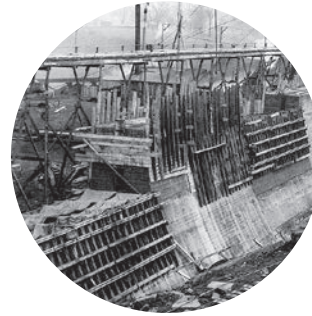


# 2019 Annual Report

170 YEARS OF DELIVERING WATER FOR LIFE



## Our Purpose

To make life better for people by delivering water for life.

## Our Mission

To provide customers with high-quality water and services at a reasonable cost while promoting the preservation of watershed lands and aquifers.

## Our Vision

An innovative water utility that sustains life, strengthens our communities and protects natural resources for future generations.

## Our Values

### **STARS: Service, Teamwork, Accountability, Respect, Safety**

**Service:** We provide prompt, courteous service to both our customers and our coworkers. We continually strive to make the customer experience better for all.

**Teamwork:** We build on each other's strengths. Through efficiency and innovation, we work together, operating as a team, in a spirit of mutual trust and openness, to achieve success.

**Accountability:** We are responsible for our actions. We are honest and ethical. Integrity is at the heart of everything we do.

**Respect:** We treat with respect everyone with whom we come in contact while doing our jobs. We promote diversity and embrace individuality.

**Safety:** We are a safe workforce. Safety is owned by each and every employee. We all benefit when safety is part of our daily lives.

## 170 Years of Delivering Water for Life

In many respects, Fiscal Year 2019 was a watershed year for the Regional Water Authority (RWA). We made considerable progress on our journey to transform from a traditional water utility into a 21<sup>st</sup>-century environmental services company and proudly celebrated our 170<sup>th</sup> anniversary. This milestone provided an opportunity to reflect on how far we've come and the great promise that the future holds as we usher in a new era of service and innovation.

From its humble beginnings in 1849, when Eli Whitney II envisioned a system that would bring water from Lake Whitney in Hamden to the New Haven Green, to 1980, when the nonprofit RWA acquired the investor-owned New Haven Water Company (NHWC), the RWA has endured, grown, evolved and transformed time and again. We've led technological and innovative change and have become a national industry leader through the reputation of our high-quality product,



operational capabilities, sustainable solutions, community engagement and dedicated, highly skilled workforce.

Every day, we work consciously to achieve our higher purpose: to make life better for people by delivering water for life.

In honor of our 170 years, we looked back at our first annual report from 1863. In that report, the NHWC described its mission as the "introduction into our city of an unlimited supply of pure, soft

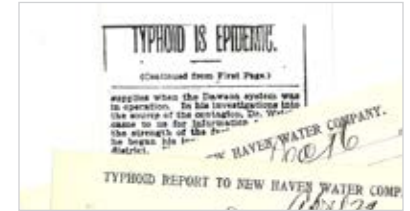
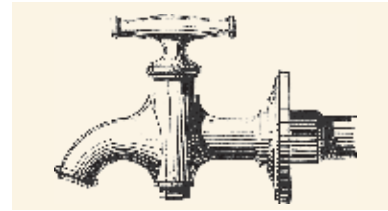
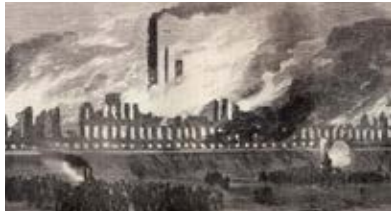
water, for public and private purposes, on terms which place it within the reach of all classes of our citizens."

That noble purpose and vision of customer service and citizenship has remained constant over the past 170 years. However, our operations and implementation strategies have changed significantly. Here's a look at our progress and performance.

## Delivering for Our Customers

Delivering safe drinking water is what we've been doing since the Civil War era. Today, we focus on standards that measure water quality at levels so minute they could not have been imagined by Eli Whitney II and our other founders.

Our nationally and state-certified laboratory stands at the front line of our efforts to provide customers with safe drinking water. In 2019, we collected more than 10,000 water samples and conducted over 110,000 tests to



1849

By 1849, with the expansion of business and the need for fire and public health protection, it became obvious that wells and streams were no longer adequate or reliable for water supply. A group of prominent citizens approached the Connecticut legislature and received a charter for the New Haven Water Company (NHWC).

1850s

After a few years of trying to raise money for this new system, people turned to Eli Whitney II to assist with building a waterworks on the Mill River at the foot of East Rock. In 1859, Whitney began construction of a dam that backed up the Mill River for 2+ miles and formed a reservoir, appropriately named Lake Whitney.

1862

Water first flowed through pipes to residents of New Haven on January 1, 1862.

1876

The NHWC purchased the Fair Haven Water Company, which included the Maltby Lakes.

1901

In April 1901, over 400 people came down with typhoid fever. The contamination that caused the disease was traced to two reservoirs. The company had already begun to acquire property surrounding its reservoirs to protect them from pollution, but the epidemic encouraged the company to pioneer new water treatment methods.

ensure that high-quality water reached customers' taps. We also expanded our lab services to become the only accredited lab in Connecticut to test for perfluoroalkyl and polyfluoroalkyl substances, commonly called PFAS.

Our commitment to water quality extends well beyond the laboratory. Each year, we prepare a prioritized list of improvements, additions and renovations to our water system for projects that are necessary to provide for present and future water supply requirements, to ensure the protection of the existing water supply and to meet the water quality standards of the Safe Drinking Water Act. In 2019, we spent approximately \$30 million on building and maintaining our region's water system, from installing and cleaning hundreds of miles of main to updating the filtration systems that sustain our infrastructure.

Throughout the years, we have followed Mr. Whitney's leadership in planning for the future. In the late 1890s,



the project we are currently planning will ensure it remains strong and operational for another century. In 2019, RWA employees and contractors conducted test borings on the dam structure and the lake bottom in order to collect data that will be used in a preliminary design for the rehabilitation. We expect to begin the physical rehabilitation project in approximately two years.

our predecessors saw the benefits of filtering water drawn from Lake Whitney. In 1906, they built one of the first filtration plants in America, located a few feet from the Lake Whitney reservoir, where our region's water system began in 1862.

This summer, we began a project that will help preserve our historic Lake Whitney Dam so that it can continue to serve the region. Built in the 1850s, the Lake Whitney Dam is one of the RWA's oldest pieces of infrastructure. It has received regular maintenance to maintain a high level of safety and performance, and

We know that water is vital to life and, from our earliest days, have provided reliable, high-quality drinking water at an affordable price. Through our initial strategic plans in 2009 and 2015, and now our 2020 Strategic Plan, we continuously identify operating and capital efficiencies, pursue financing opportunities and develop new service offerings that generate additional revenue to minimize the financial impact on our customers.

In 2019, we continued to fund our capital program in a way that is responsible to our customers. Since



## 1902-1906

The first water treatment plant in New Haven was the Whitney Filtration Plant. The treatment plant was the first structure built in Connecticut of reinforced concrete.

## 1912

By 1912, when the NHWC made its first report to the CT Public Utilities Commission, the company served more than 150,000 people in seven towns. Its operating system included more than 800 miles of mains, 1,000 fire hydrants, 11 reservoirs and a combined storage capacity of 5.3 billion gallons.

## 1920-1930

The NHWC began construction of a 13-billion-gallon reservoir in North Branford. The project took five years to complete, and was the largest engineering project ever undertaken in Connecticut at that time. Lake Gaillard began supplying water in 1931.

## 1950s

The Hammonasset Reservoir was completed.

## 1959

The first well in the NHWC's system was installed in North Cheshire. Prior to that, the NHWC used only surface water supplies.

2011, we have taken steps to generate capital funds internally. This year, we self-funded close to half, or approximately \$14.3 million, of our capital improvement program, mitigating debt service costs.

As part of our commitment to our employees, in 2019 we continued to make contributions to closed pension plans in order to achieve full funding.

### Delivering for Our Environment

In 1911, NHWC engineers understood the value of buying land to protect water quality. Their vision started us on the road to owning and protecting over 27,000 acres of land today. Promoting a healthy environment around the RWA's water sources allows for potential contaminants to be naturally filtered by trees and soil. This results in water that needs less treatment, is of a higher quality and better meets the goal set forth by our founders of making life better for people through the delivery of water.



The RWA's source-water protection program has been a principal part of our work to maintain high-quality water in both our surface reservoirs and in the underground aquifers we tap for drinking water. In 2019, we conducted more than 1,000 watershed inspections, helping communities, businesses and homeowners avoid contamination of surface or groundwater. Our inspectors look for potential chemical or bacterial contamination, sedimentation and erosion, as well as the illegal dumping of waste materials. Last year, we responded to nearly 20

hazardous material and erosion control-related incidents in watersheds and aquifers that produce our drinking water.

In order to further "green" our business, we began participating in an effort to encourage sustainable investments.

The RWA issued its first Green Bonds to refinance an environmentally sustainable tunnel and pipeline restoration project that was completed in 2018. Green Bonds provide

investors with the opportunity to invest in bonds that are targeted to support environmentally beneficial projects, including sustainable water management and drinking water infrastructure upgrades. The RWA is one of many companies that issue Green Bonds as a way to encourage investors to fund environmentally friendly products. In doing this, we hope to help shift the investment ecosystem to one that encourages greener and more sustainable projects.

The RWA has also taken steps to further strengthen the ecosystems of our 27,000 acres of protected



1960

The NHWC's 1,000<sup>th</sup> mile of main was laid, bringing reliable, high-quality water to more people and businesses.



1974

With the passage of the Safe Drinking Water Act, the NHWC was subject to more stringent government regulations. To meet these costly requirements, it had to consider selling off its real estate (more than 25,000 acres) or raising water rates. The company opted to sell land.



1974

The Lake Saltonstall Water Treatment Plant went into service.



1977

Due to objections to selling land, a commission formed to study the issue and recommended the formation of a publicly owned regional water company. The Connecticut legislature created the South Central Connecticut Regional Water Authority (RWA) to serve the area's recreational, environmental and water needs.



1980

The RWA purchased the assets of the NHWC.

watershed land. This year, we created a position for an invasive species specialist at the RWA. This new employee is working with the RWA's forester and other environmental management professionals to further defend our region against the spread of invasive species. We have been identifying invasive plants on our properties and using environmentally friendly methods to eliminate them. Additionally, as our expertise in invasive species management grows, we have begun working with the University of Connecticut and other laboratories in the state to develop innovative methods to control invasive plant populations.

This year, the RWA expanded our role as environmental stewards in the region by increasing our investment in protection efforts while reducing our carbon footprint. By the end of calendar year 2019, we will conclude our multi-year installation of Advanced Metering Infrastructure (AMI). For



generations, the RWA relied upon meter readers driving to neighborhoods and walking a beat to measure water consumption. With AMI technology, we will eliminate the need for manually reading customers' meters, decreasing our fleet-miles driven by approximately 42,000 miles per year and lessening our carbon footprint by some 20 tons annually; that's the equivalent of carbon dioxide emissions from 2,250 gallons of gasoline.

The RWA's carbon footprint will be further reduced in December 2019 when the company flips the switch on a plan to be completely powered by green energy.

The RWA has reached an agreement certifying that all energy we use will be generated by wind, solar or other renewable sources. By relying on renewable energy to power the RWA, the company will reduce our overall carbon footprint by 90 percent, or 7,000 tons.

In 2019, we further demonstrated our commitment to serve as stewards of land preservation when we initiated the creation of the South Central Connecticut Land Trust Alliance. The Alliance is comprised of a group of land trust organizations throughout our service region that seek to develop and support strategies to preserve, protect and maximize the conservation of land.

### Delivering for Our Region

Since the RWA's founding in 1849, South Central Connecticut has grown from small villages and public squares into a vibrant community of hundreds of thousands of people, families and businesses. Eli Whitney II believed that access to



1980s

The RWA built water treatment plants at Lake Gaillard and West River.

1983

The RWA's robust Land Use Plan was approved by the Representative Policy Board; Lake Saltonstall was reopened for fishing after a 20-year hiatus.

1990

With the assistance of the South Central Regional Council of Governments, the RWA created HazWaste Central, an innovative facility for the safe collection and disposal of household hazardous waste, which opened to the public in April 1990.

1990

In October 1990, the RWA opened the Whitney Water Center, a landmark water science education center located at the foot of the Lake Whitney Dam in Hamden.

2002-2004

Ground was broken for a new Lake Whitney Water Treatment Plant in 2002; it was dedicated in September 2004.

water was critical for the health of a region's people and businesses. Following in his footsteps, the RWA continues to work closely with local businesses to help them grow and thrive.

This year, we launched a campaign to highlight the importance of water to our business community. Before opening their enterprise, the owners of East Rock Brewing Company, New Haven's only brewery, contacted the RWA to learn more about our water. They learned about the RWA's sustainable filtration system that ensures less work needs to be done at our treatment plants to deliver water that is as pure and natural as possible. This high-quality water has become a key ingredient at East Rock Brewing Company, as it has for many other businesses throughout South Central Connecticut.

In our "Quality on Tap" campaign, the owner of world-famous Modern Apizza joined East Rock Brewing Company in attesting that without a high-



quality water supply, New Haven could not be home to the world's best pizzerias.

In addition to ensuring the quality of our water exceeds the expectations of local business, the RWA works directly with chambers of commerce throughout South Central Connecticut to encourage job growth and retention. This year, the RWA announced that it is funding a full-time position with the Greater New Haven Chamber of Commerce, dedicated to promoting retention and expansion of business in our region. We believe there is great

potential in this region for growth that will benefit all the people of our state and are excited to be working hand-in-hand with local business leaders to help move Connecticut forward.

For our business community to thrive, it needs access to a pool of educated and prepared applicants for any new job openings. We believe in the power of education and workforce development to strengthen our economy. This year, we worked with Connecticut legislators to secure passage of a law encouraging collaboration between Connecticut's technical schools, utilities and institutions of higher education. We hope to see more students find their careers through the Public Utility Management Degree Programs we helped create with Gateway Community College and Southern Connecticut State University. These first-in-the-nation programs are building a pipeline between the classroom and exciting careers at the RWA and other utilities.



2008

The RWA purchased the Birmingham Water Company. That acquisition included 1,600 acres around the Peat Swamp reservoir, several wells along the Housatonic River, 8,000 customers and its distribution system.

2011

The RWA won the Association of Metropolitan Water Agencies' Gold Award for Exceptional Utility Performance.

2011

The RWA began a weeklong careers summer camp for area high school students.

2015

The RWA launched a multi-year Advanced Metering Infrastructure (AMI) program that deployed the water industry's latest metering technology. This technology reads water meters remotely and securely transmits the information back to our offices electronically.

2015

The RWA received the New England Water Works Association Utility of the Year Award and the Platinum Award for Utility Excellence from the Association of Metropolitan Water Agencies.

**Delivering for the Next 170 Years**

As far back as 1849, our founders knew Greater New Haven had the potential to be a regional leader with an abundant, reliable water system. Nearly two centuries later, there are new trails to blaze as a 21<sup>st</sup>-century environmental services company. We're facing new challenges with innovation, never wavering from our original pursuit to manage and improve the complex water system entrusted to us.

As we move toward our 200<sup>th</sup> anniversary, one thing we know is that whatever else changes, our commitment to providing consumers with an ample supply of safe, affordable drinking water will continue. We are prepared to meet future challenges in ways that will benefit all of our stakeholders. And, just like our company's organizer, Eli Whitney II, we will carry on the legacy of improving the lives of people by delivering water for life. We invite you to join us on our journey.



Before concluding, we would like to recognize Thomas P. Clifford III for his steady and dedicated leadership of the Representative Policy Board (RPB). Mr. Clifford completed four terms as RPB chair in July 2019. He remains the representative from Ansonia. Mario Ricozzi from Branford replaced Mr. Clifford

as the RPB chair. We also welcomed new members to the RPB, including: Naomi Campbell from New Haven who replaced Orest Dubno, Mike Horbal from Seymour who replaced Francis Conroy, Frank Pepe from Derby who replaced Barbara Dybas, Richard Smith from Milford who replaced Benjamin Gettinger, Michelle Verderame from East Haven who replaced John Leary, Jr. and Jamie Mowat-Young from Killingworth who replaced Richard Albrecht. We must also acknowledge the passing of three longtime RPB members: Francis Conroy from Seymour, Orest Dubno from New Haven and Jack Krasko from North Branford. Their participation and perspectives will be missed.

Larry L. Bingaman  
President & Chief Executive Officer

Anthony DiSalvo  
Chair, Regional Water Authority

Mario Ricozzi  
Chair, Representative Policy Board



2016

The RWA further demonstrated its commitment to serve as stewards of land when signing the Connecticut Source Water Collaborative Charter. The Collaborative is a multi-stakeholder group that seeks to develop and support strategies to preserve, protect and maximize the conservation of sources used for drinking water and the land that protects and recharges those sources.

2016

The RWA collaborated with Gateway Community College and Southern Connecticut State University to pioneer a first-of-its-kind Public Utility Management Degree Program. This landmark initiative provides opportunities for students to pursue careers in the water, electric and natural gas utility industry.

2016

The RWA began a Residential Water Assistance Program to help customers who need financial assistance paying their water bill by providing an annual grant.

2017-2018

The RWA undertook one of the largest infrastructure projects in company history. The Great Hill Tunnel and Pipeline Project was a complex and innovative operation that required constructing a seven-mile temporary bypass from Lake Gaillard through an active quarry and connecting back to our distribution system.

2019

The RWA issued the first-ever Green Bonds for people who want to invest their money in environmentally friendly projects.



### Remembering Claire C. Bennitt

We dedicate this Annual Report to Claire Bennitt, who passed away in 2019 after a brief illness.

For those of you who have followed the progress of the Regional Water Authority (RWA), the RWA and Claire Bennitt are synonymous. She was an active participant in transforming the private, investor-owned New Haven Water Company (NHWC) into the public, nonprofit RWA.

Claire was a North Branford community leader and conservation activist when the NHWC proposed selling over 40 percent of its landholdings to finance improvements required by the Safe Drinking Water Act of 1974.

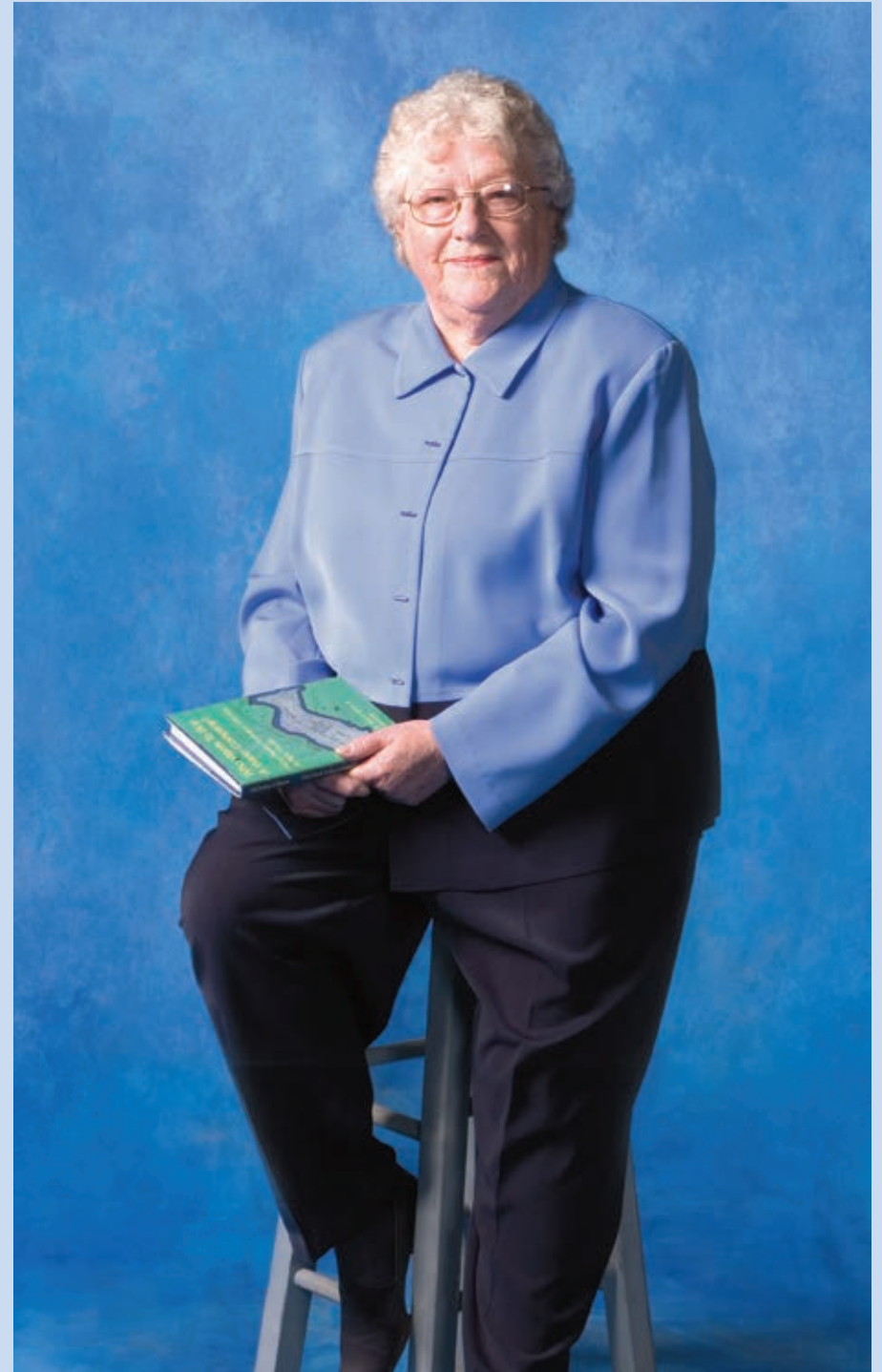
As an aide to then State Representative Dorothy McCluskey, Claire provided a crucial link between community groups, state policy commissions and the legislature to assess the feasibility of regionalizing the water utility.

She later was instrumental in shepherding an act through the state legislature that officially created the RWA in 1977. At that time, she became its secretary-treasurer. In 1999, she became the first woman to be named board chair and held the position for 10 years.

In keeping with her concern about water quality and land preservation, Claire played a key role in establishing the RWA's Recreation Program. When she retired at the end of 2009, the Recreation Program was named in her honor.

She was also involved in establishing our water science education program and the nonprofit Watershed Fund, dedicated to protecting watershed lands through open space purchases and supporting environmental education. The Fund has helped preserve hundreds of acres of land and provided over \$500,000 in scholarships to college students from our district studying environmental sciences.

Claire's keen insights, passion for the environment, steady hand and sense of humor will be deeply missed by those of us lucky enough to have known her. We all owe her a deep sense of gratitude for her tireless efforts to ensure that our organization will meet the region's water and land management needs now and long into the future.



# FY 2019 RWA BY THE NUMBERS



**273**

employees



**429,442**

consumers served



**43 million**

gallons of water a day delivered



**10,555**

area students educated about water science



**15**

South Central Connecticut municipalities in service area



**116,074**

metered customers in district



**\$831 million**

in assets



**27,734**

acres of land owned



**1,717.3**

miles of main



**\$563,000**

in operating efficiencies



**58**

miles of recreation trails



**17**

miles of fishing areas



**\$125 million**

in operating revenue



**15.8 billion**

gallons of water treated

# South Central Connecticut Regional Water Authority

Financial Statements as of and for the years ended May 31, 2019 and 2018, and Independent Auditors' Report

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# Independent Auditors' Report

To the Members of the South Central Connecticut Regional Water Authority

## Report On The Financial Statements

We have audited the accompanying financial statements of the business-type activities and the aggregate remaining fund information of South Central Connecticut Regional Water Authority as of and for the years ended May 31, 2019 and 2018, and the related notes to the financial statements, which collectively comprise South Central Connecticut Regional Water Authority's basic financial statements as listed in the table of contents.

## Management's Responsibility for the Financial Statements

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

## Auditors' Responsibility

Our responsibility is to express opinions on these financial statements based on our audits. We conducted our audits in accordance with auditing standards generally accepted in the United States of America and the standards applicable to financial audits contained in *Government Auditing Standards*, issued by the Comptroller General of the United States. Those standards require that we plan and perform the 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 auditors consider internal control relevant to the entity's preparation and fair presentation of the financial statements in order to design audit procedures

that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the entity's internal control. Accordingly, we express no such opinion. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluating the overall presentation of the financial statements.

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

## Opinions

In our opinion, the financial statements referred to above present fairly, in all material respects, the respective financial position of the business-type activities and the aggregate remaining fund information of South Central Connecticut Regional Water Authority as of May 31, 2019 and 2018, the respective changes in financial position and, where applicable, cash flows thereof, for the years then ended in accordance with accounting principles generally accepted in the United States of America.

## Changes in Accounting Principle

As discussed in Note 18 to the financial statements, during the fiscal year ended May 31, 2019, South Central Connecticut Regional Water Authority adopted new accounting guidance, GASB Statement No. 75, *Accounting and Financial Reporting for Postemployment Benefit Plans Other than Pension Plans*. Our opinion is not modified with respect to this matter.

## Other Matters

### Required Supplementary Information

Accounting principles generally accepted in the United States of America require that the management's discussion and analysis, and the pension and OPEB schedules, as listed in the table of contents, be presented to supplement the basic financial statements. Such information, although not a part of the basic financial statements, is required by the Governmental Accounting Standards Board, which 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 Reporting Required by Government Auditing Standards

In accordance with *Government Auditing Standards*, we have also issued our report dated August 29, 2019 on our consideration of South Central Connecticut Regional Water Authority's internal control over financial reporting and on our tests of its compliance with certain provisions of laws, regulations, contracts, and grant agreements and other matters. The purpose of that report is solely to describe the scope of our testing of internal control over financial reporting and compliance and the results of that testing, and not to provide an opinion on the effectiveness of South Central Connecticut Regional Water Authority's internal control over financial reporting or on compliance. That report is an integral part of an audit performed in accordance with *Government Auditing Standards* in considering South Central Connecticut Regional Water Authority's internal control over financial reporting and compliance.

*Blum, Shapiro & Company, P.C.*

West Hartford, Connecticut  
August 29, 2019

# Management's Discussion and Analysis Year Ended May 31, 2019

## Introduction

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As noted in the Independent Auditors' Report from Blum, Shapiro & Company, P.C., Management's Discussion and Analysis (MD&A) provides supplemental information to the audit and should be read in conjunction with it. The purpose of the MD&A is to introduce and highlight the more detailed information provided in the audited financial statements. For example, it will assess improvement to or deterioration of the Authority's financial position and will identify factors that, in management's opinion, affected financial performance during the fiscal period under review.

## Contents of the Audited Financial Statements

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The Authority's audited financial statements include the following:

- **Statements of net position**

These statements provide information about the Authority's investments in resources (assets) and its obligations to creditors (liabilities), with the difference between them reported as net position.

- **Statements of revenues, expenses and changes in net position**

These statements demonstrate changes in net position from one fiscal period to another by accounting for revenues and expenditures and measuring the financial results of operations. The information may be used to determine how the Authority has funded its costs.

- **Statements of cash flows**

These statements provide information concerning the Authority's cash receipts and payments, as well as net changes in cash resulting from operations, capital and related financing, and investing activities.

- **Statements of fiduciary net position**

These statements provide information about net position available for benefits under the Authority's employee benefit plans and changes in net position available for benefits. In accordance with governmental accounting guidelines (GASB Statements No. 68 and No. 75), the Authority's pension plans and other post-employment benefits (OPEB) are included in the financial statements.

- **Notes to financial statements**

Notes to the audited financial statements contain information essential to understanding them, such as the Authority's accounting methods and policies.

## The Authority's Business

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The primary purpose of the Authority, according to its enabling legislation, is to provide and assure an adequate supply of pure water at a reasonable cost to its water district and, to the degree consistent with the foregoing, to advance water conservation and the conservation and compatible recreational use of land held by the Authority.

The Watershed Fund was established by the Authority for the purpose of protecting land on the watershed through the acquisition of open space and promotion of environmental education. Financial information regarding the Watershed Fund can be found in the notes to the audited financial statements.

## FINANCIAL HIGHLIGHTS

### Summary: Revenues, expenses and changes in fund net position (in thousands of dollars)

May 31,	2019	2018 (as Restated)	2017
<b>Operating revenues:</b>			
Water revenues	\$ 116,067	\$ 113,029	\$ 115,760
Other	9,128	7,836	7,576
Total operating revenues	125,195	120,865	123,336
<b>Operating expenses:</b>			
Operating and maintenance	55,518	51,779	52,156
Expenses associated with other revenue	4,514	3,870	4,038
Depreciation	23,809	22,335	21,249
Payments in lieu of taxes (PILOT)	8,242	7,947	7,802
Total operating expenses	92,084	85,931	85,245
Operating income	33,112	34,935	38,091
<b>Nonoperating income and expenses:</b>			
Interest expense-net	(20,707)	(22,171)	(23,816)
Gain (loss) on disposal of assets	(322)	(1,977)	549
Realized and unrealized gains (losses) on investments	284	(201)	(73)
Amortization of bond discount, premium, issuance costs and deferred refunding losses	3,732	3,664	2,541
Intergovernmental revenue	910	1,054	1,168
Total nonoperating expenses	(16,097)	(19,630)	(19,630)
Gain before contributions	17,015	15,304	18,460
Capital contributions	2,859	5,085	2,390
Change in Net Position	\$ 19,874	\$ 20,389	\$ 20,851

### Operating revenues

The change in the operating revenues from FY 2018 to FY 2019 is primarily attributable to the full-year of the increased water rates and charges effective January 3, 2018 partially offset by decreased consumption. Year-over-year decreases in consumption are anticipated due to more water efficient appliances, installation of low-flow plumbing and devices as well as water conservation. However, in FY 2019 higher than average rainfall also contributed to the year-over-year decline in water consumption. Other revenue increased between FY 2018 to FY 2019, primarily due to the increased revenue from PipeSafe offerings and outside lab services. Other water revenue also increased year-over-year.

The change in the operating revenues from FY 2017 to FY 2018 is primarily attributable to decreased water consumption. While a year-over-year decrease is anticipated, as noted above, lower than average rainfall contributed to higher than anticipated consumption in FY 2017. The decreased consumption from FY 2017 to FY 2018 is partially offset by increased rates and charges effective January 3, 2018. Other revenue increased between FY 2017 to FY 2018, primarily due to the increase in PipeSafe Sewer revenues.

### Operating expenses

Operating and maintenance expenses from FY 2018 to FY 2019 increased by approximately \$3.7 million. The larger operational

increases included payroll, medical claims, and maintenance and repair. In addition, pension expense under GASB 68 increased between FY 2018 and 2019. The increase in pension expense was only partially offset by the decrease in OPEB under GASB 75.

Operating and maintenance expenses from FY 2017 to FY 2018 decreased by \$377 thousand. While there were increases in certain categories such as payroll, maintenance and repair, and general and administrative expense, there were offsetting decreases including lower pension expense under GASB 68 and lower medical claims under the Authority's self-insurance program. There was also a reduction in operating and maintenance expenses associated with the implementation of GASB 75 for OPEB.

Depreciation expense increased from FY 2018 to FY 2019 and FY 2017 to FY 2016 primarily due to additions to utility plant.

Payments-in-Lieu-of-Taxes (PILOT) to municipalities increased from FY 2018 to FY 2019 and from FY 2017 to FY 2018 primarily as a result of pipe additions and mill rates.

### Nonoperating income and expenses

Net interest expense decreased from FY 2018 to FY 2019 primarily due to higher interest income and the prior year refinancing activities as outlined below, partially offset by the full-year impact of the Thirty-third Series A Revenue Bonds issued in January 2018, additional low interest rate Drinking Water State Revolving Fund (DWSRF) loans, and interest expense associated with interim subordinate financing.

Net interest expense decreased from FY 2017 to FY 2018 primarily due to higher interest income and refinancing activity. In December 2017 and January 2018, the Authority issued the Thirty-third Series B-1 and B-2 Revenue Bonds, a combined \$58,095,000 (par value), refunding the Authority's 18 B Series and certain maturities of the Authority's Twenty-fifth and Twenty-sixth Series Revenue Bonds. This reduction was partially offset by the Authority's issuance of the Thirty-third Series A bonds of \$10,900,000 (par value) as well as an additional Drinking Water State Revolving Fund (DWSRF) loan and a full-year impact of a DWSRF loan closed in FY 2017.

Due to market conditions, the realized and unrealized investment gain, between May 31, 2019 and May 31, 2018, was approximately \$.3 million. Between May 31, 2017 and May 31, 2018, the realized and unrealized loss was approximately \$.2 million.

#### Disposal of assets

In FY 2019 the Authority had a net loss on the retirement and disposition of certain assets. This net loss was due to the retirement of certain "plant" assets with a remaining net book value partially offset by the proceeds associated with asset dispositions and small net gains on land dispositions.

In FY 2018, the Authority had a net loss on the retirement and disposition of certain assets. This net loss was due to the retirement of certain "plant" assets with a remaining net book value partially offset by proceeds associated with asset dispositions and a small net gain on land dispositions.

#### Amortization

The amortization of bond discount, premium, issuance costs and deferred refunding losses were slightly more favorable in FY 2019 than in FY 2018 primarily due to the amortization of the premiums associated with the Thirty-third Series and lower cost of issuance amortization, partially offset by deferred refunding losses associated with the Thirty-third Series B-1.

The amortization of bond discount, premium, issuance costs and deferred refunding losses were more favorable in FY 2018 than in FY 2017 primarily due to the amortizations associated with the Thirty second Series premiums and the premiums associated with the Thirty-third Series. This favorable impact is partially offset by the amortization of the deferred loss associated with the Thirty third Series B-1 and the cost of issuance associated with the Thirty-second Series, the Thirty third Series and additional DWSRF loans.

#### Intergovernmental revenue

Intergovernmental revenues between FY 2019 and FY 2018 decreased as there were two open space grants in FY 2018, and no open space grants were received in FY 2019. This was partially offset by the receipt of three DWSRF grants in FY 2019 in a total amount higher than the DWSRF grants received in FY 2018.

Intergovernmental revenue decreased slightly between FY 2018 and FY 2017, due to the lower DWSRF grants.

#### Summary: Net Position (in thousands of dollars)

May 31,	2019	2018 (as Restated)	2017 (as Restated)
<b>Assets:</b>			
Capital assets	\$ 639,160	\$ 635,078	\$ 616,293
Other assets			
Current	61,424	59,230	56,444
Long-term note receivable	500	–	–
Restricted assets	118,704	122,723	117,940
Regulatory assets	11,099	11,038	11,188
Total assets	830,887	828,069	801,865
<b>Deferred outflows of resources:</b>			
Deferred charge on refunding	18,094	19,369	18,205
Deferred outflow-goodwill	14,424	14,424	14,424
Deferred pension related charges	4,636	2,784	3,717
Deferred OPEB related charges	1,380	822	–
Total deferred outflows of resources	38,534	37,399	36,346
Total assets and deferred outflows of resources	\$ 869,421	\$ 865,468	\$ 838,211
<b>Liabilities:</b>			
Current liabilities	\$ 50,158	\$ 48,151	\$ 36,241
Payable from restricted assets	10,631	11,848	12,592
Other long-term liabilities	913	2,434	3,233
Long-term debt payable	517,572	526,835	533,333
Net premiums/discounts	58,449	63,871	56,451
Net OPEB liability	20,030	23,652	23,506
Net pension liability	17,122	15,634	19,514
Total liabilities	674,874	692,424	684,869
<b>Deferred inflows of resources:</b>			
Deferred pension related inflows	2,657	4,416	5,274
Deferred OPEB related inflows	3,558	171	–
Total deferred inflows of resources	6,216	4,587	5,274
<b>Net position:</b>			
Net invested in capital assets	58,277	46,913	35,558
Restricted	108,574	106,321	104,414
Unrestricted	21,481	15,223	8,096
Total net position	188,331	168,457	148,068
Total Liabilities, Deferred Inflows of Resources and Net Position	\$ 869,421	\$ 865,468	\$ 838,211

### Capital assets

The increase in capital assets from FY 2018 to FY 2019 and from FY 2017 to FY 2018 is attributable to additions to plant, such as pumping structures and equipment, improvements to existing water treatment plants, upgrades to the distribution and transmission system, including new pipe, and general plant, including information technology related capital investment. (See Note 4, *Capital Assets*, for details.) The higher year-over-year increase between FY 2017 and FY 2018 is primarily due to a relatively large tunnel and pipe restoration project.

### Goodwill

Goodwill results from the Authority's acquisition of Birmingham Utilities on January 16, 2008. Goodwill is not amortized, but is reviewed for impairment at least annually by applying a fair value-based test. The Authority determined that for the years ended May 31, 2019 and May 31, 2018, no impairment of goodwill has occurred.

### Current assets

The following itemizes the change in current assets between May 31, 2018 and 2019, and between May 31, 2017 and 2018, respectively:

May 31,	2019	2018
Increase in cash and cash equivalents and investments	\$ 1,005,466	\$ 2,780,909
Increase in accounts receivable, net	16,356	71,840
Increase (decrease) in accrued water revenue	513,529	(2,775)
Increase in interest receivable	65,005	49,541
Increase in materials and supplies	32,388	69,769
Increase (decrease) in prepayments and other current assets	560,942	(182,964)
Net Increase in Current Assets	\$ 2,193,686	\$ 2,786,320

### Increase in current net position from May 31, 2018 to May 31, 2019

The increase in cash and cash equivalents and investments is primarily associated with the FY 2019 year-end disposition increasing the Growth Fund and higher investment earnings.

The slight increase in accounts receivable is due to a small increase in receivable accounts, partially offset by an increase in the allowance for doubtful accounts.

The increase in accrued water revenue is primarily due to the timing of billing.

The increase in interest receivables is primarily due to the higher accrued investment earnings in the Authority's debt reserve, capital contingency and operating reserve funds as well as debt service funds.

The increase in materials and supplies is primarily related to chemical and fuel inventory partially offset by a reduction in other fleet related inventory.

The increase in prepayments and other current assets is primarily due to increases in pre-paid insurance, the procurement card, and other pre-payments, primarily information technology related, as well as an increase in jobbing receivables. These increases are partially offset by decreases in receivables associated with the OPEB and HazWaste.

### Increase in current net position from May 31, 2017 to May 31, 2018

The increase in cash and cash equivalents is primarily associated with the FY 2018 year-end disposition increasing the Growth Fund and the General Fund as well as net increases in Revenue Fund accounts.

The change in accounts receivable is primarily due to an increase in current receivables due, mostly offset by cash collections on aged receivables.

The slight decrease in accrued water revenue is primarily due to the timing of billing.

The increase in interest receivables is primarily due to the higher accrued interest in the Authority's debt reserve, capital contingency and operating reserve funds as well as debt service funds.

The increase in materials and supplies is related to general stores and is primarily due to material requirements and timing.

The decrease in prepayments and other current assets is primarily due to decreases in pre-paid insurance, procurement card, and miscellaneous pre-payments as well as decreases in jobbing and HazWaste receivables. These decreases are partially offset by other prepayments primarily related to information technology and the OPEB receivable.

### Restricted assets (investments)

The term "restricted assets" refers primarily to certain funds established under the Authority's *General Bond Resolution* whose use is restricted as required by that document, e.g.:

- Construction Fund
- Rate Stabilization Fund
- Debt Reserve Fund
- Operating Reserve Fund
- Debt Service Funds
- Capital Contingency
- Payment in Lieu of Taxes (PILOT) Fund

The Authority invests these restricted assets in securities as allowed by the *General Bond Resolution*, e.g., in direct obligations of the federal or state governments (or agencies) or in obligations guaranteed by the federal government.

Restricted assets decreased approximately \$4.0 million between May 31, 2019 and May 31, 2018. This is primarily due to a \$2.7 million reduction in miscellaneous receivables, a \$2.1 million decrease in restricted interim financing proceeds, a \$.5 million reduction in the construction fund, a \$.3 million reduction in a PILOT receivable, and an approximately \$.1 million reduction in land related receivables. These reductions are partially offset by increases in the Authority's debt reserve, capital contingency, PILOT, and operating reserve, totaling \$1.4 million. In addition, the market value of restricted assets increased by approximately \$.3 million between May 31, 2018 and May 31, 2019.

The decrease in miscellaneous receivables is primarily due to the subsequent event Drinking Water State Revolving Fund (DWSRF) loan and grant financing for which proceeds were received in July 2018 and lower Department of Transportation related receivables, the PILOT receivable has been depleted in accordance with the



associated settlement, and the reduction in the land receivables is due to payments made. The relatively small reduction in the construction fund is primarily due to expenditures, from both bond proceeds and internally generated funds, associated with our capital improvement program largely offset by certain capital project reimbursements (e.g., DWSRF), the fiscal 2019 year-end disposition, state redevelopment reimbursements, and land disposition proceeds.

The increases in restricted assets were due to fiscal 2019 deposits into the debt reserve and capital contingency funds associated with DWSRF financings, the increase in the operating reserve is due to the fiscal 2019 year-end disposition, and the increase in the PILOT fund is due to higher projected fiscal 2020 payments.

Between May 31, 2018 and May 31, 2017, restricted assets increased by approximately \$4.8 million. This increase is primarily due to the increase in the construction fund of approximately \$7.5 million. The increase in the construction fund is primarily due to the year-end disposition of approximately \$10.8 million, approximately \$3.6 million higher unspent bond proceeds, approximately \$1.6 million in other restricted financing proceeds, partially offset by the use of internally generated funds, held within the Construction Fund, to finance approximately \$8.3 million of the capital improvement program and other net changes of approximately \$2 million.

Restricted accounts receivable decreased by approximately \$2.4 million. This receivable reduction is due to an approximately \$2.0 million decrease in a May 31, 2017 receivable associated with a subsequent event DWSRF loan and grant financing for which proceeds were received in July 2017 and partially offset by an increase in Department of Transportation receivables, a reduction in land-related receivables of approximately \$1 million due to payments received and a \$3 million reduction in a PILOT related receivable.

Other restricted assets decreased approximately \$3 million. These decreases include an approximately \$3.2 million reduction in proceeds from interim subordinate debt financing and a reduction in the market value of securities held in restricted funds of approximately \$2 million. These decreases are partially offset by

increases in the debt reserve fund of approximately \$1.3 million, the debt service funds of approximately \$1.3 million, the capital contingency fund of \$2 million, the operating reserve of approximately \$2 million and the PILOT fund of approximately \$1 million.

#### Other long-term assets

As of May 31, 2019, regulatory assets totaled \$11.1 million, net of amortizations, representing an increase of approximately \$1 million over May 31, 2018. Regulatory assets include \$4.8 million of bond issuance costs, \$4.6 million deferred charges of estimated environmental remediation costs of a site on Newhall Road in Hamden, Connecticut (See Note 12, *Pollution Remediation Obligation*), \$2 million associated with a system-wide leak study completed to meet the requirements under a Connecticut Department of Energy & Environmental Protection (DEEP) permit, \$5 million associated with deferred repair at a site in New Haven, Connecticut, \$4 million cost associated with an interconnection in Wallingford and \$6 million in other remediation costs.

As of May 31, 2018, regulatory assets totaled \$11.0 million, net of amortizations. This includes \$4.8 million of bond issuance costs, \$4.8 million deferred charges of estimated environmental remediation costs of a site on Newhall Road in Hamden, Connecticut (See Note 12, *Pollution Remediation Obligation*), \$2 million associated with a system-wide leak study completed to meet the requirements under a Connecticut Department of Energy & Environmental Protection (DEEP) permit, and \$6 million associated with deferred repair at a site in New Haven, Connecticut, and \$6 million in other remediation costs.

#### Current liabilities

The Authority's current liabilities increased by approximately \$2 million between May 31, 2018 and May 31, 2019. This increase is primarily due to an increase of \$6 million in interim subordinate notes payable, \$5 million in the current portion of Water Revenue Bonds payable, and \$4 million in the current portion of DWSRF project loan obligations. In addition, customer deposits, accounts and other payables, and other accrued short-term liabilities increased by a total of \$5 million.

The Authority's current liabilities increased by approximately \$12.0 million between May 31, 2017 and May 31, 2018, primarily due to the increase of \$9.7 million in short-term subordinate notes payable and an \$1.2 million increase in current maturities of revenue bonds payable as well as other net increases.

#### Payables from restricted assets

Between May 31, 2018 and May 31, 2019, payable from restricted assets decreased \$1.2 million. This decrease is due to the decrease of approximately \$5 million in accounts payable for construction, \$4 million decrease in accrued interest payable, and \$3 million in restricted customer deposits and advances.

Between May 31, 2017 and May 31, 2018, payables from restricted assets decreased by approximately \$7 million. This decrease is primarily due to the decrease of approximately \$1 million in accounts payable for construction is partially offset by an increase in accrued interest payable and customer deposits and advances.

#### Other long-term liabilities

Between May 31, 2018 and May 31, 2019, other long-term liabilities decreased by approximately \$1.5 million due to these remediation costs being incurred during FY 2019. Between FY 2018 and FY 2019 there was no change in the estimate of the total cost of remediation associated with the Newhall Road site in Hamden.

Between May 31, 2017 and May 31, 2018, other long-term liabilities decreased by approximately \$8 million. This decrease is due to costs incurred during FY 2018 of approximately \$6 million and a reduction of approximately \$150,000 in the estimate for the total cost of remediation associated with the Newhall Road site in Hamden.

### Long-term debt

Between May 31, 2018 and May 31, 2019, long-term Water Revenue Bonds payable at par decreased by approximately \$17.1 million partially offset by an increase of approximately \$8.4 million in additional DWSRF low cost project loan obligations. Net premiums/discounts decreased by approximately \$5.4 million due to amortizations.

Between May 31, 2017 and May 31, 2018, long-term bonds payable decreased by \$6.5 million due to the December 2017 and January 2018 issuance of the Thirty-third Series B-1 and B-2 (refunding) and the August 2017 principal payment partially offset by the Thirty-third Series A bond issuance and additional DWSRF project loan obligations. Net premiums/discounts increased by approximately \$7.4 million primarily due to the issuance of the Thirty-third Series A, B-1, and B-2. The Thirty-third Series A was issued in January 2018.

### Net pension liability

Between May 31, 2018 and May 31, 2019, the net pension liability increased by approximately \$1.5 million. The net pension liability increase is primarily due to lower than anticipated investment returns and change in benefits, partially offset by strong pension contributions of approximately \$1.8 million in excess of the actuarial required contribution.

Between May 31, 2017 and May 31, 2018, the net pension liability decreased by approximately \$3.9 million primarily due to strong pension contributions, approximately \$2.1 million in excess of the actuarial required contribution, higher net investment returns and change in assumptions (e.g., mortality projection), partially offset by expected versus actual experience, benefits earned by plan participants and other factors.

### Net other post-employment benefit liability

Between May 31, 2018 and May 31, 2019, the net other post-employment benefit liability decreased by approximately \$3.6 million, primarily due to lower than anticipated health care coverage costs partially offset by change in assumptions and benefits earned by plan participants. This liability is also impacted by other net changes.

Between May 31, 2017 and May 31, 2018, the net other post-employment benefit liability increased by approximately \$1 million primarily due to benefits earned by plan participants and expected versus actual experience mostly offset by plan earnings and other factors.

### Invested in capital, net of related debt

Between May 31, 2018 and May 31, 2019, the amount of invested in capital, net of related debt, increased \$11.4 million primarily due to the reduction in capital related debt and to a lesser degree the increase in net plant.

Between May 31, 2017 and May 31, 2018, the amount invested in capital, net of related debt, increased by \$11.4 million primarily due to the increase in utility plant and deferred charge on refunding as well as lower revenue bonds payable at par, partially offset the increase in DWSRF loans, bond anticipation notes payable and increase in premiums on revenue bonds.

### Net position, restricted

Restricted net position increased by approximately \$2.3 million from May 31, 2018 to May 31, 2019, primarily due to the decrease in liabilities payable from restricted assets being more than the restricted asset reductions, as described above. The increase is also due to the \$.5 million note receivable. While this note receivable is not governed by the Authority's *General Bond Resolution*, it represents an investment, in the form of a loan, convertible to equity under specified terms, to a Connecticut based aquaponics company. Therefore, this note receivable is being classified as restricted for financial reporting purposes.

Restricted net position increased by approximately \$2 million from May 31, 2017 to May 31, 2018, primarily due to the increase in restricted assets, as described above and the decrease in liabilities payable from restricted assets of approximately \$.9 million, partially offset by approximately \$4.6 million in unspent bond proceeds as of May 31, 2018.

### Unrestricted net position

Unrestricted net position increased by \$6.3 million due to the increase in current assets by more than the increase in unrestricted liabilities.

Between May 31, 2017 and May 31, 2018, the unrestricted net position increased by \$7.1 million due to the increase in current assets by more than the increase in unrestricted liabilities.

### Prior Period Adjustment

The following restatements were recorded to the beginning net position as a result of the implementation of GASB Statement No. 75, *Accounting and Financial Reporting for Postemployment Benefits Other than Pensions*.

Net Position at May 31, 2017, as previously reported	\$	171,564,234
Adjustments:		(23,496,112)
Net Position at June 1, 2017	\$	148,068,122

### The Authority's Customer Base

The Authority's customer base is primarily residential and commercial. Of the Authority's approximately 119,500 customers, 115,600 are residential and commercial water customers. The customer base also includes industrial, public authority, wholesale and fire service. Between May 31, 2018 and May 31, 2019, there has been minimal growth in the Authority's customer base.

### Liquidity and Capital Resources

Utilizing the Maintenance Test calculations as prescribed in the *General Bond Resolution*, in FY 2019 the Authority received approximately \$121.0 million in cash from operations and a combined \$2.4 million from earnings on investments and Build America Bond subsidy, these amounts being more than sufficient to pay for operations and maintenance, PILOT and to fund transfers associated with debt service. As part of the FY 2019 year-end disposition of the revenue fund, the Authority had approximately \$14.0 million available after funding required reserves. The Authority increased the Growth Fund by \$1.0 million and transferred \$.6 million to the General Fund, fully replenishing the amount used during FY 2019. The Authority also transferred approximately \$12.5 million to the Construction Fund, including the funding of depreciation. In addition, in FY 2019, the Authority

contributed to the pension plans approximately \$1.8 million in excess of the actuarial requirement and also partially funded the capital improvement program with internally generated funds.

### **Credit Rating**

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In June 2019, Moody's Investor Services affirmed the Aa3 rating on outstanding debt and Standard & Poor's Rating Services also affirmed the Authority's credit rating of AA-.

In November 2017, Moody's Investor Services affirmed the Aa3 rating on outstanding debt and Standard & Poor's Rating Services also affirmed the Authority's credit rating of AA-.

In June 2016, Standard & Poor's Rating Services upgraded the Authority's credit rating to AA- from A+ and Moody's Investor Service affirmed the Aa3 rating on outstanding debt.

### **Financial Statement Presentation**

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The Authority prepares its financial statements on an accrual basis in accordance with accounting principles generally accepted in the United States of America.

### **Request For Information**

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Please note that the Authority's audited financial statements include data from its fiscal years ended May 31, 2019 and 2018. Comparable information for earlier years is available, as noted below.

This report is designed to provide a financial overview of the South Central Connecticut Regional Water Authority. Questions concerning the information in this report or requests for additional information should be addressed in writing to the Executive Vice-President and Chief Financial Officer or the Vice President of Finance and Controller, South Central Connecticut Regional Water Authority, 90 Sargent Drive, New Haven, Connecticut 06511.

**STATEMENTS OF NET POSITION**

May 31,	2019	2018 (as Restated)
<b>Assets:</b>		
Utility plant		
Depreciable property, plant and equipment in service	\$ 873,171,912	\$ 851,800,289
Accumulated depreciation	(338,882,328)	(317,864,825)
Depreciable utility plant in service	534,289,584	533,935,464
Land	28,015,381	27,766,213
Construction work in progress	11,941,329	8,566,433
Total utility plant, net	574,246,294	570,268,110
Nonutility land	64,913,354	64,809,815
Current assets:		
Cash and cash equivalents	26,128,771	25,923,305
Investments	101,031	201,031
Accounts receivable, less allowance for doubtful accounts of \$3,270,701 in 2019 and \$3,183,126 in 2018	12,194,247	12,177,891
Accrued water revenue	18,279,633	17,766,104
Accrued interest receivable	215,458	150,453
Materials and supplies	1,579,556	1,547,168
Prepaid expenses and other assets	2,924,833	2,363,891
Total current assets	61,423,529	59,229,843
Long-term receivable	500,000	–
Restricted assets	118,704,243	122,723,463
Regulatory assets	11,099,481	11,038,207
Total assets	830,886,901	828,069,438
<b>Deferred Outflows of Resources:</b>		
Deferred charge on refunding	18,094,420	19,369,125
Deferred outflows–goodwill	14,423,704	14,423,704
Deferred outflows related to pensions	4,635,876	2,783,720
Deferred outflows related to OPEB	1,379,620	821,989
Total deferred outflows of resources	38,533,620	37,398,538

Statements of Net Position continued on next page

**STATEMENTS OF NET POSITION (continued)**

May 31,	2019	2018 (as Restated)
<b>Liabilities:</b>		
Noncurrent liabilities:		
Revenue bonds payable, less current portion	\$ 496,190,000	\$ 513,835,000
Drinking water loans payable	21,381,720	12,999,697
Net premiums and discounts from revenue bonds payable	58,449,138	63,871,269
Net pension liability	17,122,195	15,633,774
Net OPEB liability	20,030,271	23,652,026
Total noncurrent liabilities	613,173,324	629,991,766
Current liabilities:		
Current maturities of bonds payable	17,645,000	17,125,000
Current maturities of drinking water loans payable	985,953	572,971
Accounts payable	3,774,265	3,676,319
Bond anticipation notes payable	18,749,404	18,109,105
Customer deposits and advances	1,237,371	1,173,699
Other accrued liabilities	7,765,574	7,494,351
Total current liabilities	50,157,567	48,151,445
Payable from restricted assets:		
Accounts payable for construction	1,517,131	1,991,210
Accrued interest payable	8,272,295	8,735,309
Customer deposits and advances	841,109	1,121,027
Total liabilities payable from restricted assets	10,630,535	11,847,546
Pollution remediation obligation	912,544	2,433,567
Total liabilities	674,873,970	692,424,324
<b>Deferred Inflows of Resources:</b>		
Deferred inflows related to pensions	2,657,004	4,415,699
Deferred inflows related to OPEB	3,558,498	170,587
Total deferred inflows of resources	6,215,502	4,588,286
<b>Net Position:</b>		
Net investment in capital assets	58,276,557	46,912,606
Restricted	108,573,708	106,321,023
Unrestricted	21,480,784	15,223,737
Total Net Position	\$ 188,331,049	\$ 168,457,366

The accompanying notes are an integral part of these financial statements

**STATEMENTS OF REVENUES, EXPENSES AND CHANGES IN NET POSITION**

May 31,	2019	2018 (as Restated)
<b>Operating revenues:</b>		
Water revenues:		
Residential and commercial	\$ 95,376,125	\$ 92,667,917
Industrial	1,715,445	1,802,916
Fire protection	11,271,061	10,915,978
Public authority	2,926,844	3,343,710
Wholesale	968,324	878,818
Other water revenues	3,809,435	3,419,826
Other revenue	9,127,866	7,835,990
Total operating revenues	125,195,100	120,865,155
<b>Operating expenses:</b>		
Operating and maintenance expense	55,518,108	51,778,908
Depreciation	23,809,377	22,335,102
Payments in lieu of taxes	8,242,210	7,947,013
Other water expenses	1,825,324	1,498,786
Cost of other revenue	2,688,529	2,370,753
Total operating expenses	92,083,548	85,930,562
Operating income	33,111,552	34,934,593
<b>Nonoperating income (expense):</b>		
Interest income	4,650,434	3,309,407
Loss on disposal of assets	(321,977)	(1,977,421)
Realized and unrealized gains (loss) on investments	284,316	(200,773)
Interest expense	(25,351,685)	(25,479,941)
Amortization of bond discount, premium, issuance cost and deferred losses	3,732,104	3,664,377
Intergovernmental revenue	910,000	1,054,031
Total nonoperating expense	(16,096,808)	(19,630,320)
Change in net position before capital contributions	17,014,744	15,304,273
Capital Contributions	2,858,939	5,084,971
Change in Net Position	19,873,683	20,389,244
Net Position – Beginning of Year, as Restated	168,457,366	148,068,122
Net Position – End of Year	\$ 188,331,049	\$ 168,457,366

The accompanying notes are an integral part of these financial statements

## STATEMENTS OF CASH FLOWS

May 31,	2019	2018 (as Restated)
<b>Cash Flows from Operating Activities:</b>		
Cash received from water sales	\$ 111,241,443	\$ 109,046,494
Cash received from other services	12,830,457	11,333,856
Cash paid to employees	(22,032,990)	(21,410,201)
Cash paid to suppliers for operations	(37,070,077)	(34,535,927)
Cash paid to suppliers for other services	(3,167,357)	(3,019,929)
Cash paid for payments in lieu of taxes	(7,939,024)	(7,643,827)
Net cash provided by operating activities	53,862,452	53,770,466
<b>Cash Flows from Investing Activities:</b>		
Interest received	4,560,168	3,211,629
Purchase of other investments	(500,000)	–
Sale of unrestricted investments	100,000	17,152
Purchase of restricted investments	(183,362,285)	(211,328,385)
Sale of restricted investments	185,812,382	206,109,617
Net cash provided by (used in) investing activities	6,610,265	(1,989,987)
<b>Cash Flows from Capital and Related Financing Activities:</b>		
Payments for utility plant	(31,024,520)	(45,275,893)
Proceeds from disposition of assets	303,724	360,746
Proceeds from issuance of bond anticipation notes	24,224,775	18,109,105
Proceeds from issuance of drinking water loans	9,537,470	7,588,218
Proceeds from issuance of revenue bonds	–	68,995,000
Premium on bond issuance	–	14,647,419
Principal payments on revenue bonds	(17,125,000)	(82,030,000)
Payments on drinking water loans	(742,465)	(292,097)
Payments on bond anticipation notes	(23,584,476)	(8,400,000)
Interest paid	(25,930,044)	(28,114,226)
Grant proceeds	910,000	1,449,196
Capital contributions, net of restricted deposit	4,063,285	3,980,114
Net cash used in capital and related financing activities	(59,367,251)	(48,982,418)
Net Increase in Cash and Cash Equivalents	1,105,466	2,798,061
Cash and Cash Equivalents – Beginning of Year	25,023,305	22,225,244
Cash and Cash Equivalents – End of Year	\$ 26,128,771	\$ 25,023,305

Statements of Cash Flows continued on next page

**STATEMENTS OF CASH FLOWS (continued)**

May 31,	2019	2018 (as Restated)
<b>Reconciliation of Operating Income to Net Cash</b>		
Provided by Operating Activities:		
Operating income	\$ 33,111,552	\$ 34,934,593
Adjustments to reconcile operating income to net cash provided by operating activities:		
Depreciation	23,809,377	22,335,102
Bad debt expense	585,371	552,182
Other	2,226,405	1,551,686
PILOT settlement	303,186	303,186
Change in:		
Accounts receivable and accrued water revenue	(1,115,256)	(621,247)
Materials and supplies	(32,388)	(69,769)
Prepaid expenses and other assets	(580,072)	143,210
Regulatory assets	(443,636)	(1,017,039)
Deferred outflows of resources	(2,409,787)	111,465
Accounts payable	97,946	355,243
Pension liability	1,488,421	(3,880,473)
OPEB liability	(3,621,755)	146,161
Deferred inflows of resources	1,629,216	(687,487)
Customer deposits and advances	63,672	58,402
Other accrued liabilities	(1,249,800)	(444,749)
Total adjustments	20,750,900	18,835,873
Net Cash Provided by Operating Activities	\$ 53,862,452	\$ 53,770,466

The accompanying notes are an integral part of these financial statements



**STATEMENTS OF FIDUCIARY NET POSITION – PENSION TRUST FUND**

May 31,	2019	2018
<b>Assets:</b>		
Cash and cash equivalents	\$ 1,354,234	\$ 934,494
Investments:		
U.S. Government securities	5,084,715	789,806
U.S. Government agencies	3,207,741	–
Corporate bonds	4,511,472	–
Mutual funds	40,931,650	51,734,651
Alternative investments	1,078,660	1,044,765
Total assets	56,168,472	54,463,716
<b>Net Position:</b>		
Restricted for Pension Benefits	\$ 56,168,472	\$ 54,463,716

**STATEMENTS OF CHANGES IN FIDUCIARY NET POSITION – PENSION TRUST FUND**

May 31,	2019	2018
<b>Additions:</b>		
Contributions:		
Employer	\$ 5,136,907	\$ 5,860,737
Retirees	8,287	10,918
Other	–	22,116
Total contributions	5,145,194	5,893,771
<b>Investment earnings:</b>		
Net change in fair value of investments	(149,391)	1,966,451
Realized gain (loss) on sale of investments	(467,498)	162,163
Investment earnings and other income	1,978,330	1,900,118
Net investment earnings	1,361,441	4,028,732
Total additions	6,506,635	9,922,503
<b>Deductions:</b>		
Benefits	4,480,011	3,908,768
Expenses	279,523	289,201
Other	42,345	–
Total deductions	4,801,879	4,197,969
Change in Net Position	1,704,756	5,724,534
Net Position – Beginning of Year	54,463,716	48,739,182
Net Position – End of Year	\$ 56,168,472	\$ 54,463,716

The accompanying notes are an integral part of these financial statements

**STATEMENTS OF FIDUCIARY NET POSITION – RETIRED EMPLOYEES CONTRIBUTORY TRUST FUND**

May 31,	2019	2018
<b>Assets:</b>		
Cash and cash equivalents	\$ 418,910	\$ 383,088
Investments:		
U.S. Government securities	422,316	–
Mutual funds	6,153,117	5,701,366
Total assets	6,994,343	6,084,454
<b>Net Position:</b>		
Restricted for Retiree Benefits	\$ 6,994,343	\$ 6,084,454

**STATEMENTS OF CHANGES IN FIDUCIARY NET POSITION – RETIRED EMPLOYEES CONTRIBUTORY TRUST FUND**

May 31,	2019	2018
<b>Additions:</b>		
Contributions:		
Employer	\$ 2,310,104	\$ 2,289,292
Retirees	197,813	187,448
Total contributions	2,507,917	2,476,740
Investment earnings:		
Net change in fair value of investments	27,356	212,439
Realized gain (loss) on sale of investments	(60,200)	20,026
Investment earnings and other income	221,929	209,501
Net investment earnings	189,085	441,966
Total additions	2,697,002	2,918,706
<b>Deductions:</b>		
Benefits	1,749,662	2,060,052
Expenses	37,451	35,081
Total deductions	1,787,113	2,095,133
Change in Net Position	909,889	823,573
Net Position – Beginning of Year	6,084,454	5,260,881
Net Position – End of Year	\$ 6,994,343	\$ 6,084,454

The accompanying notes are an integral part of these financial statements

# Notes to Financial Statements

As of and for the Years Ended May 31, 2019 and 2018

## 1. Organization

The South Central Connecticut Regional Water Authority (the Authority) was created, effective July 25, 1977, pursuant to Special Act No. 77-98 (the Act), as amended. Per this enabling legislation, the primary purpose of the Authority is to provide and assure an adequate supply of pure water at a reasonable cost to the South Central Connecticut Regional Water District (the District) and, to the degree consistent with the foregoing, to advance water conservation and the conservation and compatible recreational use of land held by the Authority. The Five-Member Authority is elected by the twenty-one-member Representative Policy Board (RPB), which consists of a member from each of the twenty municipalities within the District and one member appointed by the Governor of the State of Connecticut.

In 1999, the Authority established the Watershed Fund, a separate legal entity organized for the purpose of protecting watershed land that has a distinctive ecological significance through open space acquisition and environmental education. The Watershed Fund is a separate legal entity from the Authority. It has been excluded from the Authority's financial statements due to the insignificance of its balances as compared with those of the Authority. Information regarding the Watershed Fund can be found in Note 6, *Watershed Fund*. Requests for complete financial statements for the Watershed Fund should be addressed in writing to President, The Watershed Fund, 90 Sargent Drive, New Haven, CT 06511.

## 2. Summary of Significant Accounting Policies

The accounting records of the Authority are maintained in accordance with accounting principles generally accepted in the United States of America. All assets, liabilities, net position, revenues and expenses are accounted for in a proprietary fund except for employee benefit trusts, which are reported as fiduciary funds. For both proprietary and fiduciary funds, revenues are recognized when earned and expenses are recognized when

incurred. The more significant accounting policies are summarized below.

### Basis of Accounting

The Authority utilizes the accrual basis of accounting wherein revenues are recognized when earned and expenses when incurred.

### Regulatory Accounting Policies

The Authority follows accounting principles generally accepted in the United States of America for regulated public utilities. Under these principles, regulated companies defer certain costs and credits on the statement of net position as regulatory assets and liabilities when it is probable that those costs and credits will be recoverable through the ratemaking process in a period different from when they otherwise would have been reflected in income. These deferred regulatory assets and liabilities are then reflected in revenues or expenses in the period in which the same amounts are reflected in rates.

As of May 31, 2019, regulatory assets include regulatory assets include \$4.8 million of bond issuance costs and \$6.3 million of deferred charges, net of amortization. Included in the approximately \$6.3 million is \$4.6 million associated with estimated environmental remediation costs in the town of Hamden, \$1.2 million associated with a required system-wide leak study, deferred repair and remediation costs, and \$.4 million of incurred costs associated with interconnection.

### Utility Plant

Capital assets in utility plant are defined by the Authority as assets with an initial cost of more than \$2,000 and an estimated life of more than one year. Such assets are recorded at cost if purchased or constructed, which includes material and direct labor, as well as indirect items, e.g., engineering, supervision, payroll taxes, employee benefits, transportation and capitalized interest on significant construction projects. The costs of maintenance and repairs are charged to the appropriate operations and maintenance expense accounts as incurred, while the costs of renewal and betterments are capitalized. The book value of depreciable utility plant retired in the ordinary course of

business is removed from the asset and accumulated depreciation accounts. Gain or loss realized upon disposal is credited or charged to income.

Donated capital assets are recognized at estimated acquisition value at date of donation. The cost of normal maintenance and repairs that do not add to the value of the related assets or materially extend their lives is charged to operations. Major outlays for capital assets and improvements are capitalized as projects are constructed.

Depreciation expense is computed using the straight-line method based on estimated service lives. Half of a year's depreciation is provided for capital assets in the year they are placed in or removed from service.

The estimated service lives of capital assets are as follows:

Asset Description	Useful Life (Years)
Source of supply and supply mains	100
Wells and springs	30
Other water source structures	10
Power and pumping structures	30
Pumping equipment	20
Water treatment plant structure	43
Water treatment equipment	23
Distribution tanks	50
Distribution mains	85
Services	50
Meters	15
Hydrants	60
Hydraulic shovel and front loader	8
Hydraulic backhoe	6
Compressors	10
Computer equipment	5
Computer software	5-15
General structures	10-32
Furniture and fixtures	12
Autos and trucks	5
Other	3-10

### Goodwill

Goodwill is not amortized, but is reviewed for impairment at least annually by applying a fair value-based test. The Authority determined that for the years ended May 31, 2019 and 2018 no impairment of goodwill has occurred.

### Cash and Cash Equivalents

Cash and cash equivalents include cash on hand, amounts due from banks and repurchase agreements that are collateralized by U.S. government securities. The Authority considers all unrestricted investments with an original maturity of three months or less to be cash equivalents.

### Investments

Investments are reported at fair value.

### Materials and Supplies

Materials and supplies inventories are presented at the lower of weighted average cost or market.

### Deferred Outflows/Inflows of Resources

In addition to assets, the statement of net position will sometimes report a separate section for deferred outflows of resources. This separate financial statement element, deferred outflows of resources, represents a consumption of net position that applies to a future period or periods and so will not be recognized as an outflow of resources until then. The Authority reports a deferred charge on refunding, goodwill, and deferred outflows related to pension and other post-employment benefits (OPEB) in the statement of net position. A deferred charge on refunding results from the difference in the carrying value of refunded debt and its reacquisition price. This amount is deferred and amortized over the shorter of the life of the refunded or refunding debt.

A deferred outflow of resources related to pension and OPEB can result from differences between expected and actual experience, changes in assumptions, projected versus actual investment earnings or other inputs. These amounts are deferred and included in pension and OPEB expense in a systematic and rational manner over a period equal to the average of the expected remaining service lives of all employees that are provided with

benefits through the pension and OPEB plan (participating active employees and vested former employees).

In addition to liabilities, the statement of net position will sometimes report a separate section for deferred inflows of resources. This separate financial statement element, deferred inflows of resources, represents an acquisition of net position that applies to a future period or periods and so will not be recognized as an inflow of resources (revenue) until that time. The Authority reports a deferred inflow of resources related to pensions and OPEB. A deferred inflow of resources related to pension and OPEB can result from differences between expected and actual experience, changes in assumptions, projected versus actual investment earning, or other inputs. These amounts are deferred and included in pension and OPEB expense in a systematic and rational manner over a period equal to the average of the expected remaining service lives of all employees that are provided with benefits through the pension and OPEB plan (participating active employees and vested former employees).

### Restricted Assets

Pursuant to the Water System Revenue Bond Resolution, General Bond Resolution (the *General Bond Resolution*), the Authority maintains certain restricted assets, consisting principally of investments in U.S. Government and State of Connecticut obligations, which are carried at fair value. See Note 5, *Restricted Assets*.

### Bonds Premiums and Discounts

The net balances for bond premiums and discounts are reported separately from revenue bonds payable. These balances are amortized using the interest method, meaning amortization is based on interest payments over the terms of the series.

### Net Pension Liability

The net pension liability is measured as the portion of the actuarial present value of projected benefits that is attributed to past periods of employee service (total pension liability), net of the pension plans' fiduciary net position. The pension plans' fiduciary net position is determined using the same valuation methods

that are used by the pension plan for purposes of preparing its statement of fiduciary net position. The net pension liability is measured as of a date (measurement date) no earlier than the end of the employer's prior fiscal year, consistently applied from period to period.

### Net OPEB Liability

The net OPEB liability is measured as the portion of the present value of projected benefit payments to be provided to current participating active and inactive employees that is attributed to those employees' past periods of service (total OPEB liability), less the amount of the OPEB plan's fiduciary net position. The OPEB plan's fiduciary net position is determined using the same valuation methods that are used by the OPEB plan for purposes of preparing its statement of fiduciary net position. The net OPEB liability is measured as of a date (measurement date) no earlier than the end of the employer's prior fiscal year, consistently applied from period to period.

### Customer Deposits and Advances

Cash advances to reimburse the Authority for costs to construct supply mains are contributed to the Authority by customers, real estate developers and builders in order to extend water service to their properties. The Authority makes refunds on these deposits and advances in accordance with the deposit and advance agreements. After making refunds, the Authority records the remaining balance in the customer advance account for which work has been completed as a capital contribution.

### Operating Items

Enterprise funds distinguish operating revenues and expenses from nonoperating items. Operating revenues and expenses generally result from providing services and delivering goods in connection with a fund's principal ongoing operations. The principal operating revenues of the funds are charges to customers for services. Operating expenses for enterprise funds include the cost of sales and services, administrative expenses, payment in lieu of taxes and depreciation on capital assets. All revenues and expenses not meeting this definition are reported as nonoperating revenues and expenses.

### Accrued Water Revenue

The Authority accrues revenue based on an estimate of water service provided to each customer, net of allowance for uncollectible accounts, from the last meter reading date to the statement of net position date. Interest is accrued on unpaid customer accounts after 30 days from the billing date.

### Other Revenue

Other revenue includes revenue from the PipeSafe suite of offerings, including water, sewer and septic protection plans as well as protection plans bundled with home plumbing, laboratory testing services, fleet repairs, rental income and miscellaneous charges.

### Capital Contributions

Capital contributions include contributions-in-aid-of-construction resulting from direct nonrefundable contributions and the portion of customers' advances for construction that become nonrefundable. Also included are amounts representing nonrefundable contributions for construction purposes from governmental agencies. Grants from governmental agencies are included in intergovernmental revenues.

### 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 certain reported amounts and disclosures in the financial statements. Actual results may differ from those estimates.

## 3. DEPOSITS AND INVESTMENTS

The Authority's *General Bond Resolution* Section 404A requires Authority revenue to be deposited promptly.

Section 411A of the Authority's *General Bond Resolution* requires that money held in its various funds by the Authority or its trustee be invested in investment securities, which are defined as follows:

- Direct obligations of the United States of America
- Obligations guaranteed by the United States of America
- Debt issued by federal agencies
- Debt issued by states or their agencies (with ratings qualifications)
- Repurchase agreements
- Short-term investment funds administered by a state
- Any obligation approved in writing by Moody's Investors Service and Standard & Poor's Ratings Group

The Authority utilizes a variety of these investment options. The Authority's deposits and investments held in the Growth Fund are not governed by the *General Bond Resolution*.

### Deposits

#### Deposit Custodial Credit Risk

Custodial credit risk is the risk that, in the event of a bank failure, the Authority's deposit will not be returned. To limit custodial credit risk, the Authority utilizes overnight repurchase agreements and a treasury obligation sweep account for this purpose.

Based on the criteria described in GASB Statement No. 40, *Deposits and Investment Risk Disclosures*, \$5,145,556 of the Authority's bank balance of \$5,645,556 (of which \$936 is associated with subordinate interim financing proceeds) was exposed to custodial credit risk as of May 31, 2019 as follows:

May 31,	2019
Uninsured and uncollateralized	\$ 826,934
Uninsured and collateral held by the pledging bank's trust department, not in the Authority's name	4,318,622
<b>Total Amount Subject to Custodial Risk</b>	<b>\$ 5,145,556</b>

### Cash Equivalents

As of May 31, 2019 and 2018, the Authority's cash equivalents amounted to \$103,586,137 and \$98,394,794, respectively, and consisted of the State Short-Term Investment Fund (STIF), with a credit rating of AAAM by Standard & Poor's, United States Treasuries, cash portions of fiduciary funds held at custodial institutions and repurchase agreements.

### Investments

As of May 31, 2019, the Authority had the following investments:

Investment Type	Credit Rating	Fair Market Value	Investment Maturities (Years)		
			Less Than 1	1-10	More Than 10
Interest-bearing investments:					
U.S. Government securities	Aaa	\$ 5,507,031	\$ 3,998,234	\$ 1,508,797	\$ -
U.S. Government agencies	Aaa	36,782,089	2,166,568	34,615,521	-
Corporate bonds	Aa1	328,757	-	328,757	-
Corporate bonds	A1	324,808	-	324,808	-
Corporate bonds	A2	975,636	-	975,636	-
Corporate bonds	A3	1,930,212	-	1,930,212	-
Corporate bonds	Baa1	952,059	-	952,059	-
Other investments:					
Mutual funds		47,474,946			
Alternative investments		1,078,660			
<b>Total Investments</b>		<b>\$ 95,354,198</b>			

As of May 31, 2018, the Authority had the following investments:

Investment Type	Credit Rating	Fair Market Value	Investment Maturities (Years)		
			Less Than 1	1-10	More Than 10
Interest-bearing investments:					
U.S. Government securities	Aaa	\$ 749,805	\$ 749,805	\$ –	\$ –
U.S. Government agencies	Aaa	35,571,052	1,918,430	33,632,237	\$ 20,385
Other investments:					
Mutual funds		57,436,016			
Alternative investments		1,044,765			
<b>Total Investments</b>		<b>\$ 94,801,638</b>			

### Interest Rate Risk

The Authority typically prefers to limit its investment maturities to five years. Investments with maturities over one year are held within reserve accounts with limited liquidity requirements.

### Credit Risk – Investments

As indicated above, the Authority's *General Bond Resolution* limits the investment options of the Authority. For investments governed by the *General Bond Resolution*, the Authority has an investment

policy that allows the same types of investments as the *General Bond Resolution*.

### Concentration of Credit Risk

The Authority has no policy limiting an investment in any one issuer that is in excess of 5% of the Authority's total investments.

### Custodial Credit Risk

Custodial credit risk for an investment is the risk that, in the event of the failure of the counterparty (the institution that

pledges collateral or repurchase agreement securities to the Authority or that sells investments to or buys investments for the Authority), the Authority will not be able to recover the value of its investments or collateral securities that are in the possession of an outside party. The Authority does not have a policy for custodial credit risk. As of May 31, 2019, the Authority was not subject to custodial risk because it did not have any uninsured and unregistered securities held by the counterparty or by its trust department or agent that were not in the Authority's name.

### Fair Value

The Authority categorizes its fair value measurements within the fair value hierarchy established by generally accepted accounting principles. The hierarchy gives the highest priority to unadjusted quoted prices in active markets for identical assets or liabilities (Level 1 measurements); followed by quoted prices in inactive markets or for similar assets or with observable inputs (Level 2 measurements); and the lowest priority to unobservable inputs (Level 3 measurements).

The Authority has the following recurring fair value measurements as of May 31, 2019:

	May 31, 2019	Fair Value Measurements Using		
		Level 1	Level 2	Level 3
Investments by Fair Value Level				
U.S. Government securities	\$ 5,507,031	\$ –	\$ 5,507,031	\$ –
U.S. Government agencies	36,782,089	–	36,782,089	–
Corporate bonds	4,511,472	–	4,511,472	–
Mutual funds	47,474,946	47,474,946	–	–
<b>Total investments by fair value level</b>	<b>\$ 94,275,538</b>	<b>\$ 47,474,946</b>	<b>\$ 46,800,592</b>	<b>\$ –</b>
Investments measured at the net asset value (NAV):				
Skybridge Multi-Adviser Hedge Fund Portfolios LLC- Series G	1,078,660			
<b>Total Investments</b>	<b>\$ 95,354,198</b>			

The Authority has the following recurring fair value measurements as of May 31, 2018:

	May 31, 2018	Fair Value Measurements Using		
		Level 1	Level 2	Level 3
Investments by Fair Value Level				
U.S. Government securities	\$ 749,805	\$ 749,805	\$ –	\$ –
U.S. Government agencies	35,571,052	–	35,571,052	–
Mutual funds	57,436,016	57,436,016	–	–
<b>Total investments by fair value level</b>	<b>\$ 93,756,873</b>	<b>\$ 58,185,821</b>	<b>\$ 35,571,052</b>	<b>\$ –</b>
Investments measured at the net asset value (NAV)				
SkyBridge Multi-Adviser Hedge Fund Portfolios LLC – Series G	1,044,765			
<b>Total Investments</b>	<b>\$ 94,801,638</b>			

Debt and equity securities classified in Level 1 of the fair value hierarchy are valued using prices quoted in active markets for those securities. Debt securities classified in Level 2 of the fair value hierarchy are valued using a matrix pricing technique. Matrix pricing is used to value securities based on the securities' relationship to benchmark quoted prices.

Hedge funds, associated with the Authority's pension plans, are valued as described in the following schedule.

The valuation method for investments measured at the net asset value (NAV) per share (or its equivalent) as of May 31, 2019 and May 31, 2018 presented on the following table:

2019	Fair Value	Unfunded Commitments	Redemption Frequency (If Currently Eligible)	Redemption Notice Period
SkyBridge Multi-Adviser Hedge Fund Portfolios LLC – Series G	\$ 1,078,661	\$ 7,572	Quarterly	65 days
<b>Total Investments Measured at NAV</b>	<b>\$ 1,078,661</b>	<b>\$ 7,572</b>		

2018	Fair Value	Unfunded Commitments	Redemption Frequency (If Currently Eligible)	Redemption Notice Period
SkyBridge Multi-Adviser Hedge Fund Portfolios LLC – Series G	\$ 1,044,765	\$ –	Quarterly	65 days
<b>Total Investments Measured at NAV</b>	<b>\$ 1,044,765</b>	<b>\$ –</b>		

#### 4. Capital Assets

The following is a summary of utility plant:

2019	June 1, 2018	Additions	Transfers	Adjustments and Retirements	May 31, 2019
<b>Capital assets not being depreciated:</b>					
Land	\$ 27,766,213	\$ –	\$ –	\$ 249,168	\$ 28,015,381
Construction work in progress	8,566,433	30,618,449	(24,601,388)	(2,642,165)	11,941,329
Total capital assets not being depreciated	36,332,646	30,618,449	(24,601,388)	(2,392,997)	39,956,710
<b>Other capital assets:</b>					
Source of supply	58,703,284	–	623,461	(100,013)	59,226,732
Pumping structures and equipment	38,702,955	–	339,758	(19,639)	39,023,074
Water treatment plant and equipment	194,419,777	–	3,283,964	(11,734)	197,692,007
Transmission and distribution	476,365,769	92,745	17,733,106	(2,886,602)	491,305,018
General plant	83,608,504	45,842	2,621,099	(350,364)	85,925,081
Total other capital assets	851,800,289	138,587	24,601,388	(3,368,352)	873,171,912
<b>Less accumulated depreciation:</b>					
Source of supply	13,435,781	764,162	–	(39,355)	14,160,588
Pumping structures and equipment	22,636,387	1,344,238	–	(19,639)	23,960,986
Water treatment plant and equipment	98,748,419	6,183,060	–	(11,734)	104,919,745
Transmission and distribution	127,888,496	8,473,796	–	(2,396,200)	133,966,092
General plant	55,155,742	7,044,121	–	(324,946)	61,874,917
Total accumulated depreciation	317,864,825	23,809,377	–	(2,791,874)	338,882,328
Total other capital assets – net	533,935,464	(23,670,790)	24,601,388	(576,478)	534,289,584
Utility Plant – Net	\$ 570,268,110	\$ 6,947,659	–	\$ (2,969,475)	\$ 574,246,294

Summary of Utility Plant continued on next page

2018 (continued)	June 1, 2017	Additions	Transfers	Adjustments and Retirements	May 31, 2018
<b>Capital assets not being depreciated:</b>					
Land	\$ 27,766,264	\$ –	\$ –	\$ (51)	\$ 27,766,213
Construction work in progress	17,702,273	43,746,927	(51,761,237)	(1,139,530)	8,566,433
Total capital assets not being depreciated	45,468,537	43,764,927	(51,761,237)	(1,139,581)	36,332,646
<b>Other capital assets:</b>					
Source of supply	44,896,752	–	14,029,832	(223,300)	58,703,284
Pumping structures and equipment	38,538,014	–	274,563	(109,622)	38,702,955
Water treatment plant and equipment	189,278,334	–	6,094,139	(952,696)	194,419,777
Transmission and distribution	456,331,125	–	24,792,408	(4,757,764)	476,365,769
General plant	79,721,309	803,743	6,570,295	(3,486,843)	83,608,504
Total other capital assets	808,765,534	803,743	51,761,237	(9,530,225)	851,800,289
<b>Less accumulated depreciation:</b>					
Source of supply	12,862,160	692,278	–	(118,657)	13,435,781
Pumping structures and equipment	21,349,430	1,358,516	–	(71,559)	22,636,387
Water treatment plant and equipment	93,275,672	6,097,101	–	(624,354)	98,748,419
Transmission and distribution	123,077,627	7,762,351	–	(2,951,482)	127,888,496
General plant	52,188,466	6,424,856	–	(3,457,580)	55,155,742
Total accumulated depreciation	302,753,355	22,355,102	–	(7,223,632)	317,864,825
Total other capital assets – net	506,012,179	(21,531,359)	51,761,237	(2,306,593)	533,935,464
Utility Plant – Net	\$ 551,480,716	\$ 22,233,568	\$ –	\$ (3,446,174)	\$ 570,268,110

During fiscal years 2019 and 2018, the Authority retired assets with accumulated depreciation totaling approximately \$2.8 million and \$7.2 million, respectively.

## 5. Restricted Assets

Pursuant to the *General Bond Resolution* of the Authority adopted July 31, 1980, as amended and supplemented, the following funds of restricted assets must be maintained. The Authority may use the assets of these funds only for the following purposes specified in the *General Bond Resolution*.

### Construction

Bond proceeds and other amounts deposited in the Construction Fund may be applied only toward payment of the costs of water system capital projects upon submission of a requisition to the trustee.

### Debt Service

The Authority is required to maintain a Debt Service Fund to ensure payment of interest and principal when due. The Authority must make a deposit each month to provide funds for payment of interest and principal becoming due. No such deposits need be made if the fund already contains sufficient dollars to satisfy interest coming due within six months and principal coming due within twelve months. The *General Bond Resolution* provides that, if the balances of the Debt Service Fund and Debt Reserve Fund are insufficient to pay interest, principal or sinking fund payments, the Authority must withdraw the deficiency from any of the other funds maintained by it.

### Debt Reserve

The Authority is required to maintain a Debt Reserve Fund in an amount equal to the maximum aggregate of principal and interest payments becoming due in any one year in which bonds are outstanding. Amounts in the Debt Reserve Fund are to be used by the Authority in the event debt service requirements cannot be fully paid from amounts in the Debt Service Fund. To satisfy the requirements of the *General Bond Resolution*, the Authority's Debt Reserve Fund comprises surety bonds and bond proceeds.

### Payments-in-Lieu-of-Taxes (PILOT)

The Act requires the Authority to make payments-in-lieu-of-taxes (PILOT) to the municipalities in which the Authority owns property. The Authority is required to make monthly deposits into the PILOT



Fund in amounts sufficient to provide funds for PILOT that have become due in that month.

### Operating Reserve

The Authority is required to maintain an Operating Reserve Fund in an amount equal to at least one-sixth of the amount budgeted for operating expenses at the beginning of its fiscal year. Amounts in the Operating Reserve Fund may be used to pay operating expenses to the extent monies are not otherwise available.

### Capital Contingency

The Authority must maintain a Capital Contingency Fund in an amount equal to or greater than 1% of outstanding bonds, less principal deposits at the time of calculation, to provide for the cost of capital projects made necessary by emergency or other unforeseen circumstances or events.

### Insurance Reserve

The *General Bond Resolution* requires the Authority to keep its property insured and to carry general liability insurance (or maintain an insurance reserve fund). The Authority does not maintain an insurance reserve fund because it carries general liability coverage through a member-owned program of “captive” insurance and carries property insurance. The Authority also has other insurance coverage.

### Rate Stabilization

The Authority established its Rate Stabilization Fund in 1996. The Rate Stabilization Fund includes a Variable Rate Bond Sub-account and a Surplus Sub-account. Per the *General Bond Resolution*, before the last day of the first month of each fiscal year, the Authority will deposit in the Rate Stabilization Fund Variable Rate Bonds Sub-account the amount, if any, by which the interest on variable rate bonds assumed for rate-making purposes or, if lower, the maximum amount of interest payable under an interest rate limitation contract, exceeded the amount of interest and related costs paid during the previous fiscal year. As of May 31, 2019 and 2018, there is no outstanding variable rate debt; therefore, no deposits were required.

After the initial funding of the Rate Stabilization Fund Surplus Sub-account as specified in a written certification by the Authority

and transferred from the General Fund, the Authority shall transfer monies to the Revenue Fund to the extent required to make up deficiencies in any of the funds established under Section 402 of the *General Bond Resolution*. The Authority may at any time transfer any monies in the Rate Stabilization Fund Surplus Sub-account to the Revenue Fund, but only if each of the other funds are funded at or above their respective requirements.

The balances in the various funds as of May 31 and 2019 and 2018, are as follows:

	2019	2018
Construction	\$ 41,640,584	\$ 42,160,105
Debt Reserve	18,798,051	18,027,188
Debt Service	27,413,316	27,462,322
Payments-in-Lieu-of-Taxes (PILOT)	3,639,838	3,746,765
Operating Reserve	10,178,962	9,631,309
Capital Contingency	5,999,284	5,848,956
Rate Stabilization	9,994,448	9,976,906
Other Purposes	1,039,760	5,869,912
Restricted Assets	\$ 118,704,243	\$ 122,723,463

The level of funds required by the *General Bond Resolution* was met on May 31, 2019 and 2018.

## 6. Watershed Fund

As discussed in Note 1, the Watershed Fund is a separate legal entity organized and operated exclusively for charitable, educational and scientific purposes within the meaning of Section 501(c)(3) of the Internal Revenue Code of 1986, specifically for the purpose of protecting watershed land that has distinctive ecological significance through open space acquisition and environmental education. The Authority is the sole member of the Watershed Fund. The Watershed Fund is governed by a Board of Directors, which includes certain members of the Five-Member Authority and the Representative Policy Board (RPB), as well as employees of the Authority. The Five-Member Authority elects the Board of Directors.

The Authority made an initial donation of \$1,234,000 to establish the Watershed Fund. The most recent contribution to the Fund by the Authority was in 2000 for \$452,000. The Watershed Fund had total net position (unrestricted and temporarily restricted) of \$1,753,085 and \$1,837,784 as of May 31, 2019 and 2018, respectively. The Authority donated goods and services to the Watershed Fund totaling \$31,605 and \$28,198 for the years ended May 31, 2019 and 2018, respectively.

As discussed in Note 1, the Watershed Fund has been excluded from the Authority's financial statements due to the insignificance of its balances as compared with those of the Authority.

## 7. Long-Term Liabilities

Long-term liability activity for the years ended May 31, 2019 and 2018 was as follows:

2019	Beginning Balance	Increases	Decreases	Ending Balance	Due Within One Year
Bonds payable:					
Revenue bonds	\$ 530,960,000	\$ -	\$ (17,125,000)	\$ 513,835,000	\$ 17,645,000
Net bond premium and discounts	63,871,269	-	(5,422,131)	58,449,138	-
Total bonds payable	594,831,269	-	(22,547,131)	572,284,138	17,645,000
Drinking water loans	13,572,668	9,537,470	(742,465)	22,367,673	985,953
Net pension liability	15,633,774	1,488,421	-	17,122,195	-
Net OPEB liability	23,652,026	-	(3,621,755)	20,030,271	-
Total	\$ 647,689,737	\$ 11,025,891	\$ (26,911,351)	\$ 631,804,277	\$ 18,630,953

Long-Term Liabilities continued on next page

2018 (continued)	Beginning Balance	Increases	Decreases	Ending Balance	Due Within One Year
Bonds payable:					
Revenue bonds	\$ 543,995,000	\$ 68,995,000	\$ (82,030,000)	\$ 530,960,000	\$ 17,125,000
Net bond premium and discounts	56,451,133	14,647,419	(7,227,283)	63,871,269	–
Total bonds payable	600,446,133	83,642,419	(89,257,283)	594,831,269	17,125,000
Drinking water loans	5,452,363	8,412,402	(292,097)	13,572,668	572,971
Net pension liability	19,514,247	–	(3,880,473)	15,633,774	–
Net OPEB liability	23,505,865	146,161	–	23,652,026	–
Total	\$ 648,918,608	\$ 92,200,982	\$ (93,429,853)	\$ 647,689,737	\$ 17,697,971

### Revenue Bonds Payable

The Authority issues Water System Revenue Bonds to finance capital projects and to provide certain restricted funds, as required by the *General Bond Resolution*.

Revenue bonds outstanding comprise the following:

2019	Issuance Date	Original Maturity Date	Original Principal	Interest Rate	Balance May 31, 2019
Twentieth A (Refunding bonds)	2007	2030	\$ 63,330,000	4.000%-5.250%	\$ 20,515,000
Twenty-second	2008	2038	77,965,000	4.250%-4.500%	4,470,000
Twenty-fourth	2009	2039	33,730,000	4.000%	800,000
Twenty-fifth	2010	2023	11,455,000	3.125%-5.000%	2,130,000
2010 Series A	2010	2040	31,385,000	6.243%-6.393%	31,385,000
Twenty-sixth	2011	2041	39,455,000	3.000%-5.000%	2,720,000
Twenty-seventh (Refunding bonds)	2012	2033	69,125,000	3.000%-4.000%	60,145,000
Twenty-eighth A	2013	2043	31,690,000	2.000%-5.000%	27,565,000
Twenty-eighth B (Refunding bonds)	2013	2029	62,305,000	3.000%-5.000%	35,135,000
Twenty-ninth (Refunding bonds)	2014	2029	44,880,000	3.000%-5.000%	44,880,000
Thirtieth A	2014	2044	30,270,000	3.000%-5.000%	28,240,000
Thirtieth B (Refunding bonds)	2014	2035	15,790,000	2.000%-5.000%	15,325,000
Thirty-first (Refunding bonds)	2015	2028	11,090,000	2.000%-5.000%	9,595,000
Thirty-second A	2016	2035	17,270,000	2.000%-4.000%	16,550,000
Thirty-second B (Refunding bonds)	2016	2028	147,115,000	2.000%-5.000%	145,385,000
Thirty-third A	2018	2047	10,900,000	3.000%-5.000%	10,900,000
Thirty-third B-1 (Refunding bonds)	2017	2042	33,845,000	3.000%-5.000%	33,845,000
Thirty-third B-2 (Refunding bonds)	2018	2033	24,250,000	5.000%	24,250,000
					\$ 513,835,000

Revenue Bonds Payable continued on next page

2018 (continued)	Issuance Date	Original Maturity Date	Original Principal	Interest Rate	Balance May 31, 2018
Twentieth A (Refunding bonds)	2007	2030	\$ 63,330,000	4.000%-5.250%	\$ 22,905,000
Twenty-second	2008	2038	77,965,000	4.250%-4.500%	5,720,000
Twenty-third	2008	2038	29,015,000	3.625%-3.750%	725,000
Twenty-fourth	2009	2039	33,730,000	4.000%	1,570,000
Twenty-fifth	2010	2023	11,455,000	3.125%-5.000%	3,130,000
2010 Series A	2010	2040	31,385,000	6.243%-6.393%	31,385,000
Twenty-sixth	2011	2041	39,455,000	3.000%-5.000%	3,540,000
Twenty-seventh (Refunding bonds)	2012	2033	69,125,000	3.000%-4.000%	60,870,000
Twenty-eighth A	2013	2043	31,690,000	2.000%-5.000%	28,235,000
Twenty-eighth B (Refunding bonds)	2013	2029	62,305,000	3.000%-5.000%	42,220,000
Twenty-ninth (Refunding bonds)	2014	2029	44,880,000	3.000%-5.000%	44,880,000
Thirtieth A	2014	2044	30,270,000	3.000%-5.000%	28,810,000
Thirtieth B (Refunding bonds)	2014	2035	15,790,000	2.000%-5.000%	15,325,000
Thirty-first (Refunding bonds)	2015	2028	11,090,000	2.000%-5.000%	10,350,000
Thirty-second A	2016	2035	17,270,000	2.000%-4.000%	16,915,000
Thirty-second B (Refunding bonds)	2016	2028	147,115,000	2.000%-5.000%	145,385,000
Thirty-third A	2018	2047	10,900,000	3.000%-5.000%	10,900,000
Thirty-third B-1 (Refunding bonds)	2017	2042	33,845,000	3.000%-5.000%	33,845,000
Thirty-third B-2 (Refunding bonds)	2018	2033	24,250,000	5.000%	24,250,000
					\$ 530,960,000

The Federal American Recovery and Reinvestment Act of 2009, Pub. L. No. 111-5, 123 Stat. 115 (2009), enacted February 17, 2009 (the Recovery Act), authorizes state and local governments to issue two general types of taxable Build America Bonds (Taxable BABs) with the federal government providing subsidies for a portion of their borrowing cost. One type of Taxable BAB provides a federal tax credit to the bondholder; the other provides a credit in the form of an interest subsidy payment directly to the issuer (Taxable BABs - Direct Payment). The General Obligation Bonds, Issue of 2010 were issued as Taxable BABs - Direct Payment on April 6, 2010 for \$31,385,000. Pursuant to the Recovery Act, at inception, the Authority received a cash subsidy payment from the United States Treasury equal to 35%, of the interest payable

on the General Obligation Bonds, Issue of 2010 on or about each interest payment date. The 35% equates to \$348,411 per payment, occurring twice a year. Such subsidy payment represents revenue to the Authority under the General Bond Resolution. No holders of the General Obligation Bonds, Issue of 2010 will be entitled to a tax credit. The receipt of the subsidy by the Authority is not a condition of payment of any portion of the principal and interest on the General Obligation Bonds, Issue of 2010. However, if the subsidy payments are reduced or eliminated, the General Obligation Bonds, Issue of 2010 are subject to extraordinary optional redemption. Due to provisions within the Budget Control Act of 2011 and the implementation of sequestration, the amount of the subsidy has been reduced on payments made to issuers on

or after March 1, 2013, resulting in a decrease to the Authority's August 1, 2013 payment and the twice-annual payments through the current period. Reductions to the subsidy have ranged from a high of 8.7% to a low of 6.2%. A 6.6% reduction was effective for the Authority's August 2018 payment and a 6.2% reduction was applicable to the February 2019 payment. The percent is subject to further change. The interest subsidy totaled \$652,225 for the fiscal year ended May 31, 2019.

Aggregate maturities of the Authority's water system revenue bonds are as follows:

Fiscal Year Ending May 31	Principal	Interest
2020	\$ 17,645,000	\$ 24,011,065
2021	18,385,000	23,171,906
2022	18,820,000	22,331,562
2023	19,690,000	21,462,393
2024	20,645,000	20,505,712
2025-2029	119,325,000	86,433,844
2030-2034	147,670,000	54,597,072
2035-2039	110,310,000	23,708,814
2040-2044	36,030,000	4,690,121
2045-2049	5,315,000	270,975
<b>Total</b>	<b>\$ 513,835,000</b>	<b>\$ 281,183,464</b>

The following represents the more significant requirements of the *General Bond Resolution*:

#### Rate Covenants

The Authority shall have reasonable rates for each class of service and is required to establish rates and charges at levels sufficient to cover annual operating and maintenance expenses, PILOT, all debt service requirements, and any amounts necessary to meet reserve requirements established by the *General Bond Resolution*. In addition, collected revenues, less operating and maintenance expenses incurred, PILOT and depreciation expense must equal 114% of annual debt service for fiscal years 2019 and 2018. Depreciation expense and other terms are as defined in the *General Bond Resolution*. Also, collected revenues, less operating and maintenance expenses incurred, and depreciation expense must equal 125% of annual debt service before PILOT.

The Act provides that the rates and charges proposed by the Authority are subject to approval by the Representative Policy Board (RPB) following a public hearing. However, the Act also provides that the RPB shall approve such rates and charges proposed by the Authority unless it finds that such rates and charges will provide funds insufficient for, or significantly in excess of, the amounts required to meet expenses of the Authority and the requirements of the *General Bond Resolution*.

As of May 31, 2019 and 2018, the Authority was in compliance with the requirements of the *General Bond Resolution*.

#### Maintenance of Funds

The *General Bond Resolution* provides for the maintenance of certain funds as discussed in Note 5, which for financial reporting purposes are subparts of the Authority's overall enterprise fund. All revenues (as defined and governed by the *General Bond Resolution*) collected by the Authority are deposited into the Revenue Fund and applied first to the payment of operating expenses, as defined, and then deposited to restricted funds required to be maintained by the *General Bond Resolution*. Funds remaining in the Revenue Fund at the end of the year, after the above requirements are met, are to be transferred to the General Fund, which is available to the Authority for any lawful purpose of the Authority. In June 2019, the Authority authorized approximately \$14.0 million of cash and cash equivalents to be transferred to the General Fund and, subsequently, approximately \$12.5 million to be transferred from the General Fund to the Construction Fund and \$1.0 million to be transferred to the Growth Fund.

#### Defeasance of Long-Term Debt

On June 29, 2016, the Authority issued \$147,115,000 (par value) of Water System Revenue Bonds, Thirty-second Series B, to refund the outstanding principal amounts of \$164,195,000 of certain maturities of the Authority's Twentieth A, Twenty-first, Twenty-second, Twenty-third and Twenty-fourth Series Water System Revenue Bonds (the Refunded Bonds). The Authority deposited proceeds of the refunding portion of the Thirty-second Series Bonds and certain other cash amounts in escrow with the trustee and invested in U.S. Government securities such that the earnings thereon, together with principal, will suffice solely for the purpose of paying principal and interest on the Refunded Bonds. In the opinion of bond counsel, by deposit of the investment securities with the trustee, the Authority affected a legal defeasance under the terms of its *General Bond Resolution*, and the Refunded Bonds will not be considered as outstanding for any purpose. Accordingly, the Refunded Bonds are considered extinguished, and the investment securities and Refunded Bonds do not appear on the Authority's statements of net position. As of May 31, 2019, the

remaining interest and principal payments of the defeased debt was \$29,035,000. The balance in escrow for the refunding issuance was \$29,594,340 at May 31, 2019.

On December 19, 2017, the Authority issued \$33,845,000 (par value) of Water System Revenue Bonds, Thirty-third Series B-1, to refund the outstanding principal amounts of \$36,130,000 of certain maturities of the Authority's Twenty-fifth and Twenty-sixth Series Water System Revenue Bonds (the Refunded Bonds). The refunding reduced total debt service payments over the then next 24 years by \$5,633,788 and represents an economic gain (difference between present values of the debt service payments on the old and new debt) of \$4,350,270. The Authority deposited proceeds of the refunding portion of the Thirty-third Series B-1 Bonds and certain other cash amounts in escrow with the trustee and invested in U.S. Government securities such that the earnings thereon, together with principal, will suffice solely for the purpose of paying principal and interest on the Refunded Bonds. In the opinion of bond counsel, by deposit of the investment securities with the trustee, the Authority affected a legal defeasance under the terms of its *General Bond Resolution*, and the Refunded Bonds will not be considered as outstanding for any purpose. Accordingly, the Refunded Bonds are considered extinguished, and the investment securities and Refunded Bonds do not appear on the Authority's statements of net position. As of May 31, 2019, the remaining principal of the defeased debt was \$36,130,000. The balance in escrow for the refunding issuance was \$38,720,281 at May 31, 2019.

On January 3, 2018, the Authority issued \$24,250,000 (par value) of Water System Revenue Bonds, Thirty-third Series B-2, to refund the outstanding principal amounts of \$30,000,000 of certain maturities of the Authority's Eighteenth Series B Water System Revenue Bonds (the Refunded Bonds). The refunding reduced total debt service payments over the then next 15 years by \$10,510,582 and represents an economic gain (difference between present values of the debt service payments on the old and new debt) of \$8,206,078. The Authority deposited proceeds of the refunding portion of the Thirty-third Series B-1 Bonds and certain other cash amounts in escrow with the trustee. The entire principal was paid on April 1, 2018.

### Drinking Water Loans Payable

The Authority participates in the State of Connecticut's Drinking Water (DWSRF) programs, which provide low-interest loans currently bearing 2% interest for eligible drinking water projects. Qualified projects are financed by subordinate interim financing, revenue bonds and/or internally generated funds, until such projects are complete and there is an executed project loan obligation. Proceeds received at the execution of the project loan obligation are used to reimburse Authority funds previously used and/or pay-off interim subordinate financing as well as to fund associated reserve requirements. Project loan obligations are at parity with the Authority's revenue bonds under the General Bond Resolution. Permanent loan obligations mature as follows:

Fiscal Year Ending May 31	Principal	Interest
2020	\$ 985,953	\$ 438,348
2021	1,005,854	418,447
2022	1,026,156	398,145
2023	1,046,869	377,432
2024	1,067,999	356,302
2025-2029	5,672,183	1,449,323
2030-2034	6,268,210	853,296
2035-2039	5,294,449	218,839
Total	\$ 22,367,673	\$ 4,510,132

### 8. Bond Anticipation Notes Payable

Bond Anticipation Notes issued in January 2018, to temporarily finance a capital project, matured in January 2019 and were refinanced in advance of the Authority issuing Water System Revenue Bonds in July 2019. A Series A Note in the amount of \$10,000,000 as of May 31, 2019 bears an interest rate of 2.868%. A Series B Note was issued as a \$5,000,000 draw-down note with a variable interest rate and had a balance of \$4,531,727 as of May 31, 2019. These notes are subordinate to the Authority's Water System Revenue Bonds.

A Bond Anticipation Note of \$4,200,000 with an interest rate of 2.446%, issued to temporarily finance a multi-year capital project, matured in August 2018 and was paid-off through long-term

DWSRF financing. In August 2018, a Bond Anticipation Note of \$5,000,000, at an interest rate of 2.662%, was issued to continue to temporarily finance this capital project, and in February 2019, this note was paid-off through long-term DWSRF financing. In February 2019, a Series A Bond Anticipation Note of \$3,650,000, with an interest rate of 2.726%, maturing in February 2020, was issued. In addition, in February 2019, a \$3,750,000 Series B draw-down note was issued with a variable interest rate. The Series B note had a balance of \$567,677 as of May 31, 2019. Both the Series A and Series B notes were issued to temporarily fund this multi-year capital project in advance of long-term DWSRF financing.

See Subsequent Events note for further information.

Bond anticipation note transactions for the year ended May 31, 2019 were as follows:

Outstanding, May 31, 2018	\$ 18,109,105
New borrowings	24,224,775
Repayments	(23,584,476)
Outstanding, May 31, 2019	\$ 18,749,404

### 9. Leases

#### Capital Leases

The Authority has entered into a lease agreement as lessee for financing the acquisition of fleet management equipment and in fiscal 2019 entered a twelve-month renewal period. The lease qualifies as a capital lease for accounting purposes and, therefore, has been recorded at the present value of the future minimum lease payments as of the inception date.

The gross amount of the asset acquired under the capital lease is shown below.

	2019
Equipment	\$ 137,526
Less accumulated depreciation	(56,284)
	\$ 81,242

Future minimum lease payments and the net present value of the minimum lease payments as of May 31, 2019 were as follows:

Year Ending May 31	
2020	\$ 19,101
Capital Lease Obligation	\$ 19,101

The capital lease obligation is included in the accompanying statements of net position in other accrued liabilities.

#### Operating Leases

The Authority has entered into operating leases involving certain equipment and Information Technology infrastructure support. At May 31, 2019, there is no minimum annual future rental commitment under operating leases that have initial or remaining noncancelable lease terms in excess of one year. Rent expense for the years ended May 31, 2019 and 2018 was \$73,412 and \$102,157, respectively.

The Authority executed coterminous 56-month agreements in May 2018 for hosting and network support for the SAP system. Based on the contract terms, if the agreements were cancelled as of May 31, 2019 the termination fee would be \$176,884.

#### 10. Pollution Remediation Obligation - Newhall Street Property, Hamden

In July 2001, the Connecticut Department of Energy & Environmental Protection (DEEP) issued Order No. SRD-128 to the Authority, the Olin Corporation, the Town of Hamden and the State of Connecticut Board of Education to investigate and remediate certain environmental conditions and to conduct a public participation program with respect to a number of properties, including the former Hamden Middle School property, in the Newhall Street area of Hamden. Subsequently, the parties and DEEP conducted investigations of the areas subject to the order and negotiated a Consent Order dated April 16, 2003. Under the Consent Order, the Authority is required to investigate and remediate areas identified as the former Hamden Middle School and associated athletic field, a portion of the former Newhall Community Center and two residential properties owned by the Hamden Housing Authority (Consent Order Area).

### VOC and PCB Focused Remediation

The Authority submitted Focused Remedial Plans (FRPs) to address isolated “hotspots” of polychlorinated biphenyls (PCBs) and volatile organic compounds (VOCs) on the site in 2007 and 2009, respectively. In July 2013, the Authority submitted a report to DEEP stating that compliance with DEEP remediation standards for the VOC hotspot on the HMS site could be demonstrated through a combination of statistical methods and land use restrictions, and that active remediation of the VOC hotspot, as outlined in the 2009 VOC FRP plan, is not necessary. DEEP, in a September 2013 letter, concurred with this conclusion. Therefore, no remediation of the VOC hotspot will be required. Also in July 2013, the Authority submitted a revised PCB FRP to DEEP, which was approved in September 2013. PCB remediation was completed in fiscal year 2014. A final report summarizing the remediation was submitted to the DEEP in June 2014.

### Alternative Cleanup Criteria Submittal

In June 2014, the Authority submitted a formal request to DEEP for consideration of alternative site-wide cleanup criteria to clarify and simplify site remediation requirements. DEEP approved this request in letters dated June 27, 2014 and July 28, 2014, and by virtue of accepting the Remediation Action Plan (RAP) for the former Newhall Community Center, approved in January 2015, as described below.

### Hamden Economic Development Corporation

In December 2013, the Hamden Economic Development Corporation (HEDC) took title to a portion of the property assigned to the Authority in the Consent Order known as the former Newhall Community Center from the Town of Hamden. HEDC is currently developing the site for a small business incubator, including renovating the building and creating paved parking. In August 2014, the RWA submitted a RAP to remediate this portion of the Consent Order Area in accordance with DEEP’s Remediation Standards Regulations. DEEP approved the RAP in January 2015. Physical remediation of the HEDC property was subsequently completed in May 2015. A status report summarizing the remediation action was filed with DEEP in June 2015. Following

completion of pending site redevelopment by HEDC, the Authority will record an Environmental Land Use Restriction (ELUR) on the town land records and file a final remediation action report with DEEP.

### Status of Site-Wide Remediation

Physical remediation of the remaining portions of the Consent Order Area by the Authority is now being implemented in four phases in accordance with a RAP approved by DEEP in October 2016. The first phase encompassing the southern portion of the former Hamden Middle School property and two residential properties owned by the Hamden Housing Authority was completed in fiscal 2017. A second phase took place in areas on the northwest and northern portions of the former Hamden Middle School property was completed in fiscal 2018. Until recently, the RWA and the Town of Hamden were working under the assumption that remaining remedial work would be coordinated with a current locally approved site redevelopment plan; however, following discussions with DEEP, the Town of Hamden and the prospective developer in late 2017, all parties agreed that this approach has been rendered infeasible and impractical. With DEEP’s concurrence, the RWA is now proceeding with site-wide remedial actions conforming to pre-development site conditions, which takes into account existing buildings, pavement and the upcoming demolition of some of the former school buildings by the HEDC. Phase 3 was completed in fiscal 2019, with the fourth and final phase now underway and scheduled for completion in fiscal 2020.

Full implementation of the above remedial actions will result in contaminated soils on the site being rendered “inaccessible,” as defined in Connecticut’s Remediation Standards Regulations (RSRs), utilizing existing buildings and pavement, or covering with a minimum four feet of clean fill. Following completion of site remedial actions, ELURs will be recorded on the Town of Hamden’s land records to demonstrate compliance with the RSRs and to ensure that future site users can identify the nature and physical boundaries of contaminants legally buried in place at concentrations above the RSRs.

The Authority believes that the estimated present value of future outlays for which the Authority is responsible under the Consent Order is coverable as part of its multi-year Capital Improvement Program.

The Authority recognized a pollution remediation remaining obligation of \$2.0 million as of December 31, 2002 based on information available at that time and continues to update the estimated cost of remediation. At the end of fiscal 2016, the estimated cost was \$3.1 million. In fiscal 2017, the estimate of the cost to remediate was increased by \$1.1 million to \$4.2 million. The \$4.2 million less the amount of costs already incurred against the obligation resulted in a provision of \$3.2 million as of May 31, 2017. In fiscal 2018, approximately \$.6 million of additional costs were incurred, and the estimate of \$4.2 million was revised slightly downward by \$150,000. Therefore, as of May 31, 2018, the recorded provision for the remaining obligation was approximately \$2.4 million. As of May 31, 2019, the projected total cost to remediate was unchanged and an additional approximately \$1.5 million was expended during fiscal 2019. Therefore, as of May 31, 2019, the remaining obligation was approximately \$.9 million.

As the remediation costs are to be recovered through future rates, \$4.6 million in incurred costs and future estimated remediation costs, net of amortization through May 31, 2019, have been recognized as a regulatory asset.

### 11. HazWaste Central

As agent for the South Central Connecticut Regional Council of Governments, the Authority owns and operates, on behalf of HazWaste Central, a regional collection center for household hazardous waste, located at its headquarters on Sargent Drive.

Since HazWaste Central receives its revenue after incurring its operating costs, the Authority provides advance funding to the organization. The Authority is reimbursed for its advances when revenue is received by that organization.

## 12. Commitments and Contingencies

In the opinion of the Authority and its legal counsel, various legal matters in which the Authority is currently involved will not materially affect the Authority's financial position.

### Litigation

A number of claims and suits are pending against the Authority for alleged damages to persons and properties and for other alleged liabilities arising out of its operations. The probable outcome of such matters cannot be determined at this time; however, in the opinion of management, any ultimate liability that may arise from these actions is not expected to materially affect the Authority's financial position.

### Capital Commitments

As of May 31, 2019, the Authority has capital expenditures of approximately \$3.0 million associated with ongoing projects under binding contracts. In addition, as of May 31, 2019, the Authority has an estimated \$2.4 million projected remaining capital expenditures associated with a multi-year capital project, under a cancellable binding agreement.

### Risk Management

The Authority is subject to certain business risks common to the utility industry. Most of these risks are mitigated by traditional insurance coverage obtained by the Authority. For risks associated with worker's compensation, automobile and general liability, the Authority elected, as of October 31, 2000, to participate in a program of member-owned "captive" insurance. It is management's belief that the Authority's exposure to losses arising from its participation in a program of "captive" insurance will not materially affect the financial results of the Authority's operations and cash flows.

### Letter of Credit

The Authority has available to them a \$2,760,171 letter of credit for the benefit of a financial institution.

## Self-Insurance

The Authority administers a program of self-insurance for certain medical and dental claims and provides for losses by charging operating expense as liabilities are incurred. The Authority records a liability, in accounts and other payables, and other accrued liabilities, when it is probable that it has incurred an uninsured loss

and it can reasonably estimate that loss. The Authority's liability for unpaid claims is based upon the estimated cost of settling the claims after a review of estimated recoveries. Changes in the amounts recorded for liabilities for the years ended May 31, 2019 and 2018, were as follows:

2019	June 1, 2018	Claims and Expenses Paid	Additional Reserves	May 31, 2019
Medical and dental claims	\$ 485,000	\$ (5,125,480)	\$ 5,231,389	\$ 590,909
Insurance reserve for "captive" (October 1, 2000 - present)	2,822,673	(587,245)	365,436	2,600,864
Insurance reserve (pre October 1, 2000)	130,000	(77,940)	131,150	183,210
<b>Total Liability</b>	<b>\$ 3,437,673</b>	<b>\$ (5,790,665)</b>	<b>\$ 5,727,975</b>	<b>\$ 3,374,983</b>

2018	June 1, 2017	Claims and Expenses Paid	Additional Reserves	May 31, 2018
Medical and dental claims	\$ 467,700	\$ (4,812,355)	\$ 4,829,655	\$ 485,000
Insurance reserve for "captive" (October 1, 2000 - present)	2,645,249	(529,962)	707,386	2,822,673
Insurance reserve (pre October 1, 2000)	130,000	(55,488)	55,488	130,000
<b>Total Liability</b>	<b>\$ 3,242,949</b>	<b>\$ (5,397,805)</b>	<b>\$ 5,592,529</b>	<b>\$ 3,437,673</b>

### 13. Defined Benefit Pension Plans

#### Plan Description

The Authority's two retirement plans are single-employer defined benefit pension plans administered under a master trust agreement by the Five-Member Authority. The retirement plans provide retirement and disability benefits to the plans' members and their beneficiaries. Cost-of-living adjustments are not provided to members and beneficiaries, but may be made at the discretion of the Authority. The Authority establishes and amends benefit provisions of the plans.

The pension plans are included in the Authority's financial reporting entity and accounted for in the pension trust fund. The Authority does not issue a stand-alone financial report for the plans.

Management of the plan rests with the Pension and Benefit Committee of the Five-Member Authority. The Pension and Benefit Committee consists of all five members of the Five-Member Authority. As of May 31, 2019, the Senior Vice President, Employee Services, Executive Vice President and Chief Financial Officer and the Vice President of Finance and Controller are authorized and empowered to act as management's Pension Review Committee for the Authority's Salaried Employees' Retirement Plan and Retirement Plan (Union), with instructions to defer final action on nonroutine or discretionary matters until they have consulted with the Pension and Benefits Committee.

At January 1, 2019, which is the date of the latest actuarial valuation, membership consisted of the following:

	Salaried Plan	Bargaining Unit Plan
Retirees, disabled and beneficiaries currently receiving benefits	158	107
Vested terminated members entitled to but not yet receiving benefits	71	38
Current active members	91	91
Total members	320	236

Both plans have been closed to new entrants. The salaried plan was closed to new entrants as of January 1, 2011, and the bargaining unit plan was closed to new entrants as of April 15, 2010.

#### Summary of Significant Accounting Policies and Plan Asset Matters

##### Basis of Accounting

The Pension Trust Fund's financial statements are prepared on the accrual basis of accounting. Employer contributions are recognized as revenues in the period in which employee services are performed. Benefits and refunds are recognized when due and payable in accordance with plan provisions. Administrative costs of the plan are financed through investment earnings.

##### Valuation of Investments

Investments are reported at fair value as determined by quoted prices in active markets.

##### Funding Policy

The Authority contributes, at a minimum, the actuarially determined rate. For the year ended May 31, 2019, the Authority contributed approximately \$1.8 million in excess of the actuarial required contribution, and for the year ended May 31, 2018, the Authority contributed approximately \$2.1 million in excess of the required contribution.



The individual plan net position at May 31, 2019 and 2018, and changes in net position for the years then ended are as follows:

2019					
Fiduciary Net Position		Salaried Plan	Bargaining Unit Plan	Total Pension Trust Fund	
<b>Assets:</b>					
Cash and cash equivalents	\$	1,080,092	\$	274,142	\$ 1,354,234
Investments:					
U.S. Government securities		3,133,847		1,950,868	5,084,715
U.S. Government agencies		1,975,893		1,231,848	3,207,741
Corporate bonds		2,742,168		1,769,304	4,511,472
Mutual funds		24,919,757		16,011,893	40,931,650
Alternative investments		645,494		433,166	1,078,660
Total assets		34,497,251		21,671,221	56,168,472
<b>Net Position:</b>					
Restricted for Pension Benefits	\$	34,497,251	\$	21,671,221	\$ 56,168,472
		Salaried Plan	Bargaining Unit Plan	Total Pension Trust Fund	
<b>Additions:</b>					
Contributions:					
Employer	\$	3,897,275	\$	1,239,632	\$ 5,136,907
Employees		8,287		–	8,287
Total contributions		3,905,562		1,239,632	5,145,194
Investment earnings:					
Net change in fair value of investments		(53,267)		(96,124)	(149,391)
Realized loss on sale of investments		(291,048)		(176,450)	(467,498)
Investment earnings and other income		1,196,905		781,425	1,978,330
Net investment earnings		852,590		508,851	1,361,441
Total additions		4,758,152		1,748,483	6,506,635
<b>Deductions:</b>					
Benefits		2,868,597		1,611,414	4,480,011
Expenses		168,432		111,091	279,523
Other		23,335		19,010	42,345
Total deductions		3,060,364		1,741,515	4,801,879
Change in Net Position		1,697,788		6,968	1,704,756
Net Position – Beginning of Year		32,799,463		21,664,253	54,463,716
Net Position – End of Year	\$	34,497,251	\$	21,671,221	\$ 56,168,472

Fiduciary Net Position continued on next page

2018 (continued)				
Fiduciary Net Position				
	Salaried Plan	Bargaining Unit Plan	Total Pension Trust Fund	
<b>Assets:</b>				
Cash and cash equivalents	\$ 637,069	\$ 297,425	\$ 934,494	
Investments:				
U.S. Government securities	749,806	–	749,806	
Mutual Funds	30,787,241	20,947,410	51,734,651	
Alternative investments	625,347	419,418	1,044,765	
Total assets	32,799,463	21,664,253	54,463,716	
<b>Net Position:</b>				
Restricted for Pension Benefits	\$ 32,799,463	\$ 21,664,253	\$ 54,463,716	
	Salaried Plan	Bargaining Unit Plan	Total Pension Trust Fund	
<b>Additions:</b>				
Contributions:				
Employer	\$ 4,341,521	\$ 1,519,216	\$ 5,860,737	
Employees	10,918	–	10,918	
Other	11,846	10,270	22,116	
Total contributions	4,364,285	1,529,486	5,893,771	
Investment earnings:				
Net change in fair value of investments	1,168,851	797,600	1,966,451	
Realized gain on sale of investments	76,015	86,148	162,163	
Investment earnings and other income	1,127,355	772,763	1,900,118	
Net investment earnings	2,372,221	1,656,511	4,028,732	
Total additions	6,736,506	3,185,997	9,922,503	
<b>Deductions:</b>				
Benefits	2,462,467	1,446,301	3,908,768	
Expenses	165,402	123,799	289,201	
Total deductions	2,627,869	1,570,100	4,197,969	
Change in Net Position	4,108,637	1,615,897	5,724,534	
Net Position – Beginning of Year	28,690,826	20,048,356	48,739,182	
Net Position – End of Year	\$ 32,799,463	\$ 21,664,253	\$ 54,463,716	

## Investments

### Investment Policy

The Five-Member Authority determines the asset allocation ranges and targets and the investment advisor has discretion to invest within the authorized ranges and to select the specific investments within an asset category. As of May 31, 2019 and 2018, the Five-Member Authority authorized the following associated targets:

2019	
Asset Class	Target Allocation
Fixed Income	27%
Equities	55
Alternative/Hedge/Balanced	18
Total	100%

2018	
Asset Class	Target Allocation
Fixed Income	27%
Equities	55
Alternative/Hedge/Balanced	18
Total	100%

The asset allocation targets for the years ended May 31, 2019 and 2018 were approved by the Five-Member Authority at the February 18, 2016 meeting. Effective January 29, 2018, the Five-Member Authority authorized revised ranges for the asset categories. On July 18, 2019, the Five-Member Authority authorized revised allocation targets of 30% for Fixed Income and 15% for Alternative/Hedge/Balanced asset classes. Authorized ranges were also revised.

### Rate of Return

For the year ended May 31, 2019, the annual money-weighted rate of return on pension plan investments, net of pension plan investment expense, was 2.59% for the salaried plan and 2.41% for the bargaining unit plan. For the year ended May 31, 2018, the annual money-weighted rate of return on the pension plan investments, net of pension plan investment expense, was 8.03% for the salaried plan and 8.32% for the bargaining unit plan. The money-weighted rate of return expresses investment performance, net of investment expense, adjusted for the changing amounts actually invested.

### Net Pension Liability of the Authority

The components of the net pension liability of the Authority at May 31, 2019 were as follows:

	Salaried Plan	Bargaining Unit Plan
Total pension liability	\$ 47,100,993	\$ 26,189,674
Plan fiduciary net position	34,497,251	21,671,221
Net Pension Liability	\$ 12,603,742	\$ 4,518,453
Plan fiduciary net position as a percentage of the total pension liability	73.24%	82.75%

The components of the net pension liability of the Authority at May 31, 2018 were as follows:

	Salaried Plan	Bargaining Unit Plan
Total pension liability	\$ 44,277,048	\$ 25,820,442
Plan fiduciary net position	32,799,463	21,664,253
Net Pension Liability	\$ 11,477,585	\$ 4,156,189
Plan fiduciary net position as a percentage of the total pension liability	74.08%	83.90%

### Actuarial Assumptions

The total pension liability as of May 31, 2019 was determined by an actuarial valuation as of January 1, 2019 rolled forward to May 31, 2019, using the following actuarial assumptions, applied to all periods included in the measurement:

	Salaried Plan	Bargaining Unit Plan
Inflation	3%	3%
Salary increase	4%, average including inflation	N/A
Investment rate of return	7.00%, net of pension plan investment expense, including inflation	7.00%, net of pension plan investment expense, including inflation

The total pension liability as of May 31, 2018 was determined by an actuarial valuation as of January 1, 2018 rolled forward to May 31, 2018, using the following actuarial assumptions, applied to all periods included in the measurement:

	Salaried Plan	Bargaining Unit Plan
Inflation	3%	3%
Salary increase	4%, average including inflation	N/A
Investment rate of return	7.00%, net of pension plan investment expense, including inflation	7.00%, net of pension plan investment expense, including inflation

Mortality rates for the year ended May 31, 2019 for the Salaried Plan were based on the RP 2014 White Collar and RP 2014 White Collar Mortality for Healthy Annuitant and Disabled Retiree (Male/Female) with MP-2018 projection scale. Mortality rates for the Bargaining Unit Plan were based on the RP 2014 Blue Collar Mortality for Healthy Annuitant and Disabled Retiree (Male/Female) with MP-2018 projection scale.

Mortality rates for the year ended May 31, 2018 for the Salaried Plan were based on the RP 2014 White Collar and RP 2014 White Collar Mortality for Healthy Annuitant and Disabled Retiree (Male/Female) with MP-2017 projection scale. Mortality rates for the Bargaining Unit Plan were based on the RP 2014 Blue Collar Mortality for Healthy Annuitant and Disabled Retiree (Male/Female) with MP-2017 projection scale.

The long-term expected rate of return on pension plan investments was determined using a building-block method in which best-estimate ranges of expected future real rates of return (expected returns, net of pension plan investment expense and inflation) are developed for each major asset class. These ranges are combined to produce the long-term expected rate of return by weighting the expected future real rates of return by the target asset allocation percentage and by adding expected inflation. Best estimates of arithmetic real rates of return for each major asset class included in the pension plan's target asset allocation as of May 31, 2019 (see the discussion of the pension plan's investment policy) are summarized in the following table:

Asset Class	Long-Term Expected Real Rate of Return
Fixed Income	3.7%
Equity	7.6
Alternative/Hedge/Balanced	5.9

Best estimates of arithmetic real rates of return for each major asset class included in the pension plan's target asset allocation as of May 31, 2018 (see the discussion of the pension plan's investment policy) are summarized in the following table:

Asset Class	Long-Term Expected Real Rate of Return
Fixed Income	4.8%
Equity	9.2
Alternative/Hedge/Balanced	6.4

### Discount Rate

The discount rate used to measure the total pension liability as of May 31, 2019 for the salaried plan was 7.00% and for the bargaining unit plan 6.97%. The discount rate used to measure the total pension liability as of May 31, 2018 for the salaried plan was 7.00% and for the bargaining unit plan 6.97%. The projection of cash flows used to determine the discount rate was made at the actuarially determined contribution. For the years ended May 31, 2019 and 2018, the Authority contributed above the actuarial required contribution. The long-term expected rate of return on pension plan investments was applied to all periods of projected benefit payments to determine the total pension liability.

## Changes in the Net Pension Liability

2019 Salaried Plan	Increase (Decrease)		
	Total Pension Liability (a)	Plan Fiduciary Net Position (b)	Net Pension Liability (a)-(b)
Balances as of June 1, 2018	\$ 44,277,048	\$ 32,799,463	\$ 11,477,585
Changes for the year:			
Service cost	\$ 729,789	–	\$ 729,789
Interest on total pension liability	2,997,121	–	2,997,121
Differences between expected and actual experience	1,923,819	–	1,923,819
Changes in assumptions	(86,868)	–	(86,868)
Changes in benefit terms	140,281	–	140,281
Employer contributions	–	3,897,275	(3,897,275)
Member contributions	–	8,287	(8,287)
Net investment gain	–	852,590	(825,590)
Benefit payments, including refund to employee contributions	(2,868,597)	(2,868,597)	–
Administrative expenses	–	(168,432)	168,432
Other	(11,600)	(23,335)	11,735
Net changes	2,823,945	1,697,788	1,126,157
Balances as of May 31, 2019	\$ 47,100,993	\$ 34,497,251	\$ 12,603,742
<b>2019 Bargaining Unit Plan</b>			
2019 Bargaining Unit Plan	Increase (Decrease)		
	Total Pension Liability (a)	Plan Fiduciary Net Position (b)	Net Pension Liability (a)-(b)
Balances as of June 1, 2018	\$ 25,820,442	\$ 21,664,253	\$ 4,156,189
Changes for the year:			
Service cost	\$ 129,285	–	\$ 129,285
Interest on total pension liability	1,745,484	–	1,745,484
Differences between expected and actual experience	(41,862)	–	(41,862)
Changes in assumptions	(50,037)	–	(50,037)
Changes in benefit terms	207,281	–	207,281
Employer contributions	–	1,239,632	(1,239,632)
Member contributions	–	–	–
Net investment gain	–	508,851	(508,851)
Benefit payments, including refund to employee contributions	(1,611,414)	(1,611,414)	–
Administrative expenses	–	(111,091)	111,091
Other	(9,505)	(19,010)	9,505
Net changes	369,232	6,968	362,264
Balances as of May 31, 2019	\$ 26,189,674	\$ 21,671,221	\$ 4,518,453

Changes in Net Pension Liability continued on next page

2018 Salaried Plan (continued)	Increase (Decrease)		
	Total Pension Liability (a)	Plan Fiduciary Net Position (b)	Net Pension Liability (a)-(b)
Balances as of June 1, 2017	\$ 43,103,145	\$ 28,690,826	\$ 14,412,319
Changes for the year:			
Service cost	\$ 748,940	–	\$ 748,940
Interest on total pension liability	2,925,239	–	2,925,239
Differences between expected and actual experience	166,471	–	166,471
Changes in assumptions	(204,280)	–	(204,280)
Changes in benefit terms	–	–	–
Employer contributions	–	4,341,521	(4,341,521)
Member contributions	–	10,918	(10,918)
Net investment loss	–	2,372,221	(2,372,221)
Benefit payments, including refund to employee contributions	(2,462,467)	(2,462,467)	–
Administrative expenses	–	(165,402)	165,402
Other	–	11,846	(11,846)
Net changes	1,173,903	4,108,637	(2,934,734)
Balances as of May 31, 2018	\$ 44,277,048	\$ 32,799,463	\$ 11,477,585

2018 Bargaining Unit Plan	Increase (Decrease)		
	Total Pension Liability (a)	Plan Fiduciary Net Position (b)	Net Pension Liability (a)-(b)
Balances as of June 1, 2017	\$ 25,150,284	\$ 20,048,356	\$ 5,101,928
Changes for the year:			
Service cost	\$ 143,110	–	\$ 143,110
Interest on total pension liability	1,695,294	–	1,695,294
Differences between expected and actual experience	520,588	–	520,588
Changes in assumptions	(242,533)	–	(242,533)
Changes in benefit terms	–	–	–
Employer contributions	–	1,519,216	(1,519,216)
Net investment loss	–	1,656,511	(1,656,511)
Benefit payments, including refund to employee contributions	(1,446,301)	(1,446,301)	–
Administrative expenses	–	(123,799)	123,799
Other	–	10,270	(10,270)
Net changes	670,158	1,615,897	(945,739)
Balances as of May 31, 2018	\$ 25,820,442	\$ 21,664,253	\$ 4,156,189

### Sensitivity of the Net Pension Liability to Changes in the Discount Rate

The following presents the net pension liability of the Authority for the year ended May 31, 2019, calculated using the discount rate of 7.00% for the salaried plan and 6.97% for the bargaining unit plan, as well as what the Authority's net pension liability would be if it were calculated using a discount rate that is 1 percentage point lower or 1 percentage point higher than the current rate:

	1% Decrease (6.00%)	Current Discount Rate (7.00%)	1% Increase (8.00%)
Salaried Plan	\$ 17,123,843	\$ 12,603,742	\$ 8,710,310

	1% Decrease (5.97%)	Current Discount Rate (6.97%)	1% Increase (7.97%)
Bargaining Unit Plan	\$ 9,265,654	\$ 4,518,453	\$ 3,456,265

The following presents the net pension liability of the Authority for the year ended May 31, 2018, calculated using the discount rate of 7.00% for the salaried plan and 6.97% for the bargaining unit plan, as well as what the Authority's net pension liability would be if it were calculated using a discount rate that is 1 percentage point lower or 1 percentage point higher than the current rate:

	1% Decrease (6.00%)	Current Discount Rate (7.00%)	1% Increase (8.00%)
Salaried Plan	\$ 15,725,861	\$ 11,477,585	\$ 7,809,515

	1% Decrease (5.97%)	Current Discount Rate (6.97%)	1% Increase (7.97%)
Bargaining Unit Plan	\$ 7,049,302	\$ 4,156,189	\$ 1,700,061

### Pension Expense and Deferred Outflows of Resources and Deferred Inflows of Resources Related to Pensions

For the year ended May 31, 2019 and 2018, the Authority recognized pension expense of \$3,014,477 and \$2,055,644, respectively. At May 31, 2019 and 2018, the Authority reported deferred outflows of resources and deferred inflows of resources related to pension from the following sources:

2019	Deferred Outflows of Resources		
	Salaried Plan	Bargaining Unit Plan	Total
Differences between expected and actual experience	\$ 1,628,466	\$ 374,223	\$ 2,002,689
Changes of assumptions	–	–	–
Difference between projected and actual earning on pension plan investments	1,557,957	1,075,230	2,633,187
<b>Total</b>	<b>\$ 3,186,423</b>	<b>\$ 1,449,453</b>	<b>\$ 4,635,876</b>

	Deferred Inflows of Resources		
	Salaried Plan	Bargaining Unit Plan	Total
Differences between expected and actual experience	\$ –	\$ 30,542	\$ 30,542
Changes of assumptions	630,282	877,024	1,507,306
Difference between projected and actual earning on pension plan investments	645,344	473,812	1,119,156
<b>Total</b>	<b>\$ 1,275,626</b>	<b>\$ 1,381,378</b>	<b>\$ 2,657,004</b>

2018	Deferred Outflows of Resources		
	Salaried Plan	Bargaining Unit Plan	Total
Differences between expected and actual experience	\$ 661,688	\$ 601,726	\$ 1,263,414
Changes of assumptions	67,134	63,958	131,092
Net difference between projected and actual earning on pension plan investments	810,868	578,346	1,389,214
<b>Total</b>	<b>\$ 1,539,690</b>	<b>\$ 1,244,030</b>	<b>\$ 2,783,720</b>

	Deferred Inflows of Resources		
	Salaried Plan	Bargaining Unit Plan	Total
Differences between expected and actual experience	\$ –	\$ 23,411	\$ 23,411
Changes of assumptions	1,240,942	1,531,385	2,772,327
Net difference between projected and actual earning on pension plan investments	935,043	684,918	1,619,961
<b>Total</b>	<b>\$ 2,175,985</b>	<b>\$ 2,239,714</b>	<b>\$ 4,415,699</b>

Amounts reported as deferred outflows of resources and deferred inflows of resources related to pension will be recognized in pension expense as follows:

Year Ended May 31		
2020	\$	448,709
2021		492,982
2022		552,535
2023		484,646
Thereafter		–
	\$	1,978,872

#### 14. Voluntary Investment Plan

The Authority maintains a voluntary investment plan (a defined contribution 401(k) plan) covering eligible salaried employees. Salaried employees hired after January 1, 2011 receive an Authority contribution of 4.5% of their pay after six months of service. Salaried employees are not required to contribute in order to receive a match. Authority contributions vest immediately. Effective January 1, 1997, eligible bargaining unit employees were allowed to participate in the voluntary investment plan. Bargaining unit employees hired after April 15, 2010 and before April 15, 2014 receive an Authority contribution of 3.5% of pay with 100% vesting. Bargaining unit employees hired after April 15, 2014 receive an Authority contribution of 3.5% of their pay after six months of employment under the following vesting schedule: 50% after three years of service, 75% after four years of service and 100% after five years of service. Contributions to the plan for the years ended May 31, 2019 and 2018 were as follows:

	2019		2018	
Employer contributions	\$	804,800	\$	761,944
Employee contributions		1,743,846		1,601,936

#### 15. Other Post-Employment Benefits – Retiree Health Care

##### Plan Description

The Authority's other post-employment benefits (OPEB) include health benefits to retirees and qualifying dependents as well as a death benefit of \$12,000 and increasing to \$13,000 in April 2017. Medical coverage for retirees and spouses over 65 is provided by an indemnity plan. Medical and dental coverage for retirees and dependents under 65 is provided by the Authority's self-insurance plan. Death benefits are funded on a pay-as-you-go basis. Eligibility is stated in the funding policy section below.

In September 2008, the Authority established the South Central Connecticut Regional Water Authority Retired Employees' Contributory Welfare Trust (the Trust). On October 9, 2008, the Authority transferred \$724,462 to the Trust as its initial funding. This initial contribution comprises \$564,462 from the Birmingham Utilities Retiree Trust and \$160,000 as the Authority's initial funding of the Trust.

The retiree health plan is included in the Authority's financial reporting entity and accounted for as a trust fund. The Authority does not issue a stand-alone financial report for the plan.

The Authority opted to fund the Trust by contributing the actuarial recommended cash contribution.

Management of the plan rests with the Pension and Benefit Committee of the Five-Member Authority. The Pension and Benefit Committee consist of all five members of the Five-Member Authority.

At January 1, 2019, plan membership consisted of the following:

	Retiree Health Plan
Retired members	159
Spouses of retired members	81
Active plan members	162
Members death benefits only	114
Total participants	516

The plan is closed to new entrants, other than for the death benefit and eligibility to participate in the group health insurance at one's own expense.

#### Summary of Significant Accounting Policies and Plan Asset Matters

##### Basis of Accounting

Financial statements for the Trust are prepared using the accrual method of accounting. Employee contributions are recognized as revenues in the period in which the contributions are due. Employer contributions are recognized when due and the employer has made a formal commitment to provide the contributions. Benefits and refunds are recognized when due and payable in accordance with the terms of the plan.

##### Valuation of Investments

Investments are reported at fair value as determined by quoted prices in active markets.

##### Funding Policy

Requirements for contributions by union plan members are negotiated with the union. Retiree contribution requirements vary depending on retirement date and hire date as described below:

Union employees and spouses:

- Until they are eligible for Medicare, retired employees under 65 are subject to the same contribution levels and increases in contributions as active employees.
- Employees who retired on or before April 15, 2006 receive full benefits from the Medicare Supplemental Plan F (or comparable coverage) and Medicare Part B reimbursement for pensioner and spouse if qualified.
- Employees who retire after April 15, 2006, and who were hired before January 1, 2006, receive benefits from the Medicare Supplemental Plan F (or comparable coverage) and Medicare Part B reimbursement for pensioner and for such of their dependents as qualified at levels in place as of December 31, 2005. Retirees and qualifying dependents are responsible for costs above \$158.14 per individual per month for the Medicare Supplemental Plan and \$78.00 per individual per month for Medicare Part B.
- Retired employees who were hired on or after January 1, 2006 are entitled to continue in the group health coverage by paying the entire monthly cost for the appropriate coverage based on their age.



Nonunion employees and spouses:

- Until they are eligible for Medicare, retired employees under 65 are subject to the same contribution levels and increases in contributions as active employees.
- Employees who retired on or before January 1, 2006 receive full benefits from the Medicare Supplemental Plan F (or comparable coverage) and Medicare Part B reimbursement for pensioner and spouse if qualified.
- Employees who retire after January 1, 2006, and who were hired before January 1, 2005, receive benefits from the Medicare Supplemental Plan F (or comparable coverage) and Medicare Part B reimbursement for pensioner and for such of their dependents as qualified at levels in place as of December 31, 2004. Retirees and qualifying dependents are responsible for costs above \$158.14 per individual per month for the Medicare Supplemental Plan and \$66.60 per individual per month for Medicare Part B.
- Retired employees who were hired on or after January 1, 2005 are entitled to continue in the group health coverage by paying the entire monthly cost for the appropriate coverage based on their age.

The Authority's cash contribution to the trust was \$2,310,104 for the fiscal year ended May 31, 2019. The Authority's contribution was based on the actuarially calculated recommended cash contribution.

## Investments

### Investment Policy

The Five-Member Authority determines the asset allocation target and the associated ranges and the investment advisor has discretion to invest within the authorized ranges and to select the specific investments within an asset category. As of May 31, 2019 and 2018, the Five-Member Authority authorized the following target and associated ranges:

2019	
Asset Class	Target Allocation
Fixed Income	27%
Equities	55
Alternatives/Hedge/Balanced	18
Total	100%

2018	
Asset Class	Target Allocation
Fixed Income	27%
Equities	55
Alternatives/Hedge/Balanced	18
Total	100%

The asset allocation targets for the years ended May 31, 2019 and 2018 were approved by the Five-Member Authority at the April 19, 2018 meeting. Effective January 29, 2018 the Five-Member Authority authorized revised ranges for the asset categories. The prior authorization was approved February 18, 2016. On July 18, 2019, the Five-Member Authority authorized revised targets of 30% for Fixed Income and 15% for Alternative/Hedge/Balanced asset classes. The associated ranges were also revised.

### Rate of Return

As of May 31, 2019 and 2018, the annual money-weighted rate of return on investments, net of investment expense, was 2.93% and 8.11%, respectively. The money-weighted rate of return expresses investment performance, net of investment expense, was determined based on an assumption of contributions and expenses being paid in the middle of the plan year.

### Net OPEB Liability of the Authority

The Authority's net OPEB liability was measured as of May 31, 2019 and 2018. The components of the net OPEB liability of the Authority at May 31, 2019 were as follows:

Total OPEB liability	\$	27,024,614
Plan fiduciary net position		6,994,343
Net OPEB liability	\$	20,030,271

Plan fiduciary net position as a percentage of the total OPEB liability 25.88%

The components of the net OPEB liability of the Authority at May 31, 2018 were as follows:

Total OPEB liability	\$	29,736,480
Plan fiduciary net position		6,084,454
Net OPEB liability	\$	23,652,026

Plan fiduciary net position as a percentage of the total OPEB liability 20.46%

### Actuarial Assumptions

The total OPEB liability for May 31, 2019 was determined by an actuarial valuation as of January 1, 2019, using the following actuarial assumptions, applied to all periods included in the measurement, unless otherwise specified:

Inflation	3.00%
Investment rate of return	7.00% net of OPEB plan investment expense, including inflation
Healthcare cost trend rates	7.00% per year graded down using the Getzen Model to an ultimate rate of 3.84% per year

The total OPEB liability for May 31, 2018 was determined by an actuarial valuation as of January 1, 2018, using the following actuarial assumptions, applied to all periods included in the measurement, unless otherwise specified:

Inflation	3.00%
Investment rate of return	7.00% net of OPEB plan investment expense, including inflation
Healthcare cost trend rates	7.50% per year graded down using the Getzen Model to an ultimate rate of 3.84% per year

Mortality rates for the year ended May 31, 2019 were based on the 2010 Public Sector Retirement Plans Mortality table for above-average salary general employee populations with MP-2018 mortality improvement scale.

Mortality rates for the year ended May 31, 2018 were based on the RP-2014 Employee and Healthy Annuitant with Scale MP-2017 generational improvements from 2006 (Male/Female).

The long-term expected rate of return on OPEB plan investments was determined using a building-block method in which best-estimate ranges of expected future real rates of return (expected returns, net of investment expense and inflation) are developed for each major asset class. These ranges are combined to produce the long-term expected rate of return by weighting the expected future real rates of return by the target asset allocation percentage and by adding expected inflation. The best estimates of arithmetic real rates of return for each major asset as of May 31, 2019 are summarized in the following table:

Asset Class	Long-Term Expected Rate of Return
Fixed Income	3.7%
Global Equities	7.6
Alternatives/Hedge/Balanced	5.9

The best estimates of arithmetic real rates of return for each major asset as of May 31, 2018 are summarized in the following table:

Asset Class	Long-Term Expected Rate of Return
Fixed Income	4.8%
Global Equities	9.2
Alternatives/Hedge/Balanced	6.4

### Discount Rate

The discount rate used to measure the total OPEB liability was 7.0% for the years ended May 31, 2019 and 2018. The projection of cash flows used to determine the discount rate assumed that Authority contributions will be made at rates equal to the actuarially determined contribution rates.

The discount rate of 7.0% is the same as of May 31, 2019 and as of May 31, 2018.

## Changes in the Net OPEB Liability

	2019		
	Increase (Decrease)		
	Total OPEB Liability (a)	Plan Fiduciary Net Position (b)	Net OPEB Liability (a)-(b)
Balances as of June 1, 2018	\$ 29,736,480	\$ 6,084,454	\$ 23,652,026
Changes for the year:			
Service cost	269,556	–	269,556
Interest	2,004,070	–	2,004,070
Difference between expected and actual experience	(4,053,660)	–	(4,053,660)
Changes in assumptions	620,017	–	620,017
Benefit payments, including refunds of member contributions	(1,749,662)	(1,749,662)	–
Contributions – employer	–	2,310,104	(2,310,104)
Contributions – retiree	197,813	197,813	–
Net investment income	–	189,085	(189,085)
Administrative expense	–	(37,451)	37,451
Net changes	(2,711,866)	909,889	(3,621,755)
Balances as of May 31, 2019	\$ 27,024,614	\$ 6,994,343	\$ 20,030,271

	2018		
	Increase (Decrease)		
	Total OPEB Liability (a)	Plan Fiduciary Net Position (b)	Net OPEB Liability (a)-(b)
Balances as of June 1, 2017	\$ 28,766,745	\$ 5,260,881	\$ 23,505,864
Changes for the year:			
Service cost	248,822	–	248,822
Interest	1,939,224	–	1,939,224
Difference between expected and actual experience	981,536	–	981,536
Changes in assumptions	(139,795)	–	(139,795)
Benefit payments, including refunds of member contributions	(2,060,052)	(2,060,052)	–
Contributions – employer	–	2,289,292	(2,289,292)
Contributions – retiree	–	187,448	(187,448)
Net investment income	–	441,966	(441,966)
Administrative expense	–	(35,081)	35,081
Net changes	969,735	823,573	146,162
Balances as of May 31, 2018	\$ 29,736,480	\$ 6,084,454	\$ 23,652,026

### Sensitivity of the Net OPEB Liability to Changes in the Discount Rate

The following presents the net OPEB liability of the Authority for the year ended May 31, 2019, as well as what the Authority's net OPEB liability would be if it were calculated using a discount rate that is 1 percentage point lower or 1 percentage point higher than the current discount rate:

	1% Decrease (6.00%)	Current Discount Rate (7.00%)	1% Increase (8.00%)
Net OPEB Liability	\$ 22,153,978	\$ 20,030,271	\$ 18,154,319

The following presents the net OPEB liability of the Authority for the year ended May 31, 2018, as well as what the Authority's net OPEB liability would be if it were calculated using a discount rate that is 1 percentage point lower or 1 percentage point higher than the current discount rate:

	1% Decrease (6.00%)	Current Discount Rate (7.00%)	1% Increase (8.00%)
Net OPEB Liability	25,952,422	\$ 23,652,026	\$ 21,610,099

### Sensitivity of the Net OPEB Liability to Changes in the Healthcare Cost Trend Rates

The following presents the net OPEB liability of the Authority for the year ended May 31, 2019, as well as what the Authority's net OPEB liability would be if it were calculated using healthcare cost trend rates that are 1 percentage point lower or 1 percentage point higher the current healthcare cost trend rates:

	1% Decrease (6.0% decreasing to 2.84%)	Healthcare Cost Trend Rates (7.0% decreasing to 3.84%)	1% Increase (8.0% decreasing to 4.84%)
Net OPEB Liability	\$ 17,949,543	\$ 20,030,271	\$ 22,406,089

The following presents the net OPEB liability of the Authority for the year ended May 31, 2018, as well as what the Authority's net OPEB liability would be if it were calculated using healthcare cost trend rates that are 1 percentage point lower or 1 percentage point higher the current healthcare cost trend rates:

	1% Decrease (6.5% decreasing to 2.84%)	Healthcare Cost Trend Rates (7.5% decreasing to 3.84%)	1% Increase (8.5% decreasing to 4.84%)
Net OPEB Liability	\$ 21,366,590	\$ 23,652,026	\$ 26,255,193

### OPEB Expense and Deferred Outflows of Resources and Deferred Inflows of Resources Related to OPEB

For the years ended May 31, 2019 and 2018, the Authority recognized OPEB expense of \$1,518,629 and \$1,971,500, respectively. At May 31, 2019 and 2018, the Authority reported deferred outflows of resources and deferred inflows of resources related to OPEB from the following sources:

	2019	
	Deferred Outflows of Resources	Deferred Inflows of Resources
Differences between expected and actual experience	\$ 662,442	\$ 3,424,014
Changes of assumptions	523,711	94,347
Net difference between projected and actual earning on OPEB plan investments	193,467	40,137
<b>Total</b>	<b>\$ 1,379,620</b>	<b>\$ 3,558,498</b>

	2018	
	Deferred Outflows of Resources	Deferred Inflows of Resources
Differences between expected and actual experience	\$ 821,989	\$ -
Changes of assumptions	-	117,071
Net difference between projected and actual earning on OPEB plan investments	-	53,516
<b>Total</b>	<b>\$ 821,989</b>	<b>\$ 170,587</b>

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

Year Ending May 31	
2020	\$ (361,529)
2021	(361,529)
2022	(361,529)
2023	(348,151)
2024	(512,537)
Thereafter	(233,603)
	<b>\$ (2,178,878)</b>

### Actuarial Valuations

Actuarial valuations of an ongoing plan involve estimates of the value of reported amounts and assumptions about the probability of occurrences of events far into the future. Examples include assumptions about future employment, mortality and the health care costs trend. Amounts determined regarding the funding status of the plan and the annual required contributions of the employer are subject to continual revision as actuarial results are compared with past expectations and new estimates are made about the future.

Projections for benefits for financial reporting purposes are based on the substantive requirements and include the types of benefits provided at the time of each valuation and the historical pattern of sharing benefit costs between the employer and plan members to that point. The actuarial methods and assumptions used include techniques that are designed to reduce the effects of short-term volatility in actuarial accrued liabilities and the actuarial value of assets, consistent with the long-term perspective of the calculations.

In the January 1, 2019 actuarial valuation, the frozen entry age normal actuarial funding method was used with a health care cost trend of 7.0% graded down by the Getzen Model to an ultimate rate of 3.84% annually and a discount rate of 7.0%.

## 16. Subsequent Events

On July 2, 2019, the Authority issued \$11,725,000 in Water System Revenue Bonds, Thirty-fourth Series A with coupon rates ranging from 3% to 5% and a premium of \$2,171,410 resulting in net proceeds of \$13,896,410. The Authority also issued \$13,125,000 in Water System Revenue Bonds Series C Green Bonds, with a coupon rate of 5%, premium of \$2,768,411 and proceeds of \$15,893,411. Proceeds of Series C were used to fully pay off interim financing of \$14,707,229, to pay for cost of issuance and to fund the required associated reserves. In addition, on July 2, 2019, the Authority issued \$83,430,000 in taxable Water System Series B Refunding Bonds with coupon rates 2.114% to 3.500%. This issuance refunded \$75,765,000 outstanding principal amounts of certain maturities of the Authority's Twenty-seventh Series and Twenty-eighth Series A. The net proceeds of \$85,342,125 (including debt service contributions of \$1,894,125) will reduce total debt service payments undiscounted by \$10,931,293 and \$8,896,130 discounted.

## 17. Future Governmental Accounting Standards Board (GASB) Statements

The Governmental Accounting Standards Board (GASB) has issued a pronouncement that will have an effective date that may impact future financial presentations.

### GASB Statement 83 - Certain Asset Retirement Obligations

This Statement addresses accounting and financial reporting for certain asset retirement obligations (AROs). An ARO is a legally enforceable liability associated with the retirement of a tangible capital asset. A government that has legal obligations to perform future asset retirement activities related to its tangible capital assets should recognize a liability based on the guidance in this Statement.

The requirements of this Statement are effective for fiscal years beginning after June 15, 2018.

### GASB Statement 84 - Fiduciary Activities

The objective of this statement is to improve guidance regarding the identification of fiduciary activities for accounting and financial reporting purposes and how those activities should be reported.

The requirements of this Statement are effective for fiscal years beginning after December 15, 2018.

### GASB Statement 88 - Certain Disclosures Related to Debt, including Direct Borrowings and Direct Placements

The objective of this statement is to improve disclosure regarding direct borrowings and direct placements.

The requirements of this Statement are effective for fiscal years beginning after June 15, 2018.

## 18. Prior Period Adjustment and Restatement

The following restatements were recorded to the beginning of year net position of the governmental activities as a result of implementation of GASB Statement No. 75, *Accounting and Financial Reporting for Postemployment Benefits Other than Pensions*:

Net position at May 31, 2017	\$ 171,564,234
Adjustments:	
Eliminate net OPEB obligation reported per GASB No.45	9,753
Record net OPEB liability per GASB No. 75	(23,505,865)
<b>Net Position Balance at June 1, 2017, as Restated</b>	<b>\$ 148,068,122</b>

**RSI-1 SCHEDULE OF CHANGES IN NET PENSION LIABILITY AND RELATED RATIOS LAST FIVE FISCAL YEARS\***

<b>SALARIED PLAN</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>
<b>Total pension liability:</b>					
Service cost	\$ 675,452	\$ 681,501	\$ 656,669	\$ 748,940	\$ 729,789
Interest	2,611,307	2,930,309	2,930,761	2,925,239	2,997,121
Differences between expected and actual experience	714,740	592,405	979,655	166,471	1,923,819
Changes in assumptions	3,703,809	494,742	(2,323,594)	(204,280)	(86,868)
Changes in benefit terms	–	–	10,131	–	140,281
Benefit payments, including refunds of member contributions	(2,096,472)	(2,707,621)	(2,992,795)	(2,462,467)	(2,868,597)
Other	–	–	–	–	(11,600)
Net change in total pension liability	5,608,836	1,991,336	(739,173)	1,173,903	2,823,945
Total pension liability – beginning	36,242,146	41,850,982	43,842,318	43,103,145	44,277,048
Total pension liability – ending	41,850,982	43,842,318	43,103,145	44,277,048	47,100,993
<b>Plan fiduciary net position:</b>					
Contributions – employer	2,689,635	4,385,524	5,001,252	4,341,521	3,897,275
Contributions – member	15,624	14,693	10,810	10,918	8,287
Net investment income (loss)	712,038	(287,080)	2,810,914	2,372,221	852,590
Benefit payments, including refunds of member contributions	(2,096,472)	(2,707,621)	(2,992,795)	(2,462,467)	(2,868,597)
Administrative expense	(30,552)	(133,601)	(136,687)	(165,402)	(168,432)
Other	–	(61,573)	87,206	11,846	(23,335)
Net change in plan fiduciary net position	1,290,273	1,210,342	4,780,700	4,108,637	1,697,788
Plan fiduciary net position – beginning	21,409,511	22,699,784	23,910,126	28,690,826	32,799,463
Plan fiduciary net position – ending	22,699,784	23,910,126	28,690,826	32,799,463	34,497,251
Net Pension Liability – Ending	\$ 19,151,198	\$ 19,932,192	\$ 14,412,319	\$ 11,477,585	\$ 12,603,742
Plan fiduciary net position as a percentage of the total pension liability	54.24%	54.54%	66.56%	74.08%	73.24%
Covered-employee payroll	\$ 8,694,151	\$ 8,590,395	\$ 9,290,589	\$ 9,475,823	\$ 9,160,530
Net pension liability as a percentage of covered-employee payroll	220.28%	232.03%	155.13%	121.12%	137.59%

\*Note: This schedule is intended to show information for ten years. Additional years' information will be displayed as it becomes available.

**RSI-1 SCHEDULE OF CHANGES IN NET PENSION LIABILITY AND RELATED RATIOS LAST FIVE FISCAL YEARS\***

<b>BARGAINING UNIT PLAN</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>
<b>Total pension liability:</b>					
Service cost	\$ 171,017	\$ 166,226	\$ 155,949	\$ 143,110	\$ 129,285
Interest	1,718,773	1,802,098	1,799,197	1,695,294	1,745,484
Differences between expected and actual experience	(311,677)	(110,990)	406,966	520,588	(41,862)
Changes of assumptions	1,292,075	303,196	(2,610,404)	(242,533)	(50,037)
Changes in benefits	–	120,432	83,206	–	207,281
Benefit payments, including refunds of member contributions	(1,103,669)	(1,212,225)	(1,328,633)	(1,446,301)	(1,611,414)
Other	–	–	–	–	(9,505)
Net change in total pension liability	1,766,519	1,068,737	(1,493,719)	670,158	369,232
Total pension liability – beginning	23,808,747	25,575,266	26,644,003	25,150,284	25,820,442
Total pension liability – ending	25,575,266	26,644,003	25,150,284	25,820,442	26,189,674
<b>Plan fiduciary net position:</b>					
Contributions – employer	1,708,765	2,212,476	2,175,166	1,519,216	1,239,632
Net investment income (loss)	374,669	(198,733)	2,021,684	1,656,511	508,851
Benefit payments, including refunds of member contributions	(1,103,669)	(1,212,225)	(1,328,633)	(1,446,301)	(1,611,414)
Administrative expense	(23,872)	(98,084)	(101,257)	(123,799)	(111,091)
Other	–	(24,768)	46,960	10,270	(19,010)
Net change in plan fiduciary net position	955,893	678,666	2,813,920	1,615,897	6,968
Plan fiduciary net position – beginning	15,599,877	16,555,770	17,234,436	20,048,356	21,664,253
Plan fiduciary net position – ending	16,555,770	17,234,436	20,048,356	21,664,253	21,671,221
Net Pension Liability – Ending	\$ 9,019,496	\$ 9,409,567	\$ 5,101,928	\$ 4,156,189	\$ 4,518,453
Plan fiduciary net position as a percentage of the total pension liability	64.73%	64.68%	79.71%	83.90%	82.75%
Covered-employee payroll	N/A	N/A	N/A	N/A	N/A
Net pension liability as a percentage of covered-employee payroll	N/A	N/A	N/A	N/A	N/A

\*Note: This schedule is intended to show information for ten years. Additional years' information will be displayed as it becomes available.

**RSI-2 SCHEDULE OF EMPLOYER CONTRIBUTIONS LAST NINE FISCAL YEARS\***

SALARIED PLAN	2011	2012	2013	2014	2015	2016	2017	2018	2019
Actuarially determined contribution	\$ 1,170,786	\$ 1,350,489	\$ 1,758,700	\$ 2,329,754	\$ 2,689,635	\$ 2,749,435	\$ 3,356,514	\$ 2,648,702	\$ 2,379,603
Contributions in relation to the actuarially determined contribution	1,170,786	1,350,489	1,758,700	2,329,754	2,689,635	4,385,524	5,001,252	4,341,521	3,897,275
Contribution Excess	\$ -	\$ -	\$ -	\$ -	\$ -	\$ (1,636,089)	\$ (1,644,738)	\$ (1,692,819)	\$ (1,517,672)
Covered-employee payroll	\$ 9,699,911	\$ 9,543,816	\$ 9,653,830	\$ 9,254,742	\$ 8,694,151	\$ 8,590,395	\$ 9,290,589	\$ 9,475,823	\$ 9,160,530
Contributions as a percentage of covered-employee payroll	12.07%	14.15%	18.22%	25.17%	30.94%	51.05%	53.83%	45.82%	42.54%

**Notes to Schedule**

**Valuation date:** January 1, 2019

**Measurement date:** May 31, 2019

Calculated as the normal cost as of January 1st prior to the beginning of the fiscal year in which contributions are reported, increased with a half year of interest.

**Methods and assumptions used to determine contribution rates:**

**Actuarial cost method:** Aggregate actuarial cost method

**Amortization method:** The aggregate actuarial cost method does not amortize gains and losses and therefore there is no amortization period as the method itself allocates costs over the future service of employees.

**Asset valuation method:** An actuarial smoothing method based on market value of assets plus 75% of expected returns.

**Inflation:** 3.0%

**Salary increases:** 4%, average, including inflation

**Investment rate of return:** 7.0%, net of pension plan investment expense, including inflation.

**Retirement age:** In the 2019 actuarial valuation, expected retirement ages of general plan members was age 55 with 3 continuous years of service. Actual retirement ages have been monitored for several years and past rates still appear to be appropriate.

**Mortality:** In the 2019 actuarial valuation, assumed life expectancies were updated from the RP-2014 White Collar Employee, Healthy Annuitant and Disabled Retiree (Male/Female) with MP-2017 generational mortality improvement to RP-2014 White Collar Employee, Healthy Annuitant and Disabled Retiree (Male/Female) with MP-2018 generational mortality improvement (Projected from 2006).

**\* Note:** This schedule is intended to show information for ten years. Additional years' information will be displayed as it becomes available.

BARGAINING UNIT PLAN	2011	2012	2013	2014	2015	2016	2017	2018	2019
Actuarially determined contribution	\$ 812,344	\$ 926,931	\$ 1,114,700	\$ 1,454,957	\$ 1,708,765	\$ 1,707,164	\$ 1,815,386	\$ 1,126,333	\$ 918,295
Contributions in relation to the actuarially determined contribution	812,344	926,931	1,114,700	1,454,957	1,708,765	2,212,476	2,175,166	1,519,216	1,239,632
Contribution Excess	\$ -	\$ -	\$ -	\$ -	\$ -	\$ (505,312)	\$ (359,780)	\$ (392,883)	\$ (321,337)
Covered-employee payroll	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Contributions as a percentage of covered-employee payroll	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

**Notes to Schedule**

**Valuation date:** January 1, 2019

**Measurement date:** May 31, 2019

Calculated as the normal cost as of January 1st prior to the beginning of the fiscal year in which contributions are reported, increased with a half year of interest.

**Methods and assumptions used to determine contribution rates:**

**Actuarial cost method:** Aggregate actuarial cost method

**Amortization method:** The aggregate actuarial cost method does not amortize gains and losses and therefore there is no amortization period as the method itself allocates costs over the future service of employees.

**Asset valuation method:** An actuarial smoothing method based on market value of assets plus 75% of expected returns.

**Inflation:** 3.0%

**Salary increases:** N/A

**Investment rate of return:** 7.0%, net of pension plan investment expense, including inflation.

**Retirement age:** In the 2019 actuarial valuation, expected retirement ages of general plan members was age 55 with 3 continuous years of service. Actual retirement ages have been monitored for several years and past rates still appear to be appropriate.

**Mortality:** In the 2019 actuarial valuation, assumed life expectancies were updated from the RP-2014 Blue Collar Employee, Healthy Annuitant and Disabled Retiree (Male/Female) with MP-2017 general mortality improvement (Projected from 2006) to the RP-2014 Blue Collar Employee, Healthy Annuitant and Disabled Retiree (Male/Female) with MP-2018 generational mortality improvement (Projected from 2006).

**\* Note:** This schedule is intended to show information for ten years. Additional years' information will be displayed as it becomes available.



**RSI-3 SCHEDULE OF INVESTMENT RETURNS – PENSION LAST FIVE FISCAL YEARS\***

SALARIED PLAN	2015	2016	2017	2018	2019	BARGAINING UNIT PLAN	2015	2016	2017	2018	2019
Annual money-weighted rate of return, net of investment expense	3.28%	(1.22)%	11.29%	8.03%	2.59%	Annual money-weighted rate of return, net of investment expense	2.36%	(1.17)%	11.47%	8.32%	2.41%

\*Note: This schedule is intended to show information for ten years. Additional years' information will be displayed as it becomes available.

**RSI-4 SCHEDULE OF CHANGES IN NET OPEB LIABILITY AND RELATED RATIOS LAST TWO FISCAL YEARS\***

	2018	2019
Total OPEB liability:		
Service cost	\$ 248,822	\$ 269,556
Interest	1,939,224	2,004,070
Differences between expected and actual experience	981,536	(4,053,660)
Changes in assumptions	(139,795)	620,017
Benefit payments, including refunds of member contributions	(2,060,052)	(1,749,662)
Contributions - retiree	–	197,813
Net change in total OPEB liability	969,735	(2,711,866)
Total OPEB liability – beginning	28,766,745	29,736,480
Total OPEB liability – ending	29,736,480	27,024,614
Plan fiduciary net position:		
Contributions – employer	2,289,292	2,310,104
Contributions – retiree	187,448	197,813
Net investment income	441,966	189,085
Benefit payments, including refunds of member contributions	(2,060,052)	(1,749,662)
Administrative expense	(35,081)	(37,451)
Net change in plan fiduciary net position	823,573	909,889
Plan fiduciary net position – beginning	5,260,881	6,084,454
Plan fiduciary net position – ending	6,084,454	6,994,343
Net OPEB Liability – ending	\$ 23,652,026	\$ 20,030,271
Plan fiduciary net position as a percentage of the total OPEB liability	20.46%	25.88%
Covered payroll	\$ 23,217,114	\$ 23,941,245
Net OPEB liability as a percentage of covered payroll	101.87%	83.66%

\*Note: This schedule is intended to show information for ten years. Additional years' information will be displayed as it becomes available.

### RSI-5 SCHEDULE OF PLAN CONTRIBUTIONS – OPEB LAST NINE FISCAL YEARS\*

	2011	2012	2013	2014	2015	2016	2017	2018	2019
Actuarially determined contribution (1)	\$ 1,330,510	\$ 1,427,435	\$ 1,717,500	\$ 2,727,659	\$ 2,604,191	\$ 2,506,691	\$ 2,486,586	\$ 2,143,071	\$ 2,175,583
Contributions in relation to the actuarially determined contribution	1,330,510	1,427,435	1,717,500	2,266,000 <sup>(2)</sup>	2,398,800 <sup>(3)</sup>	2,290,882 <sup>(3)</sup>	2,301,583 <sup>(3)</sup>	2,289,292 <sup>(3)</sup>	2,310,104 <sup>(3)</sup>
Contribution Deficiency (Excess)	\$ –	\$ –	\$ –	\$ 461,659	\$ 205,391	\$ 215,809	\$ 185,003	\$ (146,221)	\$ (134,521)
Covered-employee payroll	N/A	N/A	N/A	N/A	N/A	N/A	N/A	\$ 23,217,114 <sup>(4)</sup>	\$ 23,941,245 <sup>(5)</sup>
Contributions as a percentage of covered-employee payroll	N/A	N/A	N/A	N/A	N/A	N/A	N/A	9.86%	9.65%

(1) Actuarially determined contributions prior to fiscal year ended May 31, 2019 are based on the Annual Required Contribution (ARC) calculated in accordance with GASB No. 45.

(2) The Authority amortized \$263,603 of the OPEB asset towards the ARC.

(3) Contributions are the actuarial recommended cash contributions.

(4) Includes covered payroll of \$7,250,466 associated with death benefit only participants.

(5) Includes covered payroll of \$8,599,668 associated with death benefit only participants.

#### Notes to Schedule

**Valuation date:** January 1, 2019

**Measurement date:** May 31, 2019

Calculated as the normal cost as of January 1st prior to the beginning of the fiscal year in which contributions are reported, increased with a half year of interest.

#### Methods and assumptions used to determine contribution rates:

**Actuarial cost method:** Entry Age Actuarial Cost Method

**Asset valuation method:** Fair market value of assets as of the measurement date.

**Inflation:** 3.0%

**Investment rate of return:** 7.00%, net of OPEB plan investment expense, including inflation.

**Retirement age:** Retirement eligibility is (a) age 65 with 10 years of service or (b) 80 points (age plus service) with at least 10 years of service.

**Mortality:** In the 2019 actuarial valuation, assumed life expectancies were updated from the RP-2014 Employees and Healthy Annuitant with scale MP-2017 generational improvements from 2006 (Male/Female) to the 2010 Public Sector Retirement Plans Mortality Table for above-average salary general employee populations with MP-2018 Mortality Improvement.

**\* Note:** This schedule is intended to show information for ten years. Additional years' information will be displayed as it becomes available.

### RSI-6 SCHEDULE OF INVESTMENT RETURNS – OPEB LAST TWO FISCAL YEARS\*

	2018	2019
Annual money-weighted rate of return, net of investment expense	8.11%	2.93%

**\*Note:** This schedule is intended to show information for ten years. Additional years' information will be displayed as it becomes available.

## Members of the South Central Connecticut Regional Water Authority

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**Anthony DiSalvo**  
*Chair*

**Joseph A. Cermola**  
*Vice Chair*

**Kevin J. Curseaden**  
*Secretary/Treasurer*

**David J. Borowy**

**Suzanne C. Sack**

## Members of the Representative Policy Board

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**Thomas P. Clifford III**  
Ansonia

**Tim Slocum**  
Cheshire

**Stephen A. Mongillo**  
Hamden

**Vacant**  
North Branford

**Michael H. Horbal**  
Seymour

**Peter Betkoski**  
Beacon Falls

**Frank Pepe**  
Derby

**Jamie Mowat-Young**  
Killingworth

**Anthony P. Rescigno**  
North Haven

**T. Gregory Malloy**  
*Treasurer*

**Brian Eitzer**  
Bethany

**Michelle Verderame**  
East Haven

**Joseph A. Oslander**  
Madison

**Jasper J. Jaser**  
Orange

West Haven

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Milford

**Robert E. Harvey, Jr.**  
*Secretary*

**Mark Levine**  
Woodbridge

Branford

Guilford

**Naomi Campbell**  
New Haven

Prospect

**Vincent M. Marino**  
*Governor's Representative*

## Regional Water Authority Management

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**Larry L. Bingaman**  
*President &  
Chief Executive Officer*

**Rochelle Kowalski**  
*Vice President of  
Finance & Controller*

**Beth F. Nesteriak**  
*Senior Vice President,  
Operations & Business  
Strategy*

**Edward O. Norris III**  
*Vice President,  
Asset Management*

**Jeanine F. Reckdenwald**  
*Senior Vice President,  
Employee Services*

**Linda M. Discepolo**  
*Executive Vice President &  
Chief Financial Officer*

**General Counsel:**  
Murtha Cullina LLP  
Hartford, CT

**Auditors:**  
Blum, Shapiro & Company, P.C.  
West Hartford, CT

**Office of Consumer Affairs:**  
Jeffrey M. Donofrio  
North Haven, CT

Regional Water Authority Statistics – May 31, 2019

	Estimated Population Served	RPB Votes	Miles of Main	Customers <sup>A</sup>	Hydrants	Landholdings (Acres) <sup>C</sup>	Conservation Easements (Acres)	Miles of Recreation Trails	Miles of Fishing Areas
Ansonia	18,011	3	71.0	5,420	449	96.41	–	–	–
Beacon Falls	–	–	–	–	–	21.50	–	–	–
Bethany	8	5	1.4	5	2	3,944.00	22.49	8.4	2.0
Branford	27,815	6	142.8	8,605	768	1,174.57	34.87	4.0	2.5
Cheshire	23,556	4	151.8	6,759	1,143	149.21	272.70	–	–
Derby	10,795	2	40.9	3,241	280	1.90	–	–	–
Durham <sup>B</sup>	–	–	–	–	–	249.33	11.07	–	–
East Haven	27,897	6	112.8	8,519	553	859.46	–	3.7	0.5
Guilford	–	4	–	–	–	3,295.31	–	6.5	–
Haddam <sup>B</sup>	–	–	–	–	–	103.65	–	–	–
Hamden	54,525	10	216.2	15,067	1,058	1,302.72	288.19	–	5.1
Killingworth	–	2	–	–	–	1,377.17	64.63	3.2	0.1
Madison	–	6	–	–	–	4,715.93	24.26	13.5	0.6
Milford	52,745	10	241.1	18,262	1,430	4.23	–	–	–
New Haven	123,315	13	263.8	22,637	1,977	24.3	–	0.3	–
North Branford	5,002	8	43.2	1,521	244	6,069.31	81.55	5.6	0.8
North Haven	20,973	5	148.9	7,824	769	54.02	–	–	1.5
Orange	10,733	3	103.1	3,977	552	587.35	–	1.9	0.8
Prospect	–	1	0.3	–	1	822.43	–	–	–
Seymour	798	1	7.1	331	23	708.02	–	2.0	–
West Haven	51,887	8	152.0	13,436	852	274.73	–	2.9	1.5
Wolcott <sup>B</sup>	–	–	2.5	–	21	1.15	–	–	–
Woodbridge	1,382	3	18.4	470	91	1,896.83	200.00	5.6	1.7
Governor's Representative	–	1	–	–	–	–	–	–	–
Totals	429,442	101	1,717.3	116,074	10,213	27,733.53	999.76	57.6	17.1

A - Metered customers within district    B - Not within district    C - Acres were calculated using GIS data

Front cover photos, left to right:

*In the early 1900s, the Whitney Filtration Plant was the first structure built in Connecticut with reinforced concrete and included groundbreaking masonry work.*

*The Armory Street Pump Station in Hamden remains operational to this day. In the early 1900s, it helped serve as a staging area for construction of the NHWC's Whitney Filtration Plant.*

*As the NHWC's service region expanded east, a transmission line was needed to transport drinking water under the Quinnipiac River.*

*The Whitney Filtration Plant was the original site of the NHWC's laboratory, where drinking water samples were tested to ensure the quality of the water provided to customers.*

*In 1926, construction of the Lake Gaillard Dam created a 13-billion-gallon reservoir in North Branford that is still the primary source of the RWA's drinking water.*

*In the 1920s, the NHWC constructed a tunnel that connects Lake Gaillard to the nearby treatment plant. Thousands of gallons of drinking water travel through that tunnel every day.*

Back cover photos, left to right:

*In addition to serving as a source of drinking water, Lake Chamberlain has fishing locations and trails maintained for RWA Recreation Program permit holders.*

*The Lake Gaillard Water Treatment Plant in North Branford processes approximately 60 percent of the RWA's drinking water before it is delivered to customers.*

*The Lake Whitney Treatment Plant, dedicated in 2004, employs innovative sustainability strategies, including a green roof, recycled materials and natural lighting.*

*In 2015, the RWA switched on a one-megawatt solar array at its North Sleeping Giant wellfield in Hamden, producing most of the energy needed to power the water treatment facility.*

*The RWA provides high-quality water to nearly 430,000 customers in Greater New Haven and delivers it 24/7/365 for less than a penny per gallon.*

*The RWA marks a major milestone in 2019 – 170 years of making life better for people by delivering water for life.*





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 **Regional Water Authority**  
Tapping the Possibilities™

**South Central Connecticut Regional Water Authority**  
90 Sargent Drive, New Haven, CT 06511-5966