

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 2023

ADJUSTMENT OF SOURCE WATER PROTECTION FUND COMPONENT TO REFLECT NO CHANGE IN COMPONENT RATE FOR FISCAL YEAR 2023

ADJUSTMENT OF DEBT SERVICE COST COMPONENTS TO REFLECT BOND YEAR PAYMENTS DUE AND REQUIRED FOR FISCAL YEAR 2023

ADJUSTMENT OF NEW JERSEY ENVIRONMENTAL INFRASTRUCTURE FINANCING PROGRAM DEBT COMPONENT TO REFLECT BOND YEAR PAYMENTS DUE AND REQUIRED FOR FISCAL YEAR 2023

ADJUSTMENT OF CAPITAL FUND COMPONENT RATE FOR INITIAL AND DELAYED WATER PURCHASE CONTRACT CUSTOMERS TO REFLECT NO CHANGE FOR FISCAL YEAR 2023

Effective Date: July 1, 2022

Approved: 11/1/2021

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PART I – EXPLANATION OF PROPOSED REVISED RATE STRUCTURE

Overview of Rate Proposal for Fiscal Year 2023

(July 1, 2022 - June 30, 2023)

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, 2022.

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 (FY2022) Rates Per MG 7/1/2021 – 6/30/2022	Proposed (FY2023) Rates Per MG 7/1/2022 – 6/30/2023
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
TOTAL RATE	\$1,010.75/mg	\$1,010.75/mg

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

Component	Current (FY2022) Rates Per MG 7/1/2021 – 6/30/2022	Proposed (FY2023) Rates Per MG 7/1/2022 – 6/30/2023
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
TOTAL RATE	\$1,124.67/mg	\$1,124.67/mg

The General Rate Schedule for Operations and Maintenance (O&M) was last adjusted effective July 1, 2021 to cover the operating expenses of the System for FY2022. The FY2022 sales base was 19.443 million gallons per day (mgd). The Authority anticipates that the applicable raw water O&M sales base for FY2023 will remain the same at 19.443 mgd. The initial sales base will remain the same at 15.008 mgd and the delayed sales base will remain at 4.435 mgd.

After the allocation of appropriate Headquarters General and Administrative costs to the System, the Authority anticipates \$3,161,711 in O&M component revenue required during FY2023 with an O&M rate component of \$445.82 per million gallons, no change from FY2022, starting on July 1, 2022 (Schedule 20, page 41). The proposed operating expense budget for FY2023 is \$22,910 more than FY2022 and the proposed Capital Equipment Budget, net of depreciation reserve, is \$100 more than FY2022. In FY2023 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 FY2022. In FY2023 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 \$139,651 to the SMMUA Water Treatment Plant and Transmission System for actual FY2021 salary and fringe expenses. This amount will be applied to the CY2022 SMMUA budget (Schedule 15, pages 34-36).

Miscellaneous revenue and interest income in FY2023 is projected to increase by \$157,860 relative to FY2022 reflecting an increase in the use of year end surplus and excess debt service coverage available from FY2021 (Schedule 17, page 38), offset in part by lower interest earnings (Schedule 16, page 37) . Overdraft revenue of \$35,878 is available from 2021.

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 FY2022. 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 FY2023.

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 FY2023 is required to cover debt service payments in accordance with the schedule and is no change from the FY2022 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 FY2023.

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 represent no change in the rate relative to FY2022. 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 (subsequently 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 FY2023 is \$1,124.67 per million gallons, representing no change relative to the FY2022 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, 2022 through June 30, 2023. 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 (page 17) 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, 2022, January 10, 2023, April 10, 2023 and July 10, 2023.

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 6, 2022.

A public hearing on the proposed rate adjustment is scheduled at 11:00 a.m. on Thursday, February 3, 2023. The public hearing record is scheduled to close on March 15, 2022.

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 2, 2022 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 FY2021 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 FY2023 budget based on the FY2021 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, 2021. The percentages used to provide the basis for the salary allocation for FY2023 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 FY2023.

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 12.5 mgd 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 (subsequently 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 FY2023.

Overview of Projected Operational Expenses

The Authority's proposed FY2023 Manasquan Reservoir Total Expense budget is \$120,820 more than the current FY2022 budget. The allocation of Authority Headquarters General and Administrative Expenses in FY2023 increases \$63,000 versus FY2022. Capital Equipment budget for FY2023 is \$100 more than FY2022. There will be no FY2023 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 \$157,860. These factors contribute to an \$22,910 increase in the total FY2023 O&M Component requirement relative to FY2022 (3,161,711 vs. \$3,138,801) (Budget Summary on page 19).

Total O&M Direct Expenses are increasing by \$41,213 from FY2022, largely due to increases in insurance and sediment removal expenses. General and Administrative Expenses allocated to the Reservoir System are essentially flat as compared to FY2022.

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 FY2023 budget incorporates all union negotiated cost of living and step increases in the current union contracts. 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. Also included are 2% cost of living increases for the one member of Authority management who is not represented by a union. The Authority is budgeting 48 percent of the Salary budget for fringe benefits in FY2023, exclusive of retiree medical.

Pension expense payable to the state of New Jersey on April 1, 2022 is anticipated to be approximately \$250,000 for the Manasquan System. The Authority has budgeted \$282,400 for this line item in FY2023. 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 decreasing by approximately \$13,000 in FY2023 as compared to FY2022, and the portion allocated to the Reservoir System is increasing by approximately \$17,000. The small increase is due in large part to a high rate of turnover in the Manasquan labor pool that has resulted in newer employees who are at lower levels of the salary scale. In FY2023, 52 percent of total salary and fringe is allocated to the Reservoir System and 48 percent to the Treatment Plant. The number of budgeted positions in FY2023 is 27, which is the same as FY2022 (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 FY2023 from \$158,500 to \$213,600. The Authority is budgeting two additional retirees in FY2023. The Centers for Medicare and Medicaid Services (CMS) estimates that national health care spending will increase at an annual rate of 5.4 percent from 2019-2028. The Authority used actual 2021 rates and budgeted 5.4 percent and 5.4 percent increases for calendar years 2022 and 2023, respectively.

Insurance Program

The Authority is recommending a \$14,305 increase in insurance expenses for FY2023, 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 FY2023 total \$749,000, of which \$646,000 is charged to the Manasquan Reservoir System and \$103,000 is charged to the Manasquan Water Treatment Plant (Schedule 13, page 32). The FY2023 budget also includes the reconciliation of the FY2021 actual to budget variance in this category. Headquarters charges are driven primarily by salary and fringe.

Interest Income and Miscellaneous Revenue

The projected interest earnings on reserve funds for FY2023 are \$26,600. This reflects a decrease of \$16,700 relative to FY2022 and is based upon an interest rate of .25 percent for short-term investments (See Schedule 16, page 37).

Reserve Contributions

Consistent with FY2022, there will be no FY2023 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 FY2023. There was a supplemental contribution of \$350,000 to the Renewal and Replacement Fund in FY2017 that is not required in FY2023. 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 have been utilized 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 FY2023.

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 FY2023.

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, 2021 was approximately \$4,160,000. 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, 2021 was approximately \$1,489,000. 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 FY2023.

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 FY2023.

PART II – DETAILED SUPPORTING INFORMATION

NEW JERSEY WATER SUPPLY AUTHORITY
MANASQUAN RESERVOIR WATER SUPPLY SYSTEM

Table 1 - Summary of Proposed Fiscal Year 2023 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, 2022 to June 30, 2023

Rate Component	Current	Original Proposal 11/01/21	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	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, 2022 to June 30, 2023

Rate Component	Current	Original Proposal 11/01/21	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	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
FY2004-FY2023**

Initial Water Purchaser 14.980 mgd July 1, 2015
Shorelands .028 mgd July 1, 2006

<u>Effective Date</u>	<u>O&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, 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%
July 1, 2021	445.82	15.00	0.00	24.93	525.00	\$1,010.75	0.00%
July 1, 2022	445.82	15.00	0.00	24.93	525.00	\$1,010.75	0.00%

NEW JERSEY WATER SUPPLY AUTHORITY
MANASQUAN RESERVOIR WATER SUPPLY SYSTEM

Table 3 - Rate History of Water Charges per Million Gallons of Raw Water - Delayed
FY2009-FY2023

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&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, 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%
July 1, 2021	445.82	15.00	438.92	24.93	200.00	\$1,124.67	0.00%
July 1, 2022	445.82	15.00	438.92	24.93	200.00	\$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, 2022

2021

- SEPTEMBER 27 Advise Water Users of informal meeting.
- OCTOBER 28 Informal meeting with Water Users – 11:00 AM.
- NOVEMBER 1 Board reviews and approves proposed Rates.
- DECEMBER 18 Mail Official Notice to water customers, Rate Payer Advocate, interested parties and advertise in newspapers.

2022

- JANUARY 3 Publication in the New Jersey Register.
- 6 Pre-Public Hearing – 11:00 AM (within 45 days of Official Notice).
Deadline for responses to inquires received prior to pre-public hearing.
- 31 Deadline for receipt of comments to be addressed at Public Hearing
(15 days after pre-public hearing).
- FEBRUARY 3 Public Hearing Meeting. (Manasquan Administration Building) – 11:00
AM Deadline for responses to inquires received between pre-public and
public hearing.
- 21 Written responses to questions raised at Hearing (within 10
business days of the public hearing).
- MARCH 4 NJ Register Comment Period Ends.
- 15 Public Hearing record closes (25 business days after
Public Hearing).
- MAY 2 Board approval of FY 2023 Rates & Budget
- JULY 1 Effective date.

NEW JERSEY WATER SUPPLY AUTHORITY
MANASQUAN RESERVOIR WATER SUPPLY SYSTEM

Proposed Fiscal Year 2023 Budget Summary

(07/01/22-06/30/23)

	ADOPTED F/Y2022 <u>Reservoir Budget</u>	PROPOSED F/Y2023 <u>Reservoir Budget</u>
Proposed Operating Expense Budget (Schedule 1)	\$ 2,761,170	\$2,818,990
Allocation of Headquarters General & Administrative Expenses to the Manasquan Reservoir System (Schedule 13)	<u>\$ 583,000</u>	<u>\$ 646,000</u>
Proposed Total Expense Budget	\$ 3,344,170	\$ 3,464,990
Proposed Capital Equipment Budget (Schedule 14)	\$ 17,700	\$ 17,800
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/Y21 Salary and Fringe Expenses to be paid (from)/to WTP/TS Account (Schedule 15)		\$ 139,651
Adjustment for F/Y20 Salary and Fringe Expenses to be paid (from)/to WTP/TS Account	<u>\$ 79,801</u>	<u>\$ -</u>
Total Budget Requirements	<u>\$ 3,591,671</u>	<u>\$ 3,772,441</u>
Interest Earnings on Funds (Except Renewal and Replacement and Depreciation Reserve Fund) (Schedule 16)	\$ (43,300)	\$ (26,600)
Unanticipated Revenue (Schedule 17)	<u>\$ (409,570)</u>	<u>\$ (584,130)</u>
Total Miscellaneous Revenue & Interest Income	<u>\$ (452,870)</u>	<u>\$ (610,730)</u>
Net Amount to be paid for O & M Component	<u>\$ 3,138,801</u>	<u>\$ 3,161,711</u>

NEW JERSEY WATER SUPPLY AUTHORITY
MANASQUAN RESERVOIR WATER SUPPLY SYSTEM

Schedule 1 - Total Operations & Maintenance Budget

Fiscal Year 2023

	F/Y2021 Reservoir Actual	F/Y2022 Reservoir Adopted	F/Y2023 Reservoir Proposed
Salaries & Fringe Benefits (Schedule 2)*	\$1,432,540	1,503,432	\$1,520,516
O & M Direct Expense (Schedule 3)	846,229	1,116,400	1,157,613
G&A Expenses (Schedule 5)	139,086	141,339	140,864
Total Operations & Maintenance Budget	\$2,417,855	\$2,761,172	\$2,818,993
Estimate	\$2,417,860	\$2,761,170	\$2,818,990

	F/Y2020 Actual		F/Y2021 Actual		F/Y 2022 Adopted		F/Y2023 Proposed	
	Reservoir	WTP/TS	Reservoir	WTP/TS	Reservoir	WTP/TS	Reservoir	WTP/TS
Salaries/Fringe*	\$0	\$0	\$1,432,540	\$1,309,324	1,503,432	1,653,098	\$1,520,516	\$1,623,354
O & M Direct Expense	859,321	618,647	846,229	722,957	1,116,400	909,916	1,157,613	891,139
G & A Expense	133,543	89,907	139,086	99,414	141,339	101,161	140,864	93,438
Total	\$992,864	\$708,554	\$2,417,855	\$2,131,695	2,761,172	2,664,174	\$2,818,993	\$2,607,931

*Actual fringe includes GASB 68 & GASB 75 non-cash Pension expense. FY21 Actual excludes non-cash GASB 75 expense, as this data has yet to be released to the Authority.

NEW JERSEY WATER SUPPLY AUTHORITY
MANASQUAN RESERVOIR WATER SUPPLY SYSTEM

Schedule 2 - Labor Projection
Fiscal Year 2023 (7/01/22-6/30/23)

TITLES	SALARY	FRINGE BENEFITS	OVERTIME	CLOTHING ALLOWANCE	SHIFT DIFFERENTIAL	TOTAL	ALLOCATION		ALLOCATION	
							RESERVOIR %	AMOUNT RESERVOIR	WTP/TS %	AMOUNT WTP/TS
Director	141,700	79,097	-	-	-	220,797	50%	110,400	50%	110,400
Project Engineer II	100,200	55,931	-	-	-	156,131	70%	109,340	30%	46,790
Water Supply Tech.	68,400	38,488	-	550	-	107,438	62%	66,649	38%	40,791
Administrative Assistant	73,050	40,910	239	-	-	114,199	50%	57,125	50%	57,035
Supervisor Technical Facilities Maint	91,650	59,410	14,232	550	-	165,842	47%	77,073	54%	88,737
Sr. Water Supply Tech.	79,950	45,855	1,648	550	-	128,003	43%	55,015	57%	72,935
Maintenance Worker I	49,700	28,049	-	550	-	78,299	93%	73,121	7%	5,179
Supervisor Operations	120,800	67,430	-	-	-	188,230	25%	47,100	75%	141,130
Equipment Operator	50,400	28,800	644	550	-	80,394	94%	75,429	6%	4,921
Foreman Bldg. & Grounds Maint	79,950	45,451	924	550	-	126,875	85%	107,825	15%	19,025
Foreman Facilities Maintenance	79,950	46,770	3,287	550	-	130,557	47%	61,084	53%	69,486
Facilities Mechanic (3 Positions)	208,300	119,106	3,427	1,650	-	332,483	50%	166,275	50%	166,185
Supervisor Plant Operator	86,000	52,240	7,038	550	-	145,828	37%	53,607	63%	92,183
Maintenance Worker I Operations	51,200	28,956	124	550	-	80,830	92%	74,181	8%	6,629
Reservoir System Operator (5 Positions)	232,500	143,067	19,152	2,750	1,900	399,369	95%	379,393	5%	20,028
Plant Operator (6 Positions)	376,650	246,748	62,094	3,300	-	688,792	1%	6,900	99%	681,901
TOTAL: (rounded)	1,890,400	1,126,300	112,800	12,650	1,900	3,144,000		1,520,516		1,623,354

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.

NEW JERSEY WATER SUPPLY AUTHORITY
MANASQUAN RESERVOIR WATER SUPPLY SYSTEM

Schedule 3 - Reservoir System Operations and Maintenance Direct Expense Budget
Proposed F/Y 2023, Adopted F/Y 2022, and Actual F/Y 2019-2021

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 ACTUAL	FY '22 ADOPTED	FY '23 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	805	900	800
5220	Utilities -Electrical Service	76,695	74,899	70,058	76,270	90,500	85,000
5230	-Gas Service	6,759	6,451	6,415	7,664	8,000	9,800
5240	-Propane						
5250	Electricity for Pumping Station	218,469	171,380	206,599	239,940	305,000	305,000
5260	Fuel - Vehicular						
5270	Oil & Grease						
5280	Tires						
5290	Maintenance Supplies	5,244	5,615	9,671	9,198	4,000	10,000
5300	Maint. Supplies - Vehicular						
5310	Major Vehicle Service & Repair						
5320	Agricultural Supplies						
5330	Maintenance Equipment	28,963	55,396	42,721	40,500	51,500	51,500
5340	Serv. & Maintenance Contracts	17,379	56,735	39,953	5,742	43,450	46,650
5350	Equipment Rental	4,400	2,340	11,105	8,970	6,500	10,000
5360	Household - Safety Supplies	835	766	2,518	3,373	1,000	1,000
5370	Uniforms						
5380	Special & Professional Services	130,420	72,226	68,971	80,245	138,686	138,686
5390	Protective Services	232,093	242,258	259,993	292,378	328,564	342,869
5400	Telephone	7,204	8,157	9,285	10,244	8,000	9,008
5410	Postage & Freight Out						
5420	Data Processing						
5430	Printing & Office Supplies	964	966	714	566	1,500	1,500
5440	Scientific & Photographic	2,258	751	2,524	781	5,500	5,500
5450	Dues & Subscriptions						
5460	Advertising & Promotional	433			704	2,000	2,000
5480	Staff Training & Tuition Aid				255		
5490	Fees & Permits	31,080	31,510	31,680	31,840	37,500	38,000
5500	In - Lieu Taxes	36,756	36,896	36,756	36,756	36,800	38,300
5510	Sediment Removal	29,724		59,961		47,000	62,000
5520	Chemicals						
5525	Carbon Filter Replacement						
	Total Other Expenses	\$829,677	\$766,347	\$859,321	\$846,229	\$1,116,400	\$1,157,613
	Total Operating Expenses	\$829,677	\$766,347	\$859,321	\$846,229	\$1,116,400	\$1,157,613
	ANNUAL BUDGET	\$1,049,600	\$1,019,652	\$1,008,584	\$1,005,936	\$1,116,400	\$1,157,613

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 2023, Adopted F/Y 2022, and Actual F/Y 2019-2021

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 ACTUAL	FY '22 ADOPTED	FY '23 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	6,691	6,000	6,000
5220	Utilities -Electrical Service	269,231	251,242	255,320	260,159	304,500	292,500
5230	-Gas Service	24,309	26,630	24,720	24,304	31,000	35,000
5240	-Propane						
5250	Electricity for Pumping Station						
5260	Fuel- Vehicular						
5270	Oil & Grease	1,365	1,220	1,317	0	4,000	3,000
5280	Tires						
5290	Maintenance Supplies	4,217	6,603	6,983	10,506	6,000	7,100
5300	Maint. Supplies - Vehicular						
5310	Major Vehicle Service & Repair						
5320	Agricultural Supplies	64					
5330	Maintenance Equipment	44,048	91,668	32,057	49,941	98,500	80,000
5340	Serv. & Maintenance Contracts	22,084	26,485	35,593	18,958	56,000	45,000
5350	Equipment Rental	1,507	5,542	763	1,417	3,200	3,200
5360	Household - Safety Supplies	216	688	1,260	3,925	2,000	2,000
5370	Uniforms						
5380	Special & Professional Services	28,673	28,904	23,710	28,170	34,800	34,800
5390	Protective Services	79,836	80,035	80,832	93,722	113,736	114,339
5400	Telephone	481	516	539	511	1,000	1,200
5410	Postage & Freight Out	969	1,652		103		300
5420	Data Processing						
5430	Printing & Office Supplies	5,077	8,266	2,343	4,964	9,800	9,800
5440	Scientific & Photographic	11,868	11,998	10,663	9,491	13,800	13,800
5450	Dues & Subscriptions						
5460	Advertising & Promotional	587	287	260	1,038	1,000	1,000
5470	Travel & Subsistence	55	59	12			
5480	Staff Training & Tuition Aid	5,102	1,843	0	355	6,700	6,700
5490	Fees & Permits	5,621	9,262	6,141	5,390	11,080	9,000
5500	In - Lieu Taxes	0	0	140	140	400	400
5510	Residual Removal	4,466	4,500	0	0	15,400	16,000
5520	Water Treatment Chemicals	88,979	134,833	132,813	143,893	131,000	150,000
5525	GAC Replacement	49,871	42,000		50,000	60,000	60,000
5528	Reimb of O&M Capital Expenditures	3,725	12,546	1,138	9,279		
	Total Other Expenses	\$652,350	\$746,777	\$618,647	\$722,957	\$909,916	\$891,139
	Total Operating Expenses	\$652,350	\$746,777	\$618,647	\$722,957	\$909,916	\$891,139
	ANNUAL BUDGET	\$941,860	\$929,660	\$855,400	\$864,000	\$909,916	\$891,139

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 2023, Adopted F/Y 2022, and Actual F/Y 2019-2021

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 ACTUAL	FY '22 ADOPTED	FY '23 PROPOSED
5110	Regular Salaries & Wages	\$1,761,247	\$1,747,505	\$1,744,737	\$1,699,456	\$1,919,250	\$1,904,950
5120	Overtime-Salaries & Wages	77,313	80,779	71,499	64,694	109,250	112,800
5130	New positions-Salaries & Wages						
5140	Seasonal Help-Salaries & Wages						
5150	Fringe Benefits	928,393	996,747	554,954	250,181	964,600	907,700
5160	Retiree Health Benefits	125,373	(149,260)	(184,085)	(106,171)	158,500	213,600
5168	Workers Comp. (Self-Insured)	1,006	1,453	701	0	5,000	5,000
	Total Salary, Wages & Fringe	\$2,893,334	\$2,677,224	\$2,187,807	\$1,908,160	\$3,156,600	\$3,144,050
	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	15,990	22,750	22,750
5270	Oil & Grease	865	6,797	3,628	1,596	5,700	5,700
5280	Tires	5,873	5,740	8,905	3,233	7,000	7,000
5290	Maintenance Supplies	10,278	8,457	7,890	10,186	27,300	15,000
5300	Maint. Supplies - Vehicular	6,022	8,656	9,703	16,194	10,600	20,000
5310	Major Vehicle Service & Repair	39,086	22,121	18,290	45,738	52,000	52,000
5320	Agricultural Supplies	2,876	5,219	1,787	6,161	8,600	9,100
5330	Maintenance Equipment	4,412	5,574	2,734	3,641	17,100	12,000
5340	Serv. & Maintenance Contracts	13,066	11,723	18,620	16,414	26,550	25,852
5350	Equipment Rental	2,348	2,307	2,411	2,365	4,300	4,300
5360	Household - Safety Supplies	8,145	5,655	11,830	9,399	7,500	7,500
5370	Uniforms						
5380	Special & Professional Services	7,099	7,469	7,395	8,361	7,700	7,700
5390	Protective Services						
5400	Telephone	6,304	6,008	5,714	6,152	7,000	7,000
5410	Postage & Freight Out	447	1,166	1,078	685	1,200	1,200
5420	Data Processing	4,417	3,558	2,427	2,575	5,000	5,000
5430	Printing & Office Supplies	2,242	3,659	2,528	2,380	5,800	5,800
5440	Scientific & Photographic	91	0	0	0	300	300
5450	Dues & Subscriptions	1,085	1,215	1,197	504	3,000	3,000
5460	Advertising & Promotional	1,379	1,214	459	74	2,000	2,000
5470	Travel & Subsistence	70	306	470	336	1,000	1,000
5480	Staff Training & Tuition Aid	5,920	4,251	2,512	3,559	12,400	12,400
5490	Fees & Permits	2,794	5,211	3,265	3,089	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	\$158,632	\$242,500	\$234,302
	Total Operating Expenses	\$3,038,539	\$2,815,993	\$2,314,546	\$2,066,792	\$3,399,100	\$3,378,352
	Budget- other expenses						
	TOTAL ANNUAL BUDGET						
	Reservoir System	\$84,508	\$71,761	\$133,543	\$139,086	\$141,339	\$140,864
	Treatment/Transmission System	\$60,698	\$67,008	\$89,907	\$99,414	\$101,161	\$93,438
		\$145,206	\$138,769	\$223,450	\$238,500	\$242,500	\$234,302

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 2023

		Adopted F/Y22	Proposed F/Y23
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	Underground Fuel Tank Testing & Repair	-	2,000
9	Roadway Crack Sealing	3,000	3,000
10	Wood Debris Removal	2,500	2,500
11	Access Roadway Repairs	2,500	2,500
12	Roofing System Maintenance & Repair	4,000	4,000
13	Reservoir Transmission Line Clearing	3,000	3,000
14	Fios Fiber Optic for Security Cameras	1,200	2,400
	Total Service & Maintenance Contracts	\$ 43,450	\$ 46,650

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 2023

	Adopted F/Y22	Proposed F/Y23
1 HVAC Service	\$ 2,000	\$ 1,500
2 Electrical Service Contract	1,500	1,000
3 Instrumentation & Control System Service & Upgrade	11,000	8,000
4 Electrical Upgrade & Repair	6,000	4,000
5 Overhead Crane Service	3,000	2,500
6 UST Monitors Service and Upgrade	2,000	1,652
7 Fire & Intrusion Alarm Service	3,600	3,100
8 Air Compressor Service	500	500
9 Boiler Service	500	1,008
10 Auxiliary Generator Service	3,500	3,000
11 Lab Equipment Service	3,000	2,500
12 Backflow Preventor Service	500	500
13 UPS Battery PM Service and Batteries	3,500	3,340
14 Four Year Electrical Switchgear Testing Service	10,000	7,000
15 Meter Vault Internet Service	5,400	5,400
	<u>5,400</u>	<u>5,400</u>
Total Service & Maintenance Contracts	<u>\$ 56,000</u>	<u>\$ 45,000</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 2023

		<u>Adopted F/Y22</u>	<u>Proposed F/Y23</u>
1	Refuse & Waste Disposal	\$ 2,000	\$ 2,000
2	Office Equipment/Computers	1,800	1,800
3	Waste Oil Disposal	200	300
4	Fire Extinguisher Service	1,100	1,100
5	UST Monitor Service	2,000	1,752
6	Building Maintenance	1,750	6,000
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	-
11	Forklift Service & Maintenance	1,200	-
12	Underground Fuel Storage Tank Service	4,000	2,400
	Total Service & Maintenance Contracts	<u>\$ 26,550</u>	<u>\$ 25,852</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 2023

		Adopted F/Y22	Proposed F/Y23
1	Laboratory Services - Water Quality Sampling	\$ 10,000	\$ 10,000
2	Consultant Services - Dam Inspection	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	Hydrilla Treatment and Water Quality Study	-	25,000
8	Lake Management Consultants	20,000	10,000
9	Engineering Services	4,000	4,000
10	Financial Advisory Services	4,850	4,850
11	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 2023

		<u>Adopted F/Y22</u>	<u>Proposed F/Y23</u>
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	<u>1,800</u>	<u>1,800</u>
	Total Special & Professional Services	<u><u>\$ 34,800</u></u>	<u><u>\$ 34,800</u></u>

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 2023

	<u>Adopted</u> <u>F/Y22</u>	<u>Proposed</u> <u>F/Y23</u>
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>\$ 7,700</u>	<u>\$ 7,700</u>

NEW JERSEY WATER SUPPLY AUTHORITY
MANASQUAN RESERVOIR WATER SUPPLY SYSTEM

Schedule 12 - Projected FY 2023 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>
Property Limit \$150 million, Limit \$25m BI Deduct: \$100k all perils \$250k Deduct dams, dikes / \$1m Deduct Canal flood Earthen Dam:Builders Risk	\$527,656	\$256,740	\$75,604	\$860,000
General/Products Liability Limit \$1 million Deduct: \$150k	\$133,213	\$14,205	\$2,583	\$150,001
Environmental Impairment Liability Limit \$10 million Deduct: \$100k	\$26,643	\$2,841	\$517	\$30,001
Workers' Compensation Limit \$1 million	\$131,487	\$18,101	\$20,412	\$170,000
Employer Liability Limit \$1 million	Included in Workers' Comp	Included in Workers' Comp	Included in Workers' Comp	Included in Workers' Comp
Umbrella Liability Limit \$23 million	\$377,436	\$40,246	\$7,317	\$424,999
Business Automobile Limit: \$1 million G/L, \$0 pd Deduct: \$50k, G/L	\$44,304	\$4,012	\$1,684	\$50,000
Management Liability Public Officials Liability Cyber Risk Fidelity & Crime Limit \$5 million/\$1million/\$1 million Deduct: \$100k/\$10k/\$50k	\$44,404 \$17,762 \$62,166	\$4,735 \$1,894 \$6,629	\$861 \$344 <u>\$5,000</u> \$6,205	\$50,000 \$20,000 <u>\$5,000</u> \$75,000
Travel Accident Limit \$2 million	\$888	\$95	\$17	\$1,000
TOTAL:	\$1,303,793	\$342,869	\$114,339	\$1,761,001

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 2023 (7/1/22-6/30/23)

	Total Headquarters Charge	Manasquan Reservoir System	Manasquan WTP/TS
Budgeted-Appendix I, amount to be charged to Manasquan System for FY23 (7/1/22-6/30/23)	\$747,244	\$644,647	\$102,597
F/Y21 Adjustment as per audited Expenditures:			
Budgeted as per rate schedule for F/Y21 (7/1/20-6/30/21). Amounts paid during F/Y21 to Raritan Basin System.	\$629,000	\$542,000	\$87,000
Actual allocation based upon audited expenditures F/Y21 (7/1/20-6/30/21) - Appendix II	\$630,412	\$543,842	\$86,570
Adjustments F/Y21	\$1,412	\$1,842	(\$430)
Net Allocation for F/Y2023 Budget	\$748,656	\$646,489	\$102,167
Estimate	\$749,000	\$646,000	\$103,000

Note:

Amounts in this schedule may differ from the allocation reports attached because of adjustments made as a result of OPEB-related data released from the State of NJ after this schedule was prepared. Any differences will be addressed in this schedule in following year(s).

NEW JERSEY WATER SUPPLY AUTHORITY
MANASQUAN RESERVOIR WATER SUPPLY SYSTEM

Schedule 14 - Proposed Capital Equipment Budget

Fiscal Year 2023

Description	(A)Addition (R)Replacement	Year of Purchase Vehicle/Equipment	Dollar Value	%	Manasquan Reservoir	Manasquan WTP/TS	Reservoir Depreciation Reserve	WTP/TS Depreciation Reserve
Ford Pickup (Replacing NJWA 56)	R (528)		65,000	25/75	16,250	48,750	6,009	18,026
Mid Size pickup truck (Replacing NJWA 28)	R (511)		45,000	45/55	20,250	24,750	13,250	16,195
3 bottom field plow attachment for 70 Hp. John Deere tractor			2,000	30/70	600	1,400		
TOTAL			112,000		37,100	74,900	19,259	34,221
*Per Resolution #861, dated 7/12/93 Asset Definition minimum is \$1,000.					0			
Less Amount charged to Reservoir Depreciation Reserve					19,259			
Less Amount charged to WTP/TS Depreciation Reserve						34,221		
Total					17,841	40,679		
Additional Depreciation Reserve							0	
Estimate					\$17,800	\$40,679		

NEW JERSEY WATER SUPPLY AUTHORITY
MANASQUAN RESERVOIR WATER SUPPLY SYSTEM

Schedule 15 - July, 2020 – June, 2021 Fiscal Year 2021 G&A Expenses Split

EMPLOYEE NAME	TOTAL	BUDGETED %		ACTUAL % (Timesheets)		VARIANCE UNDER (OVER)	
		(40) RESERVOIR	(50) WTP/TS	(40) RESERVOIR	(50) WTP/TS	(40) RESERVOIR	(50) WTP/TS
PLANT OPERATOR							
TIME SPLIT		0%	100%	0%	100%		
REGULAR	68,769.68	0.00	68,769.68	0.00	68,769.68	0.00	0.00
CLOTH.	550.00	0.00	550.00	0.00	550.00	0.00	0.00
O.T.	5,421.44	0.00	5,421.44	0.00	5,421.44	0.00	0.00
FRINGE	41,618.81	0.00	41,618.81	0.00	41,618.81	0.00	(0.00)
RESERVOIR SYSTEM OPERATOR							
TIME SPLIT		97%	3%	99%	1%		
REGULAR	44,944.28	43,595.95	1,348.33	44,494.84	449.44	(898.89)	898.89
CLOTH.	550.00	533.50	16.50	544.50	5.50	(11.00)	11.00
O.T.	7,952.84	7,714.26	238.58	7,873.31	79.53	(159.05)	159.05
FRINGE	29,351.39	28,470.85	880.54	29,057.87	293.52	(587.02)	587.02
PLANT OPERATOR							
TIME SPLIT		1%	99%	1%	99%		
REGULAR	64,294.16	642.94	63,651.22	642.94	63,651.22	0.00	(0.00)
CLOTH.	550.00	5.50	544.50	5.50	544.50	0.00	0.00
O.T.	6,360.39	63.60	6,296.79	63.60	6,296.79	0.00	(0.00)
FRINGE	40,029.45	400.29	39,629.16	400.29	39,629.16	0.00	(0.00)
PLANT OPERATOR							
TIME SPLIT		1%	99%	1%	99%		
REGULAR	54,058.42	540.58	53,517.84	540.58	53,517.84	0.00	(0.00)
CLOTH.	1,100.00	11.00	1,089.00	11.00	1,089.00	0.00	0.00
O.T.	6,548.53	65.49	6,483.04	65.49	6,483.04	(0.00)	0.00
FRINGE	34,987.33	349.87	34,637.46	349.87	34,637.46	0.00	(0.00)
FACILITES MECHANIC							
TIME SPLIT		48%	52%	53%	47%		
REGULAR	63,146.40	30,310.28	32,836.12	33,467.59	29,678.81	(3,157.31)	3,157.31
CLOTH.	550.00	264.00	286.00	291.50	258.50	(27.50)	27.50
O.T.	167.81	80.55	87.26	88.94	78.87	(8.39)	8.39
FRINGE	35,399.64	16,991.82	18,407.82	18,761.81	16,637.83	(1,769.99)	1,769.99
ASST. RESERVOIR SYSTEM OPER-WSA							
TIME SPLIT		95%	5%	99%	1%		
REGULAR	33,000.80	31,350.75	1,650.05	32,670.79	330.01	(1,320.04)	1,320.04
CLOTH.	0.00	0.00	0.00	0.00	0.00	0.00	0.00
O.T.	3,467.84	3,294.46	173.38	3,433.16	34.68	(138.70)	138.70
FRINGE	21,055.01	20,002.29	1,052.72	20,844.46	210.55	(842.17)	842.17
PROJECT ENGINEER 11							
TIME SPLIT		51%	49%	99%	1%		
REGULAR	76,763.18	39,149.22	37,613.96	75,995.55	767.63	(36,846.33)	36,846.33
CLOTH.	0.00	0.00	0.00	0.00	0.00	0.00	0.00
O.T.	0.00	0.00	0.00	0.00	0.00	0.00	0.00
FRINGE	43,563.41	22,217.34	21,346.07	43,127.77	435.64	(20,910.43)	20,910.43
FAC. MECHANIC - WSA							
TIME SPLIT		48%	52%	53%	47%		
REGULAR	63,400.00	30,432.00	32,968.00	33,602.00	29,798.00	(3,170.00)	3,170.00
CLOTH.	550.00	264.00	286.00	291.50	258.50	(27.50)	27.50
O.T.	143.84	69.04	74.80	76.24	67.60	(7.20)	7.20
FRINGE	35,629.06	17,101.95	18,527.11	18,883.40	16,745.66	(1,781.45)	1,781.45
FOREMAN BUILDING & GROUNDS MAINT - WSA							
TIME SPLIT		94%	6%	94%	6%		
REGULAR	70,678.36	66,437.64	4,240.72	66,437.66	4,240.70	(0.02)	0.02
CLOTH.	550.00	517.00	33.00	517.00	33.00	0.00	0.00
O.T.	107.02	100.60	6.42	100.60	6.42	0.00	0.00
FRINGE	39,464.76	37,096.86	2,367.90	37,096.87	2,367.89	(0.01)	0.01

NEW JERSEY WATER SUPPLY AUTHORITY
MANASQUAN RESERVOIR WATER SUPPLY SYSTEM

Schedule 15 (Continued) July, 2020 – June, 2021 Fiscal Year 2021 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	
			47%	53%	52%	48%		
FOREMAN FACILITIES MAINT.								
TIME SPLIT REGULAR	70,855.41	33,302.03	37,553.38	36,844.81	34,010.60	(3,542.78)	3,542.78	
CLOTH.	550.00	258.50	291.50	286.00	264.00	(27.50)	27.50	
O.T.	1,150.52	540.74	609.78	598.27	552.25	(57.53)	57.53	
FRINGE	40,261.56	18,922.92	21,338.64	20,936.01	19,325.55	(2,013.09)	2,013.09	
			43%	57%	56%	44%		
SR. WATER SUPPLY TECH. -WSA								
TIME SPLIT REGULAR	70,536.72	30,330.79	40,205.93	39,500.56	31,036.16	(9,169.77)	9,169.77	
CLOTH.	550.00	236.50	313.50	308.00	242.00	(71.50)	71.50	
O.T.	133.78	57.52	76.26	74.92	58.86	(17.40)	17.40	
FRINGE	39,466.17	16,970.44	22,495.73	22,101.06	17,365.11	(5,130.62)	5,130.62	
			93%	7%	98%	2%		
MAINT. WORKER 1								
TIME SPLIT REGULAR	44,023.20	40,941.57	3,081.63	43,142.74	880.46	(2,201.17)	2,201.17	
CLOTH.	550.00	511.50	38.50	539.00	11.00	(27.50)	27.50	
O.T.	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
FRINGE	24,678.29	22,950.79	1,727.50	24,184.72	493.57	(1,233.93)	1,233.93	
			3%	97%	3%	97%		
PLANT OPERATOR								
TIME SPLIT REGULAR	60,789.28	1,823.68	58,965.60	1,823.68	58,965.60	(0.00)	0.00	
CLOTH.	550.00	16.50	533.50	16.50	533.50	0.00	0.00	
O.T.	4,939.95	148.20	4,791.75	148.20	4,791.75	(0.00)	0.00	
FRINGE	35,607.86	1,068.24	34,539.62	1,068.24	34,539.62	(0.00)	0.00	
			47%	53%	50%	50%		
SUPERVISOR TECH. ASST. & FAC. MAINT.								
TIME SPLIT REGULAR	81,868.71	38,478.29	43,390.42	40,934.36	40,934.35	(2,456.07)	2,456.07	
CLOTH.	550.00	258.50	291.50	275.00	275.00	(16.50)	16.50	
O.T.	2,271.83	1,067.77	1,204.06	1,135.92	1,135.91	(68.15)	68.15	
FRINGE	47,149.49	22,160.24	24,989.25	23,574.74	23,574.75	(1,414.50)	1,414.50	
			95%	5%	82%	18%		
ASST. RESERVOIR SYSTEM OPERATOR								
TIME SPLIT REGULAR	33,181.60	31,522.53	1,659.07	27,208.91	5,972.69	4,313.62	(4,313.62)	
CLOTH.	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
O.T.	1,604.61	1,524.38	80.23	1,315.78	288.83	208.60	(208.60)	
FRINGE	20,810.58	19,770.06	1,040.52	17,064.68	3,745.90	2,705.38	(2,705.38)	
			25%	75%	25%	75%		
SUPERVISOR OPERATIONS MWSS-WSA								
TIME SPLIT REGULAR	108,470.02	27,117.51	81,352.51	27,117.51	81,352.51	0.00	0.00	
CLOTH.	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
O.T.	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
FRINGE	61,185.61	15,296.43	45,889.18	15,296.40	45,889.21	0.03	(0.03)	
			97%	3%	99%	1%		
RESERVOIR SYS OPERATOR								
TIME SPLIT REGULAR	41,074.88	39,842.63	1,232.25	40,664.13	410.75	(821.50)	821.50	
CLOTH.	550.00	533.50	16.50	544.50	5.50	(11.00)	11.00	
O.T.	5,683.25	5,512.76	170.49	5,626.42	56.83	(113.66)	113.66	
FRINGE	26,155.87	25,371.21	784.66	25,894.32	261.55	(523.11)	523.11	
			50%	50%	52%	48%		
DIR. MWS/D&R CANAL OPERATIONS								
TIME SPLIT REGULAR	133,844.97	66,922.49	66,922.48	69,599.38	64,245.59	(2,676.89)	2,676.89	
CLOTH.	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
O.T.	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
FRINGE	75,357.99	37,678.98	37,679.01	39,186.16	36,171.83	(1,507.18)	1,507.18	

NEW JERSEY WATER SUPPLY AUTHORITY
MANASQUAN RESERVOIR WATER SUPPLY SYSTEM

Schedule 15 (Continued) July, 2020 – June, 2021 Fiscal Year 2021 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	
			50%	50%	52%	48%		
ADMIN. ASSISTANT								
TIME SPLIT								
REGULAR	64,321.68	32,160.84	32,160.84	33,447.27	30,874.41	(1,286.43)	1,286.43	
CLOTH.	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
O.T.	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
FRINGE	35,726.88	17,863.45	17,863.43	18,577.98	17,148.90	(714.53)	714.53	
			37%	63%	37%	63%		
SUPERVISING PLANT OPERATOR								
TIME SPLIT								
REGULAR	75,209.92	27,827.67	47,382.25	27,827.67	47,382.25	0.00	0.00	
CLOTH.	550.00	203.50	346.50	203.50	346.50	0.00	0.00	
O.T.	2,116.36	783.04	1,333.32	783.05	1,333.31	(0.01)	0.01	
FRINGE	42,642.22	15,777.63	26,864.59	15,777.62	26,864.60	0.01	(0.01)	
			92%	8%	98%	2%		
MAINT WORKER I								
TIME SPLIT								
REGULAR	44,200.00	40,664.01	3,535.99	43,316.00	884.00	(2,651.99)	2,651.99	
CLOTH.	550.00	506.00	44.00	539.00	11.00	(33.00)	33.00	
O.T.	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
FRINGE	24,855.46	22,867.03	1,988.43	24,358.35	497.11	(1,491.32)	1,491.32	
			95%	5%	99%	1%		
ASST. RESERVOIR SYS OPERATOR								
TIME SPLIT								
REGULAR	38,088.08	36,418.84	1,669.24	37,707.20	380.88	(1,288.36)	1,288.36	
CLOTH.	550.00	533.50	16.50	544.50	5.50	(11.00)	11.00	
O.T.	5,982.68	5,734.07	248.61	5,922.85	59.83	(188.78)	188.78	
FRINGE	24,373.70	23,305.77	1,067.93	24,129.96	243.74	(824.19)	824.19	
			2%	98%	2%	98%		
PLANT OPERATOR								
TIME SPLIT								
REGULAR	67,646.10	1,352.92	66,293.18	1,352.92	66,293.18	0.00	(0.00)	
CLOTH.	550.00	11.00	539.00	11.00	539.00	0.00	0.00	
O.T.	4,458.30	89.17	4,369.13	89.17	4,369.13	(0.00)	0.00	
FRINGE	37,165.01	743.30	36,421.71	743.30	36,421.71	0.00	(0.00)	
			94%	6%	94%	6%		
EQUIPMENT OPERATOR								
TIME SPLIT								
REGULAR	43,121.28	40,533.98	2,587.30	40,534.00	2,587.28	(0.02)	0.02	
CLOTH.	550.00	517.00	33.00	517.00	33.00	0.00	0.00	
O.T.	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
FRINGE	24,242.18	22,787.64	1,454.54	22,787.65	1,454.53	(0.01)	0.01	
			62%	38%	95%	5%		
WATER SUPPLY TECH - WSA								
TIME SPLIT								
REGULAR	60,045.25	37,228.06	22,817.19	57,042.99	3,002.26	(19,814.93)	19,814.93	
CLOTH.	550.00	341.00	209.00	522.50	27.50	(181.50)	181.50	
O.T.	46.69	28.95	17.74	44.36	2.33	(15.41)	15.41	
FRINGE	33,536.25	20,792.48	12,743.77	31,859.43	1,676.82	(11,066.95)	11,066.95	
			48%	52%	51%	49%		
FAC. MECHANIC-WSA								
TIME SPLIT								
REGULAR	54,007.68	25,923.68	28,084.00	27,543.92	26,463.76	(1,620.24)	1,620.24	
CLOTH.	550.00	264.00	286.00	280.50	269.50	(16.50)	16.50	
O.T.	60.40	28.99	31.41	30.80	29.60	(1.81)	1.81	
FRINGE	30,247.34	14,518.73	15,728.61	15,426.14	14,821.20	(907.42)	907.42	
			4%	96%	4%	96%		
PLANT OPERATOR								
TIME SPLIT								
REGULAR	57,018.30	2,280.73	54,737.57	2,280.73	54,737.57	0.00	(0.00)	
CLOTH.	550.00	22.00	528.00	22.00	528.00	0.00	0.00	
O.T.	6,073.80	242.95	5,830.85	242.95	5,830.85	0.00	(0.00)	
FRINGE	33,152.93	1,326.12	31,826.81	1,326.12	31,826.81	(0.00)	0.00	
	(60)	(40)	(50)	(40)	(50)	(40)	(50)	
REGULAR	1,687,358.36	797,131.62	890,226.74	885,740.73	801,617.63	(88,609.11)	88,609.11	
CLOTH.	12,100.00	5,808.00	6,292.00	6,270.00	5,830.00	(462.00)	462.00	
O.T.	64,691.88	27,146.54	37,545.34	27,714.03	36,977.85	(567.49)	567.49	
FRINGE	977,714.23	462,802.73	514,911.50	512,815.22	464,899.01	(50,012.49)	50,012.48	
GRAND TOTAL	2,741,864.47	1,292,888.89	1,448,975.58	1,432,539.98	1,309,324.49	(139,651.09)	139,651.09	

NEW JERSEY WATER SUPPLY AUTHORITY
MANASQUAN RESERVOIR WATER SUPPLY SYSTEM

Schedule 16 - Estimate of Interest Income

Fiscal Year 2023 Budget

Fund/Reserve	TD Bank Funds	
Operating	\$8,330,000	
Reserve for O & M	1,600,000	
General Reserve (Rate Stabilization Fund)	40,000	
Pumping Reserve	154,000	
Self-Insurance Reserve	215,000	
Sediment Reserve	315,000	
Estimated Total	\$10,654,000	
	\$10,654,000	x.25% =
	Total	\$26,635
	Estimate	\$26,600

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 2023

	Amount																				
F/Y2021 Net Year-End Balance	\$ 430,250																				
Excess D/S Coverage FY2022	\$ 118,000																				
<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-382</td> <td>Mar-21</td> <td style="text-align: right;">\$ 15,913</td> </tr> <tr> <td></td> <td>MM-384</td> <td>Apr-21</td> <td style="text-align: right;">\$ 9,982</td> </tr> <tr> <td></td> <td>MM-385</td> <td>May-21</td> <td style="text-align: right;">\$ 1,747</td> </tr> <tr> <td></td> <td>MM-389</td> <td>Jun-21</td> <td style="text-align: right;">\$ 8,236</td> </tr> </tbody> </table>	Overdraft	Invoice No.	Inv. Date	Amount	NJ American	MM-382	Mar-21	\$ 15,913		MM-384	Apr-21	\$ 9,982		MM-385	May-21	\$ 1,747		MM-389	Jun-21	\$ 8,236	
Overdraft	Invoice No.	Inv. Date	Amount																		
NJ American	MM-382	Mar-21	\$ 15,913																		
	MM-384	Apr-21	\$ 9,982																		
	MM-385	May-21	\$ 1,747																		
	MM-389	Jun-21	\$ 8,236																		
Used in FY21	\$ -																				
Available for use in FY23	\$ 35,878																				

Additional Sources

Total Available	\$ 584,128
Estimate for FY23	\$ 584,130

NEW JERSEY WATER SUPPLY AUTHORITY
MANASQUAN RESERVOIR WATER SUPPLY SYSTEM

Schedule 18 - Fund Balances as of 6/30/21

Final

	REVENUE FUND	OPERATING ACCOUNT	OPERATING FUND	O & M RESERVE	LONG TERM INVESTMENTS O & M RESERVE	TOTAL
BALANCE 6/30/21 (Does not include Debt Service payment)	\$ 2	\$ 391,887	\$ 8,175,618	\$ 1,604,939	\$ -	\$ 10,172,446
Add: NJ-American, JCP&L expenses for June 2021			\$ 14,299			14,299
Deduct: Accrued expenses to be paid as of 6/30/21			(73,042)			(73,042)
Deduct: June 10th billing, received			(325,761)			(325,761)
Adjusted Balances 6/30/21	\$ 2	\$ 391,887	\$ 7,791,114	\$ 1,604,939	\$ -	\$ 9,787,942
INCOME						
Operating Transfer	(310,000)		310,000			-
Receipt of WTP/TS G&A expenses for the month of June 2021, 7/31/21 billing			300,000			300,000
EXPENSES						
O & M Expenses - (A/P-6/30/21) includes accrued payroll thru 6/30/21			(296,327)			(296,327)
Capital items to be purchased by 6/30/21			-			-
Payment of Headquarters overhead expenses - to be paid 7/01			(135,500)			(135,500)
Contributions to Various Reserves- 7/21			(37,500)			(37,500)
ADJUSTED BALANCE AT 6/30/21	\$ (309,998)	\$ 391,887	\$ 7,931,787	\$ 1,604,939	\$ -	\$ 9,618,615
Less: O & M Reserve Balance (Goal is 3 months O & M Expenses as dictated by Bond Resolution)						(840,468)
Balance of projected funds available						\$ 8,778,147
Use of Available Funds						
Unanticipated revenues (overdrafts in FY21 to be available to the General Fund for FY23) NJ American Water						\$ (35,878)
Appropriate FY22 net fund balance into the General Fund (Rate Stabilization) to be used for rate stabilization						(490,570)
Balance of funds to be used for future years						\$ 8,251,700

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 2023

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 (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
OPERATIONS & MAINTENANCE/DEBT SERVICE SALES BASE	19.443 mgd

NEW JERSEY WATER SUPPLY AUTHORITY
 MANASQUAN RESERVOIR WATER SUPPLY AUTHORITY

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

Fiscal Year 2023

Funds Required for F/Y2023 Budget

Total Budget Requirements	\$	3,772,441
Miscellaneous Revenues	\$	(610,730)
Net Budget Requirement	\$	3,161,711
Less - Quarterly O&M payment on July 10, 2022 (cash received in July for water used in April, May and June of 2021 based on \$445.82/mg)	\$	(788,795)
Additional Revenue required from last three (3) Quarterly payments in F/Y2023 to cover Operations & Maintenance expenses through 6/30/23	\$	2,372,916

Computation of Operations & Maintenance Rate for Fiscal Year 2023

Required Operations & Maintenance Rate F/Y2023	$\frac{\$2,372,916}{5,322.52^*}$	=	\$ 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 10/10/22, 1/10/23 and 4/10/23:			
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 2023 \$ 591,588

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

Net Debt Service Obligation \$ 591,588

Coverage Requirement = Net Debt Service
Obligation x 20% \$ 118,318

Total to be Recovered by Rates \$ 709,905

Debt Service Rate Effective 7/01/22 \$ 709,905 = \$ 438.54mg
365 x 4.435/mgd = 1,618.78mg 1,618.78mg

Equalization Factor 0.38
\$ 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 2023	\$	178,967
Rate Equalization Adjustment		
Debt Service Rate Effective 7/01/2021	<u>\$ 178,967</u>	= \$ 25.22/mg
365 x 19.443/mgd =7,096.70mg	7,096.70mg	
Equalization Factor		(0.29)
		\$ 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 - 2023 Bond Debt Service Coverage

Fiscal Year 2023
(7/1/22-6/30/23)

DEBT SERVICE COVERAGE

	<u>Budgeted F/Y2023</u>
<u>Revenues</u>	
Uninterruptible Water Sales	\$ 7,357,403
Interest Income	\$ 26,600
Total Revenues	<u>\$ 7,384,003</u>
 <u>Expenses</u>	
O&M Costs	\$ 2,818,990
Overhead Allocation	\$ 646,000
Total O&M	<u>\$ 3,464,990</u>
Cash Available for Debt Service - A	\$ 3,919,013
Net Debt Service Expense	\$ 591,588
Debt Service Coverage Calculation - A/B	6.62
Cash After Debt Service A-B	\$ 3,327,425

NEW JERSEY WATER SUPPLY AUTHORITY
MANASQUAN RESERVOIR SYSTEM

Schedule 24 - Rehabilitation Reserve and Capital Improvement Program

Manasquan Reservoir Project Description	Renewal & Repl. Reserve	FY22	FY23	FY24	FY25	FY26+
Dam Emergency Contingency	\$400,000					
Pipeline Replacement Under I-195	\$950,000					
Pumping Equipment Replacement	\$650,000					
Replacement of Electric Motor & Valve Operator for 36" Reservoir Return Valve		\$10,000				
Design replacement wells for piezometers in Dam Embankment		\$100,000				
Paving Intake Parking Lot and Administration Parking Area			\$100,000			
Rehabilitation Pump and Motors at Reservoir & Intake Pumping Stations				\$40,000	\$40,000	
Traveling Water Screen Repair #5 & #6		\$100,000				
Security System Camera and DVR replacement				\$45,000		
Consulting Services to Investigate & Design Reservoir Algae Control System		\$50,000				
Drill 4 Piezometer Wells Manasquan Dam			\$300,000			
Replace Overhead Garage Doors (Maint. Shop/Pump Bay/Vehicle Bay)			\$21,000	\$25,000		
Replace Control Panel at Reservoir IO Building		\$45,000				
Rehabilitation of T2 Transformer and Oil Change			\$45,000			
Replace Pumps (#1,2,3,5)			\$200,000		\$150,000	\$200,000
Replace Valve Body Gasket on Reservoir Pipeline Valve			\$15,000			
Replace 2 % KVA Breakers in Substation					\$40,000	
Replace Balance of Metal Roof on Admin Portion of RPS Building				\$130,000		
Total*	\$2,000,000	\$305,000	\$681,000	\$240,000	\$230,000	\$200,000
Renewal and Replacement Balance June 2021	\$4,160,000					
Projected Balance End of Fiscal Year with annual regular deposit		\$3,975,000	\$3,294,000	\$3,054,000	\$2,824,000	\$2,624,000
*Minimum Balance Required		\$2,000,000	\$2,000,000	\$2,000,000	\$2,000,000	\$2,000,000
Revised Balance		\$1,975,000	\$1,294,000	\$1,054,000	\$824,000	\$624,000
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 2023-2027
Updated September 2021**

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 pre-stressed 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 Co. in the late 1970's. This vintage PCCP is suspect because of the type

of pre-stressing 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 tri-annually to monitor its condition. It was last inspected by two of the Authorities staff engineers in April of 2021 and found to be in satisfactory condition and with no change from 2016. One line valve was found to have a ripped seat which will be investigated further in 2022.

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" 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 and 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 as well. The combined construction cost for the Intake Pumping Station and the Reservoir Pumping Station was approximately \$30,000,000 (1990 dollars). The recommended reserve of \$650,000 represents 2% of the total construction cost.

Planned Capital Improvements - Fiscal Years 2022-2026

Design replacement wells for Eight Piezometers in the Reservoir Dam Embankment

Design is needed for locating and preparing contractor specifications for 4-8 piezometer wells that need to be drilled in 2022 to replace eight piezometers that failed in 2018-2020. Included in this project is supervision of the well driller on a limited basis.

Replacement of Electric Motor and Valve Operator for 36-Inch Reservoir Return Valve

The valve for controlling the flow of reservoir water into the flow meter valve chamber for use by the Water Treatment plant has become a critical piece of equipment over the last ten years. Often in the summer the river water quality after rain storms is so poor for several weeks that only reservoir water can be treated at the water treatment plant. Therefore it is critical that this valve is always fully operational and automated so that the water treatment plant can meet water quality standards and contract flows particularly in the summer and fall.

Paving Intake Parking Lot, Reservoir Turnaround, Administration Parking Area

These parking and access areas are breaking apart and need to be milled and repaved. There have been cracks filled in these surfaces for years in the past.

Rehabilitation of Large Motors

The motors have been in service for many years and develop oil leaks and problems needing attention.

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. In FY2021 units #3 and #4 were rebuilt with new chains and sprocket teeth for just under \$50,000.00. It was determined that #5 and #6 were in need of the same repairs and some additional underwater repair. Funding is included to rehabilitate two more of the remaining seven units in 2022.

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 identifying critical facilities that require vulnerability assessments, the Authority contracted with a consultant to develop a comprehensive security vulnerability assessment (VA) and implement recommendations of the VA. Recommendations were provided for changes in security policies and procedures, minimum and additional upgrades to the physical protection systems (PPS) and processes. Estimates of probable

capital costs were developed for the minimum and additional PPS for system facilities.

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 2024. The system at the Administration building will also need to be replaced at that time.

Replace Control Panel at Reservoir IO Building

The control panel at the reservoir IO tower is 30 years old and only the reservoir dam indicators report automatically. The system should be upgraded to maintain reliability of control from the central location at the top level of the IO tower. Also, by replacing the panel with a programmable logic controller (PLC) the Authority will be able to combine all of the valve position information and operations into one LCD display and relay this information back to the office in Wall using the FIOS service that is now in the building. Presently only one of the eight electric valves can be controlled from the office in Wall Township.

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. In 2020 it was found that 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. Four new wells are needed 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.

Replace Overhead Garage Door For the Administration Building Maintenance Shop

The overhead garage doors are 35 years old and failing and need to be replaced.

Replace Overhead Garage Door For the Reservoir Pump Station Bay

The overhead garage doors are 35 years old and failing and need to be replaced.

Consulting Services to Investigate and Design Reservoir Algae Control System

Recently NJDEP has put in place stringent algae toxin prevention and notification rules. Staff believes that investigating the installation of a mixing or aeration system to control summer algae blooms may be a better solution to prevent algae proliferation than the current methods in place. Staff wants to solicit technical proposals and a design that would lead to the most cost effective solution specific to the Manasquan Reservoir.

Replace the Balance of Metal Roof on Administration 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.

Rehabilitation of T2 Transformer and Oil Change

The transformer oil was replaced in one of the two 15 KVA breakers in 2020. The oil in the other transformer should be replaced in 2023.

Replacement of Pump #1 Reservoir Pumping Station

There are five vertical turbine pumps with 600-hp motors at the Intake Pumping Station (IPS). There are five 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 at the intake and reservoir pump stations. The first phase, which began in 2003, includes the servicing of a pump at the RPS and a motor at the IPS each year. All pumps and motors were physically inspected; vibration tested and pump efficiency tested once per year. In 2016 through 2021, all but one was within acceptable performance tolerances. Based on the condition of the other pumps this pump will need replacement.

Refurbish Intake Pump #2

Intake pump #2 will be in service for 35 years and will be in need of refurbishment as indicated by the condition of pump #3 in 2021.

Refurbish RPS Pump #3

This pump has the most running hours of all the RPS pumps. The condition of the IPS pumps recently refurbished indicate that although this pump is pumping at rated capacity and does not have excessive vibration, it likely has deteriorating line shaft bearings, bolt connections and shaft bearings.

Refurbish Intake Pump #5

Intake pump #5 will be in service for 35 years and will be in need of refurbishment as indicated by the condition of pump #3 in 2021.

Replace Valve Body Gasket on Reservoir Pipeline Valve

The gasket bolted into the body of the 66-inch butterfly valve is damaged and needs to be replaced for safe entry into the pipe. The valve is on the north side of NJ Highway 195.

Replace two 5 KVA breaker in substation

Two of the breakers have to be replaced due to age and leaking contactor vacuum bottles.

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, 2022

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, [2021] 2022	\$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/ [2021]2022 to	(Coverage 120%)
6/30/[2022]2023	\$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/[2021]2022 to	\$525.00
6/30/[2022]2023	

(d) (No change.)

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

<u>Period</u>	<u>Rate/Million Gallons</u>
7/1/[2021] 2022 to	\$200.00
6/30/[2022] 2023	

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/[2021] 2022 to	
6/30/[2022] 2023	\$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/[2021] 2022 to	
6/30/[2022] 2023	\$24.93

**Appendix I. Report of Mercadien PC – Allocation of Headquarters General and
Administrative Expenses – FY 2023**

**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, 2023

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

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INDEPENDENT ACCOUNTANTS' REPORT ON APPLYING AGREED-UPON PROCEDURES

To the Commissioners of
New Jersey Water Supply Authority

We have performed the procedures enumerated below on the financial schedules for the fiscal year ending June 30, 2023. The procedures were agreed to by the New Jersey Water Supply Authority (a component unit of the State of New Jersey and responsible party) (the "Authority") solely to assist the Authority in evaluating the financial 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 financial schedules in accordance with the guidelines for the presentation of schedules established by the American Institute of Certified Public Accountants.

An agreed-upon procedures engagement involves the practitioner performing specific procedures and reporting on findings based on the procedures performed. The Authority has agreed to and acknowledged that the procedures performed are appropriate to meet the intended purpose of the engagement, which is to assist the Authority with evaluating the underlying supporting documentation to determine the accuracy of the financial schedules in connection with setting water rates for each of the three operating systems. This report may not be suitable for any other purpose. The procedures performed may not address all the items of interest to a user of this report and may not meet the needs of all users of this report and, as such, users are responsible for determining whether the procedures performed are appropriate for their purposes.

The procedures and associated results are as follows:

1. We were provided with the fiscal year 2023 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 2023 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 2023 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, 2021, and found them to be consistent.

We were engaged by the Authority to perform this agreed-upon procedures engagement and conducted our engagement 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 of the subject matter, the objective of which would be the expression of an opinion or conclusion, respectively, about whether the forecasted cost allocation schedules are presenting the schedules in accordance with the guidelines for the presentation of schedules established by the American Institute of Certified Public Accountants. 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 ACCOUNTANTS' 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.

We are required to be independent of the Authority and to meet our other ethical responsibilities, in accordance with the relevant ethical requirements related to our agreed-upon procedures engagement.

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.

Merodien, P.C.
Certified Public Accountants

Hamilton, New Jersey

April 18, 2022

**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, 2023**

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	\$ -	\$ 96,250	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 96,250
	TELEPHONE HQ	-	-	-	-	40,000	-	-	-	-	-	40,000
36	SAFETY	210,275	-	-	(5,000)	-	-	-	-	-	-	205,275
37	SECURITY	1,053,950	-	-	-	-	-	-	-	-	-	1,053,950
14	HUMAN RESOURCES	340,067	-	-	(5,100)	-	-	-	(10,000)	-	-	324,967
16	PURCHASING	482,680	-	(120,030)	-	-	(40,000)	(18,000)	-	-	-	304,650
17	INFORMATION SYSTEMS	223,620	-	-	-	-	-	-	-	-	-	223,620
15	CONTRACTS & RISK MGMT.	1,815,067	-	-	(45,000)	(1,303,792)	-	(96,100)	-	(18,700)	-	351,475
13	FINANCIAL MGMT.	1,019,351	-	-	(2,730)	-	-	-	-	-	-	1,016,621
34	AUTO SHOP	267,908	-	120,030	-	-	-	18,000	-	-	-	405,938
35	AUTO SHOP-CANAL	226,760	-	-	-	-	-	-	-	-	-	226,760
10	EXEC. OFFICE	275,121	4,605	-	-	-	-	-	-	-	-	279,726
20, 30, 31-33	WATERSHED, ENGINEERING & O&M (RARITAN SYSTEM)	8,815,384	(100,855)	-	57,830	1,303,792	-	96,100	10,000	18,700	(13,268)	10,187,683
		14,730,183	-	-	-	-	-	-	-	-	(13,268)	14,716,915
40-60	MANASQUAN SYSTEM	5,427,104	-	-	-	-	-	-	-	-	13,268	5,440,372
		<u>\$ 20,157,287</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ 20,157,287</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, 2023**

DEPT. #	DEPT./COST CENTER	REVISED COST CENTER COSTS	ALLOCATION BASIS											ALLOCATED COST CENTER COSTS			
			# OF 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	\$ 96,250	\$ (96,250)														
	TELEPHONE HQ	40,000	-	\$ (40,000)													
36	SAFETY	205,275	646	430	\$ (206,351)												
37	SECURITY	1,053,950	3,639	1,720	16,010	\$ (1,075,319)											
14	HUMAN RESOURCES	324,967	4,305	1,290	3,558	-	\$ (334,120)										
16	PURCHASING	304,650	5,346	1,290	3,558	-	6,364	\$ (321,208)									
17	INFORMATION SYSTEMS	223,620	963	430	1,779	-	3,182	9,413	\$ (239,387)								
15	CONTRACTS & RISK MGMT.	351,475	3,148	860	3,558	-	6,364	8,588	8,255	\$ (382,248)							
13	FINANCIAL MGMT.	1,016,621	9,186	2,581	10,673	-	19,093	6,523	24,764	-	\$ (1,089,441)						
34	AUTO SHOP	405,938	14,467	860	3,558	-	6,364	13,955	4,127	-	26,737	\$ (476,006)					
35	AUTO SHOP-CANAL	226,760	-	860	1,779	-	3,182	9,166	4,127	-	14,936	-	\$ (260,810)				
10	EXEC. OFFICE	279,726	12,712	3,441	1,779	-	3,182	1,321	4,127	-	18,424	-	-	\$ (324,712)			
20, 30, 31-33	WATERSHED, ENGINEERING & O&M (RARITAN SYSTEM)	10,187,683	41,838	26,238	112,069	1,075,319	200,472	151,273	127,949	345,418	671,013	476,006	260,810	306,853	\$ 13,982,941		
40-60	MANASQUAN SYSTEM	5,440,372	-	-	48,030	-	85,917	120,969	66,038	36,830	358,331	-	-	17,859	6,174,346		
		<u>\$ 20,157,287</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>\$ 20,157,287</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, 2023**

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:		# OF 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	2								
16	PURCHASING	827	3	2	2							
17	INFORMATION SYSTEMS	149	1	1	1	114						
15	CONTRACTS & RISK MGMT.	487	2	2	2	104	2					
13	FINANCIAL MGMT.	1,421	6	6	6	79	6	-				
34	AUTO SHOP	2,238	2	2	2	169	1	-	\$405,938			
35	AUTO SHOP-CANAL	-	2	1	1	111	1	-	226,760			
10	EXEC OFFICE	1,967	8	1	1	16	1	-	279,726			
20, 30, 31-33	WATERSHED, ENGINEERING & O&M (RARITAN SYSTEM)	6,472	61	63	63	1,832	31	182	10,187,683	44	44	94.50
40-60	MANASQUAN SYSTEM	-	-	27	27	1,465	16	19	5,440,372	-	-	5.50
		<u>14,890</u>	<u>93</u>	<u>116</u>	<u>105</u>	<u>3,890</u>	<u>58</u>	<u>202</u>	<u>\$16,540,479</u>	<u>44</u>	<u>44</u>	<u>100.00 %</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, 2023**

	COSTS	ALLOCATION BASIS					ALLOCATED COSTS
		1 TIME STUDY	2 \$ VALUE OF VEHICLES	3 \$ VALUE OF EQUIPMENT	4 TIME STUDY	5 \$VALUE OF WATER CONTRACTS	
<u>GENERAL & ADMINISTRATIVE</u>							
SALARIES & FRINGES	\$ 3,144,050	\$ (3,144,050)					
VEHICLE RELATED	107,450	-	\$ (107,450)				
MAINT. SUPPLIES & RELATED	73,752	-	-	\$ (73,752)			
OFFICE & MISC.	53,100	-	-	-	\$ (53,100)		
H.Q. OVERHEAD	747,244	-	-	-	-	\$ (747,244)	
RESERVOIR (40)	1,157,613	1,521,884	77,740	37,636	25,703	644,647	\$ 3,465,223
TREAT./TRANS. (50)	891,139	1,622,166	29,710	36,116	27,397	102,597	2,709,125
	<u>\$ 6,174,348</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ 6,174,348</u>

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

**NOTES TO FINANCIAL SCHEDULES
YEAR ENDING JUNE 30, 2023**

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, 2023**

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, 2023

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 2021.
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 2021.
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 2021 Expenditures

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

EXAMINATION REPORT AND FINANCIAL SCHEDULES

June 30, 2021

**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 and responsible party) (the "Authority"), for the year ended June 30, 2021, 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, and, accordingly, included procedures we considered necessary in the circumstances. 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 on 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.

We are required to be independent of the Authority and to meet our other ethical responsibilities, in accordance with the relevant ethical requirements related to our examination agreement.

In our opinion, the financial schedules 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

April 18, 2022

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

**SCHEDULE OF COST CENTER EXPENSE RECLASSIFICATION
YEAR ENDED JUNE 30, 2021**

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' COMP.	8 IN LIEU TAXES	9 CHIEF ENGINEER SALARY & FRINGE		
	BUILDING HQ	\$ -	\$ 56,086	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 56,086
	TELEPHONE HQ	-	-	-	-	-	48,967	-	-	-	-	-	48,967
36	SAFETY	121,120	-	-	-	-	-	-	-	-	-	-	121,120
37	SECURITY	728,962	-	-	-	-	-	-	-	-	-	-	728,962
14	HUMAN RESOURCES	205,561	-	-	(4,008)	-	-	-	-	-	-	-	201,553
16	PURCHASING	387,418	-	(77,029)	-	-	(48,967)	(19,107)	-	-	-	-	242,315
17	INFORMATION SYSTEMS	149,154	-	-	-	-	-	-	-	-	-	-	149,154
15	CONTRACTS & RISK MGMT.	1,545,377	-	-	(24,940)	(1,265,817)	-	(93,058)	-	(18,689)	-	-	142,873
13	FINANCIAL MGMT	689,068	-	-	(2,286)	-	-	-	-	-	-	-	686,782
34	AUTO SHOP	168,819	-	77,029	-	-	-	19,107	-	-	-	-	264,955
35	AUTO SHOP-CANAL	156,654	-	-	-	-	-	-	-	-	-	-	156,654
10	EXEC OFFICE	203,000	5,116	-	-	-	-	-	-	-	-	-	208,116
20, 30, 31, 32, 33	WATERSHED, ENGINEERING & O&M (RARITAN SYSTEM)	5,015,046	(61,202)	-	31,234	1,265,817	-	93,058	-	18,689	(12,881)	-	6,349,761
		9,370,179	-	-	-	-	-	-	-	-	(12,881)	-	9,357,298
40-60	MANASQUAN SYSTEM	3,635,978	-	-	-	-	-	-	-	-	12,881	-	3,648,859
		<u>\$ 13,006,157</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ 13,006,157</u>

See Independent Accountants' Report.

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

**SCHEDULE OF SYSTEM-WIDE ALLOCATED COSTS
YEAR ENDED JUNE 30, 2021**

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	\$ 56,086	\$ (56,086)													
	TELEPHONE HQ	48,967	-	\$ (48,967)												
36	SAFETY	121,120	377	527	\$ (122,024)											
37	SECURITY	728,962	2,121	2,106	9,467	\$ (742,656)										
14	HUMAN RESOURCES	201,553	2,509	1,580	2,104	-	\$ (207,746)									
16	PURCHASING	242,315	3,115	1,580	2,104	-	3,957	\$ (253,071)								
17	INFORMATION SYSTEMS	149,154	561	527	1,052	-	1,979	7,416	\$ (160,689)							
15	CONTRACTS & RISK MGMT.	142,873	1,834	1,053	2,104	-	3,957	6,766	5,541	\$ (164,128)						
13	FINANCIAL MGMT	686,782	5,353	3,159	6,312	-	11,871	5,139	16,623	-	\$ (735,239)					
34	AUTO SHOP	264,955	8,430	1,053	2,104	-	3,957	10,995	2,771	-	18,329	\$ (312,594)				
35	AUTO SHOP-CANAL	156,654	-	1,053	1,052	-	1,979	7,221	2,771	-	10,837	-	\$ (181,567)			
10	EXEC OFFICE	208,116	7,407	4,212	1,052	-	1,979	1,041	2,771	-	14,397	-	-	\$ (240,975)		
20, 30, 31, 32, 33	WATERSHED, ENGINEERING & O&M (RARITAN SYSTEM)	6,349,761	24,379	32,117	66,271	742,656	124,647	119,185	85,884	148,313	439,258	312,594	181,567	227,721	\$ 8,854,353	
40-60	MANASQUAN SYSTEM	3,648,859	-	-	28,402	-	53,420	95,308	44,328	15,815	252,418	-	-	13,254	4,151,804	
		<u>\$ 13,006,157</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>\$ 13,006,157</u>	

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

**SCHEDULE OF COST ALLOCATION FACTORS
YEAR ENDED JUNE 30, 2021**

		REQUIRED STATISTICS										
ALLOCATION OF:	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	2								
16	PURCHASING	827	3	2	2							
17	INFORMATION SYSTEMS	149	1	1	1	114						
15	CONTRACTS & RISK MGMT.	487	2	2	2	104	2					
13	FINANCIAL MGMT	1,421	6	6	6	79	6	-				
34	AUTO SHOP	2,238	2	2	2	169	1	-	\$264,955			
35	AUTO SHOP-CANAL	-	2	1	1	111	1	-	156,654			
10	EXEC OFFICE	1,967	8	1	1	16	1	-	208,116			
20, 30, 31, 32, 33	WATERSHED, ENGINEERING & O&M (RARITAN SYSTEM)	6,472	61	63	63	1,832	31	182	6,349,761	44	44	94.50
40-60	MANASQUAN SYSTEM	-	-	27	27	1,465	16	19	3,648,859	-	-	5.50
		<u>14,890</u>	<u>93</u>	<u>116</u>	<u>105</u>	<u>3,890</u>	<u>58</u>	<u>202</u>	<u>\$10,628,345</u>	<u>44</u>	<u>44</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, 2021**

	COSTS	ALLOCATION BASIS					ALLOCATED COSTS
		1 TIME STUDY	2 \$ VALUE OF VEHICLES	3 \$ VALUE OF EQUIPMENT	4 TIME STUDY	5 \$VALUE OF WATER CONTRACTS	
<u>GENERAL & ADMINISTRATIVE</u>							
SALARIES & FRINGES	\$ 1,908,160	<u>\$ (1,908,160)</u>					
VEHICLE RELATED	82,752	-	<u>\$ (82,752)</u>				
MAINT. SUPPLIES & RELATED	48,168	-	-	<u>\$ (48,168)</u>			
OFFICE & MISC.	27,713	-	-	-	<u>\$ (27,713)</u>		
H.Q. OVERHEAD	515,826	-	-	-	-	<u>\$ (515,826)</u>	
RESERVOIR	846,229	1,007,230	59,871	24,580	14,628	444,991	\$ 2,397,529
TREAT./TRANS.	722,957	900,930	22,881	23,588	13,085	70,835	1,754,276
	<u>\$ 4,151,805</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ 4,151,805</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, 2021**

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, 2021**

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 cost as follows:

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

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

NOTES TO FINANCIAL SCHEDULES
YEAR ENDED JUNE 30, 2021

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 2021.
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 2021.
5. Headquarters Overhead expenses are allocated based on the value of water contracts for each System.