Springfield Water and Sewer Commission

Springfield, Massachusetts



Comprehensive Annual Financial Report

For the Fiscal Year Ended June 30, 2019

THIS PAGE WAS INTENTIONALLY LEFT BLANK

SPRINGFIELD WATER AND SEWER COMMISSION

Springfield, Massachusetts

Comprehensive Annual Financial Report For the Year Ended June 30, 2019



COMMISSIONERS

Daniel Rodriguez, Chair Vanessa Otero William Leonard

Joshua D. Schimmel Executive Director

Anthony J. Basile Comptroller

Domenic P. Pellegrino Finance Director

Prepared by Financial Group

THIS PAGE WAS INTENTIONALLY LEFT BLANK

SPRINGFIELD WATER AND SEWER COMMISSION

TABLE OF CONTENTS

I. Introductory Section

Letter of Transmittal	
GFOA Certificate of Achievement	
Commissioners and Senior Management	
Organizational Chart	19
II. Financial Section	
Independent Auditors' Report	
Required Supplementary Information	
Management's Discussion and Analysis	
Basic Financial Statements	
Statement of Net Position	
Statement of Revenues, Expenses and Changes in Fund Net Position	
Statement of Cash Flows	
Statement of Fiduciary Net Position	
Statement of Changes in Fiduciary Net Position	
Notes to Basic Financial Statements	
Required Supplementary Information	
Pension:	
Schedule of Proportionate Share of the Net Pension Liability (GASB 68)	
Schedule of Pension Contributions (GASB 68)	
OPEB:	
Schedule of Changes in Net OPEB Liability (GASB 74 and 75)	
Schedules of Net OPEB Liability, Contributions and Investment Returns	
(GASB 74 and 75)	
Other Supplementary Information	
Schedule of Operating Expenditures: Budget and Actual	
III. Statistical Section	
Statistical Section Contents	
Net Position by Component (Table 1)	71
Changes in Net Position (Table 2)	
Largest Users (Table 3)	73
Water: Supplied Billed and Accounted For. Sewer: Treated and Billed (Table 4)	
Billings and Collections (Table 5)	
Water and Sewer Rate Structure (Table 6)	
Commission per Capita Debt (Table 7)	

Debt Coverage (Table 8)79Population, Income and Employment (Table 9)80Demographic and Economic Statistics (Table 10)81Distribution of Customers by Account Type (Table 11)82Largest Private Employers (Table 12)83Divisional Breakdown of SWSC Funded Positions (Table 13)84Water and Sewer Distribution System (Table 14)85Insurance Coverage (Table 15)86Water and Sewer Sales (Table 16)87Capital Spending by Category (Table 17)88

THIS PAGE WAS INTENTIONALLY LEFT BLANK

INTRODUCTORY SECTION

THIS PAGE WAS INTENTIONALLY LEFT BLANK



SPRINGFIELD WATER AND SEWER COMMISSION

Post Office Box 995 Springfield, Massachusetts 01101-0995

413 787-6256 FAX 413 787-6269

November 8, 2019

Springfield Water and Sewer Commission PO Box 995 Springfield, MA 01101-0995

To the Customers and Board of Commissioners of the Springfield Water and Sewer Commission

It is our pleasure to submit the Springfield Water and Sewer Commission's Comprehensive Annual Financial Report for the year ending June 30, 2019. Responsibility for the accuracy of the data, and the completeness and fairness of the presentation, including all disclosures, rests with the Commission's management. To the best of our knowledge and belief, this report is accurate in all material respects and is reported in a manner designed to present fairly the financial position and results of Commission operations. Disclosures necessary to enable the reader to gain an understanding of the Commission's financial activities have been included.

The Commission was created by an Act of the Massachusetts Legislature that requires an annual audit by independent certified public accountants. The Commission's Board selected the independent audit firm of Melanson Heath to perform an audit of the Commission's books for fiscal year ended June 30, 2019.

The Management's Discussion and Analysis (MD&A) follows the independent auditors' report and provides a narrative introduction, overview, and analysis to accompany the basic financial statements. This letter of transmittal is intended to complement the MD&A and should be read in conjunction with it.

The Commission is required to assess whether an annual Single Audit in conformity with the provisions of Title 2 U.S. Code of Federal Regulations Part 200, *Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards* (Uniform Guidance) needs to be performed. In accordance with Uniform Guidance, a Single Audit was required for fiscal year 2019 because the Commission's federal expenditures were above \$750,000.

ABOUT THE COMMISSION

The Commission was created by an Act of the Massachusetts Legislature adopted by the Springfield City Council in April 1996. The adoption of the Act merged the functions and responsibilities of the Springfield Municipal Water Department and the Regional and Local Wastewater Divisions of the City's Department of Public Works into one Commission. A three-member board, appointed by the Mayor and approved by the City Council, is the governing body of the Commission. The ownership and operation of the water and sewer system was transferred to the Commission in June 1996.

The Commission has authority to independently set its rates and charges. These rates and charges are set at a level and amount sufficient to meet the Commission's financial obligations including, but not limited to, operating expenses, debt service on all outstanding bonds, and any reserve requirements specified in bond resolutions.

WATER SYSTEM

History of Springfield's Water Supply

The Springfield water system dates back to 1848 when the Springfield Aqueduct Company was formed. In 1863, the City of Springfield began to investigate new water supplies. In 1872, the City purchased the Springfield Aqueduct Company and began to develop the Ludlow Reservoir by purchasing all the land surrounding the reservoir site. In November 1875, the 1.71-billion-gallon Ludlow Reservoir became the City's primary water supply.

In 1910 construction of the Borden Brook Reservoir (2.5 billion gallons) was completed and this became the City's primary supply. The Ludlow Reservoir continued to be the primary supply for Ludlow and a secondary supply for Springfield. Borden Brook Reservoir continued to serve as Springfield's primary supply until 1931, when Cobble Mountain Reservoir was constructed, and this 22.8-billion-gallon reservoir has been the City of Springfield's primary supply source ever since. Borden Brook Reservoir is still an active supply source and feeds into the Cobble Mountain Reservoir. In 1994 Cobble Mountain Reservoir became the primary water supply for the Town of Ludlow. The Ludlow Reservoir is maintained as an emergency supply source.

Treatment

Water flows from the Cobble Mountain Reservoir to the West Parish Water Filtration Plant in Westfield, where it is filtered and treated to protect public health. The filtration process removes particles and impurities from the water. Then, the pH of the water is adjusted, and corrosion inhibitors are added to protect home plumbing. Finally, chlorine is added to disinfect the water before it flows out into the distribution system for delivery to our customers.

More than 51,000 water quality tests are conducted annually to ensure that the water produced is safe. The Commission's State certified laboratory analyzes water samples daily. Private certified laboratories are also utilized to assure that the water meets or is better than all State and Federal standards and requirements.

Storage

After leaving the West Parish Water Filtration Plant, the water travels through three transmission mains to our four storage tanks located on Provin Mountain in Agawam. The four tanks have a total storage capacity of 60 million gallons.



Distribution

Water flows by gravity from the Provin Mountain storage tanks to the majority of the Springfield and Ludlow system. However, the Commission has several pump stations, which provide increased pressure to some of the higher elevation areas in the City and Ludlow during periods of high demand.

The Springfield Water and Sewer Commission is responsible for your drinking water from the source through treatment and storage to distribution to your tap. In addition to serving the residents of Springfield and Ludlow, the Commission also provides wholesale water to the communities of Agawam, East Longmeadow, and Longmeadow and provides partial service or peak service to Southwick, Westfield, and West Springfield. The Commission can also provide water on an emergency basis to Chicopee, Wilbraham, Westfield, and West Springfield.

POWER GENERATION

The Commission owns Cobble Mountain Hydro-Power Station which is located in the Town of Granville, Massachusetts. The Station utilizes stored static hydro-pressure energy at the Cobble Mountain Reservoir Dam for green power production while water is conveyed to the Commission's West Parish Water Filtration Plant. The generated power is transferred and sold to ISO New England electricity market. The Plant has a capacity of 33 Megawatt-hours power production through three turbine generators; two rated at 13.6 Megawatts and one at 5.7 Megawatts. In fiscal year 2019, the plant output was 35,527 Megawatts. The Commission controls and limits the amounts of water available for power generation to ensure safe-yield water storage under various seasonal conditions and drought scenarios.





The Commission is currently in a ten-year agreement with the City of Holyoke Gas & Electric Department (HG&E) to manage, operate and maintain (O&M) the Station, expiring June 30, 2026. The Commission has also entered into a separate ten-year parallel agreement with HG&E to provide marketing agency and facilitation of power sales into the ISO-New England market.

HG&E is compensated

for its O&M expenses which include routine maintenance work, and is reimbursed for major maintenance work approved by the Commission, and for support work on Capital Projects as assigned by the Commission. HG&E is also paid a flat monthly fee with a maximum annual cap for the marketing and facilitating of power sales. Historically, the Commission has received annual net income from the power station and anticipates continuing to receive net income during the ten-year term of these agreements.



The Power Plant generated enough green power in fiscal year 2019 to

meet the average annual power supply needs of approximately 4,640 homes in Massachusetts.

SEWER SYSTEM

Wastewater Collection

The Springfield Water and Sewer Commission services approximately 37,300 sewer accounts. The sewer collection consists of 150 miles of combined sewer (sewer and stormwater pipe), 322 miles of separated sewer pipe, 23 combined sewer overflow outfalls, 11,417 manholes, and 34 pumping stations. Wastewater is conveyed to the Springfield Regional Wastewater Treatment Facility (SRWTF) located on Bondi's Island off Route 5 in Agawam, MA.



The SRWTF treats wastewater from the households, businesses, and industries within Springfield and surrounding member communities, including Agawam, East Longmeadow, Longmeadow, Ludlow, Wilbraham, West Springfield, and a small section of Chicopee. The SRWTF is designed to treat up to 67 million gallons of wastewater per day. Currently, a daily average of 44 million gallons of wastewater is cleaned, treated, and returned to the Connecticut River. The SRWTF is the second largest treatment facility in New England.





The SRWTF is owned by the Commission and is currently operated and maintained by SUEZ under a twenty-year Service Agreement with the Commission expiring October 1, 2020. Treatment consists of two major steps: primary treatment and secondary treatment. During the primary treatment stage, sand, grit, and solids are removed from the untreated sewage. The secondary treatment phase uses bacteria to further break down the dissolved solids, which produces sludge. The treated wastewater is then separated from the sludge and cleaned and disinfected before being released into the Connecticut River in compliance with the facility's National Pollution Discharge Elimination System (NPDES) permit issued by the U.S. EPA and MA DEP. SUEZ is responsible for the biological treatment, disinfection and chlorination of the wastewater that flows through the plant.

Effluent flow to the Connecticut River is tested and monitored daily at the facility's on-site State certified testing laboratory to ensure that required permit limitations are not exceeded and the water can be discharged safely to the Connecticut River without harming the environment. The solids, or sludge, resulting from the treatment process are trucked to Municipal Solid Waste Landfills for disposal.

Bondi's Island - The History Behind the Name



From his native Italy, Luigi Bondi came to Springfield with his wife and children in the late 1800's. With a successful venture in the produce business under his belt, he started acquiring land in and around Springfield. He purchased an Island (Bondi's Island) on the Connecticut River in 1889 for \$100. It was common practice in those days to measure real estate in approximations to local landmarks; unfortunately, landmarks change as time goes on so it is not known for certain where the

original Bondi's Island lies. Speculation and local lore has the Island under the west end of the memorial bridge. So why is the Springfield Regional Wastewater Treatment Facility (SRWTF) nicknamed "Bondi's Island"? Locals have said that Luigi Bondi also purchased land in West Springfield surrounded on three sides by water (the Connecticut and Agawam Rivers). These plots of land are guessed to be what was known as Big Island and Hermit Island. Hermit Island was also known to some as Little Island or Cambell's Island. He had peach trees on the island for his produce business and had plans to make a recreation area one day. As time went on, the course of the river may have changed, or branches may have been filled in or dried up and the two islands became one. This is the plot of land that Luigi was said to have purchased and is the current location of the SRWTF.

The first wastewater treatment plant was built in 1938-39 and at the time, was a state-of-the-art primary treatment plant that contributed greatly to the quality of the Connecticut and Chicopee rivers. However, it was not until 1960 that all the sewage generated in Springfield went to the treatment facility.

In 1968, the land northwest of the treatment plant started being used as a landfill, and by now more of the water being treated at the treatment plant was coming from surrounding communities. As a result of the 1972 Clean Water Act and increased demand being placed on the treatment plant, a new stateof-the-art regional secondary wastewater treatment facility (the SRWTF) was put online in 1977.

Since 1988, five other waste management facilities have been established on Bondi's Island. This is a far cry from the recreational park Luigi Bondi had envisioned a century ago, but it is hoped he would advocate the use of his land as a center of environmental protection.

MANAGEMENT OBJECTIVES

It is the Commission's objective to provide a high quality, uninterrupted supply of water to our customers, to collect and treat wastewater, and return clean water to the environment.

While fulfilling our objectives the Commission strives to:

- Conserve and protect our reliable, high quality water supply for present and future generations,
- Meet or surpass public health standards, environmental standards, and support fire protection,
- Operate, maintain, improve, and manage our water and wastewater infrastructure in a costefficient manner,
- Manage finances to support Commission needs and maintain reasonable water and wastewater rates,
- Maintain a safe, and professional workforce, and
- Understand and respond to customer's expectations for service.

ORGANIZATION

A three-member board, appointed by the Mayor of the City of Springfield and approved by the City Council, governs the Commission. Decisions made by the Commissioners are implemented by the Executive Director and the staff. The following table lists the Commission Members:

<u>Office</u>	<u>Name</u>	Method of Selection	<u>Term Expiration</u>
Chairman	Daniel Rodriguez	Appointed by Mayor	June 30, 2020
Commissioner	William E. Leonard	Appointed by Mayor	June 30, 2021
Commissioner	Vanessa Otero	Appointed by Mayor	June 30, 2022

The primary mission of the Board is to ensure the sound economical and efficient operation and maintenance of the systems and to ensure the highest quality services to customers of the Commission. The Board of Commissioners is also responsible for setting clear financial and operational policy directives.

A full-time Executive Director appointed by the Board of Commissioners oversees the Commission's seven groups: Administration, Engineering, Water Operations, Field Services, Wastewater Operations, Financial, and the Information Technology groups.

The Administration group is responsible for executive management, strategic planning, public relations, labor relations, human resources, and representing the Commission in all litigation matters.

The Engineering group is responsible for planning, designing, managing and providing contract compliance for the construction of the Commission's capital projects. The group also administers the contract for operation of the power generation plant. The group provides construction and commercial development inspection services. Asset management and building maintenance is supported by this group as well.

The Water Operations group is responsible for the management of all dams and reservoirs and surrounding watersheds, water treatment facilities, water transmission mains and easements, water storage facilities, and testing for compliance with water quality regulations.

The Field Services group is responsible for all water distribution pipes and appurtenances, pumping stations, valves and hydrants, routine flushing of lines and exercising of valves for sustained water quality, replacement of customer water services, meters and meter readings and for all sewer collection pipes and appurtenances, jetting of lines to maintain flows and other collection system functions.

The Wastewater Operations group is responsible for all industrial pre-treatment programs, fats, oils, and grease programs. This group is also responsible for oversight of operations at the Regional Wastewater Treatment Facility and the pumping stations and combined sewer overflows.

The financial planning and accounting responsibilities are divided between the Finance group and the Comptroller's group to ensure proper internal controls are established and maintained, with a necessary segregation of duties. Both groups combine to effectively operate and manage the Commission's finances. Rate setting, cash management, customer billing and collection and capital planning are the primary responsibilities of the Finance group. The Comptroller's primary focus is accounting, budget preparation, financial reporting and internal and external audits.

The Information Technology group performs many strategic roles within the organization. IT maintains core systems that provide digital communication, accurate business planning, systematic management, real time monitoring, instant customer support and focuses on long term business growth. IT offers and maintains technologies such as a robust infrastructure, database management, Geographical Information Systems, systems integration and analytics along with maintaining all business tools employees use to perform their duties. This group also focuses on cyber security across all business platforms.

CUSTOMER BASE

The Service Area

The Commission serves a total population of approximately 250,000, or about 94% of the total population within the Commission's service area. Please see Table 11 for a breakdown by types of customers. The Commission's customer base includes residential population, businesses and industries, and various public, private and non-profit institutions in its respective service areas. Information regarding the Municipal Demographics for System Customers is set forth in the Tables found in the Statistical Section of this report.

Water System Customers

The Commission sells water at retail to the populations of Springfield and Ludlow based on metered usage. The Commission sells water based on metered usage to Solutia in accordance with a new contract which commenced on December 14, 2018 and expires on June 30, 2023. Solutia is the largest single consumer of water provided by the Commission. The Commission also sells water to the communities of West Springfield and Westfield during peak demand periods based on metered usage.

The costs of operating the Commission's water supply and transmission systems are allocated to the following communities under wholesale contracts based on a formula which considers each community's consumption with respect to total water output. Five-year contracts with the communities of Agawam and Southwick commenced on July 1, 2019. The Town of Longmeadow and East Longmeadow contracts are being negotiated to address changes in the contracts with respect to customers located in each other's community. These contracts were extended to February 29, 2020, with the expectation that once agreed a new contract will be executed and run until June 30, 2024. All reservoirs, treatment and storage facilities, pump stations and water transmission mains, are owned by the Springfield Water and Sewer Commission. Each wholesale community owns and maintains the water distribution pipes within their borders. The Commission owns all distribution pipes in Springfield and Ludlow.

Sewer System Customers

The operating costs for the Springfield Regional Wastewater Treatment Plant are allocated to the following users under contracts based on a formula which considers each participant's contribution of Flow, Biochemical Oxygen Demand, and Total Suspended Solids. Six-year contracts with the communities of Agawam, East Longmeadow, Longmeadow, Ludlow, West Springfield and Wilbraham commenced on July 1, 2015. A ten-year contract with the Commission's largest user, Solutia, commenced on February 9, 2015 that expires on June 30, 2025. Industrial user, Friendly's Ice Cream, and the community of Chicopee also share about 1.3% of the annual plant operating costs under the same formula, as under the above contracts.

The share of operating costs attributable to the customers located in the City of Springfield, are billed directly to each account by the Commission as part of the local sewer rate established by the Commission. The Springfield Water and Sewer Commission owns the Springfield Regional Wastewater Treatment Plant, all Wastewater Pump Stations and the respective Collection/Interceptor Pipes, including associated wastewater facilities, within the boundaries of the City of Springfield. All other communities own and maintain the collection systems within their respective borders, and they are responsible for the conveyance pipes to the Regional Wastewater Treatment Plant.

ECONOMY

The City of Springfield is located in western Massachusetts along the bank of the Connecticut River. Springfield is centrally located with Boston 90 miles to the east, Hartford 30 miles south and New York City 150 miles southwest. Springfield is the hub of Western Massachusetts. The City is surrounded by its suburbs including Agawam, East Longmeadow, Longmeadow, Ludlow, West Springfield and Wilbraham.

Springfield is the third largest City in the Commonwealth of Massachusetts and home to 153,060 people behind the Cities of Boston and Worcester and the fourth largest City in New England.

Springfield is the region's cultural and economic center. Springfield is home to several of the region's largest employers, including Massachusetts Mutual Life Insurance Company, Baystate Health, Trinity Health Care, Smith & Wesson, Big Y and MGM Springfield. Major cultural institutions include the Springfield Symphony, City Stage, the Mass Mutual Center, and the Quadrangle Museums.

Springfield is located in Hampden County which along with Hampshire and Franklin Counties is collectively known as the "Pioneer Valley".

Nine hospitals, and 100 clinics or related facilities make healthcare the largest private industry in Western Massachusetts and a leading economic driver for the region. Baystate Health, the parent organization of Baystate Medical Center, is a four campus, 800-bed teaching and research facility, as well as the western campus of Tufts University School of Medicine.

Multi-national banks, the Springfield-based operations of the MassMutual Financial Group and Liberty Mutual as well as a dense concentration of insurance giants, all contribute to the region's financial services.

Springfield is headquarters of the MassMutual Financial Group, an industry staple since 1851 that sits among the Fortune 100. MassMutual subsidiary Barings Corporate Investors is an entrepreneurial investment firm also located in Springfield. A more recent addition to the financial services sector in Springfield is Liberty Mutual Insurance Group, the sixth largest personal and car insurance company in the United States. Liberty Mutual moved some of its operations into the Springfield Technology Park.

"The Insurance Capital of the World", Hartford Connecticut, is less than 30 minutes from downtown Springfield. Internationally known companies located there include Travelers, Aetna, The Hartford, ING and The Phoenix Companies, Inc.

Banking also plays a major role in the Pioneer Valley. Berkshire Bank, TD Bank, United Bank, Westfield Bank, People's United, Citizen's Bank and Florence Savings Bank are the largest of these institutions.

The region's economy is in transition. Manufacturing was once the mainstay of the region's economy, employing more than 29 percent of the workforce in 1980. Like most of the nation, the Pioneer Valley region is experiencing an increasing shift from manufacturing to service sector jobs. Examples of professions in the service sector include healthcare, education, and other industries that focus on customer-provider interaction. From 1990 to 2000, the service sector's share of total private sector jobs grew from 36 to 41 percent and as of 2011 the service sector comprised 54 percent of the private sector. The fastest growing industries were healthcare and social assistance, public administration, and utilities. In 2018 CRRC MA opened a newly constructed \$95 million manufacturing facility to produce rail cars for the MBTA Boston's Orange Line and Red Line.

The travel, tourism and hospitality industry plays a tremendous role in Massachusetts' Pioneer Valley. Tourism related employment in Western Massachusetts totals nearly 5,000.

The Pioneer Valley tourism industry is boosted by the region's famed attractions, including Six Flags New England, Dr. Seuss National Memorial Sculpture Garden, the Naismith Memorial Basketball Hall of Fame, Yankee Candle Village and the Eric Carle Museum of Picture Book Art. The Valley is also known for unique festivals and fairs including The Big E, Bright Nights at Forest Park, the Paradise City Arts Festival, Holyoke's St. Patrick's Day Parade, and many other ethic festivals.

In August 2018, MGM Springfield opened in downtown Springfield, a \$960 million resort casino that covers a 3 block, 14.5-acre area. The development includes a 250-room hotel, many shops, restaurants and bars. It also has a bowling alley, outdoor pavilion area and a South End market. There is a 125,000 square foot casino floor filled with slot machines and gaming tables. Also, MGM is committed to bring high end entertainment acts to the City of Springfield. The casino project has created approximately 2,500 jobs, and with this type of investment the City of Springfield is planning on the attraction to spur economic development to other parts of the downtown area.

The region offers higher education at many area colleges and universities. The University of Massachusetts, a leading national research university anchors a group of colleges in the region along with Smith, Mount Holyoke and Amherst College. There are eight area schools centered in the Springfield area. These include American International College, Bay Path University, Elms College, Holyoke Community College, Springfield College, Springfield Technical Community College, Western New England University, and Westfield State University.

Source: 1) Pioneer Valley Planning Council, Comprehensive Economic Development Strategy 2) Economic Development Council of Western Massachusetts

CAPITAL IMPROVEMENT PROGRAM

Capital Improvement Program supports the Commission's mission to provide an uninterrupted, high quality supply of water to our customers, to collect and treat wastewater, and return clean water to the environment. Capital Projects provide a means to sustain service to our customers by economically rehabilitating or replacing infrastructure, improving efficiency of support systems and meeting regulatory requirements.

In addition to ongoing asset replacement programs including water distribution system valves, fire hydrants, pipes, operating equipment, and meters, the following significant capital improvements are being undertaken to improve infrastructure sustainability and meet regulatory requirements.

Water

• Comprehensive inspections of high and significant hazard Dams will be performed in 2019 and 2020. Maintenance including vegetation removal on the earthen dams and for the dam spillways will be incorporated into the process.



- The planning for the construction of improvements to the Water Treatment Plant continue. The next step involves the construction and operation of a large scale pilot treatment plant that will be used to evaluate the effectiveness of various unit processes including dissolved air flotation (DAF) clarification, peroxidation and enhanced filtration for the removal of natural organic matter that can lead to the production of disinfection by-product.
- Current fiscal year Water Treatment Plant Facilities improvement projects include the construction of a new bulk chemical storage facility to store a treatment coagulant, chlorine storage and piping improvements, construction of replacement Bridges #1 and #2 at the water treatment plant site, installation of variable frequency drives for plant process water, purchase of land for water supply protection, the design and construction of a new 1 million gallon clearwell and backwash and plant water pumping station.
- At the Provin Mountain water storage facility, current fiscal year projects include the construction of a new cover and drainage system for Tank 2, and the permanent structural isolation of Tank 1 for future demolition, and modifications to the yard transmission main piping.
- Water Main Replacement in conjunction with the 2019-20 and 2020-21 infrastructure projects includes replacement of over 10,000 linear feet of water main at various location across the City.
- Installation of a new SCADA instrumentation systems for the booster pump stations in Ludlow and Springfield to allow for remote monitoring of pump station functionality and water pressure in real time, which in turn allows for a more rapid response to mechanical and system problems that can occur periodically.

Wastewater

- Comprehensive sewer collection system cleaning, condition assessment and system mapping.
- Procurement of a long-term operations and maintenance contract for the Wastewater Treatment Plant.
- Construction of the York Street Pump Station and Connecticut River Crossing project.
- Improvements to the electrical distribution system and treatment process upgrades at the Wastewater Treatment Plant.
- Design and construction of annual sewer infrastructure improvements.

Power Generation

Current fiscal year Power Generation System improvements include:

- The design of replacement power transmission poles (637 Line) and actual replacement of 2 poles in fiscal year 2020,
- Removal, refurbishing and re-installing Units #1 and #3 isolation butterfly valves and actuators and reinforcing weld seam at each respective Penstock,
- Construction project for the replacement of the operating governors, servomotors and electrical upgrades for units #1 and #3,
- Completion of final design for the major overhaul and rehabilitation of Power Unit #2,
- Replacement of the cooling water system loop for Unit #3, and
- Broome gate rocker arm replacement at the inlet to the power tunnel.

System Wide Support

- Replace heating, ventilation and air conditioning (HVAC) control system at the Operations Center and other building improvements.
- Continued support of the Commission's Fleet and Rolling Stock Equipment replacement programs.
- Replace and install Microsoft end of life (EOL) workstations throughout the Commission including SCADA and employee work stations.
- Evaluate available technologies and implement a Commission wide Wi-Fi network.
- Development of a facilities master plan, facilities security improvements as well as short- and long-term improvements to Commission properties.

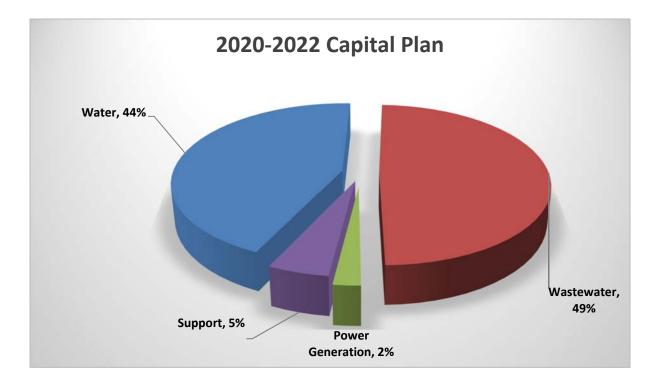
Two sources fund the Commission's Capital Improvement Program as indicated in Table I, Revenues and Reserves and Bonds. Bonding, which will fund 48% of the three-year Capital plan, includes revenue bonds and State Revolving Fund (SRF) loans. Projects, typically funded through Bonds, are large scale projects over \$1 million.

Table I 2020-2022 Capital Improvement Program Funding Sources				
Funding Source		2020	2021	2022
Revenues and Reserves	\$	15,321,862	\$ 16,944,000) \$ 13,254,500
Bonds*	\$	19,206,000	\$ -	\$ 22,550,500
Total	\$	34,527,862	\$ 16,944,000	\$ 35,805,000
*Includes SRF Funding				

Table II	Capital Impro Inding of Activ	vement Program ity Areas	
Activity Area	2020	2021	2022
Water	\$ 27,284,212	\$ 7,961,000	\$ 2,850,000
Wastewater	\$ 4,623,000	\$ 7,020,000	\$ 31,295,000
Power Generation	\$ 865,000	\$ 758,000	\$ 300,000
Support	\$ 1,755,650	\$ 1,205,000	\$ 1,360,000
Total	\$ 34,527,862	\$ 16,944,000	\$ 35,805,000

Revenues and reserves are generated from wholesale and retail customer revenues, power generation revenues, grants and miscellaneous collected fees. Revenues and reserves typically fund projects less than \$1 million, including planning & design, ongoing asset replacement projects such as fire hydrants, pipe replacement, meter replacement and the replacement of operating equipment.

Over the next three years, Capital expenditures are expected to fund 49% Wastewater improvements, 44% Water improvements, 2% Power Generation projects and 5% Support projects.



FINANCIAL INFORMATION

Administrative Controls

Internal controls are procedures designed to protect assets from loss, theft, or misuse, to check the accuracy of accounting data, to promote operational efficiency, to facilitate the preparation of financial statements, to satisfy other reporting requirements, and to encourage compliance with managerial policies.

The Commission is responsible for establishing a system of internal controls that provide reasonable assurance that these objectives are met. The concept of reasonable assurance stipulates the cost of a control should not exceed the benefits likely to be derived and that the valuation of cost and benefits requires estimates and judgments by management.

Federal and State financial assistance programs require recipients to comply with a number of laws and regulations. Administrative controls are procedures designed to ensure compliance with the requirements of the programs under which it receives financial assistance.

As with other internal controls, this system is subject to periodic review and evaluation by management or by the Commission's independent auditors.

Long Term Financial Planning

The Springfield Water and Sewer Commission was established under Massachusetts General Laws Chapter 40N. The Commission has the responsibility for the operation and maintenance of the water supply, transmission and distribution systems as well as wastewater collection and treatment which serves the City of Springfield, Town of Ludlow and surrounding communities. In compliance with the General Bond Resolution the Commission approved its Capital Expenditure program totaling \$87,276,862 for the three-year period 2020-2022. Expenditures are divided in four categories: Water Projects total \$38,095,212, Wastewater Projects total \$42,938,000, Power Generation Projects total \$1,923,000 and other Support Projects total \$4,320,650.

Funding approval for the Fiscal Year 2020 Capital Projects total \$34,527,862. The spending plan is as follows: Water Projects total \$27,284,212 (79%), Wastewater Projects total \$4,623,000 (13%), Power Generation Projects total \$865,000 (3%), and other Support Projects total \$1,755,650 (5%).

The various infrastructure capital projects scheduled in fiscal year 2020 include:

- The construction of the York Street Pumping Station and Connecticut River sewer crossing and CSO project,
- Water Treatment Plant facilities improvement projects including new bulk chemical storage facilities, and two new replacement bridges,
- Final design of the design for a new 1 million-gallon clearwell and backwash pumping station,
- Construction and operation of the pilot scale water treatment plant to be used to select the future unit processes and determine the design criteria,
- The construction of a large water main replacement project, and
- The construction of a significant sewer main rehabilitation project.

Historically, the Commission replaces or rehabilitates over a mile water distribution pipe and sewer main per year.

Acknowledgements

We wish to express our appreciation to the Financial Group and the Administration's senior staff for compiling the information necessary to complete the Comprehensive Annual Financial Report.

We also give special recognition to the Board of Water and Sewer Commissioners for their continuous support to strive for and maintain the highest standards in the management of the Springfield Water and Sewer Commission finances.

Sincerely,

Joshua D. Schimmel Executive Director



2

Government Finance Officers Association

Certificate of Achievement for Excellence in Financial Reporting

Presented to

Springfield Water and Sewer Commission

Massachusetts

For its Comprehensive Annual Financial Report for the Fiscal Year Ended

June 30, 2018

Christophen P. Monill

Executive Director/CEO

17

SPRINGFIELD WATER AND SEWER COMMISSION

Commissioners

Daniel Rodriguez, Chairman

Vanessa Otero

William E. Leonard

Senior Management

Joshua D. Schimmel, Executive Director Robert A. Stoops, P.E. Chief Engineer Anthony J. Basile, Comptroller

Domenic P. Pellegrino, Finance Director/Procurement Officer

Daniel J. DiRienzo, Field Services Director

William D. Fuqua, Wastewater Operations Director

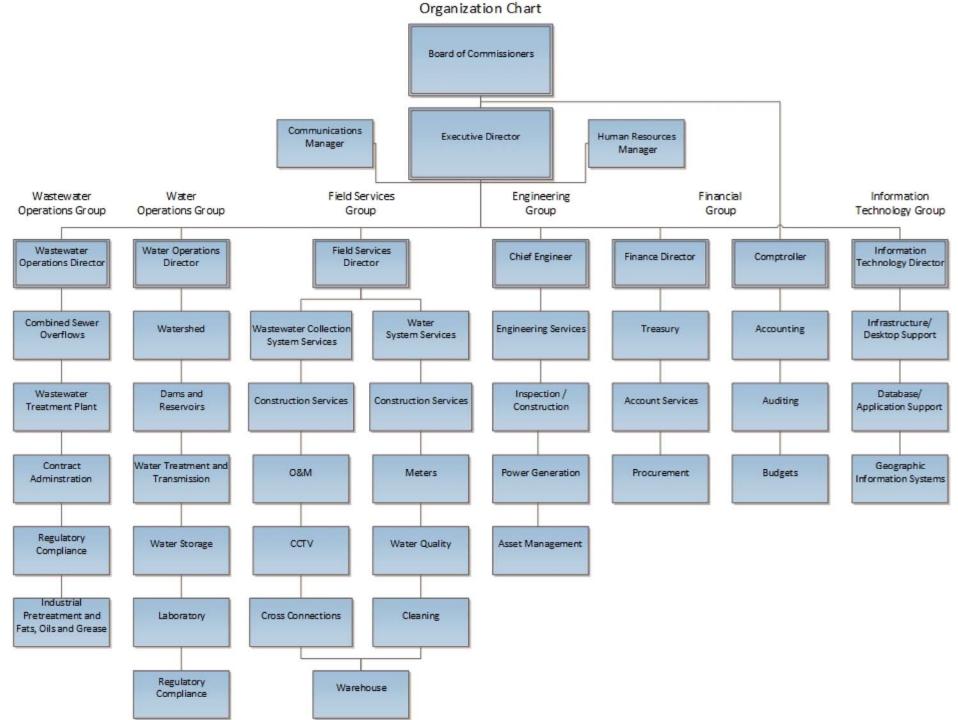
James R. Laurila, Drinking Water Operations Director

James M. Richardson, Information Technology Director

Susan Tower, Laboratory and Regulatory Manager

Jaimye Bartak, Communications Manager

Springfield Water and Sewer Commission



THIS PAGE WAS INTENTIONALLY LEFT BLANK

FINANCIAL SECTION

THIS PAGE WAS INTENTIONALLY LEFT BLANK



101 Munson Street Suite 120 Greenfield, MA 01301 (413)773-5405 phone (413)773-7304 fax melansonheath.com

Additional Offices:

Nashua, NH Manchester, NH Andover, MA Ellsworth, ME

INDEPENDENT AUDITORS' REPORT

To the Commissioners Springfield Water and Sewer Commission Springfield, Massachusetts

Report on the Financial Statements

We have audited the accompanying financial statements of the business-type activities and the aggregate remaining fund information of the Springfield Water and Sewer Commission, as of and for the year ended June 30, 2019 and the related notes to the financial statements, which collectively comprise the Springfield Water and Sewer Commission's basic financial statements as listed in the table of contents.

Management's Responsibility for the Financial Statements

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

Auditors' Responsibility

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

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

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 aggregate remaining fund information of the Springfield Water and Sewer Commission, as of June 30, 2019, and the respective changes in financial position and cash flows for the year then ended in accordance with accounting principles generally accepted in the United States of America.

Other Matters

Required Supplementary Information

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

Other Information

Our audit was conducted for the purpose of forming opinions on the financial statements that collectively comprise the Springfield Water and Sewer Commission's basic financial statements. The Schedule of Operating Expenditures: Budget and Actual is presented for purposes of additional analysis and is not a required part of the basic financial statements. Such information is the responsibility of management and was derived from and relates directly to the underlying accounting and other records used to prepare the financial statements. The information has been subjected to the auditing procedures applied in the audit of the financial statements and certain additional procedures, including comparing and reconciling such information directly to the underlying accounting and other records used to prepare the financial statements or to the financial statements themselves, and other additional procedures in accordance with auditing standards generally accepted in the United States of America. In our opinion, the information is fairly stated in all material respects in relation to the financial statements as a whole.

Our audit was conducted for the purpose of forming opinions on the financial statements that collectively comprise the Springfield Water and Sewer Commission's basic financial statements. The introductory and statistical sections are presented for purposes of additional analysis and are not a required part of the basic financial statements. Such information has not been subjected to the auditing procedures applied in the audit of the basic financial statements and, accordingly, we do not express an opinion or provide any assurance on it.

Other Reporting Required by Government Auditing Standards

In accordance with *Government Auditing Standards*, we have also issued our report dated November 8, 2019, on our consideration of the Commission'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 the Commission'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 Commission's internal control over financial reporting and compliance.

Melanson Heath

November 8, 2019

MANAGEMENT'S DISCUSSION AND ANALYSIS

As management of the Springfield Water and Sewer Commission (the Commission), we offer readers this narrative overview and analysis of the financial activities of the Springfield Water and Sewer Commission for the fiscal year ended June 30, 2019.

A. OVERVIEW OF THE FINANCIAL STATEMENTS

This discussion and analysis is intended to serve as an introduction to the basic financial statements.

The basic financial statements include (1) the Statement of Net Position, (2) the Statement of Revenues, Expenses and Changes in Fund Net Position, (3) the Statement of Cash Flows, (4) the Statement of Fiduciary Net Position, (5) the Statement of Changes in Fiduciary Net Position and (6) Notes to the Financial Statements. This report also contains other supplementary information in addition to the basic financial statements themselves.

The Statement of Net Position is designed to indicate our financial position as of a specific point in time. At June 30, 2019, it shows our net worth of \$136,212,395, which is comprised of \$152,176,660 invested in capital assets, \$50,334,806 restricted for other purposes, namely restricted cash and inventory, and a deficit of \$(66,299,071) in unrestricted.

The Statement of Revenues, Expenses and Changes in Fund Net Position summarizes our operating results. As discussed in more detail below, our change in fund net position for the year ended June 30, 2019 was a change of \$11,316,892.

The Statement of Cash Flows provides information about the cash receipts and cash payments during the accounting period. It also provides information about the investing and financing activities for the same period.

The Statement of Fiduciary Net Position and Statement of Changes in Fiduciary Net Position account for resources held for the benefit of parties outside the Commission.

The Notes to the Financial Statements provide additional information that is essential to a full understanding of the data provided in the financial statements.

In addition to the basic financial statements and accompanying notes, this report also presents certain required supplementary information which is required to be disclosed by accounting principles generally accepted in the United States of America, and other supplementary information.

B. SUMMARY OF NET POSITION

\$ 	125,867,127 2,627,726 339,755,313 468,250,166 108,470,893 42,625,175 272,038,137 314,663,312	\$	107,217,164 2,733,266 331,354,919 441,305,349 100,682,969 19,869,815
-	339,755,313 468,250,166 108,470,893 42,625,175 272,038,137		331,354,919 441,305,349 100,682,969 19,869,815
-	468,250,166 108,470,893 42,625,175 272,038,137		441,305,349 100,682,969 19,869,815
-	108,470,893 42,625,175 272,038,137		100,682,969 19,869,815
-	42,625,175 272,038,137		19,869,815
_	272,038,137		
-		,	
	314,663,312		278,547,153
			298,416,968
	125,845,352		118,675,847
	152,176,660		135,716,523
	50,334,806		58,368,491
_	(66,299,071)		(69,189,511)
\$	136,212,395	\$	124,895,503
	<u>2019</u>		<u>2018</u>
\$		\$	76,365,206
-	452,917		283,345
	79,022,695		76,648,551
	13,592,558		13,415,407
	11,384,289		9,119,516
	23,229,294		23,625,366
	573,277		586,514
	1,945,358		1,213,715
	9,950,198		9,494,640
_	567,964		500,063
_	61,242,938		57,955,221
	17,779,757		18,693,330
			768,883
			(5,455,009)
	525,858		808,112
_	(3,950,991)		(13,814,043)
	11,316,892		1,001,273
_	124,895,503	,	123,894,230
\$	136,212,395	\$	124,895,503
	\$ 	$\begin{array}{c} 50,334,806\\ (66,299,071)\\ \$ 136,212,395\\ \hline 2019\\ \$ 78,569,778\\ 452,917\\ \hline 79,022,695\\ \hline 13,592,558\\ 11,384,289\\ 23,229,294\\ 573,277\\ 1,945,358\\ 9,950,198\\ 567,964\\ \hline 61,242,938\\ \hline 17,779,757\\ \hline 2,245,158\\ (5,282,890)\\ 525,858\\ \hline (3,950,991)\\ \hline 11,316,892\\ \hline 124,895,503\\ \hline \end{array}$	$50,334,806 \\ (66,299,071) \\ \$ 136,212,395 \\ \$ 2019 \\ \$ 78,569,778 \\ 452,917 \\ 79,022,695 \\ 13,592,558 \\ 11,384,289 \\ 23,229,294 \\ 573,277 \\ 1,945,358 \\ 9,950,198 \\ 567,964 \\ 61,242,938 \\ 17,779,757 \\ 2,245,158 \\ (5,282,890) \\ 525,858 \\ (3,950,991) \\ 11,316,892 \\ 124,895,503 \\ \end{bmatrix}$

C. FINANCIAL HIGHLIGHTS

The Commission ended the year with operating income of approximately \$17.8 million. The following paragraphs give an overview of the year's activities.

It has been the practice of the Commission to establish its rates and charges for water and wastewater services at levels sufficient to produce revenues adequate to defray all operation and maintenance expenses, debt service and reserve deposits projected by the Commission's Consulting Engineers and to maintain net revenues available for debt service in excess of the coverage requirements mandated by the General Bond Resolution. Until fiscal year 2010, the Commission had historically adjusted its rates and charges for water and wastewater services on a basis which stabilized rates and charges over a multi-year period. Beginning in fiscal year 2011, the Commission has adopted single-year rate schedules to more closely match revenues to expenditures.

In fiscal year 2019, there was again an increase in collection efforts and an increase in rates, however in most cases, overall usage was less than anticipated. As a result, wastewater charges revenue and fees were approximately \$(265,000) less than budget. Wholesale water charges and fees were less than budget by approximately \$(638,000). Power generation revenues were more than estimates by approximately \$2 million. These and other factors resulted in total operating revenue of approximately \$79 million in fiscal year 2019, approximately \$1.2 million more than budget, and \$2.4 million more than the prior year.

Operating expenses were less than budget by approximately \$2.1 million, primarily as a result of vacant positions and less overtime needed than anticipated. In addition, there was conservative budgeting for general operational expenses.

In fiscal year 2011, we implemented FASC 980, Accounting for the Effects of Certain Types of Regulation, which essentially adjusts for differences between how revenue / rates are budgeted and how they are accounted for on a Generally Accepted Accounting Principles (GAAP) basis. In the Commission's case, revenue intended to fund capital asset acquisitions is set aside (deferred) and is recognized equal to the annual depreciation expense on those assets; depreciation expense on assets funded in other ways (such as through bonds) is removed from the income statement because those costs are not factored into the budget process; conversely, because principal debt repayment costs are funded through the budget, those costs are reflected in the income statement as a reduction to net position. The net effect of these adjustments are reported under the line "Excess revenues used to fund deferrals" on the statement of revenues, expenses and changes in fund net position, which was a decrease of \$(3,950,991) for fiscal year 2019.

As a result of the key elements described above, the activities for the year resulted in a change in net position of \$11,316,892.

D. CAPITAL ASSET AND DEBT ADMINISTRATION

<u>Capital assets</u>. Total investment in capital assets at year-end amounted to \$339,755,313 (net of accumulated depreciation). This investment in capital assets includes land, buildings and improvements, machinery and equipment, and infrastructure.

Major capital asset events during the current fiscal year included the following (in thousands):

Depreciation expense	\$ (9,850)
Hydrant projects	220
Meter replacements	913
Water treatment system improvements projects	3,332
Waste water treatment system improvements projects	656
York Street and river design projects	4,474
Water main rehabilitation projects	507
Sewer main rehabilitation projects	2,159
Main Interceptor projects	246
Transmission system rehabilitations	512
Collection system assessment and rehabilitation	1,154
Distribution system assessment and rehabilitation	1,504
Electrical distribution improvement projects	698
New vehicle and equipment purchases	363
Computer software and equipment purchases	320
Various other rehab and improvement projects	1,193

Additional information on the Commission's capital assets can be found at Footnote 11 on page 45.

Long-term debt. At the end of the current fiscal year, total bonded debt outstanding was \$185,252,698, all of which was backed by dedicated revenues of the Commission.

Additional information on the Commission's long-term debt can be found at Footnote 14 on page 48.

REQUESTS FOR INFORMATION

This financial report is designed to provide a general overview of the Springfield Water and Sewer Commission's finances for all those with an interest in the government's finances. Questions concerning any of the information provided in this report or requests for additional financial information should be addressed to:

> Public Communications Director Springfield Water and Sewer Commission P.O. Box 995 Springfield, MA 01101-0995

STATEMENT OF NET POSITION

JUNE 30, 2019

Assets Current:		
Cash and short-term investments	\$	36,465,357
Investments	Ψ	8,741,064
Restricted cash		22,930,881
Restricted investments		25,934,994
Accounts receivable, net of allowance for uncollectibles		9,455,617
Intergovernmental receivable		21,735,429
Inventory, net of allowance		599,883
Other	_	3,902
Total Current Assets		125,867,127
Noncurrent:		
Intergovernmental receivable, net of current portion		1,110,363
Inventory held by others		1,022,136
Health insurance deposit		495,227
Capital assets, net of accumulated depreciation		310,556,797
Land and construction in progress		29,198,516
Total Noncurrent Assets		342,383,039
Deferred Outflows of Resources		4 450 202
Related to pensions		4,450,393
Related to OPEB Other		2,562,985
Other	_	101,457,515
Total Assets and Deferred Outflows of Resources		576,721,059
Liabilities		
Current:		
Accounts payable		1,826,943
Accrued payroll and withholdings		321,927
Notes payable		25,812,911
Accrued interest payable		1,797,397
Current portion of loans payable		12,735,237
Current portion of accrued compensated absences	_	130,760
Total Current Liabilities		42,625,175
Noncurrent:		
Loans payable, net of current portion		172,517,461
Accrued compensated absences, net of current portion		1,353,079
Net pension liability		73,244,177
Net OPEB liability		24,607,547
Other accrued liabilities	-	315,873
Total Noncurrent Liabilities		272,038,137
Deferred Inflows of Resources		
Related to pensions		2,923,737
Related to OPEB		17,234
Other	—	122,904,381
Total Liabilities and Deferred Inflows of Resources		440,508,664
Net Position		
Net investment in capital assets		152,176,660
Restricted for:		
Reserve for inventory		1,622,019
Reserve for stabilization fund		12,397,679
Reserve for debt covenants and scholarships		36,315,108
Unrestricted		(66,299,071)
Total Net Position	\$	136,212,395

STATEMENT OF REVENUES, EXPENSES AND CHANGES IN FUND NET POSITION

FOR THE YEAR ENDED JUNE 30, 2019

Operating Revenues Water and sewer usage \$ 78,569,778 Other 452,917 **Total Operating Revenues** 79,022,695 **Operating Expenses** Salaries and wages 13,592,558 Employee benefits 11,384,289 23,229,294 Operations Intergovernmental 573,277 Capital outlay 1,945,358 Depreciation and amortization 9,950,198 Other 567,964 Total Operating Expenses 61,242,938 17,779,757 **Operating Income** Nonoperating Revenues (Expenses) Interest income 2,245,158 Interest expense (5,282,890)Grant reimbursement revenue 525,858 Total Nonoperating Revenues (Expenses), Net (2,511,874) Excess revenues before deferral adjustments 15,267,883 Excess revenues used to fund deferrals (3,950,991) Change in Net Position 11,316,892 Net Position at Beginning of Year 124,895,503 Net Position at End of Year \$ 136,212,395

STATEMENT OF CASH FLOWS

FOR THE YEAR ENDED JUNE 30, 2019

Cash Flows From Operating Activities Receipts from customers and users Payments to vendors Payments to employees	\$ 79,965,761 (38,825,584) (12,005,600)
Net Cash Provided By Operating Activities	29,134,577
Cash Flows From Noncapital Financing Activities Intergovernmental reimbursements	271,157
Net Cash Provided By Noncapital Financing Activities	271,157
Cash Flows From Capital and Related Financing Activities Acquisition and construction of capital assets Proceeds from intergovernmental loans and grants Principal payments on bonds and loans Payments of interest Net Cash (Used For) Capital and Related Financing Activities	(18,250,833) 2,876,627 (12,482,738) (5,172,863) (33,029,807)
Cash Flows From Investing Activities Purchase of investments Receipt of investment income	(551,017) 2,245,158
Net Cash Provided By Investing Activities	1,694,141
Net Change in Cash and Short-Term Investments	(1,929,932)
Cash and Short-Term Investments, Beginning of Year	61,326,170
Cash and Short-Term Investments, End of Year	\$ 59,396,238
Reconciliation of Operating Income to Net Cash Provided By Operating Activities Operating income Adjustments to reconcile operating income to net cash provided by operating activities:	\$ 17,779,757
Depreciation and amortization Changes in assets, liabilities, and deferred outflows/inflows	9,950,198
Accounts receivable Inventory Other current assets Deferred outflows - related to pensions Deferred outflows - related to OPEB Accounts payable and accrued payroll Accrued compensated absences Net pension liability Net OPEB liability Deferred inflows - related to pensions Deferred inflows - related to OPEB Other accrued liabilities Net Cash Provided By Operating Activities	943,066 36,577 (3,902) 1,000,969 (2,562,985) (1,227,617) 22,542 3,879,191 2,573,107 (3,349,891) 17,234 76,331 \$ 29,134,577
The cash i forded by operating Activities	Ψ,1,3,7,7,7,7,7

STATEMENT OF FIDUCIARY NET POSITION

OTHER POST-EMPLOYMENT BENEFIT TRUST FUND

JUNE 30, 2019

Assets	
Cash	\$ 115,353
Investments:	
Corporate equities	107,837
Equity mutual funds	1,997,581
Fixed income mutual funds	950,023
Total Investments	3,055,441
Total Assets	3,170,794
Net Position	
Restricted for OPEB purposes	3,170,794
Total Net Position	\$ 3,170,794

STATEMENT OF CHANGES IN FIDUCIARY NET POSITION OTHER POST-EMPLOYMENT BENEFIT TRUST FUND FOR THE YEAR ENDED JUNE 30, 2019

Additions		
Employer contributions	\$	1,672,212
Interest	_	162,763
Total Additions		1,834,975
Deductions		
Benefit payments	-	472,212
Change in Net Position		1,362,763
Net Position Restricted For OPEB		
Beginning of Year	-	1,808,031
End of Year	\$	3,170,794

Notes to Financial Statements

1. <u>Summary of Significant Accounting Policies</u>

The accounting policies of the Springfield Water and Sewer Commission (the Commission) conform to generally accepted accounting principles (GAAP) as applicable to governmental units. The following is a summary of the more significant policies:

A. Business Entity

The Commission has the responsibility to provide water and wastewater services on a fair and equitable basis to the City of Springfield (the City) and to provide wholesale water and regional wastewater services to other participating communities.

B. <u>Regulation and Basis of Accounting</u>

The Springfield Water and Sewer Commission (the Commission) was created in July 1996 under Massachusetts General Laws Chapter 40N; however, the Commission did not become a separate accounting entity until July 1997. Under Massachusetts General Laws Chapter 40N, the Board of Commissioners, appointed by the Mayor of the City of Springfield, establishes policies for accounting and other matters. The Board regulates the rates that the Commission can charge its customers for water and sewer usage. The rates charged to customers are based on the cash required for the Commission's operations, debt service and reserve contributions.

To comply with the external financial reporting requirements of the Board, the accompanying financial statements are presented on a basis that is consistent with generally accepted accounting principles (GAAP) for proprietary (enterprise) funds.

To accommodate the rate-making process, the Commission follows the accounting standards set forth in Governmental Accounting Standards Board Statement No. 62 ("GASB 62"), *Codification of Accounting and Financial Reporting Guidance Contained in Pre-November 30, 1989 FASB and AICPA Pronouncements.* GASB 62 allows certain board approved (a) revenues provided for future allowable costs to be deferred until the costs are actually incurred (deferred inflows) and (b) costs incurred to be capitalized if future recovery is reasonably assured (deferred outflows).

Proprietary funds distinguish operating revenues and expenses from nonoperating items. Operating revenues and expenses generally result from providing services and producing and delivering goods in connection with a proprietary fund's principal ongoing operations. The principal operating revenues of the enterprise fund are charges to customers for sales and services. Operating expenses for enterprise funds include the cost of sales and services, administrative expenses and depreciation on capital assets.

All revenues and expenses not meeting this definition are reported as nonoperating revenues and expenses.

The fiduciary fund financial statements are reported using the *economic resources measurement focus* and the *accrual basis of accounting*. Under this method, revenues are recognized when earned and expenses are recorded when liabilities are incurred.

The Commission reports the following fiduciary fund:

- The *other post-employment benefit trust fund* is used to accumulate resources for health and life insurance benefits for retired employees.
- C. Cash and Short-Term Investments

Cash balances are invested to the extent available, and interest earnings are recognized in each fund.

For purposes of the statement of cash flows, the Commission considers investments with original maturities of three months or less to be cash short-term investments. These are reflected in the following accounts reported on the statement of net position: cash and restricted cash.

D. <u>Investments</u>

Investments consist of certificates of deposit and federal agency securities, and are carried at fair value, except certificates of deposit, which are reported at cost. These are reflected in the following accounts reported on the statement of net position: investments and restricted investments.

E. Inventory for Consumption

Gasoline and diesel fuel purchased and unused at year end is stated at cost, and materials inventory is stated on the first-in/first-out basis.

F. Inventory Held by Others

Under the terms of a privatization agreement with SUEZ Water, Inc. (formerly United Water Environmental Services, Inc.,) the Commission transferred custody of certain inventory to SUEZ Water. The value stated was a negotiated value, which will be replaced by SUEZ Water at the expiration of the privatization contract in October 2020.

G. <u>Capital Assets</u>

Capital assets, which include property, plant, equipment, and infrastructure assets are defined by the Commission as assets with an initial individual cost of more than \$5,000 (for land, vehicles and equipment), \$10,000 (for buildings and improvements) and \$20,000 (for infrastructure) and an estimated useful life in excess of two years. Such assets are recorded at historical cost or estimated historical cost if purchased or constructed. Donated capital assets are recorded at acquisition value at the date of donation.

The costs of normal maintenance and repairs that do not add to the value of the asset or materially extend assets' lives are not capitalized.

Major outlays for capital assets and improvements are capitalized as projects are constructed. Interest incurred during the construction phase of capital assets would be included as part of the capitalized value of the assets constructed.

Capital assets are depreciated using the straight-line method over the following estimated useful lives:

Assets	Years
Building improvements	20 - 50
Water/sewer infrastructure	50 - 100
Vehicles	5 - 15
Office and computer equipment	5 - 10

H. <u>Compensated Absences</u>

It is the Commission's policy to permit employees to accumulate earned but unused vacation and sick pay benefits. All vested sick and vacation pay is accrued when incurred. Sick pay benefits are payable upon death or retirement, with certain limits, for all employees employed over six months.

I. <u>Net Position</u>

Net position represents the difference between assets/deferred outflows and liabilities/ deferred inflows. Net investment in capital assets consists of capital assets, net of accumulated depreciation, reduced by the outstanding balances of any borrowing used for the acquisition, construction or improvement of those assets. Net position is reported as restricted when there are limitations imposed on their use either through the enabling legislation adopted by the Commission or through external restrictions imposed by creditors, grantors, or laws or regulations of other governments. The remaining net position is reported as unrestricted.

J. <u>Use of Estimates</u>

The preparation of basic financial statements in conformity with generally accepted accounting principles requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosures for contingent assets and liabilities at the date of the basic financial statements, and the reported amounts of the revenues and expenses during the fiscal year. Actual results could vary from estimates that were used.

2. <u>Stewardship, Compliance and Accountability</u>

Budgetary Information

At the June meeting of the Commission, the Commissioners review and approve an operating and capital budget for the proposed expenditures of the fiscal year commencing the following July 1. The original budget may be amended during the fiscal year at Commission meetings as required by changing conditions.

At year end, appropriation balances lapse, except for certain unexpended capital items which will be honored during the subsequent year.

A budget and actual comparison of operating expenditures is presented as a supplementary schedule.

3. Cash and Short-Term Investments

Custodial credit risk, as defined under GASB Statement No. 40, is the risk that in the event of a bank failure, the Commission's deposits may not be returned to it. Massachusetts General Law Chapter 44, Section 55, limits deposits "in a bank or trust company or banking company to an amount not exceeding 60% of the capital and surplus of such bank or trust company or banking company, unless satisfactory security is given to it by such bank or trust company or banking company for such excess." The Commission's deposits are within this limitation. As of June 30, 2019, none of the Commission's bank balance of \$60,577,968 was exposed to custodial credit risk as uninsured, uncollateralized, and/or collateral held by the pledging bank's trust department not in the Commission's name.

The Commission votes annually to fund capital projects from current year revenue. Included in the Commissions cash balance is \$7,677,713 voted by the Commission in prior years that has been reserved for ongoing capital projects.

4. <u>Restricted Cash and Investments</u>

The Commission issues debt under a General Bond Resolution which requires cash reserves to be maintained. These reserves are reported as restricted cash or restricted investments.

The reserves include an Operating Reserve Fund (equal to 1/6 of the Commission's annual operating budget), a Renewal/Replacement Fund (\$1 million), a Debt Service Fund (equal to principal and interest, payable on an accrual basis at June 30), and a Debt Service Reserve Fund (equal to the highest principal and interest due in any subsequent year). In fiscal year 2017, the Commission also established a Stabilization fund reserve to help protect the financial condition of the Commission. In addition, the Bond Resolution establishes several other reserves which may be activated in future years.

The restricted cash and investment balances reported in the financial statements are comprised of the following at June 30, 2019:

	\$	12,397,679
Reserve Funds		
Operating Reserve Fund		9,174,957
Renewal/Replacement Fund		1,000,000
Debt Service Fund		17,245,419
Debt Service Reserve Fund		8,812,000
Other Funds		
Project Accounts		153,088
Scholarship Trust Fund	_	82,732
Total	\$	48,865,875
Restricted Balances		
Restricted cash		22,930,881
Restricted investments	_	25,934,994
Total	\$	48,865,875

5. Investments – Commission

The following is a summary of the Commission's investments as of June 30, 2019:

Investment Type	<u>Amount</u>
Certificates of deposit Federal agency securities	\$ 14,255,308 20,420,750
Total Investments	\$ 34,676,058

A. Credit Risk

Generally, credit risk is the risk that an issuer of an investment will not fulfill its obligation to the holder of the investment. For short-term investments that were purchased using surplus revenues, Massachusetts General Law, Chapter 44, Section 55, limits the Commission's investments to the top rating issued by at least one nationally recognized statistical rating organization (NRSROs). In addition, the Commission's investments are limited by Section 515 of the General Bond Resolution.

Of the Commission's investments, certificates of deposit are exempt from credit risk disclosure and all federal agency securities have an implied credit rating of AAA.

B. <u>Custodial Credit Risk</u>

The custodial credit risk for investments is the risk that, in the event of the failure of the counterparty (e.g., broker-dealer) to a transaction, a government will not be able to recover the value of its investment or collateral securities that are in the possession of another party. The Commission adopted an investment policy in fiscal year 2017. The Commission manages custodial credit risk by limiting investments to those with minimal amounts of risk (U.S. Treasuries and bonds, fully insured certificates of deposit and investments permitted by the Commission's General Bond Resolution).

As of June 30, 2019, none of the Commission's investments were subject to custodial credit risk exposure because the related securities are uninsured, unregistered, and/or held by the Commission's brokerage firm, which is also the counterparty to these securities.

C. <u>Concentration of Credit Risk</u>

The Commission's investment policy places no limit on the amount that may be invested in any one issuer. As of June 30, 2019, the Commission does not have an investment in one issuer greater than 5% of total investments.

D. Interest Rate Risk

Interest rate risk is the risk that changes in market interest rates will adversely affect the fair value of an investment. Generally, the longer the maturity of an investment, the greater the sensitivity of its fair value to changes in market interest rates. The Commission does not have formal investment policies limiting investment maturities as a means of managing its exposure to fair value losses arising from increasing interest rates. The Commission manages interest rate risk by managing the duration of investments.

Information about the sensitivity of the fair values of the Commission's investments to market interest rate fluctuations is as follows:

		Investment Maturities (in Years)		
		Less		
Investment Type	Amount	<u>Than 1</u>	<u>1-5</u>	
Certificates of deposit Federal agency securities	\$ 14,255,308 20,420,750	\$ 5,323,909 6,379,565	\$ 8,931,399 14,041,185	
Total	\$ 34,676,058	\$ 11,703,474	\$ 22,972,584	

E. Foreign Currency Risk

Foreign currency risk is the risk that changes in foreign exchange rates will adversely affect the fair value of an investment. The Commission does not have a policy for foreign currency risk.

F. Fair Value

The Commission categorizes its fair value measurements within the fair value hierarchy established by Governmental Accounting Standards Board Statement No. 72 *Fair Value Measurement and Application* (GASB 72).

The hierarchy is based on the valuation inputs used to measure the fair value of the asset and give the highest priority to unadjusted quoted prices in active markets for identical assets or liabilities (level 1 measurements) and the lowest priority to unobservable inputs (level 3 measurements). The hierarchy categorizes the inputs to valuation techniques used for fair value measurement into three levels as follows:

- Level 1 inputs that reflect quoted prices (unadjusted) in active markets for identical assets or liabilities that the fund has the ability to access at the measurement date.
- Level 2 inputs other than quoted prices that are observable for an asset or liability either directly or indirectly, including inputs in markets that are not considered to be active. Because they must often be priced on the basis of transactions involving similar but not identical securities or do not trade with sufficient frequency, certain directly held securities are categorized as level 2.
- Level 3 unobservable inputs based on the best information available, using assumptions in determining the fair value of investments and derivative instruments.

The Commission has the following fair value measurements as of June 30, 2019:

			Fair Value Measurements Using:					ing:	
				Quoted prices in active markets for identical assets		Significant observable inputs		Signific: unobserv inputs	
Investment Type		Amount	<u>(Le</u>	evel 1)		(Level 2)		(Lev	el 3)
Investments by fair value level: Federal agency securities	\$_	20,420,750	\$	-	\$_	20,420,750	S	\$	-

Equity securities classified in Level 1 are valued using prices quoted in active markets for those securities.

Debt securities classified in Level 2 are valued using either a bid evaluation or a matrix pricing technique. Bid evaluations may include market quotations, yields, maturities, call features, and ratings. Matrix pricing is used to value securities based on the securities relationship to benchmark quote prices. Level 2 debt securities have non-proprietary information that was readily available to market participants, from multiple independent sources, which are known to be actively involved in the market.

6. <u>Investments – OPEB</u>

The following is a summary of the OPEB Trust Fund's investments as of June 30, 2019:

Investment Type		Amount
Corporate equities	\$	107,837
Equity mutual funds		1,997,581
Fixed income mutual funds	_	950,023
Total Investments	\$	3,055,441

A. Credit Risk

Generally, credit risk is the risk that an issuer of an investment will not fulfill its obligation to the holder of the investment. State law employs the prudent person rule whereby investments are made as a prudent person would be expected to act, with discretion and intelligence, to seek reasonable income, preserve capital, and, in general, avoid speculative investments. The OPEB Trust Fund is invested in accordance with state law.

Presented below is the actual rating as of year-end for each investment type of the OPEB Trust Fund. (All federal agency securities have an implied credit rating of AAA.):

			Rating as of Year-End						
Investment Type	Amount	AAA	AA/A	BBB	BB/B	Below B	Not Rated		
Fixed income mutual funds	\$	\$ 458,815	\$	\$_105,434_	\$	\$ 58,307	\$21,242		
Total	\$ 950,023	\$ 458,815	\$ 168,361	\$	\$	\$ 58,307	\$		

B. Custodial Credit Risk

The custodial credit risk for investments is the risk that, in the event of the failure of the counterparty (e.g., broker-dealer) to a transaction, a government will not be able to recover the value of its investment or collateral securities that are in the possession of another party. The OPEB Trust Fund manages custodial credit risk by limiting investments to those with minimal amounts of risk (U.S. Treasuries and bonds, fully insured certificates of deposit and investments permitted by the Commission's General Bond Resolution).

As of June 30, 2019, \$1,057,860 of the OPEB Trust Fund's total investments were subject to custodial credit risk exposure because the related securities are uninsured, unregistered, and/or held by the OPEB Trust Fund's brokerage firm, which is also the counterparty to these securities as follows:

					Н	leld by
				Held by		nterparty's
Investment Type		Amount	<u>(</u>	Counterparty	Trust	t or Agent
Corporate equities	\$	107,837	\$	107,837	\$	-
Fixed income mutual funds	-	950,023	-	950,023		
Total	\$_	1,057,860	\$	1,057,860	\$	-

C. Concentration of Credit Risk

The OPEB Trust Fund's investment policy places no limit on the amount that may be invested in any one issuer. As of June 30, 2019, the OPEB Trust Fund does not have an investment in one issuer greater than 5% of total investments.

D. Interest Rate Risk

Interest rate risk is the risk that changes in market interest rates will adversely affect the fair value of an investment. Generally, the longer the maturity of an investment, the greater the sensitivity of its fair value to changes in market interest rates. The OPEB Trust Fund does not have formal investment policies limiting investment maturities as a means of managing its exposure to fair value losses arising from increasing interest rates. The OPEB Trust Fund manages interest rate risk by managing the duration of investments.

Information about the sensitivity of the fair values of the OPEB Trust Fund's investments to market interest rate fluctuations is as follows:

		Investment Maturities (in Years)						
		Less						
Investment Type	Amount	<u>Than 1</u>	<u>1-5</u>	<u>6-10</u>				
Fixed income mutual funds	\$950,023	\$249,042	\$ 463,545	\$				
Total	\$ 950,023	\$ 249,042	\$ 463,545	\$ 237,436				

E. Foreign Currency Risk

Foreign currency risk is the risk that changes in foreign exchange rates will adversely affect the fair value of an investment. The OPEB Trust Fund does not have a policy for foreign currency risk.

F. Fair Value

The OPEB Trust Fund categorizes its fair value measurements within the fair value hierarchy established by Governmental Accounting Standards Board Statement No. 72 *Fair Value Measurement and Application* (GASB 72).

The hierarchy is based on the valuation inputs used to measure the fair value of the asset and give the highest priority to unadjusted quoted prices in active markets for identical assets or liabilities (level 1 measurements) and the lowest priority to unobservable inputs (level 3 measurements). The hierarchy categorizes the inputs to valuation techniques used for fair value measurement into three levels as follows:

- Level 1 inputs that reflect quoted prices (unadjusted) in active markets for identical assets or liabilities that the fund has the ability to access at the measurement date.
- Level 2 inputs other than quoted prices that are observable for an asset or liability either directly or indirectly, including inputs in markets that are not considered to be active. Because they must often be priced on the basis of transactions involving similar but not identical securities or do not trade with sufficient frequency, certain directly held securities are categorized as level 2.
- Level 3 unobservable inputs based on the best information available, using assumptions in determining the fair value of investments and derivative instruments.

The OPEB Trust Fund has the following fair value measurements as of June 30, 2019:

			Fair Value Measurements Using:						
Investment Type	<u>t Type Amount</u>		1	uoted prices in active markets for entical assets (Level 1)		Significant bservable inputs (Level 2)	Significant unobservable inputs <u>(Level 3)</u>		
Investments by fair value level: Corporate equities	\$	107,837	\$	107,837	\$	-	\$	-	
Equity mutual funds Fixed income mutual funds		1,997,581 950,023	_	1,997,581 -		950,023		-	
Total	\$	3,055,441	\$	2,105,418	\$	950,023	\$	-	

Equity securities classified in Level 1 are valued using prices quoted in active markets for those securities.

Debt securities classified in Level 2 are valued using either a bid evaluation or a matrix pricing technique. Bid evaluations may include market quotations, yields, maturities, call features, and ratings. Matrix pricing is used to value securities based on the securities relationship to benchmark quote prices. Level 2 debt securities have non-proprietary information that was readily available to market participants, from multiple independent sources, which are known to be actively involved in the market.

7. <u>Accounts Receivable</u>

Accounts receivable consist of the following at June 30, 2019:

Customer Accounts:		
Billed water, sewer and wastewater regional	\$	4,518,018
Less: allowances	_	(413,107)
Total Billed		4,104,911
Unbilled water (including power generation) and sewer Adjustment to wastewater regional and sewer pump		5,937,818
station for actual usage through June 30, 2019	_	(587,112)
Total Customer Accounts	\$	9,455,617

8. Intergovernmental Receivables

The balance in this account represents the following:

Massachusetts Clean Water Trust loan funds not yet		<u>Current</u>		Non <u>Current</u>
requested (or expended on project costs) as of June 30,				
2019. These funds are expected to be drawn down as project costs are incurred in fiscal year 2020.	\$	21,629,889	\$	-
Amount due from Town of Wilbraham under an agreement signed in June 2007, whereby the Town agrees to reimburse the Commission a portion of the costs/debt incurred to enable the Town to enter the sewage disposal system. Future amounts to be paid by the Town are anticipated to coincide with certain debt issued by the Commission, which mature in fiscal years				
2026 through 2038.	-	105,540	_	1,110,363
Total	\$	21,735,429	\$	1,110,363

9. <u>Inventory for Consumption</u>

This inventory balance at June 30, 2019 consists of the following:

Fuel inventory (gasoline and diesel)	\$	68,147
Materials inventory (parts and supplies)		819,502
Less adjustment for obsolete and slow moving materials inventory	_	(287,766)
Total	\$	599,883

10. Health Insurance Deposit

The Commission participates in the Hampshire County Group Insurance Trust (the Trust) to provide health insurance coverage to its employees. When the Commission joined the Trust, they were required to place on deposit the equivalent of 3 months (estimated) claims expense. This deposit reserve affords the Commission voting rights in the Trust and would only be used to fund the residual claims in the event the Commission withdraws from the Trust.

11. Capital Assets

Capital asset activity for the year ended June 30, 2019 was as follows (in thousands):

		Beginning <u>Balance</u>		Increases	De	ecrease	<u>s</u>	Convert <u>CIP</u>		Ending <u>Balance</u>
Capital Assets, Being Depreciated										
Furniture and fixtures	\$	12,035	\$	-	\$	-	\$	346	\$	12,381
Vehicles and equipment		11,697		-		-		317		12,014
Buildings and improvements		8,984		-		-		471		9,455
Infrastructure	_	412,277	_	-	_	-	_	43,781	-	456,058
Total Capital Assets, Being Depreciated		444,993		-		-		44,915		489,908
Less Accumulated Depreciation For										
Furniture and fixtures		(6,885)		(841)		-		-		(7,726)
Vehicles and equipment		(9,705)		(911)		-		-		(10,616)
Buildings and improvements		(2,725)		(317)		-		-		(3,042)
Infrastructure	_	(150,186)	_	(7,781)	_	-	-	-		(157,967)
Total Accumulated Depreciation	_	(169,501)	_	(9,850)	_	-	_		-	(179,351)
Total Capital Assets, Being Depreciated, Net		275,492		(9,850)		-		44,915		310,557
Capital Assets, Not Being Depreciated										
Land		5,651		-		-		220		5,871
Construction in progress (CIP)	_	50,212	_	18,251	_	-		(45,135)		23,328
Total Capital Assets, Not Being Depreciated	_	55,863	_	18,251	_	-	_	(44,915)	-	29,199
Capital Assets, Net	\$_	331,355	\$_	8,401	\$_	-	\$_	-	\$	339,756

12. Deferred Outflows and Inflows of Resources

To accommodate the rate-making process, the Commission follows the accounting standards set forth in Financial Accounting Standards Codification Section 980 (FASC 980), *Accounting for the Effects of Certain Types of Regulation*. FASC 980 allows certain board approved (a) revenues provided for future allowable costs to be deferred until the costs are actually incurred (deferred credits) and (b) costs incurred to be capitalized if future recovery is reasonably assured (deferred charges).

Deferred Outflows

Deferred outflows of resources represent the consumption of net position by the Commission that is applicable to future reporting periods. Deferred outflows of resources have a positive effect on net position, similar to assets.

The following is a summary of deferred outflow of resources balances as of June 30, 2019:

Total related to pensions	\$ 4,450,393
Total related to OPEB	2,562,985
Other:	
Unamortized loss on refunding of debt	1,681,387
Deferred charges	99,776,128
Total Other	101,457,515
Total Deferred Outflows	\$ 108,470,893

The balance in unamortized loss on refunding of debt represents the difference between the amount required to pay off the previously issued debt and the net carrying amount of old debt. This difference is amortized over the shorter of the original debt amortization period or the life of the new debt.

Deferred charges consist of costs incurred to privatize and upgrade the wastewater regional plant facility, accrued sick, vacation and other compensated absences, accrued workers compensation costs, net OPEB liability, and net pension liability. The privatization costs will be funded through adjustments to regional wastewater member town assessments over the life of the privatization contract, which ends in fiscal year 2021. Other costs will be recovered through future rates or matched against credits related to the specific costs in the future.

Deferred outflows of resources related to pensions and OPEB, in accordance with GASB Statements No. 68 and 75 are more formally discussed in the corresponding pension and OPEB notes.

Deferred Inflows

Deferred inflows of resources are the acquisition of net position by the Springfield Water and Sewer Commission that are applicable to future reporting periods. Deferred inflows of resources have a negative effect on net position, similar to liabilities.

The following is a summary of deferred inflows of resources balances as of June 30, 2019:

Total related to pensions	\$ 2,923,737
Total related to OPEB	17,234
Other:	
Deferred credits	122,904,381
Total Deferred Inflows	\$ 125,845,352

Deferred credits consist primarily of amounts raised through rates specifically earmarked for capital improvements and debt repayment are recorded as deferred credits and will be reversed through the statement of revenues, expenses and changes in fund net position over the depreciable life of the asset and related debt repayment.

Deferred inflows of resources related to pensions and OPEB, in accordance with GASB Statements No. 68 and 75 are more fully described in the corresponding pension and OPEB notes.

The application of FASC 980 results in certain revenues and expenses being removed from the Statement of Revenues, Expenses and Changes in Fund Net Position and reflected in the Statement of Net Position as deferred outflows or deferred inflows. The revenues and expenses that have been removed from the Statement of Revenues, Expenses and Changes in Fund Net Position and added to the Statement of Net Position appear in the line "Excess revenues used to fund deferrals" on the Statement of Revenues, Expenses and Changes in Fund Net Position. The detail of changes to and components of these amounts are as follows:

		Beginning <u>Balance</u>		Increase (Decrease)		Ending <u>Balance</u>
Deferred Charges						
Accrued workers compensation	\$	239,542	\$	76,331	\$	315,873
Accrued compensated absences		1,461,297		22,542		1,483,839
Net pension liability		69,364,986		3,879,191		73,244,177
Net OPEB liability		22,034,440		2,573,107		24,607,547
Privatization costs	_	224,451	_	(99,759)	-	124,692
Total Deferred Charges	\$_	93,324,716	\$_	6,451,412	\$	99,776,128
Deferred Credits						
Capital improvements, net of depreciation	\$	35,925,060	\$	(1,109,706)	\$	34,815,354
Principal debt payments		75,981,932		11,611,868		87,593,800
Group insurance deposit	_	495,227	_	-	-	495,227
Total Deferred Credits	\$_	112,402,219	\$	10,502,162	\$	122,904,381
Net change for year				(4,050,750)		
Less privatization costs included in amortization expense				99,759		
Excess Revenues Used to Fund Deferrals			\$	(3,950,991)		

13. Notes Payable

The Commission had the following notes outstanding at June 30, 2019:

Purpose	Interest <u>Rate(s)%</u>	Date of <u>Issue</u>	Date of <u>Maturity</u>	Balance at June 30, 2019
Massachusetts Clean Water Trust				
Interim note 14-27	0.00%	3/29/2017	n/a *	\$ 2,000,000
Massachusetts Clean Water Trust				
Interim note 18-18	0.00%	1/23/2019	n/a *	23,812,911
Total				\$

* There is no set maturity date, will be determined when the balance converted to a long-term note.

The following summarizes activity in notes payable during fiscal year 2019:

Purpose	Balance Beginning <u>of Year</u>	Increase in Loan <u>Amount</u>	Converted to Long-Term <u>Debt</u>	Balance End of <u>Year</u>
Massachusetts Clean Water Trust Interim note 14-27 Massachusetts Clean Water Trust	\$ 2,000,000	\$ -	\$ -	\$ 2,000,000
Interim note 18-18		23,812,911		23,812,911
Total	\$	\$ 23,812,911	\$	\$ 25,812,911

14. Long-Term Debt

A. <u>Revenue Bonds</u>

All debt issued by the Commission has been issued as Revenue Bonds. Under the terms of these loans, all operating revenues of the Commission are deposited in a dedicated operating reserve account and from which prescribed reserves are established (see restricted cash footnote). In addition, all bond proceeds have been deposited in separate project accounts that are under the lender's controls. These project accounts may be accessed only to fund project-related costs.

A summary of the long-term debt outstanding as of June 30, 2019 follows:

	Serial Maturities <u>Through</u>	Interest <u>Rate(s)%</u>		Loan Balance Outstanding June 30, 2019	-	Bond Premium Amortization		Total Balance June 30, 2019
Sewer (MCWT 94-24 / 95-07 / 98-133)	08/01/20	1.00 - 2.75	\$	841,852	\$	-	\$	841,852
Sewer (United Water)	10/01/20	Various		117,617		-		117,617
Revenue bonds 2007A (refunding)	11/01/21	4.0 - 5.0		2,430,000		-		2,430,000
Sewer CSO (MCWT CW-01-39)	08/01/22	1.00 - 2.75		861,276		-		861,276
Revenue bonds - 2014C (refunding)	07/15/26	3.0 - 5.0		11,680,000		1,901,163		13,581,163
Sewer CSO (MCWT CW-08-36)	07/15/30	2.00		6,306,497		-		6,306,497
Revenue bonds - 2010B	11/15/30	3.0 - 5.0		2,730,000		225,763		2,955,763
Revenue bonds - 2017B (refunding)	04/15/31	2.0 - 5.0		20,850,000		3,177,649		24,027,649
Sewer CSO (MCWT CW-08-36-A)	07/15/32	2.00		4,564,583		-		4,564,583
Water (MCWT DW-10-06)	07/15/32	2.00		1,276,200		-		1,276,200
Water (MCWT DW-11-01)	07/15/32	2.00		4,760,687		-		4,760,687
Water (MCWT DW-11-22)	01/15/33	2.00		1,166,754		-		1,166,754
Revenue bonds - 2014A	07/15/34	3.0 - 5.0		22,050,000		1,177,601		23,227,601
Sewer CSO (MCWT CW-12-03)	01/15/35	2.00		16,374,170		-		16,374,170
Water (MCWT DW-13-16)	01/15/35	2.00		18,669,147		-		18,669,147
Sewer CSO (MCWT CW-14-27)	01/15/37	2.00		21,071,459		-		21,071,459
Revenue bonds - 2017C	04/15/37	2.0 - 5.0		19,000,000		3,232,559		22,232,559
Sewer CSO (MCWT CW-06-27)	07/15/37	2.00	_	20,787,721	_	-	_	20,787,721
Total Long-Term Debt			\$_	175,537,963	\$	9,714,735	\$_	185,252,698

B. Future Debt Service

The annual payments to retire all general obligation long-term debt outstanding (including bond premium amortization) as of June 30, 2019 are as follows:

	Principal	Interest		<u>Total</u>
2020	\$ 12,735,237	\$ 5,540,471	\$	18,275,708
2021	12,925,913	5,469,437		18,395,350
2022	12,588,224	4,733,768		17,321,992
2023	11,979,518	4,318,940		16,298,458
2024	12,017,067	3,912,148		15,929,215
2025 - 2029	58,156,577	13,838,241		71,994,818
2030 - 2034	46,179,082	5,903,828		52,082,910
Thereafter	 18,671,079	 837,851	_	19,508,930
Total	\$ 185,252,698	\$ 44,554,684	\$	229,807,382

C. Changes in Long-Term Liabilities

During the year ended June 30, 2019, the following changes occurred in long-term liabilities (in thousands):

										Less		Equals
		Beginning						Ending		Current	Ι	ong -Term
		Balance	A	<u>dditions</u>	<u>R</u>	eductions		Balance		Portion		Portion
Loans payable	\$	187,434	\$	-	\$	(11,899)	\$	175,535	\$	(11,866)	\$	163,669
Unamortized premium		10,588		-		(871)	_	9,717		(869)		8,848
Subtotal		198,022		-		(12,770)		185,252		(12,735)		172,517
Accrued compensated absences		1,461		234		(211)		1,484		(131)		1,353
Net pension liability		69,365		-		3,879		73,244		-		73,244
Net OPEB liability		22,034		-		2,574		24,608		-		24,608
Other:												
Accrued workers compensation	_	240		76	_	-	_	316	_	-	_	316
Total	\$_	291,122	\$	310	\$	(6,528)	\$_	284,904	\$	(12,866)	\$_	272,038

D. Bond Covenants

The Commission's General Bond Resolution contains various restrictive covenants including, among other things, restrictions on incurring both short-term and long-term debt in certain circumstances and restrictions on selling, mortgaging, leasing or otherwise disposing of any part of the system. The Bond Resolution requires the Commission to establish water and sewer rates at least sufficient to pay current expenses, pay principal and interest of indebtedness, create and maintain reserves required by bond resolutions, and pay the cost of all necessary repairs, replacements, and renewals of the system. They also require certain accounts to be established and maintained (Note 4), the balances of which are restricted to various operating, debt service, capital expenditure, and renewal and replacement purposes. The Commission has pledged all cash accounts and revenues as collateral for the debt.

In addition, the Commission is required to comply with certain bond covenants which require that "net revenues" as defined in the General Resolution, for each fiscal year shall equal at least 125% of the Debt Service Requirement.

The Commission was in compliance with all bond covenants for the year ended June 30, 2019.

E. Advance Refunding

In the prior year, the Commission defeased various bond issues by creating a separate irrevocable trust fund.

The proceeds from the new issuance of the general obligation bonds were used to purchase U.S. Government securities and those securities were deposited in an irrevocable trust with an escrow agent to provide debt service payments until the 2010 refunded bonds are called for payment on November 15, 2020. For financial reporting purposes, the debt has been considered defeased and therefore removed as a liability from the Commission's balance sheet. As of June 30, 2019, the amount of defeased debt outstanding but removed was \$2,730,000.

15. <u>Restricted Net Position</u>

The balance in restricted net position of \$50,334,806 represents the restricted cash balance for required reserves and scholarships of \$36,315,108, the balance in the Commission's Stabilization fund of \$12,397,679, and the total value of inventory of \$1,622,019.

16. Springfield Contributory Retirement System

The Commission follows the provisions of GASB Statement No. 68, Accounting and Financial Reporting for Pensions – an amendment of GASB Statement No. 27, with respect to the employees' retirement funds.

A. <u>Plan Description</u>

Substantially all full-time employees participate in the City of Springfield Contributory Retirement System (the System), a cost-sharing, multiple-employer, contributory defined benefit pension plan administered by the City of Springfield Retirement Board. The pension plan provides pension benefits, deferred allowances, and death and disability benefits. Chapter 32 of the Massachusetts General Laws establishes the authority of the System, contribution percentages and benefits paid. The System Retirement Board does not have the authority to amend benefit provisions. The System issues a publicly available financial report which can be obtained through the City of Springfield Retirement System, 70 Tapley Street, Springfield MA 01104.

Participant Contributions

Participants contribute a set percentage of their gross regular compensation annually. Employee contribution percentages are specified in Chapter 32 of the Massachusetts General Laws. The employee's individual contribution percentage is determined by their date of entry into the system. In addition, all employees hired on or after January 1, 1979 contribute an additional 2% on all gross regular compensation over the rate of \$30,000 per year. The percentages are as follows:

Before January 1, 1975	5%
January 1, 1975 - December 31, 1983	7%
January 1, 1984 - June 30, 1996	8%
Beginning July 1, 1996	9%

For those members entering a Massachusetts System on or after April 2, 2012 in Group 1, the contribution rate will be reduced to 6% when at least 30 years of creditable service has been attained.

Participant Retirement Benefits

A retirement allowance consists of two parts: an annuity and a pension. A member's accumulated total deductions and a portion of the interest they generate constitute the annuity. The difference between the total retirement allowance and the annuity is the pension. The average retirement benefit is approximately 80-85% pension and 15-20% annuity.

The System provides for retirement allowance benefits up to a maximum of 80% of a member's highest 3-year average annual rate of regular compensation for those hired prior to April 2, 2012 and the highest 5-year average annual rate of regular compensation for those first becoming members of the Massachusetts System on or after that date. However, per Chapter 176 of the Acts of 2011, for members who retire on or after April 2, 2012, if in the 5 years of creditable service immediately preceding retirement, the difference in the annual rate of regular compensation between any 2 consecutive years exceeds 100%, the normal yearly amount of the retirement allowance shall be based on the average annual rate of regular compensation received by the member during the period of 5 consecutive years preceding retirement. Benefit payments are based upon a member's age, length of creditable service, level of compensation and group classification.

There are four classes of membership in the retirement system, but one of these classes, Group 3, is made up exclusively of the Massachusetts State Police. The other three classes are as follows:

- Group 1 General employees, including clerical, administrative, technical, and all other employees not otherwise classified.
- Group 2 Certain specified hazardous duty positions.
- Group 4 Police officers, firefighters, and other specified hazardous positions.

A retirement allowance may be received at any age, upon attaining 20 years of service. The plan also provides for retirement at age 55 if the participant was a member prior to January 1, 1978, with no minimum vesting requirements. If the participant was a member on or after January 1, 1978 and a member of Groups 1 or 2, then a retirement allowance may be received if the participant (1) has at least 10 years of creditable service, (2) is age 55, (3) voluntarily left Commission employment on or after that date, and (4) left accumulated annuity deductions in the fund. Members of Group 4 have no minimum vesting requirements, however, must be at least age 55. Groups 2 and 4 require that participants perform the duties of the Group position for at least 12 months immediately prior to retirement.

A participant who became a member on or after April 2, 2012 is eligible for a retirement allowance upon 10 years creditable service and reaching ages 60 or 55 for Groups 1 and 2,

respectively. Participants in Group 4 must be at least age 55. Groups 2 and 4 require that participants perform the duties of the Group position for at least 12 months immediately prior to retirement.

Methods of Payment

A member may elect to receive his or her retirement allowance in one of three forms of payment as follows:

- Option A Total annual allowance, payable in monthly installments, commencing at retirement and terminating at the members death.
- Option B A reduced annual allowance, payable in monthly installments, commencing at retirement and terminating at the death of the member, provided however, that if the total amount of the annuity portion received by the member is less than the amount of his or her accumulated deductions, including interest, the difference or balance of his accumulated deductions will be paid in a lump sum to the retiree's beneficiary or beneficiaries of choice.
- Option C A reduced annual allowance, payable in monthly installments, commencing at retirement. At the death of the retired employee, 2/3 of the allowance is payable to the member's designated beneficiary (who may be the spouse, or former spouse who has not remarried, child, parent, sister, or brother of the employee) for the life of the beneficiary. For members who retired on or after January 12, 1988, if the beneficiary pre-deceases the retiree, the benefit payable increases (or "pops up" to Option A) based on the factor used to determine the Option C benefit at retirement. For members who retired prior to January 12, 1988, if the System has accepted Section 288 of Chapter 194 of the Acts of 1998 and the beneficiary pre-deceases the retiree, the benefit payable "pops up" to Option A in the same fashion. The Option C became available to accidental disability retirees on November 7, 1996.

Participant Refunds

Employees who resign from service and who are not eligible to receive a retirement allowance are entitled to request a refund of their accumulated total deductions. Members voluntarily withdrawing with at least 10 years of service or involuntarily withdrawing, receive 100% of the regular interest that has accrued on those accumulated total deductions. Members voluntarily withdrawing with less than 10 years of service get credited interest each year at a rate of 3%.

Employer Contributions

Employers are required to contribute at actuarially determined rates as accepted by the Public Employee Retirement Administration Commission (PERAC).

The Commission's contribution to the System for the year ended June 30, 2019 was approximately \$5.3 million, which was equal to its annual required contribution.

B. Summary of Significant Accounting Policies

For purposes of measuring the net pension liability, deferred outflows of resources and deferred inflows of resources related to pensions, and pension expense, information about the fiduciary net position of the System and additions to/deductions from System's

fiduciary net position have been determined on the same basis as they are reported by System. For this purpose, benefit payments (including refunds of employee contributions) are recognized when due and payable in accordance with benefit terms. Investments are reported at fair value.

C. <u>Pension Liabilities, Pension Expense, and Deferred Outflows of Resources and Deferred</u> (Inflows) of Resources Related to Pensions

At June 30, 2019, the Commission reported a liability of approximately \$73 million for its proportionate share of the net pension liability. The net pension liability was measured as of December 31, 2018, and the total pension liability used to calculate the net pension liability was determined by an actuarial valuation as of January 1, 2018 rolled forward to December 31, 2018. The Commission's proportion of the net pension liability was based on a projection of the Commission's long-term share of contributions to the pension plan relative to the projected contributions of all participating employers, actuarially determined. At June 30, 2019, the Commission's proportion was 8.10%, which represents a change of 0.10% from the prior year measurement date.

For the year ended June 30, 2019, the Commission recognized pension expense of approximately \$6.8 million. In addition, the Commission reported deferred outflows and (inflows) of resources related to pensions from the following sources (in thousands):

	Deferred Outflows of <u>Resources</u>		Deferred (Inflows) o <u>Resources</u>	
Differences between expected and actual experience	\$	274	\$	(562)
Changes of assumptions		2,981		-
Net difference between projected and actual earnings on pension plan investments		1,195		-
Changes in proportion and differences between contributions and proportionate share of contributions			_	(2,362)
Total	\$	4,450	\$	(2,924)

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

Year ended June 30:		
2020	\$	1,040
2021		211
2022		(307)
2023		469
2024	_	113
Total	\$	1,526

D. <u>Actuarial Assumptions</u>

The total pension liability in the January 1, 2018 actuarial valuation was determined using the following actuarial assumptions, applied to all periods included in the measurement:

Inflation	not explicitly assumed
Salary increases	4.25 – 4.75% per year
Investment rate of return	7.40%, net of pension plan investments
Cost of living adjustments	3% on first \$13,000 of retirement income

Pre-retirement mortality rates reflect the RP-2000 employees table projected generationally with Scale BB and a base year of 2009 (gender distinct). Post-retirement mortality rates reflect the RP-2000 healthy annuitant table projected generationally with scale BB and the base year of 2009 (gender distinct). For disabled retirees, the rates reflect the RP-2000 health annuitant table projected generationally with scale BB and a base year of 2012 (gender distinct).

The actuarial assumptions used in the January 1, 2018 valuation were based on the results of the most recent actuarial experience study, which was for the two years ending December 31, 2017.

E. Target Allocation

The long-term expected rate of return on pension plan investments was selected from a best estimate range determined using the building block approach. Under this method, an expected future real return range (expected returns, net of pension plan investment expense and inflation) is calculated separately for each asset class. These ranges are combined to produce the long-term expected rate of return by weighting the expected future real rates of return net of investment expenses by the target asset allocation percentage and by adding expected inflation. The target allocation and best estimates of arithmetic real rates of return for each major class are summarized in the following table:

		Long-term
	Target	Expected
	Asset	Real Rate
Asset Class	Allocation	<u>of Return</u>
Domestic equities	17.50%	7.62%
International equities	15.50%	7.80%
Emerging international equities	6.00%	9.31%
Core fixed income	12.00%	4.07%
Value added fixed income	10.00%	7.58%
Private equity	12.00%	11.15%
Realestate	10.00%	6.59%
Timberland	4.00%	7.00%
Hedge fund and portfolio completion	13.00%	6.83%
Total	100.00%	

F. Discount Rate

The discount rate used to measure the total pension liability was 7.40%. The projection of cash flows used to determine the discount rate assumed that the plan member contributions will be made at the current contribution rate and that employer contributions will be made at contractually required rates, actuarially determined. Based

on those assumptions, the pension plan's fiduciary net position was projected to be available to make all projected future benefit payments to current active and inactive plan members. Therefore, 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.

G. <u>Sensitivity of the Proportionate Share of the Net Pension Liability to Changes in the</u> <u>Discount Rate</u>

The following presents the Commission's proportionate share of the net pension liability calculated using the discount rate of 7.40%, as well as what the Commission's proportionate share of the 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 (in thousands):

	Current	
1%	Discount	1%
Decrease	Rate	Increase
<u>(6.4%)</u>	<u>(7.4%)</u>	(8.4%)
\$83,924	\$73,244	\$63,868

H. Pension Plan Fiduciary Net Position

Detailed information about the pension plan's fiduciary net position is available in the separately issued System financial report.

17. Other Post-Employment Benefits (GASB 74 and GASB 75)

GASB Statement No. 74, *Financial Reporting for Postemployment Benefit Plans Other Than Pension Plans (OPEB)*, replaces the requirements of Statement No. 43, *Financial Reporting for Postemployment Benefit Plans Other Than Pension Plans*. This applies if a trust fund has been established to fund future OPEB costs. In fiscal year 2016, the Commission established a single-employer defined benefit OPEB Trust Fund to provide funding for future employee health care costs. OPEB Trust Fund does not issue a stand-alone financial report.

GASB Statement No. 75, Accounting and Financial Reporting for Postemployment Benefits Other Than Pensions, replaces the requirements of Statement No. 45, Accounting and Financial Reporting by Employers for Postemployment Benefits Other Than Pensions. The Statement establishes standards for recognizing and measuring liabilities, deferred outflows of resources, deferred inflows of resources, and expenses. This Statement identifies the methods and assumptions that are required to be used to project benefit payments, discounted projected benefit payments to their actuarial present value, and attribute that present value to periods of employee service.

All the following OPEB disclosures are based on a measurement date of June 30, 2019.

A. General Information about the OPEB Plan

Plan Description

The Commission provides post-employment healthcare benefits for retired employees through the Commission's plan. The Commission provides health insurance coverage through the Hampshire County Group Insurance Trust (HCGIT). The benefits, benefit levels, employee contributions, and employer contributions are governed by Chapter 32 of the Massachusetts General Laws.

Benefits Provided

The Commission provides medical and prescription drug insurance to retirees and their covered dependents. All active employees who retire from the Commission and meet the eligibility criteria will receive these benefits.

Funding Policy

The Commission's funding policy includes financing the implicit subsidy on a pay-asyou-go basis, as required by statute. Additional contributions are based on annual budget authorizations.

Plan Membership

At June 30, 2019, the following employees were covered by the benefit terms:

Inactive employees or beneficiaries	
currently receiving benefit payments	121
Active employees	217
Total	338

B. Investments

The OPEB Trust Fund assets consist of corporate equities, equity mutual funds and fixed income mutual funds. The OPEB funds are managed in accordance with the "prudent person" rule, which allows a wider range of investment instruments in accordance with the principles of safety, liquidity, and yield. Additional information about the OPEB Trust Fund's investments can be found at Footnote 6.

Rate of return. For the year ended June 30, 2019, the annual money-weighted rate of return on investments, net of investment expense, was 6.5%. The money-weighted rate of return expresses investment performance, net of investment expense, adjusted for the changing amounts actually invested.

C. Actuarial Assumptions and Other Inputs

The net OPEB liability was determined by an actuarial valuation as of July 1, 2017, using the following actuarial assumptions, applied to all periods included in the measurement, unless otherwise specified:

Inflation	not stated
Salary increases	3.0%, average, including inflation
Investment rate of return	6.5%, net of OPEB plan investment expense
Municipal bond rate	3.1%, based on an average of three 20-year
	bond indices (e.g., Bond Buyer-20 Bond
	GO, S&P Municipal Bond 20 Year High
	Grade Rate Index, Fidelity GA AA 20 Years)
Discount rate	3.4%
Healthcare cost trend rates	8.0%, fluctuating $0.5%$ to an ultimate rate of
	5.0% as of July 1, 2024 and later years
Retirees' share of benefit-related costs	25%
Participation rate	100% of eligible active employees

Mortality rates were based on RP-2014 Healthy Male and Female Tables for both pre and post retirement projection with mortality improvement using Projection Scale AA for 3.5 years plus 7 years generational improvement.

The actuarial assumptions used in the valuation were based on the results of an actuarial experience study as of July 1, 2017.

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. Best estimates of arithmetic real rates of return for each major asset class included in the target asset allocation as of June 30, 2019 are summarized in the following table.

Asset Class	Target Asset <u>Allocation</u>	Long-Term Expected Real <u>Rate of Retum</u>
Domestic Equity	30.00%	6.44%
International Equity	15.00%	7.40% - 9.42%
Domestic Bonds	25.00%	2.02%
International Bonds	10.00%	1.06% - 4.71%
Alternative Investments	20.00%	3.75% - 10.47%
Total	100.00%	

D. Discount Rate

The discount rate used to measure the net OPEB liability was 3.4%. The projection of cash flows used to determine the discount rate assumed that contributions from plan members will be made at the current contribution rate.

Based on those assumptions, the OPEB plan fiduciary net position was not projected to be available to make all projected future benefit payments of current plan members. As a result, a blended discount rate was used based on a combination of the investment rate of return of 6.5% and average municipal bond rate of 3.1% (based on index provided by

Bond Buyer-20 Bond GO, S&P Municipal Bond 20-year high grade rate index and Fidelity GA AA 20 years on 20-year municipal bond rate as of June 30, 2019).

E. <u>Net OPEB Liability</u>

The components of the net OPEB liability, measured as of June 30, 2019, were as follows (in thousands):

Total OPEB liability Plan fiduciary net position	\$ 27,779 (3,171)
Net OPEB Liability	\$ 24,608
Plan fiduciary net position as a percentage of the total OPEB liability	11.42%

The fiduciary net position has been determined on the same basis used by the OPEB Plan. For this purpose, the Plan recognizes benefit payments when due and payable.

F. Changes in the Net OPEB Liability

The following summarizes the changes in the net OPEB liability for the past year (in thousands):

]	Increase (Decrease)				
	Total OPEB Liability <u>(a)</u>	Plan Fiduciary Net Position <u>(b)</u>	Net OPEB Liability <u>(a) - (b)</u>			
Balances, beginning of year	\$ 23,842	\$ 1,808	\$ 22,034			
Changes for the year:						
Service cost	809	-	809			
Interest	803	-	803			
Contributions - employer	-	1,672	(1,672)			
Net investment income	-	141	(141)			
Differences between expected						
and actual experience	-	22	(22)			
Changes in assumptions						
or other inputs	2,797	-	2,797			
Benefit payments	(472)	(472)				
Net Changes	3,937	1,363	2,574			
Balances, End of Year	\$ 27,779	\$3,171	\$24,608			

Changes in assumptions or other inputs reflect a change in the discount rate from 3.8% in 2018 to 3.4% in 2019.

G. Sensitivity of the Net OPEB Liability to Changes in the Discount Rate

The following presents the net OPEB liability, as well as what the 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 (in thousands):

1%	Current	1%
Decrease	Discount Rate	Increase
<u>(2.4%)</u>	<u>(3.4%)</u>	<u>(4.4%)</u>
\$33,569	\$24,608	\$18,451

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

The following presents the net OPEB liability, as well as what the net OPEB liability would be if it as calculated using healthcare cost trend rates that are 1 percentage-point lower or 1 percentage-point higher than the current healthcare cost trend rates (in thousands):

	Current Healthcare	
1%	Cost Trend	1%
Decrease	Rates	Increase
<u>(7.0%)</u>	<u>(8.0%)</u>	<u>(9.0%)</u>
\$18,285	\$24,608	\$34,205

I. <u>OPEB Expense and Deferred Outflows of Resources and Deferred (Inflows) of Resources</u> <u>Related to OPEB</u>

For the year ended June 30, 2019, the Commission recognized an OPEB expense of approximately \$1.7 million. At June 30, 2019, the Commission reported deferred outflows and (inflows) of resources related to OPEB from the following sources (in thousands):

	Deferred Outflows of <u>Resources</u>	Deferred (Inflows) of <u>Resources</u>
Difference between expected and actual experience	\$ -	\$ (17)
Change in assumptions	2,563	
Total	\$ 2,563	\$ (17)

Year ended June 30:	
2020	\$ 229
2021	229
2022	229
2023	229
2024	233
Thereafter	1,397
Total	\$ 2,546

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

18. <u>Subsequent Events</u>

Debt

Subsequent to June 30, 2019, the Commission has incurred the following additional debt:

			Interest	Issue	Maturity
Purpose		<u>Amount</u>	Rate(s)%	Date	Date
Massachusetts Clean Water Trust					
Long-term note 14-27	\$	2,000,000	2.00%	10/24/2019	7/15/2039
Massachusetts Clean Water Trust					
Interim note 18-18**		80,719,549	0.00%	7/11/2019	n/a *
Massachusetts Clean Water Trust					
Interim note 18-18A	_	12,341,902	0.00%	7/11/2019	n/a *
Total	\$	95,061,451			

* There is no set maturity date, will be determined when the balance converted to a long-term note.

** This represents a modification of the original interim note issued 1/23/2019.

19. Commitments and Contingencies

<u>Grants</u> – Amounts received or receivable from grantor agencies are subject to audit and adjustment by grantor agencies, principally the federal government. Any disallowed claims, including amounts already collected, may constitute a liability of the applicable funds. The amount of expenditures which may be disallowed by the grantor cannot be determined at this time, although the Commission expects such amounts, if any, to be immaterial.

<u>Sewer Overflow</u> – In September of 2014 the Commission was issued Administrative Order Docket No. 14-007 (AO) by the United States Environmental Protection Agency (USEPA). The AO details acceptance of the Commission's comprehensive Integrated Wastewater Plan (IWP) that addresses all wastewater infrastructure as it relates to operation and maintenance, sustainable renewal, and regulatory compliance. The AO specifically required the submittal of a work plan for the Phase 2 York Street Pump Station and River Crossing CSO Project by December 31, 2014, which was completed and submitted on time. The Commission has completed a Basis of Design Report and Preliminary Design for the project and has begun the final design. In calendar year 2018 the Commission selected to advance this project utilizing the Construction Manager At Risk (CMAR) process under MGL 149 A. The CMAR has been selected and is under contract and the project construction phase services are underway. The Commission is also required to and intends to provide a work plan for the Phase 3 Locust Transfer Structure and Flow Optimization of the Mill River CSO Project by December 31, 2019. Additionally, the Commission has initiated other projects identified in the IWP but not identified in the AO. These projects include annual system renewal projects as well as the completion of the Main Intercepting Sewer Rehabilitation and CSO Outfall Improvements Project. Both projects address needs based on prioritization of risk and other key factors utilizing the Commission's asset management system. The Commission has received a draft NPDES Permit from the USEPA for CSOs and the Springfield Regional Wastewater Treatment Facility. The Commission has provided substantial comments on the draft permit and understands that if a new permit is issued based on the draft version that it will have impacts on prioritization and schedule of projects.

<u>Workers Compensation Liability</u> – The financial statements include an estimate of future benefit costs/settlements for employees currently receiving workers compensation benefits.

<u>Self-Insurance</u> – The Commission participates in the Hampshire County Group Insurance Trust to provide health insurance coverage to its employees. The Trust is funded by member assessments, which are calculated in a manner similar to commercial insurance premiums. As of June 30, 2019, the Trust contracted with an insurance carrier for excess liability coverage which takes effect when an individual claim exceeds \$275,000.

If the Trust were to experience a cash deficit, each member would be required to contribute additional funds. At June 30, 2019, according to the Trust's unaudited financial statements, after accruing an estimated liability for incurred but unreported claims of approximately \$4.5 million, the Trust was in a surplus position of approximately \$24 million.

20. Transactions with City of Springfield

Other than the retirement system contribution previously noted, the Commission's fiscal year 2019 transactions with the City consist primary of payments for Police Department services of approximately \$622,000 and approximately \$332,000 for retiree health insurance.

21. Wastewater Regional Operations Management

In August 2000, the Commission entered into an agreement with SUEZ Water, Inc. (formerly United Water, Springfield LLC) to operate the Commission's wastewater regional operations effective October 1, 2000 and for a term of 20 years. The pertinent conditions of the agreement are as follows:

- All assets remain the property of the Commission.
- Equipment/inventory used over the 20-year term is to be replaced/ reimbursed by SUEZ Water.
- The Commission continues to control the customer billing process.
- The Commission agreed to incur a maximum of \$10.3 million for the initial capital improvements to the facility. These improvements became the property of the Commission upon acceptance of the work performed.

- SUEZ Water bills the Commission monthly for the cost of providing service and an administrative fee. The monthly cost as of June 2019 was approximately \$960,000.
- In September 2000, SUEZ Water reimbursed the Commission for approximately \$1.9 million of costs incurred in the privatization process. The Commission is repaying this amount through the monthly billing process.
- Under the contract, SUEZ Water must provide a guaranteed letter of credit to the Commission as security for operating performance and capital asset management. The letter of credit is adjusted annually based on the yearly adjustment factor in the contract. The letter of credit was adjusted to 150% of the then required letter of credit for the contract year amendment #2 to the contract in June 2004. At June 30, 2019, the letter of credit was approximately \$21.8 million.

22. <u>New Pronouncements</u>

The Governmental Accounting Standards Board (GASB) has issued Statement No. 84, *Fiduciary Activities*, effective for the Commission beginning with its fiscal year ending June 30, 2020. This statement establishes guidance on how to address the categorization of fiduciary activities for financial reporting and how fiduciary activities are to be reported and may require reclassification of certain funds.

The Governmental Accounting Standards Board (GASB) has issued Statement No. 87, *Leases*, effective for the Commission beginning with its fiscal year ending June 30, 2021. This statement establishes new reporting and disclosure requirements, including the recording of various operating leases in the financial statements.

REQUIRED SUPPLEMENTARY INFORMATION

SCHEDULE OF PROPORTIONATE SHARE OF THE NET PENSION LIABILITY (GASB 68)

JUNE 30, 2019

(Unaudited)

(Amounts expressed in thousands)

Springfield Contributory Retirement System							
		Proportion of the	Proportionate Share of the		Proportionate Share of the Net Pension	Plan Fiduciary Net Position Percentage	
Fiscal	Measurement	Net Pension	Net Pension	Covered	Liability as a Percentage	of the Total	
Year	Date	<u>Liability</u>	<u>Liability</u>	Payroll	of Covered Payroll	Pension Liability	
June 30, 2019	December 31, 2018	8.10%	\$73,244	\$12,483	586.75%	27.20%	
June 30, 2018	December 31, 2017	8.00%	\$69,365	\$12,357	561.34%	28.36%	
June 30, 2017	December 31, 2016	8.24%	\$70,365	\$12,530	561.57%	25.92%	
June 30, 2016	December 31, 2015	8.69%	\$72,326	\$13,215	547.30%	25.70%	
June 30, 2015	December 31, 2014	8.67%	\$63,437	\$12,460	509.13%	28.83%	

Schedules are intended to show information for 10 years. Additional years will be displayed as they become available.

See Independent Auditors' Report.

REQUIRED SUPPLEMENTARY INFORMATION

SCHEDULE OF PENSION CONTRIBUTIONS (GASB 68)

JUNE 30, 2019

(Unaudited)

(Amounts expressed in thousands)

Springfield Contributory Retirement System							
			Contributions in				
	Relation to the Contractually Contractually Contribution Contributions as						
Fiscal	Measurement	Required	Required	Deficiency	Covered	a Percentage of	
Year	Date	Contribution	Contribution	(Excess)	Payroll	Covered Payroll	
June 30, 2019	December 31, 2018	\$5,311	\$5,311	-	\$12,839	41.37%	
June 30, 2018	December 31, 2017	\$4,612	\$4,612	-	\$12,451	37.04%	
June 30, 2017	December 31, 2016	\$4,165	\$4,165	-	\$12,351	33.72%	
June 30, 2016	December 31, 2015	\$4,143	\$4,143	-	\$12,606	32.87%	
June 30, 2015	December 31, 2014	\$3,902	\$3,902	-	\$12,512	31.19%	

Schedules are intended to show information for 10 years. Additional years will be displayed as they become available.

See Independent Auditors' Report.

SPRINGFIELD WATER AND SEWER COMMISSION

OTHER POST-EMPLOYMENT BENEFITS (OPEB)

REQUIRED SUPPLEMENTARY INFORMATION

SCHEDULE OF CHANGES IN NET OPEB LIABILITY (GASB 74 AND 75)

(Unaudited)

(Amounts expressed in thousands)

		<u>2019</u>		<u>2018</u>		<u>2017</u>
Total OPEB Liability						
Service cost	\$	809	\$	754	\$	1,513
Interest on unfunded liability - time value of money		803		912		888
Differences between expected and actual experience		-		(3,365)		-
Changes in assumptions		2,797		1,778		(3,592)
Benefit payments, including refunds of member contributions	_	(472)	-	(451)	-	(452)
Net Change in Total OPEB Liability		3,937		(372)		(1,643)
Total OPEB Liability - Beginning		23,842	_	24,214	-	25,857
Total OPEB Liability - Ending (a)	\$	27,779	\$_	23,842	\$_	24,214
Plan Fiduciary Net Position						
Contributions - employer	\$	1,672	\$	1,451	\$	717
Net investment income		141		52		44
Differences between expected and actual experience		22		-		-
Benefit payments, including refunds of member contributions		(472)	-	(451)	-	(452)
Net Change in Plan Fiduciary Net Position		1,363		1,052		309
Plan Fiduciary Net Position - Beginning		1,808	_	756	-	447
Plan Fiduciary Net Position - Ending (b)	\$	3,171	\$_	1,808	\$	756
Net OPEB Liability (Asset) - Ending (a-b)	\$ <u>_</u>	24,608	\$_	22,034	\$_	23,458

Schedule is intended to show information for 10 years. Additional years will be displayed as they become available.

See notes to the Commission's financial statements for summary of significant actuarial methods and assumptions.

See Independent Auditors' Report.

SPRINGFIELD WATER AND SEWER COMMISSION

REQUIRED SUPPLEMENTARY INFORMATION

OTHER POST-EMPLOYMENT BENEFITS (OPEB)

SCHEDULES OF NET OPEB LIABILITY, CONTRIBUTIONS, AND INVESTMENT RETURNS (GASB 74 AND 75)

(Unaudited)

(Amounts expressed in thousands)

Schedule of Net OPEB Liability	<u>2019</u>	<u>2018</u>	<u>2017</u>
Total OPEB liability Plan fiduciary net position	\$ 27,779 (3,171)	\$ 23,842 (1,808)	\$ 24,214 (756)
Net OPEB Liability (Asset)	\$24,608	\$ 22,034	\$
Plan fiduciary net position as a percentage of the total OPEB liability	11.42%	7.58%	3.12%
Schedule of Contributions	<u>2019</u>	<u>2018</u>	<u>2017</u>
Actuarially determined contribution*	\$ 1,986	\$ 1,992	\$ 1,732
Contributions in relation to the actuarially determined contribution	(1,672)	(1,451)	(717)
Contribution Deficiency	\$ 314	\$ 541	\$ 1,015
Schedule of Investment Returns	<u>2019</u>	<u>2018</u>	<u>2017</u>
Annual money weighted rate of return, net of investment expense	6.50%	6.50%	6.50%

* Includes only the implicit subsidy, which is required to be funded by statute, and not an amount required to fully fund the plan over time.

Schedules are intended to show information for 10 years. Additional years will be displayed as they become available.

See notes to Commission's financial statements for summary of significant actuarial methods and assumptions.

See Independent Auditors' Report.

SPRINGFIELD WATER AND SEWER COMMISSION

OTHER SUPPLEMENTARY INFORMATION SCHEDULE OF OPERATING EXPENDITURES BUDGET AND ACTUAL

FOR THE YEAR ENDED JUNE 30, 2019

	Original <u>Budget</u>	Final <u>Budget</u>	<u>Actual</u>	Variance Favorable <u>(Unfavorable)</u>
Expenditures and other uses:				
Salaries and wages	\$ 15,399,360	\$ 14,459,360	\$ 13,646,688	\$ 812,672
Employee benefits	9,567,866	10,267,866	9,750,333	517,533
Operations	25,019,756	25,209,756	24,358,453	851,303
Intergovernmental	612,565	612,565	573,277	39,288
Capital outlay	396,300	396,300	287,509	108,791
Other	531,721	581,721	529,704	52,017
Debt principal	11,611,867	11,611,867	11,611,867	-
Debt interest	5,892,846	5,892,846	6,137,043	(244,197)
Total Expenditures	\$ 69,032,281	\$ 69,032,281	\$ 66,894,874	\$,407

See Independent Auditors' Report.

Notes to Other Supplemental Schedule

Schedule of Operating Expenditures - Budget and Actual

Budgetary Basis

The appropriation appearing on page 67 of the financial statements represents the operating budget of the Commission that was originally authorized in June 2018.

Budget/GAAP Reconciliation

The budgetary data is based upon accounting principles that differ from generally accepted accounting principles (GAAP). Therefore, in addition to the GAAP basis financial statements, the results of operations are presented in accordance with budgetary accounting principles to provide a meaningful comparison with budgetary data.

The following is a summary of adjustments made to the actual expenditures to conform to the budgetary basis of accounting.

Operating expenditures (GAAP basis)	\$	61,242,938
Non-operating expenditures (GAAP basis)		5,282,890
Reverse capital expenditures appropriated in a prior fiscal year		(1,657,849)
Remove depreciation expense not budgeted for		(9,950,198)
Add long-term debt payments budgeted for		11,611,867
Reverse the effect of prior year and current year GAAP accruals of:		
Accounts payable and accrued payroll		1,150,179
Interest on long-term debt		(37,586)
Amortization of deferred loss on refunding		870,870
Inventory adjustment		38,260
Accrued compensated absences		(22,542)
Net pension liability, net of deferrals		(1,530,269)
Net OPEB liability, net of deferrals		(27,356)
Accrued workers compensation	-	(76,330)
Budgetary Basis	\$_	66,894,874

STATISTICAL SECTION

THIS PAGE WAS INTENTIONALLY LEFT BLANK

This part of the Commission's comprehensive annual financial report presents detailed information as a context for understanding what the information in the financial statements, note disclosures, and required supplementary information says about the Commission's overall financial health.

CONTENTS

Financial Trends

These schedules contain trend information to help the reader understand how the Commission's financial performance and well-being have changed over time. These schedules are found on pages 71 and 72.

Net Position by Component – Last Ten Fiscal Years Changes in Net Position – Last Ten Fiscal Years

Revenue Capacity

These schedules contain information to help the reader assess the factors affecting the Commission's ability to generate revenue. These schedules are found on pages 73 through 76.

Largest Users – Last Ten Fiscal Years Water: Supplied Billed and Accounted For. Sewer: Treated and Billed – Last Ten Fiscal Years Billings and Collections – Last Ten Fiscal Years Water and Sewer Rates Structure – Last Ten Fiscal Years

Debt Capacity

These schedules present information to help the reader assess the affordability of the Commission's current levels of outstanding debt and the Commission's ability to issue additional debt in the future. These schedules are found on pages 78 and 79.

Commission Per Capita Debt – Last Ten Fiscal Years Debt Coverage – Last Ten Fiscal Years

Demographic and Economic Information

These schedules offer demographic and economic indicators to help the reader understand the environment within which the Commission's financial activities take place. These schedules are found on pages 80 through 83.

Population, Income and Employment – Last Ten Calendar Years Demographic and Economic Statistics – 2018 Calendar Year-End Summary Distribution of Customers by Account Type – Last Ten Fiscal Years Largest Private Employers – Current Year and Nine Years Prior

Operating and Capital Information

These schedules contain service and infrastructure data to help the reader understand how the information in the Commission's financial statements relates to the services the Commission provides and the activities it performs. These schedules are found on pages 84 through 88.

Divisional Breakdown of SWSC Funded (Budgeted) Positions – Last Ten Budget Years Water and Sewer Distribution System – Year-End 2019 Insurance Coverage – 2019 – 2020 Water and Sewer Sales – Last Ten Fiscal Years Capital Spending by Category – Last Ten Fiscal Years

Table 1 Net Position by Component Last Ten Fiscal Years

	<u>2019</u>	<u>2018</u>	<u>2017</u>	<u>2016</u>	<u>2015</u>	<u>2014</u>	<u>2013</u>	<u>2012</u>	<u>2011</u>	<u>2010</u>
Net investment in capital assets	\$ 152,176,660	\$ 135,716,523	\$ 140,096,489	\$ 124,851,184	\$ 113,624,261	\$ 124,060,618	\$ 104,126,159	\$ 92,474,640	\$ 87,291,111	\$ 93,215,703
Restricted	50,334,806	58,368,491	46,627,990	37,694,132	36,368,236	31,651,795	31,120,310	30,618,919	29,910,286	24,025,690
Unrestricted	(66,299,071)	(69,189,511)	(62,830,249)	(36,200,649)	(29,816,125)	(42,378,183)	(17,512,709)	(8,663,848)	(8,569,063)	(12,933,706)
Total Net Position	\$ 136,212,395	\$ 124,895,503	\$ 123,894,230	\$ 126,344,667	\$ 120,176,372	\$ 113,334,230	\$ 117,733,760	\$ 114,429,711	\$ 108,632,334	\$ 104,307,687

Source: Audited Financial Statements

Table 2 Changes in Net Position Last Ten Fiscal Years

	2019	<u>2018</u>	2017	<u>2016</u>	2015	<u>2014</u>	2013	2012	<u>2011</u>	<u>2010</u>
Operating Revenues Water and sewer usage	\$ 78,569,778 \$	76,365,206 \$	70,958,566 \$	68,826,361 \$	67,168,792 \$	63,889,847 \$	61,904,588 \$	61,726,370	\$ 56,924,065 \$	52,182,531
Other income	452,917	283,345	122,107	220,121	252,568	442,440	323,306	468,610	208,003	132,699
Total Operating Revenues	79,022,695	76,648,551	71,080,673	69,046,482	67,421,360	64,332,287	62,227,894	62,194,980	57,132,068	52,315,230
Operating Expenses										
Salaries and wages	13,592,558	13,415,407	13,196,653	13,210,801	12,845,594	12,897,208	12,924,669	12,891,991	12,487,566	12,019,094
Employee benefits	11,384,289	9,119,516	11,035,903	11,138,171	9,877,386	7,708,445	6,339,698	6,225,431	4,790,965	4,787,846
Operations	23,229,294	23,625,366	22,467,683	23,210,770	22,166,166	21,677,024	21,299,006	20,550,371	20,022,498	20,645,435
Intergovernmental	573,277	586,514	572,476	557,125	540,163	519,315	504,188	493,920	500,914	486,892
Capital outlay	1,945,358	1,213,715	1,209,614	1,285,389	991,480	1,384,494	1,028,998	1,424,314	1,039,339	2,416,947
Other	567,964	500,063	683,593	379,835	521,140	561,054	413,520	615,729	355,459	358,107
Total Operating Expenses	51,292,740	48,460,581	49,165,922	49,782,091	46,941,929	44,747,540	42,510,079	42,201,756	39,196,741	40,714,321
Depreciation and amortization	9,950,198	9,494,640	9,040,841	8,623,900	7,951,427	7,142,654	7,104,089	6,977,531	7,044,059	6,342,586
Operating Income	17,779,757	18,693,330	12,873,910	10,640,491	12,528,004	12,442,093	12,613,726	13,015,693	10,891,268	5,258,323
Nonoperating Revenues (Expenses)										
Interest income	2,245,158	768,883	233,262	15,564	15,027	13,709	16,180	19,618	30,006	49,600
Interest expense	(5,282,890)	(5,455,009)	(4,678,636)	(5,035,560)	(4,738,350)	(4,331,542)	(4,403,264)	(4,267,401)	(3,972,515)	(3,309,198)
Other				83,797	81,045	661,249	-	38,574	9,781	(4,015)
Total Nonoperating Revenues (Expenses), Net	(3,037,732)	(4,686,126)	(4,445,374)	(4,936,199)	(4,642,278)	(3,656,584)	(4,387,084)	(4,209,209)	(3,932,728)	(3,263,613)
Capital grants and contributions	525,858	808,112	156,154	792,512	1,643,475		1,227,663	1,737,571	362,428	2,740,324
Excess revenues before deferral adjustments										
and special items	15,267,883	14,815,316	8,584,690	6,496,804	9,529,201	8,785,509	9,454,305	10,544,055	7,320,968	4,735,034
Excess revenues used to fund reserves and other deferrals Special item	(3,950,991)	(13,814,043)	(11,035,127)	(328,509)	(2,687,059)	(13,185,039)	(6,150,256)	(4,746,678)	(2,996,321)	(1,523,715) (4,949,004)
Change in Net Position	\$ 11,316,892 \$	1,001,273 \$	(2,450,437) \$	6,168,295 \$	6,842,142 \$	(4,399,530) \$	3,304,049 \$	5,797,377	\$ 4,324,647 \$	(1,737,685)

Source: Audited Financial Statements

Table 3 Largest Users Last Ten Fiscal Years

Top 25 Customers	2	<u>2019</u>		<u>2018</u>		<u>2017</u>		<u>2016</u>	<u>2015</u>	<u>2014</u>	<u>2013</u>	<u>2012</u>	<u>2011</u>	<u>2010</u>
Solutia, Inc.	\$ 7	,766,295	\$ 1	7,768,760	\$	7,550,467	\$	7,367,101	\$ 7,368,394	\$ 7,957,100	\$ 6,431,271	\$ 6,111,495	\$ 6,728,411	\$ 5,574,650
Town of Agawam	\$ 2.	,831,206	\$ 3	3,319,151	\$	3,009,713	\$	3,007,522	\$ 2,952,071	\$ 2,944,831	\$ 2,896,569	\$ 3,204,264	\$ 2,980,312	\$ 2,811,615
Town of West Springfield	\$ 2.	,118,275	\$	1,643,124	\$	1,558,939	\$	1,477,728	\$ 1,809,349	\$ 1,610,031	\$ 1,402,042	\$ 1,520,135	\$ 1,927,885	\$ 1,982,693
Town of East Longmeadow	\$ 1.	,566,007	\$	1,634,575	\$	1,575,946	\$	1,246,046	\$ 1,200,725	\$ 1,251,602	\$ 1,332,632	\$ 1,280,605	\$ 1,252,253	\$ 888,999
Town of Longmeadow	\$1,	,534,103	\$	1,745,160	\$	1,620,606	\$	1,324,505	\$ 1,306,863	\$ 1,362,849	\$ 1,364,753	\$ 1,337,546	\$ 1,517,682	\$ 1,424,910
Springfield Housing Authority	\$ 1.	,450,758	\$	1,358,085	\$	1,476,234	\$	1,660,106	\$ 1,324,351	\$ 1,165,478	\$ 1,103,606	\$ 1,143,894	\$ 1,147,318	\$ 1,007,186
Town of Ludlow DPW	\$1,	,049,457	\$	812,133	\$	806,227	\$	902,631	\$ 824,146	\$ 694,297	\$ 561,993	\$ 557,463	\$ 840,323	\$ 812,734
Bay State Medical Center	\$1,	,041,969	\$	1,016,664	\$	989,015	\$	873,883	\$ 901,132	\$ 780,102	\$ 852,355	\$ 850,642	\$ 816,729	\$ 680,250
East Springfield Realty LLC	\$	609,749	\$	389,201	\$	-	\$	-	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Smith & Wesson	\$	601,044	\$	536,624	\$	584,161	\$	492,162	\$ 441,301	\$ 344,034	\$ 431,508	\$ 289,926	\$ 246,791	\$ 251,808
City of Springfield/Schools	\$	589,371	\$	375,004	\$	445,895	\$	468,008	\$ 388,135	\$ 356,808	\$ 376,492	\$ 363,417	\$ 367,620	\$ 338,933
Pynchon I Apartments, Ltd	\$	562,059	\$	291,895	\$	235,502	\$	250,244	\$ 243,464	\$ 227,474	\$ 231,734	\$ 235,228	\$ 184,723	\$ 170,722
Catholic Health East-APSS	\$	510,741	\$	584,889	\$	450,068	\$	458,863	\$ 437,435	\$ 510,245	\$ 523,085	\$ 411,536	\$ 364,181	\$ 310,942
Western New England University	\$	461,747	\$	482,811	\$	512,172	\$	491,598	\$ 509,482	\$ 395,069	\$ 369,050	\$ 331,600	\$ 305,976	\$ 254,167
Springfield College	\$	459,934	\$	397,675	\$	448,211	\$	495,982	\$ 442,041	\$ 432,570	\$ 454,455	\$ 393,046	\$ 397,374	\$ 316,715
Blue Tarp/Davenport Companies	\$	416,063	\$	-	\$	-	\$	-	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Friendly Ice Cream Corp	\$	398,816	\$	412,348	\$	353,305	\$	230,315	\$ 238,405	\$ 213,031	\$ 201,050	\$ 265,956	\$ 231,586	\$ 238,307
Carando/Smithfield Foods	\$	336,976	\$	299,477	\$	321,213	\$	292,089	\$ 252,159	\$ 216,350	\$ 219,284	\$ 209,441	\$ 197,765	\$ 168,268
Town of Wilbraham	\$	291,974	\$	235,049	\$	178,341	\$	300,733	\$ 191,960	\$ 286,722	\$ -	\$ -	\$ -	\$ -
Rayes (frmly Related Springfield Assoc.)	\$	281,948	\$	247,736	\$	438,962	\$	421,723	\$ 338,939	\$ 292,262	\$ 284,248	\$ 261,429	\$ 249,389	\$ 326,922
Colonial Estates	\$	259,231	\$	225,850	\$	220,564	\$	-	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Unifirst Corporation	\$	258,509	\$	216,016	\$	260,479	\$	265,276	\$ 202,413	\$ 183,622	\$ 190,246	\$ 170,994	\$ 205,421	\$ 182,214
Park Tenants Assoc., Inc.	\$	220,785	\$	214,785	\$	-	\$	-	\$ 183,227	\$ -	\$ -	\$ -	\$ -	\$ -
Springfield Technical Comm College	\$	205,833	\$	-	\$	-	\$	183,651	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Related Springfield Associates LP	\$	185,506	\$	-	\$	-	\$	-	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Pynchon II Apartments, Ltd.	\$	-	\$	256,756	\$	230,128	\$	198,254	\$ 205,079	\$ 183,432	\$ -	\$ -	\$ -	\$ -
Allen Park 1 & 2	\$	-	\$	178,633	\$	185,138	\$	191,870	\$ 206,815	\$ 177,904	\$ -	\$ -	\$ -	\$ -
Armory Commons	\$	-	\$	176,052	\$	188,622	\$	206,610	\$ 182,313	\$ -	\$ -	\$ -	\$ -	\$ -
Spfld 164/Belmont LLC (fmly Cardaropoli, Attilio)	\$	-	\$	-	\$	227,042	\$	-	\$ -	\$ 203,646	\$ 211,948	\$ 210,895	\$ 188,688	\$ 184,870
Spring Meadow Apartments	\$	-	\$	-	\$	173,163	\$	221,225	\$ 172,518	\$ 176,398	\$ 170,576	\$ 141,701	\$ 151,868	\$ 126,981
Mass Power	\$	-	\$	-	\$	-	\$	259,600	\$ 199,286	\$ -	\$ -	\$ 157,513	\$ -	\$ 42,726
Taylor Consulting & Contracting	\$	-	\$	-	\$	-	\$	-	\$ -	\$ 329,687	\$ 374,304	\$ 317,496	\$ 308,924	\$ 275,433
Styrolution America, LLC	\$	-	\$	-	\$	-	\$	-	\$ -	\$ 186,233	\$ 600,479	\$ 1,009,955	\$ 453,877	\$ 413,474
Mass Municipal Wholesale	\$	-	\$	-	\$	-	\$	-	\$ -	\$ -	\$ 435,073	\$ 276,108	\$ 217,681	\$ 121,490
Hampden County Sheriff's Dept.	\$	-	\$	-	\$	-	\$	-	\$ -	\$ -	\$ 347,398	\$ 327,756	\$ 136,214	\$ 123,957
City of Springfield/Parks Dept	\$	-	\$	-	\$	-	\$	-	\$ -	\$ -	\$ 206,635	\$ -	\$ 60,831	\$ -
Total	\$ 26.	,008,356	\$ 24	4,818,453	\$2	4,040,113	\$2	3,287,725	\$ 22,522,003	\$ 22,481,777	\$ 21,572,786	\$ 21,380,042	\$ 21,479,824	\$ 19,030,966
Percent of Total Operating Revenue	,	33%		34%		34%		34%	33%	35%	35%	37%	39%	37%

Source: Commission Billing Records

Table 4Water: Supplied Billed and Accounted For
Sewer: Treated and Billed
Last Ten Fiscal Years

Water Sales (1000 gals)	<u>2019</u>	<u>2018</u>	<u>2017</u>	<u>2016</u>	<u>2015</u>	<u>2014</u>	<u>2013</u>	<u>2012</u>	<u>2011</u>	<u>2010</u>
Residential	3,674,248	3,881,968	3,974,963	3,993,954	3,904,169	3,891,966	4,228,945	3,950,102	4,256,540	4,026,586
Commercial	1,074,234	1,047,640	1,020,339	1,043,817	995,680	1,005,578	1,075,718	1,085,939	1,111,285	1,071,869
Industrial	230,311	267,357	246,874	301,338	332,947	292,994	305,685	351,324	467,409	444,615
Municipal	110,883	111,240	124,078	119,125	99,915	98,405	125,987	118,816	127,844	88,114
Solutia contract	1,889,882	1,937,904	2,052,774	2,133,279	2,176,832	2,764,977	2,335,635	2,806,380	2,649,483	2,565,497
Town contracts	2,369,513	2,533,247	2,720,622	2,938,450	2,940,024	2,846,092	3,026,692	3,085,764	3,039,522	2,821,122
Total water billed	9,349,071	9,779,356	10,139,650	10,529,963	10,449,567	10,900,012	11,098,662	11,398,325	11,652,083	11,017,803
Water supplied	10,576,950	10,802,240	11,165,680	11,648,180	11,230,750	11,432,110	11,917,910	12,054,950	12,234,600	12,164,890
% Accounted for	88.4%	90.5%	90.8%	90.4%	93.0%	95.3%	93.1%	94.6%	95.2%	90.6%
Sewer Sales (1000 gals)	<u>2019</u>	<u>2018</u>	<u>2017</u>	<u>2016</u>	<u>2015</u>	<u>2014</u>	<u>2013</u>	<u>2012</u>	<u>2011</u>	<u>2010</u>
Residential	3,422,186	3,521,594	3,672,325	3,700,999	3,639,573	3,623,135	3,853,056	3,685,012	3,972,232	3,772,710
Commercial	618,825	578,290	549,491	555,334	532,273	536,765	545,418	557,926	568,273	570,593
Industrial	168,098	182,626	182,541	175,459	164,419	161,525	177,979	166,274	168,006	165,854
Municipal	53,692	53,868	61,530	62,876	56,562	53,819	55,634	56,434	60,679	58,861
Food Service	33,053	34,875	35,447	36,666	36,320	36,333	39,310	44,412	44,978	46,179
Medical	132,460	142,256	137,163	148,388	137,709	150,742	168,482	172,983	166,605	151,009
Solutia contract	1,484,451	1,473,494	1,628,296	1,667,604	1,760,526	1,947,061	1,915,526	2,081,838	1,976,209	1,825,200
Town contracts	5,355,536	4,130,910	3,527,632	3,773,133	4,160,382	4,424,605	4,076,072	4,961,971	4,632,295	4,855,892
Total sewer billed	11,268,301	10,117,913	9,794,425	10,120,459	10,487,764	10,933,985	10,831,477	11,726,850	11,589,277	11,446,298
Wastewater treated	17,321,557	13,354,455	11,972,147	12,325,910	13,512,560	14,417,490	13,320,850	15,981,760	14,569,050	15,371,940
% Accounted for *	65.1%	75.8%	81.8%	82.1%	77.6%	75.8%	81.3%	73.4%	79.5%	74.5%

Source: Commission Billing System

* Unaccounted for wastewater includes inflow and infiltration from precipitation and groundwater. The combined sewer system within Springfield collects surface water runoff from precipitation and snow melt that accounts for the majority of the unaccounted wastewater treated.

Table 5Billings and CollectionsLast Ten Fiscal Years

	<u>2019</u>	<u>2018</u>	<u>2017</u>	<u>2016</u>	<u>2015*</u>	<u>2014</u>	<u>2013</u>	<u>2012</u>	<u>2011</u>	<u>2010</u>
Billings	\$68,418,378	\$71,714,561	\$69,951,215	\$66,828,449	\$64,477,845	\$62,114,921	\$60,357,697	\$58,745,953	\$59,604,651	\$50,122,428
Adjustments	\$362,899	\$313,365	\$345,814	(\$281,823)	(\$767,583)	(\$304,095)	\$164,551	(\$2,770,914)	(\$1,725,815)	\$503,508
Write-offs	\$255,550	\$4,025	\$104,364	\$99,880	\$88,395	\$80,900	\$158,965	\$132,792	\$131,347	\$129,019
Net Billings	\$69,036,827	\$72,031,951	\$70,401,393	\$66,646,506	\$63,798,657	\$61,891,726	\$60,681,213	\$56,107,831	\$58,010,183	\$50,754,955
Payments	\$69,171,649	\$71,165,499	\$71,246,016	\$66,670,637	\$63,740,688	\$61,627,375	\$60,129,265	\$57,614,541	\$58,361,769	\$49,954,356
Collection rate	101.1%	99.2%	101.9%	100.0%	99.9%	99.6%	99.1%	102.7%	100.6%	98.4%
Ending Receivables										
(before accruals)	\$4,518,017	\$4,164,095	\$3,301,668	\$4,249,281	\$4,374,664	\$4,405,090	\$4,221,672	\$3,828,921	\$5,468,424	\$5,951,357

*FY 2015 adjusted during FY 2016

Source: Commission Billing System

Table 6 Water and Sewer Rate Structure Last Ten Fiscal Years

Water Rates (per 1000 gals)	<u>2020</u>	<u>2019</u>	<u>2018</u>	<u>2017</u>	<u>2016</u>	<u>2015</u>	<u>2014</u>	<u>2013</u>	<u>2012</u>	<u>2011</u>
Residential	\$4.84	\$4.30	\$4.02	\$3.86	\$3.72	\$3.56	\$3.34	\$3.21	\$3.06	\$2.91
Commercial	\$4.84	\$4.30	\$4.02	\$3.86	\$3.72	\$3.56	\$3.34	\$3.21	\$3.06	\$2.91
Municipal	\$3.61	\$3.21	\$2.99	\$2.87	\$2.77	\$2.65	\$2.49	\$2.39	\$2.27	\$2.17
Industrial	\$3.61	\$3.21	\$2.99	\$2.87	\$2.77	\$2.65	\$2.49	\$2.39	\$2.27	\$2.17
Solutia contract	\$3.54	\$3.10	\$2.82	\$2.66	\$2.51	\$2.35	\$2.14	\$2.01	\$1.86	\$1.71
Town contracts	\$1.55	\$1.49	\$1.72	\$1.53	\$1.18	\$1.09	\$1.19	\$1.14	\$1.17	\$0.93
Residential Water % Change	12.4%	7.0%	4.2%	4.0%	4.5%	6.4%	4.2%	4.8%	5.0%	n/a
Sewer Rates (per 1000 gals)	<u>2020</u>	<u>2019</u>	<u>2018</u>	<u>2017</u>	<u>2016</u>	<u>2015</u>	<u>2014</u>	<u>2013</u>	<u>2012</u>	<u>2011</u>
Residential	\$7.63	\$7.11	\$6.59	\$6.34	\$6.10	\$5.80	\$5.11	\$4.87	\$4.47	\$4.13
Commercial	\$8.40	\$7.82	\$7.25	\$6.97	\$6.70	\$6.38	\$5.61	\$5.35	\$4.91	\$4.55
Industrial	\$9.16	\$8.53	\$7.91	\$7.61	\$7.30	\$6.95	\$6.12	\$5.84	\$5.36	\$4.96
Municipal	\$7.63	\$7.11	\$6.59	\$6.34	\$6.10	\$5.80	\$5.11	\$4.87	\$4.47	\$4.13
Food Service	\$9.93	\$9.25	\$8.57	\$8.24	\$7.91	\$7.54	\$6.64	\$6.32	\$5.80	\$5.37
Medical	\$8.40	\$7.82	\$7.25	\$6.97	\$6.70	\$6.38	\$5.61	\$5.35	\$4.91	\$4.55
Solutia contract	\$1.14	\$1.20	\$1.18	\$1.22	\$1.11	\$1.10	\$0.99	\$1.08	\$0.88	\$0.78
Town contracts	\$1.14	\$1.20	\$1.18	\$1.22	\$1.11	\$1.10	\$0.99	\$1.08	\$0.88	\$0.78
Residential Sewer % Change	7.3%	7.9%	4.0%	3.9%	5.1%	13.6%	4.9%	9.0%	8.1%	n/a
Water Rates (per 100 CF)	<u>2020</u>	<u>2019</u>	<u>2018</u>	<u>2017</u>	<u>2016</u>	<u>2015</u>	<u>2014</u>	<u>2013</u>	<u>2012</u>	<u>2011</u>
D 11 11						00 ((AA FA			
Residential	\$3.62	\$3.22	\$3.01	\$2.89	\$2.78	\$2.66	\$2.50	\$2.40	\$2.29	\$2.18
Residential Commercial	\$3.62 \$3.62	\$3.22 \$3.22	\$3.01 \$3.01	\$2.89 \$2.89	\$2.78 \$2.78	\$2.66 \$2.66	\$2.50 \$2.50	\$2.40 \$2.40	\$2.29 \$2.29	\$2.18 \$2.18
								• ·	• •	
Commercial	\$3.62	\$3.22	\$3.01	\$2.89	\$2.78	\$2.66	\$2.50	\$2.40	\$2.29	\$2.18
Commercial Municipal	\$3.62 \$2.70	\$3.22 \$2.40	\$3.01 \$2.24	\$2.89 \$2.15	\$2.78 \$2.07	\$2.66 \$1.98	\$2.50 \$1.86	\$2.40 \$1.79	\$2.29 \$1.70	\$2.18 \$1.62
Commercial Municipal Industrial	\$3.62 \$2.70 \$2.70	\$3.22 \$2.40 \$2.40	\$3.01 \$2.24 \$2.24	\$2.89 \$2.15 \$2.15	\$2.78 \$2.07 \$2.07	\$2.66 \$1.98 \$1.98	\$2.50 \$1.86 \$1.86	\$2.40 \$1.79 \$1.79	\$2.29 \$1.70 \$1.70	\$2.18 \$1.62 \$1.62
Commercial Municipal Industrial Solutia contract (per 100 CF)	\$3.62 \$2.70 \$2.70 \$2.65	\$3.22 \$2.40 \$2.40 \$2.32	\$3.01 \$2.24 \$2.24 \$2.11	\$2.89 \$2.15 \$2.15 \$1.99	\$2.78 \$2.07 \$2.07 \$1.88	\$2.66 \$1.98 \$1.98 \$1.76	\$2.50 \$1.86 \$1.86 \$1.60	\$2.40 \$1.79 \$1.79 \$1.50	\$2.29 \$1.70 \$1.70 \$1.39	\$2.18 \$1.62 \$1.62 \$1.28
Commercial Municipal Industrial Solutia contract (per 100 CF) Town contracts (per million gals)	\$3.62 \$2.70 \$2.70 \$2.65 \$1,554.41	\$3.22 \$2.40 \$2.40 \$2.32 \$1,491.03	\$3.01 \$2.24 \$2.24 \$2.11 \$1,717.86	\$2.89 \$2.15 \$2.15 \$1.99 \$1,526.61	\$2.78 \$2.07 \$2.07 \$1.88 \$1,178.93	\$2.66 \$1.98 \$1.98 \$1.76 \$1,089.71	\$2.50 \$1.86 \$1.86 \$1.60 \$1,186.59	\$2.40 \$1.79 \$1.79 \$1.50 \$1,141.50	\$2.29 \$1.70 \$1.70 \$1.39 \$1,165.25	\$2.18 \$1.62 \$1.62 \$1.28 \$928.30
Commercial Municipal Industrial Solutia contract (per 100 CF) Town contracts (per million gals) Residential Water % Change	\$3.62 \$2.70 \$2.70 \$2.65 \$1,554.41 12.4%	\$3.22 \$2.40 \$2.32 \$1,491.03 7.0%	\$3.01 \$2.24 \$2.24 \$2.11 \$1,717.86 4.2%	\$2.89 \$2.15 \$2.15 \$1.99 \$1,526.61 4.0%	\$2.78 \$2.07 \$2.07 \$1.88 \$1,178.93 4.5%	\$2.66 \$1.98 \$1.98 \$1.76 \$1,089.71 6.4%	\$2.50 \$1.86 \$1.86 \$1.60 \$1,186.59 4.2%	\$2.40 \$1.79 \$1.79 \$1.50 \$1,141.50 4.8%	\$2.29 \$1.70 \$1.70 \$1.39 \$1,165.25 5.0%	\$2.18 \$1.62 \$1.62 \$1.28 \$928.30 n/a
Commercial Municipal Industrial Solutia contract (per 100 CF) Town contracts (per million gals) Residential Water % Change Sewer Rates (per 100 CF)	\$3.62 \$2.70 \$2.70 \$2.65 \$1,554.41 12.4% <u>2020</u>	\$3.22 \$2.40 \$2.40 \$2.32 \$1,491.03 7.0% <u>2019</u>	\$3.01 \$2.24 \$2.24 \$2.11 \$1,717.86 4.2% <u>2018</u>	\$2.89 \$2.15 \$2.15 \$1.99 \$1,526.61 4.0% <u>2017</u>	\$2.78 \$2.07 \$2.07 \$1.88 \$1,178.93 4.5% <u>2016</u>	\$2.66 \$1.98 \$1.98 \$1.76 \$1,089.71 6.4% <u>2015</u>	\$2.50 \$1.86 \$1.86 \$1.60 \$1,186.59 4.2% <u>2014</u>	\$2.40 \$1.79 \$1.79 \$1.50 \$1,141.50 4.8% <u>2013</u>	\$2.29 \$1.70 \$1.70 \$1.39 \$1,165.25 5.0% <u>2012</u>	\$2.18 \$1.62 \$1.62 \$1.28 \$928.30 n/a 2011
Commercial Municipal Industrial Solutia contract (per 100 CF) Town contracts (per million gals) Residential Water % Change Sewer Rates (per 100 CF) Residential	\$3.62 \$2.70 \$2.65 \$1,554.41 12.4% <u>2020</u> \$5.71	\$3.22 \$2.40 \$2.40 \$2.32 \$1,491.03 7.0% <u>2019</u> \$5.32	\$3.01 \$2.24 \$2.24 \$2.11 \$1,717.86 4.2% <u>2018</u> \$4.93	\$2.89 \$2.15 \$2.15 \$1.99 \$1,526.61 4.0% <u>2017</u> \$4.74	\$2.78 \$2.07 \$2.07 \$1.88 \$1,178.93 4.5% <u>2016</u> \$4.56	\$2.66 \$1.98 \$1.98 \$1.76 \$1,089.71 6.4% <u>2015</u> \$4.34	\$2.50 \$1.86 \$1.86 \$1.60 \$1,186.59 4.2% <u>2014</u> \$3.82	\$2.40 \$1.79 \$1.79 \$1.50 \$1,141.50 4.8% <u>2013</u> \$3.64	\$2.29 \$1.70 \$1.70 \$1.39 \$1,165.25 5.0% <u>2012</u> \$3.34	\$2.18 \$1.62 \$1.62 \$1.28 \$928.30 n/a <u>2011</u> \$3.09
Commercial Municipal Industrial Solutia contract (per 100 CF) Town contracts (per million gals) Residential Water % Change Sewer Rates (per 100 CF) Residential Commercial	\$3.62 \$2.70 \$2.65 \$1,554.41 12.4% 2020 \$5.71 \$6.28	\$3.22 \$2.40 \$2.40 \$2.32 \$1,491.03 7.0% <u>2019</u> \$5.32 \$5.85	\$3.01 \$2.24 \$2.24 \$2.11 \$1,717.86 4.2% <u>2018</u> \$4.93 \$5.42	\$2.89 \$2.15 \$2.15 \$1.99 \$1,526.61 4.0% <u>2017</u> \$4.74 \$5.21	\$2.78 \$2.07 \$2.07 \$1.88 \$1,178.93 4.5% <u>2016</u> \$4.56 \$5.01	\$2.66 \$1.98 \$1.98 \$1.76 \$1,089.71 6.4% <u>2015</u> \$4.34 \$4.77	\$2.50 \$1.86 \$1.86 \$1.60 \$1,186.59 4.2% <u>2014</u> \$3.82 \$4.20	\$2.40 \$1.79 \$1.79 \$1.50 \$1,141.50 4.8% <u>2013</u> \$3.64 \$4.00	\$2.29 \$1.70 \$1.70 \$1.39 \$1,165.25 5.0% <u>2012</u> \$3.34 \$3.67	\$2.18 \$1.62 \$1.62 \$128 \$928.30 n/a 2011 \$3.09 \$3.40
Commercial Municipal Industrial Solutia contract (per 100 CF) Town contracts (per million gals) Residential Water % Change Sewer Rates (per 100 CF) Residential Commercial Industrial	\$3.62 \$2.70 \$2.65 \$1,554.41 12.4% 2020 \$5.71 \$6.28 \$6.85	\$3.22 \$2.40 \$2.40 \$2.32 \$1,491.03 7.0% <u>2019</u> \$5.32 \$5.85 \$6.38	\$3.01 \$2.24 \$2.24 \$2.11 \$1,717.86 4.2% <u>2018</u> \$4.93 \$5.42 \$5.92	\$2.89 \$2.15 \$2.15 \$1.99 \$1,526.61 4.0% <u>2017</u> \$4.74 \$5.21 \$5.69	\$2.78 \$2.07 \$2.07 \$1.88 \$1,178.93 4.5% 2016 \$4.56 \$5.01 \$5.46	\$2.66 \$1.98 \$1.98 \$1.76 \$1,089.71 6.4% <u>2015</u> \$4.34 \$4.77 \$5.20	\$2.50 \$1.86 \$1.86 \$1.60 \$1,186.59 4.2% <u>2014</u> \$3.82 \$4.20 \$4.58	\$2.40 \$1.79 \$1.79 \$1.50 \$1,141.50 4.8% <u>2013</u> \$3.64 \$4.00 \$4.37	\$2.29 \$1.70 \$1.70 \$1.39 \$1,165.25 5.0% <u>2012</u> \$3.34 \$3.67 \$4.01	\$2.18 \$1.62 \$1.62 \$928.30 n/a 2011 \$3.09 \$3.40 \$3.71
Commercial Municipal Industrial Solutia contract (per 100 CF) Town contracts (per million gals) Residential Water % Change Sewer Rates (per 100 CF) Residential Commercial Industrial Municipal Food Service Medical	\$3.62 \$2.70 \$2.65 \$1,554.41 12.4% 2020 \$5.71 \$6.28 \$6.85 \$5.71 \$7.43 \$6.28	\$3.22 \$2.40 \$2.40 \$2.32 \$1,491.03 7.0% 2019 \$5.32 \$5.85 \$6.38 \$5.32 \$6.92 \$5.85	\$3.01 \$2.24 \$2.24 \$2.11 \$1,717.86 4.2% <u>2018</u> \$4.93 \$5.42 \$5.92 \$4.93 \$6.41 \$5.42	\$2.89 \$2.15 \$2.15 \$1.99 \$1,526.61 4.0% 2017 \$4.74 \$5.21 \$5.69 \$4.74 \$6.16 \$5.21	\$2.78 \$2.07 \$2.07 \$1.88 \$1,178.93 4.5% 2016 \$4.56 \$5.01 \$5.46 \$4.56 \$5.92 \$5.01	\$2.66 \$1.98 \$1.98 \$1.76 \$1,089.71 6.4% 2015 \$4.34 \$4.77 \$5.20 \$4.34 \$5.64 \$4.77	\$2.50 \$1.86 \$1.86 \$1.60 \$1,186.59 4.2% 2014 \$3.82 \$4.20 \$4.58 \$3.82 \$4.97 \$4.20	\$2.40 \$1.79 \$1.79 \$1.50 \$1,141.50 4.8% <u>2013</u> \$3.64 \$4.00 \$4.37 \$3.64 \$4.73 \$4.00	\$2.29 \$1.70 \$1.70 \$1.39 \$1,165.25 5.0% <u>2012</u> \$3.34 \$3.67 \$4.01 \$3.34 \$4.34 \$3.67	\$2.18 \$1.62 \$1.28 \$928.30 n/a 2011 \$3.09 \$3.40 \$3.71 \$3.09 \$4.02 \$3.40
Commercial Municipal Industrial Solutia contract (per 100 CF) Town contracts (per million gals) Residential Water % Change Sewer Rates (per 100 CF) Residential Commercial Industrial Municipal Food Service Medical Solutia contract (per million gals)	\$3.62 \$2.70 \$2.65 \$1,554.41 12.4% 2020 \$5.71 \$6.28 \$6.85 \$5.71 \$7.43 \$6.28 \$1,138.91	\$3.22 \$2.40 \$2.40 \$2.32 \$1,491.03 7.0% 2019 \$5.32 \$5.85 \$6.38 \$5.32 \$6.92 \$5.85 \$1,197.77	\$3.01 \$2.24 \$2.24 \$2.11 \$1,717.86 4.2% 2018 \$4.93 \$5.42 \$5.92 \$4.93 \$6.41 \$5.42 \$1,145.39	\$2.89 \$2.15 \$2.15 \$1.99 \$1,526.61 4.0% 2017 \$4.74 \$5.21 \$5.69 \$4.74 \$6.16 \$5.21 \$1,060.86	\$2.78 \$2.07 \$1.88 \$1,178.93 4.5% 2016 \$4.56 \$5.01 \$5.46 \$4.56 \$4.56 \$5.92 \$5.01 \$1,108.27	\$2.66 \$1.98 \$1.98 \$1.76 \$1,089.71 6.4% <u>2015</u> \$4.34 \$4.77 \$5.20 \$4.34 \$5.64	\$2.50 \$1.86 \$1.86 \$1.60 \$1,186.59 4.2% <u>2014</u> \$3.82 \$4.20 \$4.58 \$3.82 \$4.97	\$2.40 \$1.79 \$1.79 \$1.50 \$1,141.50 4.8% 2013 \$3.64 \$4.00 \$4.37 \$3.64 \$4.73 \$4.00 \$1,076.52	\$2.29 \$1.70 \$1.70 \$1.39 \$1,165.25 5.0% <u>2012</u> \$3.34 \$3.67 \$4.01 \$3.34 \$4.34	\$2.18 \$1.62 \$1.28 \$928.30 n/a 2011 \$3.09 \$3.40 \$3.71 \$3.09 \$4.02 \$3.40 \$779.83
Commercial Municipal Industrial Solutia contract (per 100 CF) Town contracts (per million gals) Residential Water % Change Sewer Rates (per 100 CF) Residential Commercial Industrial Municipal Food Service Medical Solutia contract (per million gals) Town contracts (per million gals)	\$3.62 \$2.70 \$2.65 \$1,554.41 12.4% 2020 \$5.71 \$6.28 \$6.85 \$5.71 \$7.43 \$6.28 \$1,138.91 \$1,138.91	\$3.22 \$2.40 \$2.40 \$2.32 \$1,491.03 7.0% 2019 \$5.32 \$5.85 \$6.38 \$5.32 \$6.92 \$5.85 \$1,197.77 \$1,197.77	\$3.01 \$2.24 \$2.24 \$2.11 \$1,717.86 4.2% 2018 \$4.93 \$5.42 \$5.92 \$4.93 \$6.41 \$5.42 \$1,145.39 \$1,145.39	\$2.89 \$2.15 \$1.99 \$1,526.61 4.0% 2017 \$4.74 \$5.21 \$5.69 \$4.74 \$6.16 \$5.21 \$1,060.86 \$1,060.86	\$2.78 \$2.07 \$1.88 \$1,178.93 4.5% 2016 \$4.56 \$5.01 \$5.46 \$4.56 \$4.56 \$5.92 \$5.01 \$1,108.27 \$1,108.27	\$2.66 \$1.98 \$1.98 \$1.76 \$1,089.71 6.4% 2015 \$4.34 \$4.77 \$5.20 \$4.34 \$5.64 \$4.77	\$2.50 \$1.86 \$1.86 \$1.60 \$1,186.59 4.2% 2014 \$3.82 \$4.20 \$4.58 \$3.82 \$4.97 \$4.20 \$993.00 \$993.00	\$2.40 \$1.79 \$1.79 \$1.50 \$1,141.50 4.8% 2013 \$3.64 \$4.00 \$4.37 \$3.64 \$4.73 \$4.00 \$1,076.52 \$1,076.52	\$2.29 \$1.70 \$1.70 \$1.39 \$1,165.25 5.0% 2012 \$3.34 \$3.67 \$4.01 \$3.34 \$4.34 \$3.67 \$881.28 \$881.28	\$2.18 \$1.62 \$1.28 \$928.30 n/a 2011 \$3.09 \$3.40 \$3.71 \$3.09 \$4.02 \$3.40
Commercial Municipal Industrial Solutia contract (per 100 CF) Town contracts (per million gals) Residential Water % Change Sewer Rates (per 100 CF) Residential Commercial Industrial Municipal Food Service Medical Solutia contract (per million gals)	\$3.62 \$2.70 \$2.65 \$1,554.41 12.4% 2020 \$5.71 \$6.28 \$6.85 \$5.71 \$7.43 \$6.28 \$1,138.91	\$3.22 \$2.40 \$2.40 \$2.32 \$1,491.03 7.0% 2019 \$5.32 \$5.85 \$6.38 \$5.32 \$6.92 \$5.85 \$1,197.77	\$3.01 \$2.24 \$2.24 \$2.11 \$1,717.86 4.2% 2018 \$4.93 \$5.42 \$5.92 \$4.93 \$6.41 \$5.42 \$1,145.39	\$2.89 \$2.15 \$2.15 \$1.99 \$1,526.61 4.0% 2017 \$4.74 \$5.21 \$5.69 \$4.74 \$6.16 \$5.21 \$1,060.86	\$2.78 \$2.07 \$1.88 \$1,178.93 4.5% 2016 \$4.56 \$5.01 \$5.46 \$4.56 \$4.56 \$5.92 \$5.01 \$1,108.27	\$2.66 \$1.98 \$1.98 \$1.76 \$1,089.71 6.4% 2015 \$4.34 \$4.77 \$5.20 \$4.34 \$5.64 \$4.77 \$5.64 \$4.77 \$1,099.26	\$2.50 \$1.86 \$1.86 \$1.60 \$1,186.59 4.2% 2014 \$3.82 \$4.20 \$4.58 \$3.82 \$4.97 \$4.20 \$993.00	\$2.40 \$1.79 \$1.79 \$1.50 \$1,141.50 4.8% 2013 \$3.64 \$4.00 \$4.37 \$3.64 \$4.73 \$4.00 \$1,076.52	\$2.29 \$1.70 \$1.70 \$1.39 \$1,165.25 5.0% 2012 \$3.34 \$3.67 \$4.01 \$3.34 \$4.34 \$3.67 \$881.28	\$2.18 \$1.62 \$1.28 \$928.30 n/a 2011 \$3.09 \$3.40 \$3.71 \$3.09 \$4.02 \$3.40 \$779.83

Source: Fiscal Year 2020 Commission's adopted Rules and Regulations Chapter 5

(Continued)

Table 6 Water and Sewer Rate Structure Last Ten Fiscal Years

(Continued)

Sewer Contract Rates (per million gals)	<u>2020</u>	<u>2019</u>	<u>2018</u>	<u>2017</u>	<u>2016</u>	<u>2015</u>	<u>2014</u>	<u>2013</u>	<u>2012</u>	<u>2011</u>	
Agawam	\$1,372.48	\$1,105.93	\$1,431.59	\$1,503.64	\$1,375.92	\$1,323.70	\$1,257.70	\$1,342.30	\$1,134.67	\$935.30	
Longmeadow	\$1,020.48	\$880.54	\$1,072.83	\$1,108.53	\$959.04	\$996.43	\$905.70	\$981.02	\$770.80	\$689.65	
Chicopee	\$622.83	\$557.05	\$652.23	\$631.46	\$577.91	\$590.72	\$544.06	\$595.67	\$521.33	\$421.74	
E. Longmeadow	\$952.44	\$802.57	\$991.09	\$1,055.03	\$945.34	\$922.99	\$836.94	\$1,014.96	\$761.77	\$704.36	
Ludlow	\$1,442.49	\$1,195.07	\$1,488.14	\$1,746.10	\$1,426.13	\$1,255.64	\$951.57	\$1,158.34	\$932.27	\$800.91	
W. Springfield	\$1,337.75	\$1,168.17	\$1,194.23	\$1,253.45	\$1,143.72	\$1,312.10	\$1,073.14	\$1,011.77	\$905.60	\$741.26	
Wilbraham	\$1,167.52	\$1,115.76	\$1,281.69	\$1,116.32	\$1,061.65	\$1,103.27	\$1,060.60	\$1,060.75	\$1,336.43	\$810.97	
Springfield	\$1,065.47	\$914.55	\$1,123.16	\$1,178.85	\$1,087.99	\$1,029.08	\$968.49	\$1,087.95	\$840.11	\$766.07	
Solutia / Nova	\$1,014.46	\$936.01	\$1,030.71	\$988.48	\$901.90	\$1,032.79	\$887.57	\$886.90	\$829.64	\$749.16	
Friendly	\$10,363.45	\$11,608.00	\$12,232.93	\$10,498.96	\$7,752.63	\$8,171.27	\$7,286.10	\$7,504.95	\$8,467.50	\$6,503.32	
Totals	\$1,138.91	\$1,197.77	\$1,175.82	\$1,217.98	\$1,108.27	\$1,099.26	\$993.00	\$1,076.52	\$881.28	\$779.83	
* FY 2020 Town rates per million gallons are	estimated										
** Solutia Contract had two separate rates for FY2019. 7/1/18 - 12/31/18 rate was \$2.32; 1/1/19 - 6/30/19 rate was \$2.35											

Solutia contract (per million gals)**\$1,138.91\$1,197.77\$1,175.82\$1,217.98\$1,108.27\$1,099.26\$993.00\$1,076.52\$881.28\$779.83Town contracts (per million gals)*\$1,138.91\$1,197.77\$1,175.82\$1,217.98\$1,108.27\$1,099.26\$993.00\$1,076.52\$881.28\$779.83

*** Changes in FY 2015 & FY 2016 Town & Solutia Contract rates are due to estimates changing to actuals

Table 7 Commission Per Capita Debt Last Ten Fiscal Years

	<u>2019</u>	<u>2018</u>	<u>2017</u>	<u>2016</u>	<u>2015</u>	<u>2014</u>	<u>2013</u>	<u>2012</u>	<u>2011</u>	<u>2010</u>
Outstanding Principal ⁽⁵⁾	\$185,252,698	\$198,021,678	\$185,598,197	\$170,821,830	\$179,270,356	\$136,479,114	\$121,778,599	\$126,004,616	\$116,833,740	\$93,332,236
City Springfield Population	153,060	154,341	154,758	153,703	153,991	153,060	153,060	153,060	153,060	153,060
Town of Ludlow Population ⁽¹⁾	21,472	21,502	21,502	21,103	21,103	21,103	21,103	21,103	21,103	21,103
Per Capita Debt	1,061	1,126	1,053	977	1,024	784	699	723	671	536
City of Springfield:										
Total Personal Income ⁽²⁾⁽³⁾	\$2,288,247,000	\$2,210,367,000	\$2,109,884,000	\$2,084,349,000	\$2,047,862,000	\$2,010,532,000	\$1,968,503,060	\$2,063,146,000	\$2,046,092,000	\$1,983,075,000
Town of Ludlow:										
Estimated Total Personal Income ⁽³⁾⁽⁴⁾	\$583,371,332	\$583,371,332	\$583,371,332	\$583,371,332	\$583,371,332	\$583,371,332	\$583,371,332	\$583,371,332	\$583,371,332	\$583,371,332
Debt per Personal Income	6.45%	7.09%	6.89%	6.40%	6.81%	5.26%	4.77%	4.76%	4.44%	3.64%

Source:

(1) from MA DOR

(2) from City of Springfield CAFR

(3) Per capita income data from U.S. Census Bureau, American Community Survey

(4) Estimated TPI was calculated using Ludlow population and estimated per capita income for zip code 01056

(5) Approximately 10% of the debt will be supported by the Wholesale customers

Table 8 Debt Coverage Last Ten Fiscal Years

	<u>2019</u>	<u>2018</u>	<u>2017</u>	<u>2016</u>	<u>2015</u>	<u>2014</u>	<u>2013</u>	<u>2012</u>	<u>2011</u>	<u>2010</u>
Operating Revenue										
Beginning revenue cash	\$30,858,423	\$23,543,264	\$35,282,607	\$40,949,346	\$24,945,725	\$28,447,735	\$29,905,720	\$24,545,452	\$10,169,064	\$13,957,648
Deposits to revenue acct	\$81,361,548	\$74,568,571	\$73,080,877	\$67,844,909	\$66,470,471	\$65,134,734	\$62,750,659	\$60,793,884	\$60,094,482	\$53,095,118
Total cash receipts	\$112,219,971	\$98,111,835	\$108,363,484	\$108,794,255	\$91,416,196	\$93,582,469	\$92,656,379	\$85,339,336	\$70,263,546	\$67,052,766
Operating Transfers										
To operating accts	51,368,058	\$42,859,242	\$46,681,334	\$44,787,949	\$44,173,446	\$40,571,463	\$40,666,127	\$39,250,965	\$41,290,761	\$37,302,848
To (from) debt service reserve	(\$638,043)	\$19,186	\$1,247,387	\$1,223,597	\$477,261	(\$13,242)	(\$236,031)	\$994,454	\$967,540	\$506,951
Total operating transfers	\$50,730,015	\$42,878,428	\$47,928,721	\$46,011,546	\$44,650,707	\$40,558,221	\$40,430,096	\$40,245,419	\$42,258,301	\$37,809,799
Net Revenue	\$61,489,956	\$55,233,407	\$60,434,763	\$62,782,709	\$46,765,489	\$53,024,248	\$52,226,283	\$45,093,918	\$28,005,246	\$29,242,967
Debt Service Requirement	\$17,191,399	\$16,897,703	\$15,348,323	\$12,837,884	\$10,689,535	\$10,500,118	\$9,886,089	\$9,779,096	\$7,305,143	\$6,673,379
Debt Coverage	357.7%	326.9%	393.8%	489.0%	437.5%	505.0%	528.3%	461.1%	383.4%	438.2%
Alternate (no begin balance)	178.2%	187.5%	163.9%	170.1%	204.1%	234.1%	225.8%	210.1%	244.2%	229.0%
125% of debt service required	\$21,489,249	\$21,122,129	\$19,185,404	\$16,047,355	\$13,361,919	\$13,125,148	\$12,357,611	\$12,223,870	\$9,131,429	\$8,341,724
140% of debt service required	\$24,067,959	\$23,656,784	\$21,487,652	\$17,973,038	\$14,965,349	\$14,700,165	\$13,840,525	\$13,690,735	\$10,227,200	\$9,342,730

Source: Commission Accounting System

Table 9 Population, Income and Employment Last Ten Calendar Years

	<u>2018</u>	<u>2017</u>	<u>2016</u>	<u>2015</u>	<u>2014</u>	<u>2013</u>	<u>2012</u>	<u>2011</u>	<u>2010</u>	<u>2009</u>
United States										
Total Personal Income (\$000)	\$17,813,035,000	\$16,820,250,000	\$16,115,630,000	\$15,324,108,725	\$14,708,582,165	\$14,151,427,000	\$13,401,868,693	\$12,981,740,848	\$12,353,777,000	\$11,916,773,000
Per Capita Income (\$)	\$54,446	\$51,640	\$49,831	\$47,665	\$46,129	\$44,765	\$42,693	\$41,663	\$39,937	\$38,846
Population	327,167,434	325,719,178	323,405,935	321,467,160	318,857,056	316,128,839	313,914,040	311,591,917	309,330,219	306,771,529
Employment	200,746,000	196,132,200	193,368,900	190,195,400	185,798,800	182,278,200	179,603,300	175,834,700	173,737,400	174,208,800
New England										
Total Personal Income (\$000)	\$1,008,436,200	\$952,330,566	\$915,452,998	\$867,004,548	\$831,543,055	\$801,066,757	\$763,754,701	\$740,176,699	\$705,912,532	\$684,352,455
Per Capita Income (\$)	\$67,893	\$64,303	\$62,033	\$58,863	\$56,642	\$54,797	\$52,446	\$51,074	\$48,840	\$47,513
Population	14,853,290	14,810,001	14,727,573	14,729,289	14,680,722	14,618,806	14,562,704	14,492,360	14,453,587	14,403,575
Employment	10,032,617	9,886,800	9,777,804	9,571,509	9,378,271	9,217,266	9,125,273	9,002,996	8,935,730	8,940,282
Massachusetts										
Total Personal Income (\$000)	\$494,764,600	\$463,930,693	\$444,812,504	\$414,723,656	\$399,204,457	\$383,152,205	\$363,459,345	\$353,228,041	\$336,319,665	\$324,495,729
Per Capita Income (\$)	\$71,683	\$67,630	\$65,186	\$61,032	\$59,182	\$57,248	\$54,687	\$53,261	\$51,304	\$49,788
Population	6,902,149	6,859,819	6,823,721	6,795,177	6,745,408	6,692,824	6,646,144	6,587,536	6,555,466	6,517,613
Employment	4,872,851	4,777,678	4,710,176	4,542,723	4,428,065	4,322,176	4,250,566	4,168,887	4,130,436	4,113,976
Western Massachusetts ⁽¹⁾										
Total Personal Income (\$000)	(2)	\$41,889,827	\$40,025,022	\$39,196,508	\$36,463,080	\$37,085,939	\$35,830,064	\$33,513,709	\$32,252,907	\$31,464,101
Per Capita Income (\$)	(2)	\$50,551	\$48,365	\$47,201	\$44,002	\$44,805		\$40,689	\$39,135	\$38,215
Population	(2)	828,667	827,568	830,411	828,677	827,721	827,274		824,138	823,343
Employment	(2)	494,421	493,325	478,874	470,214	465,367	454,490		446,402	446,278

(1) Includes Hampden, Hampshire, Franklin, Berkshire Counties

Source: Bureau of Economic Analysis Bureau of the Census

Boston Water and Sewer Commission CAFR

(2) 2018 information is not presented as it is unavailable

Table 10Demographic and Economic Statistics2018 Calendar Year End Summary

	Springfield,	United
	<u>MA ⁽¹⁾</u>	States ⁽²⁾
ECONOMY		
Unemployment Rate	4.1%	3.9%
Recent Job Growth	4.2%	0.4%
3 Year Average	2.6%	1.0%
5 Year Average	2.2%	1.3%
Future Job Growth*	1.0%	1.3%
Sales Tax	6.25%	0.0%
Income Per Capita	\$ 20,046	\$ 33,831
Household Income (Median)	\$ 37,118	\$ 61,937
HOUSEHOLD INCOME		
Income less than 10K	15.1%	6.3%
Income betwee 10K and 15K	8.0%	4.3%
Income between 15K and 25K	15.5%	9.0%
Income between 25K and 35K	13.9%	8.9%
Income between 35K and 50K	10.8%	12.4%
Income between 50K and 75K	14.5%	17.4%
Income between 75K and 100K	8.5%	12.6%
Income between 100K and 150K	9.1%	15.0%
Income between 150K and 200K	2.3%	6.6%
Income greater than 200K	2.3%	7.6%
POPULATION BY OCCUPATION		
Management, business, science, and arts occupations	30.9%	38.6%
Service occupations	29.7%	17.8%
Sales and office occupations	18.2%	21.4%
Natural resources, construction, and mainentance occupations	3.9%	8.8%
Production, transportation, and material moving occupations	17.3%	13.3%

* Projected growth between 2017 and 2018

(1) Source: U.S. Census Bureau, 2018

(2) Source: Bureau of Labor Statistics 2018

Table 11Distribution of Customers by Account TypeLast Ten Fiscal Years

Water Accounts	2	<u>2019</u>	<u>2018</u>	<u>2017</u>	<u>2016</u>	<u>2015</u>	<u>2014</u>	<u>2013</u>	<u>2012</u>	<u>2011</u>	<u>2010</u>
Residential	4	40,462	40,394	40,358	40,303	40,226	40,245	40,274	40,242	40,377	40,246
Commercial		2,183	2,175	2,174	2,175	2,186	2,184	2,190	2,184	2,188	2,188
Industrial		85	86	87	88	91	92	92	95	97	94
Municipal		183	169	162	158	154	147	147	149	143	137
Solutia contract		25	25	23	24	24	22	23	23	23	23
Town contracts		6	6	6	6	6	6	6	6	6	6
	Totals 4	42,944	42,855	42,810	42,754	42,687	42,696	42,732	42,699	42,834	42,694
%	Change	0.2%	0.1%	0.1%	0.2%	0.0%	-0.1%	0.1%	-0.3%	0.3%	n/a
Sewer Accounts	2	<u>2019</u>	<u>2018</u>	<u>2017</u>	<u>2016</u>	<u>2015</u>	<u>2014</u>	<u>2013</u>	<u>2012</u>	<u>2011</u>	<u>2010</u>
Residential	3	35,412	35,347	35,298	35,243	35,181	35,205	35,224	35,220	35,321	35,192
Commercial		1,702	1,695	1,689	1,689	1,701	1,699	1,707	1,706	1,710	1,709
Industrial		100	101	102	104	104	105	105	107	108	105
Municipal		102	99	96	97	97	92	92	95	94	93
Food Service		61	65	67	71	70	70	70	72	74	73
Medical		19	19	19	19	19	19	20	20	20	20
Solutia contract		1	1	1	1	1	1	1	1	1	1
Town contracts		6	6	6	6	6	6	6	8	8	8
	Totals 3	37,403	37,333	37,278	37,230	37,179	37,197	37,225	37,229	37,336	37,201
%	Change	0.2%	0.1%	0.1%	0.1%	0.0%	-0.1%	0.0%	-0.3%	0.4%	n/a

Source: Commission Billing System

Table 12 Largest Private Employers Current Year and Nine Years Prior

		2019				201	010		
<u>Employer</u>	Nature of <u>Business</u>	<u>Employees</u>	<u>Rank</u>	Percentage of Total Commission <u>Employment</u>	Employees	<u>Rank</u>	Percentage of Total Commission <u>Employment</u>		
BayState Health Systems	Healthcare	8,859	1	13.3%	10,075	1	15.1%		
Massachusetts Mutual Financial Group	Insurance	4,296	2	6.5%	6,600	3	9.9%		
Sisters of Providence	Healthcare	2,775	3	4.2%	3,362	4	5.1%		
MGM Springfield	Entertainment	2,303	4	3.5%	n/a	n/a	n/a		
Smith & Wesson	Firearms	1,960	5	3.0%	800	7	1.2%		
Big Y	Grocery	965	6	1.5%	9,200	2	13.8%		
Western New England University	Education	875	7	1.3%	646	9	1.0%		
Springfield Technical Community College	Education	803	8	1.2%	979	5	1.5%		
Springfield College	Education	617	9	0.9%	780	8	1.2%		
Center for Human Development	Social Services	564	10	0.8%	921	6	1.4%		
Union News	Newspaper		n/a	n/a	550	10	0.8%		
		24,017		36.9%	33,913		51.0%		

Source: City of Springfield June 30, 2019 Comprehensive Annual Financial Report Official Statements, Massachusetts Department of Labor and Workforce Development

Table 13
Divisional Breakdown of SWSC Funded (Budgeted) Positions
Last Ten Budget Years

	<u>2019</u>	<u>2018</u>	<u>2017</u>	<u>2016</u>	<u>2015</u>	<u>2014</u>	<u>2013</u>	<u>2012</u>	<u>2011</u>	<u>2010</u>
Administration	9	8	7	7	8	8	9	8	7	8
General Accounting	4	4	4	4	4	4	4	4	4	5
Customer Service	8	8	8	8	8	8	8	7	7	9
Information Systems	10	10	7	6	5	5	5	4	4	4
Asset Management	4	4	4	0	0	0	0	0	0	0
Engineering	19	19	21	26	24	23	22	22	21	22
Operations Management Water	4	3	3	3	3	3	3	3	3	5
SERTS	0	1	1	0	0	1	1	1	1	0
Water Supply Administration	3	3	3	4	4	4	4	4	4	4
Ludlow Reservoir	6	6	6	7	6	6	6	6	6	7
Provin Mountain	9	9	9	9	8	8	8	8	8	8
West Parish Filters	36	37	35	35	36	41	41	39	38	44
Watershed Management	1	1	1	2	2	2	3	2	2	0
Borden Brook	3	3	3	0	0	0	0	0	0	0
Laboratory	5	5	5	5	5	5	5	5	5	0
Cross Connection Control	4	4	4	5	5	5	5	5	5	5
Warehouse Management	4	4	4	4	4	5	5	5	5	5
Customer Field Service	6	5	5	5	6	6	7	7	7	9
Meters & Field Service	22	22	22	21	22	21	23	21	21	21
Water Quality	13	13	14	17	18	20	20	19	16	16
Water Distribution	35	36	35	34	33	34	31	32	31	32
WW Operations Management	1	1	1	1	1	1	1	1	1	0
Sewer Collection Services	41	39	39	38	36	28	29	27	27	29
Industrial Pretreatment	2	2	2	2	2	2	2	2	2	2
FOG	1	1	1	2	2	2	3	3	1	1
Wastewater Treatment	0	0	0	0	1	1	1	1	1	1
Totals	250	248	244	245	243	243	246	236	227	237

Source: Commission Budget Documents

Table 14 Water and Sewer Distribution System Year-End 2019 Summary

Water Distribution System

6,222

19,658

46,306

Appurtenances

Water Main City Wide

Hydrants Valves Meters

Total Linear Feet	3,063,968
Total Linear Miles	580
Water Booster Pump Stations	5

Sewer Collection System

Appurtenances

CSO Regulator Structures & Outfalls	23
Manholes	11,417
Regulators	23
Flood Control Gates	42

Sewer Pipes City Wide

Total Linear Feet	2,485,296
Combined Sewer Miles Separated Sewer Miles	151 320
Total Sewer Miles	471
Sewage Pumping Stations	27
Flood Control Pumping Stations	7
Active CSO's	23

Source: Commission's GIS System

Table 15Insurance Coverage2019 - 2020

<u>Provider</u>	Policy Period	<u>Type of Coverage</u>	Liability <u>Limits</u>	Annual <u>Premium</u>
ACE American Insurance Company	4/2/19 - 4/2/20	Property	\$ 100,000,000	\$ 173,967
Navigators Insurance Company	4/2/19 - 4/2/20	Special Excess Liability	\$ 15,000,000	\$ 64,000
Allied World Insurance	4/2/19 - 4/2/20	Excess Liability	\$ 10,000,000	\$ 49,537
Allied World Insurance	4/2/19 - 4/2/20	Primary Liability (with Auto)	\$ 1,000,000/3,000,000	\$ 40,259
Safety Insurance Company	4/2/19 - 4/2/20	Automobile	\$ 1,000,000	\$ 3,358
Hanover Insurance Group	4/2/19 - 4/2/20	Crime	\$ 1,000,000	\$ 4,746

Source: Commission's Insurance Records

Table 16 Water and Sewer Sales Last Ten Fiscal Years

Water Revenues										
	<u>2019</u>	<u>2018</u>	<u>2017</u>	<u>2016</u>	<u>2015</u>	<u>2014</u>	<u>2013</u>	<u>2012</u>	<u>2011</u>	<u>2010</u>
Residential	\$15,616,135	\$14,911,091	\$15,218,954	\$14,381,642	\$13,415,558	\$12,876,718	\$13,064,819	\$11,890,448	\$12,089,818	\$10,584,622
Commercial	4,563,718	4,018,447	3,902,296	3,752,587	3,427,199	3,324,153	3,322,916	3,268,464	3,157,106	2,880,290
Industrial	973,305	1,019,910	944,766	1,080,588	1,136,290	962,255	944,594	1,057,444	1,327,881	879,719
Municipal	475,838	428,362	472,383	432,235	348,218	332,415	389,889	358,006	362,457	174,344
Solutia contract	5,944,006	5,521,688	5,536,360	5,352,632	5,107,358	5,750,299	4,732,387	5,252,409	4,453,112	3,227,071
Town contracts	4,295,035	4,293,041	4,162,012	2,327,342	3,927,297	3,816,647	3,675,537	3,105,189	3,067,939	3,056,140
Total	\$31,868,037	\$30,192,539	\$30,236,771	\$27,327,026	\$27,361,920	\$27,062,487	\$26,130,142	\$24,931,961	\$24,458,313	\$20,802,186
% Change	5.5%	-0.1%	10.6%	-0.1%	1.1%	3.6%	4.8%	1.9%	17.6%	n/a
Sewer Revenues										
Sewer Revenues										
Sewer Revenues	<u>2019</u>	<u>2018</u>	<u>2017</u>	<u>2016</u>	<u>2015</u>	<u>2014</u>	<u>2013</u>	<u>2012</u>	<u>2011</u>	<u>2010</u>
Residential	<u>2019</u> \$23,742,570	<u>2018</u> \$22,283,701	<u>2017</u> \$22,417,606	<u>2016</u> \$21,468,222	<u>2015</u> \$20,201,407	<u>2014</u> \$18,299,524	<u>2013</u> \$18,088,104	<u>2012</u> \$16,268,439	<u>2011</u> \$16,029,451	<u>2010</u> \$13,445,959
Residential	\$23,742,570	\$22,283,701	\$22,417,606	\$21,468,222	\$20,201,407	\$18,299,524	\$18,088,104	\$16,268,439	\$16,029,451	\$13,445,959
Residential Commercial	\$23,742,570 4,300,077	\$22,283,701 3,656,813	\$22,417,606 3,335,785	\$21,468,222 3,229,732	\$20,201,407 2,965,577	\$18,299,524 2,719,577	\$18,088,104 2,560,645	\$16,268,439 2,462,284	\$16,029,451 2,293,367	\$13,445,959 2,380,012
Residential Commercial Industrial	\$23,742,570 4,300,077 1,167,164	\$22,283,701 3,656,813 1,142,754	\$22,417,606 3,335,785 1,102,505	\$21,468,222 3,229,732 1,004,203	\$20,201,407 2,965,577 912,485	\$18,299,524 2,719,577 806,654	\$18,088,104 2,560,645 836,129	\$16,268,439 2,462,284 733,930	\$16,029,451 2,293,367 677,357	\$13,445,959 2,380,012 753,881
Residential Commercial Industrial Municipal	\$23,742,570 4,300,077 1,167,164 368,578	\$22,283,701 3,656,813 1,142,754 342,826	\$22,417,606 3,335,785 1,102,505 339,232	\$21,468,222 3,229,732 1,004,203 352,828	\$20,201,407 2,965,577 912,485 304,162	\$18,299,524 2,719,577 806,654 276,567	\$18,088,104 2,560,645 836,129 261,290	\$16,268,439 2,462,284 733,930 250,156	\$16,029,451 2,293,367 677,357 245,215	\$13,445,959 2,380,012 753,881 222,698
Residential Commercial Industrial Municipal FoodServ	\$23,742,570 4,300,077 1,167,164 368,578 215,004	\$22,283,701 3,656,813 1,142,754 342,826 228,551	\$22,417,606 3,335,785 1,102,505 339,232 226,155	\$21,468,222 3,229,732 1,004,203 352,828 217,125	\$20,201,407 2,965,577 912,485 304,162 202,774	\$18,299,524 2,719,577 806,654 276,567 184,378	\$18,088,104 2,560,645 836,129 261,290 184,039	\$16,268,439 2,462,284 733,930 250,156 196,404	\$16,029,451 2,293,367 677,357 245,215 180,897	\$13,445,959 2,380,012 753,881 222,698 227,807
Residential Commercial Industrial Municipal FoodServ Medical	\$23,742,570 4,300,077 1,167,164 368,578 215,004 921,445	\$22,283,701 3,656,813 1,142,754 342,826 228,551 914,203	\$22,417,606 3,335,785 1,102,505 339,232 226,155 848,081	\$21,468,222 3,229,732 1,004,203 352,828 217,125 868,499	\$20,201,407 2,965,577 912,485 304,162 202,774 760,404	\$18,299,524 2,719,577 806,654 276,567 184,378 760,560	\$18,088,104 2,560,645 836,129 261,290 184,039 790,687	\$16,268,439 2,462,284 733,930 250,156 196,404 762,874	\$16,029,451 2,293,367 677,357 245,215 180,897 673,337	\$13,445,959 2,380,012 753,881 222,698 227,807 629,875
Residential Commercial Industrial Municipal FoodServ Medical Solutia contract	\$23,742,570 4,300,077 1,167,164 368,578 215,004 921,445 1,822,289	\$22,283,701 3,656,813 1,142,754 342,826 228,551 914,203 2,247,072	\$22,417,606 3,335,785 1,102,505 339,232 226,155 848,081 2,078,416	\$21,468,222 3,229,732 1,004,203 352,828 217,125 868,499 2,014,469	\$20,201,407 2,965,577 912,485 304,162 202,774 760,404 2,261,036	\$18,299,524 2,719,577 806,654 276,567 184,378 760,560 2,206,801	\$18,088,104 2,560,645 836,129 261,290 184,039 790,687 2,185,406	\$16,268,439 2,462,284 733,930 250,156 196,404 762,874 2,210,627	\$16,029,451 2,293,367 677,357 245,215 180,897 673,337 1,980,404	\$13,445,959 2,380,012 753,881 222,698 227,807 629,875 1,999,189

Source: Commission Billing System

Table 17 Capital Spending by Category Last Ten Fiscal Years

		<u>2019</u>	<u>2018</u>	<u>2017</u>	<u>2016</u>	<u>2015</u>	<u>2014</u>	<u>2013</u>	<u>2012</u>	<u>2011</u>	<u>2010</u>	<u>Totals</u>	<u>% of Total</u>
Water	\$	9,454,096 \$	8,086,519 \$	7,516,116 \$	15,371,825 \$	14,281,580 \$	4,744,033 \$	7,631,526 \$	10,833,266 \$	6,845,872 \$	9,650,336 \$	94,415,169	36%
Sewer		8,869,437	15,705,575	19,415,137	17,824,767	11,796,065	24,317,434	10,708,220	6,357,393	11,232,806	16,100,419	142,327,253	55%
Power Generation		539,395	952,337	894,471	253,744	221,315	652,885	249,872	117,351	4,723	109,068	3,995,161	2%
Support	_	945,701	1,152,620	2,484,984	2,255,125	2,528,713	2,465,150	3,444,255	1,831,025	625,839	1,837,328	19,570,740	8%
Total	\$	19,808,629 \$	25,897,051 \$	30,310,708 \$	35,705,461 \$	28,827,673 \$	32,179,502 \$	22,033,873 \$	19,139,035 \$	18,709,240 \$	27,697,151 \$	260,308,323	100%

Source: Commission's Accounting System