

**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 NO CHANGE IN OPERATING EXPENSE FOR FISCAL YEAR 2022**

**ADJUSTMENT OF SOURCE WATER PROTECTION FUND COMPONENT TO REFLECT NO CHANGE IN COMPONENT RATE FOR FISCAL YEAR 2022**

**ADJUSTMENT OF DEBT SERVICE COST COMPONENTS TO REFLECT BOND YEAR PAYMENTS DUE AND REQUIRED FOR FISCAL YEAR 2022**

**ADJUSTMENT OF NEW JERSEY ENVIRONMENTAL INFRASTRUCTURE FINANCING PROGRAM DEBT COMPONENT TO REFLECT BOND YEAR PAYMENTS DUE AND REQUIRED FOR FISCAL YEAR 2022**

**ADJUSTMENT OF CAPITAL FUND COMPONENT RATE FOR INITIAL AND DELAYED WATER PURCHASE CONTRACT CUSTOMERS TO REFLECT NO CHANGE FOR FISCAL YEAR 2022**

**Proposed Effective Date: July 1, 2021**

**Approved: 11/2/2020**

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

**Overview of Rate Proposal for Fiscal Year 2022**

(July 1, 2021 - June 30, 2022)

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, 2021.

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 of 15.008mgd (15.695mgd at July 1, 1990 and 14.980mgd at July 1, 2015) and Shorelands (.028mgd) delayed water contract effective July 1, 2006:**

Component	Current (FY2021) Rates Per MG 7/1/2020 – 6/30/2021	Proposed (FY2022) Rates Per MG 7/1/2021 – 6/30/2022
Operations & Maintenance Component	\$445.82	\$445.82
Source Water Protection Fund Component	15.00	15.00
NJEIFP Debt Component	24.93	24.93
Capital Fund Component	525.00	525.00
<b>TOTAL RATE</b>	<b>\$1,010.75/mg</b>	<b>\$1,010.75/mg</b>

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

Component	Current (FY2021) Rates Per MG 7/1/2020 – 6/30/2021	Proposed (FY2022) Rates Per MG 7/1/2021 – 6/30/2022
Operations & Maintenance Component	\$445.82	\$445.82
Source Water Protection Fund Component	15.00	15.00
Debt Service Cost Component	438.92	438.92
NJEIFP Debt Component	24.93	24.93
Capital Fund Component	200.00	200.00
<b>TOTAL RATE</b>	<b>\$1,124.67/mg</b>	<b>\$1,124.67/mg</b>

The General Rate Schedule for Operations and Maintenance (O&M) was last adjusted effective July 1, 2020 to cover the operating expenses of the System for FY2021. The FY2021 sales base was 19.443 million gallons per day (mgd). The Authority anticipates that the applicable raw water O&M sales base for FY2021 will remain the same at 19.443 mgd. The initial sales base will remain the same at 15.008mgd and 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 \$3,138,801 in O&M component revenue required during FY2022 with an O&M rate component of \$445.82 per million gallons, no change from FY2021, starting on July 1, 2021 (Schedule 20, page 41). The proposed operating expense budget for FY2022 is \$200,640 more than FY2021 and the proposed Capital Equipment Budget, net of depreciation reserve, is \$2,800 more than FY2021. In FY2022 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, the same as in FY2021. In FY2022 there will be no contribution to the Other Post-Employment Benefits Reserve and no Supplemental Renewal and Replacement Fund contribution. The OPEB Reserve is fully funded. See Budget Summary on page 19.

The Manasquan Reservoir system owes \$79,801 to the SMMUA Water Treatment Plant and Transmission System for actual FY2020 salary and fringe expenses. This amount will be applied to the CY2021 SMMUA budget (Schedule 15, pages 34-36).

Miscellaneous revenue and interest income in FY2022 is projected to increase by \$145,580 relative to FY2021 reflecting an increase in the use of year end surplus and excess debt service coverage available from FY2020 (Schedule 17, page 38), offset in part by lower interest earnings (Schedule 16, page 37). Overdraft revenue of \$37,573 is available from 2020.

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 were 15 and 25 years respectively. The bond proceeds also fully funded the Debt Service Reserve Account.

On April 26, 2016, the Authority issued \$17,460,000 in Manasquan Reservoir Water Supply System Refunding Bonds, Series 2016. The proceeds, together with other monies on deposit, were used to prepay \$23,242,358 in Manasquan Reservoir Water Supply System Revenue Bonds, Series 2005 and Current Manasquan State Loan Notes and Completion Notes. The Refunding Bonds carry a bond yield of 1.59 percent, and mature in incremental annual principal amounts through 2031. The debt service component of the rate represents 120 percent of the principal and interest requirements and debt service coverage must remain at 120 percent through the life of the bonds.

The current refunding resulted in a difference between the par amount of the refunding bonds and the par amount of the refunded bonds of \$5,782,358. The net premium on the refunding bonds was \$1,821,414. The economic gain was a net present value debt savings of \$2,999,861.

The Debt Service component of the rate for the Delayed Water Purchase Contracts (DWP) will be \$438.92 per million gallons, no change from FY2021. The portion of debt related to Initial Water Purchase Contracts was retired effective August 1, 2020, and the associated Debt Service component was eliminated in FY2021.

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 decreased the rate component by \$5.00 per million gallons from \$15.00 to \$10.00 for this fund in FY2016. In order to cover program needs the Authority increased the rate by \$5.00 per million gallons to restore the rate to \$15.00 per million gallons in FY2018. The Authority recommends no change to the rate of \$15.00 per million gallons in FY2022.

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 \$24.93 per million gallons in FY2022 is required to cover debt service payments in accordance with the schedule and is no change from the FY2021 rate.

A capital fund rate component was established in the Manasquan System for Initial Water Purchase Contracts (\$525.00/mg) and Delayed Water Purchase Contracts (\$200.00/mg) in FY2021 to provide for long-term capital needs that will allow for the proper maintenance, rehabilitation and/or replacement of the system facilities. As critical structures, including dams, continue to age in the 30 year old Manasquan System, the Authority believes it is prudent to maintain a similar rate component that would fund related capital needs. The Authority recommends no change to the rate of \$525.00 per million gallons for Initial Water Purchase Contract customers and \$200.00 per million gallons for Delayed Water Purchase Contract customers in FY2022.

For Initial Water Purchase Contract customers, the base contract O&M Rate (\$445.82), Source Water Protection Program Rate (\$15.00), NJEIFP Debt Rate (\$24.93) and Capital Fund Component (\$525.00) comprise the total base contract rate for raw water of \$1,010.75 per million gallons, and represents no change in the rate relative to FY2021. This base contract rate is charged to all uninterruptible service contracts executed prior to July 1, 1990 (and renewed at July 1, 2015), the commencement date of Manasquan Reservoir System operations, and one Delayed Water Purchase contract with Shorelands Water Company (recently acquired by New Jersey American) 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 Contract customers in FY2022 is \$1,124.67 per million gallons, representing no change relative to the FY2021 delayed water purchase rate. The O&M Component (\$445.82), the Source Water Protection Fund Component (\$15.00), the Debt Service Rate Component (\$438.92), the NJEIFP Debt Rate (\$24.93) and the Capital Fund Component (\$200.00) comprise the total rate.

Table 1 (page 15) 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, 2021 through June 30, 2022. These rates are based upon the projected operating costs and reflect an estimated contracted sales base of 19.443mgd.

Table 2 (page 16) is a twenty-year history of the total initial water purchase contract annual water rate.

Table 3 (page17) 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, 2021, January 10, 2022, April 10, 2022 and July 10, 2022.

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 7, 2021.

A public hearing on the proposed rate adjustment is scheduled at 11:00 a.m. on Thursday, February 4, 2021. The public hearing record is scheduled to close on March 15, 2021.

Further information regarding the dial-in information or location for the pre-public hearing meeting and for the public hearing will be posted on the Authority's website at <https://www.njwsa.org/public-notice.html> at least 15 days prior to the date of the meeting/hearing.

The Authority will take final action on the proposed rate adjustment at its May 3, 2021 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 FY2020 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 FY2022 budget based on the FY2020 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, 2020. The percentages used to provide the basis for the salary allocation for FY2022 were established from historical time records and estimated future workload relative to both Systems. 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 21).

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 FY2022.

### **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 were renewed effective July 1, 2015 and expire June 30, 2040. 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. Of the 13 contracts, six 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 and the New Jersey American

Contract. One is a three party contract (Keyport Borough) among the Authority, the customer and Shorelands Water Company (recently acquired by New Jersey American) for the delivery of water through Shorelands' distribution system. Six contracts (the Boroughs of Avon, Belmar, Matawan, Red Bank and Lake Como, and Shorelands (recently acquired by New Jersey American)) are three party contracts among the Authority, the customers and New Jersey American for the provision of treated water from New Jersey American. The total sales base dropped from 20.560 to 19.443 mgd effective July 1, 2015 and remains the total for FY2022.

### Overview of Projected Operational Expenses

The Authority's proposed FY2022 Manasquan Reservoir Total Expense budget is \$200,640 more than the current FY2021 budget. The allocation of Authority Headquarters General and Administrative Expenses in FY2022 increases \$41,000 versus FY2021. Capital Equipment budget for FY2022 is \$2,800 more than FY2021. There will be no FY2022 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 \$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. There will be a normal contribution to the Renewal and Replacement Fund of \$120,000. There will be no contribution to the reserve for other post-employment benefits (accrued sick leave payments for retirees) which was created in FY2017. Miscellaneous revenue and interest income increases by \$145,580. These factors contribute to an \$18 increase in the total FY2022 O&M Component requirement relative to FY2021 (\$3,138,801 vs. \$3,138,783). (Budget Summary on page 19).

Total O&M Direct Expenses are increasing by \$110,464 from FY2021, largely due to increases in insurance and sediment removal expenses. General and Administrative Expenses allocated to the Reservoir System are increasing by \$2,253 from FY2021.

### Salaries, Overtime and Benefits

Authority employees within the Communications Workers of America (CWA), the International Federation of Professional Technical Engineers (IFPTE) and the International Brotherhood of Electrical Workers (IBEW) are currently operating under a contract that expires on June 30, 2023. The FY2022 budget assumes a 2.0 percent cost of living adjustment payable July 1, 2021 and another 2.0 percent cost of living adjustment payable in December of 2021 which was deferred from July of 2020 as a result of the 2020 COVID State Emergency Memorandum of Agreement Between the Communications Workers of America and the State of New Jersey and subsequently by agreement with the other unions. The IFPTE/AFL-CIO represents the Authority's Maintenance, Craft and Security Units and the CWA represents the Authority's Administrative and Clerical, Primary Level and Higher Level Supervisors Units. The IBEW represents one management employee.

The Authority did not include any cost of living adjustments in the FY2022 budget for management. The Authority is budgeting 48 percent of the Salary budget for fringe benefits in FY2022, exclusive of retiree medical.

Pension expense payable to the state of New Jersey on April 1, 2021 is anticipated to be approximately \$250,000 for the Manasquan System. The Authority has budgeted \$283,700 for this line item in FY2022. The average increase in actual payments to Treasury for pension contributions since FY2017 is 3.7 percent. Although increases have stabilized in the last three years, there is still a level of uncertainty in this expense item because the pension system remains significantly underfunded.

Total salary and fringe is increasing by \$157,300 for FY2022 from FY2021, and the portion allocated to the Reservoir System is increasing by \$87,922. The increase is due in large part to contractual salary increases and increases in health care costs. In FY2022, 48 percent of total salary and fringe is allocated to the Reservoir System and 52 percent to the Treatment Plant. The number of budgeted positions in FY2022 is 27, which is the same as FY2021. (Schedule 2, page 21).

### **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. Those who attain 25 years on or after July 1, 1997 share some portion of post-retirement health benefit costs with the employer as determined by union contract or bargaining unit agreement. The Authority retiree health benefits expense item is increasing in FY2022 from \$99,800 to \$158,500. The Authority is budgeting three additional retirees in FY2022. The Centers for Medicare and Medicaid Services (CMS) estimates that national health care spending will increase at an annual rate of 5.7 percent from 2018-2027. The Authority used actual 2020 rates and budgeted 5.7 percent and 5.7 percent increases for calendar years 2021 and 2022, respectively. The budget contains sufficient funds for ten retired employees.

### **Insurance Program**

The Authority is recommending a \$62,364 increase in insurance expenses for FY2022, reflecting general market conditions as assessed by the Authority's insurance broker/ risk consultant, and based on a recent recalculation of relative asset values. Broker services are remarketed every three years and the insurance program is renewed on March 1.

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.

### **Headquarters General and Administrative Expenses**

Budgeted Headquarters General and Administrative Expenses in FY2022 total \$732,719 of which \$632,117 is charged to the Manasquan Reservoir System and \$100,602 is charged to the Manasquan Water Treatment Plant (Schedule 13, page 32). Because actual audited Headquarters Expenses were lower than the budget for FY2020 by \$58,677, that difference must be credited in FY2022 resulting in an adjusted charge to the Reservoir System of \$583,000. Headquarters charges

are driven primarily by salary and fringe.

### **Interest Income and Miscellaneous Revenue**

The projected interest earnings on reserve funds for FY2022 are \$43,300. This reflects a decrease of \$40,500 relative to FY2021 and is based upon an interest rate of .5 percent for short-term investments (See Schedule 16, page 37). In recent years, the Authority has been able to substantially increase earnings on funds held in bank accounts by consolidating banking relationships.

### **Reserve Contributions**

Consistent with FY2021, there will be no FY2022 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 regular \$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. There were two new reserve fund contributions in FY2017 which will not be funded in FY2022. There was a supplemental contribution of \$350,000 to the Renewal and Replacement Fund in FY2017 that is not required in FY2022. The Authority requires a minimum balance of \$2 million in the fund to cover dam emergencies, and pipeline and pump emergent repairs. Because the system is aging, there are normal maintenance expenditures included in the five year plan that would have drawn the fund down below the \$2 million requirement without the supplemental deposit. Finally, the Authority funded a reserve for other post-employment benefits (accrued sick leave) in FY2017 in order to assure that sufficient funds are available to pay out sick benefits as this number is not regularly budgeted in salary and fringe.

### **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. Long term investment earnings are being used to fund the Depreciation Reserve.

#### **Self Insurance Reserve**

The Self Insurance Fund 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 FY2022.

### 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 must equal 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 was fully funded as of June 30, 2016 and as a result, no contribution will be needed in FY2022.

### 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, 2020 was \$4,169,211. 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 and 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, 2020 is \$1,490,356. Because of overall rate considerations in prior years, the Authority reduced the Source Water Protection Fund Component from \$15.00 per million gallons to \$10.00 per million gallons in FY2016 and FY2017 and reinstated the rate to \$15.00 per million gallons in FY2018 to ensure adequate funding for these initiatives. The Authority proposes no change to the rate in FY2022.

### **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 FY2022.

**PART II – DETAILED SUPPORTING INFORMATION**

NEW JERSEY WATER SUPPLY AUTHORITY  
MANASQUAN RESERVOIR WATER SUPPLY SYSTEM

**Table 1 - Summary of Proposed Fiscal Year 2022 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 (14.980mgd), and Shorelands (.028mgd) delayed water contract effective July 1, 2006:**

I. July 1, 2021 to June 30, 2022

Rate Component	Current	Original Proposal 11/02/20	Difference	Percentage Increase (Decrease)
Operations & Maintenance Expense Component	\$445.82	\$445.82	\$0.00	0.00%
Source Water Protection Fund Component	\$15.00	\$15.00	\$0.00	0.00%
NJEIFP Debt Component	\$24.93	\$24.93	\$0.00	0.00%
Capital Fund Component	\$525.00	\$525.00	\$0.00	--
Total Rate	\$1,010.75/mg	\$1,010.75/mg	\$0.00/mg	0.00%

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, 2021 to June 30, 2022

Rate Component	Current	Original Proposal 11/02/20	Difference	Percentage Increase (Decrease)
Operations & Maintenance Expense Component	\$445.82	\$445.82	\$0.00	0.00%
Source Water Protection Fund Component	\$15.00	\$15.00	\$0.00	0.00%
Debt Service Cost Component	\$438.92	\$438.92	\$0.00	0.00%
NJEIFP Debt Component	\$24.93	\$24.93	\$0.00	0.00%
Capital Fund Component	\$200.00	\$200.00	\$0.00	--
Total Rate	\$1,124.67/mg	\$1,124.67/mg	\$0.00/mg	0.00%

NEW JERSEY WATER SUPPLY AUTHORITY  
MANASQUAN RESERVOIR WATER SUPPLY SYSTEM

**Table 2 - Rate History of Water Charges per Million Gallons of Raw Water - Initial  
FY2003-FY2022**

Initial Water Purchaser 14.980 mgd July 1, 2015  
Shorelands .028 mgd 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>Capital Fund Component</u>	<u>Total Charge per MG</u>	<u>Percent Increase (Decrease)</u>
July 1, 2002	212.35		582.62			\$794.97	-0.37%
July 1, 2003	201.14	15	578.83			\$794.97	0.00%
July 1, 2004	321.69	15	584.95			\$921.64	15.93%
July 1, 2005	295.41	15	584.6			\$895.01	-2.89%
July 1, 2006	295.41	15	522.86			\$833.27	-6.90%
July 1, 2007	302.52	15	528.54			\$846.06	1.53%
July 1, 2008	302.52	15	566.59			\$884.11	4.50%
July 1, 2009	396.79	15	568.26			\$980.05	10.85%
July 1, 2010	396.79	15	568.69			\$980.48	0.04%
July 1, 2011	347.39	15	618.09	35.42		\$1,015.90	3.61%
July 1, 2012	345.95	15	619.53	35.42		\$1,015.90	0.00%
July 1, 2013	356.61	15	619.87	24.42		\$1,015.90	0.00%
July 1, 2014	356.61	15	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%
July 1, 2016	432.87	10.00	636.61	25.10		\$1,104.58	4.46%
July 1, 2017	432.87	15.00	570.55	24.93		\$1,043.35	-5.54%
July 1, 2018	432.87	15.00	570.55	24.93		\$1,043.35	0.00%
July 1, 2019	432.87	15.00	570.55	24.93		\$1,043.35	0.00%
July 1, 2020	445.82	15.00	0.00	24.93	525.00	\$1,010.75	-3.12%
<b>July 1, 2021</b>	<b>445.82</b>	<b>15.00</b>	<b>0.00</b>	<b>24.93</b>	<b>525.00</b>	<b>\$1,010.75</b>	<b>0.00%</b>



NEW JERSEY WATER SUPPLY AUTHORITY  
MANASQUAN RESERVOIR WATER SUPPLY SYSTEM

**Table 3 - Rate History of Water Charges per Million Gallons of Raw Water - Delayed**  
FY2008-FY2022

Delayed Water Purchaser NJ-American 1 mgd July 1, 2001  
1.935 mgd October 1, 2002  
1.500 mgd 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>Capital Fund Component</u>	<u>Total Charge per MG</u>	<u>Percent Increase (Decrease)</u>
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%
July 1, 2016	432.87	10.00	770.07	25.10		\$1,238.04	3.96%
July 1, 2017	432.87	15.00	664.96	24.93		\$1,137.76	-8.10%
July 1, 2018	432.87	15.00	664.96	24.93		\$1,137.76	0.00%
July 1, 2019	432.87	15.00	664.96	24.93		\$1,137.76	0.00%
July 1, 2020	445.82	15.00	438.92	24.93	200.00	\$1,124.67	-1.15%
<b>July 1, 2021</b>	<b>445.82</b>	<b>15.00</b>	<b>438.92</b>	<b>24.93</b>	<b>200.00</b>	\$1,124.67	0.00%

NEW JERSEY WATER SUPPLY AUTHORITY  
MANASQUAN RESERVOIR WATER SUPPLY SYSTEM

**Schedule of Events**

(N.J.A.C. 7:11-4.1 et.seq.)  
To become effective July 1, 2021

**2020**

- SEPTEMBER 28 Advise Water Users of informal meeting.
- OCTOBER 29 Informal meeting with Water Users – 11:00 AM.
- NOVEMBER 2 Board reviews and approves proposed Rates.
- DECEMBER 18 Mail Official Notice to water customers, Rate Payer Advocate, interested parties and advertise in newspapers.

**2021**

- JANUARY 4 Publication in the New Jersey Register.
- 7 Pre-Public Hearing – 11:00 AM (within 45 days of Official Notice).  
Deadline for responses to inquires received prior to pre-public hearing.
- FEBRUARY 1 Deadline for receipt of comments to be addressed at Public Hearing  
(15 days after pre-public hearing).
- 4 Public Hearing Meeting. (Manasquan Administration Building) – 11:00  
AM Deadline for responses to inquires received between pre-public and  
public hearing.
- 22 Written responses to questions raised at Hearing (within 10  
business days of the public hearing).
- MARCH 5 NJ Register Comment Period Ends.
- 15 Public Hearing record closes (25 business days after  
Public Hearing).
- MAY 3 Board approval of FY 2022 Rates & Budget
- JULY 1 Effective date.

NEW JERSEY WATER SUPPLY AUTHORITY  
MANASQUAN RESERVOIR WATER SUPPLY SYSTEM

**Proposed Fiscal Year 2022 Budget Summary**

(07/01/21-06/30/22)

	ADOPTED F/Y2021 <u>Reservoir Budget</u>	PROPOSED F/Y2022 <u>Reservoir Budget</u>
Proposed Operating Expense Budget (Schedule 1)	\$ 2,560,530	\$ 2,761,170
Allocation of Headquarters General & Administrative Expenses to the Manasquan Reservoir System (Schedule 13)	<u>\$ 542,000</u>	<u>\$ 583,000</u>
Proposed Total Expense Budget	\$ 3,102,530	\$ 3,344,170
Proposed Capital Equipment Budget (Schedule 14)	\$ 14,900	\$ 17,700
Contribution to Reserve Funds		
- Sediment Reserve	\$ 10,000	\$ 10,000
- Formal Dam Inspection Reserve	\$ 5,000	\$ 5,000
- Renewal & Replacement Fund	\$ 120,000	\$ 120,000
- High Voltage Testing Reserve	\$ 15,000	\$ 15,000
- Other Post Employment Benefits Reserve	\$ -	\$ -
- Supplemental Renewal & Replacement	\$ -	\$ -
Adjustment for F/Y20 Salary and Fringe Expenses to be paid (from)/to WTP/TS Account (Schedule 15)	\$ -	\$ 79,801
Adjustment for F/Y19 Salary and Fringe Expenses to be paid (from)/to WTP/TS Account	<u>\$ 178,643</u>	<u>\$ -</u>
Total Budget Requirements	<u>\$ 3,446,073</u>	<u>\$ 3,591,671</u>
Interest Earnings on Funds (Except Renewal and Replacement and Depreciation Reserve Fund) (Schedule 16)	\$ (83,800)	\$ (43,300)
Unanticipated Revenue (Schedule 17)	<u>\$ (223,490)</u>	<u>\$ (409,570)</u>
Total Miscellaneous Revenue & Interest Income	<u>\$ (307,290)</u>	<u>\$ (452,870)</u>
Net Amount to be paid for O & M Component	<u>\$ 3,138,783</u>	<u>\$ 3,138,801</u>

NEW JERSEY WATER SUPPLY AUTHORITY  
MANASQUAN RESERVOIR WATER SUPPLY SYSTEM

**Schedule 1 - Total Operations & Maintenance Budget**

Fiscal Year 2022

	F/Y2020 Reservoir Actual	F/Y2021 Reservoir Adopted	F/Y2022 Reservoir Proposed
Salaries & Fringe Benefits (Schedule 2)*	\$1,350,790	\$1,415,510	\$1,503,432
O & M Direct Expense (Schedule 3)	766,347	1,005,936	1,116,400
G&A Expenses (Schedule 5)	<u>71,761</u>	<u>139,086</u>	<u>141,339</u>
Total Operations & Maintenance Budget	<u>\$2,188,898</u>	<u>\$2,560,532</u>	<u>\$2,761,172</u>
Estimate	<u>\$2,188,900</u>	<u>\$2,560,530</u>	<u>\$2,761,170</u>

Summary of O & M Expenses for Reservoir and Treatment Plant/Transmission System

	F/Y2020 Actual		F/Y2021 Adopted		F/Y2022 Proposed	
	Reservoir	WTP/TS	Reservoir	WTP/TS	Reservoir	WTP/TS
Salaries/Fringe*	\$1,169,504	\$1,139,829	\$1,415,510	\$1,583,760	\$1,503,432	\$1,653,098
O & M Direct Expense	859,321	618,647	1,005,936	864,000	1,116,400	909,916
G & A Expense	<u>133,543</u>	<u>89,907</u>	<u>139,086</u>	<u>99,414</u>	<u>141,339</u>	<u>101,161</u>
Total	\$2,162,369	\$1,848,383	\$2,560,532	\$2,547,174	\$2,761,172	\$2,664,174

\*Actual fringe includes GASB 68 non-cash Pension expense

NEW JERSEY WATER SUPPLY AUTHORITY  
MANASQUAN RESERVOIR WATER SUPPLY SYSTEM

**Schedule 2 - Labor Projection**  
Fiscal Year 2022 (7/01/21-6/30/22)

TITLES	RANGE	SALARY	FRINGE BENEFITS	OVERTIME	CLOTHING ALLOWANCE	SHIFT DIFFERENTIAL	TOTAL	ALLOCATION RESERVOIR %	AMOUNT RESERVOIR	ALLOCATION WTP/TS %	AMOUNT WTP/TS
Director	36	137,400	76,412	-	-	-	213,812	50%	106,910	50%	106,900
Project Engineer II	26	94,300	52,442	-	-	-	146,742	51%	75,229	49%	71,511
Water Supply Tech.	17	66,500	37,288	-	550	-	104,338	62%	64,671	38%	39,669
Administrative Assistant	18	70,600	39,335	129	-	-	110,064	50%	55,100	50%	54,930
Supervisor Technical Facilities Maint	23	88,600	53,849	7,678	550	-	150,677	47%	70,055	54%	80,645
Sr. Water Supply Tech.	20	77,300	43,789	889	550	-	122,528	43%	52,676	57%	69,865
Maintenance Worker I	10	48,600	27,334	-	550	-	76,484	93%	71,394	7%	5,086
Supervisor Operations	29	113,400	63,065	-	-	-	176,465	25%	43,283	76%	133,177
Equipment Operator	12	48,100	27,249	347	550	-	76,246	94%	71,570	6%	4,630
Foreman Bldg & Grounds Maint	19	77,300	43,572	499	550	-	121,921	94%	114,138	6%	7,782
Foreman Facilities Maintenance	20	77,000	44,114	1,774	550	-	123,438	47%	57,803	53%	65,657
Facilities Mechanic (3 Positions)	18	199,100	112,670	1,849	1,650	-	315,269	48%	151,135	52%	164,085
Supervisor Plant Operator	22	83,600	48,910	3,797	550	-	136,857	37%	50,325	63%	86,535
Maintenance Worker I Operations	10	48,600	27,371	67	550	-	76,588	92%	70,295	8%	6,325
Reservoir System Operator (5 Positions)	15	236,600	148,921	26,533	2,750	1,900	416,704	97%	405,717	3%	10,953
Asst. Reservoir System Operator	13	-	-	-	-	-	-	95%	-	5%	-
Plant Operator (3 Positions)	20	220,200	142,005	33,496	1,650	-	397,351	6%	23,811	94%	373,539
Plant Operator (3 Positions)	19	217,500	139,779	32,193	1,650	-	391,122	5%	19,321	95%	371,809
TOTAL: (rounded)		<u>1,904,700</u>	<u>1,128,100</u>	<u>109,250</u>	<u>12,650</u>	<u>1,900</u>	<u>3,156,600</u>		<u>1,503,432</u>		<u>1,653,098</u>

TOTAL = 27 Positions

Director and Adm. Assistant, Water Supply Tech and Sr. Water Supply Tech percentages modified based on work load. All others are four-year average.

NOTE: A. PERCENTAGES ARE FROM THE AVERAGE OF FISCAL YEARS 2015 THROUGH 2018 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

NEW JERSEY WATER SUPPLY AUTHORITY  
MANASQUAN RESERVOIR WATER SUPPLY SYSTEM

**Schedule 3 - Reservoir System Operations and Maintenance Direct Expense Budget**  
Proposed F/Y 2022, Adopted F/Y 2021, and Actual F/Y 2018-2020

Cost Center: Reservoir Direct  
(40)

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

CODE	ACCOUNT	FY '18 ACTUAL	FY '19 ACTUAL	FY '20 ACTUAL	FY '21 ADOPTED	FY '22 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					
5210	Heating Fuel			399	800	900
5220	Utilities -Electrical Service	76,695	74,899	70,058	90,500	90,500
5230	-Gas Service	6,759	6,451	6,415	8,000	8,000
5240	-Propane					
5250	Electricity for Pumping Station	218,469	171,380	206,599	305,000	305,000
5260	Fuel - Vehicular					
5270	Oil & Grease					
5280	Tires					
5290	Maintenance Supplies	5,244	5,615	9,671	4,000	4,000
5300	Maint. Supplies - Vehicular					
5310	Major Vehicle Service & Repair					
5320	Agricultural Supplies					
5330	Maintenance Equipment	28,963	55,396	42,721	51,500	51,500
5340	Serv. & Maintenance Contracts	17,379	56,735	39,953	43,450	43,450
5350	Equipment Rental	4,400	2,340	11,105	6,500	6,500
5360	Household - Safety Supplies	835	766	2,518	1,000	1,000
5370	Uniforms					
5380	Special & Professional Services	130,420	72,226	68,971	138,686	138,686
5390	Protective Services	232,093	242,258	259,993	266,200	328,564
5400	Telephone	7,204	8,157	9,285	8,000	8,000
5410	Postage & Freight Out					
5420	Data Processing					
5430	Printing & Office Supplies	964	966	714	1,500	1,500
5440	Scientific & Photographic	2,258	751	2,524	5,500	5,500
5450	Dues & Subscriptions					
5460	Advertising & Promotional	433			2,000	2,000
5480	Staff Training & Tuition Aid					
5490	Fees & Permits	31,080	31,510	31,680	36,500	37,500
5500	In - Lieu Taxes	36,756	36,896	36,756	36,800	36,800
5510	Sediment Removal	29,724		59,961		47,000
5520	Chemicals					
5525	Carbon Filter Replacement					
	Total Other Expenses	\$829,677	\$766,347	\$859,321	\$1,005,936	\$1,116,400
	Total Operating Expenses	\$829,677	\$766,347	\$859,321	\$1,005,936	\$1,116,400
	<b>ANNUAL BUDGET</b>	<b>\$1,049,600</b>	<b>\$1,019,652</b>	<b>\$1,008,584</b>	<b>\$1,005,936</b>	<b>\$1,116,400</b>

NEW JERSEY WATER SUPPLY AUTHORITY  
MANASQUAN RESERVOIR WATER SUPPLY SYSTEM

**Schedule 4 - Treatment Plant/Transmission System Operations and Maintenance Direct**

**Expense Budget**

Proposed F/Y 2022, Adopted F/Y 2021, and Actual F/Y 2018-2020

Cost Center: Treat/Trans Direct  
(50)

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

CODE	ACCOUNT	FY '18 ACTUAL	FY '19 ACTUAL	FY '20 ACTUAL	FY '21 ADOPTED	FY '22 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					
5210	Heating Fuel	0	0	2,043	6,000	6,000
5220	Utilities -Electrical Service	269,231	251,242	255,320	304,500	304,500
5230	-Gas Service	24,309	26,630	24,720	31,000	31,000
5240	-Propane					
5250	Electricity for Pumping Station					
5260	Fuel- Vehicular					
5270	Oil & Grease	1,365	1,220	1,317	4,000	4,000
5280	Tires					
5290	Maintenance Supplies	4,217	6,603	6,983	6,000	6,000
5300	Maint. Supplies - Vehicular					
5310	Major Vehicle Service & Repair					
5320	Agricultural Supplies	64				
5330	Maintenance Equipment	44,048	91,668	32,057	112,500	98,500
5340	Serv. & Maintenance Contracts	22,084	26,485	35,593	42,000	56,000
5350	Equipment Rental	1,507	5,542	763	3,000	3,200
5360	Household - Safety Supplies	216	688	1,260	2,000	2,000
5370	Uniforms					
5380	Special & Professional Services	28,673	28,904	23,710	34,800	34,800
5390	Protective Services	79,836	80,035	80,832	85,700	113,736
5400	Telephone	481	516	539	1,000	1,000
5410	Postage & Freight Out	969	1,652			
5420	Data Processing					
5430	Printing & Office Supplies	5,077	8,266	2,343	9,800	9,800
5440	Scientific & Photographic	11,868	11,998	10,663	13,000	13,800
5450	Dues & Subscriptions					
5460	Advertising & Promotional	587	287	260	1,000	1,000
5470	Travel & Subsistence	55	59	12		
5480	Staff Training & Tuition Aid	5,102	1,843	0	6,700	6,700
5490	Fees & Permits	5,621	9,262	6,141	9,600	11,080
5500	In - Lieu Taxes	0	0	140	400	400
5510	Residual Removal	4,466	4,500	0	15,000	15,400
5520	Water Treatment Chemicals	88,979	134,833	132,813	131,000	131,000
5525	GAC Replacement	49,871	42,000		45,000	60,000
5528	Reimb of O&M Capital Expenditures	3,725	12,546	1,138		
	Total Other Expenses	\$652,350	\$746,777	\$618,647	\$864,000	\$909,916
	Total Operating Expenses	\$652,350	\$746,777	\$618,647	\$864,000	\$909,916
	ANNUAL BUDGET	\$941,860	\$929,660	\$855,400	\$864,000	\$909,916

NEW JERSEY WATER SUPPLY AUTHORITY  
MANASQUAN RESERVOIR WATER SUPPLY SYSTEM

**Schedule 5 - Reservoir System General and Administrative Operations and Maintenance**

**Direct Expense Budget**

Proposed F/Y 2022, Adopted F/Y 2021, and Actual F/Y 2018-2020

Cost Center: G & A

(60)

MANASQUAN WATER SUPPLY SYSTEM  
GENERAL & ADMINISTRATIVE  
EXPENSE BUDGET

CODE	ACCOUNT	FY '18 ACTUAL	FY '19 ACTUAL	FY '20 ACTUAL	FY '21 ADOPTED	FY '22 PROPOSED
5110	Regular Salaries & Wages	\$1,761,247	\$1,747,505	\$1,744,737	\$1,835,950	\$1,919,250
5120	Overtime-Salaries & Wages	77,313	80,779	71,499	109,250	109,250
5130	New positions-Salaries & Wages					
5140	Seasonal Help-Salaries & Wages					
5150	Fringe Benefits	928,393	996,747	554,954	949,300	964,600
5160	Retiree Health Benefits	125,373	(149,260)	(184,085)	99,800	158,500
5168	Workers Comp. (Self-Insured)	1,006	1,453	701	5,000	5,000
	Total Salary, Wages & Fringe	\$2,893,334	\$2,677,224	\$2,187,807	\$2,999,300	\$3,156,600
	Budget - salary and fringe					
5200	Residences					
5210	Heating Fuel					
5220	Utilities -Electrical Service					
5230	-Gas Service					
5240	-Propane					
5250	Electricity for Pumping Station					
5260	Fuel - Vehicular	20,387	22,463	13,896	22,750	22,750
5270	Oil & Grease	865	6,797	3,628	5,700	5,700
5280	Tires	5,873	5,740	8,905	7,000	7,000
5290	Maintenance Supplies	10,278	8,457	7,890	27,300	27,300
5300	Maint. Supplies - Vehicular	6,022	8,656	9,703	10,600	10,600
5310	Major Vehicle Service & Repair	39,086	22,121	18,290	52,000	52,000
5320	Agricultural Supplies	2,876	5,219	1,787	8,600	8,600
5330	Maintenance Equipment	4,412	5,574	2,734	17,100	17,100
5340	Serv. & Maintenance Contracts	13,066	11,723	18,620	22,550	26,550
5350	Equipment Rental	2,348	2,307	2,411	4,300	4,300
5360	Household - Safety Supplies	8,145	5,655	11,830	7,500	7,500
5370	Uniforms					
5380	Special & Professional Services	7,099	7,469	7,395	7,700	7,700
5390	Protective Services					
5400	Telephone	6,304	6,008	5,714	7,000	7,000
5410	Postage & Freight Out	447	1,166	1,078	1,200	1,200
5420	Data Processing	4,417	3,558	2,427	5,000	5,000
5430	Printing & Office Supplies	2,242	3,659	2,528	5,800	5,800
5440	Scientific & Photographic	91	0	0	300	300
5450	Dues & Subscriptions	1,085	1,215	1,197	3,000	3,000
5460	Advertising & Promotional	1,379	1,214	459	2,000	2,000
5470	Travel & Subsistence	70	306	470	1,000	1,000
5480	Staff Training & Tuition Aid	5,920	4,251	2,512	12,400	12,400
5490	Fees & Permits	2,794	5,211	3,265	7,700	7,700
5500	In - Lieu Taxes					
5510	Residual Removal					
5520	Water Treatment Chemicals					
5525	GAC Replacement					
	Total Other Expenses	\$145,206	\$138,769	\$126,739	\$238,500	\$242,500
	Total Operating Expenses	\$3,038,539	\$2,815,993	\$2,314,546	\$3,237,800	\$3,399,100
	Budget- other expenses					
	<b>TOTAL ANNUAL BUDGET</b>					
	Reservoir System	\$84,508	\$71,761	\$133,543	\$139,086	\$141,339
	Treatment/Transmission System	\$60,698	\$67,008	\$89,907	\$99,414	\$101,161



NEW JERSEY WATER SUPPLY AUTHORITY  
MANASQUAN RESERVOIR WATER SUPPLY SYSTEM

**Schedule 6 - List of Category 5340 Items Recommended Service & Maintenance Contracts**

**For Reservoir (40)**

Fiscal Year 2022

		Adopted F/Y21	Proposed F/Y22
		<u>          </u>	<u>          </u>
1	HVAC/Dehumidifier Service	\$ 500	\$ 500
2	Instrumentation & Control System Service/Upgrade	3,000	3,000
3	Electrical Upgrade & Repair	14,000	14,000
4	Overhead Crane Service & Inspection	3,000	3,000
5	Fire & Intrusion Alarm Service	1,500	1,500
6	Potable Well/Septic Service	1,500	1,500
7	Fertilization-Dam Dike	3,750	3,750
8	Roadway Crack Sealing	3,000	3,000
9	Wood Debris Removal	2,500	2,500
10	Access Roadway Repairs	2,500	2,500
11	Roofing System Maintenance & Repair	4,000	4,000
12	Reservoir Transmission Line Clearing	3,000	3,000
13	Fios Fiber Optic for Security Cameras	<u>1,200</u>	<u>1,200</u>
	Total Service & Maintenance Contracts	<u>\$ 43,450</u>	<u>\$ 43,450</u>

NEW JERSEY WATER SUPPLY AUTHORITY  
MANASQUAN RESERVOIR WATER SUPPLY SYSTEM

**Schedule 7 - List of Category 5340 Items Recommended Service & Maintenance Contracts**

**For WTP/TS (50)**

Fiscal Year 2022

		Adopted F/Y21	Proposed F/Y22
1	HVAC Service	\$ 2,000	\$ 2,000
2	Electrical Service Contract	1,500	1,500
3	Instrumentation & Control System Service & Upgrade	6,000	6,000
4	Electrical Upgrade & Repair	4,000	4,000
5	Overhead Crane Service	3,000	3,000
6	UST Monitors Service and Upgrade	1,000	2,000
7	Fire & Intrusion Alarm Service	1,200	3,600
8	Air Compressor Service	1,200	500
9	Boiler Service	2,500	500
10	Auxiliary Generator Service	3,500	3,500
11	Lab Equipment Service	2,500	3,000
12	Backflow Preventor Service	500	500
13	Gas-Fired Hot Water Heater Service	700	-
14	Instrumentation & Control System Service & Upgrade (Transmission System)	5,000	-
15	Electrical Upgrade & Repair (Transmission System)	2,000	-
16	Meter Vault Internet Service (Transmission System)	5,400	-
17	UPS Battery PM Service and Batteries	-	3,500
18	Four Year Electrical Switchgear Testing Service	-	10,000
Total Service & Maintenance Contracts		<u>\$ 42,000</u>	<u>\$ 43,600</u>

NEW JERSEY WATER SUPPLY AUTHORITY  
MANASQUAN RESERVOIR WATER SUPPLY SYSTEM

**Schedule 8 - List of Category 5340 Items Recommended Service & Maintenance Contracts**

**For G & A (60)**

Fiscal Year 2022

		<u>Adopted F/Y21</u>	<u>Proposed F/Y22</u>
1	Refuse & Waste Disposal	\$ 2,000	\$ 2,000
2	Office Equipment/Computers	1,800	1,800
3	Waste Oil Disposal	200	200
4	Fire Extinguisher Service	1,100	1,100
5	UST Monitor Service	2,000	2,000
6	Building Maintenance	1,750	1,750
7	Internet Service	2,000	2,000
8	Janitorial Service	8,000	8,000
9	Vehicle Lift Inspection	500	500
10	Generator Service & Maintenance	2,000	2,000
11	Forklift Service & Maintenance	1,200	1,200
12	Underground Fuel Storage Tank Service	-	4,000
	Total Service & Maintenance Contracts	<u>\$ 22,550</u>	<u>\$ 26,550</u>

NEW JERSEY WATER SUPPLY AUTHORITY  
MANASQUAN RESERVOIR WATER SUPPLY SYSTEM

**Schedule 9 - List of Category 5380 Items Recommended Special & Professional Service For**

**Reservoir (40)**

Fiscal Year 2022

		Adopted F/Y21	Proposed F/Y22
1	Laboratory Services - Water Quality Sampling	\$ 10,000	\$ 10,000
2	Consultant Services - Dam Inspection	15,000	15,000
3	Services-USGS Cooperative Agreement	34,000	34,000
4	Annual Trustee Fund	9,500	9,500
5	Dam Management-Surveying	2,500	2,500
6	Wetland Monitoring Management	8,000	8,000
7	Lake Management Consultants	20,000	20,000
8	Engineering Services	4,000	4,000
9	Financial Advisory Services	4,850	4,850
10	USGS Gaging Station Squankum	30,836	30,836
	Total Special & Professional Services	\$ 138,686	\$ 138,686

NEW JERSEY WATER SUPPLY AUTHORITY  
MANASQUAN RESERVOIR WATER SUPPLY SYSTEM

**Schedule 10 - List of Category 5380 Items Recommended Special & Professional Services**

**For WTP/TS (50)**

Fiscal Year 2022

		Adopted F/Y21	Proposed F/Y22
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	11,000	11,000
5	Underground Markout Service (Transmission System)	1,800	-
	Total Special & Professional Services	\$ 34,800	\$ 33,000

NEW JERSEY WATER SUPPLY AUTHORITY  
 MANASQUAN RESERVOIR WATER SUPPLY SYSTEM

**Schedule 11 - List of Category 5380 Items Recommended Special & Professional Services**

**For G & A (60)**

Fiscal Year 2022

		<u>Adopted</u> F/Y21	<u>Proposed</u> F/Y22
1	Pulmonary Testing	\$ 1,500	\$ 1,500
2	CDL Medical Testing	1,000	1,000
3	EAS Service	4,000	4,000
4	Pre-Employment Physicals	<u>1,200</u>	<u>1,200</u>
	Total Special & Professional Services	<u><u>\$ 7,700</u></u>	<u><u>\$ 7,700</u></u>

NEW JERSEY WATER SUPPLY AUTHORITY  
MANASQUAN RESERVOIR WATER SUPPLY SYSTEM

**Schedule 12 - Projected FY 2022 New Jersey Water Supply Authority Insurance Program**

<u>Policy</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	\$581,916	\$254,075	\$75,585	\$911,576
<b>General/Products Liability</b> Limit \$1 million Deduct: \$150k	\$121,481	\$11,358	\$2,359	\$135,198
<b>Environmental Impairment Liability</b> Limit \$10 million Deduct: \$100k	\$24,261	\$2,268	\$471	\$27,000
<b>Workers' Compensation</b> Limit \$1 million	\$153,012	\$22,554	\$24,434	\$200,000
<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	\$319,971	\$29,915	\$6,211	\$356,098
<b>Business Automobile</b> Limit: \$1 million G/L, \$0 pd Deduct: \$50k, G/L	\$27,363	\$3,662	\$1,240	\$32,264
<b>Management Liability</b> Public Officials Liability Cyber Risk Fidelity & Crime Limit \$5 million/\$1million/\$1 million Deduct: \$100k/\$10k/\$50k	\$43,553 \$6,386 \$49,939	\$4,072 \$597 \$4,669	\$845 \$124 \$2,453 \$3,422	\$48,470 \$7,107 \$2,453 \$58,031
<b>Travel Accident</b> Limit \$2 million	\$674	\$63	\$13	\$750
<b>TOTAL:</b>	\$1,278,616	\$328,564	\$113,736	\$1,720,916

NEW JERSEY WATER SUPPLY AUTHORITY  
MANASQUAN RESERVOIR WATER SUPPLY SYSTEM

**Schedule 13 - Recap of Allocation of Headquarters General and Administrative Expenses  
Charged To the Manasquan Reservoir Water Supply System**

Fiscal Year 2022 (7/1/21-6/30/22)

	<b>Total Headquarters Charge</b>	<b>Manasquan Reservoir System</b>	<b>Manasquan WTP/TS</b>
Budgeted-Appendix I, amount to be charged to Manasquan System for FY22 (7/1/21-6/30/22)	\$732,719	\$632,117	\$100,602
F/Y20 Adjustment as per audited Expenditures:			
Budgeted as per rate schedule for F/Y20 (7/1/19-6/30/20). Amounts paid during F/Y20 to Raritan Basin System.	\$660,000	\$568,000	\$92,000
Actual allocation based upon audited expenditures F/Y20 (7/1/19-6/30/20) - Appendix II	<u>\$601,323</u>	<u>\$518,747</u>	<u>\$82,576</u>
Adjustments F/Y20	<u>(\$58,677)</u>	<u>(\$49,253)</u>	<u>(\$9,424)</u>
Net Allocation for F/Y2022 Budget	<u><u>\$674,042</u></u>	<u><u>\$582,864</u></u>	<u><u>\$91,178</u></u>
Estimate	<u>\$674,000</u>	<u>\$583,000</u>	<u>\$92,000</u>



NEW JERSEY WATER SUPPLY AUTHORITY  
MANASQUAN RESERVOIR WATER SUPPLY SYSTEM

**Schedule 14 - Proposed Capital Equipment Budget**

Fiscal Year 2022

Description	(A)Addition (R)Replacemer	Year of Purchase Vehicle/Equipment	Dollar Value	%	Manasquan Reservoir	Manasquan WTP/TS	Reservoir Depreciation Reserve	WTP/TS Depreciation Reserve
REPLACE VEHICLE 65 CHEVY SILVERADO Z71	R	2007	53,000	50/50	26,500	26,500	8,846	5,897
BARNSTEAD MP3A GLASS STILL	A		10,000	0/100	0	10,000		
<b>TOTAL</b>			<b>63,000</b>		<b>26,500</b>	<b>36,500</b>	<b>8,846</b>	<b>5,897</b>
*Per Resolution #861, dated 7/12/93 Asset Definition minimum is \$1,000.					0			
Less Amount charged to Reservoir Depreciation Reserve						8,846		
Less Amount charged to WTP/TS Depreciation Reserve							5,897	
Total					17,654	30,603		
Additional Depreciation Reserve							0	
Estimate					\$17,700	\$30,603		

NEW JERSEY WATER SUPPLY AUTHORITY  
MANASQUAN RESERVOIR WATER SUPPLY SYSTEM

**Schedule 15 - July, 2019 – June, 2020 Fiscal Year 2020 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 PLANT OPERATOR*								
TIME SPLIT		0%	100%	0%	100%			
REGULAR	68,133	0.00	68,133	0.00	68,133	0.00	0.00	0.00
CLOTH.	550	0.00	550	0.00	550	0.00	0.00	0.00
O.T.	6,289	0.00	6,289	0.00	6,289	0.00	0.00	0.00
FRINGE	18,061	0.00	18,061	0.00	18,061	0.00	0.00	(0.00)
7 7330 RESERVOIR SYSTEM OPERATOR								
TIME SPLIT		97%	3%	88%	12%			
REGULAR	48,676	47,216	1,460	42,835	5,841	4,380.86	(4,380.86)	
CLOTH.	550	534	17	484	66	49.50	(49.50)	
O.T.	4,620	4,481	139	4,065	554	415.76	(415.76)	
FRINGE	13,694	13,283	411	12,051	1,643	1,232.49	(1,232.49)	
19 7335 PLANT OPERATOR*								
TIME SPLIT		3%	97%	3%	97%			
REGULAR	62,771	1,883	60,888	1,883	60,888	0.00	(0.00)	
CLOTH.	550	17	534	17	534	0.00	0.00	
O.T.	6,126	184	5,943	184	5,943	(0.00)	0.00	
FRINGE	17,168	515	16,653	515	16,653	0.00	0.00	
20 7933 PLANT OPERATOR*								
TIME SPLIT		2%	98%	2%	98%			
REGULAR	54,826	1,097	53,729	1,097	53,729	(0.00)	0.00	
CLOTH.	550	11	539	11	539	0.00	0.00	
O.T.	7,876	158	7,719	158	7,719	(0.00)	0.00	
FRINGE	9,583	192	9,391	192	9,391	0.00	(0.00)	
12 8172 FACILITES MECHANIC								
TIME SPLIT		48%	52%	47%	53%			
REGULAR	65,826	31,597	34,230	30,938	34,888	658.26	(658.26)	
CLOTH.	550	264	286	259	292	5.50	(5.50)	
O.T.	191	92	99	90	101	1.91	(1.91)	
FRINGE	18,713	8,982	9,731	8,795	9,918	187.12	(187.12)	
26 9373 ASST. RESERVOIR SYSTEM OPER-WSA								
TIME SPLIT		97%	3%	100%	0%			
REGULAR	41,530	40,284	1,246	41,530	0	(1,245.90)	1,245.90	
CLOTH.	550	534	17	550	0	(16.50)	16.50	
O.T.	5,002	4,852	150	5,002	0	(150.07)	150.07	
FRINGE	13,100	12,707	393	13,100	0	(392.99)	392.99	
27 10574 PROJECT ENGINEER 11								
TIME SPLIT		51%	49%	97%	3%			
REGULAR	85,080	43,391	41,689	82,528	2,552	(39,136.80)	39,136.80	
CLOTH.	-	0	0	0	0	0.00	0.00	
O.T.	-	0	0	0	0	0.00	0.00	
FRINGE	25,316	12,911	12,405	24,556	759	(11,645.19)	11,645.19	
9 12976 FAC. MECHANIC - WSA								
TIME SPLIT		48%	52%	47%	53%			
REGULAR	65,826	31,597	34,230	30,938	34,888	658.26	(658.26)	
CLOTH.	550	264	286	259	292	5.50	(5.50)	
O.T.	334	160	174	157	177	3.35	(3.35)	
FRINGE	18,144	8,709	9,435	8,528	9,617	181.44	(181.44)	
16 16220 FOREMAN BUILDING & GROUNDS MAINT - WSA								
TIME SPLIT		94%	6%	94%	6%			
REGULAR	72,953	68,576	4,377	68,576	4,377	(0.00)	0.00	
CLOTH.	550	517	33	517	33	0.00	0.00	
O.T.	1,012	951	61	951	61	0.00	(0.00)	
FRINGE	22,255	20,919	1,335	20,919	1,335	0.00	0.00	

NEW JERSEY WATER SUPPLY AUTHORITY  
MANASQUAN RESERVOIR WATER SUPPLY SYSTEM

**Schedule 15 (Continued) July, 2019 – June, 2020 Fiscal Year 2020 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
14 23959 FOREMAN FACILITIES MAINT.		47%	53%	43%	57%		
REGULAR	72,953	34,288	38,665	31,370	41,583	2,918.12	(2,918.12)
CLOTH.	550	259	292	237	314	22.00	(22.00)
O.T.	1,166	548	618	502	665	46.65	(46.65)
FRINGE	22,064	10,370	11,694	9,487	12,576	882.56	(882.56)
13 26529 SR. WATER SUPPLY TECH. -WSA		43%	57%	46%	54%		
REGULAR	72,953	31,370	41,583	33,558	39,395	(2,188.59)	2,188.59
CLOTH.	550	237	314	253	297	(16.50)	16.50
O.T.	106	45	60	49	57	(3.17)	3.17
FRINGE	21,806	9,377	12,429	10,031	11,775	(654.17)	654.17
5 36810 MAINT. WORKER 1		93%	7%	97%	3%		
REGULAR	45,880	42,668	3,212	44,504	1,376	(1,835.20)	1,835.20
CLOTH.	550	512	39	534	17	(22.00)	22.00
O.T.	-	0	0	0	0	0.00	0.00
FRINGE	13,186	12,263	923	12,790	396	(527.42)	527.42
17 41950 PLANT OPERATOR*		0%	100%	0%	100%		
REGULAR	72,163	0	72,163	0	72,163	0.00	0.00
CLOTH.	550	0	550	0	550	0.00	0.00
O.T.	7,333	0	7,333	0	7,333	0.00	0.00
FRINGE	24,072	0	24,072	0	24,072	0.00	(0.00)
18 47397 SUPERVISOR TECH. ASST. & FAC. MAINT.		47%	53%	50%	50%		
REGULAR	78,692	36,985	41,706	39,346	39,346	(2,360.75)	2,360.75
CLOTH.	550	259	292	275	275	(16.50)	16.50
O.T.	2,613	1,228	1,385	1,307	1,307	(78.40)	78.40
FRINGE	22,195	10,432	11,763	11,098	11,098	(665.85)	665.85
21 48759 ASST. RESERVOIR SYSTEM OPERATOR		95%	5%	98%	2%		
REGULAR	38,053	36,151	1,903	37,292	761	(1,141.60)	1,141.60
CLOTH.	-	0	0	0	0	0.00	0.00
O.T.	2,525	2,398	126	2,474	50	(75.74)	75.74
FRINGE	11,179	10,620	559	10,956	224	(335.38)	335.38
3 50121 SUPERVISOR OPERATIONS MWSS-WSA		25%	75%	28%	72%		
REGULAR	103,556	25,889	77,667	28,996	74,560	(3,106.68)	3,106.68
CLOTH.	-	0	0	0	0	0.00	0.00
O.T.	-	0	0	0	0	0.00	0.00
FRINGE	27,532	6,883	20,649	7,709	19,823	(825.96)	825.96
8 23970 RESERVOIR SYS OPERATOR		95%	5%	98%	2%		
REGULAR	38,319	36,403	1,916	37,553	766	(1,149.57)	1,149.57
CLOTH.	-	0	0	0	0	0.00	0.00
O.T.	3,553	3,376	178	3,482	71	(106.60)	106.61
FRINGE	10,994	10,444	550	10,774	220	(329.82)	329.82
1 50461 DIR. MWS/D&R CANAL OPERATIONS		50%	50%	50%	50%		
REGULAR	120,074	60,037	60,037	60,037	60,037	(0.00)	0.00
CLOTH.	-	0	0	0	0	0.00	0.00
O.T.	-	0	0	0	0	0.00	0.00
FRINGE	28,626	14,313	14,313	14,313	14,313	0.00	(0.00)
2 50802 ADMIN. ASSISTANT		50%	50%	50%	50%		
REGULAR	66,540	33,270	33,270	33,270	33,270	0.00	(0.00)
CLOTH.	-	0	0	0	0	0.00	0.00
O.T.	-	0	0	0	0	0.00	0.00
FRINGE	19,442	9,721	9,721	9,721	9,721	0.00	0.00

NEW JERSEY WATER SUPPLY AUTHORITY  
MANASQUAN RESERVOIR WATER SUPPLY SYSTEM

**Schedule 15 (Continued) July, 2019 – June, 2020 Fiscal Year 2020 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
11 63738 SUPERVISING PLANT OPERATOR		37%	63%	36%	64%		
REGULAR	77,681	28,742	48,939	27,965	49,716	776.82	(776.82)
CLOTH.	550	204	347	198	352	5.50	(5.50)
O.T.	1,095	405	690	394	701	10.96	(10.96)
FRINGE	22,934	8,485	14,448	8,256	14,677	229.34	(229.34)
6 69555 MAINT WORKER I		92%	8%	96%	4%		
REGULAR	45,880	42,210	3,670	44,045	1,835	(1,835.20)	1,835.20
CLOTH.	550	506	44	528	22	(22.00)	22.00
O.T.	-	0	0	0	0	0.00	0.00
FRINGE	13,186	12,131	1,055	12,658	527	(527.42)	527.42
24 81185 RESERVOIR SYSTEM OPERATOR		97%	3%	97%	3%		
REGULAR	39,449	38,266	1,183	38,266	1,183	0.00	(0.00)
CLOTH.	275	267	8	267	8	0.00	0.00
O.T.	4,807	4,663	144	4,663	144	0.00	(0.00)
FRINGE	12,802	12,418	384	12,418	384	0.00	(0.00)
23 87000 PLANT OPERATOR*		5%	95%	5%	95%		
REGULAR	68,911	3,446	65,465	3,446	65,465	0.00	(0.00)
CLOTH.	550	28	523	28	523	0.00	0.00
O.T.	6,922	346	6,576	346	6,576	(0.00)	0.00
FRINGE	20,586	1,029	19,557	1,029	19,557	0.00	(0.00)
10 87750 EQUIPMENT OPERATOR		94%	6%	92%	8%		
REGULAR	43,230	40,636	2,594	39,771	3,458	864.60	(864.60)
CLOTH.	550	517	33	506	44	11.00	(11.00)
O.T.	319	300	19	294	26	6.39	(6.39)
FRINGE	12,457	11,709	747	11,460	997	249.13	(249.13)
15 88875 WATER SUPPLY TECH - WSA		62%	38%	92%	8%		
REGULAR	61,021	37,833	23,188	56,139	4,882	(18,306.16)	18,306.16
CLOTH.	550	341	209	506	44	(165.00)	165.00
O.T.	-	0	0	0	0	0.00	0.00
FRINGE	18,087	11,214	6,873	16,640	1,447	(5,426.12)	5,426.12
22 91500 FAC. MECHANIC-WSA		48%	52%	47%	53%		
REGULAR	54,351	26,088	28,262	25,545	28,806	543.52	(543.52)
CLOTH.	550	264	286	259	292	5.50	(5.50)
O.T.	198	95	103	93	105	1.98	(1.98)
FRINGE	15,379	7,382	7,997	7,228	8,151	153.80	(153.80)
25 93000 PLANT OPERATOR*		3%	97%	3%	97%		
REGULAR	68,133	2,044	66,089	2,044	66,089	0.00	(0.00)
CLOTH.	550	17	534	17	534	0.00	0.00
O.T.	9,411	282	9,128	282	9,128	0.00	(0.00)
FRINGE	20,538	616	19,922	616	19,922	0.00	(0.00)
	(60)	(40)	(50)	(40)	(50)	(40)	(50)
REGULAR	1,733,462.20	821,965.16	911,497.04	883,471.15	849,991.05	(61,505.99)	61,505.99
CLOTH.	11,275.00	5,546.75	5,728.25	5,700.75	5,574.25	(154.00)	154.00
O.T.	71,499.42	24,565.32	46,934.10	24,492.28	47,007.14	73.04	(73.04)
FRINGE	493,096.84	237,625.83	255,471.01	255,840.25	237,256.59	(18,214.42)	18,214.42
GRAND TOTAL	<u>2,309,333.46</u>	<u>1,089,703.06</u>	<u>1,219,630.40</u>	<u>1,169,504.43</u>	<u>1,139,829.03</u>	<u>(79,801.37)</u>	<u>79,801.37</u>
		47.19%	52.81%	50.64%	49.36%		

\*PLANT OPERATORS ADJUSTED TO ACTUAL %S  
ORIGINAL %S AS FOLLOWS:

C. BENNETT	5%/95%	M. BOUSQUET	6%/94%
L. BRANCH	6%/94%	JOHN TESTA	5%/95%
R. KARECKY	6%/94%	C. ZIEGLER	5%-95%

NEW JERSEY WATER SUPPLY AUTHORITY  
MANASQUAN RESERVOIR WATER SUPPLY SYSTEM

**Schedule 16 - Estimate of Interest Income**

Fiscal Year 2022 Budget

Fund/Reserve	TD Bank Funds	
Operating	\$6,500,000	
Reserve for O & M	1,500,000	
General Reserve (Rate Stabilization Fund)	40,000	
Pumping Reserve	150,000	
Self-Insurance Reserve	200,000	
Sediment Reserve	275,000	
Estimated Total	\$8,665,000	
	\$8,665,000 x.5% =	\$43,325
	Total	\$43,325
	Estimate	\$43,300

Note: Long-term investment earnings are being used to fund depreciation reserve.

NEW JERSEY WATER SUPPLY AUTHORITY  
MANASQUAN RESERVOIR WATER SUPPLY SYSTEM

**Schedule 17 - Unanticipated Revenue**

Funds to be Appropriated into Rate Stabilization fund for Fiscal Year 2022

	Amount																				
F/Y2020 Net Year-End Balance	\$ 256,000																				
Excess D/S Coverage FY2021	\$ 116,000																				
<table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left; border-bottom: 1px solid black;">Overdraft</th> <th style="text-align: left; border-bottom: 1px solid black;">Invoice No.</th> <th style="text-align: left; border-bottom: 1px solid black;">Inv. Date</th> <th style="text-align: right; border-bottom: 1px solid black;">Amount</th> </tr> </thead> <tbody> <tr> <td>NJ American</td> <td>MM-352</td> <td>Jan-20</td> <td style="text-align: right;">\$ 18,830</td> </tr> <tr> <td></td> <td>MM-358</td> <td>Mar-20</td> <td style="text-align: right;">\$ 9,791</td> </tr> <tr> <td></td> <td>MM-359</td> <td>Apr-20</td> <td style="text-align: right;">\$ 7,575</td> </tr> <tr> <td></td> <td>MM-361</td> <td>May-20</td> <td style="text-align: right;">\$ 1,377</td> </tr> </tbody> </table>	Overdraft	Invoice No.	Inv. Date	Amount	NJ American	MM-352	Jan-20	\$ 18,830		MM-358	Mar-20	\$ 9,791		MM-359	Apr-20	\$ 7,575		MM-361	May-20	\$ 1,377	
Overdraft	Invoice No.	Inv. Date	Amount																		
NJ American	MM-352	Jan-20	\$ 18,830																		
	MM-358	Mar-20	\$ 9,791																		
	MM-359	Apr-20	\$ 7,575																		
	MM-361	May-20	\$ 1,377																		
Used in FY21	\$ -																				
Available for use in FY22	\$ 37,573																				

Additional Sources

<b>Total Available</b>	<b>\$ 409,573</b>
<b>Estimate for FY22</b>	<b>\$ 409,570</b>

NEW JERSEY WATER SUPPLY AUTHORITY  
MANASQUAN RESERVOIR WATER SUPPLY SYSTEM

**Schedule 18 - Fund Balances as of 6/30/20**

\*\*Final\*\*

	REVENUE FUND	OPERATING ACCOUNT	OPERATING FUND	O & M RESERVE	LONG TERM INVESTMENTS O & M RESERVE	TOTAL
BALANCE 6/30/20 (Does not include Debt Service payment)	\$ 309,736	\$ 495,908	\$ 6,473,461	\$ 1,604,939	\$ -	\$ 8,884,044
Add: NJ-American, JCP&L expenses for June 2020			\$ 14,299			14,299
Deduct: Accrued expenses to be paid as of 6/30/20			(56,555)			(56,555)
Deduct: June 10th billing, received			(302,056)			(302,056)
Adjusted Balances 6/30/20	\$ 309,736	\$ 495,908	\$ 6,129,149	\$ 1,604,939	\$ -	\$ 8,539,732
INCOME						
Operating Transfer	(310,000)		310,000			-
Receipt of WTP/TS G&A expenses for the month of June 2020, 7/31/20 billing			317,184			317,184
EXPENSES						
O & M Expenses - (A/P-6/30/20) includes accrued payroll thru 6/30/20			(156,197)			(156,197)
Capital items to be purchased by 6/30/20			(6,500)			(6,500)
Payment of Headquarters overhead expenses - to be paid 7/01			(142,000)			(142,000)
Contributions to Various Reserves- 7/20			(37,500)			(37,500)
ADJUSTED BALANCE AT 6/30/20	\$ (264)	\$ 495,908	\$ 6,414,136	\$ 1,604,939	\$ -	\$ 8,514,719
						Less: O & M Reserve Balance (Goal is 3 months O & M Expenses as dictated by Bond Resolution) (779,358)
 						<b>\$ 7,735,362</b>
Use of Available Funds						
Unanticipated revenues (overdrafts in FY20 to be available to the General Fund for FY22) NJ American Water						\$ (37,573)
Appropriate FY21 net fund balance into the General Fund (Rate Stabilization) to be used for rate stabilization						(223,490)
 						<b>\$ 7,474,299</b>

NEW JERSEY WATER SUPPLY AUTHORITY  
MANASQUAN RESERVOIR WATER SUPPLY SYSTEM

**Schedule 19 - Operations & Maintenance Expense Component and Debt Service Cost**  
**Component Sales Base**  
Projected Fiscal Year 2022

USER	ALLOCATION (mgd)
Avon, Borough of	0.126
Belmar, Borough of	0.288
Brielle, Borough of	0.450
Keyport, Borough of	0.356
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 (recently acquired by NJ American)	2.007
Lake Como, Borough of	0.100
Spring Lake, Borough of	0.310
Spring Lake Heights, Borough of	0.386
Wall Township	2.000
<b>OPERATIONS &amp; MAINTENANCE/DEBT SERVICE SALES BASE</b>	<b>19.443 mgd</b>



NEW JERSEY WATER SUPPLY AUTHORITY  
 MANASQUAN RESERVOIR WATER SUPPLY AUTHORITY

**Schedule 20 - Operations and Maintenance Rate Component (19.443mgd)**

Fiscal Year 2022

Funds Required for F/Y2022 Budget

Total Budget Requirements	\$	3,591,671
Miscellaneous Revenues	\$	(452,870)
Net Budget Requirement	\$	3,138,801
Less - Quarterly O&M payment on July 10, 2021 (cash received in July for water used in April, May and June of 2021 based on \$432.87/mg)	\$	(765,883)
Additional Revenue required from last three (3) Quarterly payments in F/Y2022 to cover Operations & Maintenance expenses through 6/30/22	\$	2,372,919

Computation of Operations & Maintenance Rate for Fiscal Year 2022

Required Operations & Maintenance Rate F/Y2022	$\frac{\$2,372,919}{5,322.52^*}$	=	\$ 445.82/mg
--	----------------------------------	---	--------------

\* Four (4) Quarters Sales =

	19.443 mgd x 365	=	7,096.70mg/yr
Rate Calculation for Required revenues due for payment on 10/10/21, 1/10/22 and 4/10/22:			
Sales Base =			
	7,096.70 x 3/4	=	5,322.52/mg

NEW JERSEY WATER SUPPLY AUTHORITY  
 MANASQUAN RESERVOIR WATER SUPPLY SYSTEM

**Schedule 21 - 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

Delayed Debt Service

Debt Service for Fiscal Year 2022 \$ 581,963

Debt Service Fund Interest Income and Other  
 Available Resources \$ -

Net Debt Service Obligation \$ 581,963

Coverage Requirement = Net Debt Service  
 Obligation x 20% \$ 116,393

Total to be Recovered by Rates \$ 698,355

Debt Service Rate Effective 7/01/21  $\frac{\$ 698,355}{1,618.78\text{mg}}$  = \$ 431.41mg  
 365 x 4.435/mgd = 1,618.78mg

Equalization Factor 7.51  
 \$ 438.92mg

NEW JERSEY WATER SUPPLY AUTHORITY  
 MANASQUAN RESERVOIR WATER SUPPLY SYSTEM

**Schedule 22 - Computation of Base Debt Service Rates**

**INTAKE PUMP STATION BUILDING**

Initial Water Purchasers (14.980 MGD) – 7/01/15  
 Shorelands Delayed Purchase Contract (.028MGD) – 7/01/06  
 NJ American Delayed Purchase Contract (4.435MGD)\*

NJEIFP Debt Service for Fiscal Year 2022	\$	175,717		
Rate Equalization Adjustment	\$	(550)		
Debt Service Rate Effective 7/01/20	\$	175,167	=	\$ 24.68/mg
365 x 19.443/mgd =7,096.70mg		7,096.70mg		
Equalization Factor				0.25
				\$ 24.93/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

**Schedule 23 - 2022 Bond Debt Service Coverage**

Fiscal Year 2022  
(7/1/21-6/30/22)

DEBT SERVICE COVERAGE

	<u>Budgeted F/Y2022</u>
<u>Revenues</u>	
Uninterruptible Water Sales	\$ 7,357,395
Interest Income	<u>\$ 43,300</u>
Total Revenues	<u><u>\$ 7,400,695</u></u>
 <u>Expenses</u>	
O&M Costs	\$ 2,761,170
Overhead Allocation	<u>\$ 583,000</u>
Total O&M	<u><u>\$ 3,344,170</u></u>
Cash Available for Debt Service - A	\$ 4,056,525
Net Debt Service Expense	\$ 581,963
Debt Service Coverage Calculation - A/B	6.97
Cash After Debt Service A-B	\$ 3,474,562

NEW JERSEY WATER SUPPLY AUTHORITY  
MANASQUAN RESERVOIR SYSTEM

**Schedule 24 - Rehabilitation Reserve and Capital Improvement Program**

Manasquan Reservoir Project Description	Renewal & Repl. Reserve	FY2021	FY2022	FY2023	FY2024	FY2025+
Dam Emergency Contingency	\$400,000					
Pipeline Replacement Under I-195	\$950,000					
Pumping Equipment Replacement	\$650,000					
Resize Intake - Motor/Pump, #3		\$110,000				
Replace 8 buried Piezometers in Dam Embankment				\$50,000	\$50,000	
Paving Intake Parking Lot and Administration Parking Area				\$100,000		
Rehabilitation Pump and Motors at Reservoir & Intake Pumping Stations		\$30,000			\$100,000	\$60,000
Air Separation System for RPS electrical Generator		\$4,000				
Security System camera and DVR replacement					\$35,000	
Replace Control Panel at Reservoir IO building			\$35,000			
Drill 4 Piezometer Wells Manasquan Dam		\$35,000	\$100,000			
Replace Road and outdoor building lights		\$16,000				
Addition of Throttling valve RPS pump #1 with LED Style		\$50,000				
Renovation of Traveling Water Screens		\$65,000				
Rehabilitation of T2 transformer and Oil change					\$30,000	
Replace balance of metal roof on Admin portion of RPS building			\$130,000			
Variable Frequency Drive Control Conversion at RPS		\$50,000				
<b>Total*</b>	<b>\$2,000,000</b>	<b>\$360,000</b>	<b>\$265,000</b>	<b>\$150,000</b>	<b>\$215,000</b>	<b>\$60,000</b>
Renewal and Replacement Balance June 2020	\$4,169,211					
Projected Balance End of Fiscal Year with annual regular deposit		\$3,929,211	\$3,784,211	\$3,754,211	\$3,659,211	\$3,719,211
*Minimum Balance Required		\$2,000,000	\$2,000,000	\$2,000,000	\$2,000,000	\$2,000,000
Revised Balance		\$1,929,211	\$1,784,211	\$1,754,211	\$1,659,211	\$1,719,211
Additional Deposit Requirements		\$0	\$0	\$0	\$0	\$0

**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., Director, Manasquan Water Supply System and  
Delaware & Raritan Canal Operations**

**MANASQUAN WATER SUPPLY SYSTEM  
RENEWAL/REPLACEMENT RESERVE & CAPITAL IMPROVEMENT PROGRAM  
Fiscal Years 2021-2025**

## **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 good establishment of turf. On-site maintenance staff has implemented various measures to improve the grass cover on the dams. Continued long-term success of these measures is dependent on continued maintenance and 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 March of 2016. 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. 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.

\$950,000 is included in the Renewal and Replacement Reserve to insert a 66-inch 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 pre-sedimentation pond at the Reservoir Pumping Station. Five (5) 900-horsepower pumps are used at the Reservoir Pumping Station to pump water from the pre-sedimentation 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 with retesting of some units in 2016 through 2020. The reservoir pumps typically operate only 100 hours per year at an average speed of only 630 rpm. Therefore wear on these units is minimal. Additionally, only two of the five river intake pumps have significant hours of use each year. However, 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 6000 KVA electrical transformer. 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 2021-2025**

### **Replace additional Piezometers in the Reservoir Dam Embankment**

It is anticipated that additional piezometer wells will need to be drilled to replace piezometers that fail. Included in this project are the procurement, installation, and set up of the piezometers and communication equipment to the existing ADAS computer system.

### **Resize Intake - Motor/Pump #3**

A 2014 safe yield review has determined that replacing one of the 600-hp motors and pumps 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 was programmed to be designed in calendar year 2017 and constructed in 2020. Design was completed in FY2020. This project will allow a closer match between the anticipated average customer sales from the intake pool and the intake pump capacities. The purchase order agreements were issued in CY 2020. This project is currently under construction and the new pump is set to be installed in November of 2020.

### **Air Separation System for RPS electrical Generator**

An air and oil separation system is need for the existing RPS electrical generator to prevent premature engine failure and improve engine efficiency.

### **Paving Intake Parking Lot and Administration Parking Area**

These parking and access areas are breaking apart and need to be milled and repaved.

### **Drill 4 Piezometer Wells Manasquan Dam**

A Consultant in 2018 reported four points of failure and poor monitoring of the existing embankment monitoring system on the downstream slope of the Manasquan Dam. Four new wells are needed to rectify the monitoring deficiencies that have occurred over the 30 years since the original system was installed. Currently eight of the 35 piezometers measuring water depth in the dam and dike embankments are no longer functioning. Given that the eight are buried they cannot be replaced in-situ. Four new wells are proposed to be drilled at various depths to handle two piezometers each. A separate project will be generated to install and set up communications from the piezometers to the existing ADAS computer system.

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

There are five main vertical turbine pumps with 600-hp motors at the Intake Pumping Station (IPS). There are five main vertical turbine pumps with 900-hp 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, which began in 2003, included 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 once per year. In 2016, all but one were within acceptable performance tolerances. In FY2017, Pump #1 at the intake was fully rehabilitated at a cost of \$40,000.00. In FY 2021 Motor #1 was refurbished at a cost of \$21,000.

### Security System Replacement at the Reservoir

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, the Authority identified critical facilities that require vulnerability assessments and contracted with a consultant to develop a comprehensive security vulnerability assessment (VA) and implementation recommendations. 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.

A web-based seven camera system and DVR was installed for the reservoir embankment and IO tower area and was installed in FY2017. This system will need to be replaced with similar cameras and a new DVR and software by 2022. Also the system at the Administration building will need to be replaced at that time.

### Replace Control Panel at Reservoir IO Building

The control panel at the reservoir I/O tower is aging and the system requires upgrades to maintain reliability.

### Renovation of Traveling Water Screens

The eight traveling water screens at the Intake Pumping Station are in need of service over time. A 2015 inspection found all units to be in good condition except one which was refurbished in 2016. Funding is included to install new reducers, drive sprockets, screen sections, and chain guard assemblies in two more of the remaining seven units. Work on these two units is scheduled for the fall of 2020.

### Addition of 30" Throttling valve RPS pump #1

Addition of a manually operated throttling valve on the discharge of RPS pump #1 will allow this pump to be run across the line at a reduced flow. This will be valuable in pumping water to Oak Glen in the summer or refilling the reservoir at other times of year when a limited amount of water is available to transfer and when the VFD is out of service or being used for pump #2.

### Replace balance of metal roof on Admin portion of RPS building

Two thirds of the metal roof is original to the building in 1990. This portion of the roof needs to be replaced as there are several leaks during driving rains.

### Variable Frequency Drive Control Conversion at the RPS

The existing ASI Robicon Corporation VFDs are controlled by an antiquated computer system for the operation and speed control of the variable frequency drives based on clearwell level. The conversion package would consist of replacing the computer sequencer at the 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 along with expensive computer board repairs. This project is expected to be completed in November 2020.

**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, 2021**

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 19.443 per day sales base)
July 1, [2020] <b>2021</b>	\$445.82

7:11-4.4 Debt Service Cost Component

(a) (No change.)

(b) A 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 Uninterruptible 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 contract 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/ [2020] <b>2021</b> to	(Coverage 120%)
6/30/[2021] <b>2022</b>	\$438.92

(c) (No change.)

7:11-4.5 Capital Fund Component

(a) (No change.)

(b) (No change.)

(c) Capital Fund Assessment – initial water purchase contract customers

<u>Period</u>	<u>Rate/Million Gallons</u>
7/1/[2020] <b>2021</b> to	\$525.00
6/30/[2021] <b>2022</b>	

(d) (No change.)

(e) Capital Fund Assessment – delayed water purchase contract customers

<u>Period</u>	<u>Rate/Million Gallons</u>
7/1/[2020]2021 to	\$200.00
6/30/[2021]2022	

7:11-4.6 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/[2020]2021 to	
6/30/[2021]2022	\$15.00

7:11-4.7 New Jersey Environmental Infrastructure Financing Program debt component

(a) (No change.)

(b) The New Jersey Environmental Infrastructure Financing Program debt component is as follows:

<u>Period</u>	<u>Rate/Million Gallons</u>
7/1/[2020]2021 to	
6/30/[2021]2022	\$24.93

**Appendix I. Report of Mercadien PC – Allocation of Headquarters General and  
Administrative Expenses – FY 2022**

**NEW JERSEY WATER SUPPLY AUTHORITY  
(A COMPONENT UNIT OF THE STATE OF NEW JERSEY)  
AGREED-UPON PROCEDURES REPORT**

FORECASTED COST ALLOCATION SCHEDULES

YEAR ENDING JUNE 30, 2022



**NEW JERSEY WATER SUPPLY AUTHORITY  
(A COMPONENT UNIT OF THE STATE OF NEW JERSEY)**

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## **INDEPENDENT ACCOUNTANT'S REPORT ON APPLYING AGREED-UPON PROCEDURES**

To the Commissioners of  
New Jersey Water Supply Authority

We have performed the procedures enumerated below, which were agreed to by the Commissioners and Authority management, on the forecasted cost allocation schedules of the New Jersey Water Supply Authority (a component unit of the State of New Jersey) (the "Authority"), for the fiscal year ending June 30, 2022. These procedures were performed solely to assist you in evaluating the forecasted cost allocation schedules in connection with 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 preparing and presenting the schedules in accordance with the guidelines for the presentation of schedules established by the American Institute of Certified Public Accountants. The sufficiency of these procedures is solely the responsibility of those parties specified in this report. Consequently, we make no representation regarding the sufficiency of the procedures enumerated below either for the purpose for which this report has been requested or for any other purpose.

1. We were provided with the fiscal year 2022 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 2022 budgeted expenses are based upon preliminary budgets that are subject to approval by the Authority's Commissioners. We performed no procedures in regard to the fiscal year 2022 budgeted expenses.
2. We recalculated the allocated costs on the forecasted cost allocation schedules. We found no exceptions as a result of these procedures.
3. We compared the methodologies used for cost allocation on the forecasted cost allocation schedules to the methodologies used in the Authority's cost allocation schedules for the year ended June 30, 2020, and found them to be consistent.

This agreed-upon procedures engagement was conducted in accordance with attestation standards established by the American Institute of Certified Public Accountants. We were not engaged to and did not conduct an examination or review, the objective of which would be the expression of an opinion or conclusion, respectively, about whether the forecast is presented in accordance with the guidelines for the presentation of a forecast established by the American Institute of Certified Public Accountants or whether the underlying assumptions are suitably supported or provide a reasonable basis for management's forecast. Accordingly, we do not express such an opinion or conclusion. Had we performed additional procedures, other matters might have come to our attention that would have been reported to you.

**INDEPENDENT ACCOUNTANT'S REPORT ON APPLYING AGREED-UPON PROCEDURES  
(CONTINUED)**

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 is not intended to be, and should not be, used by anyone other than these specified parties.

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

October 14, 2020

**NEW JERSEY WATER SUPPLY AUTHORITY  
(A COMPONENT UNIT OF THE STATE OF NEW JERSEY)**

**SCHEDULE OF FORECASTED COST CENTER EXPENSE RECLASSIFICATION  
YEAR ENDING JUNE 30, 2022**

DEPT. #	DEPT./COST CENTER	COST CENTER COSTS	RECLASSIFICATIONS									REVISED COST CENTER COSTS
			1 HEATING/ ELECTRIC	2 VEHICULAR FUEL	3 PROFESSIONAL FEES	4 INSURANCE	5 TELEPHONE	6 PERMITS	7 WORKERS' COMPENSATION	8 IN LIEU TAXES	9 CHIEF ENGINEER SALARY & FRINGE	
	BUILDING HQ	\$ -	\$ 119,500	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 119,500
	TELEPHONE HQ	-	-	-	-	81,000	-	-	-	-	-	81,000
36	SAFETY	203,600	-	-	(5,000)	-	-	-	-	-	-	198,600
37	SECURITY	1,014,350	-	-	-	-	-	-	-	-	-	1,014,350
14	HUMAN RESOURCES	347,548	-	-	(4,900)	-	-	-	(10,000)	-	-	332,648
16	PURCHASING	524,038	-	(109,688)	-	-	(81,000)	(16,000)	-	-	-	317,350
17	INFORMATION SYSTEMS	186,320	-	-	-	-	-	-	-	-	-	186,320
15	CONTRACTS & RISK MGMT.	1,763,116	-	-	(45,000)	(1,278,616)	-	(96,100)	-	(8,700)	-	334,700
13	FINANCIAL MGMT.	950,830	-	-	(2,730)	-	-	-	-	-	-	948,100
34	AUTO SHOP	298,300	-	109,688	-	-	-	16,000	-	-	-	423,988
35	AUTO SHOP-CANAL	225,900	-	-	-	-	-	-	-	-	-	225,900
10	EXEC. OFFICE	286,500	4,650	-	-	-	-	-	-	-	-	291,150
20, 30, 31-33	WATERSHED, ENGINEERING & O&M (RARITAN SYSTEM)	8,497,934	(124,150)	-	57,630	1,278,616	-	96,100	10,000	8,700	(12,353)	9,812,477
		14,298,436	-	-	-	-	-	-	-	-	(12,353)	14,286,083
40-60	MANASQUAN SYSTEM	5,425,416	-	-	-	-	-	-	-	-	12,353	5,437,769
		<u>\$ 19,723,852</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ 19,723,852</u>

**NEW JERSEY WATER SUPPLY AUTHORITY  
(A COMPONENT UNIT OF THE STATE OF NEW JERSEY)**

**SCHEDULE OF FORECASTED SYSTEM-WIDE ALLOCATED COSTS  
YEAR ENDING JUNE 30, 2022**

DEPT. #	DEPT./COST CENTER	REVISED COST CENTER COSTS	ALLOCATION BASIS												ALLOCATED 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		
	BUILDING HQ	\$ 119,500	\$ (119,500)													
	TELEPHONE HQ	81,000	-	\$ (81,000)												
36	SAFETY	198,600	803	880	\$ (200,283)											
37	SECURITY	1,014,350	4,519	3,522	16,094	\$ (1,038,485)										
14	HUMAN RESOURCES	332,648	5,345	2,641	1,788	-	\$ (342,422)									
16	PURCHASING	317,350	6,637	2,641	3,576	-	6,714	\$ (336,918)								
17	INFORMATION SYSTEMS	186,320	1,196	880	1,788	-	3,357	10,018	\$ (203,559)							
15	CONTRACTS & RISK MGMT.	334,700	3,909	1,761	3,576	-	6,714	7,130	3,635	\$ (361,425)						
13	FINANCIAL MGMT.	948,100	11,405	5,283	10,729	-	20,142	4,874	21,810	-	\$ (1,022,343)					
34	AUTO SHOP	423,988	17,962	1,761	3,576	-	6,714	14,892	3,635	-	26,771	\$ (499,299)				
35	AUTO SHOP-CANAL	225,900	-	1,761	1,788	-	3,357	7,491	3,635	-	14,264	-	\$ (258,196)			
10	EXEC. OFFICE	291,150	15,783	6,163	1,788	-	3,357	2,347	3,635	-	18,384	-	-	\$ (342,607)		
20, 30, 31-33	WATERSHED, ENGINEERING & O&M (RARITAN SYSTEM)	9,812,477	51,941	53,707	107,297	1,038,485	201,426	162,186	109,049	326,602	619,575	499,299	258,196	325,477	\$ 13,565,717	
40-60	MANASQUAN SYSTEM	5,437,769	-	-	48,283	-	90,641	127,980	58,160	34,823	343,349	-	-	17,130	6,158,135	
		<u>\$ 19,723,852</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ 19,723,852</u>	

**NEW JERSEY WATER SUPPLY AUTHORITY  
(A COMPONENT UNIT OF THE STATE OF NEW JERSEY)**

**SCHEDULE OF FORECASTED COST ALLOCATION FACTORS  
YEAR ENDING JUNE 30, 2022**

ALLOCATION OF:		BUILDING HQ	TELEPHONES	SAFETY	HUMAN RESOURCES	PURCHASING	INFORMATION SYSTEMS	CONTRACTS & RISK MGMT.	FINANCE O&M	AUTO SHOP	AUTO SHOP CANAL	EXEC. OFF
ALLOCATION BASIS:		SQ. FT. #	# OF TELEPHONES	# OF EMPLOYEES	# OF EMPLOYEES	# OF P.O.'S	# OF COMPUTERS	MGD CONTRACTS	FUNCTIONAL COST	# OF VEHICLES	# OF VEHICLES	TIME ESTIMATE
DEPT. #	DEPT./COST CENTER											
	BUILDING HQ	-	-	-	-	-	-	-	-	-	-	-
	TELEPHONE HQ	-	-	-	-	-	-	-	-	-	-	-
36	SAFETY	100	1									
37	SECURITY	563	4	9								
14	HUMAN RESOURCES	666	3	1								
16	PURCHASING	827	3	2	2							
17	INFORMATION SYSTEMS	149	1	1	1	111						
15	CONTRACTS & RISK MGMT.	487	2	2	2	79	1					
13	FINANCIAL MGMT.	1,421	6	6	6	54	6	-				
34	AUTO SHOP	2,238	2	2	2	165	1	-	\$ 423,988			
35	AUTO SHOP-CANAL	-	2	1	1	83	1	-	225,900			
10	EXEC. OFFICE	1,967	7	1	1	26	1	-	291,150	-		
20 30 31 32 33	WATERSHED, ENGINEERING & O&M (RARITAN SYSTEM)	6,472	61	60	60	1,797	30	182	9,812,477	48	48	95
40-60	MANASQUAN SYSTEM			27	27	1,418	16	19	5,437,769			5
		<u>14,890</u>	<u>92</u>	<u>112</u>	<u>102</u>	<u>3,733</u>	<u>56</u>	<u>202</u>	<u>\$ 16,191,284</u>	<u>48</u>	<u>48</u>	<u>100</u>

**NEW JERSEY WATER SUPPLY AUTHORITY  
(A COMPONENT UNIT OF THE STATE OF NEW JERSEY)**

**SCHEDULE OF FORECASTED MANASQUAN SYSTEM ALLOCATED COSTS  
YEAR ENDING JUNE 30, 2022**

	<u>COSTS</u>	ALLOCATION BASIS					<u>ALLOCATED COSTS</u>
		<u>1</u> TIME STUDY	<u>2</u> \$ VALUE OF VEHICLES	<u>3</u> \$ VALUE OF EQUIPMENT	<u>4</u> TIME STUDY	<u>5</u> VALUE OF WATER CONTRACTS	
<u>GENERAL &amp; ADMINISTRATIVE</u>							
SALARIES & FRINGES	\$ 3,156,600	<u>\$ (3,156,600)</u>					
VEHICLE RELATED	98,050	-	<u>\$ (98,050)</u>				
MAINT. SUPPLIES & RELATED	91,350	-	-	<u>\$ (91,350)</u>			
OFFICE & MISC.	53,100	-	-	-	<u>\$ (53,100)</u>		
H.Q. OVERHEAD	732,719	-	-	-	-	<u>\$ (732,719)</u>	
RESERVOIR (40)	1,116,400	1,503,995	70,606	45,246	25,300	632,117	\$ 3,393,664
TREAT./TRANS. (50)	909,916	1,652,605	27,444	46,104	27,800	100,602	2,764,471
	<u>\$ 6,158,135</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ 6,158,135</u>

**NEW JERSEY WATER SUPPLY AUTHORITY  
(A COMPONENT UNIT OF THE STATE OF NEW JERSEY)**

**NOTES TO FINANCIAL SCHEDULES  
YEAR ENDING JUNE 30, 2022**

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**NOTE 1      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:

Raritan System

- 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.
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  
(A COMPONENT UNIT OF THE STATE OF NEW JERSEY)**

**NOTES TO FINANCIAL SCHEDULES  
YEAR ENDING JUNE 30, 2022**

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**NOTE 1      GENERAL (CONTINUED)**

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 costs 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.

**NEW JERSEY WATER SUPPLY AUTHORITY  
(A COMPONENT UNIT OF THE STATE OF NEW JERSEY)**

**NOTES TO FINANCIAL SCHEDULES  
YEAR ENDING JUNE 30, 2022**

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**NOTE 2      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 2020.
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 2020.
5. Headquarters Overhead expenses are allocated based on the value of water contracts for each System.

**Appendix II. Report of Mercadien PC – Allocation of Headquarters General and Administrative Expenses – Audited FY 2020 Expenditures**

**NEW JERSEY WATER SUPPLY AUTHORITY  
(A COMPONENT UNIT OF THE STATE OF NEW JERSEY)**

**EXAMINATION REPORT AND FINANCIAL SCHEDULES**

June 30, 2020

**NEW JERSEY WATER SUPPLY AUTHORITY  
(A COMPONENT UNIT OF THE STATE OF NEW JERSEY)**

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## INDEPENDENT ACCOUNTANTS' REPORT

To the Commissioners of  
New Jersey Water Supply Authority

We have examined the conformity of the financial schedules with the cost allocation criteria set forth in Notes 1 and 2, of New Jersey Water Supply Authority (a component unit of the State of New Jersey) (the "Authority"), for the year ended June 30, 2020, listed in the foregoing table of contents. The Authority's management is responsible for conformity of the financial schedules in accordance with the criteria set forth in Notes 1 and 2. Our responsibility is to express an opinion on the conformity of the financial schedules with the cost allocation criteria set forth in Notes 1 and 2, based on our examination.

Our examination was conducted in accordance with attestation standards established by the American Institute of Certified Public Accountants. Those standards require that we plan and perform the examination to obtain reasonable assurance about whether the financial schedules are in conformity with the cost allocation criteria set forth in Notes 1 and 2, in all material respects. An examination involves performing procedures to obtain evidence about the conformity of the financial schedules with the cost allocation criteria set forth in Notes 1 and 2. The nature, timing and extent of the procedures selected depend on our judgment, including an assessment of the risks of material misstatement of the conformity of the financial schedules with the cost allocation criteria set forth in Notes 1 and 2, whether due to fraud or error. We believe that the evidence we obtained is sufficient and appropriate to provide a reasonable basis for our opinion.

In our opinion, conformity of the financial schedules with the cost allocation criteria set forth in Notes 1 and 2, present the Authority's allocation of costs to the Raritan and Manasquan Systems in accordance with the cost allocation criteria set forth in Notes 1 and 2, in all material respects.

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.

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

October 14, 2020

**NEW JERSEY WATER SUPPLY AUTHORITY  
(A COMPONENT UNIT OF THE STATE OF NEW JERSEY)**

**SCHEDULE OF COST CENTER EXPENSE RECLASSIFICATION  
YEAR ENDED JUNE 30, 2020**

DEPT. #	DEPT./COST CENTER	COST CENTER COSTS	RECLASSIFICATIONS									REVISED COST CENTER COSTS
			1 HEATING/ ELECTRIC	2 VEHICULAR FUEL	3 PROFESSIONAL FEES	4 INSURANCE	5 TELEPHONE	6 PERMITS	7 WORKERS' COMPENSATION	8 IN LIEU TAXES	9 CHIEF ENGINEER SALARY & FRINGE	
	BUILDING HQ	\$ -	\$ 58,762	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 58,762
	TELEPHONE HQ	-	-	-	-	56,245	-	-	-	-	-	56,245
36	SAFETY	178,960	-	-	-	-	-	-	-	-	-	178,960
37	SECURITY	900,829	-	-	-	-	-	-	-	-	-	900,829
14	HUMAN RESOURCES	284,252	-	-	(3,414)	-	-	-	(3,311)	-	-	277,527
16	PURCHASING	411,918	-	(77,299)	-	-	(56,245)	(16,300)	-	-	-	262,074
17	INFORMATION SYSTEMS	153,814	-	-	-	-	-	-	-	-	-	153,814
15	CONTRACTS & RISK MGMT.	1,666,598	-	-	(47,476)	(1,221,982)	-	(89,619)	-	(28,675)	-	278,846
13	FINANCIAL MGMT.	803,173	-	-	(2,322)	-	-	-	-	-	-	800,851
34	AUTO SHOP	287,019	-	77,299	-	-	-	16,300	-	-	-	380,618
35	AUTO SHOP-CANAL	155,403	-	-	-	-	-	-	-	-	-	155,403
10	EXEC. OFFICE	255,493	4,507	-	-	-	-	-	-	-	-	260,000
20, 30-33	WATERSHED, ENGINEERING & O&M (RARITAN SYSTEM)	6,578,041	(63,269)	-	53,212	1,221,982	-	89,619	3,311	28,675	(11,120)	7,900,451
		11,675,500	-	-	-	-	-	-	-	-	(11,120)	11,664,380
40-60	MANASQUAN SYSTEM	3,914,040	-	-	-	-	-	-	-	-	11,120	3,925,160
		<u>\$ 15,589,540</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ 15,589,540</u>

**NEW JERSEY WATER SUPPLY AUTHORITY  
(A COMPONENT UNIT OF THE STATE OF NEW JERSEY)**

**SCHEDULE OF SYSTEM-WIDE ALLOCATED COSTS  
YEAR ENDED JUNE 30, 2020**

DEPT. #	DEPT./COST CENTER	REVISED COST CENTER COSTS	ALLOCATION BASIS											ALLOCATED 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	
	BUILDING HQ	\$ 58,762	<u>\$ (58,762)</u>													
	TELEPHONE HQ	56,245	-	<u>\$ (56,245)</u>												
36	SAFETY	178,960	395	611	<u>\$ (179,966)</u>											
37	SECURITY	900,829	2,222	2,445	14,462	<u>\$ (919,958)</u>										
14	HUMAN RESOURCES	277,527	2,628	1,834	1,607	-	<u>\$ (283,596)</u>									
16	PURCHASING	262,074	3,264	1,834	3,214	-	5,561	<u>\$ (275,947)</u>								
17	INFORMATION SYSTEMS	153,814	588	611	1,607	-	2,780	8,205	<u>\$ (167,605)</u>							
15	CONTRACTS & RISK MGMT.	278,846	1,922	1,223	3,214	-	5,561	5,840	2,993	<u>\$ (299,599)</u>						
13	FINANCIAL MGMT.	800,851	5,608	3,668	9,641	-	16,682	3,992	17,958	-	<u>\$ (858,400)</u>					
34	AUTO SHOP	380,618	8,832	1,223	3,214	-	5,561	12,197	2,993	-	25,886	<u>\$ (440,524)</u>				
35	AUTO SHOP-CANAL	155,403	-	1,223	1,607	-	2,780	6,135	2,993	-	10,569	-	<u>\$ (180,710)</u>			
10	EXEC. OFFICE	260,000	7,761	4,891	1,607	-	2,780	1,922	2,993	-	17,683	-	-	<u>\$ (299,637)</u>		
20, 30-33	WATERSHED, ENGINEERING & O&M (RARITAN SYSTEM)	7,900,451	25,542	36,682	96,408	919,958	166,821	132,836	89,788	270,733	537,311	440,524	180,710	276,415	\$ 11,074,179	
40-60	MANASQUAN SYSTEM	3,925,160	-	-	43,385	-	75,070	104,820	47,887	28,866	266,951	-	-	23,222	4,515,361	
		<u>\$ 15,589,540</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ 15,589,540</u>



**NEW JERSEY WATER SUPPLY AUTHORITY  
(A COMPONENT UNIT OF THE STATE OF NEW JERSEY)**

**SCHEDULE OF COST ALLOCATION FACTORS  
YEAR ENDED JUNE 30, 2020**

ALLOCATION OF:		REQUIRED STATISTICS										
		BUILDING HQ	TELEPHONES	SAFETY	HUMAN RESOURCES	PURCHASING	INFORMATION SYSTEMS	RISK MGMT.	FINANCE O&M	AUTO SHOP	AUTO SHOP CANAL	EXEC. OFF
ALLOCATION BASIS:		SQ. FT. #	# OF TELEPHONES	# OF EMPLOYEES	# OF EMPLOYEES	# OF P.O.'S	# OF COMPUTERS	MGD CONTRACTS	FUNCTIONAL COST	# OF VEHICLES	# OF VEHICLES	TIME ESTIMATE
DEPT. #	DEPT./COST CENTER											
	BUILDING HQ											
	TELEPHONE HQ											
36	SAFETY	100	1									
37	SECURITY	563	4	9								
14	HUMAN RESOURCES	666	3	1								
16	PURCHASING	827	3	2	2							
17	INFORMATION SYSTEMS	149	1	1	1	111						
15	CONTRACTS & RISK MGMT.	487	2	2	2	79	1					
13	FINANCIAL MGMT.	1,421	6	6	6	54	6	-				
34	AUTO SHOP	2,238	2	2	2	165	1	-	\$ 380,618			
35	AUTO SHOP-CANAL	-	2	1	1	83	1	-	155,403			
10	EXEC. OFFICE	1,967	8	1	1	26	1	-	260,000	-		
20, 30-33	WATERSHED, ENGINEERING & O&M (RARITAN SYSTEM)	6,472	60	60	60	1,797	30	182	7,900,451	48	48	92
40-60	MANASQUAN SYSTEM			27	27	1,418	16	19	3,925,160			8
		<u>14,890</u>	<u>92</u>	<u>112</u>	<u>102</u>	<u>3,733</u>	<u>56</u>	<u>202</u>	<u>\$ 12,621,632</u>	<u>48</u>	<u>48</u>	<u>100</u>

**NEW JERSEY WATER SUPPLY AUTHORITY  
(A COMPONENT UNIT OF THE STATE OF NEW JERSEY)**

**SCHEDULE OF MANASQUAN SYSTEM ALLOCATED COSTS  
YEAR ENDED JUNE 30, 2020**

	<u>COSTS</u>	ALLOCATION BASIS					<u>ALLOCATED COSTS</u>
		<u>1</u> TIME STUDY	<u>2</u> \$ VALUE OF VEHICLES	<u>3</u> \$ VALUE OF EQUIPMENT	<u>4</u> TIME STUDY	<u>5</u> VALUE OF WATER CONTRACTS	
<u>GENERAL &amp; ADMINISTRATIVE</u>							
SALARIES & FRINGES	\$ 2,309,333	\$ (2,309,333)					
VEHICLE RELATED	54,422	-	\$ (54,422)				
MAINT. SUPPLIES & RELATED	45,271	-	-	\$ (45,271)			
OFFICE & MISC.	27,045	-	-	-	\$ (27,045)		
H.Q. OVERHEAD	601,323	-	-	-	-	\$ (601,323)	
RESERVOIR	859,321	1,169,504	39,189	22,423	12,762	518,747	\$ 2,621,946
TREAT./TRANS.	618,646	1,139,829	15,233	22,848	14,283	82,576	1,893,415
	<u>\$ 4,515,361</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ 4,515,361</u>

See Independent Accountants' Report.

**NEW JERSEY WATER SUPPLY AUTHORITY  
(A COMPONENT UNIT OF THE STATE OF NEW JERSEY)**

NOTES TO FINANCIAL SCHEDULES  
YEAR ENDED JUNE 30, 2020

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**NOTE 1 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:

Raritan System

- 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.

**NEW JERSEY WATER SUPPLY AUTHORITY  
(A COMPONENT UNIT OF THE STATE OF NEW JERSEY)**

NOTES TO FINANCIAL SCHEDULES  
YEAR ENDED JUNE 30, 2020

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**NOTE 1 GENERAL (CONTINUED)**

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.

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 costs 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.

**NEW JERSEY WATER SUPPLY AUTHORITY  
(A COMPONENT UNIT OF THE STATE OF NEW JERSEY)**

NOTES TO FINANCIAL SCHEDULES  
YEAR ENDED JUNE 30, 2020

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**NOTE 2 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 2020.
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 2020.
5. Headquarters Overhead expenses are allocated based on the value of water contracts for each System.