

NEW JERSEY WATER SUPPLY AUTHORITY



2017 ANNUAL REPORT

AND THE

COMPREHENSIVE ANNUAL FINANCIAL REPORT

FOR THE YEAR ENDED JUNE 30, 2017



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, 2016

Executive Director/CEO

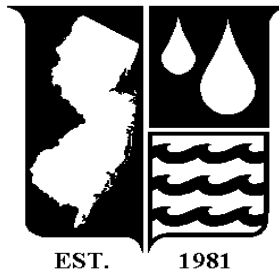
NEW JERSEY WATER SUPPLY AUTHORITY

2017 ANNUAL REPORT

AND THE

COMPREHENSIVE ANNUAL FINANCIAL REPORT

A COMPONENT UNIT
OF THE STATE OF NEW JERSEY



FOR THE FISCAL YEARS ENDED
JUNE 30, 2017 AND 2016

Prepared by:
Finance and Accounting Staff

Beth Gates
Executive Director

2017 Annual Report

Governor
Chris Christie



Authority Members

Bob Martin
Chair

Steven J. Picco
Vice Chair
Chair, Audit Committee

Shing-Fu Hsueh
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Chair, Insurance Committee

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Chair, Personnel Committee

Robert J. Iacullo
Chair, Public Participation Committee

Ellsworth Havens
Chair, Capital Projects Committee

Staff

Beth Gates
Executive Director

Jung Kim, Esq.
Deputy Attorney General

2018 Monthly Meetings

The 2018 Monthly Meetings of the New Jersey Water Supply Authority are scheduled to be held in the Conference Room of the Authority's Clinton Administration Building, 1851 Highway 31, Clinton, New Jersey, unless otherwise indicated, beginning at 2:00 p.m. on the following Mondays:

January 8, 2018

February 5, 2018

March 5, 2018

April 2, 2018

May 7, 2018

June 4, 2018 (Canal Office)

July 2, 2018 (Canal Office)

August 6, 2018 (Manasquan Office)

September 10, 2018

October 1, 2018

November 5, 2018

December 3, 2018

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 Bill Gumulak., Round Valley Reservoir

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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Introductory Section

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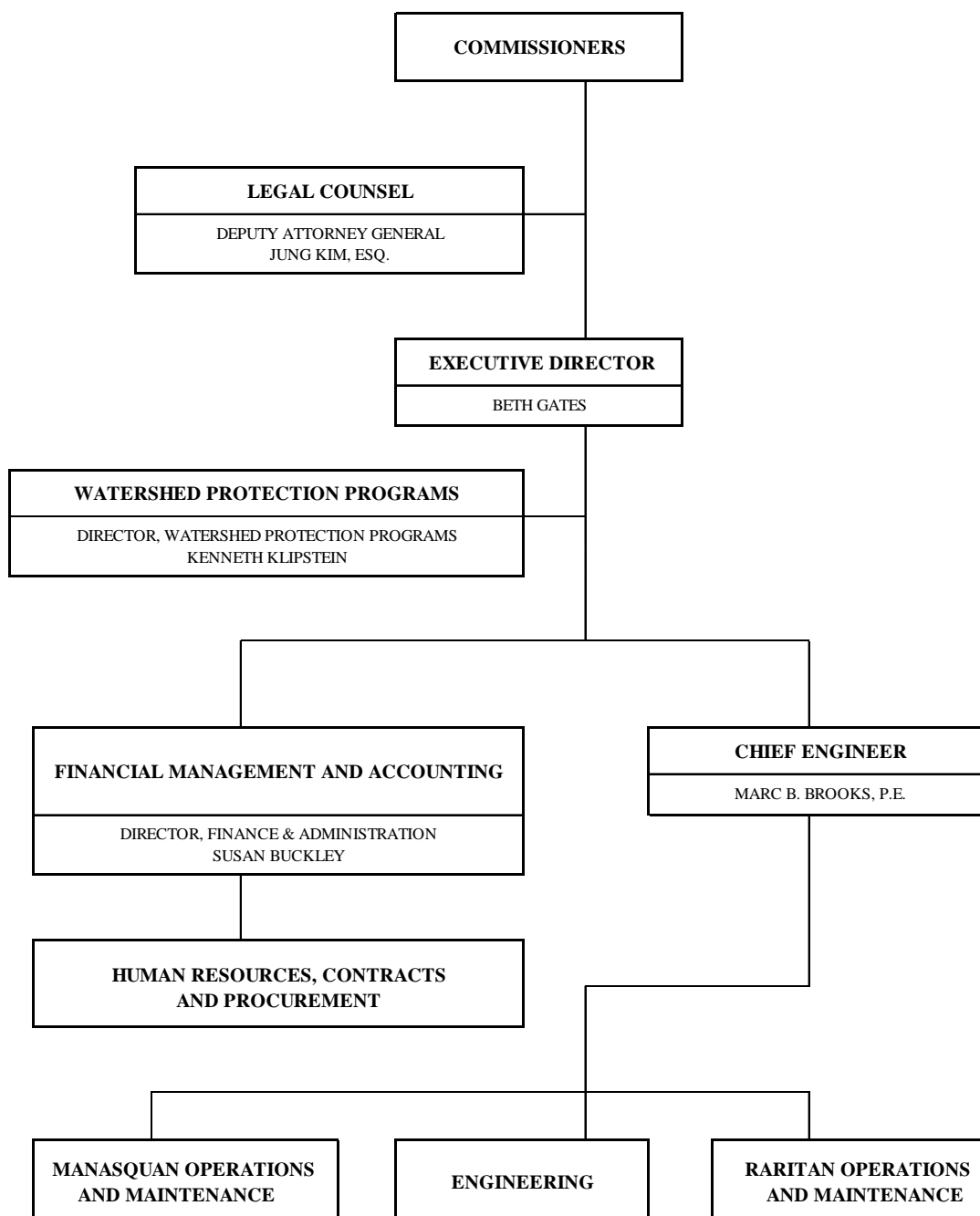
Watershed Protection Programs Unit

Letter of Transmittal - Controller

New Jersey Water Supply Authority

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Letter to Governor and Legislature

NEW JERSEY WATER SUPPLY AUTHORITY



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

December 2017

To the Honorable Chris Christie, Governor and Members of the New Jersey Legislature

I am pleased to submit the 36th 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 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 FY2017.

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 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 Spruce Run dam was constructed on a limestone foundation, which necessitates special treatment during construction and regular, continuous monitoring. Two previous TRBs were convened in the 1980s to evaluate the conditions at the Spruce Run dam. No previous TRBs had evaluated the embankments at Round Valley Reservoir.

The 2014 TRB recommended the installation of additional instrumentation at the Spruce Run and Round Valley facilities to monitor the phreatic (saturation) line through the embankments, and evaluation of the materials and methods used to construct the embankments. Installation of the additional piezometers, which measure water pressure, began in early September 2014. Once the additional instruments were installed and the initial data obtained and evaluated, the TRB was reconvened to perform an evaluation referred to as Potential Failure Mode Analyses (“PFMA”). A PFMA is a common analysis in the dam safety community and analyzes construction and performance records of an embankment. The PFMA for the three Round Valley embankments was conducted in early July 2015. The 2015 TRB and PFMA resulted in a recommendation that *“the Authority begin budgeting, engineering, and planning for the required modifications to the Round Valley Embankments.”* In the fall of 2016 Authority staff procured the engineer of record for modifications to all three of the Round Valley Embankments to extend their operating life and increase their durability and resilience.

The Engineer of Record performed additional borings that included the installation of new instruments on all three embankments. Investigations and the schematic design has been initiated that will result in a significant rehabilitation project that will retrofit the downstream slopes of all three Round Valley embankments with improved filters. Filters on dams allow for appropriate controlled drainage of existing seepage that prevents migration of existing soils. Along with the major rehabilitation of the slopes, ancillary work will be done that includes the following:

- Grouting the abutments at the Round Valley North and South Dams,
- Dredging of the inlet to the Round Valley South Dam Tower

- Improvements to the Round Valley auxiliary buildings
- Replacement of the 10-inch cast iron pipe at the Round Valley South Dam
- Rehabilitation of the hydraulic valve that controls the low-level release at the Round Valley South Dam
- Security Improvements at Round Valley Reservoir

In March 2017, the TRB reconvened to perform a PFMA for the Spruce Run Dam. The Authority is in receipt of a draft PFMA report that is being reviewed by staff.

Typically, New Jersey Dam Safety Regulations require Formal Dam Inspections be performed every three years with 2016 falling on the three-year cycle. New Jersey Dam Safety allowed that Regular Inspections, in lieu of Formal Inspections, be performed in 2016 and 2017 due to the detailed studies, investigations, and evaluations conducted at Round Valley and Spruce Run during 2014-2017. The Regular Inspections of all three Round Valley embankments, Spruce Run Dams, and the Manasquan Dam and Dike were conducted by Authority staff while being accompanied by members of staff from New Jersey Dam Safety and took place in the fall of 2017.

The Authority has finalized its plan for dredging the 10-mile reach of the Canal between Lincoln Highway (Route 27) and Amwell Road in Franklin Township, Somerset County. Bathymetric (underwater) surveys of the area show that approximately 7,300 tons of debris and 16,400 tons of submerged aquatic vegetation will need to be removed prior to the Canal dredging of approximately 240,000 yards of sediment. Sediment will be removed through hydraulic dredging and pumped to a staging area before it is hauled to a beneficial reuse facility. Tree trimming on the project is scheduled to start in February of 2018 with actual dredging starting in the summer of 2018 and extending for three seasons between July and December.

Aquatic plants, specifically a number of aggressive invasive aquatic plants, are creating operations and water quality challenges Authority-wide. After last season's discovery of hydrilla in the Canal, in 2017 the Authority engaged a qualified consultant to assist the Authority in developing and implementing an Aquatic Plant Management Plan for the Delaware & Raritan Canal for the purpose of maintaining passing flow while protecting water quality for all water users. As recommended in the plan, the Authority initiated a 120 day low-dosage herbicide application that began in May 2017. The Authority engaged 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 only a few fragments of remaining hydrilla. However, during the survey, fanwort, another aquatic invasive plant, was found in the Canal. The D&R Canal Aquatic Plant Management Plan will continue in 2018.

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 \$119.0 million as of June 30, 2017 and has increased over June 30, 2016 and June 30, 2015. In fiscal year 2017, total assets and deferred outflows were \$218.6 million and total liabilities were \$99.3 million.

The Authority was presented with the "Certificate of Achievement for Excellence in Financial Reporting Award" from the Government Finance Officers Association for FY2016, our 25th consecutive award.

Sincerely,



Beth Gates
Executive Director

Operations - Raritan System

Operation and maintenance activities at all Authority facilities have been typical. The Round Valley pumping program ran from December 15, 2016 to June 19, 2017 and transported 5.36 billion gallons into the reservoir. The pool elevation increased from its low level of 359.48 feet on November 29, 2016 to a peak of 369.28 in July 2017.

Dam Inspections and Round Valley Project

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:

- Installation of 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.
- Side Scan Sonar Surveys at Spruce Run aimed at locating sinkholes on the upstream side of the dam.
- 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.



Round Valley South Dam and vault

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 a common analysis in the dam safety community and consists of a robust study of the construction and past performance records of the embankments.

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:

- Rehabilitate the hydraulic valve on the Round Valley South Dam
- Remove and replace 10-inch Cast Iron Pipe that connects the RV Force Main to the RV South Vault
- Dredging of the Round Valley South Tower Intake Channel
- Repairs to the Round Valley building structures (towers and vaults)
- 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

It is anticipated that the dredging of the Round Valley South Tower Intake Channel, the security improvements, and the grouting of the abutments at the Round Valley North and South Dams will be bid on an accelerated basis relative to the other parts of this large project.



Construction of Round Valley Reservoir in the 1960s.

The Authority’s consultant created and will maintain 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/>.

Authority staff conducted the 2016 Regular Inspection of the Round Valley and Spruce Run Dams on November 14, 2016 in conformance with New Jersey Dam Safety regulations. The 2017 Regular Inspections took place on September 26, 2017.

Dredging the Intake Pond and rehabilitation of the ice deflectors at the South Branch Pumping Station

The intake pond at the South Branch Pumping Station (“SBPS”) was designed with a capacity of 21,000,000 gallons during low flow pumping periods. Sediment has accumulated in the pond reducing its capacity, thereby reducing the efficiency of the pumping operation. Sediment was last removed from the pond in 1986 when it was removed in the dry and stockpiled in a temporary site at the SBPS where it was used as needed throughout Authority properties. The intent of this project will be

to dredge the intake pond to return it to its original design depth and capacity.

Also at the SBPS, there are twelve steel wide flange beams set in a concrete bed that function as an ice deflector at the release works of the channel of the South Branch Raritan River adjacent to the pond. The ice deflectors protect the structure from damage from ice and trees floating down the river. They are deteriorating and need to be replaced. The ice deflectors are intended to be repaired as part of the pond dredging project.

The Authority retained an engineering consultant who has prepared a schematic design report and will begin to prepare design drawings for bidding and anticipated dredging in the summer of 2018.



South Branch Pumping Station Intake Pond

Dredging of the D & R Canal

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 is developing a program to remove up to an estimated 240,000 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>.



Public information poster for the Canal Dredging Project.

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, hydraulic dredging with either method of dewatering the sediment was selected as the preferred alternative. The Authority is working to reach an amicable agreement for beneficial reuse of the sediment. The preferred site must receive NJDEP and EPA approvals before it can accept the material.

A Level Two Environmental Impact Document was prepared and the required Public Hearing was held on May 13, 2013. With the uncertainty on the beneficial reuse site and the outstanding permit issues, construction was pushed back. The

anticipated start to construction will be in the February 2018 with actual dredging expected to start in July of 2018.

This project also includes disposal of up to 53,000 cubic yards of sediment from the US Route 202 temporary stockpile site being used to temporarily store material removed from the Canal as part of the Authority's Maintenance Dredging program of the Canal.

Sediment Removal in the Trenton Conduits

Another flow bottleneck in the Canal is sediment accumulation in the conduit under the US Route 1 Highway, commonly referred to as the Trenton Freeway. The Authority is working with the NJDOT to develop a program to remove this accumulation.

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

The western 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 in the past decade that caused two full breaches of the embankment in 2005 and 2006, and nearly breached 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. 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.



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 level of the Delaware River relative 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.



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. The Authority has retained both an engineering and a cultural resources consultant to work together to develop a potential long-term solution to the embankment problems that will be

constructible and acceptable to the numerous regulating bodies and permitting agencies.

Rehabilitation of the Cherry Tree Lane Spillway

The Cherry Tree Lane Spillway is located at Station 1269+65 of the Canal, approximately 650 feet upstream of the intersection of Whitehead Road and the Canal in Lawrence Township. The spillway structure is located along the Canal right bank and discharges to a concrete apron that conveys the flow to an arched culvert under the Route 1 Highway (Trenton Freeway Section).

The crest was eroded, spalling and crumbling. The downstream concrete outlet apron had large voids, was cracked, and showed exposed rebar and concrete aggregate. In 2013, Canal maintenance crews backfilled a large scour hole downstream of the spillway. It was suspected that the foundation material under the spillway structure and the outlet apron was largely undermined. Water from the Canal was leaking at a steadily increasing rate.



Cherry Tree Lane Spillway, before construction

The Authority worked with both an engineering and a cultural resource consultant to investigate and design a rehabilitation of the structure. During the engineer's initial investigatory work, they observed a scour hole that required an

emergency repair on December 23, 2014 to prevent complete breach.

Selection of contractors for full reconstruction of the spillway followed standard design, permitting and bidding procedures, and construction began in the summer of 2016 and was completed in late fall 2016. Final restoration is expected to be complete in the late fall of 2017.



Demolition work at Cherry Tree Lane Spillway.



Reinforcing steel before concrete pour at Cherry Tree Lane Spillway



Completed Cherry Tree Lane Spillway.

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 and to prevent 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 initiate in 2018 or 2019.

Griggstown Waste Gate and Embankment Seepage Repair Station 2083+40



Griggstown Waste Gate.

The Griggstown Waste Gate is located on the Canal left bank, approximately 160 feet upcanal from the Griggstown Lock in Franklin Township. The waste gate system consists of a concrete headwall on the Canal side housing a 36-inch wide x 48-inch high manually operated cast iron sluice gate. The sluice gate connects to a 6-foot diameter reinforced concrete pipe extending beneath the multi-use trail. The outlet pipe (river side of embankment) is held by a stone masonry headwall and wingwalls. The sluice gate discharges to the Millstone River. The structure was last rehabilitated in 1991.

In January 2017, during the recurrent inspection of the Canal appurtenant structures, the inspection team found steady seepage coming from near the bottom of the downstream stone masonry headwall. Physical indications of a possible structural issue, including sinking in the multi-use trail and settlement/deflection of the nearby wood guard rail fencing were also noticed.

The presence of the visible seepage, in conjunction with the sinkhole, led staff to be concerned that there is an ongoing internal erosion condition. It is believed that the structural deficiencies are leading to the

internal erosion of soil particles within the embankment. Currently the seepage appears clear and is monitored regularly.

An engineering consultant has been procured to design a repair for the structure. The consultant must provide a design that considers the high historic sensitivity of the structure. Schematic design is complete and following receipt of all permits, construction bids will be advertised. The consultant has recommended cementitious grouting of the embankment between the headwall structures and in-kind repairs to the upstream concrete headwall. It is anticipated that all construction will be completed in late 2017 or early 2018.

West Amwell Seepage Repair at Masonry Wall at Station 411+37

There is a stone gravity retaining wall located on the right bank of the Canal (multi-use trail) located approximately 0.6 miles downcanal from the Lambertville Lock in West Amwell Township. The gravity wall was constructed of dry laid stone and runs for several hundred feet along the Canal. The wall retains the embankment that separates the Canal from the Delaware River and appears to be original to the Canal's construction.

In February 2017, Canal maintenance staff reported seepage through the stone retaining wall at Station 411+37. Engineering staff inspected the area and confirmed that a length of approximately 30 feet of the wall was leaking at the toe. Further investigations identified two more sources of seepage 15 to 20 feet distant from the toe towards the river. The latter finding increased the overall length (along the Canal) of identified seepage to approximately 100 feet. The seepage was clear at the time of the inspection and there was no evidence of settlement or embankment movement along the affected area. It was confirmed that the same area has been observed wet in years past. Furthermore, Canal staff had no recollection

of previous settlement or embankment movement at that location.

In early March, a sinkhole was found to have developed on the Canal right bank at the same Canal station of the seepage location. The sinkhole represented a significantly changed condition. Therefore, it was decided to proceed with procurement on an emergency basis which allowed for an accelerated procurement, design, and repair.

An engineering consultant was procured on an emergency basis and plans and specifications for repair were produced quickly. The engineering consultant proposed chemical grout to eliminate the seepage through the wall. Chemical grout was installed through “injection rods” and by use of a pump which mixes and inserts the grout into the subsurface. The chemical grout was used to fill the voids in soil behind the wall to eliminate the seepage. Two different types of chemical grout were used, Acrylate and a water reacting polyurethane. Construction took place during June 2017 and was completed in three weeks with satisfactory results.



West Amwell seepage repairs. Chemical grout “totes.”



West Amwell seepage repairs. Chemical grout injection points. Canal in background.

Canal Seepage Repairs - Blackwells Mills at Station 2334+67

In March 2017 a member of the public reported seepage through the toe of the earthen embankment between the Canal and the Millstone River that was seeping towards the river. The seepage was occurring approximately one half mile down canal from Blackwells Mills Road in Franklin Township. Canal maintenance staff confirmed its presence, and the Chief Engineer with two outside geotechnical consultants immediately inspected the embankment. It was agreed that the seep was controllable but that the embankment should be repaired in short order. Further investigations yielded up to five seeps spread out along approximately 170 linear feet of the embankment. At the time of inspection the seepage was clear and there were no signs of soil particles in the seepage (piping). Piping can lead to embankment breach if not rectified. Short-term interim risk reduction measures were implemented by Authority Staff until the more permanent fix could be installed.

An engineering consultant was procured on an emergency basis to design a repair. The consultant performed geotechnical borings and their schematic design proposed the installation of steel sheeting through the center of the embankment (towpath) to competent rock. A contractor was procured

who installed the sheeting that stopped the seepage in August 2017.



Contractor driving steel sheets down centerline of towpath. Canal to left in photo. Millstone River to the right.



Steel sheets cut down to size will eventually be backfilled below grade. Canal to right in photo. Millstone River to the left.

Rehabilitation of the Ten Mile Waste Gate

The Ten Mile Waste Gate is located just upcanal of the Ten Mile Lock. It is a concrete structure with two sluice gates that are routinely opened and closed to adjust discharge flow from the Canal to the

Millstone River near its confluence with the Raritan River. Canal flow in excess of that required by downcanal water purveyors is used to augment flow in the Raritan River and to control levels in the Canal. The existing waste gates were installed in 1958 and are in need of replacement. One of the two gates is inoperable and the second gate is difficult to operate. Construction plans and specifications to replace the existing gates were prepared by Authority staff. A contract has been executed and construction is expected to take place in late 2017.

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 in a sand bed without the benefit of mortar. The spillway is deteriorating. The stones are being dislodged and the spillway crest needs to be stabilized. The planned rehabilitation is expected to consider removal of all stones from the crest and installing a concrete slab as a substructure to the stones which would likely be anchored with mortar.



River side slope of Landing Lane Spillway.

Authority staff is soliciting the services of an engineering consultant to design repairs

to the spillway. That process is near complete and their investigations will begin in late fall 2017.

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 has experienced significant erosion and is in need of rehabilitation. Continued erosion and deterioration could lead to a breach of the Canal.

Authority staff is soliciting the services of an engineering consultant to design repairs to the embankment. That process is near complete and their investigations will begin in late fall 2017.



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

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

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

pipng and electrical wiring, leak detection, overflow protection, spill prevention, and corrosion protection for both tanks and piping.

The system has performed adequately but a recent inspection revealed that the dispenser frames, supplementary connection piping, containment chambers, junction boxes and the fuel island steel curb forms are rusted 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. It is noted that the double-wall underground storage tanks are reported in good condition.

Engineering services will be procured to inspect, investigate and design a new fuel dispensing system including replacement of card readers system, expansion of the Veeder-Root system to fuel oil and waste tanks, and replacement of the fuel island and the existing canopy. The engineering services are planned for procurement in 2018.

Operations - Manasquan System

Raw water contracts were maintained at a total of 19.443 MGD in 2017. Wetter and cooler temperatures in the spring and summer of 2017 allowed the reservoir to be at historically high levels for the beginning of September. Customer contracts were met without interruption and the largest customer only made above-contract purchases during two of the summer months.

No electrical, mechanical or weather events interrupted operations in 2017. A concrete wall with embedded motorized sluice gates was installed inside the raw

water distribution tank in 2016 that allows better control of the raw water sources reaching the water treatment plant. The wall serves to mitigate problems, treating highly turbid and colored water at the water treatment plant during storm events. This wall is proving to be a significant operational improvement.

Reservoir water quality was good during all months of the year. There were no significant blue-green algae blooms at the end of the summer as in some prior years.

Security improvements including remote monitoring cameras and recording devices were completed at the water treatment plant and at the reservoir. As part of our asset management program the fuel pumps were replaced and the tank level monitoring system was automated and tied into fleet management software.

Further Asset Management plan work included the rebuild of one of the 20 MGD intake pumps and preparatory work to replace the Dam instrumentation data logging software.



Large Valve Repair work.

In accordance with New Jersey State Dam Safety regulations, Authority staff conducted four regular quarterly dam inspections at the Manasquan Reservoir in 2017. A formal inspection is planned for either late 2017 or early 2018. The consultant will also be contracted to help in interpreting data from existing dam piezometers and potentially make recommendations on replacing or adding

new instruments. Work was completed in 2017 to fill over 2000 square feet of voids that developed under the embankment runoff control concrete gutters. This has resulted in no further washing of material from under the gutters into the discharge channels.

Operations - Manasquan Water Treatment Plant (“MWTP”)

The treatment plant provided water that met all NJDEP standards throughout 2017. Average and dispersed rainfall and the new distribution tank separation wall, allowed for more practical treatment of the discolored Manasquan River water during the summer.



Wall and new internal piping.



Wall and new internal piping.

In July 2016, the filter media support and water conveyance underdrain system on one of the three main filtration units broke apart. The unit had to be taken out of service for several months. A new system of improved design was installed in Filter 1 in the spring of 2017. The filter media and air scour system was replaced at the same time and the filter interior was painted. Materials

have been purchased to complete this same rehabilitation on Filters 2 and 3 during the fall and winter of 2017 and 2018.

Improvements at the MWTP

The Authority developed an asset management plan for the MWTP in 2008. The asset management plan development included a thorough evaluation of the condition of the existing equipment and an analysis of proposed legislation or changes in regulations that could have an impact on plant operations. The asset management plan identified the need to replace SCADA software, a 1250 KVA electrical transformer, and improvements to the motor speed control on the second of the three distributive water pumps. These projects were completed or are scheduled for the near future.

Watershed Protection Programs Unit

Watershed protection is defined as a means of protecting a waterbody by managing the entire watershed that drains into it. There are 780 square miles of watershed land to manage in the Raritan River Basin and 67 square miles in the Manasquan River Basin. The core programs that the Watershed Protection Programs Unit utilizes to safeguard these watersheds include: The implementation of watershed scale restoration and protection plans; Green Infrastructure (“GI”) incentive programs (e.g. Rain Garden/Rain Barrel Rebates); a suite of River Friendly Certification Programs that promote voluntary engagement with owners of larger parcels of land such as schools, corporate campuses, golf courses and farms; and Education & Outreach. Highlights for each core program are summarized below. Additionally, the Watershed Protection Programs Unit’s focus has expanded to include lead responsibility for the emerging operational challenge of Aquatic Plant Management and addressing

its impact on the Authority’s water supply infrastructure. A status report on this topic is also included below.

Watershed Scale Implementation

With the NJDEP’s consent, the Authority modified the scope of the Delaware & Raritan Canal Infall Drainage Improvement Project to include projects throughout Franklin Township, Somerset County. The geographic area was increased to more fully capture water quality improvement opportunities identified in the Raritan Basin Total Nutrient Total Maximum Daily Load (“TMDL”). Accordingly, in 2017 designs and construction specifications were completed for four stormwater basin retrofit projects. Construction is anticipated to occur in 2018. The Authority is advancing plans to retrofit an additional four Franklin Township basins.

The Authority continued to work with the USDA-Natural Resources Conservation Service (“NRCS”) to implement agricultural conservation practices. Through an NRCS Regional Conservation Partnership Program (“RCPP”) grant for the South Branch Raritan River and Lockatong and Wickecheoke Watersheds, the Authority committed to funding conservation practice implementation on five farms in 2017 and 2018. By leveraging matching Source Water Protection Funds, farmers can receive up to 95 percent of the project cost for practice implementation utilizing a combination of federal and Authority funding.

In 2017 the Authority began monitoring the effectiveness of the roadside drainage improvement projects that were installed last year in the Lockatong and Wickecheoke Watersheds. As presented in our watershed management plan, many of the roadside channels within the Lockatong and Wickecheoke watersheds are eroded and unstable. The NRCS has estimated that 4,000 tons of sediment from eroded roadside drainage ravines and deicing materials are

washed into the Lockatong and Wickecheoke creeks, and ultimately into the Delaware and Raritan Canal, each year.

Green Infrastructure Incentive Programs (Rain Garden/Rain Barrel Rebates)

2017 marks the fifth year of the New Jersey Rain Garden Rebate Program, the first program of its type in the State. The program is offered by the Authority in cooperation with Rutgers University. Since its inception in 2013, forty-four (44) rain gardens have been installed on thirty-nine properties. These gardens collect water from approximately 29,000 square feet of drainage area. Cumulatively, 196 people have been educated at 13 workshops, 127 designs have been rendered for installation at 110 properties.

The Authority also continued to champion a Rain Barrel Rebate Program in the Somerset Regional Center communities of Bridgewater Township, and Raritan and Somerville Boroughs. Rain barrels installed through our rebate program, in addition to the rain barrels distributed through NJWSA sponsored workshops in these three communities and in similar communities in Hunterdon and Somerset Counties, have the potential to collect and store more than 24,000 gallons per rain event.

River-Friendly Programs

In 2017, the Authority expanded the capacity of the business, school, golf course and resident programs through enhanced collaboration with the Raritan Headwaters Association and the Stony-Brook Millstone Watershed Association. The updated and rebranded programs have received positive reviews and recognition including the New Jersey Governor's Environmental Excellence Award for 2016. The 2017 participation stands at: 15 schools (8 certified), 17 businesses (13 certified), 8 golf courses (7 certified) participating across the

Raritan Basin.



Community Volunteers, Peters Brook



Gill-Saint Bernard's School, Peapack Brook

The River-Friendly Farm program has demonstrated positive water quality impact throughout the Raritan Basin. In 2017, the Authority certified five new participants and re-certified one existing participant. In addition, the North Jersey Resource Conservation and Development Council re-certified several farms and expanded the reach of the program into the Musconetcong River.



Jillian Stark and Mike Beneduce at Beneduce Vineyards



Jillian Stark with Bud and Lynn Becker at Hidden Spring Farm

Education and Outreach

The Authority partnered with the Lower Raritan AmeriCorps Watershed Ambassador and Union Township to complete an expansion of a riparian restoration project at the Milligan Farms property, which is owned jointly by the Township and Authority. More than 500 live willow and dogwood stakes were installed to supplement an initial planting completed in 2011 along the Sidney Brook.



Volunteers from Union Township work with the Authority and the Lower Raritan AmeriCorps Watershed Ambassador to improve the riparian corridor at Milligan Farms, a property that is jointly owned by the Authority and Union Township

Aquatic Plant Management



Hydrilla in the Manasquan Reservoir, August 2017.

Aquatic plants, specifically a number of aggressive invasive aquatic plants, are creating operations 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 water supply sources exacerbates these effects, and necessitates thoughtful planning and management. After last season's discovery of hydrilla in the Canal, in 2017 the Authority engaged a qualified consultant 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 120 day low-dosage herbicide application that began in May 2017. The Authority engaged 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 only a few fragments of remaining hydrilla. However, during the survey, fanwort, another aquatic invasive plant, was found in the Canal. The D&R Canal Aquatic Plant Management Plan will continue in 2018.



Untreated hydrilla from Manasquan Reservoir (top) compared with herbicide treated hydrilla fragments from the D&R Canal.

The presence of hydrilla and fanwort was confirmed in the Manasquan Reservoir in 2017. In response, the Authority hired a firm to perform submerged aquatic vegetation mapping of the Reservoir and the six surrounding wetlands. The Authority will use this information and all other relevant data to engage a qualified consultant in 2018 to prepare an Aquatic Plant and Harmful Algal Bloom Management Plan for the Manasquan Reservoir.



Fanwort



Delaware & Raritan Canal at Scudders Falls, September 8, 2016.



Delaware & Raritan Canal at Scudders Falls, September 8, 2017.

The Authority has been battling the aquatic invasive Water Chestnut in the South Branch Pump Station Intake Pond since it was first identified in 2012. The water chestnut population has continued to grow exponentially and now almost entirely covers the pond at the Pumping Station. A mechanical weed harvester was utilized to remove plant materials in 2015 and 2017. This year, 900 cubic yards of vegetation were removed from the pond, nearly twice what was removed in 2015. Authority staff is tracking the upstream source of the water chestnut, as it was recently documented above Lake Solitude, a dammed section of the South Branch, in High Bridge.

The Authority is committed to working with local partners and broad array of stakeholders to increase awareness, educate the public, and document and address aquatic invasive plants that negatively

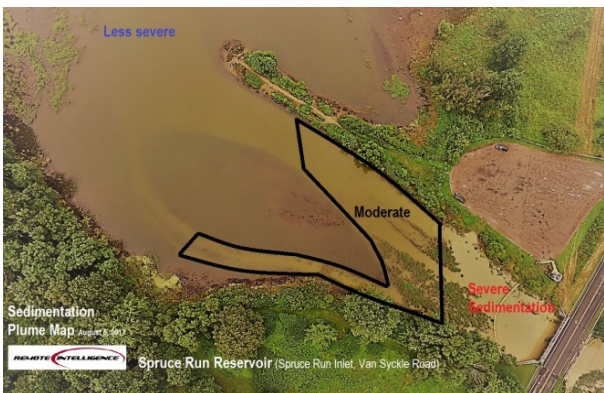
impact our water supply resources and infrastructure.



South Branch Pumping Station, August 2017

Eastern Concrete Quarry Spill – Spruce Run

A discharge of stone dust laden water into the Spruce Run occurred starting Friday, July 28, 2017. The source of the discharge was a dewatering system at Eastern Concrete Quarry in Glen Gardener. The dewatering system pump was inadvertently left running, attributed to human error. NJDEP estimates that 2 million gallons of stormwater and sediment fines were discharged into the stream. At some places, NJ Fish and Wildlife staff documented 49 cm (19.3 inches) of sediment deposit. The sediment was carried downstream 1.7 miles into the Spruce Run Reservoir. The incident response is coordinated by NJDEP Compliance and Enforcement.



Spruce Run Reservoir, Spruce Run Inlet

The Authority hired consultants to conduct an aerial imagery survey and to collect water column and bed sediment samples in the week following the spill, prior to the stipulations set forth by NJDEP to Eastern Concrete for remediation. Authority staff has provided recommendations for monitoring and remediation.



August 3, 2017



August 28, 2017

To date, some of the remediation efforts include turbidity curtains in the reservoir inlet, the construction of check dams to capture sediment, vacuuming sediment, brushing rocks with brushes, washing rocks with hoses and a sediment removal system (Sand Wand™).



Sand Wand™ sediment removal system in use at the Spruce Run Inlet.

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, currently under development, will be

used in support of future water allocation permit applications and System operations.

During 2017, 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, 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 2017, 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 2017, the Authority made certain that personnel were promoted, or hired from outside the Authority into salaries which were lower than the departing incumbent. During FY2017, the Authority filled 16 vacancies and saved \$15,967 in annual salary and \$218,733 in turnover savings through exercising this diligence. Over the past 10 years, the Authority has saved approximately \$450,000 in starting salaries when filling vacancies. A review of the general operations and maintenance budget revealed significant savings, mainly in the areas of maintenance expense, reflecting effective equipment replacement and maintenance programs (130,000) heating fuel and other fuel categories (\$140,000) due in part to a relatively mild winter, and a reduction in professional service expense (\$114,000).

Finally, the Authority deferred a major dredging capital project and used \$1.6 million in resources for operations, further stabilizing the rate in FY2017.

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Letter of Transmittal - Controller

NEW JERSEY WATER SUPPLY AUTHORITY



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

October 12, 2017

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, 2017 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 126 employees, consisting of 99 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, 2017 were \$209,023,402, an increase of 1.69% percent over the previous year's total of \$205,554,407. Net capital assets decreased by \$915,357, or .65 percent, from \$140,382,085 to \$139,466,728.

The total of cash, cash equivalents and investments for the Authority increased \$5,235,916, or 8.77 percent, from \$59,704,187 to \$64,940,103. The increase in this category of asset is associated with normal fluctuations in cash balances and market value adjustments in investments. Current liabilities increased \$2,557,798, or 42.44 percent, from \$6,027,320 to \$8,585,118 due primarily to an increase in the current portion of bonds, notes, and loans payable. Total non-current liabilities increased from \$86,489,391 to \$90,722,401 or 4.89 percent. The increase is primarily due to an increase in the Authority's net pension liability. Total Net Position of the Authority increased \$5,379,447, or 4.74% percent, from \$113,608,747 to \$118,988,194.

Total Operating Revenues increased by \$195,375 or 0.70 percent, from \$27,841,824 to \$28,037,199 due to an increase in the initial contract rate in the Manasquan Reservoir Water Supply System from \$1,057.40 per million gallons to \$1,104.58 per million gallons. Total Operating

Expenses increased \$3,272,452, or 15.28 percent, from \$21,413,585 to \$24,686,037, because of increases in pension related fringe benefit expense. Non-operating Revenues decreased \$1,183,259 or 99.76 percent, from \$1,186,165 to \$2,906 reflecting decreases in investment income. Non-operating expenses decreased \$4,126,778, or 196.38 percent, from \$2,101,399 to (\$2,025,379) due primarily to a decrease 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 2017 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) awarded a Certificate of Achievement for Excellence in Financial Reporting to the New Jersey Water Supply Authority for its Comprehensive Annual Financial Report for the fiscal year ended June 30, 2016. This was the 25th consecutive year that the Authority has achieved this prestigious award.

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. We believe that our current Comprehensive Annual Financial Report continues to meet the Certificate of Achievement Program's requirements and are submitting it to the GFOA to determine its eligibility for another certificate.

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 2017, the Authority supplied water to 32 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 88 percent of total Manasquan System operating revenues.

The total sales base for the Raritan Basin System increased slightly to 182.353 million gallons per day for fiscal year 2017, and the

total sales base for the Manasquan Reservoir System remained the same at 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.



Beth Gates
Executive Director



Susan Buckley
Director, Finance & Administration

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, 2017**



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 (the "Authority"), a component unit of the State of New Jersey, as of and for the year ended June 30, 2017, and the related notes to the financial statements, which collectively comprise the Authority's basic financial statements as listed in the table of contents. The financial statements of the Authority as of and for the year ended June 30, 2016, were audited by other auditors whose report dated October 3, 2016, expressed an unmodified opinion on those financial statements.

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 an opinion on these financial statements based on our audit. We conducted our audit 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 audit 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 opinion.

INDEPENDENT AUDITORS' REPORT (CONTINUED)

Opinion

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, 2017, and the changes in financial position and cash flows thereof for the year then ended in accordance with accounting principles generally accepted in the United States of America.

Other Matters

Required Supplementary Information

Accounting principles generally accepted in the United States of America require that the management's discussion and analysis on pages four through eleven and schedules of proportionate share of PERS net pension liability (NPL) determined as of June 30, 2017, PERS measurement date, contributions and changes in total net pension liability on page thirty-nine 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 audit was conducted for the purpose of forming an opinion on the financial statements as a whole. The other accompanying supplementary information which consists of the combining schedule of net position, combining schedule of revenue, expenses and changes in net position, the schedule of changes in cash and investments – Raritan Basin System, and the schedule of changes in cash and investments – Manasquan Water Supply System are presented for purposes of additional analysis and are not a required part of the basic financial statements.

The supplementary information listed above 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.

INDEPENDENT AUDITORS' REPORT (CONTINUED)

Other Matters (Continued)

Other Supplementary Information (Continued)

In our opinion, the combining schedule of net position, combining schedule of revenue, expenses and changes in net position, the schedule of changes in cash and investments – Raritan Basin System and schedule of changes in cash and investments – Manasquan Water Supply System, are fairly stated, in all material respects, in relation to the basic financial statements as a whole.

Other Reporting Required by *Government Auditing Standards*

In accordance with *Government Auditing Standards*, we have also issued our report dated October 5, 2017, 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 those reports is 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 internal control over financial reporting or on compliance. Those reports are 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 5, 2017

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MANAGEMENT'S DISCUSSION AND ANALYSIS

Year Ended June 30, 2017

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, 2017 and June 30, 2016. Please read it in conjunction with the Authority's basic financial statements and accompanying notes.

FINANCIAL HIGHLIGHTS – FISCAL YEAR 2017

- Operating revenue for fiscal year 2017 was \$28.0 million, an increase over fiscal year 2016, which was the result of a 1.2% decrease in Raritan, and a 5.1% increase in Manasquan sales. In the Raritan Basin System, rates remained at \$253.00 per million gallons, and the sales base remained at 182.339 million gallons per day ("mgd"). In the Manasquan Reservoir System, there was an increase in the rate from \$1,057.40 per million gallons to \$1,104.58 per million gallons. The fiscal year 2017 sales base remained at 19.443mgd.
- Unrestricted cash and cash equivalents for fiscal year 2017 were \$44.4 million, an increase of 7.9% from fiscal year 2016. Income from operations decreased for the Raritan System 87.3% and increased 4.2% for the Manasquan System.
- Total liabilities for fiscal year 2017 were \$99.3 million. This is an increase of 7.3% from fiscal year 2016 and reflects the recognition of the Authority's portion of the State of New Jersey's net unfunded pension liability as required by GASB 68, which is effective for fiscal years beginning after June 15, 2014. The Authority continues to pay down long-term debt in both systems and completed a current refunding of the 2005 Manasquan Water Supply System Revenue Bonds in FY2016.
- Total operating expenses for fiscal year 2017 increased to \$24.7 million, which represents a 15.3% increase from fiscal year 2016. Payroll increased 2.8% because of step increments awarded to union employees and the filling of funded vacancies. Fringe benefits increased 57.7% due largely to an increase in the Authority's portion of the State of New Jersey's pension expense. Direct operations and maintenance expenses increased 3.5% to \$5.2 million.
- Other changes for fiscal year 2017 include the following: non-operating revenue decreased 99.8% to \$2.9 thousand; investment income decreased 102.6% because of the timing of recognition of earnings and associated arbitrage payment made in connection with the 2016 bond refunding. The receipt of grant program reimbursement increased 174.7% from the previous year, and other income decreased because of a one-time repayment to FEMA of funds that had already been reimbursed by the Authority's insurance.
- Non-operating expenses for fiscal year 2017 decreased 196.4% to \$(2.0) million. The interest component of debt service decreased 62.1% with the refunding of the 2005 Manasquan Water Supply System Revenue Bonds and the continued pay-down of the system debt. There was a decrease 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.



MANAGEMENT'S DISCUSSION AND ANALYSIS

Year Ended June 30, 2017

FINANCIAL HIGHLIGHTS – FISCAL YEAR 2016

- Operating revenue for fiscal year 2016 was \$27.8 million, an increase over fiscal year 2015, which was the result of a 6.16% increase in Raritan, and a .34% increase in Manasquan sales. In the Raritan Basin System, there was an increase in the rate from \$246.00 per million gallons to \$253.00 per million gallons, and the sales base increased .04%, from 182.271 million gallons per day (“mgd”) to 182.339mgd. In the Manasquan Reservoir System, there was an increase in the rate from \$1,015.90 per million gallons to \$1,057.40 per million gallons. The fiscal year 2016 sales base decreased 5.43% from 20.560mgd to 19.443mgd.
- Unrestricted cash and cash equivalents for fiscal year 2016 were \$41.1 million, an increase of 10.68% from fiscal year 2015. Income from operations increased for the Raritan System 59.35% and increased 2.32% for the Manasquan System.
- Total liabilities for fiscal year 2016 were \$92.5 million. This is a decrease of 5.99% from fiscal year 2015 and reflects the recognition of the Authority’s portion of the State of New Jersey’s net unfunded pension liability as required by GASB 68, which is effective for fiscal years beginning after June 15, 2014. The Authority continues to pay down long-term debt in both systems and completed a current refunding of the 2005 Manasquan Water Supply System Revenue Bonds in FY2016.
- Total operating expenses for fiscal year 2016 decreased to \$21.4 million, which represents a .17% decrease from fiscal year 2015. Payroll increased 2.03% because of step increments awarded to union employees and the filling of funded vacancies. Direct operations and maintenance expenses decreased 14.06% to \$5.0 million because there were no extraordinary storm related expenses incurred in the fiscal year as there were in fiscal year 2015.
- Other changes for fiscal year 2016 include the following: non-operating revenue increased 123.11% to \$1.2 million; investment income increased 476.4% because of the net impact of adjustments of securities to fair market value and recognizing the balance of bond premiums. The receipt of grant program reimbursement increased 5.6% from the previous year, and other income decreased because of a one-time reimbursement from other state agencies which shared capital project costs in the prior fiscal year.
- Non-operating expenses for fiscal year 2016 decreased 1.84% to \$2.1 million. The interest component of debt service decreased 11.26% with the refunding of the 2005 Manasquan Water Supply System Revenue Bonds and the continued pay-down of the system debt. There was a decrease 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 2 to the basic financial statements.



MANAGEMENT'S DISCUSSION AND ANALYSIS

Year Ended June 30, 2017

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 \$119.0 million as of June 30, 2017. In fiscal year 2017, total assets and deferred outflows increased 4.5% to \$218.6 million, primarily due to an increase in pension related deferred outflow of resources and an increase in cash bank balances. Total liabilities increased 7.3% to \$99.3 million, due to an increase in the Authority's portion of the State of New Jersey's net unfunded pension liability as required by GASB 68. Total net position as of June 30, 2016, was approximately \$113.6 million. Total assets at June 30, 2016 increased .03% to \$209.2 million, and total liabilities decreased 6.0% to \$92.5 million. Total net position as of June 30, 2015, was \$108.1 million. Changes in assets, liabilities and net position at June 30, 2017, 2016 and 2015, are summarized in the following table:



MANAGEMENT'S DISCUSSION AND ANALYSIS

Year Ended June 30, 2017

	2017	2016	2015*	Percentage Change 2017-2016	Percentage Change 2016-2015
Current assets	\$58,452,649	\$53,645,149	\$54,790,017	8.96 %	(2.09) %
Capital assets, net	139,466,728	140,382,085	141,237,393	(0.65)	(0.61)
Other non-current assets	11,104,025	11,527,173	11,824,171	(3.67)	(2.51)
Total assets	209,023,402	205,554,407	207,851,581	1.69	(1.11)
Deferred outflows of resources	9,612,405	3,646,920	1,280,619	163.58	
Total assets and deferred outflows of resources	218,635,807	209,201,327	209,132,200	4.51	0.03
Current liabilities	8,585,118	6,027,320	9,039,888	42.44	(33.33)
Non-current liabilities	29,886,847	21,534,789	18,141,342	38.78	
Non-current portion of bonds, notes and loans payable	60,835,554	64,954,602	71,231,389	(6.34)	(8.81)
Total liabilities	99,307,519	92,516,711	98,412,619	7.34	(5.99)
Deferred inflows of resources	340,094	3,075,869	2,623,839	(88.94)	17.23
Net investment in capital assets	99,631,597	98,890,303	91,638,454	0.75	7.91
Restricted for debt service	7,262,065	3,876,937	9,229,092	87.31	(57.99)
Unrestricted	12,094,532	10,841,507	7,228,196	11.56	49.99
Total net position	\$118,988,194	\$113,608,747	\$108,095,742	4.74	5.10
Total liabilities, deferred inflows of resources, and net position	\$218,635,807	\$209,201,327	\$209,132,200	4.51	0.03

* Certain balances have been reclassified to conform to current year presentation



MANAGEMENT'S DISCUSSION AND ANALYSIS

Year Ended June 30, 2017

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 June 2017 Authority meeting, respectively, based on anticipated operating expenses:

	Rate Effective <u>7/01/2017</u>	Rate Effective <u>7/01/2016</u>	Rate Effective <u>7/01/2016</u>	<u>Percent Change</u>
Raritan Basin System	\$ 336.00/mg	\$ 253.00/mg	\$ 253.00/mg	32.8%
Manasquan Water Supply System				
Initial users	\$1,043.35/mg	\$1,104.58/mg	\$1,057.40/mg	(5.5)%
Delayed water users	\$1,137.76/mg	\$1,238.04/mg	\$1,190.26/mg	(8.1)%

The Authority's total operating revenue for fiscal year 2017 was \$28.0 million, an increase of .7% from fiscal year 2016, due to a 1.2% decrease in Raritan water sales and a 5.1% increase in Manasquan water sales. The Authority's total operating expenses for fiscal year 2017 were \$24.7 million, an increase of 15.3% from fiscal year 2016, mainly because of an increase in pension expense. The Authority's total operating revenue for fiscal year 2016 was \$27.8 million, an increase of 3.9% from fiscal year 2015. The Authority's total operating expenses for fiscal year 2016 were \$21.4 million, a decrease of .2% from fiscal year 2015. The following table summarizes the changes in revenue, expenses and net position between fiscal years 2017, 2016 and 2015:



MANAGEMENT'S DISCUSSION AND ANALYSIS

Year Ended June 30, 2017

	2017	2016	2015	Percentage Change 2017-2016	Percentage Change 2016-2015
Operating revenue:					
Water sales	\$25,394,799	\$25,199,424	\$24,168,432	0.78 %	4.27 %
Reimbursement of operating expenses	2,642,400	2,642,400	2,642,400	-	-
Total operating revenue	28,037,199	27,841,824	26,810,832	0.70	3.85
Non-operating revenue:					
State of New Jersey - Grant Programs	171,310	62,375	59,083	174.65	5.57
Investment income	(25,188)	975,579	169,265	(102.58)	476.36
Rental income	49,606	58,467	58,244	(15.16)	0.38
Other income	(192,822)	89,744	245,063	(314.86)	(63.38)
Total non-operating revenue	2,906	1,186,165	531,655	(99.76)	123.11
Total revenue	28,040,105	29,027,989	27,342,487	(3.40)	6.16
Operating expenses:					
Payroll	7,425,938	7,225,026	7,081,593	2.78	2.03
Operations and maintenance	5,165,250	4,991,547	5,808,377	3.48	(14.06)
Fringe benefits	7,498,085	4,755,520	4,190,610	57.67	13.48
Depreciation	4,596,764	4,441,492	4,368,723	3.50	1.67
Total operating expenses	24,686,037	21,413,585	21,449,303	15.28	(0.17)
Non-operating expenses:					
Interest component of debt service to the State of New Jersey	464,824	1,226,563	1,382,205	(62.10)	(11.26)
Bond discount/insurance premium expense	12,491	158,053	28,343	(92.10)	457.64
Recovery of deferred inflows of resources	(2,502,694)	716,783	730,229	(449.16)	(1.84)
Total non-operating expenses	(2,025,379)	2,101,399	2,140,777	(196.38)	(1.84)
Total Expenses	22,660,658	23,514,984	23,590,080	(3.63)	(0.32)
Change in net position	5,379,447	5,513,005	3,752,407	(2.42)	46.92
Net position, beginning of year, as previously reported	113,608,747	108,095,742	121,682,236	5.10	(11.17)
GASB 68 adjustment			(17,338,901)	-	(100.00)
Net position, beginning of year, as restated	113,608,747	108,095,742	104,343,335	5.10	3.60
Net position, end of year	\$118,988,194	\$113,608,747	\$108,095,742	4.74	5.10

See accompanying notes.

CAPITAL ASSETS AND DEBT ADMINISTRATION

At June 30, 2017, the Authority had a total of \$139,466,728 invested in the Systems that it operates: \$83,660,222 invested in the Raritan Basin System, and \$55,806,506 invested in the Manasquan System. This total amount represents a .7% decrease from last year. At June 30, 2016, the Authority had a total of \$140,382,085 invested in the Systems that it operates: \$83,080,156 invested in the Raritan Basin System, and \$57,301,929 invested in the Manasquan System. This total amount represents a .6% decrease from the prior year.



MANAGEMENT'S DISCUSSION AND ANALYSIS

Year Ended June 30, 2017

The following table summarizes the changes in capital assets, net of depreciation, between fiscal years 2017, 2016 and 2015:

	2017	2016	2015	Percentage Change 2017-2016	Percentage Change 2016-2015
Land and land rights	\$26,444,952	\$26,444,952	\$25,566,853	0.00 %	3.43 %
Dams	47,407,020	48,205,015	49,003,010	(1.66)	(1.63)
Building, structures and improvements	54,876,544	51,714,341	55,038,675	6.11	(6.04)
Machinery and equipment	1,411,333	1,303,991	1,183,611	8.23	10.17
Construction work in progress	9,326,879	12,713,786	10,445,244	-26.64	21.72
Total capital assets	\$139,466,728	\$140,382,085	\$141,237,393	(0.65)	(0.61)

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 2017, 2016 and 2015:

	2017	2016	2015	Percentage Change 2017-2016	Percentage Change 2016-2015
Bonds payable	\$18,802,335	\$19,281,414	\$27,135,913	(2.48) %	(28.95) %
Notes payable	33,566,892	33,566,892	33,647,103	-	(0.24)
Loans payable	12,318,018	13,382,948	14,379,107	(7.96)	(6.93)
Total bonds, notes and loans payable	\$64,687,245	\$66,231,254	\$75,162,123	(2.33)	(11.88)

At year-end, the Authority had \$64,687,245 in bonds, notes and loans principal outstanding, compared to \$66,231,254 at June 30, 2016. This change represents a decrease of 2.3%. The change in bonds, notes and loans principal outstanding at June 30, 2016, compared to the total of \$75,162,123 at June 30, 2015, represents a decrease of 11.9%, 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, 2017

CURRENT AND NEW BUSINESS

During fiscal year 2017, the Authority supplied water to 32 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 will be a slight increase in the sales base of the Raritan Basin System of 182.339 mgd to 182.353 mgd in fiscal year 2018. In addition, during fiscal year 2017, 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 Authority area. During fiscal years 2017 and 2016, three customers accounted for approximately 88% and 86%, respectively, 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 in fiscal year 2018.

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,	
	2017	2016
Assets		
Current assets:		
Unrestricted assets:		
Cash and cash equivalents	\$44,408,430	\$41,144,423
Unbilled sales	1,174,697	1,082,506
Accounts receivable, less allowance for doubtful accounts of \$1,000 at June 30, 2017 and 2016	2,270,753	3,101,106
Interest receivable	170,608	272,443
Prepaid expenses and other current assets	1,000,513	1,012,080
Total unrestricted current assets	<u>49,025,001</u>	<u>46,612,558</u>
Restricted assets:		
Cash equivalents	4,098,163	4,541,572
Investments	5,329,485	2,491,019
Total restricted current assets	<u>9,427,648</u>	<u>7,032,591</u>
Total current assets	<u>58,452,649</u>	<u>53,645,149</u>
Non-current assets:		
Investments	11,104,025	11,527,173
Capital assets, net	139,466,728	140,382,085
Total non-current assets	<u>150,570,753</u>	<u>151,909,258</u>
Deferred outflows of resources - pension related	9,612,405	3,646,920
Total assets and deferred outflows of resources	<u>\$218,635,807</u>	<u>\$209,201,327</u>
Liabilities		
Current liabilities:		
Current portion of bonds, notes and loans payable	\$3,851,691	\$1,276,652
Accounts payable	431,084	445,212
Accrued liabilities	2,136,760	1,149,802
Unearned revenue	2,165,583	3,155,654
Total current liabilities	<u>8,585,118</u>	<u>6,027,320</u>
Non-current liabilities:		
Non-current portion of bonds, notes and loans payable	60,835,554	64,954,602
Net pension liability	29,886,847	21,534,789
Total non-current liabilities	<u>90,722,401</u>	<u>86,489,391</u>
Deferred inflows of resources:		
Cost recovery	(896,366)	1,231,135
Pension related	525,390	1,021,022
Gain on refunding	711,070	823,712
Total deferred inflows of resources	<u>340,094</u>	<u>3,075,869</u>
Net Position		
Net investment in capital assets	99,631,597	98,890,303
Restricted for debt service	7,262,065	3,876,937
Unrestricted	12,094,532	10,841,507
Total net position	<u>118,988,194</u>	<u>113,608,747</u>
Total liabilities, deferred inflows of resources, and net position	<u>\$218,635,807</u>	<u>\$209,201,327</u>

See accompanying notes.

NEW JERSEY WATER SUPPLY AUTHORITY
A COMPONENT UNIT OF THE STATE OF NEW JERSEY
STATEMENTS OF REVENUE, EXPENSES AND CHANGES IN NET POSITION

	Years Ended June 30,	
	2017	2016
Operating revenue:		
Water sales	\$25,394,799	\$25,199,424
Reimbursement of operating expenses	2,642,400	2,642,400
Total operating revenue	<u>28,037,199</u>	<u>27,841,824</u>
Operating expenses:		
Payroll	7,425,938	7,225,026
Operations and maintenance	5,165,250	4,991,547
Fringe benefits	7,498,085	4,755,520
Depreciation	4,596,764	4,441,492
Total operating expenses	<u>24,686,037</u>	<u>21,413,585</u>
Income from operations	3,351,162	6,428,239
Non-operating revenue:		
State of New Jersey - Grant Programs	171,310	62,375
Investment income	(25,188)	975,579
Rental income	49,606	58,467
Other income	(192,822)	89,744
Total non-operating revenue	<u>2,906</u>	<u>1,186,165</u>
Non-operating expenses:		
Interest component of debt service to the State of New Jersey	464,824	1,226,563
Bond discount/insurance premium expense	12,491	158,053
Recovery of deferred inflows of resources	(2,502,694)	716,783
Total non-operating expenses	<u>(2,025,379)</u>	<u>2,101,399</u>
Change in net position	5,379,447	5,513,005
Net position, beginning of year	113,608,747	108,095,742
Net position, end of year	<u>\$118,988,194</u>	<u>\$113,608,747</u>

See accompanying notes.

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

	Years Ended June 30,	
	2017	2016
Cash flows from operating activities		
Cash received from water sales	\$26,150,080	\$25,038,797
Cash received from reimbursable expenses	2,641,113	2,648,442
Cash received from rental income	38,126	35,673
Cash paid to or on behalf of employees	(12,681,123)	(11,642,062)
Cash paid to suppliers	(5,202,949)	(5,064,598)
Net cash provided by operating activities	10,945,247	11,016,252
Cash flows from noncapital financing activities		
Cash received for grant programs	171,310	62,375
Net cash provided by non-capital financing activities	171,310	62,375
Cash flows from capital and related financing activities		
Proceeds from borrowing	-	23,596,826
Gain on refunding	-	823,712
Principal paid on bonds, notes and loans	(2,302,554)	(26,653,829)
Interest paid on bonds, notes and loans	(314,752)	(1,646,829)
Acquisition and construction of capital assets	(3,661,204)	(3,729,938)
Proceeds from sale of capital assets	321,222	87,160
Net cash used in capital and related financing activities	(5,957,288)	(7,522,898)
Cash flows from investing activities		
Sale of investment securities	7,313,765	3,005,598
Purchase of investment securities	(10,470,306)	(3,624,715)
Interest received on investments	76,647	946,471
Premium on matured investments	741,223	128,684
Net cash provided by investing activities	(2,338,671)	456,038
Net increase in cash and cash equivalents	2,820,598	4,011,767
Cash and cash equivalents, beginning of year	45,685,995	41,674,228
Cash and cash equivalents, end of year	\$48,506,593	\$45,685,995
Reconciliation of income from operations to net cash provided by operating activities:		
Income from operations	3,351,162	6,428,239
Adjustments to reconcile income from operations to net cash provided by operating activities:		
Non-cash items expensed to operations and maintenance	49,606	58,467
Cash received for operating activity included in other income	(514,044)	2,584
Depreciation	4,596,764	4,441,492
Increase (decrease) in cash from:		
Unbilled sales	(92,191)	14,499
Accounts receivable	839,893	(219,644)
Prepaid expenses and other current assets	11,567	14,483
Accounts payable	(43,871)	(40,046)
Accrued liabilities	(13,302)	31,644
Accrued payroll and taxes	868,751	(30,063)
Net pension liability	1,890,912	314,597
Net cash provided by operating activities	\$10,945,247	\$11,016,252
Non-cash investing activities		
Decrease in fair value of investments	(\$369,015)	(\$277,520)

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 Governmental Accounting Standards Board ("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 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

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

NOTES TO FINANCIAL STATEMENTS

B. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)

Basis of Accounting (Continued)

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

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 2017 two customers accounted for approximately 84% of total Raritan Basin System accounts receivable and five customers accounted for approximately 89% of total Manasquan System accounts receivable. During fiscal year 2016, two customers accounted for approximately 87% of total Raritan Basin System accounts receivable, and five customers accounted for approximately 87% 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
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NOTES TO FINANCIAL STATEMENTS

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, 2017 and 2016, were determined as follows:

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NOTES TO FINANCIAL STATEMENTS

B. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)

Raritan Basin System	2017	2016
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	(19,963)	27,016
Accrued sick pay	(391)	186,576
	<u>814,855</u>	<u>1,048,801</u>
Cost included in rate model:		
Debt principal repayment	-	-
	<u>814,855</u>	<u>1,048,801</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	(1,846)	(2,006)
Accrued sick pay	3,638	14,337
	<u>1,542,646</u>	<u>1,553,185</u>
Cost included in rate model:		
Debt principal repayment	(230,000)	(2,942,853)
	<u>1,312,646</u>	<u>(1,389,668)</u>
 Total Raritan Basin and Manasquan	 2,127,501	 (340,867)
Balance, beginning of year	(1,231,135)	(890,268)
Balance, end of year	<u>\$896,366</u>	<u>(\$1,231,135)</u>

As shown in the statements of revenue, expenses and changes in net position for the years ended June 30, 2017 and 2016, respectively, deferred inflow of resources credit of \$2,502,694 and a debit balance of \$716,783 includes a credit balance of \$356,631, and a debit balance of \$149,993 of Manasquan Water Treatment Plant deferred revenue, which is not part of the rate model, and does not include a debit balance of \$18,562 pay and a credit balance of \$225,923 of accrued vacation and sick pay.

Deferred Inflows/Outflow of Resource – 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.

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NOTES TO FINANCIAL STATEMENTS

B. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)

Deferred Inflows and Outflows of Resources (Continued)

Deferred Inflows/Outflow of Resources - Pensions

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 pension plan investments, changes in the State's proportion of expenses and liabilities to the pension as a whole, differences between the Authority's pension 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 statement of net position. These excess costs or billings will be recovered or recognized in future periods. As of June 30, 2017 and 2016, unearned revenue amounting to \$1,690,964 and \$2,047,595, respectively, was determined as follows:

	2017	2016
Reimbursement of operating expenses	\$2,647,704	\$2,646,563
Operating expenses	3,004,335	2,496,570
Unearned revenue	(356,631)	149,993
Balance, beginning of year	2,047,595	1,897,602
Balance, end of year	<u>\$1,690,964</u>	<u>\$2,047,595</u>

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, 2017 and 2016, the amount included in unearned revenue was \$474,619, and \$1,108,059, respectively.

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NOTES TO FINANCIAL STATEMENTS

B. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)

Accounting for Watershed Protection Program

For the fiscal years ended June 30, 2017 and 2016, the Authority received \$79,187 and \$113,483, respectively, from the NJDEP 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 NJDEP 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, 2017, all the funds received had been recognized as revenue.

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

On July 1, 2007, the Authority implemented GASB Number 45, which covers accounting and financial reporting requirements for government employers that provide post-employment benefits other than pensions. Since the Authority participates in the State’s multiple-employer cost-sharing plan (Public Employees’ Retirement System (“PERS”), the Authority’s portion of this liability and cost is calculated and recorded at the State level and included in the State’s Comprehensive Annual Financial Report. The Authority records OPEB expense based on billings from the State PERS. Required financial statement disclosures are included in Note F of these financial statements.

C. CAPITAL ASSETS

Capital assets activity for the years ended June 30, 2017 and 2016, was as follows:

	2017			2017
	Beginning			Ending
	Balance	Additions	Retirements	Balance
Capital assets not being depreciated:				
Land	\$ 26,444,952	\$ -	\$ -	\$ 26,444,952
Construction work in progress	12,713,786	3,212,708	(6,599,615)	9,326,879
Total capital assets not being depreciated	39,158,738	3,212,708	(6,599,615)	35,771,831
Capital assets being depreciated:				
Dams	77,369,160	-	-	77,369,160
Building, structures and improvements	133,475,474	6,621,815	(2,964)	140,094,325
D & R canal dredging	21,160,274	-	-	21,160,274
Machinery and equipment	6,391,874	452,986	(400,953)	6,443,907
Total capital assets being depreciated	238,396,782	7,074,801	(403,917)	245,067,666
Less accumulated depreciation for:				
Dams	(29,164,145)	(797,995)	-	(29,962,140)
Building, structures and improvements	(81,761,134)	(3,459,612)	2,964	(85,217,782)
D & R canal dredging	(21,160,273)	-	-	(21,160,273)
Machinery and equipment	(5,087,883)	(339,157)	394,466	(5,032,574)
Total accumulated depreciation	(137,173,435)	(4,596,764)	397,430	(141,372,769)
Total capital assets being depreciated, net	101,223,347	2,478,037	(6,487)	103,694,897
Total capital assets	\$ 140,382,085	\$ 5,690,745	\$ (6,606,102)	\$ 139,466,728

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NOTES TO FINANCIAL STATEMENTS

C. CAPITAL ASSETS (CONTINUED)

	2016			2016
	Beginning		Retirements	Ending
	Balance	Additions		Balance
Capital assets not being depreciated:				
Land	\$ 25,566,853	\$ 878,099	\$ -	\$ 26,444,952
Construction work in progress	10,445,244	2,268,542	-	12,713,786
Total capital assets not being depreciated	36,012,097	3,146,641	-	39,158,738
Capital assets being depreciated:				
Dams	77,369,160	-	-	77,369,160
Building, structures and improvements	133,475,474	-	-	133,475,474
D & R canal dredging	21,160,274	-	-	21,160,274
Machinery and equipment	6,320,308	439,543	(367,977)	6,391,874
Total capital assets being depreciated	238,325,216	439,543	(367,977)	238,396,782
Less accumulated depreciation for:				
Dams	(28,366,150)	(797,995)	-	(29,164,145)
Building, structures and improvements	(78,436,800)	(3,324,334)	-	(81,761,134)
D & R canal dredging	(21,160,273)	-	-	(21,160,273)
Machinery and equipment	(5,136,697)	(319,163)	367,977	(5,087,883)
Total accumulated depreciation	(133,099,920)	(4,441,492)	367,977	(137,173,435)
Total capital assets being depreciated, net	105,225,296	(4,001,949)	-	101,223,347
Total capital assets	\$ 141,237,393	\$ (855,308)	\$ -	\$ 140,382,085

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, 2017 and 2016, the Authority's bank balance was \$5,490,531 and \$4,038,014, respectively, of which \$250,000 was covered through the FDIC. The remaining balance of \$5,240,531 and \$3,788,014 as of June 30, 2017 and 2016, respectively, was collateralized, and the cash balance per the statement of net position is shown exclusive of outstanding checks totaling \$102,349 and \$159,916, respectively. The statement of net position amount includes petty cash totaling \$300 as of June 30, 2017 and 2016, respectively.

**NEW JERSEY WATER SUPPLY AUTHORITY
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NOTES TO FINANCIAL STATEMENTS

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 \$5,490,531 and \$4,038,014 as of June 30, 2017 and 2016, respectively, was exposed to custodial credit risk as follows:

	<u>2017</u>	<u>2016</u>
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; and Level 3 inputs are significant unobservable inputs.

As of June 30, 2017, the Authority had the following recurring fair value measurements using quoted market prices for U.S. Treasuries (Level 1 inputs) and 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
U.S. Treasuries	Level 1	\$48,447,596	\$48,447,596	\$ -
NJ G/O Bonds	Level 2	11,274,633	1,039,588	10,235,045
Total		\$59,722,229	\$49,487,184	\$10,235,045

As of June 30, 2016, the Authority had the following recurring fair value measurements using quoted market prices for U.S. Treasuries (Level 1 inputs) and 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:

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NOTES TO FINANCIAL STATEMENTS

D. CASH, CASH EQUIVALENTS AND INVESTMENTS (CONTINUED)

Investment and Cash Equivalent Type	Valuation Inputs Level	Fair Value	Investment Maturities (In Years)	
			Less than 1	1-5
U.S. Treasuries	Level 1	\$44,298,616	\$44,298,616	\$ -
NJ G/O Bonds	Level 2	11,799,616	4,001,505	7,798,111
Total		\$56,098,232	\$48,300,121	\$7,798,111

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 PNC Bank and 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, 2017, all deposits were collateralized.

4. Investment Income

The following comprises investment income for the years ended June 30, 2017 and 2016, respectively:

	2017	2016
Interest earned on bank accounts and certificates of deposit	(\$185,717)	\$661,886
Interest earned on securities	529,544	591,213
Decrease in fair value of securities	(369,015)	(277,520)
	<u>(\$25,188)</u>	<u>\$975,579</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,

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NOTES TO FINANCIAL STATEMENTS

E. BONDS, NOTES AND LOANS PAYABLE (CONTINUED)

Manasquan System (Continued)

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

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 5.93% and 6.24%, respectively, and are collateralized by the property and revenues of the Manasquan System.

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, 2017 and 2016.

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, 2017 and 2016, the State Loan Notes and Completion Notes are summarized as follows:

State Loan Notes	2017	2016
Current Notes	\$ -	\$ -
Deferred Notes	30,365,115	30,365,115
Completion Notes		
Current Notes	\$ -	\$ -
Deferred Notes	3,201,777	3,201,777
	<u>\$33,566,892</u>	<u>\$33,566,892</u>

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NOTES TO FINANCIAL STATEMENTS

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 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, 2017 and 2016, the debt service component of the rate generated \$4,733,869 and \$4,746,838, respectively.

The Revenue Bonds, Series 2005, had a principal balance 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.

For the years ended June 30, 2017 and 2016, interest expense on the 2005 Bonds amounted to \$0 and \$1,029,827, respectively, and the related interest income earned on the restricted investments amounted to \$0 and \$246, respectively.

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 Notes.

The Refunding Bonds, Series 2016, have a principal balance of \$17,230,000 at June 30, 2017, carry a bond yield of 1.59%, and mature in incremental annual principal amounts through 2031. Principal maturities for the year ending June 30, 2018, are \$2,805,000.

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. For the years ended June 30, 2017 and 2016, the debt service component of the rate generated 4,733,869 and \$4,746,838, respectively.

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NOTES TO FINANCIAL STATEMENTS

E. BONDS, NOTES AND LOANS PAYABLE (CONTINUED)

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

For the years ended June 30, 2017 and 2016, interest expense on the 2016 Bonds amounted to \$617,736 and \$123,390, respectively, and the related interest income earned on the restricted investments account amounted to \$2.70 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 New Jersey Water Supply Authority, a Component Unit of the State of New Jersey, 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, 2017:

NJEIFP Series	Date of Issuance	State Revolving Fund Original Principal	Percent	Trust Original Principal	Percent	Blended Interest Rate	Outstanding Principal	Maturity
2012B	05/03/2012	\$2,312,250	76%	\$715,000	24%	.80%	\$2,287,041	08/01/2031

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NOTES TO FINANCIAL STATEMENTS

E. BONDS, NOTES AND LOANS PAYABLE (CONTINUED)

Raritan System

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

The New Jersey Water Supply Authority, a Component Unit of the State of New Jersey, obtained loans from the New Jersey Environmental Infrastructure Trust (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.

The following table summarizes the NJEIFP loans outstanding for the Raritan Basin System, as of June 30, 2017:

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%	\$331,551	8/1/2023
2004A	11/4/2004	1,030,000	75%	350,000	25%	1.31%	\$599,472	8/1/2024
2005A	11/10/2005	2,940,974	75%	1,050,000	25%	1.25%	\$1,457,052	8/1/2025
2006A	11/9/2006	2,099,363	75%	745,000	25%	1.26%	\$1,483,043	8/1/2026
2007A	11/8/2007	1,740,563	75%	620,000	25%	1.06%	\$1,386,582	8/1/2027
2008A	11/6/2008	1,152,000	64%	660,000	36%	1.74%	\$1,190,316	8/1/2028
2010A	3/10/2010	300,493	51%	290,000	49%	1.69%	\$396,965	8/1/2029
2010B	12/2/2010	1,064,338	52%	990,000	48%	1.87%	\$1,548,667	8/1/2030
2012A	5/3/2012	1,501,455	76%	465,000	24%	0.65%	\$1,519,729	8/1/2031
Total		\$12,456,205		\$5,405,000			\$9,913,377	

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NOTES TO FINANCIAL STATEMENTS

E. BONDS, NOTES AND LOANS PAYABLE (CONTINUED)

The following table summarizes the changes in bonds, notes and loans payable between fiscal years 2017, 2016 and 2015:

	Fiscal Year 2016	Less Payments, Net of Amortization	Debt Issued	Fiscal Year 2017	Due Within One Year
Bonds payable	\$ 19,281,414	\$ 479,079	\$ -	\$ 18,802,335	\$ 2,805,000
Notes payable	33,566,892	-	-	33,566,892	-
Loans payable	13,382,948	1,064,931	-	12,318,018	1,046,691
Total	\$ 66,231,254	\$ 1,544,010	\$ -	\$ 64,687,245	\$ 3,851,691

	Fiscal Year 2015	Less Payments, Net of Amortization	Debt Issued	Fiscal Year 2016	Due Within One Year
Bonds payable	\$ 27,135,913	\$ 25,314,499	\$ 17,460,000	\$ 19,281,414	\$ 230,000
Notes payable	33,647,103	80,211	-	33,566,892	-
Loans payable	14,379,107	996,159	-	13,382,948	1,046,652
Total	\$ 75,162,123	\$ 26,390,869	\$ 17,460,000	\$ 66,231,254	\$ 1,276,652

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

Year Ending June 30,	Raritan Basin System	Manasquan Reservoir System	Notes Payable Manasquan System	Manasquan System Revenue Bonds Series 2016	Totals
2018	\$ 1,064,348	\$ 175,372	\$ -	\$ 3,454,588	\$ 4,694,308
2019	1,056,425	174,172	-	3,443,937	4,674,534
2020	1,052,871	172,822	-	3,445,962	4,671,655
2021	1,070,857	176,197	-	3,446,338	4,693,392
2022	1,043,333	174,447	-	582,213	1,799,993
2023-2027	4,211,973	868,610	-	2,892,188	7,972,771
2028-2032	1,489,189	779,870	-	2,857,931	5,126,990
Deferred Portion	-	-	33,566,892	-	33,566,892
Subtotal	10,988,996	2,521,490	33,566,892	20,123,157	67,200,535
Less amounts representing interest	1,075,619	234,450	-	2,893,156	4,203,225
Plus unamortized bond premium	76,230	41,370	-	1,572,335	1,689,935
Subtotal	9,989,607	2,328,410	33,566,892	18,802,336	64,687,245
Less:					
Current principal portion	899,119	147,572	-	2,805,000	3,851,691
Total	\$ 9,090,488	\$ 2,180,838	\$ 33,566,892	\$ 15,997,336	\$ 60,835,554

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

NOTES TO FINANCIAL STATEMENTS

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 PERS. For additional information about PERS, please refer to the Division's Comprehensive Annual Financial Report which can be found at www.state.nj.us/treasury/pensions/annrpts.shtml.

Following is the total of the local portion of the Systems 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, 2016.

Net Pension Liabilities	\$29,886,847
Deferred Outflow of Resources	8,715,929
Deferred Inflow of Resources	525,390
Pension Expense	2,885,084
Contributions Made	896,476

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.

**NEW JERSEY WATER SUPPLY AUTHORITY
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NOTES TO FINANCIAL STATEMENTS

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 7.34% 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 www.state.nj.us/treasury/pensions/annrpts.shtml.

The payroll for employees covered by PERS for the years ended June 30, 2017, 2016 and 2015, was \$7,002,687, \$6,949,632, and \$6,808,193, respectively. The Authority's total payroll for the years ended June 30, 2017, 2016, and 2015 was \$7,425,938, \$7,225,026, and \$7,081,593, respectively. The actuarial contribution requirements and the contributions made for the years ended June 30, 2017, 2016 and 2015, were \$1,400,670, \$1,312,670, and \$1,270,306, respectively, which consisted of \$896,476, \$823,798, and \$798,757 from the Authority, and \$504,194 and \$488,872 and \$471,549 from the employees, respectively. As required by PERS, the employer and employee contributions represented 12.80% and 7.20% of covered payroll for the year ended June 30, 2017, 11.85% and 7.06% of covered payroll for the year ended June 30, 2016, 11.73% and 6.92% of covered payroll for the year ended June 30, 2015, and 11.20% and 6.78% of covered payroll for the year ended June 30, 2014, respectively. Contributions were made in accordance with the actuarial funding requirement.

Assumptions

The total pension liability for June 30, 2016, measurement date was determined by an actuarial valuation as of July 1, 2015. The pension liability was rolled forward to June 30, 2016. The actuarial valuation used an inflation rate of 3.08%, projected salary increases through 2026 of 1.65% to 4.15% based on age, and thereafter 2.65% to 5.15% based on age and an investment rate of return of 7.65%.

The discount rate used to measure the total pension liability was 3.98% and 4.90% as of June 30, 2016 and 2015, respectively. The projection of cash flows used to determine the discount rate assumed that contributions from plan members will be made at the current member contribution rates and that contributions from employers will be made based on the contribution rate in the most recent fiscal year. The State employer contributed 30% of the actuarially

**NEW JERSEY WATER SUPPLY AUTHORITY
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NOTES TO FINANCIAL STATEMENTS

F. EMPLOYEE BENEFITS (CONTINUED)

determined contributions and the local employers contributed 100% of their actuarially determined contributions. Based on those assumptions, the plan's fiduciary net position was projected to be available to make projected future benefit payments of current plan members through 2034. Therefore, the long-term expected rate of return on plan investments was applied to projected benefit payments through 2034, 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 www.state.nj.us/treasury/pensions/annrpts.shtml.

The following presents the Authority's proportionate share of the PERS net pension liability calculated using the discount rate of 3.98% and 4.90% as of June 30, 2016 and 2015, 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 (2.98%)	At current discount rate (3.98%)	At 1% increase (4.98%)
2016	<u>\$36,622,842</u>	<u>\$29,886,847</u>	<u>\$24,325,698</u>
	At 1% decrease (3.90%)	At current discount rate (4.90%)	At 1% increase (5.90%)
2015	<u>\$26,733,985</u>	<u>\$21,534,789</u>	<u>\$17,129,785</u>

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 actuarial 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.

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NOTES TO FINANCIAL STATEMENTS

F. EMPLOYEE BENEFITS (CONTINUED)

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 allocations are applied to amounts presented in the schedules of pension amount by employer. The allocation percentages for each group as of June 30, 2016 and 2015, are based on the ratio of each employer's contributions to total employer contributions of the group for the fiscal years ended June 30, 2016 and 2015, 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, excluding that attributable to employer-paid member contributions. The employer allocation percentages presented in the PERS schedule of employer allocations and applied to amounts presented in the PERS schedule of pension amounts by employer are based on the ratio of the contributions as an individual employer to total contributions to the PERS during the years ended June 30, 2016 and 2015. The Authority's proportionate share of the collective net pension liability as of June 30, 2016 and 2015, was .1009% and .0958%, respectively.

At June 30, 2017, the amount recognized as the Authority's proportionate share of the PERS net pension liability was \$29,886,847. At June 30, 2016, the amount recognized as the Authority's proportionate share of the PERS net pension liability was \$21,534,789. For the years ended June 30, 2017 and 2016, the Authority recognized PERS pension expense of \$3,875,761 and \$1,138,400, respectively. At June 30, 2017, deferred outflows of resources and deferred inflows of resources related to the PERS pension are as follows:

	June 30, 2017		June 30, 2016	
	Deferred Outflows of Resources	Deferred Inflows of Resources	Deferred Outflows of Resources	Deferred Inflows of Resources
Net Difference Between Expected and Actual Experience	\$ 555,805	\$ -	\$ 513,147	\$ -
Change of Assumptions	6,190,958	-	2,309,975	-
Net Difference Between Projected and Actual Investment Earnings	1,139,613	-	-	345,835
Net Change in Proportions	829,553	525,390	-	675,187
Total Contributions and Proportionate Share of Contributions after the Measurement Date	896,476	-	823,798	-
	<u>\$ 9,612,405</u>	<u>\$ 525,390</u>	<u>\$ 3,646,920</u>	<u>\$ 1,021,022</u>

**NEW JERSEY WATER SUPPLY AUTHORITY
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NOTES TO FINANCIAL STATEMENTS

F. EMPLOYEE BENEFITS (CONTINUED)

The Authority recognized the \$896,476 and the \$823,798 reported as deferred outflows of resources resulting from pension contributions after the measurement date as a reduction of the PERS net pension liability in the year ended June 30, 2017. 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:

Year Ending June 30	Amortization
2018	\$ 1,807,270
2019	1,807,270
2020	2,088,754
2021	1,833,726
2022	<u>653,537</u>
Total	<u>\$ 8,190,557</u>

Post-Retirement Health Care Benefits

The Authority provides continued health care benefits to employees retiring after 25 years of service and their eligible dependents. Benefits, contributions, funding and the manner of administration are determined by the State Legislature. The Authority's portion of this liability and cost is included in the State's comprehensive annual financial report on an annual basis. As such, the liability for Authority employees is covered under the State plan. The Division of Pensions within the New Jersey Treasury Department administers the funds. Monthly, the Division of Pensions charges the Authority for its contribution. The total number of employees receiving benefits was 56, 55, and 53 at June 30, 2017, 2016 and 2015, respectively. Total cost for these post-retirement benefits, included in fringe benefits, approximated \$978,578, \$914,743, and \$875,644 for the years ended June 30, 2017, 2016 and 2015, respectively.

G. MAJOR WATER CUSTOMERS

During fiscal years 2017 and 2016, the Authority supplied water to approximately 32 customers of the Raritan Basin System and 13 customers of the Manasquan System.

During fiscal years 2017 and 2016, two customers accounted for approximately 84% of total Raritan Basin System operating revenue. During fiscal years 2017 and 2016, three customers accounted for approximately 88% and 86%, respectively, of total Manasquan System operating revenue.

**NEW JERSEY WATER SUPPLY AUTHORITY
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NOTES TO FINANCIAL STATEMENTS

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. RECENT ACCOUNTING STANDARDS

The Authority has adopted GASB Statement No. 73, *Accounting and Financial Reporting for Pensions and Related Assets That Are Not Within the Scope of GASB Statement 68, and Amendments to Certain Provisions of GASB Statements 67 and 68* ("GASB 73"). Statement No. 73 requires the Authority to present a 10-year schedule of changes in the total net pension liability. The schedule of changes in the total net pension liability is presented in Required Supplementary Information of these financial statements.

In June 2015, GASB issued Statement No 75, *Financial Reporting for Postemployment Benefit Plans Other Than Pensions* ("GASB 75"). This Statement establishes standards of accounting and financial reporting for defined benefit OPEB and defined contribution OPEB that are provided to employees of state and local government employers through OPEB plans that are administered through trusts or equivalent arrangements. This Statement also establishes standards of accounting and financial reporting for defined benefit OPEB and defined contribution OPEB that are provided to the employees of state and local governmental employers through OPEB plans that are not administered through trusts or equivalent arrangements. The provisions of this Statement are effective for financial statements in periods beginning after June 15, 2017. This Statement will become effective for the June 30, 2018 year-end. The Authority has not yet completed the process of evaluating the impact of GASB 75 on its financial statements.

In March 2016, GASB issued Statement No. 82, *Pension Issues* ("GASB 82"). This Statement requires the presentation of covered payroll, defined as payroll on which contributions to a pension plan are based, and ratios that use that measure, in schedules of required supplementary information. The Statement also addresses issues regarding the selection of assumptions and the treatment of deviations from the guidance in an Actuarial Standard of Practice for financial reporting purposes, and the classification of payments made by employers to satisfy employee (plan member) contribution requirements. The provisions of this Statement are effective for financial statements in periods beginning after June 15, 2016. The Authority has implemented GASB 82 during this fiscal year.

**NEW JERSEY WATER SUPPLY AUTHORITY
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NOTES TO FINANCIAL STATEMENTS

J. INSURANCE REIMBURSEMENTS

There are no insurance or FEMA reimbursements included in "Other income" on the statement of revenues, expenses and changes in net position for the years ended June 30, 2017 and 2016.

K. 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.

L. 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:

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NOTES TO FINANCIAL STATEMENTS

L. INFORMATION BY BUSINESS SEGMENT (CONTINUED)

	Years Ended			
	June 30, 2017		June 30, 2016	
	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	\$34,538,852	\$14,652,005	\$33,539,086	\$13,242,472
Restricted cash	1,969,162	2,129,001	1,872,225	2,669,347
Other restricted assets	-	5,329,486	-	2,491,019
Capital assets	83,660,222	55,806,506	83,080,156	57,301,929
Other non-current assets	10,237,004	867,021	10,615,449	911,724
Deferred outflows of resources	7,272,745	2,339,660	2,808,128	838,792
Total assets and deferred outflows of resources	<u>\$137,677,985</u>	<u>\$81,123,679</u>	<u>\$131,915,044</u>	<u>\$77,455,283</u>
Liabilities and deferred inflows of resources:				
Current liabilities	\$2,618,463	\$6,132,511	\$2,067,051	\$4,129,269
Non-current liabilities	31,702,871	59,019,530	26,586,885	59,902,506
Deferred inflows of resources	13,782,179	(13,442,085)	14,985,711	(11,909,842)
Total liabilities and deferred inflows of resources	48,103,513	51,709,956	43,639,647	52,121,933
Net Position:				
Net investment in capital assets	73,670,615	25,960,982	72,175,978	26,714,325
Restricted for debt service	1,969,162	5,292,903	1,872,225	2,004,712
Unrestricted	13,934,695	(1,840,163)	14,227,194	(3,385,687)
Total net position	<u>89,574,472</u>	<u>29,413,722</u>	<u>88,275,397</u>	<u>25,333,350</u>
Total liabilities, deferred inflows of resources, and net position	<u>\$137,677,985</u>	<u>\$81,123,678</u>	<u>\$131,915,044</u>	<u>\$77,455,283</u>

**NEW JERSEY WATER SUPPLY AUTHORITY
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NOTES TO FINANCIAL STATEMENTS

L. INFORMATION BY BUSINESS SEGMENT (CONTINUED)

	Years Ended			
	June 30, 2017		June 30, 2016	
	Raritan Basin System	Manasquan Reservoir System	Raritan Basin System	Manasquan Reservoir System
Condensed statement of revenue, expenses and changes in net position				
Total operating revenues	\$17,088,270	\$8,306,529	\$17,298,270	\$7,901,154
Operating expenses	13,913,539	3,171,399	11,442,968	3,032,555
Depreciation	2,782,788	1,813,976	2,758,921	1,682,571
Operating income	391,943	3,321,154	3,096,381	3,186,028
Non-operating revenues	228,731	(231,129)	563,547	618,455
Non-operating (recovery) expenses	(678,401)	(990,347)	(656,282)	2,607,688
Change in net position	1,299,075	4,080,372	4,316,210	1,196,795
Net position, beginning of the year	88,275,397	25,333,350	83,959,187	24,136,555
Net position, end of year	<u>\$89,574,472</u>	<u>\$29,413,722</u>	<u>\$88,275,397</u>	<u>\$25,333,350</u>
Condensed statement of cash flows				
Net cash provided by:				
Operating activities	\$5,247,519	\$5,694,584	\$5,988,367	\$5,027,885
Non-capital financing activities	171,310	-	62,375	-
Capital and related financing activities	(4,166,916)	(1,787,228)	(3,578,112)	(3,944,786)
Investing activities	685,245	(3,023,916)	583,415	(127,377)
Net increase in cash and cash equivalents	1,937,158	883,440	3,056,045	955,722
Beginning cash and cash equivalent balances	31,971,874	13,714,121	28,915,829	12,758,399
Ending cash and cash equivalent balances	<u>\$33,909,032</u>	<u>\$14,597,561</u>	<u>\$31,971,874</u>	<u>\$13,714,121</u>

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, 2017, PERS MEASUREMENT DATE**

Fiscal Year	Authority's Proportion	Authority's Proportion 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
2017	0.10%	\$29,886,847	\$7,002,687	427%	40.14%
2016	0.10%	\$21,534,789	\$6,949,632	310%	47.94%
2015	0.10%	\$18,141,342	\$6,808,193	266%	52.08%

SCHEDULE OF CONTRIBUTIONS

Fiscal Year	Required Contribution	Contributions Recognized by PERS	Contribution Deficiency (Excess)	Covered Payroll	Contributions as a % of Covered Payroll
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
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	\$0	\$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 three years of pension 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, 2017

	Raritan Basin System	Manasquan Reservoir System	Elimination Entries	Combined Total
Assets				
Current assets:				
Unrestricted assets:				
Cash and cash equivalents	\$31,939,870	\$12,468,560	\$ -	\$44,408,430
Unbilled sales	1,174,697	-	-	1,174,697
Accounts receivable, less allowance for doubtful accounts of \$1,000 at June 30, 2017	471,715	1,964,894	(165,856)	2,270,753
Interest receivable	163,285	7,323	-	170,608
Prepaid expenses and other current assets	789,285	211,228	-	1,000,513
Total unrestricted assets	<u>34,538,852</u>	<u>14,652,005</u>	<u>(165,856)</u>	<u>49,025,001</u>
Restricted assets:				
Cash equivalents	1,969,162	2,129,001	-	4,098,163
Investments	-	5,329,485	-	5,329,485
Total restricted assets	<u>1,969,162</u>	<u>7,458,486</u>	<u>-</u>	<u>9,427,648</u>
Total current assets	<u>36,508,014</u>	<u>22,110,491</u>	<u>(165,856)</u>	<u>58,452,649</u>
Non-current assets:				
Investments	10,237,004	867,021	-	11,104,025
Capital assets net of accumulated depreciation of \$141,372,769 at June 30, 2017	83,660,222	55,806,506	-	139,466,728
Total non-current assets	<u>93,897,226</u>	<u>56,673,527</u>	<u>-</u>	<u>150,570,753</u>
Deferred outflows of resources	7,272,745	2,339,660	-	9,612,405
Total assets and deferred outflows of resources	<u>\$137,677,985</u>	<u>\$81,123,678</u>	<u>(\$165,856)</u>	<u>\$218,635,807</u>
Liabilities				
Current liabilities:				
Current portion of bonds, notes and loans payable	\$899,119	\$2,952,572	\$ -	\$3,851,691
Accounts payable	277,022	319,918	(165,856)	431,084
Accrued liabilities	1,442,322	694,438	-	2,136,760
Unearned revenue	-	2,165,583	-	2,165,583
Total current liabilities	<u>2,618,463</u>	<u>6,132,511</u>	<u>(165,856)</u>	<u>8,585,118</u>
Non-current liabilities:				
Non-current portion of bonds, notes and loans payable	9,090,488	51,745,066	-	60,835,554
Net pension liability	22,612,383	7,274,464	-	29,886,847
Total non-current liabilities	<u>31,702,871</u>	<u>59,019,530</u>	<u>-</u>	<u>90,722,401</u>
Deferred inflows of resources				
Cost recovery	13,384,669	(14,281,035)	-	(896,366)
Pension related	397,510	127,880	-	525,390
Gain on refunding	-	711,070	-	711,070
Total deferred inflow of resources	<u>13,782,179</u>	<u>(13,442,085)</u>	<u>-</u>	<u>340,094</u>
Net position				
Net investment in capital assets	73,670,615	25,960,982	-	99,631,597
Restricted for debt service	1,969,162	5,292,903	-	7,262,065
Unrestricted	13,934,695	(1,840,163)	-	12,094,532
Total net position	<u>89,574,472</u>	<u>29,413,722</u>	<u>-</u>	<u>118,988,194</u>
Total liabilities, deferred inflows of resources, and net position	<u>\$137,677,985</u>	<u>\$81,123,678</u>	<u>(\$165,856)</u>	<u>\$218,635,807</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, 2017

	Raritan Basin System	Manasquan Reservoir System	Manasquan Water Treatment Plant	Combined Total
Operating revenues:				
Water sales	\$17,088,270	\$8,306,529	\$ -	\$25,394,799
Reimbursement of operating expenses	-	-	2,642,400	2,642,400
Total operating revenues	<u>17,088,270</u>	<u>8,306,529</u>	<u>2,642,400</u>	<u>28,037,199</u>
Operating expenses:				
Payroll	5,678,167	774,695	973,076	7,425,938
Operations and maintenance (direct)	3,428,321	820,196	785,703	5,034,220
Operations and maintenance (general and administrative)	-	70,909	60,121	131,030
Fringe benefits	5,551,055	865,599	1,081,431	7,498,085
Headquarters overhead	(744,004)	640,000	104,004	-
Depreciation	2,782,788	1,813,976	-	4,596,764
Total operating expenses	<u>16,696,327</u>	<u>4,985,375</u>	<u>3,004,335</u>	<u>24,686,037</u>
Income from operations	<u>391,943</u>	<u>3,321,154</u>	<u>(361,935)</u>	<u>3,351,162</u>
Non-operating revenues:				
State of New Jersey - Grant Programs	171,310	-	-	171,310
Investment income	222,025	(252,517)	5,304	(25,188)
Rental income	49,606	-	-	49,606
Other income	(214,210)	21,388	-	(192,822)
Total non-operating revenues	<u>228,731</u>	<u>(231,129)</u>	<u>5,304</u>	<u>2,906</u>
Non-operating expenses:				
Interest component of debt service to the State of New Jersey	156,808	308,016	-	464,824
Bond discount/insurance premium expense	-	12,491	-	12,491
Recovery of deferred inflows of resources	(835,209)	(1,310,854)	(356,631)	(2,502,694)
Total non-operating expenses	<u>(678,401)</u>	<u>(990,347)</u>	<u>(356,631)</u>	<u>(2,025,379)</u>
Change in net position	1,299,075	4,080,372	-	5,379,447
Net position, beginning of year	88,275,397	25,333,350	-	113,608,747
Net position, end of year	<u>\$89,574,472</u>	<u>\$29,413,722</u>	<u>\$ -</u>	<u>\$118,988,194</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, 2017**

	Operating Fund							Pumping Reserve	Capital Improvements II	Source Water Protection Fund	Subtotal
	Revenue Fund	Operating Account	Payroll Account	Operating Fund	Reserve for O&M	Self-Insurance Reserve	Depreciation Reserve				
Cash and investments - July 1, 2016	\$784,554	\$2,192,156	\$162,771	\$816,063	\$3,601,232	\$978,497	\$3,930,446	\$1,078,640	\$6,642,657	\$3,415,738	\$23,602,754
Cash receipts:											
Water sales operations and maintenance	11,911,012										11,911,012
Water sales debt service	1,742,816										1,742,816
Water sales capital fund	2,300,516										2,300,516
Water sales source water protection fund	1,560,692										1,560,692
Water sales overdrafts	304,040										304,040
Rental income	38,126										38,126
Manasquan reservoir support	239,165			14,689							253,854
Headquarters overhead				744,004							744,004
Disposition of property	286,684										286,684
Recycling revenue											-
Sale of investment securities					328,830	689,815	477,925				1,496,570
Nonrefundable bid deposits											-
Insurance reimbursement											-
Miscellaneous expense reimbursement	223,246	31,144		30							254,420
Transfers:											
Contributions from operating fund		13,879,912	3,266,340	(24,527,075)			574,696	150,000		516,000	(6,140,127)
Contributions to operating fund				4,509,819			(195,706)			(37,078)	4,277,035
Transfers for operations	(18,821,350)			20,391,350							1,570,000
Transfers for investments											-
Distribution from reserves to operations		18,140									18,140
Investment income				4,469	109,704	52,542	143,674	2,840	312,564	9,288	635,081
Per resolution, Section 603:											
Investment income, transfer from	617,309			(4,469)	(109,704)	(52,542)	(138,094)		(312,500)		-
Investment income, transfer to	(10,511)				10,511						-
Unrealized gain/(loss) on fair value					110,435	107,532	232,450		(260,339)		190,078
Total cash receipts	391,745	13,929,196	3,266,340	1,132,817	449,776	797,347	1,094,945	152,840	(260,275)	488,210	21,442,941
Total available cash and investments	\$1,176,299	\$16,121,352	\$3,429,111	\$1,948,880	\$4,051,008	\$1,775,844	\$5,025,391	\$1,231,480	\$6,382,382	\$3,903,948	\$45,045,695

**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, 2017**

	Subtotal	Parity 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 cash and investments	\$23,602,754	\$293,831	\$538,692	\$1,378,196	\$13,268,885	\$20,157	\$1,852,067	\$300,387	\$85,956	\$1,246,398	\$42,587,323
Cash receipts:											
Water sales operations and maintenance	11,911,012										11,911,012
Water sales debt service	1,742,816										1,742,816
Water sales capital fund	2,300,516										2,300,516
Water sales source water protection fund	1,560,692										1,560,692
Water sales overdrafts	304,040										304,040
Rental income	38,126										38,126
Manasquan reservoir support	253,854										253,854
Headquarters overhead	744,004										744,004
Disposition of property	286,684										286,684
Recycling revenue	-										-
Sale of investment securities	1,496,570										1,496,570
Nonrefundable bid deposits	-										-
Insurance reimbursement	-										-
Miscellaneous expense reimbursement	254,420										254,420
Transfers:											
Contributions from operating fund	(6,140,127)	373,200	708,000		2,196,273		1,663,843	150,000		1,048,811	-
Contributions to operating fund	4,277,035				(3,595,676)					(681,359)	-
Transfers for operations	1,570,000						(1,570,000)				-
Transfers for investments	-										-
Distribution from reserves to operations	18,140									(18,140)	-
Investment income	635,081	324	582	3,452	33,346	46	3,048	817	93	3,302	680,091
Per resolution, Section 603:											
Investment income, transfer from	-										-
Investment income, transfer to	-										-
Unrealized gain/(loss) on fair value	190,078										190,078
Total cash receipts	21,442,941	373,524	708,582	3,452	(1,366,057)	46	96,891	150,817	93	352,614	21,762,903
Total available cash and investments	\$45,045,695	\$667,355	\$1,247,274	\$1,381,648	\$11,902,828	\$20,203	\$1,948,958	\$451,204	\$86,049	\$1,599,012	\$64,350,226

**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, 2017**

	Operating Fund							Pumping Reserve	Capital Improvements II	Source Water Protection Fund	Subtotal
	Revenue Fund	Operating Account	Payroll Account	Operating Fund	Reserve for O&M	Self-Insurance Reserve	Depreciation Reserve				
Total available cash and investments	\$1,176,299	\$16,121,352	\$3,429,111	\$1,948,880	\$4,051,008	\$1,775,844	\$5,025,391	\$1,231,480	\$6,382,382	\$3,903,948	\$45,045,695
Cash disbursements:											
Payroll			3,399,111								3,399,111
Fringe benefits		43,576		778,272							821,848
Employee deferred compensation and credit union		1,614,431		118,289							1,732,720
Operations and maintenance		11,084,993									11,084,993
Prepaid insurance											-
Miscellaneous disbursements	56										56
Watershed Management Fund											-
Capital improvements:											
Capital assets											-
New five-year construction project											-
Purchase of investments securities					472,481	822,339	770,273				2,065,093
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											-
Total cash disbursements	56	12,743,000	3,399,111	896,561	472,481	822,339	770,273	-	-	-	19,103,821
Cash and investments - June 30, 2017	\$1,176,243	\$3,378,352	\$30,000	\$1,052,319	\$3,578,527	\$953,505	\$4,255,118	\$1,231,480	\$6,382,382	\$3,903,948	\$25,941,874
Summary of cash and investments:											
Cash	\$1,176,243	\$3,378,352	\$30,000								\$4,584,595
Short-term investments				\$1,052,319	\$2,186,688	\$296,679	\$2,374,550	\$1,231,480	\$74,611	\$3,903,948	11,120,275
Long-term investments					1,391,839	656,826	1,880,568		6,307,771		10,237,004
Restricted Investments (current)											-
Restricted Investments (long-term)											-
Total cash and investments	\$1,176,243	\$3,378,352	\$30,000	\$1,052,319	\$3,578,527	\$953,505	\$4,255,118	\$1,231,480	\$6,382,382	\$3,903,948	\$25,941,874

**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, 2017**

	Subtotal	Parity 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	\$45,045,695	\$667,355	\$1,247,274	\$1,381,648	\$11,902,828	\$20,203	\$1,948,958	\$451,204	\$86,049	\$1,599,012	\$64,350,226
Cash disbursements:											
Payroll	3,399,111										3,399,111
Fringe benefits	821,848										821,848
Employee deferred compensation and credit union	1,732,720										1,732,720
Operations and maintenance	11,084,993										11,084,993
Prepaid insurance	-										-
Miscellaneous disbursements	56									44,261	44,317
Watershed Management Fund	-										-
Capital improvements:											
Capital assets	-										-
New five-year construction project	-										-
Purchase of investments securities	2,065,093										2,065,093
Principal on 1981 bonds	-										-
Interest on 1981 bonds	-										-
Principal on 1998 bonds	-										-
Interest on 1998 revenue bonds	-										-
Principal on NJEIT bonds	-	293,696	471,075								764,771
Interest on NJEIT revenue bonds	-	72,145	219,192								291,337
Total cash disbursements	19,103,821	365,841	690,267	-	-	-	-	-	-	44,261	20,204,190
Cash and investments - June 30, 2017	\$25,941,874	\$301,514	\$557,007	\$1,381,648	\$11,902,828	\$20,203	\$1,948,958	\$451,204	\$86,049	\$1,554,751	\$44,146,036

Summary of cash and investments:

Cash	\$4,584,595									\$44,879	\$4,629,474
Short-term investments	11,120,275	\$301,514	\$557,007	\$1,381,648	\$11,902,828	\$20,203	\$1,948,958	\$451,204	\$86,049	1,509,872	29,279,558
Long-term investments	10,237,004										10,237,004
Restricted Investments (current)	-										-
Restricted Investments (long-term)	-										-
Total cash and investments	\$25,941,874	\$301,514	\$557,007	\$1,381,648	\$11,902,828	\$20,203	\$1,948,958	\$451,204	\$86,049	\$1,554,751	\$44,146,036

**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, 2017**

	Operating Fund				Reserve for O&M	Self- Insurance Reserve	Renewal and Replacement Account	Water Reuse & Recycling	Source Water Protection	Depreciation Reserve	Pumping Reserve	Sediment Reserve	Subtotal
	Revenue Fund	Operating Account	Payroll Account	Operating Fund									
Cash and investments - July 1, 2016	\$11,149	\$449,497	\$61,845	\$5,141,613	\$1,634,549	\$232,632	\$1,580,171	\$30,123	\$1,499,503	\$539,819	\$158,843	\$166,297	\$11,506,041
Cash receipts:													
Water sales operations and maintenance	3,021,091												3,021,091
Water sales debt service	4,781,601												4,781,601
Source water protection	71,713												71,713
Water sales debt service NJEIT	179,451												179,451
Water sales overdrafts	250,664												250,664
NJ-American pumping costs	190,592												190,592
Headquarters overhead													-
Reimbursement of WTP capital expenses													-
Disposition of assets	7,500												7,500
Reimbursement from Raritan Basin	16,413												16,413
Sale of investments securities					792,644	395,659				595,095	67,042		1,850,440
Nonrefundable bid deposits													-
Miscellaneous reimbursement	365,260												365,260
Transfers:													
Contributions from operating fund		3,832,493	1,011,254	(11,949,631)			2,614,228		71,016	82,622		30,000	(4,308,018)
Contributions to operating fund	(27,860)	324		2,243,227			(495,651)		(1,006)	(47,962)			1,671,072
Transfers for operations	(8,810,432)			8,850,432					(40,000)				-
Distribution from reserves to operations		517,742											517,742
Investment income				10,788	28,949	12,155	8,163	69	3,761	22,230	2,642	295	89,052
Per resolution, Section 603:													
Investment income, transfer from	77,269			(10,787)	(28,949)	(12,149)				(21,712)	(2,642)	(294)	736
Investment income, transfer to	(8,111)			7,483									(628)
Unrealized gain/(loss) on fair value					59,123	31,098				48,198	6,095		144,514
Total cash receipts	115,151	4,350,559	1,011,254	(848,488)	851,767	426,763	2,126,740	69	33,771	678,471	73,137	30,001	8,849,195
Total cash and investments	\$126,300	\$4,800,056	\$1,073,099	\$4,293,125	\$2,486,316	\$659,395	\$3,706,911	\$30,192	\$1,533,274	\$1,218,290	\$231,980	\$196,298	\$20,355,236

**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, 2017**

	Water Treatment Plant/Transmission System														Totals
	Subtotal	Operating Account	Operating Fund	Residuals Reserve	Carbon Filter Reserve	Self-Insurance Reserve	Capital Improvement Reserve	NJEIT Debt Service	2016 Cost of Issuance	2016 Debt Service Account	2016 Debt Service Reserve	Rebate Fund	General Reserve Fund	Employment Benefit Funds	
Cash and investments - July 1, 2016	\$11,506,041	\$172,434	\$1,206,935	\$9,490	\$98,457	\$253,259	\$928,772	\$146,851	\$47,280	\$49,838	\$1,711,765	\$535,285	\$41,197	\$409,260	\$17,116,864
Cash receipts:															
Water sales operations and maintenance	3,021,091														3,021,091
Water sales debt service	4,781,601														4,781,601
Source water protection	71,713														71,713
Water sales debt service NJEIT	179,451														179,451
Water sales overdrafts	250,664														250,664
NJ-American pumping costs	190,592														190,592
Headquarters overhead	-		2,642,400												2,642,400
Reimbursement of WTP capital expenses	-														-
Disposition of assets	7,500														7,500
Reimbursement from Raritan Basin	16,413														16,413
Sale of investments securities	1,850,440														1,850,440
Nonrefundable bid deposits	-														-
Miscellaneous reimbursement	365,260		41,543												406,803
Transfers:															
Contributions from operating fund	(4,308,018)	1,400,000	(1,399,611)				(10,793)	177,698		3,862,637				278,087	-
Contributions to operating fund	1,671,072		(1,105,772)				(565,299)		(34,789)		34,788				-
Transfers for operations	-														-
Distribution from reserves to operations	517,742											(293,082)		(224,660)	-
Investment income	89,052		2,578	22	126	527	2,050	165		3		627	107	1,006	96,263
Per resolution, Section 603:															
Investment income, transfer from	736			(21)	(117)	(491)							(107)		-
Investment income, transfer to	(628)		628												-
Unrealized gain/(loss) on fair value	144,514														144,514
Total cash receipts	8,849,195	1,400,000	181,766	1	9	36	(574,042)	177,863	(34,789)	3,862,640	34,788	(292,455)	-	54,433	13,659,445
Total cash and investments	\$20,355,236	\$1,572,434	\$1,388,701	\$9,491	\$98,466	\$253,295	\$354,730	\$324,714	\$12,491	\$3,912,478	\$1,746,553	\$242,830	\$41,197	\$463,693	\$30,776,309

**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, 2017**

	Operating Fund					Self- Insurance Reserve	Renewal and Replacement Account	Water Reuse & Recycling	Source Water Protection	Water Depreciation Reserve	Pumping Reserve	Sediment Reserve	Subtotal
	Revenue Fund	Operating Account	Payroll Account	Operating Fund	Reserve for O&M								
Total available cash and investments	\$126,300	\$4,800,056	\$1,073,099	\$4,293,125	\$2,486,316	\$659,395	\$3,706,911	\$30,192	\$1,533,274	\$1,218,290	\$231,980	\$196,298	\$20,355,236
Cash disbursements:													
Payroll			1,053,099										1,053,099
Fringe benefits		1,993,498		(1,538,008)									455,490
Employee deferred compensation and credit union				233,260									233,260
Operations and maintenance	56	2,322,115		780,868									3,103,039
NJ-American pumping costs													-
Prepaid insurance													-
Headquarters overhead				640,000									640,000
Capital assets reservoir													-
Capital improvement program (reservoir)													-
Purchase of Investments securities					869,908	437,428				655,771	76,550		2,039,657
Principal on bonds													-
Interest on bonds													-
Total cash disbursements	56	4,315,613	1,053,099	116,120	869,908	437,428	-	-	-	655,771	76,550	-	7,524,545
Cash and investments - June 30, 2017	\$126,244	\$484,443	\$20,000	\$4,177,005	\$1,616,408	\$221,967	\$3,706,911	\$30,192	\$1,533,274	\$562,519	\$155,430	\$196,298	\$12,830,691
Summary of cash and investments:													
Cash (Manasquan)	\$126,244	\$484,443	\$20,000										\$630,687
Cash (Water Treatment Plant/TS)													-
Short-term investments				\$4,177,005	\$1,244,939	\$37,691	\$3,706,911	\$30,192	\$1,533,274	\$282,021	\$124,652	\$196,298	11,332,983
Short-term investments (Water Treatment Plant/TS)													-
Long-term investments					371,469	184,276				280,498	30,778		867,021
Restricted investments (current)													-
Restricted investments (long-term)													-
Total cash and investments	\$126,244	\$484,443	\$20,000	\$4,177,005	\$1,616,408	\$221,967	\$3,706,911	\$30,192	\$1,533,274	\$562,519	\$155,430	\$196,298	\$12,830,691

**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, 2017**

	Water Treatment Plant/Transmission System														Totals
	Subtotal	Operating Account	Operating Fund	Residuals Reserve	Carbon Filter Reserve	Self-Insurance Reserve	Capital Improvement Reserve	NJEIT Debt Service	2016 Cost of Issuance	2006 Debt Service Account	2006 Debt Service Reserve	Rebate Fund	General Reserve Fund	Employment Benefit Funds	
Total available cash and investments	\$20,355,236	\$1,572,434	\$1,388,701	\$9,491	\$98,466	\$253,295	\$354,730	\$324,714	\$12,491	\$3,912,478	\$1,746,553	\$242,830	\$41,197	\$463,693	\$30,776,309
Cash disbursements:															
Payroll	1,053,099														1,053,099
Fringe benefits	455,490														455,490
Employee deferred compensation and credit union	233,260														233,260
Operations and maintenance	3,103,039	1,444,112						12,491							4,559,642
NJ-American pumping costs	-														-
Prepaid insurance	-														-
Headquarters overhead	640,000		104,004												744,004
Capital assets reservoir	-														-
Capital improvement program (reservoir)	-														-
Purchase of Investments securities	2,039,657														2,039,657
Principal on bonds	-							108,381		230,000					338,381
Interest on bonds	-							70,177		488,532					558,709
Total cash disbursements	7,524,545	1,444,112	104,004	-	-	-	-	178,558	12,491	718,532	-	-	-	-	9,982,242
Cash and investments - June 30, 2017	\$12,830,691	\$128,322	\$1,284,697	\$9,491	\$98,466	\$253,295	\$354,730	\$146,156	\$0	\$3,193,946	\$1,746,553	\$242,830	\$41,197	\$463,693	\$20,794,067
Summary of cash and investments:															
Cash (Manasquan)	\$630,687														\$630,687
Cash (Water Treatment Plant/TS)	-	\$128,322													128,322
Short-term investments	11,332,983												\$41,197	\$463,693	11,837,873
Short-term investments (Water Treatment Plant/TS)	-		\$1,284,697	\$9,491	\$98,466	\$253,295	\$354,730								2,000,679
Long-term investments	867,021														867,021
Restricted investments (current)	-							\$146,156	\$0	\$3,193,946	\$1,746,553	\$242,830			5,329,485
Restricted investments (long-term)	-														-
Total cash and investments	\$12,830,691	\$128,322	\$1,284,697	\$9,491	\$98,466	\$253,295	\$354,730	\$146,156	\$0	\$3,193,946	\$1,746,553	\$242,830	\$41,197	\$463,693	\$20,794,067

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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 (the "Authority"), as of and for the year ended June 30, 2017, and the related notes to financial statements, which collectively comprise the Authority's basic financial statements, and have issued our report thereon dated October 5, 2017.

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.

Mercadieu, P.C.
Certified Public Accountants

October 5, 2017

Statistical Section

FINANCIAL TREND DATA

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

Summary of Financial Information.....	2008 - 2017
Summary of Raritan Basin System Water Use Contracts	2008 - 2017
Summary of Manasquan Water Supply System Water Use Contracts	2008 - 2017

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	2008 - 2017
Manasquan System Revenue Bond Coverage	2008 - 2017

REVENUE CAPACITY DATA

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

Raritan Basin System Water Charges	2008 - 2017
Manasquan Water Supply System Water Charges	2008 - 2017

OPERATING INFORMATION

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

Spruce Run Rain Gauge	2008 - 2017
West Windsor Rain Gauge	2008 - 2017
Spruce Run Reservoir Storage	2008 - 2017
Round Valley Reservoir Storage	2008 - 2017
Manasquan System Rainfall	2008 - 2017
Manasquan Reservoir Storage Data.....	2008 - 2017

DEBT, ECONOMIC AND DEMOGRAPHIC INFORMATION

Bonds, Notes and Loans Payable	2008 - 2017
Ten Largest State of New Jersey Employers	2006 - 2015
State of New Jersey Population and Employment Trends	2006 - 2015

New Jersey Water Supply Authority
Summary of Financial Information 2008 – 2017

	<u>2008</u>	<u>2009</u>	<u>2010</u>	<u>2011</u>
REVENUE AND EXPENSES				
Water sales	\$23,466,842	\$22,975,438	\$23,031,803	\$24,095,286
Reimbursement of operating exp	<u>\$2,377,166</u>	<u>\$2,512,417</u>	<u>\$2,589,276</u>	<u>\$2,501,135</u>
Total operating revenues	25,844,008	25,487,855	25,621,079	26,596,421
Operating expense	<u>20,849,880</u>	<u>20,862,953</u>	<u>19,802,840</u>	<u>20,649,747</u>
Income from operations	4,994,128	4,624,902	5,818,239	5,946,674
Non-operating revenues	4,841,828	795,191	681,411	632,306
Non-operating expenses	<u>4,562,451</u>	<u>4,568,128</u>	<u>4,796,487</u>	<u>4,525,435</u>
Change in net position	5,273,505	851,965	1,703,163	2,053,545
Net position, beginning of year	<u>104,150,163</u>	<u>109,423,668</u>	<u>110,275,633</u>	<u>111,978,796</u>
Net position, end of year	109,423,668	110,275,633	111,978,796	114,032,341
ASSETS				
Current assets, unrestricted	40,411,128	39,944,371	33,994,171	36,101,110
Current assets, restricted				
Non-current assets	<u>177,459,476</u>	<u>174,633,772</u>	<u>177,515,802</u>	<u>174,004,657</u>
Total assets	217,870,604	214,578,143	211,509,973	210,105,767
Deferred outflows of resources				
LIABILITIES				
Current liabilities	8,881,283	8,818,939	9,381,563	9,510,372
Non-current liabilities	<u>99,565,653</u>	<u>95,483,571</u>	<u>90,149,614</u>	<u>86,563,054</u>
Total liabilities	108,446,936	104,302,510	99,531,177	96,073,426
Deferred Inflows of Resources				
NET ASSETS				
Net investment in capital assets	43,790,111	47,277,890	75,184,140	77,691,938
Restricted for repayment debt principal and interest	12,082,047	12,447,252	12,006,417	12,011,721
Unrestricted	<u>53,551,510</u>	<u>50,550,491</u>	<u>24,788,239</u>	<u>24,328,682</u>
Total net position	\$109,423,668	\$110,275,633	\$111,978,796	\$114,032,341

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

New Jersey Water Supply Authority
Summary of Financial Information 2008 – 2017

<u>2012</u>	<u>2013*</u>	<u>2014*</u>	<u>2015</u>	<u>2016</u>	<u>2017</u>
\$23,513,508	\$23,430,025	\$23,240,511	\$24,168,432	\$25,199,424	\$25,394,799
<u>\$2,434,806</u>	<u>\$2,495,982</u>	<u>\$2,600,238</u>	<u>\$2,642,400</u>	<u>\$2,642,400</u>	<u>\$2,642,400</u>
25,948,314	25,926,007	25,840,749	26,810,832	27,841,824	28,037,199
<u>23,918,001</u>	<u>21,792,193</u>	<u>20,750,987</u>	<u>21,449,303</u>	<u>21,413,585</u>	<u>24,686,037</u>
2,030,313	4,133,814	5,089,762	5,361,529	6,428,239	3,351,162
2,884,459	7,283,979	603,011	531,655	1,186,165	2,906
<u>4,698,000</u>	<u>4,592,986</u>	<u>4,680,739</u>	<u>2,140,777</u>	<u>2,101,399</u>	<u>(2,025,379)</u>
216,772	6,824,807	1,012,034	3,752,407	5,513,005	5,379,447
<u>114,032,341</u>	<u>113,845,395</u>	<u>120,670,202</u>	<u>104,343,335</u>	<u>108,095,742</u>	<u>113,608,747</u>
114,249,113	120,670,202	121,682,236	108,095,742	113,608,747	118,988,194
43,454,301	45,087,108	41,600,989	42,450,358	46,612,558	49,025,001
	14,671,723	12,336,186	12,339,659	7,032,591	9,427,648
<u>166,188,362</u>	<u>149,151,534</u>	<u>153,571,758</u>	<u>153,061,564</u>	<u>151,909,258</u>	<u>150,570,753</u>
209,642,663	208,910,365	207,508,933	207,851,581	205,554,407	209,023,402
			1,280,619	3,646,920	9,612,405
9,817,272	11,411,225	10,041,207	9,039,888	6,027,320	8,585,118
<u>85,576,278</u>	<u>79,269,979</u>	<u>75,345,060</u>	<u>89,372,731</u>	<u>86,489,391</u>	<u>90,722,401</u>
95,393,550	90,681,204	85,386,267	98,412,619	92,516,711	99,307,519
	(2,441,041)	440,430	2,623,839	3,075,869	340,094
78,090,867	83,560,654	87,589,285	91,638,454	98,890,303	99,631,597
11,924,238	12,126,909	9,084,491	9,229,092	3,876,937	7,262,065
<u>24,234,008</u>	<u>24,982,639</u>	<u>25,008,460</u>	<u>7,228,196</u>	<u>10,841,507</u>	<u>12,094,532</u>
\$114,249,113	\$120,670,202	\$121,682,236	\$108,095,742	\$113,608,747	\$118,988,194

**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>2008</u>	<u>2009</u>	<u>2010</u>	<u>2011</u>	<u>2012</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	0.132	0.132
TRENTON COUNTRY CLUB	0.250	0.126	0.126	0.126	0.126
PRINCETON UNIVERSITY	0.500	0.150	0.150	0.150	0.150
NORTH BRUNSWICK TOWNSHIP	8.000	8.000	8.000	8.000	8.000
SELODY SOD FARMS, INC.	0.025	0.025			
NEW JERSEY AMERICAN WATER	124.100	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	0.536	0.165	0.165	0.165	0.165
DUKE FARMS	0.058	0.058	0.075	0.075	0.075
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	0.074
HUNTERDON COUNTY (HERON GLEN GOLF)	0.261	0.261	0.261	0.066	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)	0.116	0.116	0.116	0.142	0.142
TRUMP NATIONAL GOLF CLUB	0.080	0.080	0.080	0.080	0.080
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
SPRINGDALE GOLF CLUB		0.098	0.098	0.098	0.098
NJ DEPT OF CORRECTIONS			0.025		0.025
STONEBRIDGE COMMUNITY ASSOC					
VILLAGE GRANDE @ BEAR CREEK					
EASTERN CONCRETE MATERIALS					
HUNTERDON MEDICAL CENTER					
PRINCETON UNIVERSITY OPERATIONS					
RENAISSANCE AT MONROE CONDOMINIUM ASSOCIATION					
SYSTEM TOTAL	<u>180.424</u>	<u>182.315</u>	<u>182.332</u>	<u>182.138</u>	<u>182.176</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>2013</u>	<u>2014</u>	<u>2015</u>	<u>2016</u>	<u>2017</u>
UNITED WATER LAMBERTVILLE, INC	0.490	0.490	0.490	0.490	0.490
MERCER COUNTY PARK COMMISSION	0.132	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
SELODY SOD FARMS, INC.					
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	0.000	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	0.074	0.074	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	0.025	0.025	0.025	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
EASTERN CONCRETE MATERIALS			0.023	0.023	0.023
HUNTERDON MEDICAL CENTER				0.031	0.031
PRINCETON UNIVERSITY OPERATIONS				0.027	0.027
RENAISSANCE AT MONROE CONDOMINIUM ASSOCIATION					0.014
SYSTEM TOTAL	<u>182.347</u>	<u>182.281</u>	<u>182.271</u>	<u>182.339</u>	<u>182.353</u>

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

	<u>2008</u>	<u>2009</u>	<u>2010</u>	<u>2011</u>	<u>2012</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>2013</u>	<u>2014</u>	<u>2015</u>	<u>2016</u>	<u>2017</u>
WALL TOWNSHIP	2.275	2.275	2.275	2.00	2.00
BOROUGH OF AVON	0.142	0.142	0.142	0.126	0.126
SHORELANDS WATER COMPANY	1.928	1.928	1.928	2.007	2.007
NEW JERSEY AMERICAN WATER	12.5	12.5	12.5	12.5	12.5
BOROUGH OF RED BANK	0.778	0.778	0.778	0.548	0.548
BOROUGH OF SEA GIRT	0.075	0.075	0.075	0.04	0.04
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	0.386	0.386
BOROUGH OF BELMAR	0.65	0.65	0.65	0.288	0.288
BOROUGH OF BRIELLE	0.45	0.45	0.45	0.45	0.45
BOROUGH OF KEYPORT	0.458	0.458	0.458	0.356	0.356
BOROUGH OF MATAWAN	0.469	0.469	0.469	0.332	0.332
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>19.443</u>	<u>19.443</u>

NOTE: The Manasquan System started operations July 1,1990.

**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
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
2009	\$17,796,183	\$11,642,975	\$6,153,208	\$2,702,738	2.28
2008	\$18,213,509	\$11,627,200	\$6,586,309	\$2,711,294	2.43

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
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
2009	\$7,452,307	\$2,700,800	\$4,751,507	\$3,807,244	1.250
2008	\$7,793,042	\$2,589,700	\$5,203,342	\$4,218,907	1.230

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>7/1/2008</u>	<u>7/1/2009</u>	<u>7/1/2010</u>	<u>7/1/2011</u>	<u>7/1/2012</u>
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RATE PER MGD	\$231.00	\$231.00	\$231.00	\$231.00	\$231.00
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<u>EFFECTIVE DATE</u>	<u>7/1/2013</u>	<u>7/1/2014</u>	<u>7/1/2015</u>	<u>7/1/2016</u>	<u>7/1/2017</u>
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RATE PER MGD	\$231.00	\$246.00	\$253.00	\$253.00	\$336.00
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**New Jersey Water Supply Authority
Manasquan Water Supply System
Water Charges Per Million Gallons of Raw Water Daily**

<u>EFFECTIVE DATE</u>	<u>7/01/2008</u>	<u>7/01/2009</u>	<u>7/01/2010</u>	<u>7/01/2011</u>	<u>7/01/2012</u>
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RATE PER MGD	\$884.11	\$980.05	\$980.48	\$1,015.90	\$1,015.90
(Delayed Contracts)	\$1,079.80	\$1,175.03	\$1,167.98	\$1,168.71	\$1,168.49

<u>EFFECTIVE DATE</u>	<u>7/01/2013</u>	<u>7/01/2014</u>	<u>7/01/2015</u>	<u>7/01/2016</u>	<u>7/01/2017</u>
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RATE PER MGD	\$1,015.90	\$1,015.90	\$1,057.40	\$1,104.58	\$1,043.35
(Delayed Contracts)	\$1,168.49	\$1,168.49	\$1,190.86	\$1,238.04	\$1,137.76

NOTE: The Manasquan System started operations July 1,1990.

**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
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
2009	1.93	0.52	1.43	2.70	4.73	6.58	8.69	7.62	2.73	4.66	0.91	5.85	48.35
2008	1.60	4.45	5.97	2.23	3.87	1.93	4.89	2.46	7.94	3.90	2.96	5.54	47.74
TOTAL	22.65	21.76	37.74	33.23	40.78	45.25	54.46	42.77	44.28	30.82	23.89	38.54	436.17
AVERAGE	2.27	2.18	3.77	3.32	4.08	4.53	5.45	4.28	4.43	3.08	2.39	3.85	43.62
MAXIMUM	3.32	4.60	7.40	7.35	6.27	10.40	8.69	14.21	13.49	5.76	4.90	5.85	66.76
MINIMUM	0.87	0.52	0.84	1.66	2.38	1.93	1.78	0.78	1.57	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
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
2010	2.70	2.90	10.30	3.20	3.00	2.20	2.70	2.60	2.90	4.80	2.31	2.97	42.58
2009	2.57	0.50	1.25	3.17	6.58	8.09	7.46	8.90	2.10	5.76	1.60	6.21	54.19
2008	2.59	5.95	5.20	2.58	4.76	2.65	5.38	2.04	8.85	4.02	3.62	6.17	53.81
TOTAL	27.91	29.14	43.47	36.41	43.39	47.56	55.97	54.18	36.80	38.56	28.71	43.97	486.07
AVERAGE	2.79	2.91	4.35	3.64	4.34	4.76	5.60	5.42	3.68	3.86	2.87	4.40	48.61
MAXIMUM	4.35	5.95	10.30	7.36	6.59	10.78	9.42	17.31	9.11	5.76	5.00	6.21	64.99
MINIMUM	1.06	0.50	1.25	1.49	1.38	1.82	2.70	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
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
2010	10.7	10.5	10.7	11.2	11.0	11.0	10.5	9.3	7.9	6.1	7.1	7.4
2009	9.5	10.1	10.0	10.6	10.7	11.1	11.1	11.1	10.7	10.4	10.8	10.7
2008	9.7	10.0	10.6	10.3	11.0	11.0	10.6	9.2	7.6	6.7	6.4	7.1
AVERAGE	7.9	8.4	9.0	9.7	10.4	10.6	10.4	9.7	8.8	7.4	6.8	7.0
MAXIMUM	10.7	10.5	10.7	11.2	11.4	11.1	11.1	11.1	11.0	11.2	10.8	10.8
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
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
2010	54.7	54.8	55.0	55.1	54.8	55.1	54.6	53.4	50.5	48.4	48.2	48.2
2009	51.3	51.3	51.3	51.5	52.8	53.8	54.1	54.4	54.6	54.5	54.5	54.4
2008	53.4	53.4	53.9	54.4	54.5	54.6	54.5	53.5	51.1	51.1	51.0	51.1
AVERAGE	49.33	49.49	49.71	50.05	50.64	51.18	51.03	50.34	49.60	48.68	48.24	48.09
MAXIMUM	54.7	54.8	55.0	55.1	54.8	55.1	54.6	54.4	54.6	54.5	54.5	54.4
MINIMUM	36.2	36.9	37.4	38.7	40.4	42.6	43.0	43.1	42.8	39.4	37.0	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
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
2010	2.52	3.85	10.47	2.51	3.58	1.17	5.88	0.97	3.99	4.23	1.98	10.47
2009	4.00	0.47	2.13	6.04	3.48	6.83	5.42	3.67	5.89	4.83	2.51	6.91
2008	2.31	4.30	3.55	2.46	4.54	4.37	3.77	1.79	6.93	1.81	5.08	5.91
TOTAL	32.90	26.17	42.75	36.53	39.07	42.15	47.45	46.49	41.00	40.90	30.58	55.55
AVERAGE	3.29	2.62	4.28	3.65	3.91	4.22	4.75	4.65	4.10	4.09	3.06	5.56
MAXIMUM	5.20	4.30	10.47	6.95	8.07	9.29	7.59	17.87	6.93	5.98	5.33	10.47
MINIMUM	2.15	0.47	1.48	2.15	1.14	1.17	3.01	0.58	1.77	1.06	1.87	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
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
2010	4.60	4.58	4.64	4.60	4.58	4.32	3.92	3.52	3.03	3.18	3.23	3.48
2009	4.60	4.63	4.61	4.63	4.62	4.59	4.51	4.42	4.26	4.44	4.47	4.65
2008	4.24	4.55	4.58	4.61	4.60	4.49	4.19	3.84	3.49	3.42	3.43	3.90
AVERAGE	4.48	4.56	4.57	4.59	4.59	4.46	4.23	4.06	3.65	3.56	3.69	4.05
MAXIMUM	4.60	4.63	4.64	4.63	4.62	4.59	4.51	4.85	4.26	4.44	4.47	4.65
MINIMUM	4.24	4.37	4.48	4.52	4.56	4.32	3.92	3.52	3.03	3.02	3.01	3.48

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
2017	\$18,802,335	\$33,566,892	\$12,318,018	\$64,687,245	0.039%	\$26.12
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
2009	\$54,751,978	\$33,661,151	\$12,053,299	\$100,466,428	0.077%	\$41.39
2008	\$59,088,203	\$33,663,054	\$11,547,400	\$104,298,657	0.076%	\$42.95

Note 1. Total personal income for the service area of Hunterdon, Middlesex, Somerset, Union and Monmouth Counties using New Jersey Department of Labor and Workforce Development Total Personal Income for all New Jersey Counties: 1969 to 2015 and Bureau of Economic Analysis, U.S. Department of Commerce Personal Income Growth 2016 and estimates for 2017 first and second quarters.

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, 2016
Data Source: U.S. Census Bureau, Population Division, March 2017

**State of New Jersey Ten Largest Employers
2015 as Compared To 2006**

2015* RANK	EMPLOYER	NEW JERSEY EMPLOYEES	PERCENTAGE OF TOTAL NEW JERSEY EMPLOYMENT
1	New Jersey State Government	64,433	1.5%
2	Wakefern Food Corporation (ShopRite)	40,000	0.9
3	Wal-Mart Stores, Inc.	17,405	0.4
4	United Parcel Service (UPS)	16,000	0.4
5	Verizon Communications	15,000	0.4
6	Johnson & Johnson	14,500	0.3
7	The Home Depot	13,806	0.3
8	United Airlines	11,800	0.3
9	Bank of America	11,000	0.3
10	Public Service Electric and Gas Company	10,500	0.2
		214,444	5.0%

2006 RANK	EMPLOYER	NEW JERSEY EMPLOYEES	PERCENTAGE OF TOTAL NEW JERSEY EMPLOYMENT
1	New Jersey State Government	79,191	1.9%
2	Wakefern Food Corporation (ShopRite)	29,619	0.7
3	Verizon Communications	17,500	0.4
4	United Parcel Service (UPS)	16,150	0.4
5	Harrah's Entertainment, Inc.	16,040	0.4
6	Johnson & Johnson	14,000	0.3
7	Wal-Mart Stores, Inc.	13,536	0.3
8	Home Depot	13,500	0.3
9	Continental Airlines	12,800	0.3
10	Pathmark Stores, Inc.	11,400	0.3
		223,736	5.3%

Notes:

Aggregate New Jersey resident employment for Calendar Years 2015 and 2006 totaled 4.280 million and 4.233 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.

Sources:

Saliba, G.N. (2016, August). 44th annual top 100 employers. New Jersey Business. 62(8), 26-34.

Saliba, G.N. (2007, May). 35th annual top 100 employers. New Jersey Business, 53(5), 20-29.

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

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 ¹	CIVILIAN LABOR FORCE ²	RESIDENT EMPLOYMENT ²	RESIDENT UNEMPLOYMENT ²	NEW JERSEY UNEMPLOYMENT RATE ³	UNITED STATES UNEMPLOYMENT RATE
2006	8,662	4,443	4,233	210	4.7%	4.4%
2007	8,678	4,441	4,249	192	4.3	4.8
2008	8,711	4,498	4,254	244	5.4	6.9
2009	8,756	4,549	4,135	415	9.1	9.9
2010	8,804	4,551	4,118	432	9.5	9.5
2011	8,841	4,568	4,142	426	9.3	8.6
2012	8,873	4,589	4,165	424	9.2	7.8
2013	8,899	4,534	4,167	367	8.1	6.9
2014	8,925	4,520	4,217	303	6.7	5.7
2015	9,935	4,545	4,292	253	5.6	5.0

Notes:

¹Data for 2011 through 2014 has been revised to use the intercensal population calculation.

²Civilian Labor Force, Resident Employment, and Resident Unemployment data for 2006 through 2014 has been revised.

³New Jersey Unemployment Rate data for 2006 through 2014 has been revised.

Sources:

United States Census Bureau, Population Division.

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 ¹ (Thousands)	ASSESSED VALUATION OF PROPERTY	TRUE VALUATION OF PROPERTY	PERSONAL INCOME ²	PER CAPITA INCOME ² (Thousands)
2006	8,662	\$ 665,683	\$ 1,079,838	\$ 418,876	\$ 48.3
2007	8,678	744,899	1,235,286	438,839	50.5
2008	8,711	834,782	1,326,297	455,850	52.3
2009	8,756	893,342	1,355,004	442,746	50.5
2010	8,804	959,282	1,331,604	451,895	51.3
2011	8,841	983,963	1,278,578	473,743	53.6
2012	8,873	988,356	1,235,474	490,611	55.3
2013	8,899	990,697	1,183,032	494,040	55.5
2014	8,925	971,600	1,158,322	516,020	57.8
2015	8,935	983,032	1,164,399	537,026	60.1

Notes:

¹Data for 2011 through 2014 has been revised to use the intercensal population calculation.

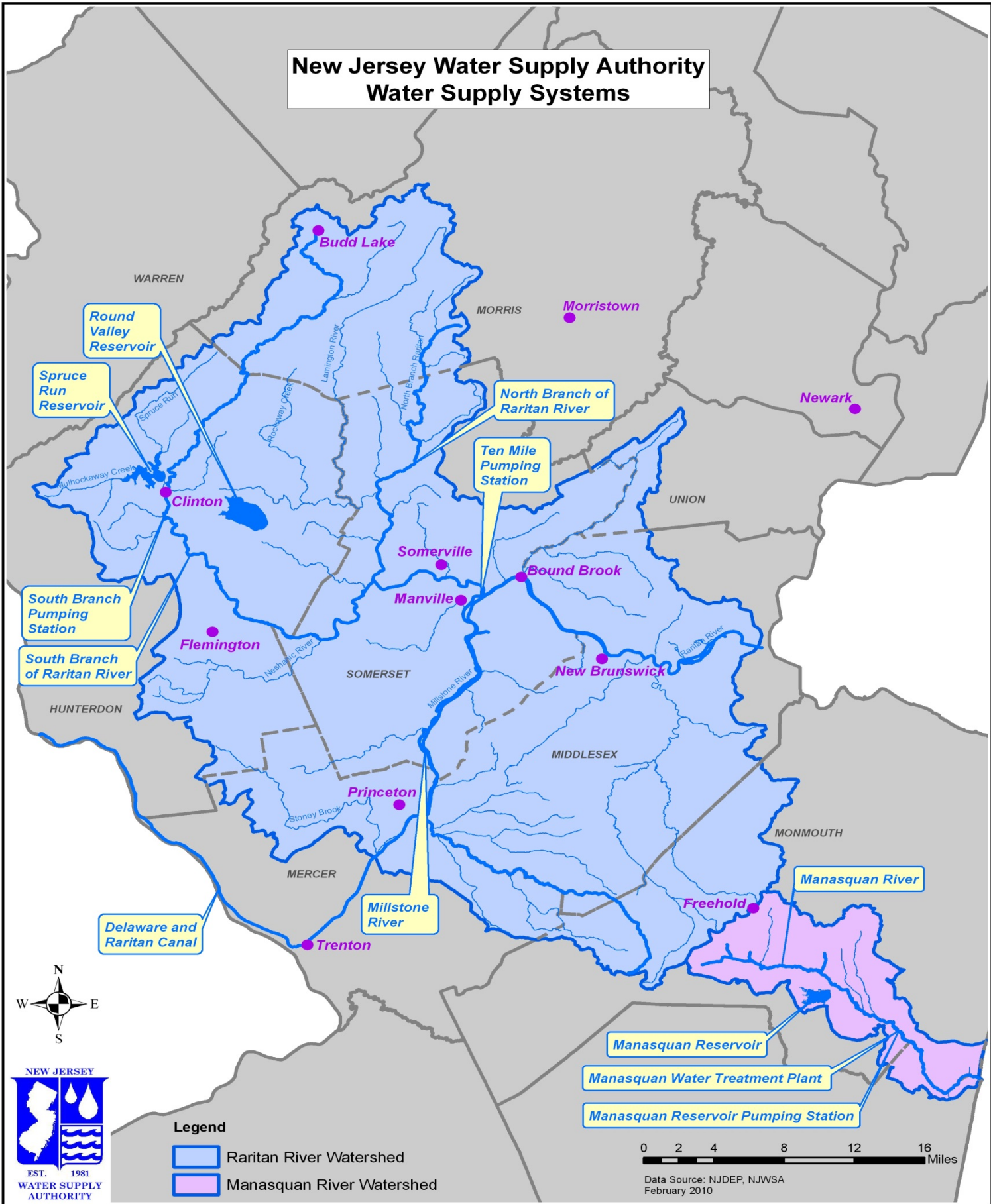
²Data for 2006 through 2014 has been revised.

Sources:

United States Census Bureau, Population Division.

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

New Jersey Water Supply Authority Water Supply Systems



New Jersey Water Supply Authority
1851 Highway 31
PO Box 5196
Clinton, NJ 08809