

NEW JERSEY WATER SUPPLY AUTHORITY

A COMPONENT UNIT
OF THE STATE OF NEW JERSEY



2020 ANNUAL REPORT

AND THE

COMPREHENSIVE ANNUAL FINANCIAL REPORT

FOR THE FISCAL YEARS ENDED

JUNE 30, 2020 AND 2019



Government Finance Officers Association

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New Jersey Water Supply Authority

For its Comprehensive Annual
Financial Report
For the Fiscal Year Ended

June 30, 2019

Christopher P. Morill

Executive Director/CEO

NEW JERSEY WATER SUPPLY AUTHORITY

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FOR THE FISCAL YEARS ENDED
JUNE 30, 2020 AND 2019

Prepared by:
Finance and Accounting Staff

Marc Brooks
Executive Director

2020 Annual Report

Governor
Philip D. Murphy



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Vice Chair
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Chair, Finance Committee
Chair, Public Participation Committee

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Chair, Personnel Committee

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Assistant Secretary
Chair, Capital Projects Committee
Chair, Insurance Committee

Staff

Marc Brooks, P.E.
Executive Director

Kathrine Hunt, Esq.
Deputy Attorney General

2021 Monthly Meetings

The 2021 Monthly Meetings of the New Jersey Water Supply Authority are scheduled to be held beginning at 2:00 p.m. on the following Mondays:

January 4, 2021

February 1, 2021

March 1, 2021

April 5, 2021

May 3, 2021

June 7, 2021

July 12, 2021

August 2, 2021

September 13, 2021

October 4, 2021

November 1, 2021

December 6, 2021

Meetings may be held by teleconference or in person. Dial-in or location information will be provided on the Authority website in advance of the meeting. The period from 12:00 p.m. to 2:00 p.m. on the above dates is set aside, as needed, for separate Committee meetings of the Personnel, Finance, Capital Projects and other Committees of the Authority.

Cover

Photo by Darin Shaffer, Night Work at the Round Valley Reservoir Dike Embankment.

The New Jersey Water Supply Authority was created on October 7, 1981 (P.L. 1981, c. 293) to operate, on a self-supporting basis, the existing State water supply facilities and to develop future State water supply projects as recommended in the State Water Supply Master Plan. The Authority's Spruce Run/Round Valley Reservoirs System and the Delaware and Raritan Canal Water Transmission Complex (the Raritan Basin System), provides the basic source of water supply to a number of public and private water utilities serving more than 1,500,000 people in central New Jersey. The Manasquan Water Supply System in Monmouth County commenced delivery of this new surface water supply to a number of public and private water utilities, serving more than 250,000 people in the Monmouth County area, on July 1, 1990. Under agreement with the Southeast Monmouth Municipal Utilities Authority, the Authority also operates and maintains a four million gallon per day water treatment plant and distribution system for five municipalities in Monmouth County.

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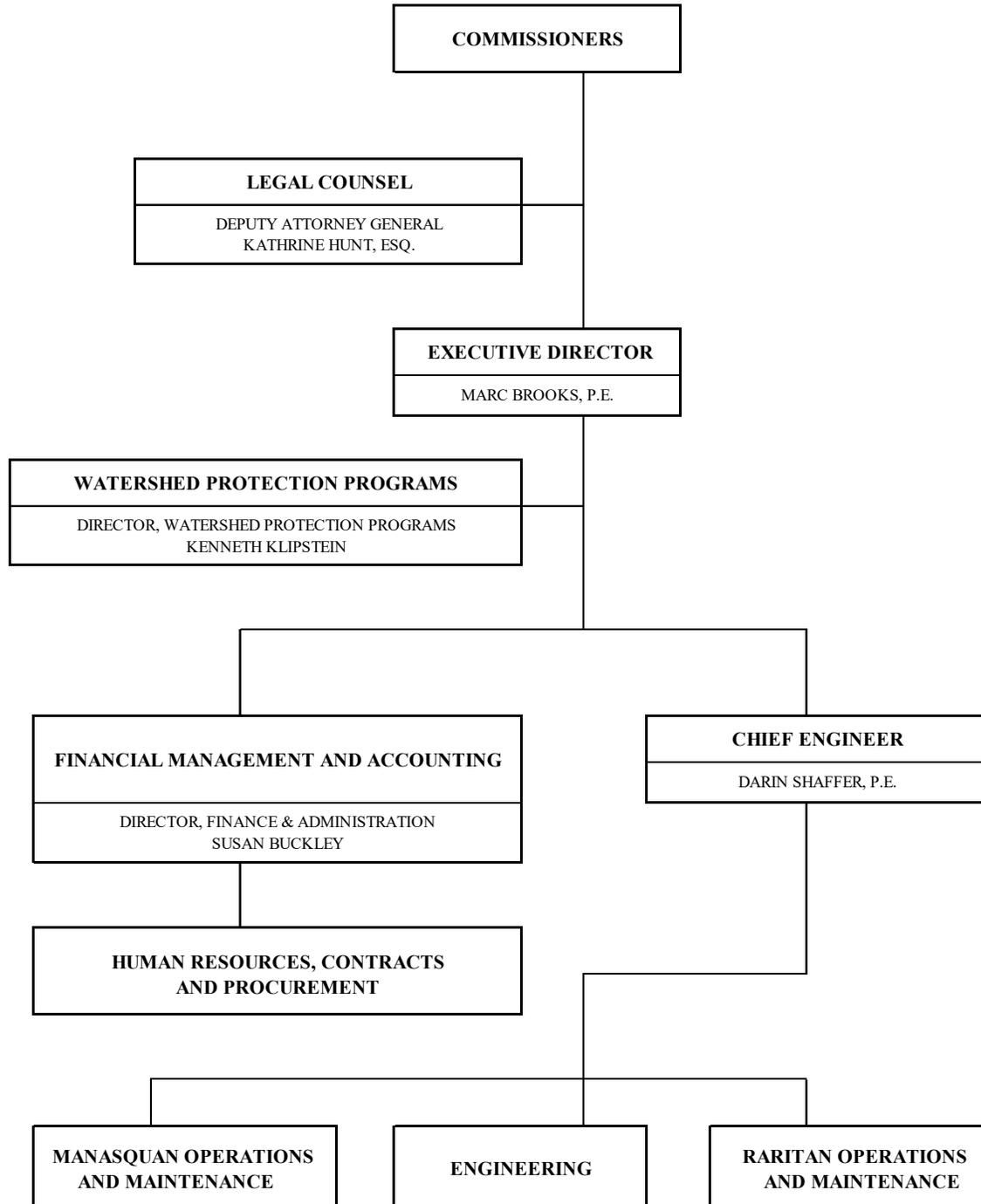
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Letter to Governor and Legislature

NEW JERSEY WATER SUPPLY AUTHORITY



Post Office Box 5196 • Clinton, NJ 08809 • (908) 638-6121
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December 23, 2020

To the Honorable Philip D. Murphy, Governor and Members of the New Jersey Legislature

I am pleased to submit the 39th Annual Report of the New Jersey Water Supply Authority. The Authority was created on October 7, 1981 (P.L. 1981, c.293) and was established in but not of the Department of Environmental Protection (“NJDEP”) of the State of New Jersey. The “New Jersey Water Supply Authority Act,” under N.J.S.A. 58:1 B-20, calls for the Authority to publish an Annual Report of its finances on or before the last day of February for the preceding calendar year. This report contains the Authority's Independent Auditors’ Report, and all required reporting to be in compliance with Executive Order No. 37 (2006), for FY2020.

Staff has responded well to the unprecedented working conditions associated with the COVID-19 pandemic. Working from home became more the norm and continues for much of the office staff. In the early days of the pandemic, operations were limited to only the most critical. As we gained a better understanding of the virus, more productive working conditions for our operations and maintenance groups were put into practice. Dam safety and delivery of raw and treated water were always paramount concerns and were never compromised. Because Authority construction projects were labelled essential, work continued on all projects.

In recent years, the Authority has been furthering its studies of the Round Valley and Spruce Run embankments. As part of these efforts, the Authority convened Technical Review Boards (“TRBs”) in 2014 and 2015 and again in 2017 and 2018 to discuss the conditions of the Spruce Run and Round Valley embankments. The Round Valley and Spruce Run embankments were both constructed in the early 1960s. The Authority is actively managing significant capital projects to implement the recommendations of the TRB.

The TRB recommended a significant rehabilitation project of the Round Valley embankments. Project components include the grouting of the abutments at the Round Valley North and South Dams, dredging of the inlet to the Round Valley South Dam Tower and embankment improvements to retrofit the downstream slopes of all three Round Valley embankments with improved drains that also act as filters. Grouting of the North and South Dam abutments was completed in June 2020. Dredging the channel inlet at the South Dam Tower was completed in February 2020.

Bids were received and a contract was awarded for the major embankment improvements at Round Valley in January 2020. Along with the major rehabilitation of the slopes, currently ongoing at the Round Valley Dike, ancillary work is being done that includes improvements to the Round Valley auxiliary buildings. Other parts of the ancillary work include replacement of the ten-inch cast iron pipe at the Round Valley South Dam, and abandonment of a hydraulic valve and pipeline that controls the low-level release at the Round Valley South Dam.

The TRB also made recommendations for improvements to the outlet works at the Spruce Run Reservoir (located approximately one mile north of the Town of Clinton). The reservoir is impounded by the Spruce Run Dam and Dikes A and B, and provides stream flow regulation as well as recreation. Discharge from the reservoir is either from the reservoir primary spillway or from the outlet tower through twin 84-inch diameter pipelines which reduce to twin 48-inch diameter pipes at the downstream outlet vault. Many components of the outlet works date to the original construction. With a service life of greater than 50 years, some of the outlet works equipment and structures have exceeded their anticipated design life and must be rehabilitated. The work at Spruce Run Reservoir is currently in the schematic design stages.

The intake pond at the South Branch Pumping Station is used to pool water to improve operations while pumping water to Round Valley Reservoir. Over time, sediment in the river settles in the pond, causing the pond to become shallower and less effective for pumping. The pond was last dredged in 1986. A project was designed to remove 35,000 cubic yards of excess sediment from the pond and return it to its original construction depth. The pond was dewatered during the summer months and material was trucked to a beneficial re-use facility in Pennsylvania. The dredging project at the South Branch Pumping Station Pond was completed in early fall 2020.

Other water supply projects are ongoing in the Manasquan System and in the Delaware and Raritan Canal. The Authority is nearing the end of a \$40 million contract to dredge a ten-mile reach of the Canal between Lincoln Highway (Route 27) and Amwell Road in Franklin Township, Somerset County. Construction began in 2018. The third and final year of in-water work is scheduled for completion in fall 2020.

In Manasquan, a 5,000 KVA transformer feeding the reservoir electrical system was refurbished in 2020. In addition, a smaller 500 KVA 2.4KV transformer was replaced. The 2018 dam inspection recommendations continued to be implemented in 2020. Many of the existing embankment-monitoring instruments have been calibrated and/or replaced. At the Manasquan Water Treatment Plant, 2020 upgrades included installation of variable frequency drives and related control systems, and replacement of granular activated carbon. The potential for additional clarification processes to improve the summer reliability of the plant continues to be evaluated.

In 2020, cyanobacteria blooms, also known as Harmful Algal Blooms or HABs, again occurred in both Spruce Run Reservoir and Manasquan Reservoir. Cyanobacteria are bacteria that occur naturally in water bodies. Under certain environmental conditions, predominantly high nutrient availability and warm water temperatures, cyanobacteria may explode into a dominating algal bloom that can produce toxins that have proven to be harmful to humans, livestock, and pets.

The Authority has taken an active role in planning and monitoring for potential cyanobacteria blooms. In the Manasquan Reservoir, Operations staff and the Authority's Watershed Protection staff have worked cooperatively to develop and refine a detailed Cyanotoxin Management Plan. The plan was submitted to NJDEP in late October, as was required for all water purveyors in the state.

For the Raritan System, the Authority, along with partners at the US Geological Survey and Montclair State University, were awarded a federally-competitive grant to study the downstream fate and transport of cyanobacteria and cyanotoxins in the Raritan Basin. This project combines continuous, real-time water quality data monitoring with time-integrated toxin analysis to help us better understand and address HAB-related threats to our water supply. Additionally, the Authority received two grants from the NJDEP. One grant provides funding for the development of a watershed restoration plan for the Spruce Run watershed, its tributaries and Spruce Run Reservoir. The other grant provides funding to install an innovative biochar nutrient removal system on the Mulhockaway Creek designed to mitigate the frequency and intensity of HABs in Spruce Run Reservoir.

The Authority operates three separate systems: the Raritan Basin System, the Manasquan Water Supply System, and the Manasquan Water Treatment Plant and Transmission System. Each system must generate sufficient revenue each year to cover its own operating expenses and debt service. Rates have been generally stable and the Authority is in good financial health. Total net position was approximately \$109.6 million as of June 30, 2020 and has increased over June 30, 2019 and June 30, 2018. In fiscal year 2020, total assets and deferred outflows were \$307.1 million and total liabilities were \$197.6 million.

The Authority received its 28th consecutive Certificate of Achievement in Financial Reporting Award for its FY2019 annual report and will submit its FY2020 annual report in late December for consideration for this same award.

Sincerely,

A handwritten signature in blue ink, appearing to read 'MB', is positioned above the printed name and title.

Marc Brooks
Executive Director

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Operations - Raritan System

Operation and maintenance activities at all Authority facilities have been typical. The Round Valley pumping program did not run in 2020 due to the drawdown for the Round Valley Project. Reservoir drawdown for the project was completed in fall 2019. The targeted maximum pool elevation for the duration of the project is elevation 360.8, or 25 feet below normal full pool.

Round Valley Project and Dam Inspections

As part of the recommendations from the 2013 dam inspections, the Authority convened a Technical Review Board (TRB) in 2014 to discuss the conditions of the Spruce Run and Round Valley embankments. Two previous TRBs were convened in the 1980s to evaluate the conditions at the Spruce Run dam, but similar TRBs had never been used to evaluate the embankments at Round Valley Reservoir. The 2014 TRB recommended several steps to further document the conditions of the embankments including the following:

- Install additional instrumentation at both facilities to monitor the phreatic line through the embankments and evaluation of the materials and methods used to construct the embankments.
- Conduct Side Scan Sonar surveys at Spruce Run aimed at locating sinkholes on the upstream side of the dam.
- Conduct visual camera inspections of the drain pipes at Round Valley and Spruce Run.
- Perform a thorough review of existing records including, but not limited to, preconstruction reports, construction records (1960s), and subsequent construction records (1981 to present).

- Reconvene the TRB to perform a Potential Failure Mode Analysis (“PFMA”) for the Spruce Run Dam and all Round Valley embankments.



Night Work at the Round Valley Reservoir Dike Embankment

All recommended studies were performed in 2014-2016. The TRB reconvened in July 2015 to perform a PFMA on the three Round Valley Embankments. A PFMA is an analysis, commonly used in the dam safety community, which consists of a robust study of the construction and past performance records of an embankment.

At the conclusion of its 2015 session, the TRB recommended that “*the Authority begin budgeting, engineering, and planning for the required modifications to the Round Valley Embankments.*”

The Authority procured a consultant to act as the Engineer of Record to investigate, plan, design, and provide full time construction management services for the efforts recommended by the TRB including:

- Consider rehabilitation alternatives and design repair for the existing hydraulic valve on the low-level release at the Round Valley South Dam.
- Remove and replace ten-inch Cast Iron Pipe that connects the RV Force Main to the RV South Vault.
- Dredge the Round Valley South Tower Intake Channel.
- Repair the Round Valley building structures (towers and vaults).

- Install security improvements at Round Valley Reservoir.
- Install chimney drains and improved drainage features at all three embankments.
- Grout abutments at the Round Valley North and South Dams.



Excavator removes sediment from the channel at the Round Valley Reservoir South Dam Tower

Plans and specifications for dredging the Round Valley South Tower Intake Channel, grouting the abutments at the Round Valley North and South Dams, improved electrical service and security improvements were prepared separately so that they could be bid individually and most of the work could be completed prior to or after completion of the larger elements of the project.

The intake channel dredging was completed in February 2020, the abutment grouting was completed in March 2020 and improved electrical service for each dam was completed in October 2020.

The rehabilitation of the earthen embankments and ancillary structures was initiated in January 2020 and will last into 2022. The security improvements will be implemented after the rehabilitation project is complete.

The Authority's consultant created and now maintains a project-specific website to keep the public informed about the status of the project. The website can be accessed at <http://www.roundvalleyproject.com/>.



Drilling work occurs on the left abutment of the South Dam during the Round Valley Reservoir North and South Dam Abutment Grouting Project

Authority staff conducted the 2020 regular inspections of Round Valley and Spruce Run Dams on October 1, 2020.

Spruce Run Reservoir Multi-Disciplinary Project

The Spruce Run Reservoir is located approximately one mile north of the Town of Clinton. The reservoir is impounded by the Spruce Run Dam and Dikes A and B, and provides stream flow regulation, recreation, as well as a raw water supply to residents of central New Jersey. Spruce Run Dam is a Class I, high hazard zoned earth embankment constructed at the former confluence of Spruce Run and Mulhockaway Creek. The reservoir is fed by two major and several minor streams, with a total drainage area of 41 square miles. A primary spillway is located at the west abutment of the dam with a crest elevation of 273.0, which is the maximum operating pool level of the Spruce Run Reservoir. Discharge from the reservoir is either from the reservoir primary spillway or from the outlet tower through twin 84-inch diameter pipelines which reduce to twin 48-inch diameter pipes at the downstream outlet vault.



Spruce Run Reservoir Primary Spillway

The Authority's responsibility to ensure raw water delivery and safe operation of the dam requires the structural integrity and full operational capacity of the outlet works at all times. Many components of the outlet works date to the original construction. With a service life of greater than 50 years, some of the outlet works equipment and structures have exceeded their anticipated design life and must be rehabilitated.

The Authority retained the professional engineering services of a consultant for the rehabilitation of various components of the Spruce Run Reservoir outlet works. The components were selected based on recommendations from the TRB, observed deterioration and operational needs. The selected consultant will investigate, design, and provide construction management services for the following tasks:

- Rehabilitate the primary spillway and flow measuring weir.
- Improve the spillway discharge channel for conveyance, inspection and seepage monitoring.
- Replace the Howell-Bunger valves, the outlet tower hoist and the roofs at both the outlet tower and the outlet vault.
- Install electrical actuators for the outlet tower sluice gates, a manual transfer switch for connection to a generator as necessary for emergency sluice gate operation, equipment for remote reading of outlet releases, a hardened security gate at the vault and various improvements to the tower and vault buildings.



Spruce Run Vault. Howell Bunger Valves in Operation

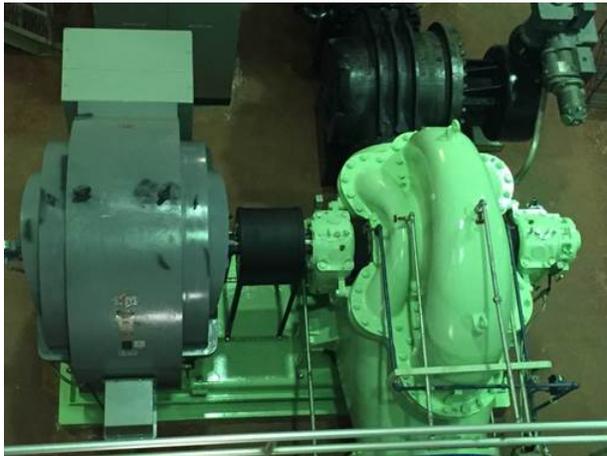
In addition to the previous items, at the recommendation of the TRB, the consultant will critically review the operation of the outlet works and consider potential modifications to improve the unconventional procedures required to release water for emergency drawdown. Updated hydrologic and hydraulic ("H&H") modeling studies for Spruce Run Reservoir and the flow measuring weir will be included in this contract to verify the spillway capacity and optimization of rapid drawdown.

To date, the consultant has performed analyses, field investigations and lab testing to support preliminary assessment reports on the different features that are included in the rehabilitation project. The work is expected to take several years to complete.

South Branch Pumping Station - Rehabilitation of Four (4) Pump Assemblies, Mechanical & Electrical Upgrades

The South Branch Pumping Station was constructed in 1965 as a part of the Spruce Run/Round Valley Reservoirs Complex in the Raritan River Basin. It is located on the South Branch Raritan River, about three and a half miles downstream from the Spruce Run Reservoir. It is used to pump water from the South Branch Raritan River to the Round Valley Reservoir. Ten pumps, each operated by a 2,000 HP motor, can transfer up to 350 million gallons per day to the

reservoir through a 3.2 mile long, 108-inch diameter force main, though actual pumping rates are lower because the limiting factor is the amount of water in the river. The Authority usually only operates two of the ten pumps at once, but in some cases up to four pumps at once.



South Branch Pump Station 2000-HP pump, motor and baseplate after 2016 rehabilitation

A program is underway to refurbish four of the main pumps and motors, including replacement of the baseplates. An initial contract refurbished two of the ten pumps. This contract was a model to refine the contract scope for future contracts. These two pumps were successfully rehabilitated with new base plates, tested, and placed back into service in 2016. The refurbished pumps have performed well during rigorous pumping since that time. In the fall of 2020, professional engineering services are being procured for the rehabilitation of the additional pumps as well as other long-term mechanical and electrical upgrades that are needed for the entire Pumping Station to ensure reliable operation well into the future. This project will be designed and conducted to minimize the impact on operations. Construction work at the Pumping Station which requires the remaining pumps to be temporarily out of service will be scheduled to coincide with intervals when pumping is not anticipated. The work will be conducted between now and February 2023.

South Branch Pumping Station - Dredging the Intake Pond and Rehabilitation of the Ice Deflectors

The intake pond at the South Branch Pumping Station was designed with a capacity of 21,000,000 gallons during low flow pumping periods. Sediment has accumulated in the pond, reducing its capacity and thereby reducing the efficiency of the pumping operation. Sediment was last removed from the pond in 1986 when it was removed in the dry. The intent of this project was to dredge the intake pond to return it to its original design depth and capacity.

In addition, the project included replacement of the ice deflectors at the release works. The ice deflectors protect the structure from ice and trees floating down the river. This structure is located at the terminus of the South Branch Raritan River intake channel, adjacent to the pond.



South Branch Pumping Station Intake Pond dewatered at the start of the dredging operation

The Authority retained an engineering consultant who prepared a design and obtained necessary permits. The construction was bid in late 2019, and work began in spring 2020. The project was substantially completed by the fall of 2020.

D & R Canal - Dredging

Flow in the 10.5-mile section of the D&R Canal (Canal) in Franklin Township between Route 27 and Amwell Road, near Millstone Borough, is being impeded by sediment accumulation. This is compounded by the growth of weeds during the summer months when flow demand is the greatest. The water surface elevation is typically raised during these periods, which causes water to discharge over the lower elevation spillways.

The Authority procured a consultant who developed a design to remove up to an estimated 248,000 cubic yards of sediment from the Canal. Development of the program included a proactive public participation element including meetings with stakeholders along the Canal and a website to keep the public informed about the status of the project. The website can be accessed at <http://www.njwsa.org/canal-dredging.html>.

The consultant considered four alternatives for the proposed dredging project: mechanical excavation (in dry), mechanical dredging (in wet), hydraulic dredging with Geobags, and hydraulic dredging with mechanical dewatering. After reviewing the alternatives, the hydraulic dredging with either method of dewatering the sediment was selected as the preferred alternative.

The Authority reached an agreement with Wyeth Holdings LLC for a beneficial reuse of the sediment at the former American Cyanamid Superfund Site in Bridgewater, New Jersey. Guidelines for material acceptance and appropriate testing protocols were agreed upon by all parties including NJDEP and the Environmental Protection Agency.

A Level Two Environmental Impact Document was prepared, and the required Public Hearing was held on May 13, 2013. The project is being financed through the

New Jersey Infrastructure Bank.

This project also includes disposal of sediment from the US Route 202 stockpile site being used to temporarily store sediment removed from the Canal as part of the Authority's Maintenance Dredging program. 46,205 cubic yards of sediment have been transferred from the Route 202 stockpile site to the beneficial reuse site.



Geobags in drying (staging) area during dredging operations. Silt-laden water is directed to the geobags that filter the sediment. Clean water is discharged back to the Canal.

A contract for the dredging was awarded to the lowest responsive bidder and the contractor mobilized on March 14, 2018. Dredging was completed in Reaches 1, 2, 3, 4 and about 60% of Reach 5 by November 2019. Dredging is not conducted during winter months due to environmental constraints. To date, approximately 133,158 cubic yards of dredged sediment have been transferred to the beneficial reuse site.

COVID-19 delayed the resumption of dredging in the spring of 2020, but the operation restarted in June 2020 in Reach 5. Dredging in Reach 5 is now complete, and dredging in Reach 6, the final reach, is expected to be completed in 2020. Transporting sediment to the beneficial reuse site will resume in January 2021 and the project is expected to be completed in 2021.



“Fox River” Dredge, one of two dredges working in 2019 and 2020. Note three vertical square “spuds” keep equipment in place while dredging. Square plates at base of “spuds” prevent damage to clay liner at bottom of Canal. On-board computer and GPS maintain location and depth of boom and cutter head to prevent damage to the clay liner.

D & R Canal - Rehabilitation of the Western Embankment downstream of the Prallsville Lock

This section of embankment makes up the western bank of the Canal that extends one mile south from the Prallsville Lock to an abandoned railroad crossing. The embankment has been affected by numerous flooding events over the past fifteen years that caused two full breaches of the embankment in 2005 and 2006, and a near breach again in 2011 following Tropical Storms Irene and Lee. Both breaches were repaired on an emergency basis to restore flow in the Canal, however a more stable and permanent solution to restore the embankment is being considered. The following two photographs are indicative of the repairs conducted in 2011.



D&R Canal embankment in Stockton Borough in 2011

The preceding photograph illustrates the partial failure of the western embankment in Stockton Borough following Tropical Storms Irene and Lee in 2011. Note the level of the Delaware River (to left in photo) relative to the crest of the embankment and the seepage through the embankment. At

the peak elevation, the river was only about six inches from overtopping certain sections of the embankment.

Dense graded aggregate (“DGA”) was placed by conveyor belt across the Canal since it was unsafe to work from the embankment immediately after the event.



Placement of DGA by conveyor across the Canal

Pictured above is the placement of the DGA by conveyor across the Canal. The DGA was used to restore the embankment to prevent a breach. The DGA was compacted as conditions permitted.

Failures of an earth embankment are caused by a variety of reasons including overtopping and seepage through the embankment which causes the slope to become unstable. The Authority has retained both an engineering and a cultural resources consultant to work together to develop a long-term solution to the embankment problems that will be constructible and acceptable to the numerous regulatory bodies and permitting agencies.

Currently, the consultant is finalizing the design that includes compaction grouting and hand-laid stone armoring along the Delaware River slope on designated sections of the embankment down canal from Bridge Street in Stockton. In addition, the rehabilitation project includes Canal-side slope restoration of all areas repaired on an emergency basis in 2011 and regrading the embankment crest to eliminate low areas

which concentrate flows and increase erosion during storms. Construction is expected to begin in 2021.

D & R Canal - Rehabilitation of the Upper Canal Embankment

The right bank of the Canal from Raven Rock Lock to Prallsville Lock is a narrow embankment that separates the Canal from the Delaware River. Both sides of the trapezoidal embankment core wall are armored with hand laid stone. In this section, the width of the embankment crest varies from 20 feet to 100 feet. The narrow nature of the embankment precludes access of vehicles and/or heavy machinery, providing significant maintenance challenges for the Authority. This section of the embankment overtops frequently from the river side, which causes erosion and could potentially lead to failure of the embankment. It appears that the embankment was designed with full knowledge of these high flows, keeping in mind that at the time, they had the “luxury” of being able to drain the Canal for maintenance each year.

High flows during rain events, specifically Tropical Storms Irene and Lee, caused significant erosion at various locations of this section of the embankment. After these storms, Authority staff made temporary emergency repairs to some sections of the embankment to stabilize it and prevent a complete breach. It was intended to make final repairs in accordance with approved plans as soon as practicable. The embankment was primarily repaired by installing rip-rap and cement bags to protect the embankment from further deterioration. In some locations, slopes were protected by reinstalling the missing stone with mortar patches, and some locations were not repaired. In most cases, the size and shape of the original embankment was not maintained.

The Authority has contracted with both engineering and cultural resources

consultants to investigate and provide a design for rehabilitation of the embankment. Construction is anticipated to begin in 2021 or 2022.

D & R Canal - Landing Lane Spillway

The Landing Lane Spillway is located immediately upcanal of the Landing Lane Bridge in New Brunswick. This spillway was rehabilitated in 1991 with the construction of a concrete cutoff wall on the Canal side slope to control leakage. Timber planks were installed on the concrete wall for historical appearance. The spillway was finished with hand-placed stones across the crest and the river side slope. The stones were laid with a soil bedding without the benefit of a quality mortar. The spillway is deteriorating. Seepage over the top of the cutoff wall is infiltrating and eroding the structure below the river side slope. Further, the stones are being dislodged and the spillway crest needs to be stabilized. The planned rehabilitation is expected to remove all stones from the crest and install a concrete slab as a substructure to the stones, which will then be reset and anchored with mortar and steel.



Crest of the Landing Lane Spillway

Authority staff solicited the services of an engineering consultant to design repairs to the spillway. A cultural resources

consultant has also been procured to work on the same project.

The project is currently in the permitting phase and it is anticipated that construction will take place in 2021.

D & R Canal - Embankment Repairs Downstream of Island Farm Weir

A narrow embankment separates the Canal from the Raritan River just downstream of the Island Farm Weir on the Raritan. The river side slope just downstream of the spillway has experienced significant erosion and is in need of rehabilitation. Continued erosion and deterioration could lead to a breach of the Canal.

The engineering and cultural resources consultants completed design and permitting, and the construction project was bid in the summer of 2020. Construction is anticipated to start in fall of 2020 and finish by the spring of 2021.



Note erosion of embankment between Raritan River (left in photo) and D&R Canal just downstream of Island Farm Weir.

D & R Canal Rehabilitation of Six Mile Run Culvert

The Six Mile Run Culvert is located in Franklin Township, Somerset County at Station 2298+17, just south (upcanal) of Blackwells Mill Road and adjacent to the Six Mile Run State Park site at 625 Canal

Rd. The culvert carries Six Mile Run under Canal Road, the Delaware and Raritan Canal, and the multi-use trail. The culvert consists of three stone masonry arches. The structure presumably dates to the original construction of the Canal (1830s) and was rehabilitated in the 1980s. Additional work was performed on the outlet end in 2009. The culvert is considered a bridge as it spans greater than 20 linear feet. The culvert structure is maintained by the Authority and the roadway portion (Canal Road) is maintained by Franklin Township.



Six Mile Run culverts.

In March 2018, Franklin Township alerted the Authority to a sink hole that had formed in the area of the road that the Township had patched with asphalt on previous occasions. This sinkhole developed following two Nor'easter storms in a period of a few days. The Authority procured a contractor who made an emergency repair to the road surface and subsurface over the culvert.

The culvert interior at the inlet side was missing stones which needed to be repaired. Authority staff contracted with divers to make temporary repairs to the interior of the culverts pending a more substantial rehabilitative effort.

Authority staff solicited the services of an engineering consultant to evaluate the entirety of the three-barrel structure and prepare a design for a complete

rehabilitation. A cultural resources consultant has also been procured to work on the same project.

The project was intended to be split into two phases. Phase I was to include cleaning, dewatering, and inspection of the culvert; however, the bids were cost prohibitive, so alternative investigations and inspections were completed by the engineering consultant in 2020. Phase II will consist of the engineered design rehabilitation. It is anticipated that Phase II construction will take place in 2021-2022.



Dye testing for leaks being performed in canal above the Six Mile Run Culvert.

Retrofitting of Several Detention Basins in Franklin Township

Since 1997, several of the Canal water purveyors have reported increased concentrations of Total Suspended Solids (“TSS”) in the raw water during and immediately after precipitation events. As a result, the Authority has been working since 2001 on a nonpoint source (“NPS”) pollution prevention program to reduce TSS and phosphorous in tributaries and infalls within the final eleven miles of the Canal. The NPS program has been funded by the New Jersey Department of Environmental Protection under Section 319(h) NPS Pollution Grant Program and the Corporate Business Tax Watershed Fund. In 2007, an engineering consultant was retained to

implement Best Management Practices (“BMP”) for stormwater entering the Canal in Franklin Township and South Bound Brook Borough, Somerset County.



Laird Terrace Stormwater Detention Basin after modifications to improve water quality

In 2013, the Authority’s Watershed staff identified several detention basins in Franklin Township as potential candidates for BMP improvements. The engineering consultant designed projects to naturalize the basins and to increase the detention time and infiltration of stormwater at existing basins located at Gauguin Way, Laird Terrace, Renoir Way and the Municipal Complex. The Authority retained a contractor in 2019 and the construction of improvements to the four basins was completed in the summer of 2020. The consultant is currently completing design and permitting for similar improvements to an additional detention basin located at Dellwood Lane. The construction of this project is expected to be completed in 2021.



Municipal Stormwater Basin naturalized area

Spruce Run Administration Building - Replace Fuel System Pumps and Software/Inventory System

The Spruce Run fuel facility was installed in 1991 and includes one 5,000-gallon underground storage tank (“UST”) for unleaded gasoline, one 2,000-gallon UST for diesel fuel, a fuel dispensing island with computerized pumps, a canopy for weather and stormwater runoff protection, associated piping and electrical wiring, leak detection, overflow protection, spill prevention, and corrosion protection for both tanks and piping. The Authority also maintains a 5000-gallon heating oil tank and a 550-gallon waste oil tank, both underground.

The fuel dispenser system has performed adequately but inspections revealed that the dispenser frames, supplementary connection piping, containment chambers, junction boxes and the fuel island steel curb forms are corroded and have lost much of their structural integrity. The dispensing units are in poor condition and are discontinued from the current market. The fuel storage and management system requires an upgrade to match newly installed fuel systems at the Canal Field Office in West Trenton and the Manasquan Water Supply System Office in Wall Township. It is also noted that parts for both the dispensing units and the fuel storage and management system are very

difficult to locate. The double-wall underground storage tanks are reported in good condition.

Engineering services were procured to inspect, investigate and design a new fuel dispensing system including replacement of the card readers system, expansion of the Veeder-Root leak monitoring system to the fuel oil and waste oil tanks, and replacement of the fuel island and the existing canopy.

The engineering consultant further recommended removal of the waste oil tank and replacement with an above ground unit. The underground waste oil tank was removed in August 2019 without incident, and in full compliance with DEP regulations.

After the project was bid, state required inspection and testing of the diesel and gasoline sump pits revealed that the system couldn't support mandated hydrostatic testing. Upon recommendation of the Licensed Operator and the contractor, it was determined that the sumps should be replaced and new testing boots installed to ensure reliable hydrostatic testing. Additional work to replace the tank sumps, fuel piping, spill and overflow protection and access man-ways resulted in contractual and design modifications. These modifications and COVID-19 delayed the original schedule of the project. Regulatory approval of the modifications has been obtained and completion of the work is anticipated by the end of 2020 or in early 2021.

Spruce Run Administration Building - Heating and Cooling

Twenty-one through-the-wall HVAC units provide heating and cooling to the original section of the Administration building. They were installed in 1994 and reached the end of their service life. Replacement parts were difficult to obtain and the units were frequently in need of service. Bid specifications for replacement units were prepared by Authority

engineering staff. An HVAC contractor was procured for the installation of the units. This project is in the final stages of installation and completion is anticipated fall of 2020.

Operations - Manasquan System

Raw water contracts were maintained at a total of 19.443 MGD in 2020. Wetter weather in the winter and spring of 2020 allowed the reservoir to remain at normal volumes until the fall when a dry stretch occurred.

Reservoir water quality was normal during the first eight months of the year but deteriorated in August after the Isaias storm. Cyanobacteria algae was dominant and at count levels that were in the range of what is considered a harmful algae bloom from early August until well into October. Algae counts and toxin levels were measured regularly, and no significant toxin levels were detected in the water near the intake piping. Both water treatment plants that treat the water directly from the reservoir had no issues with the increased algae levels due to the treatment processes they employ for removing algae. Rainfall was normal for most months of the year so selective pumping to the reservoir was employed to maintain the best reservoir water quality achievable. There was a significant blue-green algae bloom in early August that was treated with algaecide. Staff took samples to measure the toxicity of the algae bloom that occurred in early August and again throughout September. Staff is continuing to update the Cyanotoxin Control Protocol and Plan for Manasquan Reservoir System to include a history of actions taken in 2020 and the results. In 2019 a detailed cyanobacteria study was undertaken by a limnologist contracted to study causes and potential factors for blooms in the reservoir and review the Authority's cyanobacteria control plan. The report recommendations were generally consistent with the Authority's current protocol.



Transformer replacement

A high voltage transformer in the reservoir electrical system was refurbished this year after testing identified deterioration of the insulating oil. Two other transformers were replaced.

In accordance with New Jersey Dam Safety regulations, a regular inspection of Manasquan Dam was conducted in October 2020. Staff continued to implement the consultant's recommendations from the 2018 formal dam inspection for repair or replacement of instrumentation and replacement of the automated data acquisition system ("ADAS"). The ADAS was replaced in 2019 and all accessible embankment monitoring instruments have now been replaced or calibrated. Plans are in progress to drill additional wells in the embankment to install replacement piezometers. The piezometers being replaced are non-functioning and are part of a closed system that cannot be accessed for repair. The new piezometers will be integrated into the ADAS with an integral data logger that supplies reporting analysis, trends and alarms.

Operations - Manasquan Water Treatment Plant ("MWTP")

The treatment plant provided water that met all NJDEP standards throughout 2020.

Average rainfall and the resulting discolored and unsanitary water that comes with the rainfall runoff was managed through various options and treatment processes available at the plant.

A filter process resiliency study was completed during 2020. A consultant evaluated several alternatives for cost, regulatory enhancement, ease of constructability, demonstrated success and operability. The recommended process, if constructed, will increase the plant capacity and resiliency by reducing the time that the existing process has to be off line to flush accumulated solids, and will significantly reduce waste water generation and coagulant usage. In the fall of 2020, a presentation from the consultant to the SMMUA Board outlined the benefits of a prepackaged plate settler pretreatment system process.

In accordance with the Asset Management Plan, improvements and upgrades to MWTP equipment were completed in 2020 including:

- Installation of a 40-hp variable speed motor drive and controls.
- Rehabilitation of a pump motor.
- Upgrade of computer network.
- Replacement of monitoring instrumentation.

Watershed Protection Programs Unit

The New Jersey Water Supply Authority's Watershed Protection Programs Division administers a systematic source water protection program for the watersheds that the Authority and our customers rely upon for their water supply. The Division's primary objectives include the development and implementation of projects that afford protection to the quantity and quality of the source water in the Raritan and Manasquan River Basins, and the Delaware & Raritan Canal and its tributaries for the benefit of the Authority and its customers. In 2020, the Watershed Office partnered with land owners, farmers, government agencies,

businesses and not-for-profit organizations to implement a variety of cost effective strategies, guided by the results of detailed watershed restoration protection plans for priority sub-watersheds.

Watershed Planning

The Watershed Protection Office and New Jersey American Water Company (“NJAW”) partnered to develop a watershed control plan for Cryptosporidium, a persistent protozoan parasite. NJAW is applying a multi-barrier approach to protect their Raritan-Millstone drinking water intake from Cryptosporidium. The watershed control plan is one part of that approach. The draft plan was submitted to NJDEP in 2020, and focuses on source water protection activities such as agricultural practice implementation, waterfowl management and wastewater management.

In 2020, the Authority received a watershed restoration grant from the New Jersey Department of Environmental Protection (“NJDEP”) to develop a watershed restoration plan for the Spruce Run watershed, its tributaries and Spruce Run Reservoir. The Authority will concurrently update the Mulhockaway Creek Stormwater Management and Watershed Restoration Plan to protect source water quality and address pollutant loads from both watersheds that flow into the Spruce Run Reservoir. The completed plans will conform to the United States Environmental Protection Agency’s (“USEPA”) requirements for a watershed restoration plan.

Watershed Quality Conservation Practice Implementation

In 2020, the Authority continued its partnership with the NJDEP and the US Department of Agriculture-Natural Resources Conservation Service (“USDA-NRCS”) to implement a variety of Agricultural Cost-Share Programs. Funds

from NJDEP and the Authority’s source water protection fund matched funds from USDA-NRCS to provide additional cost-share to agricultural producers. Eighteen producers in the North & South Branch Raritan River watersheds and the Lockatong & Wickecheoke watersheds are currently participating in the Agricultural Cost-Share Program. The Authority’s conservation technical assistance agreement with USDA-NRCS for a shared agricultural specialist was extended through 2021, and the existing Regional Conservation Partnership Program agreement was also extended.

River-Friendly Programs

The Watershed Office works closely with Raritan Headwaters Association and The Watershed Institute to implement a suite of River-Friendly programs. The 2020 participation stands at: 19 schools (12 certified), 20 businesses (17 certified), and 9 golf courses (7 certified). The new River-Friendly Community Partner Program, for organizations that do not fit into the traditional framework, certified its first business in 2020 and has three other businesses in the program. During the year, the Authority’s own Spruce Run Administration Building was re-certified by The Watershed Institute under the baseline standards. The River-Friendly Partnership added its first affiliate partner, the Rahway River Watershed Association. They will begin implementing the School and Resident Programs in the Rahway River Watershed in 2021.

Aquatic Plant Management

Aquatic plants, specifically a number of aggressive invasive aquatic plants, are creating operational and water quality challenges Authority-wide. Dense aquatic vegetation can cause a myriad of issues including: inhibiting water flow, obstructing intakes, impairing water quality, reducing dissolved oxygen, suppressing the desirable

native aquatic plant community, altering sediment chemistry, and reducing water depth. The introduction and spread of invasive aquatic plants in our source water supply exacerbates these effects, and necessitates thoughtful planning and management.

After the 2016 discovery of hydrilla in the Canal, the Authority engaged a qualified consultant in 2017 to assist the Authority in developing and implementing an Aquatic Plant Management Plan for the Delaware & Raritan Canal. The plan focuses on managing aquatic plants for the purpose of maintaining passing flow while protecting water quality for all water users. As recommended in the plan, the Authority initiated a fourth year of a low-dosage continuous herbicide treatment in June 2020. The Authority continued engaging stakeholders, including all water purveyors, prior to and throughout the process. A post-treatment survey was conducted which documented effective aquatic plant suppression throughout the Canal and no remaining fragments of hydrilla; however, tubers continue to be found in the sediment. Overall, plant growth was reduced in the Canal, both upcanal and within the treatment area. The D&R Canal Aquatic Plant Management Plan will continue in 2021.



Hydrilla tuber sampling along the D&R Canal

The presence of hydrilla and fanwort was confirmed in the Manasquan Reservoir in 2017. In response, the Authority hired a

consultant in 2018 to prepare an Aquatic Plant and Cyanobacteria Management Plan for the Manasquan Reservoir. The Authority did not apply herbicide at Manasquan Reservoir for hydrilla control and significant re-growth of hydrilla was observed during vegetation and tuber monitoring in 2020.

In a partnership between the Authority and the Monmouth County Park System, a Boat Stewards Program was conducted for the second year at the Manasquan Reservoir Boat Launch on weekends and holidays throughout the summer of 2020 designed to reduce the spread of aquatic invasive plant species. The program was modeled after successful Boat Steward Programs in New York and other northeastern states. To stop the spread of aquatic invasive plants like hydrilla, stewards inspected 1,346 boats for “hitchhiking” invasive species fragments, intercepting 89 boats from entering the reservoir with plant fragments and 160 vessels leaving the Manasquan Reservoir with fragments. Stewards also educated patrons on aquatic invasive species and surveyed boat owners on boat cleaning habits, typical boat usage, and level of familiarity with invasive species.



Boat Steward Inspection at Manasquan Reservoir

Cyanobacteria Monitoring and Response (Harmful Algal Blooms)

In 2020 Cyanobacterial (harmful algal) blooms affected both Spruce Run Reservoir

and Manasquan Reservoir, as well as several other high profile water bodies in New Jersey. Cyanobacteria are bacteria that occur naturally in water bodies and can experience a population explosion, or bloom, under suitable environmental conditions, such as high nutrients (nitrogen and phosphorus), warm temperatures, and sunlight. Some cyanobacteria produce toxins that can be harmful to humans, livestock, and pets.

The Watershed Office has taken an active role in monitoring for potential cyanobacteria blooms in cooperation with partners at the New Jersey Department of Environmental Protection (“NJDEP”), United States Geological Survey, New Jersey Water Science Center (“USGS”), and New Jersey Division of Parks and Forestry. The Watershed Office utilizes hand-held, instantaneous, water quality sensor data collected by NJDEP via fixed-wing aircraft, remote sensing Manasquan, Spruce Run, and Round Valley Reservoirs, as a screening tool to identify the potential location and estimated cyanobacteria cell density.

NJDEP also collects data at the Manasquan Reservoir tower that provides continuous, real-time water quality data. The Authority, along with partners at USGS and Montclair State University, were awarded a federally-competitive Cooperative Matching Funds Grant to study the downstream fate and transport of cyanobacteria and cyanotoxins in the Raritan Basin. This project combines continuous, real-time water quality data monitoring, including the buoy in the middle of Spruce Run Reservoir, at multiple sites in the Raritan Basin, discrete sampling for phytoplankton community assemblages, microcystins, nutrients, and other water quality data, and time-integrated toxin analysis through the use of an innovative technology called SPATT (Solid Phase Adsorption Toxin Tracking).



Cyanobacteria bloom at Manasquan Reservoir, October 2020

The Spruce Run Reservoir bloom was first confirmed on June 1, 2019 and continued throughout the winter and into 2020. The Authority was awarded a 319(h) grant from NJDEP for HABs mitigation at Spruce Run Reservoir for the installation of an innovative biochar installation on the Mulhockaway Creek. The Authority was also awarded a Watershed Restoration Grant funding from the NJDEP to implement the proposed “Watershed Restoration and Protection Plan for Spruce Run Reservoir”.

The Watershed Office worked with Manasquan Operations to develop a Cyanotoxin Management Plan for Manasquan Reservoir, and submitted the plan to NJDEP as required for water purveyors. The draft plan was exercised when the Manasquan Reservoir was treated with copper sulfate, an algaecide, in mid-August. The Watershed Staff conducted intensive monitoring before and after the treatment to monitoring the phytoplankton community and cyanotoxins in the reservoir. The samples were analyzed by the New Jersey Center for Water Science and Technology at Montclair State University.

The bloom persisted from early September through the fall, and the Watershed Staff collected samples regularly for NJDEP analysis to further support Manasquan Operations monitoring efforts.



Downstream Transport Study Site – South Branch Raritan @ Stanton



Cyanobacteria bloom at Spruce Run Reservoir, September 2020

Stormwater Management and Monitoring

In 2020, the Authority implemented a number of stormwater mitigation projects designed to reduce the amount of sediment entering the Canal.

Under a funding agreement from the New Jersey Department of Environmental Protection (“NJDEP”), the Authority retrofitted four stormwater basins in Franklin Township, Somerset County. Staff met with residents in the neighborhoods surrounding the projects in February, and

construction began in March. Concrete low flow channels were removed and turf was replaced with meadow vegetation to improve total suspended sediment removal at each of the basins. Automated ISCO Avalanche Samplers were deployed at two of the basins in 2019 to collect pre-construction stormwater runoff data; post-construction data will be collected beginning in 2021. Franklin Township is responsible for maintaining the stormwater basins.

In 2019, the Authority received stormwater mitigation funds through the Delaware and Raritan Canal Commission to undertake feasibility studies to improve sediment removal at the Cedar Grove Brook Lower Pond Weir. The Cedar Grove Brook is a significant tributary to the Delaware & Raritan Canal and discharges to the Canal approximately two miles upstream of the water supply intakes for Middlesex Water Company, the Township of East Brunswick and the City of New Brunswick. A 2005 study established that the Cedar Grove Brook is a significant contributor of total suspended solids and turbidity pollutant loads to the Canal during and immediately after precipitation events. Modification of the existing weir configuration may provide significant sediment transport reductions into the Canal. A consultant will be retained in early 2021 to analyze the feasibility of the project and, if feasible, develop schematic design alternatives to reduce sediment transport from the Cedar Grove Brook flowing into the D&R Canal.

The Authority also received stormwater mitigation funds through the Delaware and Raritan Canal Commission for implementation of a basin retrofit on Dellwood Lane in Franklin Township, Somerset County. This basin was identified for retrofit and construction specifications which were prepared during a previous NJDEP watershed restoration grant. The Canal Commission funds will be utilized for the implementation of the retrofit recommendations and construction will occur in 2021.

AmeriCorp New Jersey Watershed Ambassador Program

2020-2021 is the 21st year of the watershed ambassador program. The Authority is hosting its eighteenth watershed ambassador this year.

Policies and Economic Growth Strategies of the State of New Jersey

The Highlands Water Protection and Planning Act, N.J.S.A. 13:20-1 et seq. protects drinking water for over 5.4 million people and helps preserve New Jersey's dwindling open space. Approximately 17 percent of the Raritan Basin is in the Highlands, providing nearly all of the water stored in Round Valley and Spruce Run Reservoirs. The Authority's land acquisition program has been suspended temporarily; however, to date, the Authority has committed \$15,224,781 since 2003 to purchase and preserve, along with its partners, 3,954 acres within the Raritan and Manasquan Basins. The Authority also continues to contribute soft costs and stewardship expenses in order to assist project partners in closing open space parcels within the basin.

One of the stated goals of the NJDEP is to ensure that adequate, safe and reliable water supplies are provided to the people of the State of New Jersey. Specifically, the State ensures that surface and ground water diversions do not exceed the sustainable yield of available water resources. The Raritan Basin Safe Yield Model was developed based on the results of the Authority's operations model, and the Manasquan Reservoir System Safe Yield Model is used in support of water allocation permit applications and System operations.

During 2020, the Authority's operations continued to support the sustainability of the State's water resources through its operation of the reservoir systems, through managing

passing flow requirements at certain stations along the river system, with the implementation of a \$75 million Round Valley Reservoir Rehabilitation Project and through continuous maintenance and dredging of the Delaware and Raritan Canal to assure adequate flow and the long-term integrity of that structure.

Annual Review of Authority Operations

Each year during the budget process, senior management of the Authority reviews operations to identify inefficiencies and cost savings which, when implemented, will provide direct benefit to the Authority's customers. During 2020, the Authority undertook several steps to implement cost savings and other measures in several areas. The Authority continued its close review of staffing levels, resulting in significant labor savings from careful management of staffing efforts for open positions. As normal vacancies occurred in staffing during 2020, the Authority made certain that personnel were promoted, or hired from outside the Authority into salaries which were lower than the departing incumbent. During FY2020, the Authority filled eight vacancies and realized approximately \$95,000 in turnover savings through exercising this diligence. Overall, FY2020 expenses were approximately 20% under budget due largely to health care savings negotiated through union contracts (especially in the area of retiree health), lower fuel and electricity expense due to careful monitoring of usage stable utility and fuel rates, and savings in the area of professional services. Rates were further stabilized in FY20 by the use of unanticipated revenue of \$1,176,800 resulting from prior year surpluses, overdrafts and excess debt service coverage.

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Letter of Transmittal

NEW JERSEY WATER SUPPLY AUTHORITY



Post Office Box 5196 • Clinton, NJ 08809 • (908) 638-6121
www.njwsa.org Fax • (908) 638-5241

December 7, 2020

Formal Transmittal of the CAFR

[To the Commissioners of the New Jersey Water Supply Authority](#)

The Comprehensive Annual Financial Report of the New Jersey Water Supply Authority ("Authority") for the year ended June 30, 2020 is submitted herewith. Responsibility for both the accuracy of the data and the completeness and fairness of the presentation, including all disclosures, rests with the Authority. To the best of our knowledge and belief, the enclosed data is accurate in all material respects and are reported in a manner designed to present fairly the Authority's financial position, results of operations, and cash flows in accordance with generally accepted accounting principles. In accordance with these accounting principles, the Authority is a component unit of the State of New Jersey and, as such, is included in the State of New Jersey's Annual Report.

Profile of the Government

[Reporting Entity and its Services](#)

The Authority was created on October 7, 1981 (P.L. 1981, c.293) and was established in but not of the Department of Environmental Protection of the State of New Jersey. This "New Jersey Water Supply Authority Act" established the Authority to acquire, finance, construct, and operate water systems under certain circumstances, and authorizes the issuance of bonds of the Authority.

The Authority operates three separate systems: the Raritan Basin System, the Manasquan Water Supply System, and the Manasquan Water Treatment Plant and Transmission System. The Manasquan Water Treatment Plant and Transmission System is owned by the Southeast Monmouth Municipal Utilities Authority ("SMMUA"), and is operated and maintained by the Authority under the terms of an operating agreement. Each of these systems provides sufficient revenues to cover their own operating expenses, and each System's debt service.

A seven member Board of Commissioners governs the Authority. The Authority's Executive Director heads a full-time staff of professional, technical, and operational personnel totaling approximately 119 employees, consisting of approximately 92 employees of the Raritan Basin System and 27 employees of the Manasquan Reservoir System.

The meetings of the Authority are normally scheduled for the first working Monday of each month. Four members of the Authority constitute a quorum at any meeting. Action may be taken, and motions and resolutions adopted by the Authority at any meeting by the affirmative vote of at least four members of the Authority. All meetings held by the Authority are in accordance with the Open Public Meetings Act, which requires that all meetings of public bodies be open to the public.

Accounting System and Budgetary Control

The Authority's financial statements are prepared in accordance with generally accepted accounting principles. The Authority operates and reports as a single enterprise fund utilizing the accrual basis of accounting. The enterprise fund concept is similar to how private business enterprises are financed and operated. The intent is that the costs of providing service to water users on a continuing basis be financed primarily through user charges.

In an effort to ensure compliance with the Authority's By-Laws and to safeguard its assets, an internal control structure has been developed and implemented by management. The internal control structure is outlined in Accounting Policies and Procedures Manuals maintained by the Authority and include: description of methods, procedures and accounting principles to be followed with explanations and examples of principal transactions; standards setting out authorization levels for expenditure of Authority funds and very specific procedures to follow when executing purchase orders, receiving goods and payment for services; separation of accounts payable and receivable function; limitations on access to the vendor management system; bank reconciliation review; controls over deposits and generation of automated and manual checks. The internal control structure also includes approved organization structures, and approved budgets for capital and operating expenditures.

The Authority's By-Laws also set out standards for procurement, which have been codified in policies and procedures. The standards include a threshold, after which the Board of Directors must approve all transactions. The Authority is in compliance with Executive Order No. 37 (2006) with respect to procurement, and has amended its procedures to ensure 100 percent compliance.

To the best of our knowledge and belief, the Authority followed all of its standards, procedures and internal control safeguards for the year in question. Because the cost of a control should not exceed the benefits to be derived, the objective is to provide reasonable, rather than absolute assurance, that the financial statements are free of any material misstatements.

The Authority adopts an annual budget for its operations and establishes water rates accordingly.

Information Useful in Assessing the Government's Economic Condition

Financial Position

The total assets of the Authority as of June 30, 2020 were \$301,359,326, an increase of 3.6 percent over the previous year's total of \$290,835,584. Net capital assets increased by \$24,446,661, or 15.8 percent, from \$154,561,900 to \$179,008,561.

The total of cash, cash equivalents and investments for the Authority increased \$9,359,820, or 11.8 percent, from \$79,447,081 to \$88,806,901. The increase is mainly the result of cash raised related to the debt service component of rates in the Raritan system. Current liabilities increased \$4,554,450, or 30.2 percent, from \$15,069,049 to \$19,623,499 due primarily to an increase in accounts payable. Total non-current liabilities decreased from \$163,293,861 to \$152,932,482 or 6.3 percent. The decrease is primarily due to a decrease in the Authority's net OPEB liability. Total Operating Revenue increased by \$167,169 or 0.5 percent, from \$32,703,364 to \$32,870,533. Total Operating Expenses decreased \$1,151,542, or 5.0 percent, from \$22,836,854 to 21,685,312 due to a decrease in the Authority's portion of OPEB and pension expense as allocated by the State of New Jersey. Non-operating Revenue increased \$387,350 or 30.2 percent, from \$1,281,332 to \$1,668,682, reflecting increases in grant

income. Non-operating expenses increased \$234,878, or 17.8 percent, from \$1,317,829 to \$1,552,707 primarily due to an increase in cost recovery related deferred inflows of resources.

Independent Audit

In accordance with the "New Jersey Water Supply Authority Act" (P.L. 1981, c.293), before the last day of February, an Annual Report of the Authority's activities of the preceding calendar year is due to the Governor and the Legislature. This Annual Report must include an audit of the Authority's books and accounts. Mercadien, P.C. was retained to perform an audit of the 2020 Fiscal Year in accordance with Auditing Standards generally accepted in the United States and *Government Auditing Standards* issued by the Comptroller General of the United States. In June 1999, the GASB adopted their Statement No. 34, *Basic Financial Statements—and Management's Discussion and Analysis—for State and Local Governments*. The Authority adopted GASB Statement No. 34 in Fiscal Year 2001, including the Management's Discussion and Analysis ("MD&A"). The MD&A is considered to be required supplemental data and precedes the financial statements. This letter of transmittal is designed to complement the MD&A and should be read in conjunction with it. The Authority's MD&A can be found immediately following the Report of the Independent Auditors. Mercadien, P.C. reports directly to the Audit Committee of the Board of Commissioners. Mercadien, P.C. also issued, as part of the annual audit, a report on internal control and compliance.

The Authority has previously established rates, and intends to continue establishing rates on the basis of its cash needs in any fiscal year to meet its requirements for Operations and Maintenance Expenses, Debt Service, Capital Fund and the Source Water Component.

Awards and Acknowledgements

Certificate of Achievement for Excellence in Financial Reporting

The Government Finance Officers Association of the United States and Canada ("GFOA") has awarded a Certificate of Achievement for Excellence in Financial Reporting to the New Jersey Water Supply Authority for its Comprehensive Annual Financial Report for 28 consecutive years through FY2019.

In order to be awarded a Certificate of Achievement, a government must publish an easily readable and efficiently organized Comprehensive Annual Financial Report. This report must satisfy both generally accepted accounting principles and applicable legal requirements.

A Certificate of Achievement is valid for a period of one year only. It is the Authority's intention to submit the FY2020 Comprehensive Annual Financial Report to the GFOA in December of 2020.

Acknowledgements

The preparation of this report on a timely basis could not be accomplished without the efficient and dedicated services of the Financial and Accounting staff of the New Jersey Water Supply Authority. Any financial report is also only as good as the accounting records that supply its supporting data. The Authority's entire staff deserves recognition for their dedication, perseverance and attention to detail that result in the Authority's records being kept in a manner which reflects credit on the staff as a unit as well as each employee individually.

Economic Outlook

The continuing economic viability of the Authority is ensured by the water contracts the Authority maintains with our water users. The water users have entered into long-term contracts for a supply of water for their respective systems, which they are authorized to continuously withdraw without interruption, for potable or industrial water supply purposes. During Fiscal Year 2020, the Authority supplied water to 30 contractual customers of the Raritan Basin System, which provided water to approximately 1,500,000 people in central New Jersey, and 13 contractual customers of the Manasquan System, which provides water to approximately 250,000 people in the Monmouth County area. Two customers accounted for approximately 84 percent of total Raritan Basin System operating revenues. Three customers accounted for approximately 85 percent of total Manasquan System operating revenues.

The total sales base for the Raritan Basin was 182.339 million gallons per day for fiscal year 2020, and the total sales base for the Manasquan Reservoir System was 19.443 million gallons per day. We are expecting our major water customers in both Systems to continue to maintain their approximate contractual water allocations in

the future. Payments for uninterruptible service are based upon the mgd amount specified in each water user contract, and are payable to the Authority whether or not the water user actually withdraws the full amount of water available as defined in the contract as daily uninterruptible service.



Marc Brooks
Executive Director



Susan Buckley
Director, Finance & Administration



Rita Shaw
Controller

Financial Section

Report of Independent Auditors

Management's Discussion and Analysis

Basic Financial Statements

Statements of Net Position

Statements of Revenues, Expenses and
Changes in Net Position

Statements of Cash Flows

Notes to Financial Statements

Combining Statements and Schedule

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

**FINANCIAL STATEMENTS AND SUPPLEMENTARY INFORMATION
JUNE 30, 2020**

INDEPENDENT AUDITORS' REPORT

To the Commissioners of
New Jersey Water Supply Authority

Report on the Financial Statements

We have audited the accompanying financial statements of the business-type activities of the New Jersey Water Supply Authority (a component unit of the State of New Jersey) (the "Authority") as of and for the years ended June 30, 2020 and 2019, and the related notes to the financial statements, which collectively comprise the Authority's basic financial statements as listed in the table of contents.

Management's Responsibility for the Financial Statements

Management is responsible for the preparation and fair presentation of these financial statements in accordance with accounting principles generally accepted in the United States of America; this includes the design, implementation and maintenance of internal control relevant to the preparation and fair presentation of financial statements that are free from material misstatement, whether due to fraud or error.

Auditors' Responsibility

Our responsibility is to express opinions on these financial statements based on our audits. We conducted our audits in accordance with auditing standards generally accepted in the United States of America and the standards applicable to financial audits contained in *Government Auditing Standards*, issued by the Comptroller General of the United States. Those standards require that we plan and perform the audits to obtain reasonable assurance about whether the financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial statements. The procedures selected depend on the auditors' judgment, including the assessment of the risks of material misstatement of the financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the entity's preparation and fair presentation of the financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the entity's internal control. Accordingly, we express no such opinion. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluating the overall presentation of the financial statements.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinions.

INDEPENDENT AUDITORS' REPORT (CONTINUED)

Opinions

In our opinion, the financial statements referred to above present fairly, in all material respects, the financial position of the business-type activities of the Authority as of June 30, 2020 and 2019, and the changes in financial position and cash flows thereof for the years then ended in accordance with accounting principles generally accepted in the United States of America.

Emphasis of Matter

As discussed in Note K to the financial statements, the 2019 financial statements have been restated to correct a misstatement. Our opinion is not modified with respect to this matter.

Other Matters

Required Supplementary Information

Accounting principles generally accepted in the United States of America require that the management's discussion and analysis and the required supplementary schedules, as listed in the table of contents, be presented to supplement the basic financial statements. Such information, although not a part of the basic financial statements, is required by the Governmental Accounting Standards Board who considers it to be an essential part of financial reporting for placing the basic financial statements in an appropriate operational, economic or historical context. We have applied certain limited procedures to the required supplementary information in accordance with auditing standards generally accepted in the United States of America, which consisted of inquiries of management about the methods of preparing the information and comparing the information for consistency with management's responses to our inquiries, the basic financial statements, and other knowledge we obtained during our audit of the basic financial statements. We do not express an opinion or provide any assurance on the information because the limited procedures do not provide us with sufficient evidence to express an opinion or provide any assurance.

Other Supplementary Information

Our audits were conducted for the purpose of forming opinions on the financial statements that collectively comprise the Authority's basic financial statements. The other supplementary information, as listed in the table of contents, is presented for purposes of additional analysis and is not a required part of the basic financial statements.

The other supplementary information is the responsibility of management and was derived from and relates directly to the underlying accounting and other records used to prepare the basic financial statements. Such information has been subjected to the auditing procedures applied in the audit of the basic financial statements and certain additional procedures, including comparing and reconciling such information directly to the underlying accounting and other records used to prepare the basic financial statements or to the basic financial statements themselves, and other additional procedures in accordance with auditing standards generally accepted in the United States of America. In our opinion, the other supplementary information is fairly stated, in all material respects, in relation to the basic financial statements as a whole.

INDEPENDENT AUDITORS' REPORT (CONTINUED)

Other Reporting Required by *Government Auditing Standards*

In accordance with *Government Auditing Standards*, we have also issued our report dated October 14, 2020, on our consideration of the Authority's internal control over financial reporting and on our tests of its compliance with certain provisions of laws, regulations, contracts, grant agreements and other matters. The purpose of that report is solely to describe the scope of our testing of internal control over financial reporting and compliance and the results of that testing, and not to provide an opinion on the effectiveness of the Authority's internal control over financial reporting or on compliance. That report is an integral part of an audit performed in accordance with *Government Auditing Standards* in considering the Authority's internal control over financial reporting and compliance.

Mercedien, P.C.
Certified Public Accountants

October 14, 2020

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MANAGEMENT'S DISCUSSION AND ANALYSIS

Year Ended June 30, 2020

This section of the Annual Financial Report of the New Jersey Water Supply Authority (the "Authority"), a Component Unit of the State of New Jersey, presents discussion and analysis of the Authority's financial performance during the fiscal years ended June 30, 2020 and June 30, 2019. Please read it in conjunction with the Authority's basic financial statements and accompanying notes.

FINANCIAL HIGHLIGHTS – FISCAL YEAR 2020

- Operating revenue for fiscal year 2020 was \$32.9 million, a .5% increase over fiscal year 2019, which was the result of a .5% increase in Raritan sales and a .7% increase in Manasquan sales. In the Raritan Basin System, rates remained at \$336.00 per million gallons, and the sales base decreased slightly to 182.339 million gallons per day ("mgd"). In the Manasquan Reservoir System, rates remained at \$1,043.35 per million gallons. The fiscal year 2020 sales base remained at 19.443 mgd. Income from operations increased for the Raritan System 12.6% and increased 7.7% for the Manasquan System.
- Total operating expenses for fiscal year 2020 decreased to \$21.7 million, which represents a 5.0% decrease from fiscal year 2019. The decrease was primarily due to reduced health care expenses for active and retired employees that resulted from union contract negotiations and a reduction in OPEB related expenses resulting from changes in the plan estimates and assumptions as well as the prior period restatement.
- Other changes for fiscal year 2020 include the following: non-operating revenue increased 30.2% to \$1.7 million, primarily because of an increase in grant related income.
- Non-operating expenses for fiscal year 2020 increased 17.8% to \$1.6 million. The interest component of debt service decreased significantly with the continued pay-down of system debt. There was an increase in the reduction in costs to be recovered from future revenue, (deferred inflows of resources) and the change in the rate model is outlined in Note B to the basic financial statements.
- Unrestricted cash and cash equivalents for fiscal year 2020 were \$57.5 million, an increase of 22.7% compared to fiscal year 2019.
- Total liabilities for fiscal year 2020 were \$172.6 million. This is a decrease of 3.3% from fiscal year 2019 and includes a reduction in the Postemployment Benefits Other Than Pensions (OPEB) liability and pension liability.
- Deferred outflows of resources decreased 16.9% mainly due to reductions in the pension category. Deferred inflows of resources increased 18.2% mainly due to an increase in the OPEB category.



MANAGEMENT'S DISCUSSION AND ANALYSIS

Year Ended June 30, 2020

FINANCIAL HIGHLIGHTS – FISCAL YEAR 2019

- Restated operating revenue for fiscal year 2019 was \$32.7 million, a .1% increase over fiscal year 2018, which was the result of a .3% increase in Raritan sales and a .5% decrease in Manasquan sales. In the Raritan Basin System, rates remained at \$336.00 per million gallons, and the sales base remained at 182.353 million gallons per day (“mgd”). In the Manasquan Reservoir System, rates remained at \$1,043.35 per million gallons. The fiscal year 2019 sales base remained at 19.443 mgd. Income from operations increased for the Raritan System 27.9% and increased 2.7% for the Manasquan System.
- Total restated operating expenses for fiscal year 2019 decreased to \$22.8 million, which represents an 8.8% decrease from fiscal year 2018. Payroll increased 1.7% due to negotiated union contract increases and the filling of funded vacancies. Fringe benefits decreased 28.7% due largely to reduced OPEB and pension expenses including the reduction of OPEB expenses due to the prior period restatement. Direct operations and maintenance expenses decreased 8.3% to \$5.2 million, primarily due to a decrease in expenses related to treatment of invasive plant species in the Delaware and Raritan Canal.
- Other changes for fiscal year 2019 include the following: non-operating revenue increased 128.8% to \$1.3 million; investment income increased 127.0% because of an increase in fair market valuations and improved earnings on bank deposits. The receipt of grant program reimbursement increased 46.8% from the previous year, and other income increased because of an increase in the gain on disposal of assets.
- Restated non-operating expenses for fiscal year 2019 increased 29.5% to \$1.3 million. The interest component of debt service decreased 27.9% with the continued pay-down of the system debt. There was an increase in the reduction in costs to be recovered from future revenue, (deferred inflows of resources) and the change in the rate model is outlined in Note B to the basic financial statements.
- Unrestricted cash and cash equivalents for fiscal year 2019 were \$46.9 million, a decrease of 2.7% compared to fiscal year 2018.
- Total liabilities for fiscal year 2019 were \$178.4 million. This is a decrease of .3% from fiscal year 2018 and includes the June 2019 interim financing in the amount of \$15.2 million with the New Jersey Infrastructure Bank for the Round Valley Reservoir Structures Refurbishment and Resource Preservation Project in the Raritan Basin System and a reduction in the Postemployment Benefits Other Than Pensions (OPEB) liability and pension liability. The reduction in the OPEB liability includes the prior period restatement detailed further in Note K.
- Deferred outflows of resources decreased 5.9% mainly due to reductions in the pension category. Deferred inflows of resources increased 93.0% mainly due to an increase in the OPEB category.



MANAGEMENT'S DISCUSSION AND ANALYSIS

Year Ended June 30, 2020

OVERVIEW OF THE FINANCIAL STATEMENTS

The annual financial report consists of two parts: Management's Discussion and Analysis (this section) and the financial statements. The Authority is a self-supporting entity and follows enterprise fund accounting. The enterprise fund concept is similar to the manner in which private business enterprises are financed and operated. The Authority presents its financial statements on the accrual basis of accounting. The statements offer short and long-term financial information about the activities and operations of the Authority. The intent is that the costs of providing service to water users on a continuing basis are financed primarily through user charges. The Authority has established certain restricted "funds or accounts," as directed by internal resolution and bond indentures. In an effort to ensure compliance with the Authority's by-laws and to safeguard its assets, internal controls have been developed and implemented by management. These internal controls include policies, procedures, approved organizational structures and approved budgets for capital and operating expenditures.

FINANCIAL ANALYSIS OF THE AUTHORITY

The Authority's total net position was approximately \$109.6 million as of June 30, 2020. In fiscal year 2020, total assets and deferred outflows increased 3.1% to \$307.1 million, primarily due to investments in capital assets and an increase in restricted cash related to the Raritan system debt service rate component. Total liabilities decreased 3.3% to \$172.6 million. Total net position as of June 30, 2019 was approximately \$98.3 million after including the impacts for the prior period restatement related to the OPEB liability as detailed in Note K. Total assets and deferred outflows at June 30, 2019 increased 7.0% to \$297.8 million, primarily due to an increase in accounts receivable related to the 2019 interim financing for the Raritan Basin Canal Dredging Project. Total liabilities decreased .3% to \$178.4 million. Changes in assets, liabilities and net position at June 30, 2020, 2019 and 2018 are summarized in the following table:



MANAGEMENT'S DISCUSSION AND ANALYSIS

Year Ended June 30, 2020

	2020	2019*	2018	Percentage Change 2020-2019	Percentage Change 2019-2018
Assets and deferred outflows of resources					
Current assets	\$ 120,022,283	\$ 126,825,401	\$ 115,729,179	(5.36) %	9.59 %
Capital assets, net	179,008,561	154,561,900	144,437,281	15.82	7.01
Other non-current assets	2,328,482	9,448,283	10,715,097	(75.36)	(11.82)
Total assets	301,359,326	290,835,584	270,881,557	3.62	7.37
Deferred outflows of resources	5,787,217	6,967,231	7,402,086	(16.94)	(5.87)
Total assets and deferred outflows of resources	\$ 307,146,543	\$ 297,802,815	\$ 278,283,643	3.14	7.01
Liabilities, deferred inflows of resources, and net position					
Current liabilities	\$ 19,623,499	\$ 15,069,049	\$ 16,190,347	30.22	(6.93)
Non-current liabilities	40,369,889	46,206,695	56,508,420	(12.63)	(18.23)
Non-current portion of bonds, notes and loans payable	112,562,593	117,087,166	106,195,514	(3.86)	10.26
Total liabilities	172,555,981	178,362,910	178,894,281	(3.26)	(0.30)
Deferred inflows of resources	25,036,096	21,186,635	10,966,105	18.17	93.20
Net investment in capital assets	87,368,795	58,476,549	59,275,272	49.41	(1.35)
Restricted for debt service	24,965,590	19,997,698	13,434,461	24.84	48.85
Unrestricted	(2,779,919)	19,779,023	15,713,524	(114.05)	25.87
Total net position	109,554,466	98,253,270	88,423,257	11.50	11.12
Total liabilities, deferred inflows of resources, and net position	\$ 307,146,543	\$ 297,802,815	\$ 278,283,643	3.14	7.01

*Amounts were adjusted to reflect the impacts of the prior period restatement as detailed in Note K.



MANAGEMENT'S DISCUSSION AND ANALYSIS

Year Ended June 30, 2020

OPERATING ACTIVITIES

The Authority operates three separate systems: the Raritan Basin System, the Manasquan Water Supply System, and the Manasquan Water Treatment Plant and Transmission System. The Manasquan Water Treatment Plant and Transmission System is owned by the Southeast Monmouth Municipal Utilities Authority, which sets the rates, and is operated and maintained by the Authority under the terms of an operating agreement. Each system must generate sufficient revenue each year to cover its own operating expenses and debt service. The following rates were adopted at the May 2020, May 2019, and June 2018 Authority meetings, respectively, based on anticipated operating expenses:

	Rate Effective 7/01/2020	Rate Effective 7/01/2019	Rate Effective 7/01/2018	Percent Change
Raritan Basin System	\$ 336.00/mg	\$ 336.00/mg	\$ 336.00/mg	0 %
Manasquan Water Supply System				
Initial users	\$1,043.35/mg	\$1,043.35/mg	\$1,043.35/mg	0 %
Delayed water users	\$1,137.76/mg	\$1,137.76/mg	\$1,137.76/mg	0 %

The Authority's total operating revenue for fiscal year 2020 was \$32.9 million, an increase of .5% from fiscal year 2019, due to a .5% increase in Raritan water sales and a .7% increase in Manasquan water sales. The Authority's total operating expenses for fiscal year 2020 were \$21.7 million, a decrease of 5.0% from fiscal year 2019, mainly because of a decrease in fringe benefit expense. The Authority's total operating revenue for fiscal year 2019 was \$32.7 million, an increase of .1% from fiscal year 2018. The Authority's total restated operating expenses for fiscal year 2019 were \$22.8 million, a decrease of 8.8% from fiscal year 2018. The following table summarizes the changes in revenue, expenses and net position between fiscal years 2020, 2019 and 2018:



MANAGEMENT'S DISCUSSION AND ANALYSIS

Year Ended June 30, 2020

	2020	2019*	2018	Percentage Change 2020-2019	Percentage Change 2019-2018
Operating revenues:					
Water sales	\$ 30,230,221	\$ 30,060,964	\$ 30,030,868	0.56 %	0.10 %
Reimbursement of operating expenses	2,640,312	2,642,400	2,642,400	(0.08)	-
Total operating revenues	<u>32,870,533</u>	<u>32,703,364</u>	<u>32,673,268</u>	0.51	0.09
Non-operating revenues:					
State of New Jersey - Grant Programs	599,099	46,130	31,422	1,198.72	46.81
Investment and interest income	1,000,041	1,111,940	489,763	(10.06)	127.04
Rental income	57,659	57,179	49,565	0.84	15.36
Other income	11,883	66,083	(10,832)	(82.02)	710.07
Total non-operating revenues	<u>1,668,682</u>	<u>1,281,332</u>	<u>559,918</u>	30.23	128.84
Total revenues	<u>34,539,215</u>	<u>33,984,696</u>	<u>33,233,186</u>	1.63	2.26
Operating expenses:					
Payroll	8,003,155	8,014,260	7,882,193	(0.14)	1.68
Operations and maintenance	5,706,936	5,224,452	5,697,087	9.24	(8.30)
Fringe benefits	3,244,536	4,865,124	6,819,571	(33.31)	(28.66)
Depreciation	4,730,685	4,733,018	4,637,409	(0.05)	2.06
Total operating expenses	<u>21,685,312</u>	<u>22,836,854</u>	<u>25,036,260</u>	(5.04)	(8.78)
Non-operating expenses:					
Interest component of debt service to the State of New Jersey	158,308	320,110	444,018	(50.55)	(27.91)
Recovery of deferred inflows of resources	1,394,399	997,719	573,760	39.76	73.89
Total non-operating expenses	<u>1,552,707</u>	<u>1,317,829</u>	<u>1,017,778</u>	17.82	29.48
Total Expenses	<u>23,238,019</u>	<u>24,154,683</u>	<u>26,054,038</u>	(3.79)	(7.29)
Changes in net position	11,301,196	9,830,013	7,179,148	14.97	36.92
Net position, beginning of year	98,253,270	88,423,257	81,244,109	11.12	8.84
Net position, end of year	<u>\$ 109,554,466</u>	<u>\$ 98,253,270</u>	<u>\$ 88,423,257</u>	11.50	11.12

*Amounts were adjusted to reflect the impacts of the prior period restatement as detailed in Note K.

CAPITAL ASSETS AND DEBT ADMINISTRATION

At June 30, 2020, the Authority had a total of \$179,008,561 invested in the Systems that it operates: \$128,620,734 invested in the Raritan Basin System, and \$50,387,827 invested in the Manasquan System. This total amount represents a 15.8% increase from last year including the impact of the prior period restatement detailed in Note K. At June 30, 2019, the Authority had a restated total of \$154,561,900 invested in the Systems that it operates: \$102,388,994 invested in the Raritan Basin System, and \$52,172,906 invested in the Manasquan System. This total amount represents a 7.0% increase from the prior year.



MANAGEMENT'S DISCUSSION AND ANALYSIS

Year Ended June 30, 2020

The following table summarizes the changes in capital assets, net of depreciation, between fiscal years 2020, 2019 and 2018:

	2020	2019*	2018	Percentage Change 2020-2019	Percentage Change 2019-2018
Land and land rights	\$ 26,444,952	\$ 26,444,952	\$ 26,444,952	- %	- %
Dams	45,013,036	45,811,031	46,609,025	(1.74)	(1.71)
Building, structures and improvements	47,718,259	50,298,692	53,827,471	(5.13)	(6.56)
Machinery and equipment	1,374,790	1,706,230	1,425,417	(19.43)	19.70
Construction work in progress	58,457,524	30,300,995	16,130,416	92.92	87.85
Total capital assets	\$ 179,008,561	\$ 154,561,900	\$ 144,437,281	15.82	7.01

* Amounts were adjusted to reflect the impacts of the prior period restatement as detailed in Note K.

More detailed information about the Authority's capital assets is presented in Note C to the basic financial statements.

The following table summarizes the changes in capital debt between fiscal years 2020, 2019 and 2018:

	2020	2019	2018	Percentage Change 2020-2019	Percentage Change 2019-2018
Bonds payable	\$ 9,355,100	\$ 12,619,179	\$ 15,748,257	(25.87) %	(19.87) %
Notes payable	33,566,892	33,566,892	33,566,892	-	-
Loans payable	73,907,816	74,976,680	60,811,617	(1.43)	23.29
Total	\$ 116,829,808	\$ 121,162,751	\$ 110,126,766	(3.58)	10.02

At year-end, the Authority had \$116,829,808 in bonds, notes and loans principal outstanding, compared to \$121,162,751 at June 30, 2019. This change represents a decrease of 3.6%. The change in bonds, notes and loans principal outstanding at June 30, 2019, compared to the total of \$110,126,766 at June 30, 2018, represents an increase of 10.0%, as shown in the above table.

More detailed information about the Authority's long-term debt is presented in Note E to the basic financial statements.



MANAGEMENT'S DISCUSSION AND ANALYSIS

Year Ended June 30, 2020

CURRENT AND NEW BUSINESS

During fiscal year 2020, the Authority supplied water to 30 contractual customers of the Raritan Basin System, who, in turn, supplied water to approximately 1,500,000 people in central New Jersey. Two customers accounted for approximately 84% of total Raritan Basin System operating revenue. There was a slight decrease in the sales base of the Raritan Basin System to 182.339 mgd in fiscal year 2020. In addition, during fiscal year 2020, the Authority provided water to 13 contractual customers of the Manasquan Water Supply System, who provided water to approximately 250,000 people in the Monmouth County area. During fiscal years 2020 and 2019, three customers accounted for approximately 85% of the total Manasquan System operating revenue. There is no expected change in the sales base of the Manasquan Water Supply system of 19.443 mgd in fiscal year 2021.

CONTACTING THE AUTHORITY'S FINANCIAL MANAGEMENT

This financial report is designed to provide the water customers, New Jersey citizens, investors and creditors with a general overview of the Authority's finances and to demonstrate the Authority's accountability as a self-supporting entity. The Authority's overall financial position has improved; total net position has increased and the Authority continues to receive favorable bond ratings. If you have questions about this report or need additional financial information, you can contact the New Jersey Water Supply Authority at 1851 Highway 31, P.O. Box 5196, Clinton, New Jersey 08809, (908) 638-6121 or visit our website at www.njwsa.org.

BASIC FINANCIAL STATEMENTS

NEW JERSEY WATER SUPPLY AUTHORITY
A COMPONENT UNIT OF THE STATE OF NEW JERSEY
STATEMENTS OF NET POSITION

	June 30,	
	2020	2019*
Assets		
Current assets:		
Unrestricted assets:		
Cash and cash equivalents	\$ 57,474,187	\$ 46,855,543
Unbilled sales	1,494,970	1,493,831
Accounts receivable, less allowance for doubtful accounts of \$1,000 at June 30, 2020 and 2019	29,661,131	54,098,481
Interest receivable	20,069	180,219
Prepaid expenses and other current assets	<u>2,367,694</u>	<u>1,078,072</u>
Total unrestricted current assets	<u>91,018,051</u>	<u>103,682,148</u>
Restricted assets:		
Cash equivalents	<u>29,004,232</u>	<u>23,143,255</u>
Total current assets	<u>120,022,283</u>	<u>126,825,401</u>
Non-current assets:		
Investments	2,328,482	9,448,283
Capital assets, net	<u>179,008,561</u>	<u>154,561,900</u>
Total non-current assets	<u>181,337,043</u>	<u>164,010,183</u>
Total assets	<u>301,359,326</u>	<u>290,835,584</u>
Deferred outflows of resources:		
Pension related	4,431,402	5,501,791
OPEB related	714,496	824,121
Construction loan DEP fee	<u>641,319</u>	<u>641,319</u>
Total deferred outflows of resources	<u>5,787,217</u>	<u>6,967,231</u>
Total assets and deferred outflows of resources	<u>\$307,146,543</u>	<u>\$297,802,815</u>
Liabilities		
Current liabilities:		
Current portion of bonds, notes and loans payable	\$ 4,267,215	\$ 4,075,585
Accounts payable	8,532,933	5,307,242
Accrued liabilities	2,784,709	2,540,865
Unearned revenue	<u>4,038,642</u>	<u>3,145,557</u>
Total current liabilities	<u>19,623,499</u>	<u>15,069,049</u>
Non-current liabilities:		
Non-current portion of bonds, notes and loans payable	112,562,593	117,087,166
Net pension liability	18,808,879	19,884,740
Net OPEB liability	<u>21,561,010</u>	<u>26,321,955</u>
Total non-current liabilities	<u>152,932,482</u>	<u>163,293,861</u>
Total liabilities	<u>172,555,981</u>	<u>178,362,910</u>
Deferred inflows of resources:		
Cost recovery	432,057	(69,904)
Pension related	7,175,914	7,141,533
OPEB related	17,054,983	13,629,222
Gain on refunding	<u>373,142</u>	<u>485,784</u>
Total deferred inflows of resources	<u>25,036,096</u>	<u>21,186,635</u>
Total liabilities and deferred inflows of resources	<u>197,592,077</u>	<u>199,549,545</u>
Net Position		
Net investment in capital assets	87,368,795	58,476,549
Restricted for debt service	24,965,590	19,997,698
Unrestricted	<u>(2,779,919)</u>	<u>19,779,023</u>
Total net position	<u>109,554,466</u>	<u>98,253,270</u>
Total liabilities, deferred inflows of resources, and net position	<u>\$307,146,543</u>	<u>\$297,802,815</u>

See accompanying notes.

* Amounts were adjusted to reflect the impacts of the prior period restatement as detailed in Note K.

NEW JERSEY WATER SUPPLY AUTHORITY
A COMPONENT UNIT OF THE STATE OF NEW JERSEY

STATEMENTS OF REVENUES, EXPENSES AND CHANGES IN NET POSITION

	Years Ended June 30,	
	2020	2019*
Operating revenues:		
Water sales	\$ 30,230,221	\$ 30,060,964
Reimbursement of operating expenses	2,640,312	2,642,400
Total operating revenues	32,870,533	32,703,364
Operating expenses:		
Payroll	8,003,155	8,014,260
Operations and maintenance	5,706,936	5,224,452
Fringe benefits	3,244,536	5,393,499
Depreciation	4,730,685	4,733,018
Total operating expenses	21,685,312	23,365,229
Income from operations	11,185,221	9,338,135
Non-operating revenues:		
State of New Jersey - Grant Programs	599,099	46,130
Investment and interest income	1,000,041	1,111,940
Rental income	57,659	57,179
Other income	11,883	66,083
Total non-operating revenues	1,668,682	1,281,332
Non-operating expenses:		
Interest component of debt service to the State of New Jersey	158,308	320,110
Recovery of deferred inflows of resources	1,394,399	936,439
Total non-operating expenses	1,552,707	1,256,549
Changes in net position	11,301,196	9,362,918
Net position, beginning of year, as restated	98,253,270	88,423,257
Net position, end of year, as previously reported	109,554,466	97,786,175
Prior period restatement*	-	467,095
Net position, end of year	\$ 109,554,466	\$ 98,253,270

See accompanying notes.

* See Note K for additional detail related to the impacts of the prior period restatement.

NEW JERSEY WATER SUPPLY AUTHORITY
A COMPONENT UNIT OF THE STATE OF NEW JERSEY
STATEMENTS OF CASH FLOWS

	Years Ended June 30,	
	2020	2019
Cash flows from operating activities		
Cash received from water sales	\$ 31,522,235	\$ 28,746,966
Cash received from reimbursable expenses	2,666,662	2,656,085
Cash received from rental income	37,321	114,201
Cash paid to or on behalf of employees	(12,255,269)	(12,937,912)
Cash paid to suppliers	(6,416,125)	(5,383,309)
Net cash provided by operating activities	<u>15,554,824</u>	<u>13,196,031</u>
Cash flows from noncapital financing activities		
Cash received for grant programs	52,575	27,377
Net cash provided by non-capital financing activities	<u>52,575</u>	<u>27,377</u>
Cash flows from capital and related financing activities		
Proceeds from borrowing	23,654,455	11,614,705
Principal paid on bonds, notes and loans	(4,307,963)	(3,824,376)
Interest paid on bonds, notes and loans	(226,071)	(373,284)
Acquisition and construction of capital assets	(26,518,413)	(16,879,143)
Proceeds from sale of capital assets	10,222	64,190
Net cash used in capital and related financing activities	<u>(7,387,770)</u>	<u>(9,397,908)</u>
Cash flows from investing activities		
Sale of investment securities	9,602,661	6,058,000
Purchase of investment securities	(4,073,213)	(5,220,924)
Interest received on investments	1,140,191	1,119,499
Premium on matured investments	1,590,353	429,738
Net cash provided/(used) by investing activities	<u>8,259,992</u>	<u>2,386,313</u>
Net increase in cash and cash equivalents	16,479,621	6,211,813
Cash and cash equivalents, beginning of year	69,998,798	63,786,985
Cash and cash equivalents, end of year	<u>\$ 86,478,419</u>	<u>\$ 69,998,798</u>
Reconciliation of income from operations to net cash provided by operating activities:		
Income from operations	11,185,221	9,338,135
Adjustments to reconcile income from operations to net cash provided by operating activities:		
Cash received for operating activity included in other income	59,320	59,072
Depreciation	4,730,685	4,733,018
Increase (decrease) in cash from:		
Unbilled sales	(1,139)	7,192
Accounts receivable	1,316,099	(1,311,644)
Prepaid expenses and other current assets	(1,291,622)	(98,292)
Accounts payable	578,078	12,395
Accrued liabilities	12,741	(1,551)
Accrued payroll and taxes	162,091	(190,320)
Net pension liability	28,909	45,593
Net OPEB liability	(1,225,559)	602,433
Net cash provided by operating activities	<u>\$ 15,554,824</u>	<u>\$ 13,196,031</u>
Non-cash financing activities		
Issuance of NJIB loan payable	\$ -	(\$15,224,595)
Accounts receivable from NJIB loan	-	15,224,595
Total non-cash financing activities	<u>\$ -</u>	<u>\$ -</u>
Non-cash investing activities		
Decrease in fair value of investments	<u>\$ (132,198)</u>	<u>\$ (267,813)</u>

See accompanying notes.

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

NOTES TO FINANCIAL STATEMENTS

A. ORGANIZATION AND OPERATIONS

The New Jersey Water Supply Authority (the "Authority"), a component unit of the State of New Jersey (the "State"), consisting of the Spruce Run/Round Valley Reservoirs Complex, the Delaware and Raritan Canal Transmission Complex (the "Raritan Basin System") and the Manasquan Reservoir Water Supply System (the "Manasquan System"), is a public body, corporate and politic, constituted as an instrumentality of the State, exercising public and essential governmental functions. The Authority was created by the New Jersey Water Supply Authority Act (the "Act") on October 7, 1981, and in connection with the Act, all water supply facilities owned or operated by the State (*i.e.*, *Raritan Basin System*) were transferred or leased to the Authority. The Act empowers the Authority to acquire, finance, construct and operate water systems and issue bonds. Members of the Authority consist of the Commissioner of the New Jersey Department of Environmental Protection ("NJDEP"), *ex officio* member and six public members appointed by the Governor upon the advice and consent of the New Jersey Senate. The public members represent the agricultural community, industrial water users, residential water users, private watershed associations, public finance and water resource management and distribution. The Authority prepares an annual budget that is used to establish rates and as a management tool, but the budget does not constitute a legal budget or establish spending limitations.

The Authority does not have component units that should be included within its financial statements.

B. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

Basis of Accounting

The Authority is a component unit of the State of New Jersey and is included in their general purpose financial statements.

The accompanying basic financial statements have been prepared in conformity with accounting principles generally accepted in the United States of America as prescribed by the Governmental Accounting Standards Board ("GASB").

In its accounting and financial reporting, the Authority follows the pronouncements of the GASB and other entities that promulgate accounting principles. GASB Statement 76, *The Hierarchy of Generally Accepted Accounting Principles for State and Local Governments*, establishes the order of priority of pronouncements and other sources of accounting and financial reporting guidance that a governmental entity should apply. Per the Statement, the sources of authoritative generally accepted accounting principles ("GAAP") are categorized in descending order of authority as follows: GASB Statements and Interpretations, GASB Technical Bulletins, GASB Implementation Guides, and literature of the American Institute of Certified Public Accountants ("AICPA") cleared by the GASB. Authoritative GAAP is incorporated periodically into the Codification of Governmental Accounting and Financial Reporting Standards (Codification), and when presented in the Codification, it retains its authoritative status. If the accounting treatment for a transaction or other event is not specified within a source of authoritative GAAP described above, a governmental entity should first

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

NOTES TO FINANCIAL STATEMENTS (CONTINUED)

B. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)

Basis of Accounting (CONTINUED)

consider accounting principles for similar transactions or other events within a source of authoritative GAAP described above and then may consider nonauthoritative accounting literature from other sources. These include GASB Concepts Statements; pronouncements and other Statements, pronouncements and other literature of the Financial Accounting Standards Board (“FASB”), Federal Accounting Standards Advisory Board, International Public Sector Accounting Standards Board, and International Accounting Standards Board, and AICPA literature not cleared by the GASB; practices that are widely recognized and prevalent in state and local government; literature of other professional associations or regulatory agencies; and accounting textbooks, handbooks and articles.

The Authority derives most of its revenue from water user charges and is considered to be an enterprise fund; accordingly, the Authority presents its financial statements on the accrual basis of accounting. In addition, the Authority has established certain restricted “funds or accounts” as directed by internal resolution and bond indentures.

Revenue

Charges for wholesale water usage are established to provide revenue sufficient for services, essential repairs and improvements to the utility plant, and repayment of debt service on certain long-term obligations used for plant construction. Sales are recognized as revenue when water is made available to customers, and the customers are billed in the following month or quarter.

The Authority distinguishes operating revenue and expenses from non-operating items. Operating revenue and expenses result from the sale of water to customers. Operating expenses include costs of providing water, administrative expenses and depreciation on capital assets. All revenue and expenses not meeting this definition are reported as non-operating revenue and expenses.

Capital Assets

Capital assets are stated at original cost and consist primarily of amounts expended to license, construct, acquire, complete and place into operation the projects of the Authority. Capital assets are defined by the Authority as assets with an initial individual cost of more than \$1,000 and an estimated useful life in excess of three years. Such expenditures include labor, materials, services and indirect costs. Normal maintenance and repair costs are charged to operations and maintenance expense. Improvements and replacements are capitalized. Interest earned on long-term debt proceeds used for capital asset construction and temporarily invested during the construction period is netted against interest cost. The excess, if any, is capitalized to construction work in progress, and the portion related to completed projects is expensed. The cost of capital assets retired, net of any gain or loss on the disposal of such capital assets, is offset to accumulated depreciation. The Authority also holds several restricted easements for utility access, conservation and water rights. These easements are recorded at the lower of cost or fair market value upon acquisition.

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

NOTES TO FINANCIAL STATEMENTS (CONTINUED)

B. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)

Depreciation

Capital assets are depreciated on the straight-line basis over the estimated useful lives of the various classes of plant, as follows:

Dams	100 years
Buildings, structures and improvements	15-40 years
D&R canal dredging	20 years
Machinery and equipment	3-10 years

Cash and Cash Equivalents

For purposes of the statements of cash flows, the Authority considers short-term investments that have original maturities of ninety days or less to be cash equivalents.

Investments

Short-term investments and restricted investments used for construction and payment of interest consist of money market funds and U.S. government-backed securities with various interest rates. Restricted investments are restricted under the terms of the Authority's bond indentures for the payment of debt service. All investments are carried at fair value, in accordance with GASB Statement No. 31, *Accounting and Financial Reporting for Certain Investments and for External Investment Pools* and GASB Statement No. 72, *Fair Value Measurement and Application*.

Accounts Receivable

The Authority considers most of its accounts receivable to be collectible; accordingly, the change in net position is charged with an allowance for estimated uncollectible accounts based on past experience and an analysis of current accounts receivable collectability. Accounts deemed uncollectible are charged to the allowance in the year they are deemed uncollectible.

During fiscal year 2020, three customers accounted for approximately 90% of total Raritan Basin System accounts receivable and two customers accounted for approximately 85% of total Manasquan System accounts receivable. During fiscal year 2019, three customers accounted for approximately 96% of total Raritan Basin System accounts receivable and two customers accounted for approximately 94% of total Manasquan System accounts receivable.

Compensated Absences

All full-time employees accumulate vacation benefits in varying annual amounts up to a maximum allowable accumulation of two years' benefit. Unused sick leave benefits are earned by all full-time employees at a rate of 15 days per year and may be accumulated without limit. In the event of termination, an employee is reimbursed for all accumulated vacation days. Unused sick leave benefits do not vest but are payable only upon retirement up to a maximum of \$15,000. A liability is accrued in the financial statements when incurred.

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

NOTES TO FINANCIAL STATEMENTS (CONTINUED)

B. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)

Use of Estimates

The preparation of financial statements in conformity with accounting principles generally accepted in the United States of America requires management to make estimates and assumptions that affect the amounts reported in the financial statements and accompanying notes. Actual results could differ from those estimates.

Income Taxes

The Authority is exempt from federal income taxes under the Internal Revenue Code, Section 115, and from state income taxes under N.J.S.A. 27:25-16, and accordingly, no provision is recorded for federal or state income taxes.

Net Position

Net position represents the difference between assets and liabilities and is classified into three categories:

- *Net Investment in Capital Assets* – This represents capital assets, net of accumulated depreciation, less the outstanding balances of any bonds, notes, or other borrowings that are attributable to the acquisition construction or improvement of those assets.
- *Restricted Net Position (debt service)* – This represents the net position that is not accessible for general use because its use is subject to restrictions enforceable by third parties. When both restricted and unrestricted resources are available for use, it is the Authority's policy to use restricted resources first and then unrestricted resources, as they are needed.
- *Unrestricted Net Position* – This represents the net position that is available for general use.

Deferred Inflows and Outflows of Resources

In addition to assets and liabilities, the statements of net position report separate sections of deferred outflows of resources and deferred inflows of resources. Deferred outflows of resources represent a consumption of net position that applies to a future period which will not be recognized as an outflow of resources until that time. Deferred inflows of resources represent an acquisition of net position that applies to a future period which will not be recognized as an inflow of resources until that time.

Deferred Inflows of Resources – Cost Recovery

The Authority's cost recovery rate model used to establish rates, fees and charges includes an amount for debt principal repayment (but not for depreciation on the related debt financed assets) and also includes vacation amounts paid. In accordance with GASB No. 62, the Authority has deferred the excess of current depreciation on assets financed with debt proceeds over the costs for debt principal repayment and the excess of vacation expense over vacation paid, and accrued sick pay, which are being classified as deferred inflows of resources. The deferred inflows will be recovered through future revenue in accordance with the rate model. The deferred amounts for the years ended June 30, 2020 and 2019, were determined as follows:

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

NOTES TO FINANCIAL STATEMENTS (CONTINUED)

B. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)

Deferred Inflows and Outflows of Resources (Continued)

Raritan Basin System	2020	2019
Cost excluded from rate model:		
Depreciation of debt-financed capital assets recoverable from rate payers	\$ (835,209)	\$ (835,209)
Excess vacation expense over vacation paid	(124,605)	(13,883)
Accrued sick pay	8,104	7,580
	<u>(951,710)</u>	<u>(841,512)</u>
Cost included in rate model:		
Debt principal repayment	-	-
Subtotal Raritan Basin System	<u>(951,710)</u>	<u>(841,512)</u>
Manasquan System		
Cost excluded from rate model:		
Depreciation of debt-financed capital assets recoverable from rate payers	(1,540,854)	(1,540,854)
Excess vacation expense over vacation paid	(17,843)	649
Accrued sick pay	(2,632)	(891)
	<u>(1,561,329)</u>	<u>(1,541,096)</u>
Cost included in rate model:		
Debt principal repayment	3,015,000	2,880,000
Subtotal Manasquan System	<u>1,453,671</u>	<u>1,338,904</u>
Total Raritan Basin and Manasquan	501,961	497,392
Balance, beginning of year	<u>(69,904)</u>	<u>(567,296)</u>
Balance, end of year	<u>\$ 432,057</u>	<u>\$ (69,904)</u>

As shown in the statements of revenue, expenses and changes in net position for the year ended June 30, 2020, the recovery of deferred inflows of resources debit balance of \$1,394,399 includes a debit balance \$755,462 of Manasquan Water Treatment Plant unearned revenue, which is not part of the rate model, and does not include a credit balance of \$136,976 of accrued vacation and sick pay. The June 30, 2019, deferred inflows of resources debit balance of \$997,719 includes a debit balance of \$493,782 of Manasquan Water Treatment Plant unearned revenue and does not include and a credit balance of \$6,545 of accrued vacation and sick pay.

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

NOTES TO FINANCIAL STATEMENTS (CONTINUED)

B. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)

Deferred Inflows and Outflows of Resources (Continued)

Deferred Inflows/Outflows of Resources – Debt Refunding

Deferred charges for debt refunding result from the difference between the net carrying amount of refunded bonds and the amount deposited to escrow to defease the bonds. In accordance with GASB 23, the Authority has deferred the difference between the reacquisition price and the net carrying amount of the Manasquan Reservoir Water Supply System Revenue Bonds, Series 2005. The deferred amount is reported as a deferred inflow of resources and amortized as a component of interest expense over the remaining life of the Manasquan Reservoir Water Supply System Refunding Bonds, Series 2016.

Deferred Inflows/Outflows of Resources – Pensions & Other Post-retirement Benefits (OPEB)

Deferred charges for defined benefit plans result from the difference between expected (actuarial) and actual experience, changes in actuarial assumptions, net difference between projected (actuarial) and actual earnings on plan investments, changes in the State's proportion of expenses and liabilities to the plans as a whole, differences between the Authority's plan contributions and its proportionate share of contributions, and the Authority's pension contributions subsequent to the pension valuation measurement date.

Accounting for Southeast Monmouth Municipal Utilities Authority Agreement

The Authority operates and maintains a Water Treatment Plant/Transmission System for the Southeast Monmouth Municipal Utilities Authority ("SMMUA"). The SMMUA is charged for budgeted operating expenses expected to be incurred by the Authority during the SMMUA's fiscal year (January 1 through December 31).

Because of the difference resulting from billing the SMMUA for budgeted expenses versus actual expenses appearing in the financial statements, the Authority includes unearned costs (actual costs exceeding SMMUA billings) or unearned revenue (SMMUA billings exceeding actual costs) in its statements of net position. These excess costs or billings will be recovered or recognized in future periods. As of June 30, 2020 and 2019, unearned revenue amounting to \$3,085,031 and \$2,329,569, respectively, was determined as follows:

	<u>2020</u>	<u>2019</u>
Reimbursement of operating expenses	\$ 2,669,559	\$ 2,678,716
Operating expenses	1,914,097	2,184,934
Unearned revenue	755,462	493,782
Balance, beginning of year	2,329,569	1,835,787
Balance, end of year	<u>\$ 3,085,031</u>	<u>\$ 2,329,569</u>

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

NOTES TO FINANCIAL STATEMENTS (CONTINUED)

B. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)

**Accounting for Southeast Monmouth Municipal Utilities Authority Agreement
(Continued)**

In previous years, the Authority received additional funds that are restricted for use by the SMMUA for costs associated in operating the Water Treatment Plant. As of June 30, 2020 and 2019, the amount included in unearned revenue was \$231,611 and \$340,987, respectively.

Accounting for Watershed Protection Program

For the fiscal years ended June 30, 2020 and 2019, the Authority received \$52,575 and \$35,870, respectively, from the federal and/or state environmental agencies for the costs associated with various watershed protection studies of the Raritan Basin System. These funds are restricted to uses specifically identified in grant agreements between the Authority and these agencies and will be recognized as revenue as the related costs are incurred. Eligible project expenses include, but are not limited to, the cost of mapping out streams and other water sources and studying and implementing best land use practices to improve water quality. As of June 30, 2020, all the funds received had been recognized as revenue.

C. CAPITAL ASSETS

Capital assets activity for the years ended June 30, 2020 and 2019, was as follows:

	2020 Beginning Balance	Additions	Retirements	2020 Ending Balance
Capital assets not being depreciated:				
Land	\$ 26,444,952	\$ -	\$ -	\$ 26,444,952
Construction work in progress	30,300,995	29,024,038	(867,509)	58,457,524
Total capital assets not being depreciated	<u>56,745,947</u>	<u>29,024,038</u>	<u>(867,509)</u>	<u>84,902,476</u>
Capital assets being depreciated:				
Dams	77,369,160	-	-	77,369,160
Building, structures and improvements	142,452,358	928,964	-	143,381,322
D & R Canal dredging	21,160,274	-	-	21,160,274
Machinery and equipment	6,981,742	91,853	(123,073)	6,950,522
Total capital assets being depreciated	<u>247,963,534</u>	<u>1,020,817</u>	<u>(123,073)</u>	<u>248,861,278</u>
Less accumulated depreciation for:				
Dams	(31,558,129)	(797,995)	-	(32,356,124)
Building, structures and improvements	(92,153,666)	(3,509,397)	-	(95,663,063)
D & R Canal dredging	(21,160,274)	-	-	(21,160,274)
Machinery and equipment	(5,275,512)	(423,293)	123,073	(5,575,732)
Total accumulated depreciation	<u>(150,147,581)</u>	<u>(4,730,685)</u>	<u>123,073</u>	<u>(154,755,193)</u>
Total capital assets being depreciated, net	97,815,953	(3,709,868)	-	94,106,085
Total net investment in capital assets	<u>\$ 154,561,900</u>	<u>\$ 25,314,170</u>	<u>\$ (867,509)</u>	<u>\$ 179,008,561</u>

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

NOTES TO FINANCIAL STATEMENTS (CONTINUED)

C. CAPITAL ASSETS (CONTINUED)

	2019 Beginning Balance	Additions	Retirements	2019 Ending Balance
Capital assets not being depreciated:				
Land	\$ 26,444,952	\$ -	\$ -	\$ 26,444,952
Construction work in progress	16,130,416	14,170,579	-	30,300,995
Total capital assets not being depreciated	<u>42,575,368</u>	<u>14,170,579</u>	<u>-</u>	<u>56,745,947</u>
Capital assets being depreciated:				
Dams	77,369,160	-	-	77,369,160
Building, structures and improvements	142,443,278	9,080	-	142,452,358
D & R Canal dredging	21,160,274	-	-	21,160,274
Machinery and equipment	6,639,585	679,698	(337,541)	6,981,742
Total capital assets being depreciated	<u>247,612,297</u>	<u>688,778</u>	<u>(337,541)</u>	<u>247,963,534</u>
Less accumulated depreciation for:				
Dams	(30,760,135)	(797,994)	-	(31,558,129)
Building, structures and improvements	(88,615,808)	(3,537,858)	-	(92,153,666)
D & R Canal dredging	(21,160,273)	(1)	-	(21,160,274)
Machinery and equipment	(5,214,168)	(397,165)	335,821	(5,275,512)
Total accumulated depreciation	<u>(145,750,384)</u>	<u>(4,733,018)</u>	<u>335,821</u>	<u>(150,147,581)</u>
Total capital assets being depreciated, net	<u>101,861,913</u>	<u>(4,044,240)</u>	<u>(1,720)</u>	<u>97,815,953</u>
Total net investment in capital assets	<u>\$ 144,437,281</u>	<u>\$ 10,126,339</u>	<u>\$ (1,720)</u>	<u>\$ 154,561,900</u>

D. CASH, CASH EQUIVALENTS, AND INVESTMENTS

New Jersey statutes permit the deposit of public funds in the State of New Jersey Cash Management Fund ("NJCMF") or in institutions located in New Jersey that are insured by the Federal Deposit Insurance Corporation (the "FDIC") or by any other agencies of the United States that insure deposits. All funds of the Authority may be invested in, obligations of, or guaranteed by, the U.S. government.

The Authority's bond resolutions limit the investment of restricted assets to obligations of the U.S. government or its agencies, investments in certain certificates of deposit of commercial banks that are members of the Federal Reserve System, investments in the NJCMF, and direct and general obligations of any state that meets the minimum requirements of the resolution.

1. Cash

As of June 30, 2020 and 2019, the Authority's bank balance was \$86,919,617 and \$70,306,338, respectively, of which \$250,000 was covered through the FDIC. The remaining balance of \$86,669,617 and \$70,056,338 as of June 30, 2020 and 2019, respectively, was collateralized through two irrevocable stand-by letters of credit issued by the Federal Home Loan Bank of Pittsburgh through TD Bank. The letters of credit cover up to a maximum of \$83,000,000 and \$4,500,000 of Authority deposits, respectively. The letters expire September 20, 2020. The cash balance per the statements of net position is shown exclusive of outstanding checks totaling \$441,497 and \$307,840, respectively. The statement of net position amount includes petty cash totaling \$300 as of June 30, 2020 and 2019, respectively.

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

NOTES TO FINANCIAL STATEMENTS (CONTINUED)

D. CASH, CASH EQUIVALENTS, AND INVESTMENTS (CONTINUED)

2. Custodial Credit Risk – Deposits

Custodial credit risk is the risk that, in the event of a bank failure, the Authority’s deposits may not be returned. The Authority does not have a deposit policy for custodial credit risk. The Authority’s bank balance of \$86,919,617 and \$70,306,338 as of June 30, 2020 and 2019, respectively, was exposed to custodial credit risk as follows:

	2020	2019
Uninsured and uncollateralized	<u>\$ -</u>	<u>\$ -</u>

3. Investments and Cash Equivalents

The Authority does not have a policy to limit interest rate risk; however, its practice is to hold investments to maturity.

The Authority categorizes its fair value measurements within the fair value hierarchy established by generally accepted accounting principles. The hierarchy is based on the valuation inputs used to measure the fair value of the asset. Level 1 inputs are quoted prices in active markets for identical assets; Level 2 inputs are significant other observable inputs; Level 3 inputs are significant unobservable inputs. The Authority has no level 1 or level 3 investments.

As of June 30, 2020, the Authority had the following recurring fair value measurements using current sale prices or sale prices of comparable securities for New Jersey General Obligation Bonds (Level 2 inputs) for investments and cash equivalents, and maturities:

Investment and Cash Equivalent Type	Valuation Inputs Level	Fair Value	Investment Maturities (In Years)	
			Less than 1	1-5
NJ G/O Bonds and CDs	Level 2	\$ 2,348,551	\$ 2,093,593	\$ 254,958
Total		\$ 2,348,551	\$ 2,093,593	\$ 254,958

As of June 30, 2019, the Authority had the following recurring fair value measurements using current sale prices or sale prices of comparable securities for New Jersey General Obligation Bonds (Level 2 inputs) for investments and cash equivalents, and maturities:

Investment and Cash Equivalent Type	Valuation Inputs Level	Fair Value	Investment Maturities (In Years)	
			Less than 1	1-5
NJ G/O Bonds and CDs	Level 2	\$ 9,608,502	\$ 9,514,743	\$ 93,759
Total		\$ 9,608,502	\$ 9,514,743	\$ 93,759

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

NOTES TO FINANCIAL STATEMENTS (CONTINUED)

D. CASH, CASH EQUIVALENTS, AND INVESTMENTS (CONTINUED)

4. Credit and Custodial Credit Risk

In order to limit exposure to credit risk, the Authority follows the investment policies set forth by the NJCMF. These policies allow investment in securities that achieve a certain rating from the three major ratings organizations as determined annually by the governing board of the NJCMF, as well as limiting investments to certain types of marketable securities.

U.S. Treasury notes are explicitly guaranteed by the U.S. government and are not subject to credit risk or custodial credit risk.

The Authority entered into an agreement with TD Bank to collateralize all deposits held at a market rate equal to 102% of the daily combined total of all deposits. As of June 30, 2020, all deposits were collateralized.

5. Investment Income

The following comprises investment income for the years ended June 30, 2020 and 2019, respectively:

	<u>2020</u>	<u>2019</u>
Interest earned on bank accounts and certificates of deposit	\$ 770,297	\$ 903,423
Interest earned on securities	97,546	476,330
Decrease in fair value of securities	132,198	(267,813)
	<u>\$ 1,000,041</u>	<u>\$ 1,111,940</u>

E. BONDS, NOTES AND LOANS PAYABLE

Manasquan System

1. Notes Due to State of New Jersey

The Authority has a contractual obligation to repay the following debt:

The \$63,600,000 of Manasquan Reservoir Water Supply System State Loan Notes (the "State Loan Notes") issued June 3, 1987, pursuant to the terms of the State Loan Agreement between the Authority and the State of New Jersey (the "State Loan Agreement"), from monies authorized by the 1981 bond appropriation of \$72,000,000 for construction of the Manasquan System and the \$7,416,000 of Interim Advance Notes issued September 12, 1988, from monies made available from the General Fund of the State to finance completion costs of the Manasquan System. The State Loan Notes and the Completion Loan Notes bear interest at 5.9% and 6.2%, respectively, and are collateralized by the property and revenues of the Manasquan System.

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

NOTES TO FINANCIAL STATEMENTS (CONTINUED)

E. BONDS, NOTES AND LOANS PAYABLE (CONTINUED)

Manasquan System (Continued)

1. Notes Due to State of New Jersey (Continued)

In accordance with the terms of the State Loan Agreement, the State Loan Notes are classified as either Current Debt Service Portion Notes ("Current Notes") or Deferred Debt Service Portion Notes ("Deferred Notes"). Principal of the Deferred Notes will be discharged solely by exchange for Current Notes or by the expiration of a period of forty years from the date of their issuance, which was June 3, 1987. The Deferred Notes must be exchanged for Current Notes on a pro rata basis to the extent that the Authority enters into additional long-term contracts to sell water from the Manasquan System on an annual basis. Such Current Notes are payable over a thirty-year period commencing from such date as is defined in the State Loan Agreement.

Interest on the Deferred Notes accreted as principal through July 31, 1993, and is not payable until they have been exchanged for Current Notes. The interest that accreted as principal through July 31, 1990, accrued interest; however, the interest that accreted for the period from August 1, 1990 through July 31, 1993, did not accrue interest. The accretion of interest to the principal amount for the Current Notes and the Deferred Notes is \$25,563,184 at June 30, 2020 and 2019.

On May 12, 2016, the Authority repaid the State of New Jersey \$78,651.22 for principal and all accrued interest on outstanding Current State Loan Notes and Completion Notes. At June 30, 2020 and 2019, the State Loan Notes and Completion Loan Notes are summarized as follows:

State Loan Notes	2020	2019
Current Notes	\$ -	\$ -
Deferred Notes	30,365,115	30,365,115
Completion Loan Notes		
Current Notes	\$ -	\$ -
Deferred Notes	3,201,777	3,201,777
	<u>\$33,566,892</u>	<u>\$ 33,566,892</u>

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

NOTES TO FINANCIAL STATEMENTS (CONTINUED)

E. BONDS, NOTES AND LOANS PAYABLE (CONTINUED)

Manasquan System (Continued)

2. Manasquan Reservoir Water Supply System Revenue Bonds, Series 2005

On August 5, 2005, the Authority issued \$47,535,000 in Manasquan Reservoir Water Supply System Revenue Bonds, Series 2005. The proceeds, together with other monies on deposit, were used to prepay \$49,293,438 in Current Manasquan State Loan Notes and Completion Loan Notes, the proceeds of which were used to construct the Manasquan Water Supply System. The Revenue Bonds, Series 2005, carried a bond yield of 3.95%, and were scheduled to mature in incremental annual principal amounts through 2031.

The property, and 100% of the revenue generated by the Debt Service Component of the Rate for both initial system customers and delayed water purchase customers of the Manasquan System, was pledged as collateral for the 2005 Bonds. The Debt Service Component of the Rate represents 120% of the principal and interest requirements. For the years ended June 30, 2020 and 2019, the Debt Service Component of the Rate generated \$4,213,360 and \$4,201,848, respectively.

The Revenue Bonds, Series 2005, had a principal balance outstanding of \$26,105,000 at June 30, 2015. Those bonds maturing on or after August 1, 2016, were subject to redemption prior to their stated maturity dates at the option of the Authority. The last principal payment of \$2,940,000 was made on August 1, 2015. The remaining 2005 Bonds were redeemed on June 15, 2016, for \$23,596,126 including accrued interest.

3. Manasquan Reservoir Water Supply System Refunding Bonds, Series 2016

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 in the amount of \$6,340,964, 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 Loan Notes.

The Refunding Bonds, Series 2016, have a principal balance outstanding of \$8,530,000 at June 30, 2020, carry a bond yield of 1.6%, and mature in incremental annual principal amounts through 2031. Principal maturities for the year ending June 30, 2021, is \$3,170,000.

The property, and 100% of the revenue generated by the Debt Service Component of the Rate for both initial system customers and delayed water purchase customers of the Manasquan System, was pledged as collateral for the 2016 Bonds. The Debt Service Component of the Rate represents 120% of the principal and interest requirements. The pledged revenue will be unavailable for other purposes until August 1, 2031.

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NOTES TO FINANCIAL STATEMENTS (CONTINUED)

E. BONDS, NOTES AND LOANS PAYABLE (CONTINUED)

Manasquan System (Continued)

3. Manasquan Reservoir Water Supply System Refunding Bonds, Series 2016 (Continued)

For the years ended June 30, 2020 and 2019, interest expense on the 2016 Bonds amounted to \$369,086 and \$516,521, respectively, and the related interest income earned on the restricted investments account amounted to \$0 and \$0, respectively.

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 received on the refunding bonds was \$1,821,414, is reported with bonds payable on the statements of net position, and is being charged to operations using a method that approximates the effective interest method over the shorter of the remaining life of the old debt or the life of the new debt. Although the refunding resulted in an accounting gain of \$823,712, it was performed to reduce debt service by approximately \$5,269,268 and resulted in an economic gain (difference between the present values of the old and new debt service payments) of \$2,999,861. The accounting gain, or deferred gain on the refunding, is reported as a deferred inflow of resources.

4. New Jersey Environmental Infrastructure Financing Program (“NJEIFP”)

The Authority obtained a loan from the New Jersey Environmental Infrastructure Trust (“the Trust”) for the construction of a permanent structure over the Manasquan Intake Pump Station. Under the NJEIFP, the borrowers benefit from a loan formula under which participants borrow a percentage of cost from the State Revolving Fund maintained by the NJDEP at zero interest and the remaining percentage from the Trust at the same interest rate the Trust pays on its bonds. Under the State’s Smart Growth Initiative, the interest rate is equivalent to 25 percent of the lowest available rate. Each NJEIFP loan carries a 20-year life. Property and revenue of the Manasquan Reservoir System are pledged as collateral for the loans.

The following table summarizes the NJEIFP loan outstanding for the Manasquan Reservoir System, as of June 30, 2020:

NJEIFP Series	Date of Issuance	State Revolving Fund Original Principal	Percent	Trust Original Principal	Percent	Blended Interest Rate	Outstanding Principal	Maturity
2012B	5/3/2012	\$2,312,250	76%	\$715,000	24%	0.80%	\$1,844,325	8/1/2031

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NOTES TO FINANCIAL STATEMENTS (CONTINUED)

E. BONDS, NOTES AND LOANS PAYABLE (CONTINUED)

Raritan System

5. New Jersey Environmental Infrastructure Financing Program (“NJEIFP”)

The Authority obtained loans from the Trust for the acquisition of source water watershed properties critical to the Raritan Basin System. Under the NJEIFP, the borrowers benefit from a loan formula under which participants borrow a percentage of the cost from the State Revolving Fund maintained by the NJDEP at zero interest and the remaining percentage from the Trust at the same interest rate the Trust pays on its bonds. Under the State’s Smart Growth Initiative, the interest rate is equivalent to 25 percent of the lowest available rate. Each NJEIFP loan carries a 20-year life, and property and revenue of the Raritan Basin System are pledged as collateral for the loans.

In fiscal year 2018, the Authority borrowed \$49,548,569 from the New Jersey Infrastructure Bank (NJIB - formerly known as the New Jersey Environmental Infrastructure Trust) through an interim note to finance its Raritan Basin System Canal Dredging project. Upon substantial completion of the project, it is anticipated that the interim loan will convert to permanent long-term financing. Terms of the long-term financing are expected to be similar to those terms of existing loans with the NJEIFP.

In fiscal year 2019, the Authority borrowed \$15,224,595 from the NJIB through an interim note to finance its Raritan Basin System Round Valley Refurbishment and Resource Preservation Project. Upon substantial completion of the project, it is anticipated that the interim loan will convert to permanent long-term financing. Terms of the long-term financing are expected to be similar to those terms of existing loans with the NJEIFP.

The following table summarizes the NJEIFP/NJIB loans outstanding for the Raritan Basin System, as of June 30, 2020:

NJEIFP Series	Date of Issuance	State Revolving Fund Original Principal	Percent	Trust Original Principal	Percent	Blended Interest Rate	Outstanding Principal	Maturity
2003A	11/6/2003	\$627,019	75%	\$235,000	25%	1.19%	\$187,880	8/1/2023
2004A	11/4/2004	1,030,000	75%	350,000	25%	1.31%	385,613	8/1/2024
2005A	11/10/2005	2,940,974	75%	1,050,000	25%	1.25%	837,843	8/1/2025
2006A	11/9/2006	2,099,363	75%	745,000	25%	1.26%	1,045,489	8/1/2026
2007A	11/8/2007	1,740,563	75%	620,000	25%	1.06%	1,027,201	8/1/2027
2008A	11/6/2008	1,152,000	64%	660,000	36%	1.74%	920,408	8/1/2028
2010A	3/10/2010	300,493	51%	290,000	49%	1.69%	306,127	8/1/2029
2010B	12/2/2010	1,064,338	52%	990,000	48%	1.87%	1,256,310	8/1/2030
2012A	5/3/2012	1,501,455	76%	465,000	24%	0.65%	1,230,694	8/1/2031
CFP-18-1	2/15/2018	36,793,492	74%	12,755,077	26%	tbd	49,548,569	tbd
CFP-19-1	6/28/2019	11,305,392	74%	3,919,203	26%	tbd	15,224,595	tbd
Total		\$60,555,089		\$22,079,280			\$71,970,729	

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NOTES TO FINANCIAL STATEMENTS (CONTINUED)

E. BONDS, NOTES AND LOANS PAYABLE (CONTINUED)

The following table summarizes the changes in bonds, notes and loans payable between fiscal years 2020, 2019 and 2018:

	Fiscal Year 2019	Less Payments, Net of Amortization	Debt Issued	Fiscal Year 2020	Due Within One Year
Bonds payable	\$ 12,619,179	\$ 3,264,079	\$ -	\$ 9,355,100	\$ 3,170,000
Notes payable	33,566,892	-	-	33,566,892	-
Loans payable	74,976,680	1,068,864	-	73,907,816	1,097,215
Total	\$ 121,162,751	\$ 4,332,943	\$ -	\$ 116,829,808	\$ 4,267,215

	Fiscal Year 2018	Less Payments, Net of Amortization	Debt Issued	Fiscal Year 2019	Due Within One Year
Bonds payable	\$ 15,748,257	\$ 3,129,078	\$ -	\$ 12,619,179	\$ 3,015,000
Notes payable	33,566,892	-	-	33,566,892	-
Loans payable	60,811,617	1,059,532	15,224,595	74,976,680	1,060,585
Total	\$ 110,126,766	\$ 4,188,610	\$ 15,224,595	\$ 121,162,751	\$ 4,075,585

**NEW JERSEY WATER SUPPLY AUTHORITY
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NOTES TO FINANCIAL STATEMENTS (CONTINUED)

E. BONDS, NOTES AND LOANS PAYABLE (CONTINUED)

Principal and interest on aggregate maturities and bonds, notes and loans, net of unamortized bond premium, are as follows:

Years Ending June 30,	Raritan Basin System	Manasquan Reservoir System	Notes Payable Manasquan System	Manasquan System Revenue Bonds Series 2016	Totals
2021	\$ 1,069,652	\$ 176,197	\$ -	\$ 3,446,338	\$ 4,692,187
2022	1,043,168	174,447	-	582,213	1,799,828
2023	1,030,125	172,697	-	581,963	1,784,785
2024	907,973	175,822	-	580,713	1,664,508
2025	845,368	173,822	-	578,462	1,597,652
2026-2030	2,606,235	867,985	-	2,872,309	6,346,529
2031-2035	311,631	258,155	-	1,136,671	1,706,457
Pending Project Completion	64,773,164	-	-	-	64,773,164
Deferred Portion	-	-	33,566,892	-	33,566,892
Subtotal	72,587,316	1,999,125	33,566,892	9,778,669	117,932,002
Less amounts representing interest	616,588	154,800	-	1,248,669	2,020,057
Plus unamortized bond premium	59,756	33,007	-	825,100	917,863
Subtotal	72,030,484	1,877,332	33,566,892	9,355,100	116,829,808
Less:					
Current principal portion	944,643	152,572	-	3,170,000	4,267,215
Total	<u>\$ 71,085,841</u>	<u>\$ 1,724,760</u>	<u>\$ 33,566,892</u>	<u>\$ 6,185,100</u>	<u>\$ 112,562,593</u>

**NEW JERSEY WATER SUPPLY AUTHORITY
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NOTES TO FINANCIAL STATEMENTS (CONTINUED)

F. EMPLOYEE BENEFITS

Pension and Retirement Plans

Full-time employees of the Authority are covered by the Public Employees' Retirement System of the State of New Jersey ("PERS"). PERS is administered by the State of New Jersey, Division of Pensions and Benefits ("Division"). The Authority has adopted GASB Statement No. 68, *Accounting and Financial Reporting for Pensions* and Statement No. 71, *Pension Transition for Contributions Made Subsequent to the Measurement Date*. Statements No. 68 and 71 require the Authority to report its share of the defined benefit pension liability and expense, as well as the related deferred outflows of resources and deferred inflows of resources, allocated to it by the PERS. For additional information about PERS, please refer to the Division's Comprehensive Annual Financial Report (CAFR) which can be found at <https://www.state.nj.us/treasury/pensions/documents/financial/gasb/gasb68-pers20.pdf>.

Following is the total of the local portion of the System's pension liabilities, pension assets, deferred outflows of resources and deferred inflows of resources related to pensions, and the pension expense and expenditures for the fiscal year ended June 30, 2020.

Net Pension Liabilities	\$18,808,879
Deferred Outflows of Resources	4,431,402
Deferred Inflows of Resources	7,175,914
Pension Expense	1,076,936
Contributions Made	1,015,374

Plan Description and Benefits

PERS is a cost-sharing, multiple-employer defined benefit pension plan. PERS provides retirement and disability benefits, annual cost of living adjustments, and benefits to plan members and their beneficiaries. As a condition of employment, all Authority full-time employees are required to be members of PERS. PERS members can apply for a service retirement at age 60 if enrolled before November 2, 2008 (Tier 1 or Tier 2), or at age 62 if enrolled on or after November 2, 2008, but before June 28, 2011 (Tier 3 or Tier 4), or at age 65 if enrolled on or after June 28, 2011 (Tier 5), regardless of the amount of service credit earned.

Tier 1, 2 or 3: Annual Benefit = Years of Service Credit, divided by 55, times Final Average Salary (average salary of the last three years of credited service or the highest three fiscal years of credited service, whichever provides the higher benefit). Tier 4 or Tier 5: Annual Benefit = Years of Service Credit, divided by 60, times Final Average Salary (average salary of the last five years of credited service or the highest five fiscal years of credited service, whichever provides the higher benefit). Pension benefits fully vest on reaching 10 years of service. Vested employees who were enrolled prior to July 1, 2007, and who have established 25 years or more of creditable service may retire without penalty at or after age 55 and receive full retirement benefits. PERS also provides death and disability benefits. Benefits are established by State statute.

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NOTES TO FINANCIAL STATEMENTS (CONTINUED)

F. EMPLOYEE BENEFITS (CONTINUED)

Contributions

Employee contribution rates to PERS governed by P.L. 2011, C. 78, effective June 28, 2011, were increased from 5.5% of salary to 6.5% of salary, and a phase-in to 7.5% of salary over a seven-year period. Covered Authority employees are required by PERS to contribute 7.5% of their salaries. State statute requires the Authority to contribute an actuarially determined rate which includes the normal cost and the unfunded accrued liability. The amount of the Authority's contribution is certified each year by PERS on the recommendation of the actuary, who makes an annual actuarial valuation. The valuation is based on a determination of the financial condition of the retirement system. It includes the computation of the present dollar value of benefits payable to former and present members and the present dollar value of future employer and employee contributions, giving effect to mortality among active and retired members and also to the rates of disability, retirement, withdrawal, former service, salary and interest. In accordance with State statute, the long-term expected rate of return on plan investments is determined by the State Treasurer, after consultation with the Directors of the Division of Investments and Division of Pensions and Benefits, the board of trustees, and the actuaries. Specific information on actuarial assumptions and rates of return can be found at <https://www.state.nj.us/treasury/pensions/gasb-notices.shtml>.

The payroll for employees covered by PERS for the years ended June 30, 2020, 2019 and 2018 was \$7,691,681, \$7,636,273, and 7,351,319, respectively. The Authority's total payroll for the years ended June 30, 2020, 2019 and 2018 was \$8,003,155, \$8,014,260, and \$7,882,193, respectively. The actuarial contribution requirements and the contributions made for the years ended June 30, 2020, 2019 and 2018 were \$1,616,629, \$1,581,911, and \$1,459,787, respectively, which consisted of \$1,015,374, \$1,004,540, and \$916,857 from the Authority, and \$601,255, \$577,371, and \$542,930, from employees, respectively. As required by PERS, the employer and employee contributions represented 13.2% and 7.8% of covered payroll for the year ended June 30, 2020, 13.2% and 7.6% of covered payroll for the year ended June 30, 2019, 12.5% and 7.4% of covered payroll for the year ended June 30, 2018, and 12.8% and 7.2% of covered payroll for the year ended June 30, 2017, respectively. Contributions were made in accordance with the actuarial funding requirement.

Assumptions

The total pension liability for the June 30, 2019, measurement date was determined by an actuarial valuation as of July 1, 2018. The pension liability was rolled forward to June 30, 2019. The actuarial valuation used an inflation rate of 2.75% on price and 3.25% on wage, projected salary increases through 2026 of 2.0% to 6.0% based on years of service and thereafter 3.0% to 7.0% based on years of service and an investment rate of return of 7.0%.

The discount rate used to measure the total pension liability was 6.28% and 5.66% as of June 30, 2019 and 2018, respectively. This single blended discount rate was based on the long-term expected rate of return on pension plan investments of 7.0% and 7.0%, and a municipal bond rate of 3.50% and 3.87% as of June 30, 2019 and 2018, respectively, based on the Bond Buyer GO 20-Bond Municipal Bond Index which includes tax-exempt general obligation municipal bonds with an average rating of AA/Aa or higher. The projection of cash flows used to determine the discount rate assumed that contributions from plan members will be made at the

**NEW JERSEY WATER SUPPLY AUTHORITY
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NOTES TO FINANCIAL STATEMENTS (CONTINUED)

F. EMPLOYEE BENEFITS (CONTINUED)

Assumptions (Continued)

current member contribution rates and that contributions from employers will be made based on 70% of the actuarially determined contributions for the State employer and 100% of actuarially determined contributions for the local employers. Based on those assumptions, the plan's fiduciary net position was projected to be available to make future benefit payments of current plan members through 2057. Therefore, the long-term expected rate of return on plan investments was applied to projected benefit payments through 2057 and the municipal bond rate was applied to projected benefit payments after that date in determining the total pension liability. More information on mortality rates and other assumptions and investment policies, can be found at <https://www.state.nj.us/treasury/pensions/documents/financial/gasb/gasb68-pers20-val.pdf>.

The following presents the Authority's proportionate share of the PERS net pension liability calculated using the discount rate of 6.28% and 5.66% as of June 30, 2019 and 2018, respectively, as well as what the PERS net pension liability would be if it were calculated using a discount rate that is one percentage point lower or one percentage point higher than the assumed rate.

Sensitivity of the Authority's Proportionate Share of the PERS Local Share Net Pension Liability to Changes in the Discount Rate

	At 1% Decrease (5.28%)	At Current Discount Rate (6.28%)	At 1% Increase (7.28%)
2019	<u>\$23,923,953</u>	<u>\$18,808,879</u>	<u>\$14,739,811</u>
	At 1% Decrease (4.66%)	At Current Discount Rate (5.66%)	At 1% Increase (6.66%)
2018	<u>\$25,002,770</u>	<u>\$19,884,740</u>	<u>\$15,591,041</u>

**NEW JERSEY WATER SUPPLY AUTHORITY
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NOTES TO FINANCIAL STATEMENTS (CONTINUED)

F. EMPLOYEE BENEFITS (CONTINUED)

Pension Liabilities, Pension Expense, and Deferred Outflows of Resources and Deferred Inflows of Resources Related to Pension

Although the Division administers one cost-sharing multiple-employer defined benefit pension plan, separate (sub) actuarial valuations are prepared to determine the actuarially determined contribution rate by group. Following this method, the measurement of the collective net pension liability, deferred outflows of resources, deferred inflows of resources, and pension expense excluding that attributable to employer-paid member contributions are determined separately for each individual employer of the State and local groups of the plan.

To facilitate the separate (sub) actuarial valuations, the Division maintains separate accounts to identify additions, deductions, and fiduciary net position applicable to each group. The allocation percentages presented for each group in the schedule of employer and nonemployer allocations are applied to amounts presented in the schedules of pension amounts by employer and nonemployer. The allocation percentages for each group as of June 30, 2019 and 2018, are based on the ratio of each employer's contributions to total employer contributions of the group for the fiscal years ended June 30, 2019 and 2018, respectively.

GASB Statement No. 68, *Accounting and Financial Reporting for Pensions*, requires participating employers in PERS to recognize their proportionate share of the collective net pension liability, collected deferred outflows of resources, collective deferred inflows of resources, and collective pension expense. The employer and nonemployer allocation percentages presented in the schedule of pension amounts by employer and nonemployer are based on the ratio of the contributions of an individual employer to total contributions to PERS during the measurement periods of July 1, 2018 to June 30, 2019 and July 1, 2017 to June 30, 2018. The Authority's proportionate share of the collective net pension liability as of June 30, 2019 and 2018, was .1044% and .1010%, respectively.

At June 30, 2020, the amount recognized as the Authority's proportionate share of the PERS net pension liability was \$18,808,879. At June 30, 2019, the amount recognized as the Authority's proportionate share of the PERS net pension liability was \$19,884,740. For the years ended June 30, 2020 and 2019, the Authority recognized PERS pension expense of \$1,076,936 and \$1,137,817 respectively. At June 30, 2020, deferred outflows of resources and deferred inflows of resources related to the PERS pension are as follows:

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NOTES TO FINANCIAL STATEMENTS (CONTINUED)

F. EMPLOYEE BENEFITS (CONTINUED)

Pension Liabilities, Pension Expense, and Deferred Outflows of Resources and Deferred Inflows of Resources Related to Pension (Continued)

	June 30, 2020		June 30, 2019	
	Deferred Outflows of Resources	Deferred Inflows of Resources	Deferred Outflows of Resources	Deferred Inflows of Resources
Net Difference Between Expected and Actual Experience	\$ 337,595	\$ 83,089	\$ 379,205	\$ 102,532
Change of Assumptions	1,878,136	6,528,502	3,276,676	6,358,082
Net Difference Between Projected and Actual Investment Earnings	-	296,905	-	186,520
Net Change in Proportions	1,200,297	267,418	841,370	494,399
Total Contributions and Proportionate Share of Contributions After the Measurement Date	1,015,374	-	1,004,540	-
	<u>\$ 4,431,402</u>	<u>\$ 7,175,914</u>	<u>\$ 5,501,791</u>	<u>\$ 7,141,533</u>

The Authority recognizes the \$1,015,374 and \$1,004,540 reported as deferred outflows of resources resulting from pension contributions after the measurement date, but before the end of the Authority's reporting period, as noted in the previous table, as a reduction of the PERS net pension liability in the subsequent fiscal year. Other amounts reported as deferred outflows of resources and deferred inflows of resources related to pension will be recognized in PERS pension expense as follows:

Years Ending June 30,	Amortization
2020	\$ (435,148)
2021	(1,411,613)
2022	(1,260,488)
2023	(591,864)
2024	(60,773)
Total	<u>\$ (3,759,886)</u>

**NEW JERSEY WATER SUPPLY AUTHORITY
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NOTES TO FINANCIAL STATEMENTS (CONTINUED)

F. EMPLOYEE BENEFITS (CONTINUED)

Post-Retirement Health Care Benefits

Other Post-Employment Benefits Other than Pensions

On July 1, 2017, The Authority adopted GASB Statement No. 75, *Accounting and Financial Reporting for the Post-employment Benefits Other Than Pensions*. Statement No. 75 requires participating employers in the Plan to recognize their proportionate share of the collective net OPEB liability, collective deferred outflows of resources, collective deferred inflows of resources, and collective OPEB expense based on the ratio of plan members of an individual employer to the total members of the plan. For additional information about the Plan, please refer to the Division's Comprehensive Annual Financial Report which can be found at <https://www.state.nj.us/treasury/pensions/financial-reports.shtml>.

Plan Description and Benefits

The Authority provides post-employment healthcare benefits (including Medicare Part B reimbursement) and prescription drug coverage through participation in the New Jersey State Health Benefits Program. The plan is a cost-sharing multiple employer defined benefit other post-employment benefit (OPEB) plan that provides medical and prescription drug coverage to retirees and their covered dependents of the employers. Under the provisions of Chapter 88, P.L. 1974 and Chapter 48, P.L. 1999, local government employers electing to provide post-retirement medical coverage to their employees must file a resolution with the Division of Pension and Benefits. Under Chapter 88, local employers elect to provide benefit coverage based on the eligibility rules and regulations promulgated by the State Health Benefits Commission. Chapter 48 allows local employers to establish their own age and service eligibility for employer-paid health benefits coverage for retired employees. Under Chapter 48, the employer may assume the cost of post-retirement medical coverage for employees and their dependents who: 1) retired on a disability pension; or 2) retired with 25 or more years of service credit in a State or locally administered retirement system and a period of service of up to 25 years with the employer at the time of retirement as established by the employer; or 3) retired and reached the age of 65 with 25 or more years of service credit in a State or locally administered retirement system and a period of service of up to 25 years with the employer at the time of retirement as established by the employer; or 4) retired and reached age 62 with at least 15 years of service with the employer. Further, the law provides that the employer-paid obligations for retiree coverage may be determined by means of a collective negotiations agreement.

Pursuant to Chapter 78, P.L. 2011, future retirees eligible for post-retirement medical coverage who have less than 20 years of creditable service on June 28, 2011, will be required to pay a percentage of the cost of their health care coverage in retirement provided they retire with 25 or more years of pension service credit. The percentage of premium for which the retiree will be responsible will be determined based on the retiree's annual retirement benefit and level of coverage.

**NEW JERSEY WATER SUPPLY AUTHORITY
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NOTES TO FINANCIAL STATEMENTS (CONTINUED)

F. EMPLOYEE BENEFITS (CONTINUED)

Post-Retirement Health Care Benefits (Continued)

Other Post-Employment Benefits (“OPEB”) Other than Pensions (Continued)

Following is the total of the local portion of the System’s OPEB liabilities, deferred outflows of resources, and deferred inflows of resources related to OPEB and the OPEB expense and expenditures for the fiscal year ended June 30, 2020.

Net OPEB Liabilities	\$21,561,010
Deferred Outflows of Resources	714,496
Deferred Inflows of Resources	17,054,983
OPEB (Benefit) Expense	(604,375)

Retirees and Employees Covered by the OPEB Plan

At June 30, 2020, total plan members covered by the benefit terms were: 178

Retirees currently receiving benefits: 61

The Authority's contribution to the Plan for the years ended June 30, 2020 and June 30, 2019, were \$2,910,576 and \$2,586,672 respectively.

Net OPEB Liability

The Authority’s net OPEB liability of \$21,561,010 was measured as of June 30, 2019, and was based on an actuarial valuation as of June 30, 2018. The results of the June 30, 2018, valuation were rolled forward to June 30, 2019. The Authority has fully recognized this liability in the statement of net position as of June 30, 2020, in accordance with GASB 75.

Actuarial Methods and Assumptions

The net OPEB liability as of June 30, 2019, was determined by an actuarial valuation as of June 30, 2018, which was rolled forward to June 30, 2019. This actuarial valuation used the following actuarial assumption, applied to all periods in the measurement:

Inflation rate	2.50%
Salary increases*:	
Rate through 2026	2.00% to 6.00%
Rate thereafter	3.00% to 7.00%

*Salary increases are based on years of service within the plan.

Actuarial assumptions used in the July 1, 2018, valuation were based on the results of the PERS experience studies prepared for the July 1, 2014 to June 30, 2018.

One-hundred percent of active members are considered to participate in the Plan upon retirement.

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NOTES TO FINANCIAL STATEMENTS (CONTINUED)

F. EMPLOYEE BENEFITS (CONTINUED)

Post-Retirement Health Care Benefits (Continued)

Other Post-Employment Benefits (“OPEB”) Other than Pensions (Continued)

Health Care Trend Assumptions

For pre-Medicare medical benefits, the trend rate is initially 5.7% and decreases to a 4.5% long-term trend rate after eight years. For post-65 medical benefits, the actual fully-insured Medicare Advantage trend rates for fiscal year 2020 are reflected. The assumed post-65 medical trend is 4.5% for all future years. For prescription drug benefits, the initial trend rate is 7.5% and decreases to a 4.5% long-term trend rate after eight years.

Discount Rate

The discount rates for June 30, 2019 and 2018, were 3.50% and 3.87%, respectively. This represents the municipal bond return rate as chosen by the State. The source is the Bond Buyer GO 20-Bond Municipal Bond Index, which includes tax-exempt general obligation municipal bonds with an average rating of AA/Aa or higher. As the long-term rate of return is less than the municipal bond rate, it is not considered in the calculation of the discount rate, rather the discount rate is set at the municipal bond rate.

Sensitivity of Net OPEB Liability to Changes in the Discount Rate

The following presents the Authority’s net OPEB liability as of June 30, 2019 and 2018, calculated using the discount rate as disclosed above as well as what the Authority’s net OPEB liability would be if it was calculated using a discount rate that is one percentage point lower or one percentage point higher than the current rate:

	At 1% Decrease (2.50%)	At Current Discount Rate (3.50%)	At 1% Increase (4.50%)
2019	<u>\$ 24,930,013</u>	<u>\$ 21,561,010</u>	<u>\$ 18,823,251</u>
	At 1% Decrease (2.87%)	At Current Discount Rate (3.87%)	At 1% Increase (4.87%)
2018	<u>\$ 30,882,613</u>	<u>\$ 26,321,955</u>	<u>\$ 22,679,022</u>

Sensitivity of Net OPEB Liability to Changes in the Healthcare Trend Rate

The following presents the net OPEB liability as of June 30, 2019 and 2018, respectively, calculated using the healthcare trend rate as disclosed above as well as what the net OPEB liability would be if it was calculated using a healthcare trend rate that is one percentage point lower or one percentage point higher than the current rate:

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

NOTES TO FINANCIAL STATEMENTS (CONTINUED)

F. EMPLOYEE BENEFITS (CONTINUED)

Post-Retirement Health Care Benefits (Continued)

Other Post-Employment Benefits (“OPEB”) Other than Pensions (Continued)

Sensitivity of Net OPEB Liability to Changes in the Healthcare Trend Rate (Continued)

	<u>At 1% Decrease</u>	<u>Healthcare Cost Trend Rate</u>	<u>At 1% Increase</u>
2019	<u>\$ 18,194,836</u>	<u>\$ 21,561,010</u>	<u>\$ 25,855,133</u>
	<u>At 1% Decrease</u>	<u>Healthcare Cost Trend Rate</u>	<u>At 1% Increase</u>
2018	<u>\$ 21,956,731</u>	<u>\$ 26,321,955</u>	<u>\$ 31,971,204</u>

GASB Statement No. 75, *Reporting for the Post-employment Benefits Other Than Pensions*, requires participating employers recognize their proportionate share of the collective net OPEB liability, collected deferred outflows of resources, collective deferred inflows of resources, and collective OPEB expense. The Authority’s proportionate share of the collective net OPEB liability as of June 30, 2019 and 2018, was .1592% and .1680%, respectively.

At June 30, 2020, the amount recognized as the Authority’s proportionate share of the net OPEB liability was \$21,561,010. For the year ended June 30, 2020, the Authority recognized OPEB benefit of \$604,375. At June 30, 2020, deferred outflows of resources and deferred inflows of resources related to OPEB are as follows:

	<u>June 30, 2020</u>		<u>June 30, 2019</u>	
	<u>Deferred Outflows of Resources</u>	<u>Deferred Inflows of Resources</u>	<u>Deferred Outflows of Resources</u>	<u>Deferred Inflows of Resources</u>
Net Difference Between Expected and Actual Experience	\$ -	\$ 6,305,280	\$ -	\$ 5,344,296
Change of Assumptions	-	7,640,743	-	6,676,909
Net Difference Between Projected and Actual Investment Earnings	17,760	-	13,910	-
Net Change in Proportions	696,736	3,108,960	810,211	1,608,017
	<u>\$ 714,496</u>	<u>\$ 17,054,983</u>	<u>\$ 824,121</u>	<u>\$ 13,629,222</u>

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

NOTES TO FINANCIAL STATEMENTS (CONTINUED)

F. EMPLOYEE BENEFITS (CONTINUED)

Post-Retirement Health Care Benefits (Continued)

Other Post-Employment Benefits (“OPEB”) Other than Pensions (Continued)

Sensitivity of Net OPEB Liability to Changes in the Healthcare Trend Rate (Continued)

Deferred inflows and outflows of resources related to OPEB will be recognized in OPEB expense as follows:

Years Ending June 30,	Amortization
2020	\$ (2,661,338)
2021	(2,661,338)
2022	(2,662,972)
2023	(2,665,612)
2024	(2,668,024)
Thereafter	(3,021,203)
Total	<u><u>\$ (16,340,487)</u></u>

G. MAJOR WATER CUSTOMERS

During fiscal years 2020 and 2019, the Authority supplied water to approximately 30 and 32 customers, respectively, of the Raritan Basin System and 13 customers of the Manasquan System.

During fiscal years 2020 and 2019, two customers accounted for approximately 84% of total Raritan Basin System operating revenue. During fiscal years 2020 and 2019, three customers accounted for approximately 85% of total Manasquan System operating revenue.

H. RISK MANAGEMENT

The Authority carries insurance for all of its facilities, covering direct physical loss or damage and loss of revenue resulting therefrom, with such deductibles as it deems appropriate. The Authority also carries General and Umbrella Public Liability Insurance with such self-insured retainers as it deems appropriate. Automotive and Public Officials Liability coverage is also maintained with deductibles. Workers' Compensation coverage is also maintained, as required by State law. Settled claims resulting from the aforementioned risks have not exceeded insurance coverage in any of the past three fiscal years.

I. INSURANCE REIMBURSEMENTS

There are no insurance or Federal Emergency Management Agency reimbursements included in “Other income” on the statement of revenues, expenses and changes in net position for the years ended June 30, 2020 and 2019.

NEW JERSEY WATER SUPPLY AUTHORITY
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NOTES TO FINANCIAL STATEMENTS (CONTINUED)

J. CONTINGENCIES

The Authority is party to various legal actions and disputes. Although the ultimate effect, if any, of these matters is not presently determinable, management believes that collectively they will not have a material effect on the results of operations or the financial position of the Authority.

K. PRIOR PERIOD RESTATEMENT

The financial statements include a prior period restatement for Fiscal Year 2019 related to two matters. The first is the reporting of the Authority's net OPEB liability as opposed to its total OPEB liability; this change was made as a result of revised guidance from the NJ State Treasury Department. The second matter involves the accrual of certain expenses related to major projects that were attributable to 2019. The net impact of the entire restatement was an increase in net position of \$467,095. See the following statement of net position and statement of revenues, expenses and change in net position tables that reflect the changes in prior year balances.

	<u>2019</u>	<u>Adjustment</u>	<u>2019 Restated</u>
Assets			
Current assets:			
Unrestricted assets:			
Cash and cash equivalents	\$ 46,855,543	\$ -	\$ 46,855,543
Unbilled sales	1,493,831	-	1,493,831
Accounts receivable, less allowance for doubtful accounts of \$1,000 at June 30, 2020 and 2019	54,096,481	-	54,096,481
Interest receivable	160,219	-	160,219
Prepaid expenses and other current assets	1,076,072	-	1,076,072
Total unrestricted current assets	<u>103,682,146</u>	<u>-</u>	<u>103,682,146</u>
Restricted assets:			
Cash equivalents	23,143,255	-	23,143,255
Total current assets	<u>126,825,401</u>	<u>-</u>	<u>126,825,401</u>
Non-current assets:			
Investments	9,448,283	-	9,448,283
Capital assets, net	153,997,877	564,023	154,561,900
Total non-current assets	<u>163,446,160</u>	<u>564,023</u>	<u>164,010,183</u>
Total assets	<u>290,271,561</u>	<u>564,023</u>	<u>290,835,584</u>
Deferred outflows of resources			
Pension related	5,501,791	-	5,501,791
OPEB related	824,121	-	824,121
Construction loan DEP fee	641,319	-	641,319
Total deferred outflows of resources	<u>6,967,231</u>	<u>-</u>	<u>6,967,231</u>
Total assets and deferred outflows of resources	<u>\$ 297,238,792</u>	<u>\$ 564,023</u>	<u>\$ 297,802,815</u>

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

NOTES TO FINANCIAL STATEMENTS (CONTINUED)

K. PRIOR PERIOD RESTATEMENT (CONTINUED)

	<u>2019</u>	<u>Adjustment</u>	<u>2019 Restated</u>
Liabilities			
Current liabilities:			
Current portion of bonds, notes and loans payable	\$ 4,075,585	\$ -	\$ 4,075,585
Accounts payable	4,743,219	564,023	5,307,242
Accrued liabilities	2,540,665	-	2,540,665
Unearned revenue	3,084,276	61,281	3,145,557
Total current liabilities	<u>14,443,745</u>	<u>625,304</u>	<u>15,069,049</u>
Non-current liabilities:			
Non-current portion of bonds, notes and loans payable	117,087,166	-	117,087,166
Net pension liability	19,884,740	-	19,884,740
Net OPEB liability	26,850,331	(528,376)	26,321,955
Total non-current liabilities	<u>163,822,237</u>	<u>(528,376)</u>	<u>163,293,861</u>
Total liabilities	<u>178,265,982</u>	<u>96,928</u>	<u>178,362,910</u>
Deferred inflows of resources:			
Cost recovery	(69,904)	-	(69,904)
Pension related	7,141,533	-	7,141,533
OPEB related	13,629,222	-	13,629,222
Gain on refunding	485,784	-	485,784
Total deferred inflows of resources	<u>21,186,635</u>	<u>-</u>	<u>21,186,635</u>
Total liabilities and deferred inflows of resources	<u>199,452,617</u>	<u>96,928</u>	<u>199,549,545</u>
Net Position			
Net investment in capital assets	57,912,526	564,023	58,476,549
Restricted for debt service	20,058,979	(61,281)	19,997,698
Unrestricted	19,814,670	(35,647)	19,779,023
Total net position	<u>97,786,175</u>	<u>467,095</u>	<u>98,253,270</u>
Total liabilities, deferred inflows of resources, and net position	<u>\$ 297,238,792</u>	<u>\$ 564,023</u>	<u>\$ 297,802,815</u>

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

NOTES TO FINANCIAL STATEMENTS (CONTINUED)

K. PRIOR PERIOD RESTATEMENT (CONTINUED)

	<u>2019</u>	<u>Adjustment</u>	<u>2019 Restated</u>
Operating revenues:			
Water sales	\$ 30,060,964	\$ -	\$ 30,060,964
Reimbursement of operating expenses	2,642,400	-	2,642,400
Total operating revenues	<u>32,703,364</u>	<u>-</u>	<u>32,703,364</u>
Operating expenses:			
Payroll	8,014,260	-	8,014,260
Operations and maintenance	5,224,452	-	5,224,452
Fringe benefits	5,393,499	(528,375)	4,865,124
Depreciation	4,733,018	-	4,733,018
Total operating expenses	<u>23,365,229</u>	<u>(528,375)</u>	<u>22,836,854</u>
Income from operations	<u>9,338,135</u>	<u>528,375</u>	<u>9,866,510</u>
Non-operating revenues:			
State of New Jersey - Grant Programs	46,130	-	46,130
Investment and interest income	1,111,940	-	1,111,940
Rental income	57,179	-	57,179
Other income	66,083	-	66,083
Total non-operating revenues	<u>1,281,332</u>	<u>-</u>	<u>1,281,332</u>
Non-operating expenses:			
Interest component of debt service to the State of New Jersey	320,110	-	320,110
Recovery of deferred inflows of resources	936,439	61,280	997,719
Total non-operating expenses	<u>1,256,549</u>	<u>61,280</u>	<u>1,317,829</u>
Changes in net position	9,362,918	467,095	9,830,013
Net position, beginning of year	<u>88,423,257</u>	<u>-</u>	<u>88,423,257</u>
Net position, end of year	<u>\$ 97,786,175</u>	<u>\$ 467,095</u>	<u>\$ 98,253,270</u>

L. IMPACT OF COVID-19

On January 30, 2020, the World Health Organization declared the coronavirus outbreak a "Public Health Emergency of International Concern" and on March 10, 2020, declared it to be a pandemic. Actions taken around the world to help mitigate the spread of the coronavirus include restrictions on travel, quarantines in certain areas, and forced closures for certain types of public places and businesses. The coronavirus and actions taken to mitigate it have had and are expected to continue to have an adverse impact on the economies and financial markets of many countries, including the geographical area in which the Authority operates. Due to the impact of New Jersey Governor Murphy's Executive Order No. 107 dated March 21, 2020, mandating statewide stay-at-home practices and closure of all non-essential retail businesses, it is reasonably possible certain expenses may increase, accounts receivable may increase, and related collections may be adversely impacted. It is unknown how long these conditions will last and what the complete financial impact will be on the Authority.

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

NOTES TO FINANCIAL STATEMENTS (CONTINUED)

M. INFORMATION BY BUSINESS SEGMENT

The Authority issued revenue bonds to finance the construction of various capital assets, including the construction of the reservoir systems for both the Manasquan and Raritan Basin Systems. Each of these Systems must provide sufficient revenue each year to cover its own operating expenses and debt service. Investors in the revenue bonds rely solely on the revenue generated by the individual activities for repayment. The chart represents information by Business Segment and is not consistent with the consolidated balances on the statement of net position. Summary financial information for the operating segments is presented below:

	June 30, 2020		June 30, 2019	
	Raritan Basin System	Manasquan Reservoir System	Raritan Basin System	Manasquan Reservoir System
Condensed statement of net position				
Assets and deferred outflows of resources:				
Current assets	\$ 72,771,300	\$ 18,394,474	\$ 87,222,463	\$ 16,636,908
Restricted cash	20,364,228	8,640,004	15,026,031	8,117,224
Other restricted assets	-	-	-	-
Capital assets	128,620,734	50,387,827	102,388,994	52,172,906
Other non-current assets	2,328,482	-	8,606,428	841,855
Deferred outflows of resources	4,620,489	1,166,728	5,472,257	1,494,974
Total assets and deferred outflows of resources	<u>\$ 228,705,233</u>	<u>\$ 78,589,033</u>	<u>\$ 218,716,173</u>	<u>\$ 79,263,867</u>
Liabilities and deferred inflows of resources:				
Current liabilities	\$ 12,161,290	\$ 7,609,932	\$ 8,408,511	\$ 6,837,763
Non-current liabilities	102,242,084	50,690,398	107,470,509	55,823,352
Deferred inflows of resources	29,334,609	(4,298,513)	27,542,817	(6,356,182)
Total liabilities and deferred inflows of resources	<u>143,737,983</u>	<u>54,001,817</u>	<u>143,421,837</u>	<u>56,304,933</u>
Net Position:				
Net investment in capital assets	56,590,250	30,778,545	29,440,005	29,036,544
Restricted for debt service	19,642,228	5,323,362	14,551,031	5,446,667
Unrestricted	8,734,772	(11,514,691)	31,303,300	(11,524,277)
Total net position	<u>84,967,250</u>	<u>24,587,216</u>	<u>75,294,336</u>	<u>22,958,934</u>
Total liabilities, deferred inflows of resources, and net position	<u>\$ 228,705,233</u>	<u>\$ 78,589,033</u>	<u>\$ 218,716,173</u>	<u>\$ 79,263,867</u>

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

NOTES TO FINANCIAL STATEMENTS (CONTINUED)

M. INFORMATION BY BUSINESS SEGMENT (CONTINUED)

	Year Ended June 30, 2020		Year Ended June 30, 2019	
	Raritan Basin System	Manasquan Reservoir System	Raritan Basin System	Manasquan Reservoir System
Condensed statement of revenues, expenses and changes in net assets				
Total operating revenues	\$ 22,599,507	\$ 7,630,714	\$ 22,485,129	\$ 7,575,835
Operating expenses	12,231,197	2,809,333	12,953,125	2,965,777
Depreciation	2,855,672	1,875,013	2,858,266	1,874,752
Operating income	7,512,638	2,946,368	6,673,738	2,735,306
Non-operating revenues	1,454,153	185,282	982,327	262,689
Non-operating expenses (recovery)	(706,123)	1,503,368	(693,218)	1,517,265
Changes in net position	9,672,914	1,628,282	8,349,283	1,480,730
Net position, beginning of year	75,294,336	22,958,934	66,945,053	21,478,204
Net position, end of year	\$ 84,967,250	\$ 24,587,216	\$ 75,294,336	\$ 22,958,934
Condensed statement of cash flows				
Net cash provided by:				
Operating activities	\$ 10,330,742	\$ 5,224,218	\$ 9,050,642	\$ 4,709,412
Non-capital financing activities	52,575	-	27,377	-
Capital and related financing activities	(3,539,365)	(3,848,405)	(6,301,305)	(3,660,626)
Investing activities	7,203,217	1,056,775	2,087,891	298,422
Net increase in cash and cash equivalents	14,047,169	2,432,588	4,864,605	1,347,208
Beginning cash and cash equivalent balances	47,279,560	22,719,238	42,414,955	21,372,030
Ending cash and cash equivalent balances	\$ 61,326,729	\$ 25,151,826	\$ 47,279,560	\$ 22,719,238

REQUIRED SUPPLEMENTARY SCHEDULES

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

**SCHEDULE OF PROPORTIONATE SHARE OF PERS NET PENSION LIABILITY (NPL)
DETERMINED AS OF JUNE 30, 2019, PERS MEASUREMENT DATE**

Fiscal Year	Authority's Proportion	Authority's Proportionate Share	Authority's Covered Payroll	Authority's Proportionate Share of NPL as a % of Covered Payroll	PERS Local Fiduciary Net Position as a % of Total Pension Liability
2020	0.10%	\$ 18,808,879	\$ 7,636,273	246%	56.27%
2019	0.10%	\$ 19,884,740	\$ 7,351,319	270%	45.37%
2018	0.10%	\$ 23,038,776	\$ 7,002,687	329%	47.58%
2017	0.10%	\$ 29,886,847	\$ 6,949,632	430%	40.14%
2016	0.10%	\$ 21,534,789	\$ 6,808,193	316%	47.94%

SCHEDULE OF CONTRIBUTIONS

Fiscal Year	Required Contribution	Contributions Recognized by PERS	Contribution Deficiency (Excess)	Covered Payroll	Contributions as a % of Covered Payroll
2020	\$ 1,076,936	\$ 1,015,374	\$ 61,562	\$ 7,691,681	13.20%
2019	\$ 1,137,817	\$ 1,004,540	\$ 133,277	\$ 7,636,273	13.15%
2018	\$ 1,620,169	\$ 916,857	\$ 703,312	\$ 7,351,319	12.47%
2017	\$ 2,885,084	\$ 896,476	\$ 1,988,608	\$ 7,002,687	12.80%
2016	\$ 1,261,241	\$ 823,798	\$ 437,443	\$ 6,949,632	11.85%
2015	\$ 819,154	\$ 798,757	\$ 20,397	\$ 6,808,193	11.73%

SCHEDULE OF CHANGES IN TOTAL NET PENSION LIABILITY

Fiscal Year	Beginning Balance Total Net Pension Liability	Difference Between Expected and Actual Experience	Change of Assumptions	Difference Between Expected and Actual Earnings	Change in Proportion and Actual Less Proportion Share	Other Changes and Reclassifications	Ending Balance Total Net Pension Liability
2020	\$ 19,884,740	\$ 254,506	\$ (4,650,366)	\$ (296,905)	\$ 932,879	\$ 2,684,025	\$ 18,808,879
2019	\$ 23,038,776	\$ 276,673	\$ (3,081,406)	\$ (186,520)	\$ 346,971	\$ (509,754)	\$ 19,884,740
2018	\$ 29,886,847	\$ 542,484	\$ 17,016	\$ 156,878	\$ (73,348)	\$ (7,491,101)	\$ 23,038,776
2017	\$ 21,534,789	\$ 555,805	\$ 6,190,858	\$ 1,139,613	\$ 304,163	\$ 161,619	\$ 29,886,847
2016	\$ 18,141,342	\$ 513,147	\$ 1,739,535	\$ 735,251	\$ (206,140)	\$ 611,654	\$ 21,534,789
2015	\$ 19,250,440	\$ -	\$ 570,440	\$ (1,081,086)	\$ (772,427)	\$ 173,975	\$ 18,141,342

The pension schedules are intended to show information for ten years. The State of New Jersey has issued five years of pension information to the Authority. Additional years' information will be displayed as it becomes available.

**NEW JERSEY WATER SUPPLY AUTHORITY
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**SCHEDULE OF PROPORTIONATE SHARE OF THE TOTAL OPEB LIABILITY
STATE HEALTH BENEFIT LOCAL GOVERNMENT RETIRED EMPLOYEES PLAN
DETERMINED AS OF JUNE 30, 2019, OPEB MEASUREMENT DATE**

	<u>2020</u>	<u>2019</u>	<u>2018</u>	<u>2017</u>
Authority's proportion of the net OPEB liability	0.1591680%	0.1680130%	0.1639400%	0.1737960%
Authority's proportionate share of the net OPEB liability (asset)	\$ 21,561,010	\$ 26,321,955	\$ 33,469,644	\$ 37,744,085
Authority's covered payroll	\$ 7,691,681	\$ 7,636,273	\$ 7,351,319	\$ 7,002,687
Authority's proportionate share of the net OPEB liability (asset) as a percentage of its covered-employee payroll	280.3%	344.7%	455.3%	539.0%
Plan fiduciary net position as a percentage of the total OPEB liability	1.98%	1.97%	1.03%	1.69%

The OPEB schedules are intended to show information for ten years. The State of New Jersey has issued four years of OPEB information to the Authority. Additional years' information will be displayed as it becomes available.

OTHER SUPPLEMENTARY INFORMATION

NEW JERSEY WATER SUPPLY AUTHORITY
A COMPONENT UNIT OF THE STATE OF NEW JERSEY

COMBINING SCHEDULE OF NET POSITION
JUNE 30, 2020

	Raritan Basin System	Manasquan Reservoir System	Elimination Entries	Combined Total
Assets				
Current assets:				
Unrestricted assets:				
Cash and cash equivalents	\$ 40,962,365	\$ 16,511,822	\$ -	\$ 57,474,187
Unbilled sales	1,494,970	-	-	1,494,970
Accounts receivable, less allowance for doubtful accounts of \$1,000 at June 30, 2020	28,177,137	1,631,717	(147,723)	29,661,131
Interest receivable	20,069	-	-	20,069
Prepaid expenses and other current assets	2,116,759	250,935	-	2,367,694
Total unrestricted assets	<u>72,771,300</u>	<u>18,394,474</u>	<u>(147,723)</u>	<u>91,018,051</u>
Restricted assets:				
Cash equivalents	20,364,228	8,640,004	-	29,004,232
Total current assets	<u>93,135,528</u>	<u>27,034,478</u>	<u>(147,723)</u>	<u>120,022,283</u>
Non-current assets:				
Investments	2,328,482	-	-	2,328,482
Capital assets net of accumulated depreciation of \$154,755,193 at June 30, 2020	128,620,734	50,387,827	-	179,008,561
Total non-current assets	<u>130,949,216</u>	<u>50,387,827</u>	<u>-</u>	<u>181,337,043</u>
Total assets	<u>224,084,744</u>	<u>77,422,305</u>	<u>(147,723)</u>	<u>301,359,326</u>
Deferred outflows of resources				
Pension related	3,429,008	1,002,394	-	4,431,402
OPEB related	550,162	164,334	-	714,496
Construction loan DEP fee	641,319	-	-	641,319
Total deferred outflows of resources	<u>4,620,489</u>	<u>1,166,728</u>	<u>-</u>	<u>5,787,217</u>
Total assets and deferred outflows of resources	<u>\$ 228,705,233</u>	<u>\$ 78,589,033</u>	<u>\$ (147,723)</u>	<u>\$ 307,146,543</u>
Liabilities				
Current liabilities:				
Current portion of bonds, notes and loans payable	\$ 944,643	\$ 3,322,572	\$ -	\$ 4,267,215
Accounts payable	8,401,000	279,656	(147,723)	8,532,933
Accrued liabilities	2,093,647	691,062	-	2,784,709
Unearned revenue	722,000	3,316,642	-	4,038,642
Total current liabilities	<u>12,161,290</u>	<u>7,609,932</u>	<u>(147,723)</u>	<u>19,623,499</u>
Non-current liabilities:				
Non-current portion of bonds, notes and loans payable	71,085,841	41,476,752	-	112,562,593
Net pension liability	14,554,265	4,254,614	-	18,808,879
Total OPEB liability	16,601,978	4,959,032	-	21,561,010
Total non-current liabilities	<u>102,242,084</u>	<u>50,690,398</u>	<u>-</u>	<u>152,932,482</u>
Total liabilities	<u>114,403,374</u>	<u>58,300,330</u>	<u>(147,723)</u>	<u>172,555,981</u>
Deferred inflows of resources				
Cost recovery	10,649,568	(10,217,511)	-	432,057
Pension related	5,552,704	1,623,210	-	7,175,914
OPEB related	13,132,337	3,922,646	-	17,054,983
Gain on refunding	-	373,142	-	373,142
Total deferred inflow of resources	<u>29,334,609</u>	<u>(4,298,513)</u>	<u>-</u>	<u>25,036,096</u>
Net position				
Net investment in capital assets	56,590,250	30,778,545	-	87,368,795
Restricted for cash, investments and unearned revenue	19,642,228	5,323,362	-	24,965,590
Unrestricted	8,734,772	(11,514,691)	-	(2,779,919)
Total net position	<u>84,967,250</u>	<u>24,587,216</u>	<u>-</u>	<u>109,554,466</u>
Total liabilities, deferred inflows of resources, and net position	<u>\$ 228,705,233</u>	<u>\$ 78,589,033</u>	<u>\$ (147,723)</u>	<u>\$ 307,146,543</u>

NEW JERSEY WATER SUPPLY AUTHORITY
A COMPONENT UNIT OF THE STATE OF NEW JERSEY

COMBINING SCHEDULE OF REVENUE, EXPENSES AND CHANGES IN NET POSITION
YEAR ENDED JUNE 30, 2020

	Raritan Basin System	Manasquan Reservoir System	Manasquan Water Treatment Plant	Combined Total
Operating revenue:				
Water sales	\$ 22,599,507	\$ 7,630,714	\$ -	\$ 30,230,221
Reimbursement of operating expenses	-	-	2,640,312	2,640,312
Total operating revenue	<u>22,599,507</u>	<u>7,630,714</u>	<u>2,640,312</u>	<u>32,870,533</u>
Operating expenses:				
Payroll	6,163,394	937,189	902,572	8,003,155
Operations and maintenance (direct)	3,983,975	977,576	618,646	5,580,197
Operations and maintenance (general and administrative)	-	75,856	50,883	126,739
Fringe benefits	2,743,828	250,712	249,996	3,244,536
Headquarters overhead	(660,000)	568,000	92,000	-
Depreciation	2,855,672	1,875,013	-	4,730,685
Total operating expenses	<u>15,086,869</u>	<u>4,684,346</u>	<u>1,914,097</u>	<u>21,685,312</u>
Income from operations	<u>7,512,638</u>	<u>2,946,368</u>	<u>726,215</u>	<u>11,185,221</u>
Non-operating revenue:				
State of New Jersey - Grant Programs	599,099	-	-	599,099
Investment income	785,595	185,199	29,247	1,000,041
Rental income	57,659	-	-	57,659
Other income	11,800	83	-	11,883
Total non-operating revenue	<u>1,454,153</u>	<u>185,282</u>	<u>29,247</u>	<u>1,668,682</u>
Non-operating expenses:				
Interest component of debt service to the State of New Jersey	129,086	29,222	-	158,308
Recovery of deferred inflows of resources	(835,209)	1,474,146	755,462	1,394,399
Total non-operating expenses	<u>(706,123)</u>	<u>1,503,368</u>	<u>755,462</u>	<u>1,552,707</u>
Changes in net position	9,672,914	1,628,282	-	11,301,196
Net position, beginning of year	75,294,336	22,958,934	-	98,253,270
Net position, end of year	<u>\$ 84,967,250</u>	<u>\$ 24,587,216</u>	<u>\$ -</u>	<u>\$ 109,554,466</u>

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

**SCHEDULE OF CHANGES IN CASH AND INVESTMENTS - RARITAN BASIN SYSTEM
YEAR ENDED JUNE 30, 2020**

	Operating Fund										
	Revenue Account	Operating Account	Payroll Account	Operating Fund	Reserve for O&M	Self-Insurance Reserve	Depreciation Reserve	Pumping Reserve	Capital Improvements Investments	Source Water Protection Fund	Subtotal
Cash and investments - July 1, 2019	\$ 501,639	\$ 1,232,379	\$ 177,142	\$ 2,295,191	\$ 3,576,412	\$ 934,328	\$ 4,800,664	\$ 1,563,314	\$ 5,961,952	\$ 4,290,021	\$ 25,333,042
Cash receipts:											
Water sales operations and maintenance	13,312,002	-	-	-	-	-	-	-	-	-	13,312,002
Water sales debt service	6,270,699	-	-	-	-	-	-	-	-	-	6,270,699
Water sales capital fund	2,315,250	-	-	-	-	-	-	-	-	-	2,315,250
Water sales source water protection fund	1,683,817	-	-	-	-	-	-	-	-	-	1,683,817
Water sales overdrafts	176,040	-	-	-	-	-	-	-	-	-	176,040
Rental income	38,246	-	-	-	-	-	-	-	-	-	38,246
Manasquan reservoir support	53,607	-	-	-	-	-	-	-	-	-	53,607
Headquarters overhead	-	-	-	684,500	-	-	-	-	-	-	684,500
Disposition of property	21,543	-	-	-	-	-	-	-	-	-	21,543
Recycling revenue	354	-	-	-	-	-	-	-	-	-	354
Sale of investment securities	2,039,806	-	-	-	680,000	-	1,105,000	-	5,000,000	-	8,824,806
Nonrefundable bid deposits	-	-	-	-	-	-	-	-	-	-	-
Insurance reimbursement	35,002	-	-	-	-	-	-	-	-	-	35,002
Miscellaneous expense reimbursement	39,198	29,271	-	-	-	-	-	-	-	-	68,469
Transfers:											
Contributions from operating fund	933,180	25,470,152	3,586,711	(44,275,663)	297,748	385,003	1,088,391	150,000	-	543,984	(11,820,494)
Contributions to operating fund	(6,815,125)	1,924,157	-	26,102,508	-	-	(63,859)	-	-	(307,280)	20,840,401
Transfers for operations	(19,013,105)	-	-	19,013,105	-	-	-	-	(4,500,000)	-	(4,500,000)
Transfers for investments	-	-	-	-	-	-	-	-	-	-	-
Distribution from reserves to operations	35,000	8,245,993	-	154,618	-	-	-	-	-	(189,618)	8,245,993
Investment income	3,258	14,778	674	17,565	61,731	11,963	67,415	18,153	151,677	48,636	395,850
Per resolution, Section 603:											
Investment income, transfer from	273,967	-	-	(17,565)	(67,567)	(10,611)	(32,310)	-	(145,914)	-	-
Investment income, transfer to	(53,522)	-	-	-	53,522	-	-	-	-	-	-
Unrealized gain/(loss) on fair value	-	-	-	-	98,607	(548)	59,616	-	1,064,559	-	1,222,234
Total cash receipts	1,349,217	35,684,351	3,587,385	1,679,068	1,124,041	385,807	2,224,253	168,153	1,570,322	95,722	47,868,319
Total available cash and investments	\$ 1,850,856	\$ 36,916,730	\$ 3,764,527	\$ 3,974,259	\$ 4,700,453	\$ 1,320,135	\$ 7,024,917	\$ 1,731,467	\$ 7,532,274	\$ 4,385,743	\$ 73,201,361

NEW JERSEY WATER SUPPLY AUTHORITY
A COMPONENT UNIT OF THE STATE OF NEW JERSEY

SCHEDULE OF CHANGES IN CASH AND INVESTMENTS - RARITAN BASIN SYSTEM (CONTINUED)
YEAR ENDED JUNE 30, 2020

	Subtotal	Party SWP Bond Fund	Subordinated SWP Bond Fund	Major Rehabilitation	Capital Improvement Fund	D&R Mitigation Fund	D&R Canal Dredging	Capital Equipment Reserve	Rate Stabilization Fund	Employment Benefit Funds	Totals
Cash and investments - July 1, 2019	\$ 25,333,042	\$ 315,242	\$ 598,976	\$ 1,412,985	\$ 11,566,428	\$ 499,114	\$ 13,458,777	\$ 764,929	\$ 87,314	\$ 1,849,181	\$ 55,885,988
Cash receipts:											
Water sales operations and maintenance	13,312,002	-	-	-	-	-	-	-	-	-	13,312,002
Water sales debt service	6,270,699	-	-	-	-	-	-	-	-	-	6,270,699
Water sales capital fund	2,315,250	-	-	-	-	-	-	-	-	-	2,315,250
Water sales source water protection fund	1,683,817	-	-	-	-	-	-	-	-	-	1,683,817
Water sales overdrafts	176,040	-	-	-	-	-	-	-	-	-	176,040
Rental income	38,246	-	-	-	-	-	-	-	-	-	38,246
Manasquan Reservoir support	53,607	-	-	-	-	-	-	-	-	-	53,607
Headquarters overhead	684,500	-	-	-	-	-	-	-	-	-	684,500
Disposition of property	21,543	-	-	-	-	-	-	-	-	-	21,543
Recycling revenue	354	-	-	-	-	-	-	-	-	-	354
Sale of investment securities	8,824,806	-	-	-	16,307,525	247,000	-	-	-	-	25,379,331
Nonrefundable bid deposits	-	-	-	-	-	-	-	-	-	-	-
Insurance reimbursement	35,002	-	-	-	-	-	-	-	-	-	35,002
Miscellaneous expense reimbursement	68,469	-	-	-	-	-	-	-	-	-	68,469
Transfers:											
Contributions from operating fund	(11,820,494)	352,740	705,060	-	3,916,490	-	5,673,002	150,000	-	1,023,202	-
Contributions to operating fund	20,840,401	-	-	-	(20,051,604)	-	-	-	-	(788,797)	-
Transfers for operations	(4,500,000)	-	-	-	4,500,000	-	-	-	-	-	-
Transfers for investments	-	-	-	-	-	-	-	-	-	-	-
Distribution from reserves to operations	8,245,993	-	-	-	(8,228,541)	-	-	-	-	(17,452)	-
Investment income	395,850	1,258	2,920	15,894	155,376	5,773	174,513	8,962	633	22,221	783,400
Per resolution, Section 603:											
Investment income, transfer from	-	-	-	-	-	-	-	-	-	-	-
Investment income, transfer to	-	-	-	-	-	-	-	-	-	-	-
Unrealized gain/(loss) on fair value	1,222,234	-	-	-	-	-	-	-	-	-	1,222,234
Total cash receipts	47,868,319	353,998	707,980	15,894	(3,400,754)	252,773	5,847,515	158,962	633	239,174	52,044,494
Total available cash and investments	\$ 73,201,361	\$ 669,240	\$ 1,306,956	\$ 1,428,879	\$ 8,165,674	\$ 751,887	\$ 19,306,292	\$ 923,891	\$ 87,947	\$ 2,088,355	\$ 107,930,482

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

**SCHEDULE OF CHANGES IN CASH AND INVESTMENTS - RARITAN BASIN SYSTEM (CONTINUED)
YEAR ENDED JUNE 30, 2020**

	Operating Fund										Subtotal
	Revenue Account	Operating Account	Payroll Account	Operating Fund	Reserve for O&M	Self-Insurance Reserve	Depreciation Reserve	Pumping Reserve	Capital Improvements Investments	Source Water Protection Fund	
Total available cash and investments	\$ 1,850,856	\$ 36,916,730	\$ 3,764,527	\$ 3,974,259	\$ 4,700,453	\$ 1,320,135	\$ 7,024,917	\$ 1,731,467	\$ 7,532,274	\$ 4,385,743	\$ 73,201,361
Cash disbursements:											
Payroll	-	-	3,586,711	-	-	-	-	-	-	-	3,586,711
Fringe benefits	-	14,586	-	1,603,408	-	-	-	-	-	-	1,617,994
Employee deferred compensation and credit union	(200)	1,750,656	-	208,423	-	-	-	-	-	-	1,958,879
Operations and maintenance	-	34,407,820	-	(940,490)	-	-	-	-	-	-	33,467,330
Prepaid insurance	-	-	-	-	-	-	-	-	-	-	-
Miscellaneous disbursements	-	-	-	-	-	-	-	-	-	-	-
Watershed Management Fund	-	-	-	-	-	-	-	-	-	-	-
Capital improvements:											
Capital assets	-	-	-	-	-	-	-	-	-	-	-
New five-year construction project	-	-	-	-	-	-	-	-	-	-	-
Purchase of investments securities	-	-	-	-	1,111,994	389,471	2,200,184	-	6,203,750	-	9,905,399
Principal on 1981 bonds	-	-	-	-	-	-	-	-	-	-	-
Interest on 1981 bonds	-	-	-	-	-	-	-	-	-	-	-
Principal on 1998 bonds	-	-	-	-	-	-	-	-	-	-	-
Interest on 1998 revenue bonds	-	-	-	-	-	-	-	-	-	-	-
Principal on NJEIT bonds	-	-	-	-	-	-	-	-	-	-	-
Interest on NJEIT revenue bonds	-	-	-	-	-	-	-	-	-	-	-
Bonds Fees/Earnings Credit	-	-	-	-	-	-	-	-	-	-	-
Total cash disbursements	(200)	36,173,062	3,586,711	871,341	1,111,994	389,471	2,200,184	-	6,203,750	-	50,536,313
Cash and investments - June 30, 2020	\$ 1,851,056	\$ 743,668	\$ 177,816	\$ 3,102,918	\$ 3,588,459	\$ 930,664	\$ 4,824,733	\$ 1,731,467	\$ 1,328,524	\$ 4,385,743	\$ 22,665,048
Summary of cash and investments:											
Cash	\$ 1,851,056	\$ 743,668	\$ 177,816	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 2,772,540
Short-term investments	-	-	-	3,102,918	3,250,815	681,775	4,079,936	1,731,467	331,372	4,385,743	17,564,026
Long-term investments	-	-	-	-	337,644	248,889	744,797	-	997,152	-	2,328,482
Restricted Investments (current)	-	-	-	-	-	-	-	-	-	-	-
Restricted Investments (long-term)	-	-	-	-	-	-	-	-	-	-	-
Total cash and investments	\$ 1,851,056	\$ 743,668	\$ 177,816	\$ 3,102,918	\$ 3,588,459	\$ 930,664	\$ 4,824,733	\$ 1,731,467	\$ 1,328,524	\$ 4,385,743	\$ 22,665,048

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

**SCHEDULE OF CHANGES IN CASH AND INVESTMENTS - RARITAN BASIN SYSTEM (CONTINUED)
YEAR ENDED JUNE 30, 2020**

	Subtotal	Party SWP Bond Fund	Subordinated SWP Bond Fund	Major Rehabilitation	Capital Improvement Fund	D&R Mitigation Fund	D&R Canal Dredging	Capital Equipment Reserve	Rate Stabilization Fund	Employment Benefit Funds	Totals
Total available cash and investments	\$ 73,201,361	\$ 669,240	\$ 1,306,956	\$ 1,428,879	\$ 8,165,674	\$ 751,887	\$ 19,306,292	\$ 923,891	\$ 87,947	\$ 2,088,355	\$ 107,930,482
Cash disbursements:											
Payroll	3,586,711	-	-	-	-	-	-	-	-	-	3,586,711
Fringe benefits	1,617,994	-	-	-	-	-	-	-	-	-	1,617,994
Employee deferred compensation and credit union	1,958,879	-	-	-	-	-	-	-	-	-	1,958,879
Operations and maintenance	33,467,330	-	-	-	-	-	-	-	-	-	33,467,330
Prepaid insurance	-	-	-	-	-	-	-	-	-	-	-
Miscellaneous disbursements	-	-	-	-	-	-	-	-	-	51,317	51,317
Watershed Management Fund	-	-	-	-	-	-	-	-	-	-	-
Capital improvements:											
Capital assets	-	-	-	-	-	-	-	-	-	-	-
New five-year construction project	-	-	-	-	-	-	-	-	-	-	-
Purchase of investments securities	9,905,399	-	-	-	(7,346,930)	-	-	-	-	-	2,558,469
Principal on 1981 bonds	-	-	-	-	-	-	-	-	-	-	-
Interest on 1981 bonds	-	-	-	-	-	-	-	-	-	-	-
Principal on 1998 bonds	-	-	-	-	-	-	-	-	-	-	-
Interest on 1998 revenue bonds	-	-	-	-	-	-	-	-	-	-	-
Principal on NJEIT bonds	-	322,709	590,305	-	-	-	-	-	-	-	913,014
Interest on NJEIT revenue bonds	-	30,038	109,820	-	-	-	-	-	-	-	139,858
Bonds Fees/Earnings Credit	-	(7,762)	(10,403)	-	-	-	-	-	-	-	(18,165)
Total cash disbursements	50,536,313	344,985	689,722	-	(7,346,930)	-	-	-	-	51,317	44,275,407
Cash and investments - June 30, 2020	\$ 22,665,048	\$ 324,255	\$ 617,234	\$ 1,428,879	\$ 15,512,604	\$ 751,887	\$ 19,306,292	\$ 923,891	\$ 87,947	\$ 2,037,038	\$ 63,655,075
Summary of cash and investments:											
Cash	\$ 2,772,540	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 48,518	\$ 2,821,058
Short-term investments	17,564,026	324,255	617,234	1,428,879	15,512,604	751,887	19,306,292	923,891	87,947	1,988,520	58,505,535
Long-term investments	2,328,482	-	-	-	-	-	-	-	-	-	2,328,482
Restricted Investments (current)	-	-	-	-	-	-	-	-	-	-	-
Restricted Investments (long-term)	-	-	-	-	-	-	-	-	-	-	-
Total cash and investments	\$ 22,665,048	\$ 324,255	\$ 617,234	\$ 1,428,879	\$ 15,512,604	\$ 751,887	\$ 19,306,292	\$ 923,891	\$ 87,947	\$ 2,037,038	\$ 63,655,075

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

**SCHEDULE OF CHANGES IN CASH AND INVESTMENTS - MANASQUAN WATER SUPPLY SYSTEM
YEAR ENDED JUNE 30, 2020**

	Operating Fund												Subtotal
	Revenue Fund	Operating Account	Payroll Account	Operating Fund	Reserve for O&M	Self-Insurance Reserve	Renewal & Replacement Account	Water Reuse & Recycling	Source Water Protections	Depreciation Reserve	Pumping Reserve	Sediment Reserve	
Cash and investments - July 1, 2019	\$ 173,265	\$ 396,312	\$ 55,660	\$ 5,742,531	\$ 1,606,449	\$ 218,027	\$ 4,052,478	\$ 30,375	\$ 1,574,342	\$ 599,679	\$ 154,808	\$ 256,297	\$ 14,860,223
Cash receipts:													
Water sales operations and maintenance	3,132,004	-	-	-	-	-	-	-	-	-	-	-	3,132,004
Water sales debt service	4,281,322	-	-	-	-	-	-	-	-	-	-	-	4,281,322
Source water protection	108,532	-	-	-	-	-	-	-	-	-	-	-	108,532
Water sales debt service NJEIT	180,378	-	-	-	-	-	-	-	-	-	-	-	180,378
Water sales overdrafts	65,755	-	-	-	-	-	-	-	-	-	-	-	65,755
NJ-American pumping costs	169,289	-	-	-	-	-	-	-	-	-	-	-	169,289
Headquarters overhead	-	-	-	-	-	-	-	-	-	-	-	-	-
Reimbursement of WTP capital expenses	-	-	-	(166,500)	-	-	-	-	-	-	-	-	(166,500)
Disposition of assets	-	-	-	-	-	-	-	-	-	-	-	-	-
Reimbursement from/(to) Raritan Basin	10,588	-	-	-	-	-	-	-	-	-	-	-	10,588
Sale of investments securities	840,000	-	-	-	-	-	-	-	-	-	-	-	840,000
Nonrefundable bid deposits	-	-	-	-	-	-	-	-	-	-	-	-	-
Miscellaneous reimbursement	17,176	-	-	-	-	-	-	-	-	-	-	-	17,176
Transfers:													
Contributions from operating fund	7,402	3,634,936	1,077,668	(9,796,846)	360,000	180,000	120,000	-	106,671	286,710	30,000	30,000	(3,963,459)
Contributions to operating fund	(1,432,130)	-	-	2,870,774	-	-	(49,791)	-	(164,346)	(1,855)	-	-	1,222,652
Transfers for operations	(7,458,640)	(49)	-	7,502,098	-	-	-	-	(43,458)	-	-	-	(49)
Distribution from reserves to operations	208,620	5,263	-	-	-	-	-	-	-	-	-	-	213,883
Investment income	842	3,930	212	76,017	19,541	2,315	46,524	11	17,147	7,740	1,334	2,692	178,305
Per resolution, Section 603:													
Investment income, transfer from	100,432	-	-	(68,613)	(20,125)	(2,586)	-	-	-	(4,833)	(1,480)	(2,692)	103
Investment income, transfer to	(94,899)	-	-	94,899	-	-	-	-	-	-	-	-	-
Unrealized gain/(loss) on fair value	-	-	-	-	(926)	(63)	-	-	-	(857)	(10)	-	(1,856)
Total cash receipts	136,671	3,644,080	1,077,880	511,829	358,490	179,666	116,733	11	(83,986)	286,905	29,844	30,000	6,288,123
Total cash and investments	\$ 309,936	\$ 4,040,392	\$ 1,133,540	\$ 6,254,360	\$ 1,964,939	\$ 397,693	\$ 4,169,211	\$ 30,386	\$ 1,490,356	\$ 886,584	\$ 184,652	\$ 286,297	\$ 21,148,346

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

**SCHEDULE OF CHANGES IN CASH AND INVESTMENTS - MANASQUAN WATER SUPPLY SYSTEM (CONTINUED)
YEAR ENDED JUNE 30, 2020**

	Water Treatment Plant/Transmission System											Totals		
	Subtotal	Operating Account	Operating Fund	Residual Reserve	Carbon Filter Reserve	Self-Insurance Reserve	Capital Improvement Reserve	NJEIT Debt Service	2016 Debt Service Account	2016 Debt Service Reserve	Rebate Fund		General Reserve Fund	Employment Benefit Funds
Cash and investments - July 1, 2019	\$ 14,860,223	\$ 85,837	\$ 2,064,423	\$ 9,557	\$ 99,005	\$ 254,968	\$ 141,056	\$ 148,111	\$ 3,318,296	\$ 1,746,553	\$ 247,736	\$ 41,197	\$ 544,131	\$ 23,561,093
Cash receipts:														
Water sales operations and maintenance	3,132,004	-	-	-	-	-	-	-	-	-	-	-	-	3,132,004
Water sales debt service	4,281,322	-	-	-	-	-	-	-	-	-	-	-	-	4,281,322
Source water protection	108,532	-	-	-	-	-	-	-	-	-	-	-	-	108,532
Water sales debt service NJEIT	180,378	-	-	-	-	-	-	-	-	-	-	-	-	180,378
Water sales overdrafts	65,755	-	-	-	-	-	-	-	-	-	-	-	-	65,755
NJ-American pumping costs	169,289	-	-	-	-	-	-	-	-	-	-	-	-	169,289
Headquarters overhead	-	-	2,640,312	-	-	-	-	-	-	-	-	-	-	2,640,312
Reimbursement of WTP capital expenses	(166,500)	-	-	-	-	-	-	-	-	-	-	-	-	(166,500)
Disposition of assets	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Reimbursement from/(to) Raritan Basin	10,588	-	-	-	-	-	-	-	-	-	-	-	-	10,588
Sale of investments securities	840,000	-	-	-	-	-	-	-	-	-	-	-	-	840,000
Nonrefundable bid deposits	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Miscellaneous reimbursement	17,176	4,173	38,241	-	-	-	-	-	-	-	-	-	-	59,590
Transfers:														
Contributions from operating fund	(3,963,459)	750,000	(965,219)	-	-	-	-	177,283	3,525,588	-	-	208,620	267,187	-
Contributions to operating fund	1,222,652	-	(1,123,952)	-	-	-	(98,700)	-	-	-	-	-	-	-
Transfers for operations	(49)	49	-	-	-	-	-	-	-	-	-	-	-	-
Distribution from reserves to operations	213,883	-	-	-	-	-	-	-	-	-	-	(208,620)	(5,263)	-
Investment income	178,305	618	24,590	37	764	2,553	683	609	-	-	2,480	103	5,519	216,261
Per resolution, Section 603:														
Investment income, transfer from	103	-	4,904	(114)	(1,129)	(3,661)	-	-	-	-	-	(103)	-	-
Investment income, transfer to	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Unrealized gain/(loss) on fair value	(1,856)	-	-	-	-	-	-	-	-	-	-	-	-	(1,856)
Total cash receipts	6,288,123	754,840	618,876	(77)	(365)	(1,108)	(98,017)	177,892	3,525,588	-	2,480	-	267,443	11,535,675
Total cash and investments	\$ 21,148,346	\$ 840,677	\$ 2,683,299	\$ 9,480	\$ 98,640	\$ 253,860	\$ 43,039	\$ 326,003	\$ 6,843,884	\$ 1,746,553	\$ 250,216	\$ 41,197	\$ 811,574	\$ 35,096,768

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

**SCHEDULE OF CHANGES IN CASH AND INVESTMENTS - MANASQUAN WATER SUPPLY SYSTEM (CONTINUED)
YEAR ENDED JUNE 30, 2020**

	Operating Fund												Subtotal
	Revenue Fund	Operating Account	Payroll Account	Operating Fund	Reserve for O&M	Self-Insurance Reserve	Renewal & Replacement Account	Water Reuse & Recycling	Source Water Protections	Depreciation Reserve	Pumping Reserve	Sediment Reserve	
Total available cash and investments	\$ 309,936	\$ 4,040,392	\$ 1,133,540	\$ 6,254,360	\$ 1,964,939	\$ 397,693	\$ 4,169,211	\$ 30,386	\$ 1,490,356	\$ 886,584	\$ 184,652	\$ 286,297	\$ 21,148,346
Cash disbursements:													
Payroll	-	-	1,077,668	-	-	-	-	-	-	-	-	-	1,077,668
Fringe benefits	-	2,066,080	-	(1,603,408)	-	-	-	-	-	-	-	-	462,672
Employee deferred compensation and credit union	200	470	-	225,766	-	-	-	-	-	-	-	-	226,436
Operations and maintenance	-	1,493,391	-	732,540	-	-	-	-	-	-	-	-	2,225,931
NJ-American pumping costs	-	-	-	-	-	-	-	-	-	-	-	-	-
Prepaid insurance	-	-	-	-	-	-	-	-	-	-	-	-	-
Headquarters overhead	-	-	-	426,000	-	-	-	-	-	-	-	-	426,000
Capital assets reservoir	-	-	-	-	-	-	-	-	-	-	-	-	-
Capital improvement program (reservoir)	-	-	-	-	-	-	-	-	-	-	-	-	-
Purchase of Investments securities	-	-	-	-	360,000	180,000	-	-	-	270,000	30,000	-	840,000
Principal on bonds	-	-	-	-	-	-	-	-	-	-	-	-	-
Interest on bonds	-	-	-	-	-	-	-	-	-	-	-	-	-
Bonds Fees/Earnings Credit	-	-	-	-	-	-	-	-	-	-	-	-	-
Total cash disbursements	200	3,559,941	1,077,668	(219,102)	360,000	180,000	-	-	-	270,000	30,000	-	5,258,707
Cash and investments - June 30, 2020	\$ 309,736	\$ 480,451	\$ 55,872	\$ 6,473,462	\$ 1,604,939	\$ 217,693	\$ 4,169,211	\$ 30,386	\$ 1,490,356	\$ 616,584	\$ 154,652	\$ 286,297	\$ 15,889,639
Summary of cash and investments:													
Cash (Manasquan)	\$ 309,736	\$ 480,451	\$ 55,872	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 846,059
Cash (Water Treatment Plant/TS)	-	-	-	-	-	-	-	-	-	-	-	-	-
Short-term investments	-	-	-	6,473,462	1,604,939	217,693	4,169,211	30,386	1,490,356	616,584	154,652	286,297	15,043,580
Short-term investments (Water Treatment Plant/TS)	-	-	-	-	-	-	-	-	-	-	-	-	-
Long-term investments	-	-	-	-	-	-	-	-	-	-	-	-	-
Restricted investments (current)	-	-	-	-	-	-	-	-	-	-	-	-	-
Restricted investments (long-term)	-	-	-	-	-	-	-	-	-	-	-	-	-
Total cash and investments	\$ 309,736	\$ 480,451	\$ 55,872	\$ 6,473,462	\$ 1,604,939	\$ 217,693	\$ 4,169,211	\$ 30,386	\$ 1,490,356	\$ 616,584	\$ 154,652	\$ 286,297	\$ 15,889,639

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

**SCHEDULE OF CHANGES IN CASH AND INVESTMENTS - MANASQUAN WATER SUPPLY SYSTEM (CONTINUED)
YEAR ENDED JUNE 30, 2020**

	Water Treatment Plant/Transmission System											Rebate Fund	General Reserve Fund	Employment Benefit Funds	Totals
	Subtotal	Operating Account	Operating Fund	Residual Reserve	Carbon Filter Reserve	Self-Insurance Reserve	Capital Improvement Reserve	NJEIT Debt Service	2016 Debt Service Account	2016 Debt Service Reserve					
Total available cash and investments	\$ 21,148,346	\$ 840,677	\$ 2,683,299	\$ 9,480	\$ 98,640	\$ 253,860	\$ 43,039	\$ 326,003	\$ 6,843,884	\$ 1,746,553	\$ 250,216	\$ 41,197	\$ 811,574	\$ 35,096,768	
Cash disbursements:															
Payroll	1,077,668	-	-	-	-	-	-	-	-	-	-	-	-	1,077,668	
Fringe benefits	462,672	-	-	-	-	-	-	-	-	-	-	-	230,588	693,260	
Employee deferred compensation and credit union	226,436	-	-	-	-	-	-	-	-	-	-	-	-	226,436	
Operations and maintenance	2,225,931	701,775	-	-	-	-	-	-	-	-	-	-	-	2,927,706	
NJ-American pumping costs	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Prepaid insurance	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Headquarters overhead	426,000	41,043	92,000	-	-	-	-	-	-	-	-	-	-	559,043	
Capital assets reservoir	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Capital improvement program (reservoir)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Purchase of investments securities	840,000	-	-	-	-	-	-	-	-	-	-	-	-	840,000	
Principal on bonds	-	-	-	-	-	-	-	147,572	3,192,794	-	-	-	-	3,340,366	
Interest on bonds	-	-	-	-	-	-	-	25,250	253,169	-	-	-	-	278,419	
Bonds Fees/Earnings Credit	-	-	-	-	-	-	-	2,044	-	-	-	-	-	2,044	
Total cash disbursements	5,258,707	742,818	92,000	-	-	-	-	174,866	3,445,963	-	-	-	230,588	9,944,942	
Cash and investments - June 30, 2020	\$ 15,889,639	\$ 97,859	\$ 2,591,299	\$ 9,480	\$ 98,640	\$ 253,860	\$ 43,039	\$ 151,137	\$ 3,397,921	\$ 1,746,553	\$ 250,216	\$ 41,197	\$ 580,986	\$ 25,151,826	
Summary of cash and investments:															
Cash (Manasquan)	\$ 846,059	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 846,059	
Cash (Water Treatment Plant/TS)	-	97,859	-	-	-	-	-	-	-	-	-	-	-	97,859	
Short-term investments	15,043,580	-	-	-	-	-	-	-	-	-	-	41,197	580,986	15,665,763	
Short-term investments (Water Treatment Plant/TS)	-	-	2,591,299	9,480	98,640	253,860	43,039	-	-	-	-	-	-	2,996,318	
Long-term investments	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Restricted investments (current)	-	-	-	-	-	-	-	151,137	3,397,921	1,746,553	250,216	-	-	5,545,827	
Restricted investments (long-term)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Total cash and investments	\$ 15,889,639	\$ 97,859	\$ 2,591,299	\$ 9,480	\$ 98,640	\$ 253,860	\$ 43,039	\$ 151,137	\$ 3,397,921	\$ 1,746,553	\$ 250,216	\$ 41,197	\$ 580,986	\$ 25,151,826	

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Statistical Section

FINANCIAL TREND DATA

These schedules contain trend information on the Authority's financial performance over time.

Summary of Financial Information.....	2011 - 2020
Summary of Raritan Basin System Water Use Contracts	2011 - 2020
Summary of Manasquan Water Supply System Water Use Contracts	2011 - 2020

DEBT CAPACITY DATA

The schedules present information on the Authority's current levels of outstanding debt and the ability to issue debt in the future.

Raritan Basin System Revenue Bond Coverage	2011 - 2020
Manasquan System Revenue Bond Coverage	2011 - 2020

REVENUE CAPACITY DATA

These schedules contain information on the Authority's most significant revenue source.

Raritan Basin System Water Charges	2011 - 2020
Manasquan Water Supply System Water Charges	2011 - 2020

OPERATING INFORMATION

These schedules contain operational and infrastructure data in relation to the services the Authority provides.

Spruce Run Rain Gauge	2011 - 2020
West Windsor Rain Gauge	2011 - 2020
Spruce Run Reservoir Storage	2011 - 2020
Round Valley Reservoir Storage	2011 - 2020
Manasquan System Rainfall	2011 - 2020
Manasquan Reservoir Storage Data.....	2011 - 2020

DEBT, ECONOMIC AND DEMOGRAPHIC INFORMATION

Bonds, Notes and Loans Payable	2011 - 2020
Ten Largest State of New Jersey Employers	2009 - 2018
State of New Jersey Population and Employment Trends	2009 - 2018

New Jersey Water Supply Authority
Summary of Financial Information 2011 – 2020

	<u>2011</u>	<u>2012</u>	<u>2013</u>	<u>2014</u>
REVENUE AND EXPENSES				
Water sales	\$24,095,286	\$23,513,508	\$23,430,025	\$23,240,511
Reimbursement of operating exp	<u>\$2,501,135</u>	<u>\$2,434,806</u>	<u>\$2,495,982</u>	<u>\$2,600,238</u>
Total operating revenues	26,596,421	25,948,314	25,926,007	25,840,749
Operating expense	<u>20,649,747</u>	<u>23,918,001</u>	<u>21,792,193</u>	<u>20,750,987</u>
Income from operations	5,946,674	2,030,313	4,133,814	5,089,762
Non-operating revenues	632,306	2,884,459	7,283,979	603,011
Non-operating expenses	<u>4,525,435</u>	<u>4,698,000</u>	<u>4,592,986</u>	<u>4,680,739</u>
Change in net position	2,053,545	216,772	6,824,807	1,012,034
GASB 75 adjustment				
Net position, beginning of year	<u>111,978,796</u>	<u>114,032,341</u>	<u>113,845,395</u>	<u>120,670,202</u>
Net position, end of year	114,032,341	114,249,113	120,670,202	121,682,236
ASSETS				
Current assets, unrestricted	36,101,110	43,454,301	45,087,108	41,600,989
Current assets, restricted			14,671,723	12,336,186
Non-current assets	<u>174,004,657</u>	<u>166,188,362</u>	<u>149,151,534</u>	<u>153,571,758</u>
Total assets	210,105,767	209,642,663	208,910,365	207,508,933
Deferred outflows of resources				
LIABILITIES				
Current liabilities	9,510,372	9,817,272	11,411,225	10,041,207
Non-current liabilities	<u>86,563,054</u>	<u>85,576,278</u>	<u>79,269,979</u>	<u>75,345,060</u>
Total liabilities	96,073,426	95,393,550	90,681,204	85,386,267
Deferred Inflows of Resources			(2,441,041)	440,430
NET POSITION				
Net investment in capital assets	77,691,938	78,090,867	83,560,654	87,589,285
Restricted for repayment debt principal and interest	12,011,721	11,924,238	12,126,909	9,084,491
Unrestricted	<u>24,328,682</u>	<u>24,234,008</u>	<u>24,982,639</u>	<u>25,008,460</u>
Total net position	\$114,032,341	\$114,249,113	\$120,670,202	\$121,682,236

* Certain balances have been reclassified or restated to conform to current year presentation.

New Jersey Water Supply Authority
Summary of Financial Information 2011 – 2020

2015	2016	2017	2018	2019*	2020
\$24,168,432	\$25,199,424	\$25,394,799	\$30,030,868	\$30,060,964	\$30,230,221
<u>\$2,642,400</u>	<u>\$2,642,400</u>	<u>\$2,642,400</u>	<u>\$2,642,400</u>	<u>\$2,642,400</u>	<u>\$2,640,312</u>
26,810,832	27,841,824	28,037,199	32,673,268	32,703,364	32,870,533
<u>21,449,303</u>	<u>21,413,585</u>	<u>24,686,037</u>	<u>25,036,260</u>	<u>22,836,854</u>	<u>21,685,312</u>
5,361,529	6,428,239	3,351,162	7,637,008	9,866,510	11,185,221
531,655	1,186,165	2,906	559,918	1,281,332	1,668,682
<u>2,140,777</u>	<u>2,101,399</u>	<u>(2,025,379)</u>	<u>1,017,778</u>	<u>1,317,829</u>	<u>1,552,707</u>
3,752,407	5,513,005	5,379,447	7,179,148	9,830,013	11,301,196
		(37,744,085)			
<u>104,343,335</u>	<u>108,095,742</u>	<u>113,608,747</u>	<u>81,244,109</u>	<u>88,423,257</u>	<u>98,253,270</u>
108,095,742	113,608,747	81,244,109	88,423,257	98,253,270	109,554,466
42,450,358	46,612,558	49,025,001	100,119,822	103,682,146	91,018,051
12,339,659	7,032,591	9,427,648	15,609,357	23,143,255	29,004,232
<u>153,061,564</u>	<u>151,909,258</u>	<u>150,570,753</u>	<u>155,152,378</u>	<u>164,010,183</u>	<u>181,337,043</u>
207,851,581	205,554,407	209,023,402	270,881,557	290,835,584	301,359,326
1,280,619	3,646,920	9,612,405	7,402,086	6,967,231	5,787,217
9,039,888	6,027,320	8,585,118	16,190,347	15,069,049	19,623,499
<u>89,372,731</u>	<u>86,489,391</u>	<u>128,466,486</u>	<u>162,703,934</u>	<u>163,293,861</u>	<u>152,932,482</u>
98,412,619	92,516,711	137,051,604	178,894,281	178,362,910	172,555,981
2,623,839	3,075,869	340,094	10,966,105	21,186,635	25,036,096
91,638,454	98,890,303	61,887,512	59,275,272	58,476,549	87,368,795
9,229,092	3,876,937	7,262,065	13,434,461	19,997,698	24,965,590
<u>7,228,196</u>	<u>10,841,507</u>	<u>12,094,532</u>	<u>15,713,524</u>	<u>19,779,023</u>	<u>(2,779,919)</u>
\$108,095,742	\$113,608,747	\$81,244,109	\$88,423,257	\$98,253,270	\$109,554,466

**New Jersey Water Supply Authority
Raritan Basin System
Summary of Water Use Contracts
Daily Contract in Million Gallons Per Day – MGD**

<u>WATER USER</u>	<u>2011</u>	<u>2012</u>	<u>2013</u>	<u>2014</u>	<u>2015</u>
UNITED WATER LAMBERTVILLE, INC	0.490	0.490	0.490	0.490	0.490
MERCER COUNTY PARK - GOLF	0.132	0.132	0.132	0.067	0.067
TRENTON COUNTRY CLUB	0.126	0.126	0.126	0.126	0.126
PRINCETON UNIVERSITY	0.150	0.150	0.150	0.150	0.150
NORTH BRUNSWICK TOWNSHIP	8.000	8.000	8.000	8.000	8.000
NEW JERSEY AMERICAN WATER	126.600	126.600	126.600	126.600	126.600
EAST BRUNSWICK TOWNSHIP	8.000	8.000	8.000	8.000	8.000
NEW BRUNSWICK, CITY OF	10.500	10.500	10.500	10.500	10.500
MIDDLESEX WATER COMPANY	27.000	27.000	27.000	27.000	27.000
ROYCE BROOK GOLF CLUB	0.165	0.165	0.165	0.165	0.165
DUKE FARMS	0.075	0.075	0.075	0.000	0.000
BOROUGH OF GLEN GARDNER	0.008	0.008	0.008	0.008	0.008
RIDGE AT BACK BROOK	0.111	0.111	0.111	0.111	0.111
ROXBURY WATER COMPANY	0.074	0.074	0.074	0.074	0.041
HUNTERDON COUNTY (HERON GLEN GOLF)	0.066	0.079	0.079	0.079	0.079
RARITAN VALLEY COUNTRY CLUB	0.012	0.012	0.012	0.012	0.012
EAST WINDSOR MUA	0.011	0.011	0.011	0.011	0.011
SOMERSET CTY (NESCHANIC VALLEY GOLF)	0.142	0.142	0.142	0.142	0.142
TRUMP NATIONAL GOLF CLUB	0.080	0.080	0.170	0.170	0.170
MORRIS COUNTY MUA	0.079	0.079	0.079	0.079	0.079
APPLIED WATER MGMT (MT. OLIVE TWP)	0.010	0.010	0.010	0.010	0.010
WASHINGTON TOWNSHIP MUA	0.025	0.025	0.025	0.025	0.025
ROXITICUS GOLF CLUB	0.046	0.046	0.046	0.046	0.046
HAMILTON GOLF CLUB	0.138	0.138	0.138	0.138	0.138
SPRINGDALE GOLF CLUB	0.098	0.098	0.098	0.098	0.098
NJ DEPT OF CORRECTIONS	0.025	0.025	0.025	0.025	0.025
STONEBRIDGE COMMUNITY ASSOC			0.081	0.081	0.081
VILLAGE GRANDE @ BEAR CREEK				0.074	0.074
EASTERN CONCRETE MATERIALS					0.023
HUNTERDON MEDICAL CENTER					
PRINCETON UNIVERSITY OPERATIONS					
RENAISSANCE AT MONROE CONDOMINIUM ASSOCIATION					
SYSTEM TOTAL	<u>182.163</u>	<u>182.176</u>	<u>182.347</u>	<u>182.281</u>	<u>182.271</u>

**New Jersey Water Supply Authority
Raritan Basin System
Summary of Water Use Contracts
Daily Contract in Million Gallons Per Day – MGD**

<u>WATER USER</u>	<u>2016</u>	<u>2017</u>	<u>2018</u>	<u>2019</u>	<u>2020</u>
UNITED WATER LAMBERTVILLE, INC	0.490	0.490	0.490	0.490	0.490
MERCER COUNTY PARK COMMISSION	0.067	0.067	0.067	0.067	0.067
TRENTON COUNTRY CLUB	0.126	0.126	0.126	0.126	0.126
PRINCETON UNIVERSITY	0.150	0.150	0.150	0.150	0.150
NORTH BRUNSWICK TOWNSHIP	8.000	8.000	8.000	8.000	8.000
NEW JERSEY AMERICAN WATER	126.600	126.600	126.600	126.600	126.600
EAST BRUNSWICK TOWNSHIP	8.000	8.000	8.000	8.000	8.000
NEW BRUNSWICK, CITY OF	10.500	10.500	10.500	10.500	10.500
MIDDLESEX WATER COMPANY	27.000	27.000	27.000	27.000	27.000
ROYCE BROOK GOLF CLUB	0.165	0.165	0.165	0.165	0.165
DUKE FARMS	0.000	0.000	0.000	0.000	0.000
BOROUGH OF GLEN GARDNER	0.008	0.008	0.008	0.008	0.008
RIDGE AT BACK BROOK	0.111	0.111	0.111	0.111	0.111
ROXBURY WATER COMPANY	0.041	0.041	0.041	0.041	0.041
HUNTERDON COUNTY (HERON GLEN GOLF)	0.079	0.079	0.079	0.079	0.079
RARITAN VALLEY COUNTRY CLUB	0.012	0.012	0.012	0.012	0.012
EAST WINDSOR MUA	0.011	0.011	0.011	0.011	0.011
SOMERSET CTY (NESCHANIC VALLEY GOLF)	0.142	0.142	0.142	0.142	0.142
TRUMP NATIONAL GOLF CLUB	0.170	0.170	0.170	0.170	0.170
MORRIS COUNTY MUA	0.079	0.079	0.079	0.079	0.079
APPLIED WATER MGMT (MT. OLIVE TWP)	0.010	0.010	0.010	0.010	0.010
WASHINGTON TOWNSHIP MUA	0.035	0.035	0.035	0.035	0.035
ROXITICUS GOLF CLUB	0.046	0.046	0.046	0.046	0.046
HAMILTON FARM GOLF CLUB	0.138	0.138	0.138	0.138	0.138
SPRINGDALE GOLF CLUB	0.098	0.098	0.098	0.098	0.098
NJ DEPT OF CORRECTIONS	0.025	0.025	0.025	0.025	0.025
STONEBRIDGE COMMUNITY ASSOC	0.081	0.081	0.081	0.081	0.081
VILLAGE GRANDE@ BEAR CREEK	0.074	0.074	0.074	0.074	0.074
EASTERN CONCRETE MATERIALS	0.023	0.023	0.023	0.023	0.023
HUNTERDON MEDICAL CENTER	0.031	0.031	0.031	0.031	0.031
PRINCETON UNIVERSITY OPERATIONS	0.027	0.027	0.027	0.027	0.027
RENAISSANCE AT MONROE CONDOMINIUM ASSOCIATION	0.014	0.014	0.014	0.014	0.014
SYSTEM TOTAL	182.339	182.353	182.353	182.353	182.353

**New Jersey Water Supply Authority
Manasquan Water Supply System
Summary of Water Use Contracts
Daily Contract in Million Gallons Per Day – MGD**

	<u>2011</u>	<u>2012</u>	<u>2013</u>	<u>2014</u>	<u>2015</u>
WALL TOWNSHIP	2.275	2.275	2.275	2.275	2.275
BOROUGH OF AVON	0.142	0.142	0.142	0.142	0.142
SHORELANDS WATER COMPANY	1.928	1.928	1.928	1.928	1.928
NEW JERSEY AMERICAN WATER	12.5	12.5	12.5	12.5	12.5
BOROUGH OF RED BANK	0.778	0.778	0.778	0.778	0.778
BOROUGH OF SEA GIRT	0.075	0.075	0.075	0.075	0.075
BOROUGH OF SPRING LAKE	0.31	0.31	0.31	0.31	0.31
BOROUGH OF SPRING LAKE HEIGHTS	0.425	0.425	0.425	0.425	0.425
BOROUGH OF BELMAR	0.65	0.65	0.65	0.65	0.65
BOROUGH OF BRIELLE	0.45	0.45	0.45	0.45	0.45
BOROUGH OF KEYPORT	0.458	0.458	0.458	0.458	0.458
BOROUGH OF MATAWAN	0.469	0.469	0.469	0.469	0.469
BOROUGH OF LAKE COMO	0.100	0.100	0.100	0.100	0.100
	<u>20.560</u>	<u>20.560</u>	<u>20.560</u>	<u>20.560</u>	<u>20.560</u>
	<u>2016</u>	<u>2017</u>	<u>2018</u>	<u>2019</u>	<u>2020</u>
WALL TOWNSHIP	2.00	2.00	2.00	2.00	2.00
BOROUGH OF AVON	0.126	0.126	0.126	0.126	0.126
SHORELANDS WATER COMPANY	2.007	2.007	2.007	2.007	2.007
NEW JERSEY AMERICAN WATER	12.5	12.5	12.5	12.5	12.5
BOROUGH OF RED BANK	0.548	0.548	0.548	0.548	0.548
BOROUGH OF SEA GIRT	0.04	0.04	0.04	0.04	0.04
BOROUGH OF SPRING LAKE	0.31	0.31	0.31	0.31	0.31
BOROUGH OF SPRING LAKE HEIGHTS	0.386	0.386	0.386	0.386	0.386
BOROUGH OF BELMAR	0.288	0.288	0.288	0.288	0.288
BOROUGH OF BRIELLE	0.45	0.45	0.45	0.45	0.45
BOROUGH OF KEYPORT	0.356	0.356	0.356	0.356	0.356
BOROUGH OF MATAWAN	0.332	0.332	0.332	0.332	0.332
BOROUGH OF LAKE COMO	0.100	0.100	0.100	0.100	0.100
	<u>19.443</u>	<u>19.443</u>	<u>19.443</u>	<u>19.443</u>	<u>19.443</u>

New Jersey Water Supply Authority
Raritan Basin System
Series 1988, D&R System Revenue Bond Coverage*¹
Series 1998, D&R System Revenue Refunding Bond Coverage

Fiscal Year	Gross Revenue	Operating Expenses	Net Revenue Available for Debt Service	Debt Service Payments	Coverage
2020 ²					
2019 ²					
2018 ²					
2017 ²					
2016 ²					
2015 ²					
2014	\$17,584,676	\$12,099,450	\$5,485,226	\$2,669,875	2.05
2013	\$17,504,982	\$11,677,600	\$5,827,382	\$2,670,997	2.18
2012	\$17,799,191	\$11,935,100	\$5,864,091	\$2,680,266	2.19
2011	\$18,055,011	\$11,765,800	\$6,289,211	\$2,688,219	2.34
2010	\$17,968,946	\$11,678,300	\$6,290,646	\$2,698,931	2.33

Note 1. Section 713 of the Delaware & Raritan Canal - Spruce Run/Round Valley Reservoirs System Bond Resolution, adopted November 17, 1988, requires that the Net Revenues in each fiscal year be at least 120% of the Debt Service on the 1988 bonds for the twelve-month period in such fiscal year.

Note 2. The last principal payment of \$2,600,000 was made on November 1, 2013.

Manasquan Water Supply System
Series 2005, Manasquan System Revenue Bond Coverage*¹

Fiscal Year	Gross Revenue	Operating Expenses	Net Revenue Available for Debt Service	Debt Service Payments	Coverage
2020	\$7,815,996	\$2,809,333	\$5,006,663	\$3,445,963	1.453
2019	\$7,838,524	\$3,026,023	\$4,812,501	\$3,443,937	1.397
2018	\$7,686,455	\$3,146,165	\$4,540,290	\$3,454,588	1.314
2017	\$8,075,400	\$3,171,399	\$4,904,001	\$718,532	6.825
2016	\$8,519,609	\$3,032,555	\$5,487,054	\$3,969,827	1.382
2015	\$8,715,369	\$3,096,047	\$5,619,322	\$4,250,454	1.322
2014	\$8,456,993	\$2,981,200	\$5,475,793	\$4,082,274	1.340
2013	\$8,174,391	\$2,862,600	\$5,311,791	\$4,080,204	1.300
2012	\$8,210,668	\$2,866,100	\$5,344,568	\$4,071,454	1.310
2011	\$7,976,636	\$2,956,600	\$5,020,036	\$3,809,328	1.320
2010	\$7,785,670	\$2,823,200	\$4,962,470	\$3,816,713	1.300

Note 1. Section 712 of the Manasquan Reservoir System Bond Resolution, adopted June 6, 2005 as supplemented by the Second Supplemental Bond Resolution, adopted April 4, 2016, requires that the Net Revenues in each fiscal year be at least 120% of the Debt Service on the 2005 and 2016 Bonds for the twelve-month period in such fiscal year.

* Numbers to calculate bond coverage were extracted from the corresponding budget for the applicable fiscal year.

**New Jersey Water Supply Authority
Delaware and Raritan Canal – Spruce Run/Round Valley Reservoirs System
Water Charges Per Million Gallons of Raw Water Daily**

<u>EFFECTIVE DATE</u>	<u>7/1/2011</u>	<u>7/1/2012</u>	<u>7/1/2013</u>	<u>7/1/2014</u>	<u>7/1/2015</u>
RATE PER MGD	\$231.00	\$231.00	\$231.00	\$246.00	\$253.00

<u>EFFECTIVE DATE</u>	<u>7/1/2016</u>	<u>7/1/2017</u>	<u>7/1/2018</u>	<u>7/1/19</u>	<u>7/1/20</u>
RATE PER MGD	\$253.00	\$336.00	\$336.00	\$336.00	\$336.00

**New Jersey Water Supply Authority
Manasquan Water Supply System
Water Charges Per Million Gallons of Raw Water Daily**

<u>EFFECTIVE DATE</u>	<u>7/01/2011</u>	<u>7/01/2012</u>	<u>7/01/2013</u>	<u>7/01/2014</u>	<u>7/01/2015</u>
RATE PER MGD	\$1,015.90	\$1,015.90	\$1,015.90	\$1,015.90	\$1,057.40
(Delayed Contracts)	\$1,168.71	\$1,168.49	\$1,168.49	\$1,168.49	\$1,190.86

<u>EFFECTIVE DATE</u>	<u>7/01/2016</u>	<u>7/01/2017</u>	<u>7/01/2018</u>	<u>7/01/2019</u>	<u>7/01/2020</u>
RATE PER MGD	\$1,104.58	\$1,043.35	\$1,043.35	\$1,043.35	\$1,010.75
(Delayed Contracts)	\$1,238.04	\$1,137.76	\$1,137.76	\$1,137.76	\$1,124.67

**New Jersey Water Supply Authority
Raritan Basin System
Spruce Run Rain Gauge (inches)**

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
2020	2.58	2.80	3.40	5.00	2.62	1.77	3.69	7.27	5.18	3.82	5.86	4.05	48.04
2019	5.27	2.93	4.51	4.39	10.29	7.15	8.19	5.40	1.23	6.99	2.73	4.95	64.03
2018	2.99	6.64	4.78	5.95	5.66	3.38	9.47	9.83	9.52	4.11	12.77	8.58	83.68
2017	3.32	1.87	4.91	2.66	5.15	3.08	7.88	4.87	2.47	5.76	1.52	1.44	44.93
2016	2.03	4.60	1.11	1.66	4.07	3.03	7.00	2.98	1.74	0.53	3.02	3.25	35.02
2015	2.38	0.86	3.91	2.03	2.38	5.98	2.02	0.78	2.76	3.37	1.66	4.23	32.36
2014	2.56	2.04	3.12	7.35	2.66	4.25	3.96	1.96	1.57	3.20	3.48	3.38	39.53
2013	2.67	1.65	2.08	2.16	6.27	10.40	5.85	3.79	3.94	0.79	2.77	3.66	46.03
2012	2.99	0.94	0.84	2.86	3.67	3.88	1.78	2.80	4.34	2.68	0.73	4.58	32.09
2011	0.87	2.93	6.97	6.48	4.38	2.62	4.19	14.21	13.49	1.63	4.90	4.09	66.76
2010	2.30	1.90	7.40	3.10	3.60	3.50	8.20	1.30	3.30	4.30	1.94	2.52	43.36
TOTAL	29.96	29.16	43.03	43.64	50.75	49.04	62.23	55.19	49.54	37.18	41.38	44.73	535.83
AVERAGE	2.72	2.65	3.91	3.97	4.61	4.46	5.66	5.02	4.50	3.38	3.76	4.07	48.71
MAXIMUM	5.27	6.64	7.40	7.35	10.29	10.40	9.47	14.21	13.49	6.99	12.77	8.58	83.68
MINIMUM	0.87	0.86	0.84	1.66	2.38	1.77	1.78	0.78	1.23	0.53	0.73	1.44	32.09

**New Jersey Water Supply Authority
Raritan Basin System
West Windsor Rain Gauge (inches)**

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
2020	2.20	2.80	4.04	4.88	2.20	2.31	7.40	6.37	5.20	5.45	4.86	3.98	51.69
2019	4.34	3.38	3.93	4.84	7.57	4.61	5.46	2.66	1.21	6.46	2.17	5.57	52.20
2018	2.89	7.05	4.80	4.74	5.98	3.99	6.03	4.57	8.39	2.16	8.88	6.56	66.04
2017	4.35	1.38	3.74	3.86	6.59	5.16	5.41	7.90	2.69	4.94	1.68	1.60	49.30
2016	2.21	5.30	2.29	1.49	3.83	1.82	9.42	1.11	2.10	2.18	3.78	3.30	38.83
2015	3.18	2.46	5.53	2.54	1.38	6.04	2.79	1.72	3.27	5.27	1.98	5.28	41.44
2014	2.59	3.45	4.59	7.36	3.05	3.58	7.61	2.80	1.05	4.42	5.00	5.35	50.85
2013	3.15	2.59	3.06	2.40	3.48	10.78	5.70	4.87	2.37	0.87	3.83	3.88	46.98
2012	3.51	1.73	1.58	2.94	5.58	3.82	4.94	4.93	2.36	5.30	1.42	4.99	43.10
2011	1.06	2.88	5.93	6.87	5.14	3.42	4.56	17.31	9.11	1.00	3.49	4.22	64.99
TOTAL	29.48	33.02	39.49	41.92	44.80	45.53	59.32	54.24	37.75	38.05	37.09	44.73	505.42
AVERAGE	2.95	3.30	3.95	4.19	4.48	4.55	5.93	5.42	3.78	3.81	3.71	4.47	50.54
MAXIMUM	4.35	7.05	5.93	7.36	7.57	10.78	9.42	17.31	9.11	6.46	8.88	6.56	66.04
MINIMUM	1.06	1.38	1.58	1.49	1.38	1.82	2.79	1.11	1.05	0.87	1.42	1.60	38.83

**New Jersey Water Supply Authority
Raritan Basin System
Spruce Run Rain Reservoir Storage
Billion Gallons**

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
2020	10.2	10.3	10.3	11.0	11.2	11.0	10.5	9.5	10.0	9.4	9.2	10.0
2019	11.2	11.1	11.0	10.6	10.7	11.1	11.0	11.0	10.3	9.4	9.4	9.5
2018	5.6	6.0	7.9	9.9	11.1	11.0	11.0	10.9	10.9	10.5	10.3	11.1
2017	4.1	4.9	5.3	6.6	8.1	9.3	9.8	10.4	10.4	8.1	6.2	6.1
2016	5.3	6.0	8.2	8.9	9.3	9.8	7.8	7.0	6.2	4.9	3.7	3.7
2015	5.8	6.4	6.3	8.8	9.8	10.1	10.7	9.7	7.1	5.4	4.9	5.3
2014	8.4	9.1	9.2	10.0	11.4	10.5	10.5	10.5	8.2	5.0	4.5	4.7
2013	7.8	8.5	9.2	9.8	10.6	11.0	10.9	10.7	10.6	9.8	8.3	7.5
2012	9.9	10.2	10.1	10.5	11.0	11.0	10.9	9.2	8.0	6.4	6.3	6.4
2011	8.2	8.3	9.9	10.8	11.0	11.0	11.0	10.0	11.0	11.2	9.9	10.8
AVERAGE	7.6	8.1	8.7	9.7	10.4	10.6	10.4	9.9	9.3	8.0	7.3	7.5
MAXIMUM	11.2	11.1	11.0	11.0	11.4	11.1	11.0	11.0	11.0	11.2	10.3	11.1
MINIMUM	4.1	4.9	5.3	6.6	8.1	9.3	7.8	7.0	6.2	4.9	3.7	3.7

MAXIMUM CAPACITY 11.0 BG

**New Jersey Water Supply Authority
Raritan Basin System
Round Valley Reservoir Storage
Billion Gallons**

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
2020	36.6	36.6	36.7	36.6	36.4	36.6	36.5	36.6	36.4	36.4	36.5	36.4
2019	47.4	47.7	47.1	47.5	47.8	47.8	47.3	46.6	45.4	41.1	37.9	35.9
2018	42.1	41.3	41.7	42.0	44.7	47.0	47.0	47.0	47.0	47.2	47.2	47.7
2017	36.2	36.9	37.4	38.7	40.4	42.6	43.0	43.1	42.8	42.6	42.7	42.5
2016	44.3	44.5	44.9	45.0	45.0	45.7	45.6	44.3	43.4	39.4	37.0	35.9
2015	48.5	48.7	48.7	49.1	49.2	49.0	49.1	49.0	47.4	44.6	44.1	44.3
2014	52.6	52.7	53.1	53.3	53.9	53.7	51.7	50.1	49.9	49.6	48.6	48.4
2013	51.6	51.7	51.7	51.8	51.8	52.1	52.7	53.1	53.2	53.0	52.6	52.5
2012	52.6	52.7	52.7	52.7	52.8	53.1	52.9	51.5	51.6	51.5	51.7	51.3
2011	48.1	48.2	48.4	48.9	51.2	52.0	52.0	51.0	51.6	52.1	52.1	52.3
AVERAGE	46.00	46.09	46.25	46.57	47.32	47.96	47.79	47.23	46.86	45.76	45.04	44.71
MAXIMUM	52.6	52.7	53.1	53.3	53.9	53.7	52.9	53.1	53.2	53.0	52.6	52.5
MINIMUM	36.2	36.6	36.7	36.6	36.4	36.6	36.5	36.6	36.4	36.4	36.5	35.9

MAXIMUM CAPACITY 55.0 BG

**New Jersey Water Supply Authority
Manasquan Water System Rainfall (inches)**

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEPT	OCT	NOV	DEC
2020	2.60	2.90	4.11	4.88	1.61	4.97	4.97	5.15	2.15	7.16	5.88	4.55
2019	4.23	3.43	4.2	4.55	6.29	5.35	5.36	3.48	1.23	4.80	1.56	7.07
2018	3.31	7.63	7.20	4.01	10.34	2.89	6.16	7.02	8.00	6.37	9.30	6.12
2017	5.01	1.22	7.68	3.96	8.07	2.31	4.13	4.17	2.49	5.98	2.52	1.36
2016	2.15	3.81	1.94	2.15	3.42	1.54	7.59	0.58	4.49	3.58	2.93	3.63
2015	5.20	1.87	4.29	2.29	1.14	5.44	3.01	2.35	2.11	4.82	2.42	4.49
2014	2.31	3.16	3.13	6.95	2.92	3.46	6.42	5.79	1.77	5.07	5.33	5.81
2013	2.66	3.65	3.08	2.17	4.24	9.29	4.31	3.55	1.92	1.06	2.61	7.71
2012	2.48	1.45	1.48	2.87	4.30	5.03	3.21	5.75	5.79	5.01	1.87	4.51
2011	4.26	2.39	5.00	5.13	3.38	2.71	3.71	17.87	5.62	4.51	3.33	4.75
TOTAL	34.21	31.51	42.11	38.96	45.71	42.99	48.87	55.71	35.57	48.36	37.75	50.00
AVERAGE	3.42	3.15	4.21	3.90	4.57	4.30	4.89	5.57	3.56	4.84	3.78	5.00
MAXIMUM	5.20	7.63	7.68	6.95	10.34	9.29	7.59	17.87	8.00	7.16	9.30	7.71
MINIMUM	2.15	1.22	1.48	2.15	1.14	1.54	3.01	0.58	1.23	1.06	1.56	1.36

NOTE: The Manasquan System started operations July 1, 1990

**New Jersey Water Supply Authority
Manasquan Water Reservoir Storage Data
Billion Gallons**

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEPT	OCT	NOV	DEC
2020	4.55	4.48	4.50	4.54	4.52	4.44	4.22	3.94	3.65	3.50	3.73	4.24
2019	4.53	4.49	4.61	4.55	4.61	4.58	4.44	4.35	4.17	3.98	4.08	4.17
2018	4.17	4.64	4.66	4.64	4.62	4.59	4.43	4.54	4.58	4.58	4.55	4.53
2017	4.37	4.61	4.56	4.62	4.60	4.54	4.34	4.14	4.00	3.76	4.00	4.05
2016	4.44	4.60	4.58	4.60	4.58	4.38	4.02	3.71	3.19	3.02	3.01	3.52
2015	4.58	4.54	4.52	4.59	4.60	4.51	4.34	3.91	3.35	3.12	3.20	3.52
2014	4.59	4.62	4.61	4.62	4.62	4.55	4.35	4.15	3.64	3.52	3.86	4.46
2013	4.57	4.61	4.58	4.52	4.59	4.35	4.21	3.88	3.69	3.47	3.42	4.33
2012	4.59	4.51	4.56	4.56	4.56	4.39	4.08	4.85	3.83	3.66	3.92	4.49
2011	4.26	4.37	4.48	4.56	4.56	4.49	4.32	4.15	3.98	3.95	4.39	4.13
AVERAGE	4.46	4.55	4.57	4.58	4.59	4.48	4.27	4.16	3.81	3.66	3.82	4.14
MAXIMUM	4.59	4.64	4.66	4.64	4.62	4.59	4.44	4.85	4.58	4.58	4.55	4.53
MINIMUM	4.17	4.37	4.48	4.52	4.52	4.35	4.02	3.71	3.19	3.02	3.01	3.52

MAXIMUM CAPACITY 4.7 BG

**New Jersey Water Supply Authority
Bonds, Notes and Loans Payable**

Fiscal Year Ending	Revenue Bonds	Deferred Notes to the State of New Jersey	Loans to the State of New Jersey and NJEIT	Total Bonds, Notes and Loans Payable	Outstanding Debt to Total Personal Income Ratio ¹	Outstanding Debt Per Capita Ratio ²
2020	\$9,355,100	\$33,566,892	\$73,907,816	\$116,829,808	0.063%	\$47.40
2019	\$12,619,179	\$33,566,892	\$74,976,680	\$121,162,751	0.066%	\$49.15
2018	\$15,748,257	\$33,566,892	\$60,811,617	\$110,126,766	0.060%	\$44.16
2017	\$18,802,335	\$33,566,892	\$12,318,018	\$64,687,245	0.037%	\$25.94
2016	\$19,281,414	\$33,566,892	\$13,382,948	\$66,231,254	0.040%	\$26.74
2015	\$27,135,913	\$33,647,103	\$14,379,107	\$75,162,123	0.047%	\$30.38
2014	\$30,058,222	\$33,649,796	\$15,420,970	\$79,128,988	0.051%	\$32.03
2013	\$35,456,893	\$33,652,337	\$16,393,574	\$85,502,804	0.058%	\$34.72
2012	\$40,607,618	\$33,654,736	\$17,198,649	\$91,461,003	0.063%	\$37.30
2011	\$45,524,920	\$33,657,001	\$12,822,647	\$92,004,568	0.065%	\$37.69
2010	\$50,234,457	\$33,659,135	\$11,442,033	\$95,335,625	0.071%	\$39.21

Note 1. Total personal income for the service area of Hunterdon, Middlesex, Somerset, Union and Monmouth Counties using Bureau of Economic Analysis CAINC1 Personal Income Summary: Personal Income, Population, Per Capita Personal Income - County Last updated: November 14, 2019-- new statistics for 2018; revised statistics for 1969-2017.

Note 2. Population estimates for the service area of Hunterdon, Middlesex, Somerset, Union and Monmouth Counties using New Jersey Department of Labor and Workforce Development Estimates of County Population April 1, 2010 to July 1, 2018 Source: U.S. Census Bureau, Population Division, April 18, 2019

**State of New Jersey Ten Largest Employers
2018 as Compared To 2009**

2018* RANK	EMPLOYER	NEW JERSEY EMPLOYEES	PERCENTAGE OF TOTAL NEW JERSEY EMPLOYMENT
1	New Jersey State Government	64,270	1.5%
2	Wakefern Food Corporation (ShopRite)	39,500	0.9%
3	Wal-Mart Stores, Inc.	20,777	0.5%
4	United Parcel Service (UPS)	19,347	0.5%
5	Verizon Communications	15,168	0.4%
6	Amazon	15,000	0.4%
7	Johnson & Johnson	13,996	0.3%
8	Public Service Electric and Gas Company	10,712	0.2%
9	Bank of America	10,000	0.2%
10	JP Morgan Chase & Company	9,800	0.2%
		218,570	5.1%

2009 RANK	EMPLOYER	NEW JERSEY EMPLOYEES	PERCENTAGE OF TOTAL NEW JERSEY EMPLOYMENT
1	New Jersey State Government	74,536	1.8%
2	Wakefern Food Corporation (ShopRite)	34,092	0.9%
3	Wal-Mart Stores, Inc.	17,133	0.4%
4	Verizon	17,000	0.4%
5	United Parcel Service (UPS)	16,465	0.4%
6	The Great Atlantic and Pacific Tea Company (A&P)	15,899	0.4%
7	Harrah's Entertainment, Inc.	14,533	0.4%
8	Continental Airlines	14,000	0.3%
9	Merck & Company, Inc.	14,000	0.3%
10	Johnson & Johnson	13,500	0.3%
		231,158	5.6%

Notes:

Aggregate New Jersey resident employment for Calendar Years 2018 and 2009 totaled 4.3 million and 4.1 million, respectively.

New Jersey State Government data excludes State authorities, colleges and universities.

New Jersey Business' Top 100 Employers data derived from annual questionnaires submitted by private sector respondents, excluding government, higher education institutions, and non-profit hospitals.

Data reprinted with permission from the New Jersey Business and Industry Association.

Sources:

Pytell, J. (2019, August). "Employment Matters, 47th annual top 100 employers." *New Jersey Business Magazine*, 65(8), 21-34.

Saliba, G.N. (2010, August). "38th Annual Top 100 employers." *New Jersey Business Magazine*, 56(8), 31-38.

New Jersey Department of the Treasury, Office of Management and Budget.

New Jersey Department of the Treasury, Office of Revenue & Economic Analysis.

* Most recent available data.

**State of New Jersey
Population and Employment Trends
(Expressed in Thousands)**

YEAR	NEW JERSEY POPULATION	CIVILIAN LABOR FORCE ¹	RESIDENT EMPLOYMENT ¹	RESIDENT UNEMPLOYMENT ¹	NEW JERSEY UNEMPLOYMENT RATE (%) ²	UNITED STATES UNEMPLOYMENT RATE (%) ²
2009	8,756	4,544	4,099	446	9.8	9.9
2010	8,800	4,553	4,122	431	9.5	9.3
2011	8,828	4,580	4,159	421	9.2	8.5
2012	8,846	4,594	4,173	422	9.2	7.9
2013	8,858	4,503	4,172	330	7.3	6.7
2014	8,867	4,505	4,210	295	6.5	5.6
2015	8,871	4,481	4,254	226	5.1	5.0
2016	8,875	4,466	4,255	211	4.7	4.7
2017	8,889	4,436	4,229	207	4.7	4.1
2018	8,909	4,425	4,252	173	3.9	3.9

Notes:

¹ New Jersey data for 2010 through 2017 has been revised to reflect seasonally adjusted data.

² Civilian Labor Force, Resident Employment and Unemployment data for 2014 through 2017 has been revised to reflect seasonally adjusted data.

Sources:

United States Department of Labor, Bureau of Labor Statistics.

New Jersey Department of the Treasury, Office of Revenue & Economic Analysis.

**State of New Jersey
Valuations of Taxable Real Property, Personal and Per Capita Income
(Expressed in Millions Except as Indicated)**

YEAR	NEW JERSEY POPULATION (Thousands) ¹	ASSESSED VALUATION OF PROPERTY (\$)	TRUE VALUATION OF PROPERTY (\$)	PERSONAL INCOME(\$) ²	PER CAPITA INCOME (\$Thousands) ³
2009	8,756	893,342	1,355,004	439,322	50.2
2010	8,800	959,282	1,331,604	452,323	51.4
2011	8,828	983,963	1,278,578	473,913	53.7
2012	8,846	988,356	1,235,474	491,657	55.6
2013	8,858	990,697	1,183,032	496,306	56.0
2014	8,867	971,600	1,158,322	519,815	58.6
2015	8,871	983,032	1,164,399	542,405	61.1
2016	8,875	981,731	1,183,048	555,805	62.6
2017	8,889	1,000,760	1,207,591	581,199	65.4
2018	8,909	1,017,307	1,238,936	602,297	67.6

Notes:

¹ New Jersey Population data for 2010 through 2017 has been revised.

² Personal Income data for 2009 through 2017 has been revised.

³ Per Capita Income equals Personal Income divided by New Jersey Population.

Sources:

United States Census Bureau, Population Division.

New Jersey Department of the Treasury, Office of Revenue & Economic Analysis.

INDEPENDENT AUDITORS' REPORT ON INTERNAL CONTROL OVER FINANCIAL REPORTING AND ON COMPLIANCE AND OTHER MATTERS BASED ON AN AUDIT OF FINANCIAL STATEMENTS PERFORMED IN ACCORDANCE WITH GOVERNMENT AUDITING STANDARDS

To the Commissioners of
New Jersey Water Supply Authority

We have audited, in accordance with auditing standards generally accepted in the United States of America and the standards applicable to financial audits contained in *Government Auditing Standards* issued by the Comptroller General of the United States, the financial statements of the business-type activities of the New Jersey Water Supply Authority (a component unit of the State of New Jersey) (the "Authority"), as of and for the year ended June 30, 2020, and the related notes to financial statements, which collectively comprise the Authority's basic financial statements, and have issued our report thereon dated DATE.

Internal Control Over Financial Reporting

In planning and performing our audit of the financial statements, we considered the Authority's internal control over financial reporting (internal control) to determine the audit procedures that are appropriate in the circumstances for the purpose of expressing our opinion on the financial statements, but not for the purpose of expressing an opinion on the effectiveness of the Authority's internal control. Accordingly, we do not express an opinion on the effectiveness of the Authority's internal control.

A deficiency in internal control exists when the design or operation of a control does not allow management or employees, in the normal course of performing their assigned functions, to prevent, or detect and correct, misstatements on a timely basis. *A material weakness* is a deficiency, or a combination of deficiencies, in internal control, such that there is a reasonable possibility that a material misstatement of the Authority's financial statements will not be prevented, or detected and corrected, on a timely basis. *A significant deficiency* is a deficiency, or a combination of deficiencies, in internal control that is less severe than a material weakness, yet important enough to merit attention by those charged with governance.

Our consideration of internal control was for the limited purpose described in the first paragraph of this section and was not designed to identify all deficiencies in internal control that might be material weaknesses or significant deficiencies. Given these limitations, during our audit, we did not identify any deficiencies in internal control that we consider to be material weaknesses. However, material weaknesses may exist that have not been identified.

INDEPENDENT AUDITORS' REPORT ON INTERNAL CONTROL OVER FINANCIAL REPORTING AND ON COMPLIANCE AND OTHER MATTERS BASED ON AN AUDIT OF FINANCIAL STATEMENTS PERFORMED IN ACCORDANCE WITH GOVERNMENT AUDITING STANDARDS (CONTINUED)

Compliance and Other Matters

As part of obtaining reasonable assurance about whether the Authority's financial statements are free from material misstatement, we performed tests of its compliance with certain provisions of laws, regulations, contracts and grant agreements, noncompliance with which could have a direct and material effect on the determination of financial statement amounts. However, providing an opinion on compliance with those provisions was not an objective of our audit, and accordingly, we do not express such an opinion. The results of our tests disclosed no instances of noncompliance or other matters that are required to be reported under *Government Auditing Standards*.

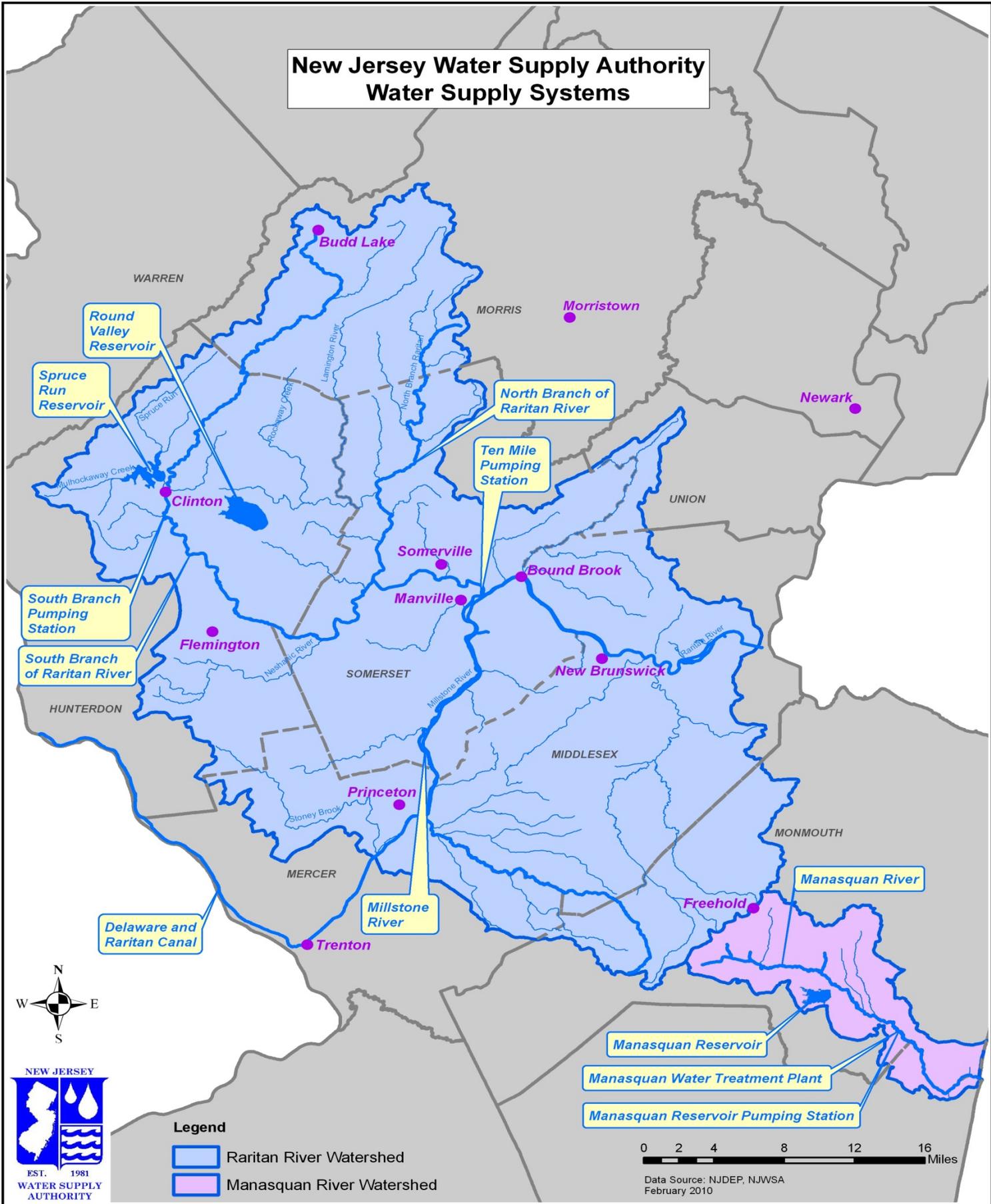
Purpose of this Report

The purpose of this report is solely to describe the scope of our testing of internal control and compliance and the results of that testing, and not to provide an opinion on the effectiveness of the Authority's internal control or on compliance. This report is an integral part of an audit performed in accordance with *Government Auditing Standards* in considering the Authority's internal control and compliance. Accordingly, this communication is not suitable for any other purpose.

Mercadien, P.C.
Certified Public Accountants

October 14, 2020

New Jersey Water Supply Authority Water Supply Systems



New Jersey Water Supply Authority
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