	550.00	247.50	302.50	242.00	308.00	5.50	(5.50)
O.T.	828.19	372.70	455.49	364.40	463.79	8.30	(8.30)
FRINGE	34,961.67	15,732.77	19,228.90	15,383.13	19,578.54	349.64	(349.64)
26 81185 SZELIGA, T.		95%	5%	98%	2%		
RESERVOIR SYSTEM OPERATIONS							
REGULAR	37,237.59	35,375.71	1,861.88	36,492.84	744.75	(1,117.13)	1,117.13
CLOTH.	550.00	522.50	27.50	539.00	11.00	(16.50)	16.50
O.T.	1,863.05	1,769.90	93.15	1,825.79	37.26	(55.89)	55.89
FRINGE	21,192.84	20,133.20	1,059.64	20,768.98	423.86	(635.78)	635.78
23 87000 TESTA, J.		5%	95%	6%	96%		
PLANT OPERATOR							
REGULAR	64,748.88	3,237.44	61,511.44	3,237.44	61,511.44	0.00	0.00
CLOTH.	550.00	27.50	522.50	27.50	522.50	0.00	0.00
O.T.	8,669.36	433.48	8,235.88	433.47	8,235.89	0.01	(0.01)
FRINGE	39,848.91	1,992.44	37,856.47	1,992.45	37,856.46	(0.01)	0.01
24 87750 THOMAS, C.		96%	5%	97%	3%		
RESERVOIR SYSTEM OPERATOR							
REGULAR	44,666.00	42,432.70	2,233.30	43,326.02	1,339.98	(893.32)	893.32
CLOTH.	0.00	0.00	0.00	0.00	0.00	0.00	0.00
O.T.	5,141.80	4,884.72	257.08	4,987.55	154.25	(102.83)	102.83
FRINGE	27,106.18	25,750.89	1,355.29	26,292.99	813.19	(542.10)	542.10
27 88313 UPADHYAY, T.		50%	50%	4%	96%		
PROJECT ENGINEER III							
REGULAR	68,205.76	34,102.88	34,102.88	2,728.23	65,477.53	31,374.65	(31,374.65)
CLOTH.	0.00	0.00	0.00	0.00	0.00	0.00	0.00
O.T.	0.00	0.00	0.00	0.00	0.00	0.00	0.00
FRINGE	37,584.69	18,792.37	18,792.32	1,503.39	36,081.30	17,288.98	(17,288.98)
15 88875 VISINSKI, J.		64%	36%	63%	37%		
WATER SUPPLY TECH OPERATOR							
REGULAR	45,150.80	28,896.52	16,254.28	28,445.00	16,705.80	451.52	(451.52)
CLOTH.	550.00	352.00	198.00	346.50	203.50	5.50	(5.50)
O.T.	492.96	315.48	177.48	310.56	182.40	4.92	(4.92)
FRINGE	25,422.26	16,270.24	9,152.02	16,016.02	9,406.24	254.22	(254.22)
11 90000 WORTHINGTON, R.		34%	66%	35%	65%		
SUPERVISING PLANT OPERATOR							
REGULAR	69,359.36	23,582.19	45,777.17	24,275.78	45,083.58	(693.59)	693.59
CLOTH.	550.00	187.00	363.00	192.50	357.50	(5.50)	5.50
O.T.	3,678.51	1,216.70	2,361.81	1,252.48	2,326.03	(35.78)	35.78
FRINGE	40,503.87	13,771.33	26,732.54	14,176.35	26,327.52	(405.02)	405.02
25 93000 ZIEGLER, C.		5%	95%	7%	93%		
PLANT OPERATOR							
REGULAR	61,671.28	3,083.56	58,587.72	4,316.99	57,354.29	(1,233.43)	1,233.43
CLOTH.	1,100.00	55.00	1,045.00	77.00	1,023.00	(22.00)	22.00
O.T.	9,005.08	450.27	8,554.81	630.36	8,374.72	(180.09)	180.09
FRINGE	38,878.95	1,943.96	36,934.99	2,721.53	36,157.42	(777.57)	777.57
13 VACANT		64%	36%	64%	36%		
WATER SUPPLY TECH.							
REGULAR	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CLOTH.	0.00	0.00	0.00	0.00	0.00	0.00	0.00
O.T.	0.00	0.00	0.00	0.00	0.00	0.00	0.00
FRINGE	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	(60)	(40)	(50)	(40)	(50)	(40)	(50)
REGULAR	1,568,023.12	739,186.85	828,836.27	704,928.78	863,094.34	34,258.07	(34,258.07)
CLOTH.	12,100.00	5,780.50	6,319.50	6,094.00	6,006.00	(313.50)	313.50
O.T.	88,137.20	33,221.64	54,915.56	34,186.51	53,950.69	(964.87)	964.87
FRINGE	914,388.18	427,274.05	487,114.13	408,961.40	505,426.78	18,312.65	(18,312.65)
GRAND TOTAL	2,582,648.50	1,205,463.04	1,377,185.46	1,154,170.69	1,428,477.81	51,292.35	(51,292.35)

\*PLANT OPERATORS ADJUSTED TO ACTUAL %'S OF 5%/95% ORIGINAL %'S AS FOLLOWS:

C. BENNETT 4%/96%  
R. KARECKY 3%/97%  
C. FISHER/MGAE2014 3%/97%  
E. OTREBA

NEW JERSEY WATER SUPPLY AUTHORITY  
 MANASQUAN RESERVOIR WATER SUPPLY SYSTEM

**ESTIMATE OF INTEREST INCOME**

FISCAL YEAR 2016 BUDGET

<u>FUND/RESERVE</u>	<u>TD BANK</u>	<u>LONG-TERM INVESTMENTS</u>
Operating Fund	\$300,000	\$ 0
Reserve for O & M	400,000	400,000
General Reserve (Rate Stabilization)	250,000	0
Pumping Reserve	125,000	35,000
Self-Insurance Reserve	50,000	200,000
Sediment Reserve	<u>60,000</u>	<u>0</u>
Estimated Total	<u>\$1,185,000</u>	<u>\$635,000</u>

$$\$1,185,000 \times .25\% = \$ 2,963$$

$$\$635,000 \times 1.30\% = \$ 8,255$$

Total \$ 11,218

Estimate \$ 11,200

Short-Investments

TD Bank  
 Managed Rate of .25%  
 95% of the 30 Day Libor After the  
 Compensating Balance Has Been Satisfied

Long-Term Investments

J.P. Morgan Securities  
 New Jersey State G/O Bonds  
 Due 07/15/2016 Yield to Maturity 1.30%  
 Expect Similar Returns After Maturity

NEW JERSEY WATER SUPPLY AUTHORITY  
 MANASQUAN RESERVOIR WATER SUPPLY SYSTEM

UNANTICIPATED REVENUE

FUNDS TO BE APPROPRIATED INTO RATE STABILIZATION FUND FOR FISCAL YEAR 2016

	<u>AMOUNT</u>
F/Y2014 Net Year-End Balance	\$600,000.00

<u>OVERDRAFT</u>	<u>INVOICE NO.</u>	<u>RECEIVED</u>	<u>AMOUNT</u>
------------------	--------------------	-----------------	---------------

ADDITIONAL SOURCES

Source Water Protection Fund	\$ 40,000.00
------------------------------	--------------

<b>TOTAL AVAILABLE</b>	<u>\$640,000.00</u>
------------------------	---------------------

<b>ESTIMATE FOR FY16</b>	<u>\$640,000.00</u>
--------------------------	---------------------



NEW JERSEY WATER SUPPLY AUTHORITY

Schedule 18

MANASQUAN RESERVOIR WATER SUPPLY SYSTEM

FUND BALANCES AS OF 6/30/14

\* \* FINAL \* \*

	REVENUE FUND	OPERATING ACCOUNT	OPERATING FUND	O & M RESERVE	LONG TERM INVESTMENTS O & M RESERVE	TOTAL
BALANCE 6/30/14 (Does not include Debt Service payment)	\$159,379	\$903,095	\$2,858,062	\$1,062,386	\$469,908	\$5,452,830
Add: Adjustment for uncollected water revenues at 6/30/14			0			0
Add: NJ-American, JCP&L expenses for June 2014			45,047			45,047
Deduct: Accrued expenses to be paid as of 6/30/14			(70,160)			(70,160)
Deduct: June 10th billing, received			(159,260)			(159,260)
Adjusted Balances 6/30/14	\$159,379	\$903,095	\$2,673,689	\$1,062,386	\$469,908	\$5,268,457
<b>INCOME</b>						
Operating Transfer	(100,000)		100,000			0
Receipt of WTP/TS G&A expenses for the month of June 2014, 7/31/14 billing			156,093			156,093
<b>EXPENSES</b>						
O & M Expenses - (A/P-6/30/14)						0
Includes accrued payroll and pension thru 6/30/14			(176,833)			(176,833)
Capital Items to be purchased by 6/30/14			(21,700)			(21,700)
Payment of Headquarters overhead expenses - to be paid 7/01			(160,600)			(160,600)
Contributions to Various Reserves- 7/14			(37,000)			(37,000)
ADJUSTED BALANCE AT 6/30/14	\$59,379	\$903,095	\$2,533,649	\$1,062,386	\$469,908	\$5,028,417

Less: O & M Reserve Balance (Goal is 3 months O & M Expenses as dictated by Bond Resolution) (810,774)

**Balance of projected funds available \$4,217,643**

Use of Available Funds

Unanticipated revenues (overdrafts in FY14 to be available to the General Fund for FY16)  
NJ American Water 0

Appropriate FY14 net fund balance into the General Fund (Rate Stabilization) to be used for rate stabilization (672,855)

Balance of funds to be used for future years **\$3,544,788**

NEW JERSEY WATER SUPPLY AUTHORITY  
MANASQUAN RESERVOIR WATER SUPPLY SYSTEM

Operations & Maintenance Expense Component and  
Debt Service Cost Component Sales Base

PROJECTED FISCAL YEAR 2016

USER	ALLOCATION (mgd)
Avon, Borough of	0.142
Belmar, Borough of	0.650
Brielle, Borough of	0.450
Keyport, Borough of	0.458
Matawan, Borough of	0.332
New Jersey American Water	12.500
Red Bank, Borough of	0.548
Sea Girt, Borough of	0.040
Shorelands Water Company	1.928
Lake Como, Borough of	0.100
Spring Lake, Borough of	0.310
Spring Lake Heights, Borough of	0.425
Wall Township	2.275
OPERATIONS & MAINTENANCE/DEBT SERVICE SALES BASE	<b>20.158 mgd</b>

NEW JERSEY WATER SUPPLY AUTHORITY  
 MANASQUAN RESERVOIR WATER SUPPLY AUTHORITY  
OPERATIONS AND MAINTENANCE RATE COMPONENT (20.158MGD)

FISCAL YEAR 2016

Funds Required for F/Y2016 Budget

Total Budget Requirements	\$ 3,454,268
Miscellaneous Revenues	<u>(651,200)</u>
Net Budget Requirement	\$ 2,803,068
Less - Quarterly O & M payment on July 10, 2015 (cash received in July for water used in April, May and June based on \$356.61/mg)	(667,203)
Additional Revenue required from last three (3) Quarterly payments in F/Y2016 to cover Operations & Maintenance expenses through 6/30/16	<u>\$ 2,135,865</u>

Computation of Operations & Maintenance Rate for FISCAL YEAR 2016

Required Operations & Maintenance Rate F/Y2016	<u>\$2,135,865</u>	
	5,533.37*	= \$386.00/MG

\* Four (4) Quarters Sales = 20.158 MGD x 366 = 7,377.83mg/yr.  
 Rate Calculation for required revenues due for payment on  
 10/10/15, 1/10/16 and 4/10/16:

Sales Base = 7,377.83 x 3/4 = 5,553.37 MG  
 The same rate will apply to the payment due 7/10/16 and  
 this payment will be reflected in the calculation of the  
 F/Y2017 rate.

SECTION II

NEW JERSEY WATER SUPPLY AUTHORITY  
 MANASQUAN RESERVOIR WATER SUPPLY SYSTEM

COMPUTATION OF BASE DEBT SERVICE RATES

INITIAL WATER PURCHASERS (15.723<sup>695</sup>MGD) - 7/01/15  
 SHORELANDS DELAYED PURCHASE CONTRACT (.028mgd) - 7/01/06

Debt Service for FISCAL YEAR 2016	\$3,202,859	
Debt Service Fund Interest Income and other available resources	\$ (150,000)	
Net Debt Service Obligation	\$3,052,859	
Coverage Requirement = Net Debt Service Obligation x 20%	\$ <u>610,572</u>	
Total to be recovered by rates	\$3,663,431	
Debt Service Rate effective 7/01/15 366 x 15.723/mgd = 5,754.62mg	$\frac{\$3,663,431}{5,754.62\text{mg}}$	= \$636.61/mg

## SECTION II

NEW JERSEY WATER SUPPLY AUTHORITY  
 MANASQUAN RESERVOIR WATER SUPPLY SYSTEM

COMPUTATION OF DELAYED WATER PURCHASE DEBT SERVICE RATES

	NJAW- 1.000MGD CONTRACT - 07/01/01		
	1.935MGD CONTRACT - 10/01/02		
	1.500MGD CONTRACT - 01/01/05		
Debt Service for FISCAL YEAR 2016		\$1,045,570	
Debt Service Fund Interest Income and other available resources		\$ (3,910)	
Net Debt Service Obligation		\$1,041,660	
Coverage Requirement = Net Debt Service Obligation x 20%		<u>\$ 208,332</u>	
Total to be covered by rates		\$1,249,992	
Debt Service Rate effective 7/01/15			
366 x 4.435/mgd = 1,623.21mg		<u>\$1,249,992</u>	= \$770.06/mg
		1,623.21mg	

SECTION II

NEW JERSEY WATER SUPPLY AUTHORITY  
 MANASQUAN RESERVOIR WATER SUPPLY SYSTEM

COMPUTATION OF BASE DEBT SERVICE RATES

INTAKE PUMP STATION BUILDING

INITIAL WATER PURCHASERS (15.695MGD) - 7/01/15  
 SHORELANDS DELAYED PURCHASE CONTRACT (.028MGD) - 7/01/06  
 NJ AMERICAN DELAYED PURCHASE CONTRACT (4.435MGD) \*

NJEIFP Debt Service for Fiscal Year 2016                   \$ 182,871

Debt Service Rate effective 7/01/15  
 366 x 20.158/mgd = 7,377.83/mg                   \$  $\frac{182,871}{7,377.83\text{mg}}$  = \$24.79/mg

\*Delayed Water Purchase Contracts  
     NJ American 1.000mgd 07/01/01  
                   1.935mgd 10/01/02  
                   1.500mgd 01/01/05

NEW JERSEY WATER SUPPLY AUTHORITY  
 MANASQUAN RESERVOIR SYSTEM  
**2005 BOND DEBT SERVICE COVERAGE**  
 FISCAL YEAR 2016  
 (7/1/14-6/30/16)

	<u>Budgeted F/Y 2016</u>
<u>Revenues</u>	
Uninterruptible Water Sales	\$ 8,019,323
Interest Income/Other	<u>11,200</u>
Total Revenues	<u>\$ 8,030,523</u>
Prior Years Surplus	<u>\$ 640,000</u>
<u>Expenses</u>	
O&M Costs	\$ 2,592,860
Overhead Allocation	<u>640,000</u>
Total O&M	<u>\$ 3,232,860</u>
Cash Available for Debt Service - A	\$ 5,437,663
Net Debt Service Expense	\$ 4,094,519
Debt Service Coverage Calculation - A/B	1.33
Cash After Debt Service A-B	\$ 1,343,144

**Manasquan Reservoir System  
Rehabilitation Reserve and Capital Improvement Program**

<b>Project Description</b>	<b>Renewal &amp; Repl. Reserve</b>	<b>FY2015</b>	<b>FY2016</b>	<b>FY2017</b>	<b>FY2018</b>	<b>FY2019+</b>
Dam Emergency Contingency	\$400,000					
Pipeline Replacement Under I-195	\$950,000					
Pumping Equipment Replacement	\$650,000					
Portable Generator, Hookup and Transfer Switch for I/O Tower			\$70,000			
Resize Intake - Motor/Pump/VFD					\$250,000	
Fuel System Upgrade			\$90,000			
Rehabilitation Pump and Motors at Reservoir & Intake Pumping Stations		\$38,000	\$40,000	\$60,000		\$20,000
Security System & Fencing Upgrade			\$30,000	\$100,000		\$50,000
Replacement Capacitors				\$20,000	\$20,000	
Equipment Storage Building		\$400,000				
Replace 25% of Administration Building Roof		\$40,000				
Replace Control Panel at Reservoir IO Building		\$80,000				
Resurface Floor in Hall and Bathrooms RPS Building			\$40,000			
Replace Incoming Electrical Power Breakers		\$30,000	\$100,000			
Renovation of Traveling Water Screens						\$100,000
Variable Frequency Drive Control Conversion				\$60,000		
Replace Wall Heater/AC Units Administration Building			\$5,000			
Valve Operator on 36" Intake Pool Return Conversion from Oil to Electric			\$20,000			
Bubbler System for Clearwell Level at RPS Building			\$4,000			
Replace High Voltage Feeder Cable Intake Pumping Station		\$260,000				
<b>Total</b>	<b>\$2,000,000</b>	<b>\$848,000</b>	<b>\$399,000</b>	<b>\$240,000</b>	<b>\$270,000</b>	<b>\$170,000</b>



**New Jersey Water Supply Authority**  
**Manasquan Water Supply System**

**Update**  
**of the**  
**Renewal and Replacement Reserve**  
**and**  
**Capital Improvement Program**

**prepared by**

**Paul McKeon, P.E., Manasquan System Manager**

**MANASQUAN WATER SUPPLY SYSTEM**  
**RENEWAL/REPLACEMENT RESERVE & CAPITAL IMPROVEMENT PROGRAM**  
**Fiscal Years 2015-2019**  
**Updated July 2014**

## **Introduction**

The New Jersey Water Supply Authority (Authority) operates and maintains the Manasquan Water Supply System including the Intake Facilities located in Wall Township, the Manasquan Reservoir located in Howell Township and 5-1/4 miles of 66-inch diameter pipeline which connects the Intake Facilities to the Reservoir. The Manasquan Water Supply System was constructed between 1987-1990 and commenced operation on July 1, 1990.

Construction of this system was financed by the issuance of Bonds under the authorization of Authority Bond Resolution No. 295 dated April 16, 1987. The Bond Resolution provides for rates for water use to include an excess payment of 20% (effective February 1, 1994) of the annual debt service, identified as 120% debt service coverage. During the initial years, this excess payment flowed into the debt service reserve account until an amount equal to 50% of the annual debt service had been accumulated. Thereafter, the 20% excess debt service is to be used to establish a Renewal & Replacement Reserve and to fund a Capital Improvement Program (CIP) for the facilities.

A Capital Improvement Program funded by the Renewal and Replacement Reserve was first recommended in September 1996. This is an update of the CIP.

The Renewal and Replacement Reserve for Extraordinary Operations and Maintenance Costs is fully funded as recommended.

## **Renewal and Replacement Reserve for Extraordinary Operations and Maintenance Costs**

### **Problems with the Earthen Dam Embankments**

The Manasquan Reservoir dam and dikes are inspected by the Authority's operations and engineering staff to provide early detection of situations which, if uncorrected, could lead to serious problems. There are no indications of problems with any of the embankments at the present time. It is unlikely that a major catastrophic dam failure will occur as a result of the weather. A more common occurrence would be surface erosion especially in areas where good turf is not established. The periodic inspection of the embankments shows varying establishment of turf. On-site maintenance staff has implemented various measures to improve the grass cover on the dams. Long-term success of these measures is dependent on weather.

The Reserve includes funds that can be used to repair any surface erosion that cannot be repaired by Authority maintenance forces.

## Replacement of Pipe under Interstate Route 195

The Manasquan Reservoir pipeline is a 5-1/4 mile long, 66-inch diameter prestressed concrete cylinder pipeline (PCCP) constructed in the 1980s. A 380-foot long section of 72-inch diameter PCCP was installed beneath Interstate Route 195 during its construction for use in connection with the pipeline between the reservoir pumping station and the reservoir. This section of pipe was manufactured by Interpace in the late 1970's. This vintage PCCP is suspect because of the type of prestressing wire used in its manufacture and the "inadequate" quality control used in the application of the mortar coating.

A rupture of this section of pipe could be catastrophic and result in major disruptions to Route 195. Repair costs could easily amount to several million dollars. Therefore, the section of pipe under Route 195 is dewatered and inspected bi-annually to monitor its condition.

The entire length of the pipeline was inspected in December 2009. The interior concrete lining was sounded with a 57-inch piece of black iron pipe with caps welded to the ends. The lining was continuously sounded for hollow regions that may be indicative of a loss of prestress and therefore exterior pipe distress. The 72-inch pipe under Route 195 was also sounded with ball peen hammers. Sounding was carried out on both sides of the pipe approximately in the 2-4 o'clock range and the 8-10 o'clock range at approximately 6 to 12-inch intervals. Other features such as spalled concrete linings were noted throughout the inspection. The Manasquan Reservoir 66-inch pipeline is in good condition. The items noted during the internal inspection were minor in nature and are not indicative of pipeline distress.

The pipes under Route 195 were power washed and inspected in 2011 and found to be sound. The pipe under Route 195 will be inspected in the fall of 2014. The entire pipeline will be inspected in December of 2015.

\$950,000 is included in the Renewal and Replacement Reserve to insert a 66" diameter steel pipe into the PCCP under Route 195 or to replace other sections of pipe as needed

## Replacement of Pumps or Equipment

Five (5) 600 horsepower pumps are used at the Intake Pumping Station to pump water from the Manasquan River to the presedimentation pond at the Reservoir Pumping Station. Five (5) 900 horsepower pumps are used at the Reservoir Pumping Station to pump water from the presedimentation pond to the Reservoir. The estimated replacement cost for each unit, including a variable frequency drive, is \$650,000. Replacement costs for the units would be dependent on the problem but would be limited to the cost of replacement.

All pumps and motors have been physically inspected, vibration tested and pump efficiency tested in 2013. All are within acceptable performance tolerances. Although testing and inspection has determined that no units are needing replacement at this time, it is

appropriate to include funds in a Renewal & Replacement Reserve to rehabilitate or replace a single unit in case of an unforeseen failure or damage from lightning.

Furthermore, these funds could be used to rehabilitate or replace other major equipment such as a large 500kva electrical transformer or cables as well. The combined construction cost for the Intake Pumping Station and the Reservoir Pumping Station was approximately \$30,000,000 (1990 dollars). The recommended reserve of \$650,000 represents 2% of the total construction cost.

## **Planned Capital Improvements - Fiscal Years 2015 - 2019**

### Fueling System Upgrade

Current regulations regarding underground storage tanks require leak monitoring in the tank and piping and recording of the data on a prescribed basis. A determination needs to be made if one or both of the 1000 gallon underground storage tanks should be replaced with above ground tanks. An electronic system for recording daily inventory in the tanks is needed.

The original fuel dispensing pumps also need to be replaced with modern units that electronically track usage. These units are utilized at other Authority locations and are tied into vehicle service software.

The Authority is in the process of hiring a consultant to help prepare specifications and plans for the upgrade work that needs to be completed on this fuel system.

### Rehabilitation of Pumps and Motors at the Intake Pumping Station and Reservoir Pumping Station

There are five main vertical turbine pumps with 600 horsepower motors at the Intake Pumping Station (IPS). There are five main vertical turbine pumps with 900 horsepower motors at the Reservoir Pumping Station (RPS).

The Authority has undertaken a multi faceted – multi year program to service all ten pumps and motors. The first phase, begun in 2003, includes the servicing of a pump at the RPS and a motor at the IPS each year. All pumps and motors were physically inspected, vibration tested and pump efficiency tested in 2013 and 2014. All are within acceptable performance tolerances. Therefore motor rehabilitation on one unit was completed in FY13 and one motor for FY14. It is anticipated that no pump rehabilitation will be needed until FY2015.

### Resize Intake - Motor/Pump/VFD

A recent safe yield review has determined that replacing one of the 600 hp motor and pump at the intake with a 300 hp motor, a pump that can deliver up to 15 MGD and a new

variable frequency drive will improve the reliable safe yield of the system. This project will likely be designed in calendar year 2015 and constructed in 2016. This will allow a closer match between the anticipated average customer sales from the intake pool and the intake pump capacities. The motor and variable frequency drive will be 480V as opposed to the existing 2400 V system. Although this will require the addition of a transformer, it will allow for powering the pump from a portable generator. This will allow for some use of the intake during an extended power outage or if an underground electric cable were to fail.

#### Portable generator, hookup and transfer switch for I/O tower

A standby power generator is needed at the Reservoir Inlet and Outlet tower to enable staff to operate the reservoir emergency dump valve in case of a dam breach at the time of a power outage. Also other inlet and outlet valves will remain operable under all conditions and the dam instrumentation will be able to send readings on the condition of the drainage system and piezometers during times of prolonged power outages as was experienced after super storm Sandy.

#### Security System Upgrade

In response to the Public Health Security and Bioterrorism Response Act of 2002 and an Executive Order issued on July 18, 2002 by the State of New Jersey identifying critical facilities that require vulnerability assessments, the Authority has contracted with a consultant to develop a comprehensive security vulnerability assessment (VA) and implement recommendations of the VA. Recommendations were provided for changes in security policies and procedures, minimum and additional upgrades to the physical protection systems (PPS) and processes. Estimates of probable capital costs were developed for the minimum and additional PPS for system facilities.

The schematic design report for implementing the recommendations is being evaluated and improvements are being phased in.

#### Replacement of Capacitors

Electrical capacitors are component parts in the variable speed electrical drive units at both the Intake Pumping Station and the Reservoir Pumping Station. During a prior visit by the field service technician from ASI Robicon Corporation, several capacitors were identified as failed parts. All fifty-three existing capacitors are reaching the end of their useful life and are recommended for replacement. Seven of the fifty-three were replaced prior to 2011 and the remaining 46 will be replaced during upcoming years. The cost to replace the remaining capacitors is approximately \$40,000. No failures were experienced in 2013 and 2014 and a number of capacitors are on hand so the replacement has been moved back several years.

### Equipment Storage Building

There is a need to provide secure under cover storage for equipment at the facility. Preliminary investigations show that a "pole-barn" type structure should be erected near the Reservoir Pumping Station. A 120' by 50' structure, providing 6000 square feet of added storage is the minimum size needed. Engineering services have been contracted for in 2012 for the subgrade design, utilities, building and site design.

A contract in the amount of \$375,750 was awarded to 3R Painting & Contracting in October 2013. Work is getting underway now that permitting and shop drawing issues have been resolved.

### Replace 25% of Administration Building Roof

The eastern lower roof has several leaks which staff has not been able to patch. Considering this and the 25 year age of the roof, a new roof with a new 5 year warranty is needed.

A Purchase Order in the amount of \$31,007 was awarded to Pfister roofing. Construction work on the roof started in June of 2014 with completion expected by the end of July.

### Replace Control Panel at Reservoir IO Building

The existing control panel is made of discrete instruments and chart recorders for which parts are not readily available. The equipment is 24 years old and beyond the expected life. Upgrading to a SCADA system with an improved operator interface and alarm features is desired. Work began on this project in June of 2014 with an expected completion date of October 2014.

### Resurface floor in hall and bathrooms in the RPS Building

The existing epoxy/sand finish on the concrete floor is discolored and not uniform. The surface is breaking free from the concrete in some areas and cannot be repaired. Replacement is desired to improve the appearance of the facility.

### Replacing the incoming electrical power breakers

Electrical surges and cable failures in 2012 and 2013 as a result of several storms has identified the need to investigate replacing the 24 year old breakers in the incoming power substation as well as relocating the utility power meters up onto a new pole at the edge of Hospital Road. The breakers and parts for them are now obsolete. Staff is investigating the cost of installing retrofit breakers, moving the meters and possibly replacing the electrical cabinet that houses all this equipment.

### Renovation of Traveling Water Screens

The eight traveling water screens at the Intake Pumping Station are in need of service over time. 2013 inspection found all units to be in good condition. Funding is included to install new reducers, drive sprockets, screen sections, chain guard assemblies and adapter bases on all eight units. Another inspection is planned for the fall of 2015.

### Variable Frequency Drive Control Conversion

Staff has been working with ASI Robicon Corporation to develop a conversion package for the operation of the variable frequency drives. The conversion package would consist of revising the sequencer operation of both the Intake and Reservoir Pumping Stations from the current card rack computerized system to a programmable logic controller. With the current logic system, the Authority has been experiencing logic card failures with expensive computer board repairs or parts that are no longer available which is the main purpose of changing the control logic operation. The project is under development at this time.

### Replace Wall Heater / AC Units Administration Building

The office area of the building is partially heated and cooled with these wall units. A number of them have failed or rusted in recent years. This will complete the change out to all new units.

### Valve Operator Replacement on 36" Intake Pool Return Line

The existing system is 25 years old and relies on a oil reserve tank and compressors to drive a piston to operate the valve. Replacement of the operator with an electrically driven operator is preferred in keeping with similar valve operators at the reservoir system.

### Bubbler System for Clearwell Level at RPS Building

The existing level control relies on air compressor and various other mechanical devices. Newer technology for monitoring level which is much more reliable will be used in its place.

### Replace High Voltage Feeder Cable IPS

In August of 2014 the 15,000 feet of electrical feeder cable shorted to ground. Subsequent testing found many portions of the cable insulation to be below standard after 25 years of use. Because of this and because the reservoir storage volume was at the historical average for August, the Authority decided to have all the cable replaced on an emergency basis while supplying water to customers solely from the reservoir source during the replacement. Cable with improved insulation value was installed and should be good for at least another 30 years. Including ground wire, just over 20,000 feet of cable and wire was replaced.

**PART III - PROPOSED RULE AMENDMENTS**

NEW JERSEY WATER SUPPLY AUTHORITY

AMENDMENTS TO THE SCHEDULE OF RATES, CHARGES AND  
DEBT SERVICE ASSESSMENTS FOR THE SALE OF WATER FROM THE  
MANASQUAN RESERVOIR WATER SUPPLY SYSTEM

**To Become Effective July 1, 2015**

The following rules and regulations can be found in the New Jersey Administrative Code under N.J.A.C. 7:11-4.1, et seq. Full text of the proposal follows (additions indicated in boldface **thus**; deletions indicated in brackets [thus]):

7:11-4.3 Operations and Maintenance Expense Component

(a) - (b) (No change.)

(c) Operations and Maintenance Expense Component:

<u>Effective Date</u>	<u>Rate/Million Gallons</u> (based upon a [20.560] <b>20.158</b> per day sales base)
July 1, [2013] <b>2015</b>	[\$356.61] <b>\$386.00</b>

7:11-4.4 Debt Service Cost Component

(a) (No change.)

(b) The following Debt Service rates based on a sales base of [16.125]**15.723** million gallons per day, apply to all initial water purchase contract customers, and all delayed water purchase contract customers, who fully satisfied their contractual delayed water purchase surcharge obligations at the commencement of their contract terms:

<u>Period</u>	<u>Rate/Million Gallons</u>
7/1/[2013] <b>2015</b> to 6/30/[2015] <b>2016</b>	(Coverage 120%) [\$619.87] <b>\$636.61</b>

(c) Delayed Water Purchase Surcharge will be assessed to all water purchasers who entered into a Water Purchase Contract for an



uninterruptible service commencing subsequent to the System Operation Date (Delayed Water Purchase Contract). This includes a purchaser under an Initial Water Purchase Contract, which provides for an increase in the amount of uninterrupted service effective subsequent to the System Operation Date.

1. The following Debt Service rate based on a sales base of 4.435 million gallons per day, applies to the Delayed Water Purchase Contracts commencing July 1, 2001, October 1, 2002, and January 1, 2005 in lieu of the Debt Service rate set forth in (b) above.

<u>Period</u>	<u>Rate/Million Gallons</u>
7/1/[2013] <b>2015</b> to	(Coverage 120%)
6/30/[2015] <b>2016</b>	[\$772.46] <b>\$770.07</b>

(d) (No change.)

7:11-4.5 Source water protection fund component

(a) (No change.)

(b) The source water protection fund component is as follows:

<u>Period</u>	<u>Rate/Million Gallons</u>
7/1/[2013] <b>2015</b> to	
6/30/[2015] <b>2016</b>	[\$15.00] <b>\$10.00</b>

7:11-4.6 NJEIFP debt component

(a) (No change.)

(b) The NJEIFP debt component is as follows:

<u>Period</u>	<u>Rate/Million Gallons</u>
7/1/[2013] <b>2015</b> to	
6/30/[2015] <b>2016</b>	[\$24.42] <b>\$24.79</b>

**NEW JERSEY WATER SUPPLY AUTHORITY**  
**(A Component Unit of the State of New Jersey)**  
**FORECASTED COST ALLOCATION SCHEDULES**  
Year Ending June 30, 2016

## INDEPENDENT ACCOUNTANT'S REPORT

To the Commissioners of  
New Jersey Water Supply Authority

At your request, we have performed certain agreed-upon procedures, as enumerated below, with respect to the accompanying forecasted cost allocation schedules of the New Jersey Water Supply Authority (the "Authority"), a component unit of the State of New Jersey for the fiscal year ending June 30, 2016. These procedures, which were agreed to by the Commissioners and Authority management, were performed solely to assist you in evaluating the forecasted cost allocation schedules in connection with the setting of water rates for each of the three operating systems (Raritan, Manasquan Reservoir and Manasquan Treatment Plant/Transmission). The Authority's management is responsible for the schedules. This agreed-upon procedures engagement was performed in accordance with attestation standards established by the American Institute of Certified Public Accountants. The sufficiency of these procedures is solely the responsibility of the Authority's management. Consequently, we make no representation regarding the sufficiency of the procedures described below either for the purpose for which this report has been requested or for any other purpose. The procedures that we performed are as follows:

1. We were provided with the fiscal year 2016 budgeted expenses for each of the three operating systems by the Authority's director of finance and administration, who advised us that the fiscal year 2016 budgeted expenses are based upon preliminary budgets that are subject to approval by the Authority's Commissioners. We performed no procedures in regard to these fiscal year 2016 budgeted expenses.
2. We recalculated the allocated costs on the schedules. We found no exceptions as a result of these procedures.
3. We compared the methodologies used for cost allocation on the forecasted schedules to the methodologies used in the Authority's cost allocation schedules for the year ended June 30, 2014, and found them to be consistent.

- AN INDEPENDENTLY OWNED MEMBER,  
MCGILDRAY ALLIANCE
- AMERICAN INSTITUTE OF  
CERTIFIED PUBLIC ACCOUNTANTS
- NEW JERSEY SOCIETY OF  
CERTIFIED PUBLIC ACCOUNTANTS
- NEW YORK SOCIETY OF  
CERTIFIED PUBLIC ACCOUNTANTS
- PENNSYLVANIA INSTITUTE OF  
CERTIFIED PUBLIC ACCOUNTANTS
- AICPA'S PRIVATE COMPANIES PRACTICE  
SECTION
- AICPA'S CENTER FOR AUDIT QUALITY
- REGISTERED WITH THE PCAOB

CELEBRATING 50 YEARS OF LEADING BY EXAMPLE

P.O. Box 7648 • Princeton, NJ 08543-7648 • 609.689.9700 • Fax 609.689.9720

[www.mercadien.com](http://www.mercadien.com)

## INDEPENDENT ACCOUNTANT'S REPORT (CONTINUED)

We were not engaged to and did not conduct an examination, the objective of which would be the expression of an opinion on the accompanying forecasted cost allocation schedules. Accordingly, we do not express such an opinion. Had we performed additional procedures, other matters might have come to our attention that would have been reported to you. Furthermore, there will usually be differences between the forecasted and actual results, because events and circumstances frequently do not occur as expected, and those differences may be material. We have no responsibility to update this report for events and circumstances occurring after the date of this report.

This report is intended solely for the information and use of the Commissioners and management of the Authority and should not be used by those who have not agreed to the procedures and taken responsibility for the sufficiency of the procedures for their purposes.

*Mercadino, P.C.*  
*Certified Public Accountants*

October 6, 2014

NEW JERSEY WATER SUPPLY AUTHORITY  
 SCHEDULE OF FORECASTED COST CENTER EXPENSE RECLASSIFICATION  
 YEAR ENDING JUNE 30, 2016

RECLASSIFICATIONS

DEPT. #	DEPT./COST CENTER	COST CENTER COSTS	1 HEATING/ ELECTRIC	2 VEHICULAR FUEL	3 PROFESSIONAL FEES	4 INSURANCE	5 TELEPHONE	6 PERMITS	7 WORKERS' COMP.	8 IN LIEU TAXES	9 CHIEF ENGINEER SALARY & FRINGE	REVISED COST CENTER COSTS
	BUILDING HQ	\$ -	\$130,100	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$130,100
	TELEPHONE HQ						72,400					72,400
36	SAFETY	207,100			(5,000)							202,100
37	SECURITY	884,250										884,250
14	HUMAN RESOURCES	429,700			(4,400)				(10,000)			415,300
16	PURCHASING	552,900		(157,800)			(72,400)	(16,000)				306,700
17	INFORMATION SYSTEMS	157,200										157,200
15	CONTRACTS & RISK MGMT.	1,721,800			(33,500)	(1,246,800)		(86,100)		(18,700)		336,700
13	FINANCIAL MGMT.	949,200			(2,500)							946,700
34	AUTO SHOP	209,900		157,800				16,000				383,700
35	AUTO SHOP-CANAL	213,300										213,300
10	EXEC OFFICE	247,800	4,757									252,557
20 30 31 32 33	WATERSHED, ENGINEERING & O&M (RAPIDAN SYSTEM)	7,356,650	(134,857)		45,400	1,246,800		86,100	10,000	18,700	(24,914)	8,603,879
		12,929,800	0	0	0	0	0	0	0	0	(24,914)	12,904,886
40-60	MANASQUAN SYSTEM	5,347,650									24,914	5,372,764
		<u>\$18,277,650</u>	<u>\$0</u>	<u>\$0</u>	<u>\$0</u>	<u>\$0</u>	<u>\$0</u>	<u>\$0</u>	<u>\$0</u>	<u>\$0</u>	<u>\$0</u>	<u>\$18,277,650</u>

See accompanying notes to Financial Schedules.  
 See independent accountant's report.

NEW JERSEY WATER SUPPLY AUTHORITY  
 SCHEDULE OF FORECASTED SYSTEM-WIDE ALLOCATED COSTS  
 YEAR ENDING JUNE 30, 2016

ALLOCATION BASIS

DEPT. #	DEPT./COST CENTER	REVISED COST CENTER COSTS	SQ. FT. #	# OF TELEPHONES	# OF EMPLOYEES	100% RARITAN O&M	# OF EMPLOYEES	# OF P.O.s	# OF COMPUTERS	MGD CONTRACTS	O&M BUDGET	# OF VEHICLES	# OF VEHICLES	TIME ESTIMATE	ALLOCATED COST CENTER COSTS
	BUILDING HQ	\$130,100	(\$130,100)												
	TELEPHONE HQ	\$72,400	0	(\$72,400)											
36	SAFETY	\$202,100	976	796	(\$203,872)										
37	SECURITY	\$884,250	4,998	3,182	16,680	(\$909,110)									
14	HUMAN RESOURCES	\$415,300	6,018	3,182	5,560	0	(\$430,050)								
16	PURCHASING	\$306,700	6,640	2,387	3,707	0	8,777	(\$328,211)							
17	INFORMATION SYSTEMS	\$157,200	1,385	796	1,853	0	4,388	9,604	(\$175,226)						
15	CONTRACTS & RISK MGMT.	\$336,700	4,323	1,591	3,707	0	8,777	9,498	6,298	(\$370,854)					
13	FINANCIAL MGMT.	\$946,700	12,556	5,569	12,974	0	30,719	8,443	28,161	0	(\$1,045,162)				
34	AUTO SHOP	\$383,700	20,514	1,591	1,853	0	4,388	16,569	6,258	0	27,049	(\$461,922)			
35	AUTO SHOP-CANAL	\$213,300	0	1,591	1,853	0	4,388	14,880	3,129	0	15,036	0	(\$254,177)		
10	EXEC OFFICE	\$252,557	17,456	5,569	1,853	0	4,388	1,900	6,258	0	17,804	0	0	(\$307,755)	
20 30 31 32 33	WATERSHED, ENGINEERING & O&M (RARITAN SYSTEM)	\$8,603,879	55,194	46,146	105,644	909,110	250,137	142,470	50,743	333,264	606,524	461,922	264,177	276,237	\$12,195,447
40-60	MANASQUAN SYSTEM	\$5,372,764	0	0	48,188	0	114,098	124,847	34,419	37,590	378,749	0	0	31,548	6,142,203
		\$18,277,650	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$18,277,650

See accompanying notes to Financial Schedules.  
 See independent accountant's report.

NEW JERSEY WATER SUPPLY AUTHORITY  
 SCHEDULE OF FORECASTED COST ALLOCATION FACTORS  
 YEAR ENDING JUNE 30, 2016

REQUIRED STATISTICS

ALLOCATION OF: ALLOCATION BASIS:	BUILDING HQ SQ. FT. #	TELEPHONES # OF TELEPHONES	SAFETY # OF EMPLOYEES	HUMAN RESOURCES # OF EMPLOYEES	PURCHASING # OF P.O.'S	INFORMATION SYSTEMS # OF COMPUTERS	CONTRACTS & RISK MGMT M/GD CONTRACTS	FINANCE O&M FUNCTIONAL COST	AUTO SHOP # OF VEHICLES	AUTO SHOP CANAL # OF VEHICLES	EXEC. OFF TIME ESTIMATE
DEPT. #	DEPT. COST CENTER										
	BUILDING HQ										
	TELEPHONE HQ										
36	SAFETY	110	1								
37	SECURITY	563	4	9							
14	HUMAN RESOURCES	678	4	3							
16	PURCHASING	748	3	2	2						
17	INFORMATION SYSTEMS	156	1	1	1	91					
15	CONTRACTS & RISK MGMT.	487	2	2	2	90	2				
13	FINANCIAL MGMT.	1,419	7	7	7	80	9	0			
34	AUTO SHOP	2,311	2	1	1	157	2	0	\$383,700		
35	AUTO SHOP-CANAL	0	2	1	1	141	1	0	213,300		
10	EXEC OFFICE	1,967	7	1	1	18	2	0	252,557	0	
20 30 31 32 33	WATERSHED, ENGINEERING & O&M (RARITAN SYSTEM)	6,218	58	57	57	1,350	29	182	8,603,879	43	89.75
40-60	MANASQUAN SYSTEM			26	26	1,183	11	21	5,372,764		10.25
		14,657	91	110	98	3,110	56	203	\$14,826,200	43	100 %

See accompanying notes to Financial Schedules.  
 See independent accountant's report.

NEW JERSEY WATER SUPPLY AUTHORITY  
 SCHEDULE OF FORECASTED MANASQUAN SYSTEM ALLOCATED COSTS  
 YEAR ENDING JUNE 30, 2016

COSTS	ALLOCATION BASIS					ALLOCATED COSTS
	1 TIME STUDY	2 \$ VALUE OF VEHICLES	3 \$ VALUE OF EQUIPMENT	4 TIME STUDY	5 VALUE OF WATER CONTRACTS	
GENERAL & ADMINISTRATIVE						
SALARIES & FRINGES	\$2,980,650					
VEHICLE RELATED	83,000	(\$83,000)				
MAINT. SUPPLIES & RELATED	72,900		(\$72,900)			
OFFICE & MISC.	51,700			(\$51,700)		
H.Q. OVERHEAD	794,353				(\$794,353)	
RESERVOIR	1,018,800	59,860	33,563	24,377	689,400	\$3,231,400
TREAT./TRANS.	1,111,900	23,140	39,337	27,323	104,953	2,881,903
	<u>\$6,113,303</u>	<u>\$0</u>	<u>\$0</u>	<u>\$0</u>	<u>\$0</u>	<u>\$6,113,303</u>

See accompanying notes to Financial Schedules.  
 See independent accountant's report.



NEW JERSEY WATER SUPPLY AUTHORITY  
NOTES TO SCHEDULES  
YEAR ENDING JUNE 30, 2016

A. GENERAL

The New Jersey Water Supply Authority as part of its annual budget and rate making process performs a two step cost allocation calculation. During the first step, the Authority forecasts its actual expenses by Cost Center. For purposes of this calculation the Authority uses the following Cost Centers:

- Building Headquarters
- Telephone Headquarters
- Safety
- Security
- Human Resources
- Purchasing
- Information Systems
- Contracts & Risk Management
- Financial Management
- Auto Shop
- Auto Shop - Canal
- Executive Office
- Engineering, Watershed Management, Operations and Maintenance (Raritan System)
- Manasquan System

In deriving expenses by Cost Center several expense reclassifications are made on the Schedule of Forecasted Cost Center Expense Reclassification as follows:

1. Heating and electricity expenses related to Building Headquarters ("HQ") and Executive Office are reclassified from Engineering and Operations & Maintenance ("O & M").
  2. Vehicular fuel expense related to Auto Shop is reclassified from Purchasing.
  3. Professional fees related to O & M are reclassified from the various departments to which they have been charged.
  4. Insurance premium expense related to the Raritan System is reclassified from Contracts and Risk Management.
  5. Telephone expense is reclassified from Purchasing to a separate Telephone HQ Cost Center.
  6. Permit expense related to the Raritan System is reclassified from Contracts and Risk Management and Purchasing.
- See independent accountant's report.
7. Workers' compensation expense related to the Raritan System is reclassified from Contracts and Risk Management.
  8. In-lieu taxes related to the Raritan System are reclassified from Contracts and Risk Management.
  9. Chief Engineer Salary & Fringe Expenses related to the Manasquan System are reclassified from the Engineering Department.

NEW JERSEY WATER SUPPLY AUTHORITY  
NOTES TO SCHEDULES  
YEAR ENDING JUNE 30, 2016

The second step entails a step-down allocation of eleven of the Authority's Cost Centers to the Raritan and Manasquan System Cost Centers. In making this step-down allocation the Authority allocates cost as follows:

1. Building HQ is allocated to each of the Cost Centers based on the amount of space utilized.
2. Telephone HQ is allocated to each of the Cost Centers based on the number of telephones utilized.
3. Safety is allocated to each of the Cost Centers based on the number of employees.
4. Security is allocated entirely to the Raritan System.
5. Human Resources is allocated to each of the Cost Centers based on the number of employees.
6. Purchasing is allocated to each of the respective Cost Centers based on the number of purchase orders issued.
7. Information Systems is allocated to each of the Cost Centers based on the number of computers.
8. Contracts and Risk Management is allocated to each of the Cost Centers based on the number of employees.
9. Financial Management is allocated based on a percentage of the four remaining Cost Centers' budgets.
10. Auto Shop and Auto Shop-Canal are allocated based on the number of vehicles used.
11. Executive Office is allocated based on the amount of executive time utilized in managing each of the Systems.

See independent accountant's report.

NEW JERSEY WATER SUPPLY AUTHORITY  
NOTES TO SCHEDULES  
YEAR ENDING JUNE 30, 2016

**B. MANASQUAN SYSTEM ALLOCATED COST**

The Manasquan Water Supply System's direct and allocated costs are then allocated between the Reservoir System and the Water Treatment Plant/Transmission System. In making this allocation the Authority adds to each System's direct expenses, the indirect costs allocated as follows:

1. Salaries and Fringe Benefits are allocated based on actual time studies performed by each employee throughout Fiscal Year 2014.
2. Vehicle related expenses are allocated based on the dollar value of vehicles held by each System.
3. Maintenance Supplies and related expenses are allocated based on the dollar value of capital equipment held by each System.
4. Office and miscellaneous expenses are allocated based on the time studies performed by each employee throughout Fiscal Year 2014.
5. Headquarters Overhead expenses are allocated based on the value of water contracts for each System.

See independent accountant's report.

**NEW JERSEY WATER SUPPLY AUTHORITY**  
**(A Component Unit of the State of New Jersey)**

**COST ALLOCATION SCHEDULES**

June 30, 2014

## INDEPENDENT ACCOUNTANT'S REPORT

To the Commissioners of  
New Jersey Water Supply Authority

We have examined the financial schedules of New Jersey Water Supply Authority (the "Authority"), a component unit of the State of New Jersey, for the year ended June 30, 2014, listed in the foregoing table of contents. The Authority's management is responsible for the financial schedules. Our responsibility is to express an opinion on the conformity of the financial schedules with the cost allocation criteria set forth in Note A.

Our examination was conducted in accordance with attestation standards established by the American Institute of Certified Public Accountants and, accordingly, included such procedures as we considered necessary under the circumstances. We believe that our examination provides a reasonable basis for our opinion.

In our opinion, the financial schedules referred to above present the Authority's allocation of costs to the Raritan and Manasquan Systems in conformity with the cost allocation criteria set forth in Note A.

This report is intended for the information and use of the Commissioners and management of the Authority and is not intended to be and should not be used by anyone other than these specified parties.

*Mercadieu, P.C.*  
*Certified Public Accountants*

October 6, 2014

- AN INDEPENDENTLY OWNED MEMBER,  
MCGGLADREY ALLIANCE
- AMERICAN INSTITUTE OF  
CERTIFIED PUBLIC ACCOUNTANTS
- NEW JERSEY SOCIETY OF  
CERTIFIED PUBLIC ACCOUNTANTS
- NEW YORK SOCIETY OF  
CERTIFIED PUBLIC ACCOUNTANTS
- PENNSYLVANIA INSTITUTE OF  
CERTIFIED PUBLIC ACCOUNTANTS
- AICPA'S PRIVATE COMPANIES PRACTICE  
SECTION
- AICPA'S CENTER FOR AUDIT QUALITY
- REGISTERED WITH THE PCAOB

CELEBRATING 50 YEARS OF LEADING BY EXAMPLE

P.O. Box 7648 • Princeton, NJ 08543-7648 • 609.689.9700 • Fax 609.689.9720

[www.mercadieu.com](http://www.mercadieu.com)

NEW JERSEY WATER SUPPLY AUTHORITY  
 SCHEDULE OF COST CENTER EXPENSE RECLASSIFICATION  
 YEAR ENDED JUNE 30, 2014

RECLASSIFICATIONS

DEPT. #	DEPT./COST CENTER	COST CENTER COSTS	1 HEATING/ ELECTRIC	2 VEHICULAR FUEL	3 PROFESSIONAL FEES	4 INSURANCE	5 TELEPHONE	6 PERMITS	7 WORKERS' COMP.	8 IN LIEU TAXES	9 CHIEF ENGINEER SALARY & FRINGE	REVISED COST CENTER COSTS
	BUILDING HQ		\$81,432									81,432
	TELEPHONE HQ						\$73,113					73,113
36	SAFETY	175,790										175,790
37	SECURITY	839,879										839,879
14	HUMAN RESOURCES	387,706			(\$2,540)				(\$4,384)			380,782
16	PURCHASING	514,544		(\$144,541)			(73,113)	(\$15,843)				280,948
17	INFORMATION SYSTEMS	170,075										170,075
15	CONTRACTS & RISK MGMT.	1,557,865			(19,324)	(\$1,154,419)		(90,464)		(\$18,700)		274,959
13	FINANCIAL MGMT	895,984			(2,268)							893,726
34	AUTO SHOP	213,041		144,541				15,843				373,524
35	AUTO SHOP-CANAL	218,568										218,568
10	EXEC OFFICE	235,154	3,917									239,071
20 30 31 32 33	WATERSHED, ENGINEERING & O&M (RARITAN SYSTEM)	6,408,195	(85,349)		24,132	1,154,419		90,464	4,384	18,700	(25,350)	7,689,593
		11,616,810	0	0	0	0	0	0	0	0	(25,350)	11,591,460
40-60	MANASQUAN SYSTEM	4,373,457									25,350	4,398,807
		\$15,990,267	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$15,990,267

See accompanying notes to Financial Schedules.  
 See independent accountant's report.

NEW JERSEY WATER SUPPLY AUTHORITY  
 SCHEDULE OF SYSTEM-WIDE ALLOCATED COSTS  
 YEAR ENDED JUNE 30, 2014

ALLOCATION BASIS

DEPT. #	DEPT./COST CENTER	REVISED COST CENTER COSTS	SQ. FT. #	# OF TELEPHONES	# OF EMPLOYEES	100 % RARITAN O&M	# OF EMPLOYEES	# OF P.O.s	# OF COMPUTERS	MGD CONTRACTS	O&M BUDGET	# OF VEHICLES	# OF VEHICLES	TIME ESTIMATE	ALLOCATED COST CENTER COSTS
	BUILDING HQ	\$81,432	(891,432)												
	TELEPHONE HQ	\$73,113	0	(\$73,113)											
36	SAFETY	\$175,790	611	803	(\$177,204)										
37	SECURITY	\$839,879	3,128	3,214	14,368	(\$860,589)									
14	HUMAN RESOURCES	\$380,782	3,767	3,214	4,789	0	(\$392,582)								
16	PURCHASING	\$280,948	4,156	2,410	3,193	0	8,011	(\$298,718)							
17	INFORMATION SYSTEMS	\$170,075	867	803	1,596	0	4,006	8,741	(\$186,088)						
15	CONTRACTS & RISK MGMT.	\$274,959	2,706	1,607	3,193	0	8,011	8,646	(\$305,767)						
13	FINANCIAL MGMT	\$893,726	7,884	5,624	11,175	0	28,039	7,684	29,907	0	(\$984,039)				
34	AUTO SHOP	\$373,524	12,840	1,607	1,586	0	4,006	15,080	6,646	0	28,672	0	(\$443,971)		
35	AUTO SHOP-CANAL	\$218,568	0	1,607	1,586	0	4,006	13,543	3,323	0	16,777	0	(\$259,420)		
10	EXEC OFFICE	\$239,071	10,925	5,624	1,596	0	4,006	1,729	6,646	0	18,351	0	0	(\$287,949)	
20 30 31 32 33	WATERSHED, ENGINEERING & O&M (RARITAN SYSTEM)	\$7,599,593	34,547	46,800	92,595	880,589	228,321	129,688	96,367	274,735	582,583	443,971	259,420	258,434	\$10,897,423
40-60	MANASQUAN SYSTEM	\$4,398,807	0	0	41,507	0	104,146	113,628	36,553	31,032	337,656	0	0	29,515	5,092,844
		\$15,990,267	(\$0)	\$0	(\$0)	\$0	\$0	(\$0)	\$0	(\$0)	\$0	(\$0)	\$0	\$0	\$15,990,267

See accompanying notes Financial Schedules.  
 See independent accountant's report.

NEW JERSEY WATER SUPPLY AUTHORITY  
 SCHEDULE OF COST ALLOCATION FACTORS  
 YEAR ENDED JUNE 30, 2014

REQUIRED STATISTICS

DEPT. #	ALLOCATION OF: ALLOCATION BASIS:	BUILDING HQ SQ. FT. #	TELEPHONES # OF TELEPHONES	SAFETY # OF EMPLOYEES	HUMAN RESOURCES # OF EMPLOYEES	PURCHASING # OF P.O.'S	INFORMATION SYSTEMS # OF COMPUTERS	RISK MGMT MGD CONTRACTS	FINANCE O&M FUNCTIONAL COST	AUTO SHOP # OF VEHICLES	AUTO SHOP CANAL # OF VEHICLES	EXEC. OFF TIME ESTIMATE
36	BUILDING HQ	110	1									
37	TELEPHONE HQ	563	4	9								
14	SAFETY	678	4	3								
16	HUMAN RESOURCES	748	3	2	2							
17	PURCHASING	156	1	1	1	91						
15	INFORMATION SYSTEMS	487	2	2	2	90	2					
13	CONTRACTS & RISK MGMT.	1,419	7	7	7	80	9	0				
34	FINANCIAL MGMT	2,311	2	1	1	157	2	0	\$373,524			
35	AUTO SHOP	0	2	1	1	141	1	0	\$218,568			
10	AUTO SHOP-CANAL	1,967	7	1	1	18	2	0	239,071	0		
20 30 31 32 33	EXEC OFFICE	6,218	58	58	57	1,360	29	182	7,589,593	43	43	89.75
40-60	WATERSHED, ENGINEERING & O&M (PARITAN SYSTEM) MANASQUAN SYSTEM		26	26	26	1,183	11	21	4,398,807			10.25
		14,857	91	111	98	3,110	56	203	\$12,819,563	43	43	100 %

See accompanying notes Financial Schedules.  
 See independent accountants report.



NEW JERSEY WATER SUPPLY AUTHORITY  
 SCHEDULE OF MANASQUAN SYSTEM ALLOCATED COSTS  
 YEAR ENDED JUNE 30, 2014

COSTS	ALLOCATION BASIS					ALLOCATED COSTS
	1 TIME STUDY	2 \$ VALUE OF VEHICLES	3 \$ VALUE OF EQUIPMENT	4 TIME STUDY	5 VALUE OF WATER CONTRACTS	
<u>GENERAL &amp; ADMINISTRATIVE</u>						
SALARIES & FRINGES	\$2,583,980					
		<u>(\$2,583,980)</u>				
VEHICLE RELATED	67,424					
		<u>(\$67,424)</u>				
MAINT. SUPPLIES & RELATED	37,904					
			<u>(\$37,904)</u>			
OFFICE & MISC.	32,794					
			<u>(\$32,794)</u>			
H.Q. OVERHEAD	719,387					
				<u>(\$719,387)</u>		
RESERVOIR	830,454			15,307	624,339	\$2,690,284
TREAT./TRANS.	820,901			17,487	95,048	2,402,560
	<u>\$0</u>	<u>\$0</u>	<u>\$0</u>	<u>\$0</u>	<u>(\$0)</u>	
	<u>\$5,092,844</u>					<u>\$5,092,844</u>

See accompanying notes Financial Schedules.  
 See independent accountant's report.

NEW JERSEY WATER SUPPLY AUTHORITY  
NOTES TO SCHEDULES  
YEAR ENDED JUNE 30, 2014

A. GENERAL

The New Jersey Water Supply Authority as part of its annual budget and rate making process performs a two step cost allocation calculation. During the first step, the Authority calculates its actual expenses by Cost Center. For purposes of this calculation the Authority uses the following Cost Centers:

- Building Headquarters
- Telephone Headquarters
- Safety
- Security
- Human Resources
- Purchasing
- Information Systems
- Contracts & Risk Management
- Financial Management
- Auto Shop
- Auto Shop - Canal
- Executive Office
- Engineering, Watershed Management, Operations and Maintenance (Raritan System)
- Manasquan System

In deriving expenses by Cost Center several expense reclassifications are made on the Schedule of Cost Center Expense Reclassification as follows:

1. Heating and electricity expenses related to Building Headquarters ("HQ") and Executive Office are reclassified from Engineering & Operations and Maintenance ("O&M").
2. Vehicular fuel expense related to Auto Shop is reclassified from Purchasing.
3. Professional fees related to O & M are reclassified from the various departments to which they have been charged.
4. Insurance premium expense related to the Raritan System is reclassified from Risk Management.
5. Telephone expense is reclassified from Purchasing to a separate Telephone HQ Cost Center.
6. Permit expense related to the Raritan System is reclassified from Risk Management and Purchasing.
7. Workers' compensation expense related to the Raritan System is reclassified from Risk Management.
8. In-lieu taxes related to the Raritan System are reclassified from Risk Management.
9. Chief Engineer Salary & Fringe Expenses related to the Manasquan System are reclassified from the Engineering Department.

See independent accountant's report.

NEW JERSEY WATER SUPPLY AUTHORITY  
NOTES TO SCHEDULES  
YEAR ENDED JUNE 30, 2014

The second step entails a step-down allocation of eleven of the Authority's Cost Centers to the Raritan and Manasquan System Cost Centers. In making this step-down allocation the Authority allocates cost as follows:

1. Building HQ is allocated to each of the cost centers based on the amount of space utilized.
2. Telephone HQ is allocated to each of the cost centers based on the number of telephones utilized.
3. Safety is allocated to each of the Cost Centers based on the number of employees.
4. Security is allocated entirely to the Raritan System.
5. Human Resources is allocated to each of the Cost Centers based on the number of employees.
6. Purchasing is allocated to each of the respective Cost Centers based on the number of purchase orders issued.
7. Information Systems is allocated to each of the Cost Centers based on the number of computers.
8. Risk Management is allocated to each of the Cost Centers based on the number of employees.
9. Financial Management is allocated based on a percentage of the four remaining Cost Centers' budgets.
10. Auto Shop and Auto Shop-Canal is allocated based on the number of vehicles used.
11. Executive Office is allocated based on the amount of executive time utilized in managing each of the Systems.

See independent accountant's report.

NEW JERSEY WATER SUPPLY AUTHORITY  
NOTES TO SCHEDULES  
YEAR ENDED JUNE 30, 2014

B. MANASQUAN SYSTEM ALLOCATED COST

The Manasquan Water Supply System's direct and allocated costs are then allocated between the Reservoir System and the Water Treatment Plant/Transmission System. In making this allocation the Authority adds to each System's direct expenses, the indirect costs allocated as follows:

1. Salaries and Fringe Benefits are allocated based on actual time studies performed by each employee throughout Fiscal Year 2014.
2. Vehicle related expenses are allocated based on the dollar value of vehicles held by each System.
3. Maintenance Supplies and related expenses are allocated based on the dollar value of capital equipment held by each System.
4. Office and miscellaneous expenses are allocated based on the time studies performed by each employee throughout Fiscal Year 2014.
5. Headquarters Overhead expenses are allocated based on the value of water contracts for each System.

See independent accountant's report.