

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 INCREASE IN OPERATING EXPENSE FOR FISCAL YEAR 2021

ADJUSTMENT OF SOURCE WATER PROTECTION FUND COMPONENT TO REFLECT NO CHANGE IN COMPONENT RATE FOR FISCAL YEAR 2021

ADJUSTMENT OF DEBT SERVICE COST COMPONENTS TO REFLECT BOND YEAR PAYMENTS DUE AND REQUIRED FOR FISCAL YEAR 2021

ADJUSTMENT OF NEW JERSEY ENVIRONMENTAL INFRASTRUCTURE FINANCING PROGRAM DEBT COMPONENT TO REFLECT BOND YEAR PAYMENTS DUE AND REQUIRED FOR FISCAL YEAR 2021

ADDITION OF CAPITAL FUND COMPONENT RATE FOR INITIAL AND DELAYED WATER PURCHASE CONTRACT CUSTOMERS FOR FISCAL YEAR 2021

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PART I – EXPLANATION OF PROPOSED REVISED RATE STRUCTURE

Overview of Rate Proposal for Fiscal Year 2021
(July 1, 2020 - June 30, 2021)

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, 2020.

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 (FY2020) Rates Per MG 7/1/2019 – 6/30/2020	Proposed (FY2021) Rates Per MG 7/1/2020 – 6/30/2021
Operations & Maintenance Component	\$432.87	\$445.82
Source Water Protection Fund Component	15.00	15.00
Debt Service Cost Component	570.55	0.00
NJEIFP Debt Component	24.93	24.93
Capital Fund Component	0.00	525.00
TOTAL RATE	\$1,043.35/mg	\$1,010.75/mg

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

Component	Current (FY2020) Rates Per MG 7/1/2019 – 6/30/2020	Proposed (FY2021) Rates Per MG 7/1/2020 – 6/30/2021
Operations & Maintenance Component	\$432.87	\$445.82
Source Water Protection Fund Component	15.00	15.00
Debt Service Cost Component	664.96	438.92
NJEIFP Debt Component	24.93	24.93
Capital Fund Component	0.00	200.00
TOTAL RATE	\$1,137.76/mg	\$1,124.67/mg

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The General Rate Schedule for Operations and Maintenance (O&M) was last adjusted effective July 1, 2019 to cover the operating expenses of the System for FY2020. The FY2020 sales base was 19.443 million gallons per day (mgd). The Authority anticipates that the applicable raw water O&M sales base for FY2021 will remain the same at 19.443 mgd. The initial sales base will remain the same at 15.008mgd and the delayed sales base will remain at 4.435mgd.

After the allocation of appropriate Headquarters General and Administrative costs to the System, the Authority anticipates \$3,138,783 in O&M component revenue required during FY2021 with an O&M rate component of \$445.82 per million gallons, an increase of \$12.95 from FY2020, starting on July 1, 2020 (Schedule 20, page 42). The proposed operating expense budget for FY2021 is \$102,500 less than FY2020 and the proposed Capital Equipment Budget, net of depreciation reserve, is \$14,500 more than FY2020. In FY2021 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 FY2020. In FY2021 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 20.

The Manasquan Reservoir system owes \$178,643 to the SMMUA Water Treatment Plant and Transmission System for actual FY2019 salary and fringe expenses. This amount will be applied to the CY2020 SMMUA budget (Schedule 15, pages 35-37).

Miscellaneous revenue and interest income in FY2021 is projected to increase by \$75,270 relative to FY2020 reflecting a full year of improved interest earnings on bank deposits (Schedule 16, page 38) and an increase in the use of year end surplus and excess debt service coverage

available from FY2019 (Schedule 17, page 39). Overdraft revenue of \$30,485 is available from 2018 and 2019.

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 Initial Water Purchase Contracts (IWP) will be \$0 per million gallons, a reduction of \$570.55 per million gallons from FY2020. The portion of debt related to Initial Water Purchase Contracts will be retired effective August 1, 2020, and has already been raised in rates. The Debt Service component of the rate for the Delayed Water Purchase Contracts (DWP) will be \$438.92 per million gallons, a reduction of \$226.04 per million gallons from FY2020. Debt service related to Delayed Water Purchase Customers is decreasing by \$310,516 in FY2021. These changes reflect 120 percent debt service coverage.

The Authority established a Source Water Protection Fund Component in FY2004 dedicating \$15.00 per million gallons to protect the quality and quantity of water in the Manasquan Water Supply System. The Authority 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 FY2021.

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 FY2021 is required to cover debt service payments in accordance with the schedule and is no change from the FY2020 rate.

A capital fund rate component is being 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. In the Authority's Raritan Basin System, where dams were constructed in the early 1960s, the Authority created a capital fund rate component in 1995 to finance, on a current basis, capital needs through the assessment of an annual charge as part of the rate. As critical structures, including dams, continue to age in the 30 year old Manasquan System, the Authority believes it is prudent to establish a similar rate component that would fund related capital needs. The Authority's experience in its Raritan Basin System, indicates that refurbishment and replacement of these structures will be inevitable as the system continues to age, at costs that will be extremely burdensome to the relatively small Manasquan rate base. Additionally, the establishment of such a fund would reduce or preclude the need for long-term borrowing and its associated costs, which are also more onerous when spread over a small rate base. FY2021 presents a unique opportunity to begin setting aside reserves for future capital needs at a time when the rate component for debt service on the bonds used to construct the system is retired for initial customers and declining for delayed customers.

For Initial Water Purchase Contract customers, the base contract O&M Rate (\$445.82), Source Water Protection Program Rate (\$15.00), Debt Service Rate (\$0), NJEIFP Debt Rate (\$24.93) and Capital Fund Component (\$525.00) comprise the total base contract rate for raw water of \$1,010.75 per million gallons, and represents \$32.60 per million gallon decrease relative to FY2020. 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 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 FY2021 is \$1,124.67 per million gallons, representing a decrease of \$13.09 per million gallons relative to the FY2020 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 16) 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, 2020

through June 30, 2021. These rates are based upon the projected operating costs and reflect an estimated contracted sales base of 19.443mgd.

Table 2 (page 17) is a twenty-year history of the total initial water purchase contract annual water rate.

Table 3 (page 18) 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, 2020, January 10, 2021, April 10, 2021 and July 10, 2021.

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 9, 2020, at the Authority's Manasquan Administration Building, Hospital Road, Wall, New Jersey.

A public hearing on the proposed rate adjustment is scheduled at 11:00 a.m. on Thursday, February 6, 2020, also at the Authority's Manasquan Administration Building in Wall, New Jersey. The public hearing record is scheduled to close on March 16, 2020.

The Authority will take final action on the proposed rate adjustment at its May 4, 2020 meeting at the Authority's Administration Building in Clinton, New Jersey.

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

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

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

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

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

An independent auditor performed the Authority's fiscal year 2019 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 FY2021 budget based on the FY2019 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, 2019. The percentages used to provide the basis for the salary allocation for FY2021, were established from the time records from FY2016 through FY2019. 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 22).

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 FY2021.

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

Overview of Sales Base

On July 1, 1990 the Authority placed the Manasquan Reservoir Water Supply System in operation to provide an untreated water supply for use throughout Monmouth County. Twelve of the 13 original water purchase contracts were renewed effective July 1, 2015 and expire June 30, 2040. The final customer contract, New Jersey American, consolidated the initial water purchase and delayed water purchases for a total of 12.5mgd and has an expiration date of June 30, 2031. Of the 13 contracts, six are two-party contracts with the New Jersey Water Supply Authority. These are the five treated water customers (Wall Township and the Boroughs of Brielle, Sea Girt, Spring Lake and Spring Lake Heights) of the Southeast Monmouth Municipal Utilities Authority's water treatment plant operated by the New Jersey Water Supply Authority and the New Jersey American Contract. One is a three party contract (Keyport Borough) among the Authority, the customer and Shorelands

Water Company for the delivery of water through Shorelands' distribution system. Six contracts (the Boroughs of Avon, Belmar, Matawan, Red Bank and Lake Como, and Shorelands Water Company) are three party contracts among the Authority, the customers and New Jersey American for the provision of treated water from New Jersey American. The total sales base dropped from 20.560 to 19.443mgd effective July 1, 2015 and remains the total for FY2021.

Overview of Projected Operational Expenses

The Authority's proposed FY2021 Manasquan Reservoir Total Expense budget is \$102,500 less than the current FY2020 budget. The allocation of Authority Headquarters General and Administrative Expenses in FY2021 decreases by \$26,000 versus FY2020. Capital Equipment budget for FY2021 is \$14,500 more than FY2020. There will be no FY2021 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 \$75,270. These factors contribute to a \$68,924 increase in the total FY2021 O&M Component requirement relative to FY2020 (\$3,138,783 vs. \$3,069,858). (Budget Summary on page 20)

Total O&M Direct Expenses are decreasing by \$2,648 from FY2020. Increases in insurance and professional services expenses are offset by reduction in the cost of sediment removal. The Authority is again funding a water quality gaging station upstream at Squankum which will be operated by the USGS and will be useful to the Authority in attempting to determine the root cause of changes to water quality and color in the Manasquan River Basin over the past several years. General and Administrative Expenses allocated to the Reservoir System are increasing by \$5,543 from FY2020.

Salaries, Overtime and Benefits

Authority employees within the Communications Workers of America (CWA) and the International Federation of Professional Technical Engineers (IFPTE) are currently operating under a contract that expires on June 30, 2023. Authority employees represented by the third union, the International Brotherhood of Electrical Workers (IBEW), are operating under an expired contract. The FY2021 budget assumes a 2.0 percent cost of living adjustment payable July 1, 2020. 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 several management employees.

The Authority did not include any cost of living adjustments in the FY2021 budget for management. The Authority is budgeting 52 percent of the Salary budget for fringe benefits in FY2021, exclusive of retiree medical.

Pension expense payable to the state of New Jersey on April 1, 2020 will be approximately \$235,000 for the Manasquan System. The Authority has budgeted \$273,200 for this line item in FY2021. The average increase in actual payments to Treasury for pension contributions since FY2016 is 5.9 percent. Although increases have stabilized in the last three years, there is still a level

of uncertainty in this expense item because the pension system remains significantly underfunded.

Total salary and fringe is decreasing by \$174,517 for FY2021 from FY2020, and the portion allocated to the Reservoir System is decreasing by 105,390. The decrease is due in large part to reductions in active and retired employee medical and prescription costs that resulted from changes in health plans for these two groups. In FY2021, 47 percent of total salary and fringe is allocated to the Reservoir System and 53 percent to the Treatment Plant. The number of budgeted positions in FY2021 is 27, which is the same as FY2020. (Schedule 2, page 22).

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 decreasing in FY2021 from \$179,900 to \$99,800. The Authority is budgeting one additional retiree in FY2021. The Centers for Medicare and Medicaid Services (CMS) estimates that national health care spending will increase at an annual rate of 5.5 percent from 2018-2027. The Authority used actual 2019 rates and budgeted 6.0 percent and 6.0 percent increases for calendar years 2020 and 2021, respectively. The budget contains sufficient funds for eight retired employees.

Insurance Program

The Authority is recommending a \$27,200 increase in insurance expenses for FY2021, reflecting general market conditions based on the advice of the Authority's insurance broker and consultant. 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 FY2021 total \$702,989 of which \$606,468 is charged to the Manasquan Reservoir System and \$96,521 is charged to the Manasquan Water Treatment Plant (Schedule 13, page 33). Because actual audited Headquarters Expenses were lower than the budget for FY2019 by \$74,889, that difference must be credited in FY2021 resulting in an adjusted charge to the Reservoir System of \$542,000. Headquarters charges are driven primarily by salary and fringe.

Interest Income and Miscellaneous Revenue

The projected interest earnings on reserve funds for FY2021 are \$83,800. This reflects an

increase of \$60,400 relative to FY2020 and is based upon an interest rate of 1.25 percent for short-term investments (See Schedule 16, page 38). In recent years, the Authority has been able to substantially increase earnings on funds held in bank accounts by consolidating banking relationships.

Reserve Contributions

Consistent with FY2020, there will be no FY2021 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 FY2021. There was a supplemental contribution of \$350,000 to the Renewal and Replacement Fund in FY2017 that is not required in FY2021. The Authority requires a minimum balance of \$2 million in the fund to cover dam emergencies, and pipeline and pump emergent repairs. Because the system is aging, there are normal maintenance expenditures included in the five year plan that would have drawn the fund down below the \$2 million requirement without the supplemental deposit. Finally, the Authority funded a reserve for other post-employment benefits (accrued sick leave) in FY2017 in order to assure that sufficient funds are available to pay out sick benefits as this number is not regularly budgeted in salary and fringe.

Review of Reserve Accounts

Depreciation Reserve Account

This reserve is intended to provide for the replacement of Authority machinery and equipment with a value of \$1,000 or more and a useful life in a range from three to ten years and to cushion the impact of replacement equipment purchases in order to provide more stable rates. Depreciation Reserve should equal accumulated depreciation for this class of assets. Long term investment earnings are being used to fund the Depreciation Reserve.

Self Insurance Reserve

The Self Insurance Fund was established for the System to allow the Authority to make choices between underwritten risk and self-insurance risk in the face of increased prices in the insurance market. No contribution is being made to the fund in FY2021.

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 is fully funded as of June 30, 2016 and as a result, no contribution will be needed in FY2021.

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, 2019 is \$4,052,478. 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, 2019 is \$1,574,342. 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 FY2021.

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 FY2021.

PART II – DETAILED SUPPORTING INFORMATION

NEW JERSEY WATER SUPPLY AUTHORITY
MANASQUAN RESERVOIR WATER SUPPLY SYSTEM

Table 1 - Summary Of Proposed Fiscal Year 2021 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, 2020 to June 30, 2021

Rate Component	Current	Original Proposal 11/04/19	Difference	Percentage Increase (Decrease)
Operations & Maintenance Expense Component	\$432.87	\$445.82	\$12.95	2.99%
Source Water Protection Fund Component	\$15.00	\$15.00	\$0.00	0.00%
Debt Service Component	\$570.55	\$0.00	-\$570.55	-100.00%
NJEIFP Debt Component	\$24.93	\$24.93	\$0.00	0.00%
Capital Fund Component	\$0.00	\$525.00	\$525.00	--
Total Rate	\$1,043.35/mg	\$1,010.75/mg	-\$32.60/mg	-3.12%

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, 2020 to June 30, 2021

Rate Component	Current	Original Proposal 11/04/19	Difference	Percentage Increase (Decrease)
Operations & Maintenance Expense Component	\$432.87	\$445.82	\$12.95	2.99%
Source Water Protection Fund Component	\$15.00	\$15.00	\$0.00	0.00%
Debt Service Cost Component	\$664.96	\$438.92	-\$226.04	-33.99%
NJEIFP Debt Component	\$24.93	\$24.93	\$0.00	0.00%
Capital Fund Component	\$0.00	\$200.00	\$200.00	--
Total Rate	\$1,137.76/mg	\$1,124.67/mg	-\$13.09/mg	-1.15%

NEW JERSEY WATER SUPPLY AUTHORITY
MANASQUAN RESERVOIR WATER SUPPLY SYSTEM

**Table 2 - Rate History of Water Charges per Million Gallons of Raw Water - Initial
FY2002-FY2021**

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, 2001	212.29		585.63			\$797.92	9.48%
July 1, 2002	212.35		582.62			\$794.97	-0.37%
July 1, 2003	201.14	15	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%

NEW JERSEY WATER SUPPLY AUTHORITY
MANASQUAN RESERVOIR WATER SUPPLY SYSTEM

Table 3 - Rate History of Water Charges per Million Gallons of Raw Water - Delayed
FY2007-FY2021

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, 2006	295.41	15.00	763.61			\$1,074.02	-7.75%
July 1, 2007	302.52	15.00	764.44			\$1,081.96	0.74%
July 1, 2008	302.52	15.00	762.28			\$1,079.80	-0.20%
July 1, 2009	396.79	15.00	763.24			\$1,175.03	8.82%
July 1, 2010	396.79	15.00	756.19			\$1,167.98	-0.60%
July 1, 2011	347.39	15.00	770.90	35.42		\$1,168.71	0.06%
July 1, 2012	345.95	15.00	772.12	35.42		\$1,168.49	-0.02%
July 1, 2013	356.61	15.00	772.46	24.42		\$1,168.49	0.00%
July 1, 2014	356.61	15.00	772.46	24.42		\$1,168.49	0.00%
July 1, 2015	386.00	10.00	770.07	24.79		\$1,190.86	1.91%
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%

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, 2020

2019

SEPTEMBER	27	Advise Water Users of informal meeting.
OCTOBER	31	Informal meeting with Water Users – 11:00 AM.
NOVEMBER	4	Board reviews and approves proposed Rates.
DECEMBER	20	Mail Official Notice to water customers, Rate Payer Advocate, interested parties and advertise in newspapers.

2020

JANUARY	6	Publication in the New Jersey Register.
	9	Pre-Public Hearing – 11:00 AM (within 45 days of Official Notice). Deadline for responses to inquires received prior to pre-public hearing.
FEBRUARY	3	Deadline for receipt of comments to be addressed at Public Hearing (15 days after pre-public hearing).
	6	Public Hearing Meeting. (Manasquan Administration Building) – 11:00 AM Deadline for responses to inquires received between pre-public and public hearing.
	24	Written responses to questions raised at Hearing (within 10 business days of the public hearing).
MARCH	6	NJ Register Comment Period Ends.
	16	Public Hearing record closes (25 business days after Public Hearing).
MAY	4	Board approval of FY 2021 Rates (Budget approval option)
JUNE	1	Board approval of FY 2021 Budgets.
JULY	1	Effective date.

NEW JERSEY WATER SUPPLY AUTHORITY
MANASQUAN RESERVOIR WATER SUPPLY SYSTEM

Proposed Fiscal Year 2021 Budget Summary

(07/01/20-06/30/21)

	ADOPTED F/Y2020 <u>Reservoir Budget</u>	PROPOSED F/Y2021 <u>Reservoir Budget</u>
Proposed Operating Expense Budget (Schedule 1)	\$ 2,663,030	\$ 2,560,530
Allocation of Headquarters General & Administrative Expenses to the Manasquan Reservoir System (Schedule 13)	<u>\$ 568,000</u>	<u>\$ 542,000</u>
Proposed Total Expense Budget	\$ 3,231,030	\$ 3,102,530
Proposed Capital Equipment Budget (Schedule 14)	\$ 400	\$ 14,900
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/Y19 Salary and Fringe Expenses to be paid (from)/to WTP/TS Account (Schedule 15)	\$ -	\$ 178,643
Adjustment for F/Y18 Salary and Fringe Expenses to be paid (from)/to WTP/TS Account	<u>\$ (79,552)</u>	<u>\$ -</u>
Total Budget Requirements	<u>\$ 3,301,878</u>	<u>\$ 3,446,073</u>
Interest Earnings on Funds (Except Renewal and Replacement and Depreciation Reserve Fund) (Schedule 16)	\$ (23,400)	\$ (83,800)
Unanticipated Revenue (Schedule 17)	<u>\$ (208,620)</u>	<u>\$ (223,490)</u>
Total Miscellaneous Revenue & Interest Income	<u>\$ (232,020)</u>	<u>\$ (307,290)</u>
Net Amount to be paid for O & M Component	<u>\$ 3,069,858</u>	<u>\$ 3,138,783</u>

NEW JERSEY WATER SUPPLY AUTHORITY
MANASQUAN RESERVOIR WATER SUPPLY SYSTEM

Schedule 1 - Total Operations & Maintenance Budget

Fiscal Year 2021

	<u>F/Y2019 Reservoir Actual</u>	<u>F/Y2020 Reservoir Adopted</u>	<u>F/Y2021 Reservoir Proposed</u>
Salaries & Fringe Benefits (Schedule 2)*	\$1,350,790	\$1,520,900	\$1,415,510
O & M Direct Expense (Schedule 3)	766,347	1,008,584	1,005,936
G&A Expenses (Schedule 5)	<u>71,761</u>	<u>133,543</u>	<u>139,086</u>
Total Operations & Maintenance Budget	<u>\$2,188,898</u>	<u>\$2,663,027</u>	<u>\$2,560,532</u>
Estimate	<u>\$2,188,900</u>	<u>\$2,663,030</u>	<u>\$2,560,530</u>

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

	F/Y2019 Actual		F/Y2020 Adopted		F/Y2021 Proposed	
	Reservoir	WTP/TS	Reservoir	WTP/TS	Reservoir	WTP/TS
Salaries/Fringe*	\$1,350,790	\$1,327,985	\$1,520,900	\$1,652,917	\$1,415,510	\$1,583,760
O & M Direct Expense	766,347	746,777	1,008,584	855,400	1,005,936	864,000
G & A Expense	<u>71,761</u>	<u>67,008</u>	<u>133,543</u>	<u>89,907</u>	<u>139,086</u>	<u>99,414</u>
Total	\$2,188,898	\$2,141,769	\$2,663,027	\$2,598,224	\$2,560,532	\$2,547,174

*Actual fringe includes GASB 68 non-cash Pension expense

NEW JERSEY WATER SUPPLY AUTHORITY
MANASQUAN RESERVOIR WATER SUPPLY SYSTEM

Schedule 2 - Labor Projection
Fiscal Year 2021 (7/01/19-6/30/20)

TITLES	RANGE	SALARY	FRINGE BENEFITS	OVERTIME	CLOTHING ALLOWANCE	SHIFT DIFFERENTIAL	TOTAL	ALLOCATION RESERVOIR %	AMOUNT RESERVOIR	ALLOCATION WTP/TS %	AMOUNT WTP/TS
Director	36	119,500	64,757	-	-	-	184,257	50%	92,130	50%	92,130
Project Engineer II	26	91,600	49,638	-	-	-	141,238	51%	72,345	49%	68,895
Water Supply Tech.	17	64,400	35,196	-	550	-	100,146	62%	62,069	38%	38,081
Administrative Assistant	18	68,800	37,351	125	-	-	106,276	50%	53,200	50%	53,050
Supervisor Technical Facilities Maint	23	86,600	51,388	7,680	550	-	146,218	47%	68,025	54%	78,215
Sr. Water Supply Tech.	20	75,400	41,639	889	550	-	118,478	43%	50,959	57%	67,532
Maintenance Worker I	10	47,100	25,821	-	550	-	73,471	93%	68,593	7%	4,877
Supervisor Operations	29	104,400	56,574	-	-	-	160,974	25%	39,478	76%	121,492
Equipment Operator	12	46,000	25,408	337	550	-	72,295	94%	67,899	6%	4,361
Foreman Bldg & Grounds Maint	19	75,400	41,428	499	550	-	117,877	94%	110,361	6%	7,519
Foreman Facilities Maintenance	20	75,400	42,118	1,774	550	-	119,842	47%	56,054	53%	63,816
Facilities Mechanic (3 Positions)	18	192,900	106,428	1,849	1,650	-	302,827	48%	145,162	52%	157,618
Supervisor Plant Operator	22	80,700	46,087	3,798	550	-	131,135	37%	48,159	63%	82,981
Maintenance Worker I Operations	10	47,100	25,857	65	550	-	73,572	92%	67,519	8%	6,091
Reservoir System Operator (2 Positions)	15	95,900	58,894	10,335	1,650	796	167,575	97%	163,164	3%	4,372
Asst. Reservoir System Operator (3 Positions)	13	124,000	77,169	16,201	1,100	1,104	219,574	95%	208,594	5%	10,980
Plant Operator (3 Positions)	20	214,100	135,070	33,503	1,650	-	384,323	6%	23,045	94%	361,275
Plant Operator (3 Positions)	19	212,100	133,280	32,200	1,650	-	379,230	5%	18,754	95%	360,476
TOTAL: (rounded)		1,821,400	1,054,100	109,250	12,650	1,900	2,999,300		1,415,510		1,583,760

TOTAL = 27 Positions

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

NOTE: A. PERCENTAGES ARE FROM THE AVERAGE OF FISCAL YEARS 2015 THROUGH 2018 BASED ON ACTUAL TIME RECORDS.
B. PLANT OPERATOR TIME STUDY PERCENTAGES WERE ADJUSTED TO ACCOUNT FOR THE VALUE OF THE SHIFT DIFFERENTIAL PROVIDED TO THE RESERVOIR.

NEW JERSEY WATER SUPPLY AUTHORITY
MANASQUAN RESERVOIR WATER SUPPLY SYSTEM

Schedule 3 - Reservoir System Operations and Maintenance Direct Expense Budget

Proposed F/Y 2021, Adopted F/Y 2020, and Actual F/Y 2017-2019

Cost Center: Reservoir Direct
(40)

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

CODE	ACCOUNT	FY '17 ACTUAL	FY '18 ACTUAL	FY '19 ACTUAL	FY '20 ADOPTED	FY '21 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				648	800
5220	Utilities -Electrical Service	87,640	76,695	74,899	90,500	90,500
5230	-Gas Service	6,799	6,759	6,451	8,000	8,000
5240	-Propane					
5250	Electricity for Pumping Station	278,032	218,469	171,380	305,000	305,000
5260	Fuel - Vehicular					
5270	Oil & Grease					
5280	Tires					
5290	Maintenance Supplies	3,511	5,244	5,615	4,000	4,000
5300	Maint. Supplies - Vehicular					
5310	Major Vehicle Service & Repair					
5320	Agricultural Supplies					
5330	Maintenance Equipment	46,318	28,963	55,396	51,500	51,500
5340	Serv. & Maintenance Contracts	17,303	17,379	56,735	42,450	43,450
5350	Equipment Rental	4,477	4,400	2,340	6,500	6,500
5360	Household - Safety Supplies	523	835	766	1,000	1,000
5370	Uniforms					
5380	Special & Professional Services	66,612	130,420	72,226	123,686	138,686
5390	Protective Services	228,411	232,093	242,258	239,000	266,200
5400	Telephone	6,810	7,204	8,157	8,000	8,000
5410	Postage & Freight Out					
5420	Data Processing					
5430	Printing & Office Supplies	1,704	964	966	1,500	1,500
5440	Scientific & Photographic	3,350	2,258	751	5,500	5,500
5450	Dues & Subscriptions					
5460	Advertising & Promotional	487	433		2,000	2,000
5480	Staff Training & Tuition Aid					
5490	Fees & Permits	31,430	31,080	31,510	35,500	36,500
5500	In - Lieu Taxes	36,756	36,756	36,896	36,800	36,800
5510	Sediment Removal		29,724		47,000	
5520	Chemicals					
5525	Carbon Filter Replacement					
	Total Other Expenses	\$820,162	\$829,677	\$766,347	\$1,008,584	\$1,005,936
	Total Operating Expenses	\$820,162	\$829,677	\$766,347	\$1,008,584	\$1,005,936
	ANNUAL BUDGET	\$1,018,478	\$1,049,600	\$1,019,652	\$1,008,584	\$1,005,936

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 2021, Adopted F/Y 2020, and Actual F/Y 2017-2019

Cost Center: Treat/Trans Direct
(50)

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

CODE	ACCOUNT	FY '17 ACTUAL	FY '18 ACTUAL	FY '19 ACTUAL	FY '20 ADOPTED	FY '21 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	1,403	0	0	6,000	6,000
5220	Utilities -Electrical Service	317,968	269,231	251,242	304,500	304,500
5230	-Gas Service	29,683	24,309	26,630	30,000	31,000
5240	-Propane					
5250	Electricity for Pumping Station					
5260	Fuel - Vehicular					
5270	Oil & Grease		1,365	1,220	4,000	4,000
5280	Tires					
5290	Maintenance Supplies	2,062	4,217	6,603	6,000	6,000
5300	Maint. Supplies - Vehicular					
5310	Major Vehicle Service & Repair					
5320	Agricultural Supplies		64			
5330	Maintenance Equipment	65,951	44,048	91,668	112,500	112,500
5340	Serv. & Maintenance Contracts	14,919	22,084	26,485	37,000	42,000
5350	Equipment Rental	76,515	1,507	5,542	4,800	3,000
5360	Household - Safety Supplies	5,900	216	688	2,000	2,000
5370	Uniforms					
5380	Special & Professional Services	18,158	28,673	28,904	34,600	34,800
5390	Protective Services	78,902	79,836	80,035	92,000	85,700
5400	Telephone	435	481	516		1,000
5410	Postage & Freight Out		969	1,652		
5420	Data Processing					
5430	Printing & Office Supplies	2,153	5,077	8,266	6,800	9,800
5440	Scientific & Photographic	8,839	11,868	11,998	15,000	13,000
5450	Dues & Subscriptions					
5460	Advertising & Promotional	494	587	287	1,500	1,000
5470	Travel & Subsistence	27	55	59		
5480	Staff Training & Tuition Aid	1,400	5,102	1,843	6,700	6,700
5490	Fees & Permits	7,117	5,621	9,262	9,600	9,600
5500	In - Lieu Taxes	140	0	0	400	400
5510	Residual Removal	10,478	4,466	4,500	15,000	15,000
5520	Water Treatment Chemicals	116,894	88,979	134,833	117,000	131,000
5525	GAC Replacement	238	49,871	42,000	50,000	45,000
5528	Reimb of O&M Capital Expenditures		3,725	12,546		
	Total Other Expenses	\$759,677	\$652,350	\$746,777	\$855,400	\$864,000
	Total Operating Expenses	\$759,677	\$652,350	\$746,777	\$855,400	\$864,000
	ANNUAL BUDGET	\$1,059,546	\$941,860	\$929,660	\$855,400	\$864,000

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 2021, Adopted F/Y 2020, and Actual F/Y 2017-2019

Cost Center: G & A

(60)

MANASQUAN WATER SUPPLY SYSTEM
GENERAL & ADMINISTRATIVE
EXPENSE BUDGET

CODE	ACCOUNT	FY '17 ACTUAL	FY '18 ACTUAL	FY '19 ACTUAL	FY '20 ADOPTED	FY '21 PROPOSED
5110	Regular Salaries & Wages	\$1,665,410	\$1,761,247	\$1,747,505	\$1,830,250	\$1,835,950
5120	Overtime-Salaries & Wages	81,085	77,313	80,779	106,000	109,250
5130	New positions-Salaries & Wages					
5140	Seasonal Help-Salaries & Wages					
5150	Fringe Benefits	1,835,551	928,393	996,747	1,052,667	949,300
5160	Retiree Health Benefits	110,587	125,373	(149,260)	179,900	99,800
5168	Workers Comp. (Self-Insured)	483	1,006	1,453	5,000	5,000
	Total Salary, Wages & Fringe	\$3,693,116	\$2,893,334	\$2,677,224	\$3,173,817	\$2,999,300
	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	14,726	20,387	22,463	22,000	22,750
5270	Oil & Grease	4,764	865	6,797	5,700	5,700
5280	Tires	2,485	5,873	5,740	7,000	7,000
5290	Maintenance Supplies	9,551	10,278	8,457	27,300	27,300
5300	Maint. Supplies - Vehicular	6,751	6,022	8,656	10,600	10,600
5310	Major Vehicle Service & Repair	20,241	39,086	22,121	50,000	52,000
5320	Agricultural Supplies	2,250	2,876	5,219	7,600	8,600
5330	Maintenance Equipment	4,468	4,412	5,574	9,800	17,100
5340	Serv. & Maintenance Contracts	12,610	13,066	11,723	20,550	22,550
5350	Equipment Rental	2,124	2,348	2,307	3,900	4,300
5360	Household - Safety Supplies	11,592	8,145	5,655	7,500	7,500
5370	Uniforms				0	
5380	Special & Professional Services	7,318	7,099	7,469	7,300	7,700
5390	Protective Services				0	
5400	Telephone	5,649	6,304	6,008	7,000	7,000
5410	Postage & Freight Out	789	447	1,166	1,000	1,200
5420	Data Processing	4,000	4,417	3,558	5,000	5,000
5430	Printing & Office Supplies	4,530	2,242	3,659	5,800	5,800
5440	Scientific & Photographic	180	91	0	300	300
5450	Dues & Subscriptions	840	1,085	1,215	3,000	3,000
5460	Advertising & Promotional	631	1,379	1,214	2,000	2,000
5470	Travel & Subsistence	324	70	306	500	1,000
5480	Staff Training & Tuition Aid	12,246	5,920	4,251	11,900	12,400
5490	Fees & Permits	2,961	2,794	5,211	7,700	7,700
5500	In - Lieu Taxes					
5510	Residual Removal					
5520	Water Treatment Chemicals					
5525	GAC Replacement					
	Total Other Expenses	\$131,030	\$145,206	\$138,769	\$223,450	\$238,500
	Total Operating Expenses	\$3,824,146	\$3,038,539	\$2,815,993	\$3,397,267	\$3,237,800
	Budget- other expenses					
	TOTAL ANNUAL BUDGET					
	Reservoir System	\$70,909	\$84,508	\$71,761	\$133,543	\$139,086
	Treatment/Transmission System	\$60,121	\$60,698	\$67,008	\$89,907	\$99,414

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 2021

	Adopted F/Y20	Proposed F/Y21
1 HVAC/Dehumidifier Service	\$ 500	\$ 500
2 Instrumentation & Control System Service/Upgrade	3,000	3,000
3 Electrical Upgrade & Repair	14,000	14,000
4 Overhead Crane Service & Inspection	3,000	3,000
5 Fire & Intrusion Alarm Service	1,500	1,500
6 Potable Well/Septic Service	1,500	1,500
7 Fertilization-Dam Dike	3,750	3,750
8 Roadway Crack Sealing	2,000	3,000
9 Wood Debris Removal	2,500	2,500
10 Access Roadway Repairs	2,500	2,500
11 Roofing System Maintenance & Repair	4,000	4,000
12 Reservoir Transmission Line Clearing	3,000	3,000
13 Fios Fiber Optic for Security Cameras	1,200	1,200
	<u>1,200</u>	<u>1,200</u>
Total Service & Maintenance Contracts	<u>\$ 42,450</u>	<u>\$ 43,450</u>

NEW JERSEY WATER SUPPLY AUTHORITY
MANASQUAN RESERVOIR WATER SUPPLY SYSTEM

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

For WTP/TS (50)

Fiscal Year 2021

		<u>Adopted</u> <u>F/Y20</u>	<u>Proposed</u> <u>F/Y21</u>
1	HVAC Service	\$ 2,000	\$ 2,000
2	Electrical Service Contract	1,000	1,500
3	Instrumentation & Control System Service & Upgrade	5,000	6,000
4	Electrical Upgrade & Repair	2,000	4,000
5	Overhead Crane Service	1,500	3,000
6	UST Monitors Service and Upgrade	1,000	1,000
7	Fire & Intrusion Alarm Service	1,200	1,200
8	Air Compressor Service	1,200	1,200
9	Boiler Service	2,500	2,500
10	Auxiliary Generator Service	3,500	3,500
11	Lab Equipment Service	2,500	2,500
12	Backflow Preventor Service	500	500
13	Gas-Fired Hot Water Heater Service	700	700
14	Instrumentation & Control System Service & Upgrade (Transmission System)	5,000	5,000
15	Electrical Upgrade & Repair (Transmission System)	2,000	2,000
16	Meter Vault Internet Service (Transmission System)	5,400	5,400
Total Service & Maintenance Contracts		<u>\$ 37,000</u>	<u>\$ 42,000</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 2021

		<u>Adopted F/Y20</u>	<u>Proposed F/Y21</u>
1	Refuse & Waste Disposal	\$ 2,000	\$ 2,000
2	Office Equipment/Computers	1,800	1,800
3	Waste Oil Disposal	200	200
4	Fire Extinguisher Service	1,100	1,100
5	UST Monitor Service	2,000	2,000
6	Building Maintenance	1,750	1,750
7	Internet Service	2,000	2,000
8	Janitorial Service	6,000	8,000
9	Vehicle Lift Inspection	500	500
10	Generator Service & Maintenance	2,000	2,000
11	Forklift Service & Maintenance	<u>1,200</u>	<u>1,200</u>
	Total Service & Maintenance Contracts	<u><u>\$ 20,550</u></u>	<u><u>\$ 22,550</u></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 2021

		Adopted <u>F/Y20</u>	Proposed <u>F/Y21</u>
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	Lake Management Consultants	20,000	20,000
8	Engineering Services	4,000	4,000
9	Financial Advisory Services	4,850	4,850
10	USGS Gaging Station Squankum	<u>30,836</u>	<u>30,836</u>
	Total Special & Professional Services	<u>\$ 123,686</u>	<u>\$ 138,686</u>

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 2021

		Adopted F/Y20	Proposed F/Y21
		<u> </u>	<u> </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 (Transmission System)	<u>1,600</u>	<u>1,800</u>
	 Total Special & Professional Services	 <u>\$ 34,600</u>	 <u>\$ 34,800</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 2021

	<u>Adopted</u> <u>F/Y20</u>	<u>Proposed</u> <u>F/Y21</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>800</u>	<u>1,200</u>
Total Special & Professional Services	<u>\$ 7,300</u>	<u>\$ 7,700</u>

NEW JERSEY WATER SUPPLY AUTHORITY
MANASQUAN RESERVOIR WATER SUPPLY SYSTEM

Schedule 12 - Projected FY 2021 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	\$585,160	\$196,749	\$48,091	\$830,000
Deduct: \$100k all perils \$250k Deduct dams, dikes / \$1m Deduct Canal flood Earthen Dam:Builders Risk	\$15,000			\$15,000
General/Products Liability Limit \$1 million Deduct: \$150k	\$103,332	\$9,661	\$2,007	\$115,000
Environmental Impairment Liability Limit \$10 million Deduct: \$100k	\$24,261	\$2,268	\$471	\$27,000
Workers' Compensation Limit \$1 million	\$186,027	\$23,915	\$25,058	\$235,000
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	\$269,563	\$25,203	\$5,234	\$300,000
Business Automobile Limit: \$1 million G/L, \$0 pd Deduct: \$50k, G/L	\$24,627	\$4,372	\$1,001	\$30,000
Management Liability Public Officials Liability Cyber Risk Fidelity & Crime Limit \$5 million/\$1million/\$1 million Deduct: \$100k/\$10k/\$50k	\$35,942 \$5,391 <hr/> \$41,333	\$3,360 \$504 <hr/> \$3,864	\$698 \$105 <hr/> \$3,000 <hr/> \$3,803	\$40,000 \$6,000 <hr/> \$3,000 <hr/> \$49,000
Travel Accident Limit \$2 million	\$1,797	\$168	\$35	\$2,000
TOTAL:	\$1,251,100	\$266,200	\$85,700	\$1,603,000

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 2021 (7/1/20-6/30/21)

	Total Headquarters Charge	Manasquan Reservoir System	Manasquan WTP/TS
Budgeted-Appendix I, amount to be charged to Manasquan System for FY21 (7/1/20-6/30/21)	\$703,604	\$606,999	\$96,605
F/Y19 Adjustment as per audited Expenditures:			
Budgeted as per rate schedule for F/Y19 (7/1/18-6/30/19). Amounts paid during F/Y19 to Raritan Basin System.	\$772,000	\$666,000	\$106,000
Actual allocation based upon audited expenditures F/Y19 (7/1/18-6/30/19) - Appendix II	<u>\$697,111</u>	<u>\$601,381</u>	<u>\$95,730</u>
Adjustments F/Y19	<u>(\$74,889)</u>	<u>(\$64,619)</u>	<u>(\$10,270)</u>
Net Allocation for F/Y2021 Budget	<u><u>\$628,715</u></u>	<u><u>\$542,380</u></u>	<u><u>\$86,335</u></u>
Estimate	<u>\$629,000</u>	<u>\$542,000</u>	<u>\$87,000</u>

NEW JERSEY WATER SUPPLY AUTHORITY
MANASQUAN RESERVOIR WATER SUPPLY SYSTEM

Schedule 15 - July, 2018 – June, 2019 Fiscal Year 2019 G&A Expenses Split

EMPLOYEE NUMBER	TOTAL	BUDGETED %		ACTUAL % (Timesheets)		VARIANCE UNDER (OVER)		
		(40)	(50)	(40)	(50)	(40)	(50)	
		RESERVOIR	WTP/TS	RESERVOIR	WTP/TS	RESERVOIR	WTP/TS	
4 6738 PLANT OPERATOR			6%	94%	6%	94%		
	TIME SPLIT							
	REGULAR	68,295.28	4,097.72	64,197.56	4,097.72	64,197.56	0.00	0.00
	CLOTH.	550.00	33.00	517.00	33.00	517.00	0.00	0.00
	O.T.	6,914.13	414.85	6,499.28	414.85	6,499.28	0.00	0.00
	FRINGE	34,168.19	2,050.09	32,118.10	2,050.09	32,118.10	0.00	(0.00)
7 7330 RESERVOIR			97%	3%	98%	2%		
	SYSTEM OPERATOR							
	REGULAR	45,274.00	43,915.77	1,358.23	44,368.52	905.48	(452.75)	452.75
	CLOTH.	550.00	533.50	16.50	539.00	11.00	(5.50)	5.50
	O.T.	2,863.97	2,778.05	85.92	2,806.69	57.28	(28.64)	28.64
	FRINGE	21,900.63	21,243.61	657.02	21,462.61	438.02	(219.00)	219.00
21 7335 RES. SYS. OP.			97%	3%	98%	2%		
050206 ASST. RES. SYS. OP.								
48759								
	TIME SPLIT							
	REGULAR	48,231.84	46,784.89	1,446.95	47,267.20	964.64	(482.31)	482.31
	CLOTH.	550.00	533.50	16.50	539.00	11.00	(5.50)	5.50
	O.T.	4,858.18	4,712.42	145.76	4,761.02	97.16	(48.60)	48.60
	FRINGE	28,580.20	27,722.80	857.40	28,008.59	571.61	(285.79)	285.79
20 7933 PLANT OPERATOR			5%	95%	5%	95%		
	TIME SPLIT							
	REGULAR	71,542.24	3,577.11	67,965.13	3,577.11	67,965.13	0.00	0.00
	CLOTH.	550.00	27.50	522.50	27.50	522.50	0.00	0.00
	O.T.	9,276.12	463.81	8,812.31	463.81	8,812.31	0.00	0.00
	FRINGE	36,804.05	1,840.21	34,963.84	1,840.20	34,963.85	0.01	(0.01)
12 8172 FACILITES			46%	54%	48%	52%		
	MECHANIC							
	TIME SPLIT							
	REGULAR	62,888.80	28,928.86	33,959.94	30,186.62	32,702.18	(1,257.76)	1,257.76
	CLOTH.	550.00	253.00	297.00	264.00	286.00	(11.00)	11.00
	O.T.	365.46	168.12	197.34	175.42	190.04	(7.30)	7.30
	FRINGE	29,708.48	13,665.92	16,042.56	14,260.07	15,448.41	(594.15)	594.15
26 9373 ASST. RESERVOIR			97%	3%	100%	0%		
	SYSTEM OPER - WSA							
	TIME SPLIT							
	REGULAR	38,819.10	37,654.54	1,164.56	38,819.10	0.00	(1,164.56)	1,164.56
	CLOTH.	275.00	266.75	8.25	275.00	0.00	(8.25)	8.25
	O.T.	4,801.88	4,657.83	144.05	4,801.88	0.00	(144.05)	144.05
	FRINGE	19,764.47	19,171.54	592.93	19,764.47	0.00	(592.93)	592.93
27 10574 PROJECT			37%	63%	72%	28%		
	ENGINEER 11							
	TIME SPLIT							
	REGULAR	72,727.75	26,909.27	45,818.48	52,363.98	20,363.77	(25,454.71)	25,454.71
	CLOTH.	-	-	-	0.00	0.00	0.00	0.00
	O.T.	-	-	-	0.00	0.00	0.00	0.00
	FRINGE	33,256.36	12,304.85	20,951.51	23,944.58	9,311.78	(11,639.73)	11,639.73
9 12976 FAC. MECHANIC - WSA			46%	54%	50%	50%		
	TIME SPLIT							
	REGULAR	64,868.00	29,839.28	35,028.72	32,434.00	32,434.00	(2,594.72)	2,594.72
	CLOTH.	550.00	253.00	297.00	275.00	275.00	(22.00)	22.00
	O.T.	660.75	303.94	356.81	330.38	330.37	(26.44)	26.44
	FRINGE	30,848.95	14,190.53	16,658.43	15,424.48	15,424.47	(1,233.95)	1,233.96
16 16220 FOREMAN			92%	8%	96%	4%		
	BUILDING & GROUNDS							
	MAINT - WSA							
	TIME SPLIT							
	REGULAR	72,429.60	66,635.21	5,794.39	69,532.42	2,897.18	(2,897.21)	2,897.21
	CLOTH.	550.00	506.00	44.00	528.00	22.00	(22.00)	22.00
	O.T.	368.60	339.11	29.49	353.86	14.74	(14.75)	14.75
	FRINGE	34,304.36	31,560.03	2,744.34	32,932.19	1,372.17	(1,372.16)	1,372.17

NEW JERSEY WATER SUPPLY AUTHORITY
MANASQUAN RESERVOIR WATER SUPPLY SYSTEM

Schedule 15 (Continued) July, 2018 – June, 2019 Fiscal Year 2019 G&A Expenses Split

EMPLOYEE NUMBER	TOTAL	BUDGETED %		ACTUAL % (Timesheets)		VARIANCE UNDER (OVER)		
		(40)	(50)	(40)	(50)	(40)	(50)	
		RESERVOIR	WTP/TS	RESERVOIR	WTP/TS	RESERVOIR	WTP/TS	
14 23959 FOREMAN FACILITIES MAINT.			46%	54%	46%	54%		
TIME SPLIT								
REGULAR	70,396.40	32,382.35	38,014.05	32,382.34	38,014.06	0.01	(0.01)	
CLOTH.	550.00	253.00	297.00	253.00	297.00	0.00	0.00	
O.T.	1,311.43	603.27	708.16	603.26	708.17	0.01	(0.01)	
FRINGE	33,423.36	15,374.75	18,048.61	15,374.74	18,048.62	0.01	(0.01)	
13 26529 SR. WATER SUPPLY TECH. -WSA			35%	65%	45%	55%		
TIME SPLIT								
REGULAR	72,429.60	25,350.36	47,079.24	32,593.32	39,836.28	(7,242.96)	7,242.96	
CLOTH.	550.00	192.50	357.50	247.50	302.50	(55.00)	55.00	
O.T.	657.43	230.10	427.33	295.84	361.59	(65.74)	65.74	
FRINGE	34,467.27	12,063.52	22,403.75	15,510.27	18,957.00	(3,446.75)	3,446.75	
5 36810 MAINT. WORKER 1			94%	6%	99%	1%		
TIME SPLIT								
REGULAR	45,220.40	42,507.18	2,713.22	44,768.20	452.20	(2,261.02)	2,261.02	
CLOTH.	550.00	517.00	33.00	544.50	5.50	(27.50)	27.50	
O.T.	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
FRINGE	21,402.17	20,118.02	1,284.14	21,188.15	214.02	(1,070.13)	1,070.12	
17 41950 PLANT OPERATOR			0%	100%	0%	100%		
TIME SPLIT								
REGULAR	71,125.60	0.00	71,125.60	0.00	71,125.60	0.00	0.00	
CLOTH.	550.00	0.00	550.00	0.00	550.00	0.00	0.00	
O.T.	8,035.04	0.00	8,035.04	0.00	8,035.04	0.00	0.00	
FRINGE	36,819.56	0.00	36,819.56	0.00	36,819.56	0.00	0.00	
18 47397 SUPERVISOR TECH. ASST. & FAC. MAINT.			35%	65%	50%	50%		
TIME SPLIT								
REGULAR	83,198.40	29,119.44	54,078.96	41,599.20	41,599.20	(12,479.76)	12,479.76	
CLOTH.	550.00	192.50	357.50	275.00	275.00	(82.50)	82.50	
O.T.	5,677.41	1,987.09	3,690.32	2,838.71	2,838.70	(851.62)	851.62	
FRINGE	41,725.40	14,603.90	27,121.49	20,862.70	20,862.70	(6,258.80)	6,258.79	
3 50121 SUPERVISOR OPERATIONS MWSS-WSA			24%	76%	27%	73%		
TIME SPLIT								
REGULAR	101,381.00	24,331.43	77,049.57	27,372.87	74,008.13	(3,041.44)	3,041.44	
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	47,937.18	11,504.92	36,432.26	12,943.04	34,994.14	(1,438.12)	1,438.12	
1 50461 DIR. MWS/D&R CANAL OPERATIONS			43%	57%	56%	44%		
TIME SPLIT								
REGULAR	115,571.80	49,695.88	65,875.92	64,720.21	50,851.59	(15,024.33)	15,024.33	
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	53,909.68	23,181.16	30,728.52	30,189.42	23,720.26	(7,008.26)	7,008.26	
8 23970 ASST. RESERVOIR SYS OPERATOR			97%	3%	99%	1%		
TIME SPLIT								
REGULAR	40,827.03	39,602.22	1,224.81	40,418.76	408.27	(816.54)	816.54	
CLOTH.	550.00	533.50	16.50	544.50	5.50	(11.00)	11.00	
O.T.	4,776.46	4,633.16	143.30	4,728.70	47.76	(95.54)	95.54	
FRINGE	20,551.37	19,934.80	616.57	20,345.85	205.52	(411.05)	411.05	
2 50802 ADMIN. ASSISTANT			53%	47%	56%	44%		
TIME SPLIT								
REGULAR	66,068.00	35,016.04	31,051.96	36,998.08	29,069.92	(1,982.04)	1,982.04	
CLOTH.	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
O.T.	95.34	50.53	44.81	53.39	41.95	(2.86)	2.86	
FRINGE	30,843.13	16,346.84	14,496.29	17,272.15	13,570.98	(925.31)	925.31	

NEW JERSEY WATER SUPPLY AUTHORITY
MANASQUAN RESERVOIR WATER SUPPLY SYSTEM

Schedule 15 (Continued) July, 2018 – June, 2019 Fiscal Year 2019 G&A Expenses Split

EMPLOYEE NUMBER	TOTAL	BUDGETED %		ACTUAL % (Timesheets)		VARIANCE UNDER (OVER)		
		(40)	(50)	(40)	(50)	(40)	(50)	
		RESERVOIR	WTP/TS	RESERVOIR	WTP/TS	RESERVOIR	WTP/TS	
19 63738 PLANT OPERATOR	TIME SPLIT		8%	92%	8%	92%		
7335	REGULAR	66,908.00	5,352.64	61,555.36	5,352.64	61,555.36	0.00	0.00
	CLOTH.	550.00	44.00	506.00	44.00	506.00	0.00	0.00
	O.T.	7,455.92	596.47	6,859.45	596.47	6,859.45	0.00	0.00
	FRINGE	35,546.86	2,843.75	32,703.11	2,843.75	32,703.11	0.00	0.00
6 69555 MAINT WORKER I	TIME SPLIT		92%	8%	99%	1%		
	REGULAR	45,220.40	41,602.76	3,617.64	44,768.20	452.20	(3,165.44)	3,165.44
	CLOTH.	550.00	506.00	44.00	544.50	5.50	(38.50)	38.50
	O.T.	49.53	45.57	3.96	49.03	0.50	(3.46)	3.46
	FRINGE	21,425.26	19,711.23	1,714.02	21,211.01	214.25	(1,499.78)	1,499.77
24 81185 RESERVOIR SYSTEM OPERATOR	TIME SPLIT		97%	3%	97%	3%		
	REGULAR	35,772.40	34,699.24	1,073.16	34,699.23	1,073.17	0.01	(0.01)
	CLOTH.	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	O.T.	2,316.58	2,247.08	69.50	2,247.08	69.50	0.00	0.00
	FRINGE	17,501.03	16,975.99	525.04	16,976.00	525.03	(0.01)	0.01
23 87000 PLANT OPERATOR	TIME SPLIT		3%	97%	3%	97%		
	REGULAR	67,903.60	2,037.11	65,866.49	2,037.11	65,866.49	0.00	0.00
	CLOTH.	550.00	16.50	533.50	16.50	533.50	0.00	0.00
	O.T.	7,407.27	222.22	7,185.05	222.22	7,185.05	0.00	0.00
	FRINGE	35,502.59	1,065.08	34,437.51	1,065.08	34,437.51	(0.00)	0.00
10 87750 EQUIPMENT OPERATOR-WSA / MAINT. WORKER I	TIME SPLIT		94%	6%	95%	5%		
	REGULAR	41,039.72	38,577.33	2,462.39	38,987.73	2,051.99	(410.40)	410.40
	CLOTH.	550.00	517.00	33.00	522.50	27.50	(5.50)	5.50
	O.T.	256.82	241.41	15.41	243.98	12.84	(2.57)	2.57
	FRINGE	19,527.23	18,355.60	1,171.63	18,550.86	976.37	(195.26)	195.26
15 88875 WATER SUPPLY TECH - WSA	TIME SPLIT		35%	65%	93%	7%		
	REGULAR	59,733.86	20,906.85	38,827.01	55,552.49	4,181.37	(34,645.64)	34,645.64
	CLOTH.	550.00	192.50	357.50	511.50	38.50	(319.00)	319.00
	O.T.	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	FRINGE	28,074.96	9,826.23	18,248.73	26,109.71	1,965.25	(16,283.48)	16,283.48
11 90000 SUPERVISING PLANT 63738 OPERATOR	TIME SPLIT		36%	64%	40%	60%		
	REGULAR	88,126.42	31,725.51	56,400.91	35,250.57	52,875.85	(3,525.06)	3,525.06
	CLOTH.	550.00	198.00	352.00	220.00	330.00	(22.00)	22.00
	O.T.	2,807.74	1,010.80	1,796.94	1,123.10	1,684.64	(112.30)	112.30
	FRINGE	42,410.54	15,267.79	27,142.75	16,964.21	25,446.33	(1,696.42)	1,696.42
22 91500 FAC. MECHANIC-WSA	TIME SPLIT		46%	54%	48%	52%		
	REGULAR	51,385.20	23,637.19	27,748.01	24,664.90	26,720.30	(1,027.71)	1,027.71
	CLOTH.	550.00	253.00	297.00	264.00	286.00	(11.00)	11.00
	O.T.	340.84	156.79	184.05	163.60	177.24	(6.81)	6.81
	FRINGE	24,422.02	11,234.13	13,187.89	11,722.57	12,699.45	(488.44)	488.44
25 93000 PLANT OPEATOR	TIME SPLIT		3%	97%	3%	97%		
	REGULAR	68,295.28	2,048.86	66,246.42	2,048.86	66,246.42	0.00	0.00
	CLOTH.	550.00	16.50	533.50	16.50	533.50	0.00	0.00
	O.T.	9,482.22	284.47	9,197.75	284.47	9,197.75	0.00	0.00
	FRINGE	35,666.25	1,069.99	34,596.26	1,069.99	34,596.26	(0.00)	0.00
		(60)	(40)	(50)	(40)	(50)	(40)	(50)
	REGULAR	1,735,679.72	766,935.04	968,744.68	886,861.38	848,818.34	(119,926.34)	119,926.34
	CLOTH.	11,825.00	5,838.25	5,986.75	6,484.50	5,340.50	(646.25)	646.25
	O.T.	80,779.12	26,147.09	54,632.03	27,557.76	53,221.36	(1,410.67)	1,410.67
	FRINGE	850,491.53	373,227.27	477,264.26	429,886.76	420,604.77	(56,659.49)	56,659.49
	GRAND TOTAL	<u>2,678,775.37</u>	<u>1,172,147.66</u>	<u>1,506,627.72</u>	<u>1,350,790.40</u>	<u>1,327,984.97</u>	<u>(178,642.75)</u>	<u>178,642.75</u>

*PLANT OPERATORS ADJUSTED TO ACTUAL %S

ORIGINAL %S AS FOLLOWS:

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

NEW JERSEY WATER SUPPLY AUTHORITY
MANASQUAN RESERVOIR WATER SUPPLY SYSTEM

Schedule 16 - Estimate Of Interest Income

Fiscal Year 2021 Budget

Fund/Reserve	TD Bank Funds	
Operating	\$5,000,000	
Reserve for O & M	1,245,000	
General Reserve (Rate Stabilization Fund)	40,000	
Pumping Reserve	125,000	
Self-Insurance Reserve	38,000	
Sediment Reserve	256,000	
Estimated Total	\$6,704,000	
	\$6,704,000 x 1.25% =	\$83,800
	Total	\$83,800
	Estimate	\$83,800

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 2021

	Amount																								
F/Y2019 Net Year-End Balance	\$ 75,000																								
Excess D/S Coverage FY2020	\$ 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-329</td> <td>Nov-18</td> <td style="text-align: right;">\$ 4,971</td> </tr> <tr> <td></td> <td>MM-336</td> <td>Jan-19</td> <td style="text-align: right;">\$ 789</td> </tr> <tr> <td></td> <td>MM-336</td> <td>May-19</td> <td style="text-align: right;">\$ 11,373</td> </tr> <tr> <td></td> <td>MM-341</td> <td>Jun-19</td> <td style="text-align: right;">\$ 1,538</td> </tr> <tr> <td></td> <td>MM-343</td> <td>Aug-19</td> <td style="text-align: right;">\$ 11,816</td> </tr> </tbody> </table>	Overdraft	Invoice No.	Inv. Date	Amount	NJ American	MM-329	Nov-18	\$ 4,971		MM-336	Jan-19	\$ 789		MM-336	May-19	\$ 11,373		MM-341	Jun-19	\$ 1,538		MM-343	Aug-19	\$ 11,816	
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	MM-336	May-19	\$ 11,373																						
	MM-341	Jun-19	\$ 1,538																						
	MM-343	Aug-19	\$ 11,816																						
Used in FY20	\$ -																								
Available for use in FY21	\$ 30,485																								

Additional Sources

Total Available	\$ 223,485
Estimate for FY/21	\$ 223,490
Available for Future Years	\$ -

NEW JERSEY WATER SUPPLY AUTHORITY
MANASQUAN RESERVOIR WATER SUPPLY SYSTEM

Schedule 18 - Fund Balances as of 6/30/19

Final

	REVENUE FUND	OPERATING ACCOUNT	OPERATING FUND	O & M RESERVE	LONG TERM INVESTMENTS O & M RESERVE	TOTAL
BALANCE 6/30/19 (Does not include Debt Service payment)	\$ 173,266	\$ 396,212	\$ 5,742,531	\$ 1,244,939	\$ 360,584	\$ 7,917,532
Add: Adjustment for uncollected water revenues at 6/30/19			-			-
Add: NJ-American, JCP&L expenses for June 2019			16,692			16,692
Deduct: Accrued expenses to be paid as of 6/30/19			(115,007)			(115,007)
Deduct: June 10th billing, received			(172,513)			(172,513)
Adjusted Balances 6/30/19	\$ 173,266	\$ 396,212	\$ 5,471,703	\$ 1,244,939	\$ 360,584	\$ 7,646,704
 INCOME						
Operating Transfer	(173,000)		173,000			-
Receipt of WTP/TS G&A expenses for the month of June 2019, 7/31/19 billing			221,858			221,858
 EXPENSES						
O & M Expenses - (A/P-6/30/19) includes accrued payroll thru 6/30/19			(153,241)			(153,241)
Capital items to be purchased by 6/30/19			-			-
Payment of Headquarters overhead expenses - to be paid 7/01			(166,500)			(166,500)
Contributions to Various Reserves- 7/19			(37,500)			(37,500)
ADJUSTED BALANCE AT 6/30/19	\$ 266	\$ 396,212	\$ 5,509,320	\$ 1,244,939	\$ 360,584	\$ 7,511,321
Less: O & M Reserve Balance (Goal is 3 months O & M Expenses as dictated by Bond Resolution)						(807,858)
Balance of projected funds available						\$ 6,703,464
Use of Available Funds						
Unanticipated revenues (overdrafts in FY19 to be available to the General Fund for FY21) NJ American Water						\$ (5,759)
Appropriate FY20 net fund balance into the General Fund (Rate Stabilization) to be used for rate stabilization						(208,620)
Balance of funds to be used for future years						\$ 6,489,084

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 2021

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	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 2021

Funds Required for F/Y2021 Budget

Total Budget Requirements	\$	3,446,073
Miscellaneous Revenues	\$	(307,290)
Net Budget Requirement	\$	3,138,783
Less - Quarterly O&M payment on July 10, 2020 (cash received in July for water used in April, May and June of 2020 based on \$432.87/mg)	\$	(765,883)
Additional Revenue required from last three (3) Quarterly payments in F/Y2021 to cover Operations & Maintenance expenses through 6/30/21	\$	2,372,900

Computation of Operations & Maintenance Rate for Fiscal Year 2021

Required Operations & Maintenance Rate F/Y2021	$\frac{\$2,372,900}{5,322.52^*}$	=	\$	445.82/mg
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* Four (4) Quarters Sales =

	19.443 mgd x 365	=	7,096.70mg/yr
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Rate Calculation for Required revenues due for payment on
10/10/20, 1/10/21 and 4/10/21:

Sales Base =	7,096.70 x 3/4	=	5,322.52/mg
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NEW JERSEY WATER SUPPLY AUTHORITY
 MANASQUAN RESERVOIR WATER SUPPLY SYSTEM

Schedule 21 - Computation Of Base Debt Service Rates

Initial Water Purchasers (14.980MGD) – 7/01/15
 Shorelands Delayed Purchase Contract (.028MGD) – 7/01/06

Debt Service for Fiscal Year 2021	\$	-	
Debt Service Fund Interest Income and Other Available Resources	\$	-	
Net Debt Service Obligation	\$	-	
Coverage Requirement = Net Debt Service Obligation x 20%	\$	-	
Total to be Recovered by Rates	\$	-	
Debt Service Rate Effective 7/01/20 365 x 15.008/mgd = 5,477.92mg	\$	-	= \$ 0.00mg
		5,477.92mg	

NEW JERSEY WATER SUPPLY AUTHORITY
 MANASQUAN RESERVOIR WATER SUPPLY SYSTEM

Schedule 22 - 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 2021	\$	592,088	
Debt Service Fund Interest Income and Other Available Resources	\$	-	
Net Debt Service Obligation	\$	592,088	
Coverage Requirement = Net Debt Service Obligation x 20%	\$	118,418	
Total to be Recovered by Rates	\$	710,505	
Debt Service Rate Effective 7/01/20	\$	710,505	=
365 x 4.435/mgd =1,618.78mg		1,618.78mg	\$ 438.92mg

NEW JERSEY WATER SUPPLY AUTHORITY
 MANASQUAN RESERVOIR WATER SUPPLY SYSTEM

Schedule 23 - 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 2021	\$	177,467		
Rate Equalization Adjustment	\$	(550)		
Debt Service Rate Effective 7/01/20	\$	176,917	=	\$ 24.93/mg
365 x 19.443/mgd =7,096.70mg		7,096.70mg		

*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 24 - 2021 Bond Debt Service Coverage

Fiscal Year 2021
(7/1/20-6/30/21)

DEBT SERVICE COVERAGE

	<u>Budgeted F/Y2021</u>
<u>Revenues</u>	
Uninterruptible Water Sales	\$ 7,357,388
Interest Income	<u>\$ 83,800</u>
Total Revenues	<u><u>\$ 7,441,188</u></u>
 <u>Expenses</u>	
O&M Costs	\$ 2,560,530
Overhead Allocation	<u>\$ 542,000</u>
Total O&M	<u><u>\$ 3,102,530</u></u>
Cash Available for Debt Service - A	\$ 4,338,658
Net Debt Service Expense	\$ 3,090,168
Debt Service Coverage Calculation - A/B	1.40
Cash After Debt Service A-B	\$ 1,248,490

NEW JERSEY WATER SUPPLY AUTHORITY
MANASQUAN RESERVOIR SYSTEM

Schedule 25 - Rehabilitation Reserve and Capital Improvement Program

Manasquan Reservoir Project Description	Renewal & Repl. Reserve	FY2020	FY2021	FY2022	FY2023	FY2024+
Dam Emergency Contingency	\$400,000					
Pipeline Replacement Under I-195	\$950,000					
Pumping Equipment Replacement	\$650,000					
Resize Intake - Motor/Pump, VFD# 3		\$50,000	\$250,000			
Replace one set 34.5 KV feeder cables to Transformer T2		\$40,000				
Rehabilitation Pump and Motors at Reservoir & Intake Pumping Stations				\$50,000		
Air Separation System for RPS electrical Generator			\$4,000			
Security System Upgrades at Reservoir				\$35,000		
Replace Control Panel at Reservoir IO building		\$70,000				
Renovation of Traveling Water Screens					\$65,000	
Replace T3 Transformer			\$28,000			
Replace balance of metal roof on Admin portion of RPS building					\$80,000	
Variable Frequency Drive Control Conversion at RPS		\$40,000				
Total*	\$2,000,000	\$200,000	\$282,000	\$85,000	\$145,000	\$0
Renewal and Replacement Balance June 30, 2019	\$4,052,478					
Projected Balance End of Fiscal Year with annual regular deposit		\$3,972,478	\$3,810,478	\$3,845,478	\$3,820,478	\$3,940,478
*Minimum Balance Required		\$2,000,000	\$2,000,000	\$2,000,000	\$2,000,000	\$2,000,000
Revised Balance		\$1,972,478	\$1,810,478	\$1,845,478	\$1,820,478	\$1,940,478
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., Manasquan System Manager

**MANASQUAN WATER SUPPLY SYSTEM
RENEWAL/REPLACEMENT RESERVE & CAPITAL IMPROVEMENT PROGRAM
Fiscal Years 2020-2024
Updated July 2019**

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 percent (effective February 1, 1994) of the annual debt service, identified as 120 percent debt service coverage. During the initial years, this excess payment flowed into the debt service reserve account until an amount equal to 50 percent of the annual debt service had been accumulated. Thereafter, the 20 percent excess debt service is to be used to establish a Renewal & Replacement Reserve and to fund a Capital Improvement Program (CIP) for the facilities.

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

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

Renewal and Replacement Reserve for Extraordinary Operations and Maintenance Costs

Problems with the Earthen Dam Embankments

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

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

Replacement of Pipe under Interstate Route 195

The Manasquan Reservoir pipeline is a 5-1/4 mile long, 66-inch diameter prestressed concrete cylinder pipeline (PCCP) constructed in the 1980s. A 380-foot long section of 72-inch diameter PCCP was installed beneath Interstate Route 195 during its construction for use in connection with the pipeline between the reservoir pumping station and the reservoir. This section

of pipe was manufactured by Interpace in the late 1970's. This vintage PCCP is suspect because of the type of prestressing wire used in its manufacture and the "inadequate" quality control used in the application of the mortar coating.

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

The entire length of the pipeline was inspected in March of 2016. The interior concrete lining was sounded with a 57-inch piece of black iron pipe with caps welded to the ends. The lining was continuously sounded for hollow regions that may be indicative of a loss of prestress and therefore exterior pipe distress. Sounding was carried out on both sides of the pipe approximately in the 2-4 o'clock range and the 8-10 o'clock range at approximately 6 to 12-inch intervals. Other features such as spalled concrete linings were noted throughout the inspection. The Manasquan Reservoir 66-inch pipeline is in good condition. The items noted during the internal inspection were minor in nature and are not indicative of pipeline distress.

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

Replacement of Pumps or Equipment

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

All pumps and motors have been physically inspected, vibration tested and pump efficiency tested in 2013 with retesting of some units in 2016 and 2019. 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 one of the 5 river intake pumps gets 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 or cables as well. The combined construction cost for the Intake Pumping Station and the Reservoir Pumping Station was approximately \$30,000,000 (1990 dollars). The recommended reserve of \$650,000 represents 2 percent of the total construction cost.

Planned Capital Improvements - Fiscal Years 2020-2024

Resize Intake - Motor/Pump #3 VFD

A 2014 safe yield review has determined that replacing one of the 600-hp motor and pump at the intake with a 300 hp motor, a pump that can deliver up to 15 MGD and a new variable frequency drive will improve the reliable safe yield of the system. This project was programmed to be designed in calendar year 2017 and constructed in 2020. Design has been pushed forward to FY2019. This project will allow a closer match between the anticipated average customer sales from the intake pool and the intake pump capacities. The project is planned for 2020 to spread out the capital funds and because Pump #3 is currently in acceptable condition.

Replace one set 34.5 KV feeder cables to Transformer T2

A contract has been awarded for this work and it is to be completed in October 2019.

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

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

The Authority has undertaken a multi-faceted, multi-year program to service all ten pumps and motors. The first phase, which began in 2003, 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, all but one were within acceptable performance tolerances. In FY2017, Pump #1 at the intake was fully rehabilitated at a cost of \$40,000.00.

Air Separation System for RPS electrical Generator

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

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 2022. Also the system at the Administration building will need to be replaced at that time.

Replace Control Panel at Reservoir IO Building

The control panel at the reservoir IO tower is 29 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 I/O tower. Also, by replacing the panel with a PLC we 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 we now have in the building. Presently only one of the eight electric valves can be controlled from the office in Wall Township.

Renovation of Traveling Water Screens

The eight traveling water screens at the Intake Pumping Station are in need of service over time. A 2015 inspection found all units to be in good condition except one which was refurbished in 2016. Funding is included to install new reducers, drive sprockets, screen sections, and chain guard assemblies on any of the remaining seven units. This also includes funding to rebuild the wash water pumps and motors if needed.

Replace T3 Transformer

Periodic oil sample testing showed this transformer to have overheated and that it is near the end of its expected life.

Replace balance of metal roof on Admin portion of RPS building

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

Variable Frequency Drive Control Conversion at the RPS

The existing ASI Robicon Corporation VFDs are controlled by an antiquated computer system for the operation and speed control of the variable frequency drives based on clearwell level. The conversion package would consist of replacing the computer sequencer at the Reservoir Pumping Stations from the current card rack computerized system to a programmable logic controller. With

the current logic system, the Authority has been experiencing logic card failures along with expensive computer board repairs.

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, 2020

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, [2019] 2020	[\$432.87] \$445.82

7:11-4.4 Debt Service Cost Component

(a) (No change.)

[(b) The following Debt Service rates based on a sales base of 15.008 million gallons per day, apply to all initial water purchase contract customers, and all delayed water purchase contract customers, who fully satisfied their contractual delayed water purchase surcharge obligations at the commencement of their contract terms:

<u>Period</u>	<u>Rate/Million Gallons</u>
7/1/2019 to 6/30/2020	(Coverage 120%) \$570.55]

[(c)](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/ [2019]2020 to 6/30/[2020]2021	(Coverage 120%) [\$664.96]\$438.92

[(d)] (c) (No change in text.)

7:11-4.5 Capital Fund Component

(a) The Capital Fund Component is to provide for current funding of major refurbishment, replacement, maintenance and repair of the existing facilities at a total amount of \$3,000,000 to \$3,500,000 per year. The total annual amount funded by the Capital Fund Component may be adjusted periodically for inflation; however, all capital projects beyond this amount and any enhancements or additions to the System shall be financed through issuance of long-term debt.

(b) The Capital Fund Component Rate per million gallons listed at (c) below based on a sales base of 15.008 million gallons per day applies to Initial water purchase contracts and is based on estimated annual capital expenses to properly maintain, rehabilitate or replace the facilities.

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

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

(d) The Capital Fund Component Rate per million gallons listed at (e) below based on a sales base of 4.435 million gallons per day applies to the Delayed water purchase contracts commencing July 1, 2001, October 1, 2002 and January 1, 2005 in lieu of the Capital Fund Component rate set forth in 7:11-4.5(c).

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

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

7:11-4.[5]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/[2019]2020 to 6/30/[2020]2021	\$15.00

7:11-4.[6]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/[2019]2020 to 6/30/[2020]2021	\$24.93

Recodify existing 7:11-4.7 - 4.18 as **4.8 - 4.19** (No change in text.)

**Appendix I. Report of Mercadien PC – Allocation of Headquarters General and
Administrative Expenses – FY 2021**

Appendix II. Report of Mercadien PC – Allocation of Headquarters General and Administrative Expenses – Audited FY 2019 Expenditures