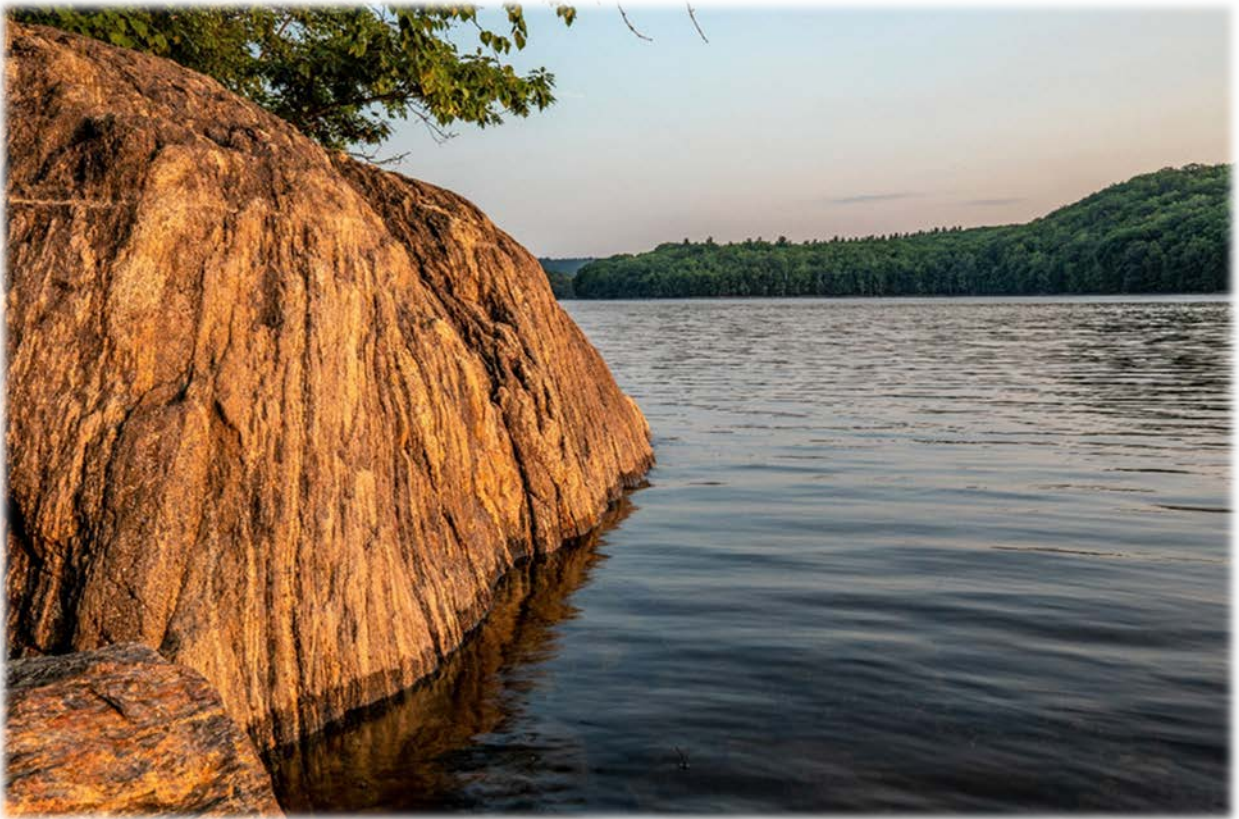


Springfield

Water and Sewer Commission

Springfield, Massachusetts



Comprehensive Annual Financial Report

For the Fiscal Year Ended June 30, 2018

SPRINGFIELD WATER AND SEWER COMMISSION

Springfield, Massachusetts

Comprehensive Annual Financial Report
For the Year Ended June 30, 2018



COMMISSIONERS

Vanessa Otero, Chair
Daniel Rodriguez
William Leonard

Joshua D. Schimmel
Executive Director

Anthony J. Basile
Comptroller

Domenic P. Pellegrino
Finance Director

Prepared by Financial Group

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**SPRINGFIELD WATER
AND SEWER COMMISSION**

Post Office Box 995
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November 5, 2018

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, 2018. 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, 2018.

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 2018 because the Commission's federal expenditures were above \$750,000.

In April 2017, based on continued strengthening and formalization of strong financial and operational practices and policies; extremely strong all-in coverage metrics and an adequate water supply to meet future demands and willingness to adjust rates to fund necessary capital improvements, the Standard & Poor's Ratings Services assigned the Commission a long-term rating upgrade of AA Stable. "The

rating reflects the combination of a very strong enterprise risk profile and extremely strong financial risk”. This bond rating realizes lower financing costs and a smaller burden on the ratepayers in Springfield and the surrounding towns.

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 and Wilbraham.

POWER GENERATION

The Commission owns Cobble Mountain Hydro-Power Station which is located in the Town of Granville, Massachusetts. The Station utilizes stored water 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 can produce up to 33 Megawatt-hours at full capacity through three turbine generators; two rated at 13.6 Megawatts and one at 5.7 Megawatts. In fiscal year 2018, the plant output was 14,170 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 2018 to meet the average annual power supply needs of approximately 1,850 homes in Massachusetts.

SEWER SYSTEM

Wastewater Collection

The Springfield Water and Sewer Commission services approximately 37,300 sewer accounts. The sewer collection consists of 151 miles of combined sewer (sewer and stormwater pipe), 320 miles of separated sewer pipe, 23 combined sewer overflow outfalls, 11,351 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.

Wastewater Treatment



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 state-of-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 an adequate, uninterrupted, high quality 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 cost-efficient 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>	<u>Method of Selection</u>	<u>Term Expiration</u>
Chair	Vanessa Otero	Appointed by Mayor	June 30, 2019
Commissioner	Daniel Rodriguez	Appointed by Mayor	June 30, 2020
Commissioner	William E. Leonard	Appointed by Mayor	June 30, 2021

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.

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

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.

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 ten-year contract which commenced on July 1, 2008. Beginning July 1, 2018, the Commission and Solutia agreed to extend the existing agreement six months. Currently both parties are in the process of executing a new five-year contract that will commence on July 1, 2018. 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, East Longmeadow and Longmeadow commenced on July 1, 2014. The Town of Southwick's contract was extended to June 30, 2019 with an option to terminate earlier. 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.

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 153,703 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 and Citizen's 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 and Holyoke's St. Patrick's Day Parade.

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 3,000 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 adequate, 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

- Rehabilitation planning and design for maintenance of Dam Facilities including rehabilitation evaluation of the Intake Dam and preliminary design of outlet structures and sluice gates at the Cherry Valley Dam in Ludlow.
- Water Treatment Plant Facilities long term Planning Phase II engineering. Current fiscal year Water Treatment Plant Facilities improvement projects that will commence include chlorine feed piping replacement, new bulk storage chemical room, improvements to chlorine building, extension of emergency back-up plant power, clearwell cover system, replacement of two bridges at the water treatment plant site, and purchase of land for water supply protection.
- At the Provin Mountain water storage facility, planned improvement include the addition of mixers in the three operational storage tanks, a cover system for Tank 2, and isolation of Tank 1 for future demolition.
- Water Main Replacement in conjunction with the 2017-18 infrastructure project includes replacement of approximately 18,000 linear feet of water main at various location across the City.
- Installation of a new Booster Station in Ludlow to provide sufficient water pressure and fire protection to a group of homes on Skyridge and Michael Streets.

Wastewater

- Comprehensive collection system cleaning, condition assessment and system mapping.
- 2017-18 sewer infrastructure improvements construction project and design of the 2018-19 sewer system improvements.
- Advanced Final Design of the York Street Pump Station and Connecticut River Crossing project.
- Completed the Main Interceptor rehabilitation project.
- Provided extensive comments on EPA draft NPDES Permit for the Wastewater Treatment Plant.

Power Generation

- Power Generation System Improvements including replacement of select power transmission poles (637 Line) - Phase I, refurbishing and re-installing Unit #2 butter fly valve and actuator, and reinforcing weld seam at Penstock #2.
- Engineering, final design, and production of bid documents for bidding the replacement of three governors and servomotors project.
- Engineering and draft final design for the major overhaul and rehabilitation of Power Unit #2.
- Vegetation control in the vicinity of the power lines.

System Wide Support

- Replacement of a canopy roof structure at the Operations Center.
- Continued support of the Commission’s Fleet replacement program.
- SWSC systems wide implementation of an Asset Management Program.
- Replacement of Central SCADA System at West Parish Filters, as well as satellite facilities including Provin Mountain storage tanks and Worcester Street Pump Station.
- Design and construction for Equipment Storage Facility.

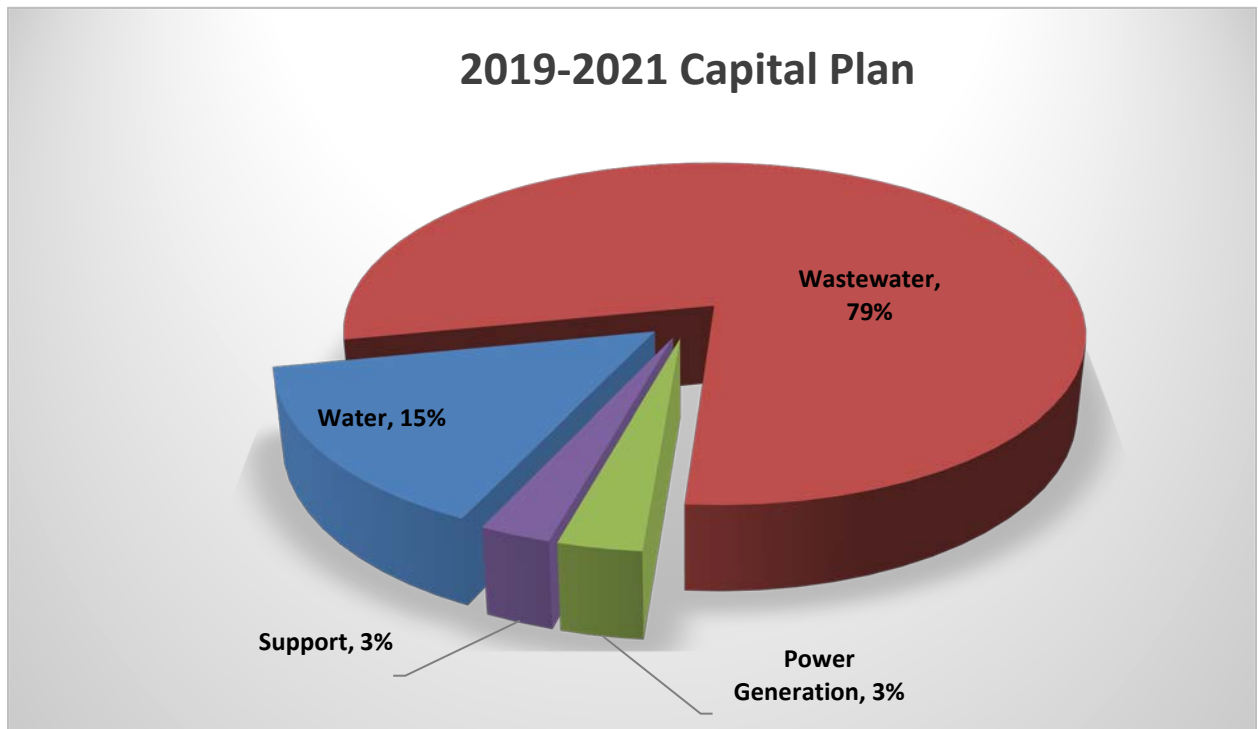
Two sources fund the Commission’s Capital Improvement Program as indicated in Table I, Revenues and Reserves and Bonds. Bonding, which will fund 78 % of the three-year Capital plan, includes revenue bonds and State Revolving Fund (SRF) loans. Projects, typically funded through Bonds, are large scale projects over \$1M.

2019-2021 Capital Improvement Program			
Funding Sources			
Funding Source	2019	2020	2021
Revenues and Reserves	\$ 8,757,000	\$ 8,016,000	\$ 7,655,000
Bonds*	\$ 106,455,000	\$ 4,530,000	\$ 2,806,000
Total	\$ 115,212,000	\$ 12,546,000	\$ 10,461,000
*Includes SRF Funding			

Activity Area	2019	2020	2021
Water	\$ 8,689,000	\$ 8,380,000	\$ 3,525,000
Wastewater	\$ 104,085,000	\$ 2,850,000	\$ 2,850,000
Power Generation	\$ 1,245,000	\$ 111,000	\$ 2,881,000
Support	\$ 1,193,000	\$ 1,205,000	\$ 1,205,000
Total	\$115,212,000	\$ 12,546,000	\$ 10,461,000

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 79% Wastewater improvements, 15% Water improvements, 3% Power Generation projects and 3% 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 \$120,423,700 for the three-year period 2018-2020. Expenditures are divided in four categories: Water Projects total \$22,644,000, Sewer Projects total \$84,665,700, Power Generation Projects total \$9,335,000 and other Support Projects total \$3,779,000.

Funding approval for the Fiscal Year 2018 Capital Projects total \$22,164,700. The spending plan is as follows: Water Projects total \$10,598,000 (48%), Sewer Projects total \$9,312,700 (42%), Power Generation Projects total \$1,035,000 (5%), and other Support Projects total \$1,219,000 (5%).

The various infrastructure capital projects scheduled in fiscal year 2019 include:

- The final designs for the York Street Pumping Station and Connecticut River sewer crossing and CSO project,
- The 42-inch diameter raw water conveyance rehabilitation and valves project,
- Water Treatment Plant facilities improvement projects including improved chemical facilities, electrical distribution improvements, and a new on-site bridge,
- The construction of two large water main replacement projects and
- The construction of a significant sewer main rehabilitation project.

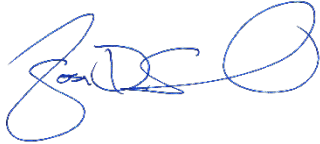
Historically, the Commission replaces or rehabilitates over a mile water distribution pipe and sewer main per year.

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,

A handwritten signature in blue ink, appearing to read "Joshua D. Schimmel". The signature is fluid and cursive, with a large loop at the end.

Joshua D. Schimmel
Executive Director



Government Finance Officers Association

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Achievement
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Presented to

**Springfield Water and Sewer Commission
Massachusetts**

For its Comprehensive Annual
Financial Report
for the Fiscal Year Ended

June 30, 2017

Christopher P. Morrill

Executive Director/CEO

SPRINGFIELD WATER AND SEWER COMMISSION

Commissioners

Vanessa Otero, Chair

Daniel Rodriguez

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

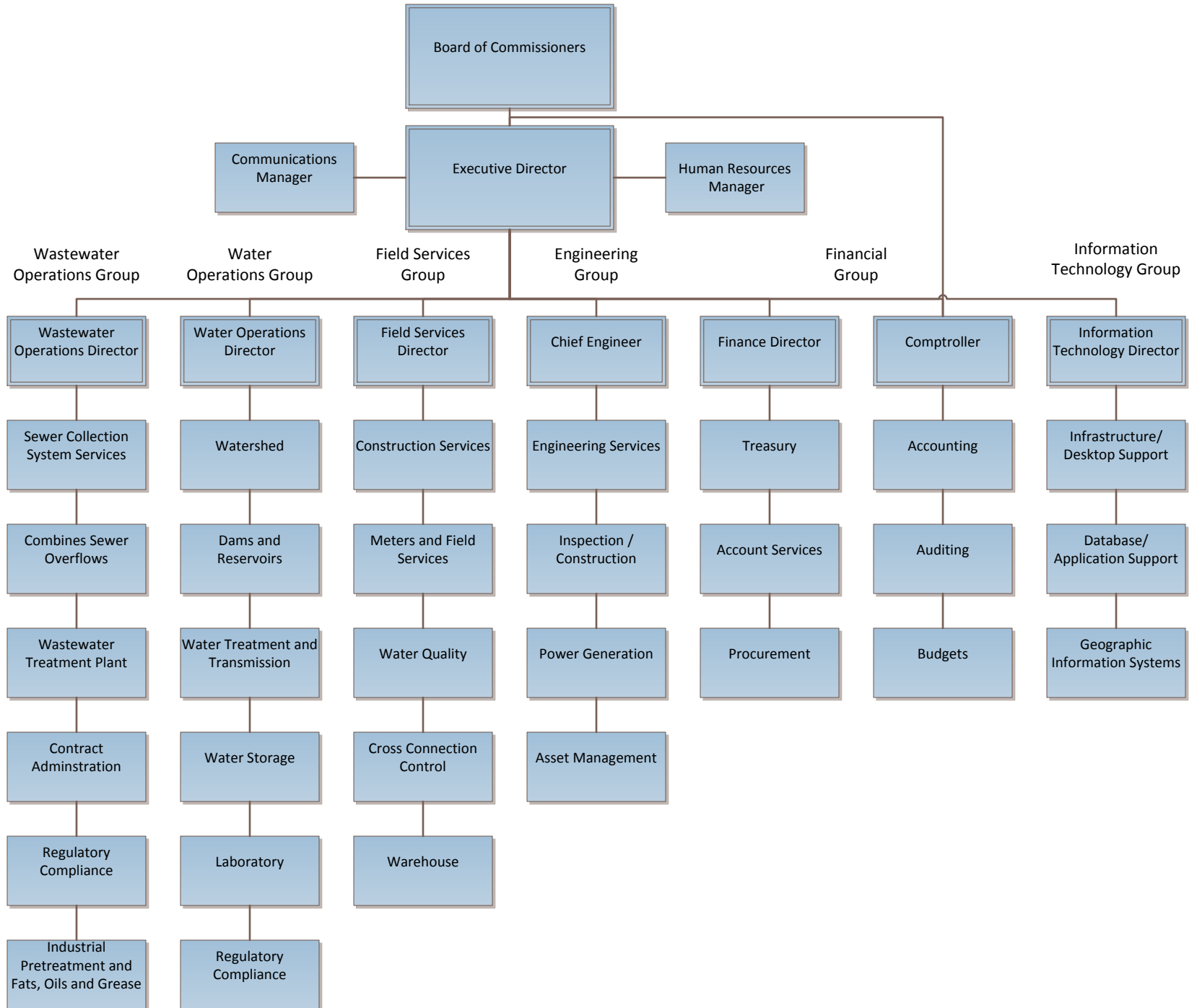
James M. Richardson, Information Technology Director

Susan Tower, Laboratory and Regulatory Manager

Jaimye Bartak, Communications Manager

Springfield Water and Sewer Commission

Organization Chart



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, 2018 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, 2018, 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, the Pension and OPEB Schedules and the Schedule of Operating Expenditures: Budget and Actual, appearing on pages 54 to 59 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.

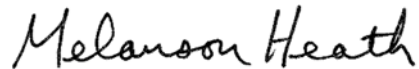
Other Information

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 accompanying supplementary information appearing on pages 60 through 78 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 5, 2018, 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.

A handwritten signature in black ink that reads "Melanson Heath". The signature is written in a cursive, flowing style.

November 5, 2018

MANAGEMENT'S DISCUSSION AND ANALYSIS

As management of the Springfield Water and Sewer 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, 2018.

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, 2018, it shows our net worth of \$124,895,503, which is comprised of \$135,716,523 invested in capital assets, \$58,368,491 restricted for other purposes, namely restricted cash and inventory, and a deficit of \$(69,189,511) 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, 2018 was a change of \$1,001,273.

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 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.

B. SUMMARY OF NET POSITION

	<u>2018</u>	<u>2017</u>
Current Assets	\$ 107,217,164	\$ 94,452,567
Noncurrent Assets	2,733,266	2,840,055
Capital Assets	<u>331,354,919</u>	<u>317,429,679</u>
Total Assets	441,305,349	414,722,301
Deferred Outflows of Resources	100,682,969	83,682,679
Current Liabilities	19,869,815	19,667,073
Noncurrent Liabilities	<u>278,547,153</u>	<u>250,985,194</u>
Total Liabilities	298,416,968	270,652,267
Deferred Inflows of Resources	118,675,847	103,858,483
Net Investment in Capital Assets	135,716,523	140,096,489
Restricted - Other Purposes	58,368,491	46,627,990
Unrestricted	<u>(69,189,511)</u>	<u>(62,830,249)</u>
Total Net Position	<u>\$ 124,895,503</u>	<u>\$ 123,894,230</u>

	<u>2018</u>	<u>2017</u>
Operating Revenues	\$ 76,648,551	\$ 71,080,673
Operating Expenses	<u>(57,955,221)</u>	<u>(58,206,763)</u>
Operating Income	18,693,330	12,873,910
Nonoperating Revenues (Expenses)	(3,878,014)	(4,289,220)
Special Items	<u>(13,814,043)</u>	<u>(11,035,127)</u>
Increase (Decrease) in Net Position	1,001,273	(2,450,437)
Beginning Net Position	<u>123,894,230</u>	<u>126,344,667</u>
Ending Net Position	<u>\$ 124,895,503</u>	<u>\$ 123,894,230</u>

C. FINANCIAL HIGHLIGHTS

The Commission ended the year with operating income of approximately \$18.7 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 2018, there was again an increase in collection efforts and an increase in rates, and in most cases, overall usage was more than anticipated. As a result, wastewater charges revenue and fees were approximately \$790,000 more than budget. Wholesale water charges and fees were less than budget by approximately \$(340,000). Power generation revenues were more than estimates by approximately \$330,000. These and other factors resulted in total operating revenue of approximately \$77 million in fiscal year 2018, approximately \$700,000 more than budget, and \$5.5 million more than the prior year.

Operating expenses were less than budget by approximately \$2.5 million, primarily as a result of vacant positions and less overtime needed than anticipated. In addition, there was conservative budgeting for general operational expenses and debt service interest.

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 to fund deferrals" on the statement of revenues, expenses and changes in fund net position, which was a decrease of \$(13,814,043) for fiscal year 2018.

As a result of the key elements described above, the activities for the year resulted in a change in net position of \$1,001,273.

D. CAPITAL ASSET AND DEBT ADMINISTRATION

Capital assets. Total investment in capital assets at year-end amounted to \$331,354,919 (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:

- Depreciation expense of \$(9.4 million).
- \$650,000 in electrical distribution upgrade.
- \$5 million in Main Interceptor projects.
- \$100,000 in hydrant projects.
- \$850,000 in meter replacements.
- \$500,000 in water treatment system improvements projects.
- \$3.3 million in York Street and river design projects.
- \$1.2 million in Washburn Street projects.
- \$2.1 million in sewer main rehabilitation projects.
- \$180,000 in transmission system rehabilitations.
- \$1.3 million in collection system assessment and rehabilitation.

- \$3.7 million in distribution system assessment and rehabilitation.
- New vehicle and equipment purchases of \$300,000.
- Computer software and equipment purchases of \$300,000.
- Various other rehab and improvement projects of \$3.8 million.

Additional information on the Commission's capital assets can be found at Footnote 10 on page 37.

Long-term debt. At the end of the current fiscal year, total bonded debt outstanding was \$198,021,678, 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 13 on page 40.

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

SPRINGFIELD WATER AND SEWER COMMISSION

STATEMENT OF NET POSITION

JUNE 30, 2018

ASSETS

Current:

Cash and short-term investments	\$ 27,598,762
Investments	8,797,478
Restricted cash	33,727,408
Restricted investments	25,327,563
Accounts receivable, net of allowance for uncollectibles	10,398,683
Intergovernmental receivable	730,810
Inventory, net of allowance	<u>636,460</u>
Total current assets	107,217,164

Noncurrent:

Intergovernmental receivable, net of current portion	1,215,903
Inventory held by others	1,022,136
Health insurance deposit	495,227
Capital assets, net of accumulated depreciation	275,492,293
Land and construction in progress	<u>55,862,626</u>
Total noncurrent assets	334,088,185

DEFERRED OUTFLOWS OF RESOURCES

Non-pension related deferred outflows of resources	95,231,607
Pension related deferred outflows of resources	<u>5,451,362</u>

TOTAL ASSETS AND DEFERRED OUTFLOWS OF RESOURCES

541,988,318

LIABILITIES

Current:

Accounts payable	2,979,778
Accrued payroll and withholdings	396,709
Notes payable	2,000,000
Accrued interest payable	1,918,538
Current portion of loans payable	12,482,737
Current portion of accrued compensated absences	<u>92,053</u>
Total current liabilities	19,869,815

Noncurrent:

Loans payable, net of current portion	185,538,941
Accrued compensated absences, net of current portion	1,369,244
Net pension liability	69,364,986
Net OPEB liability	22,034,440
Other accrued liabilities	<u>239,542</u>
Total noncurrent liabilities	278,547,153

DEFERRED INFLOWS OF RESOURCES

Non-pension related deferred inflows of resources	112,402,219
Pension related deferred inflows of resources	<u>6,273,628</u>

TOTAL LIABILITIES AND DEFERRED INFLOWS OF RESOURCES

417,092,815

NET POSITION

Net investment in capital assets	135,716,523
Restricted for:	
Reserve for inventory	1,658,596
Reserve for stabilization fund	12,122,575
Reserve for debt covenants and scholarships	44,587,320
Unrestricted	<u>(69,189,511)</u>
TOTAL NET POSITION	<u>\$ 124,895,503</u>

The accompanying notes are an integral part of these financial statements.

SPRINGFIELD WATER AND SEWER COMMISSION

STATEMENT OF REVENUES, EXPENSES AND
CHANGES IN FUND NET POSITION

FOR THE YEAR ENDED JUNE 30, 2018

Operating Revenues:	
Water and sewer usage	\$ 76,365,206
Other	<u>283,345</u>
Total Operating Revenues	76,648,551
 Operating Expenses:	
Salaries and wages	13,415,407
Employee benefits	9,119,516
Operations	23,625,366
Intergovernmental	586,514
Capital outlay	1,213,715
Depreciation and amortization	9,494,640
Other	<u>500,063</u>
Total Operating Expenses	<u>57,955,221</u>
Operating Income	18,693,330
 Nonoperating Revenues (Expenses):	
Interest income	768,883
Interest expense	(5,455,009)
Grant reimbursement revenue	<u>808,112</u>
Total Nonoperating Revenues (Expenses), Net	<u>(3,878,014)</u>
Excess revenues before deferral adjustments	14,815,316
Excess revenues used to fund deferrals	<u>(13,814,043)</u>
Change in Net Position	1,001,273
Net Position at Beginning of Year	<u>123,894,230</u>
Net Position at End of Year	<u>\$ 124,895,503</u>

The accompanying notes are an integral part of these financial statements.

SPRINGFIELD WATER AND SEWER COMMISSION

STATEMENT OF CASH FLOWS

FOR THE YEAR ENDED JUNE 30, 2018

<u>Cash Flows From Operating Activities:</u>	
Receipts from customers and users	\$ 74,100,023
Payments to vendors	(36,468,940)
Payments to employees	(13,141,425)
Net Cash Provided By Operating Activities	<u>24,489,658</u>
<u>Cash Flows From Noncapital Financing Activities:</u>	
Intergovernmental reimbursements	<u>268,859</u>
Net Cash Provided By Noncapital Financing Activities	268,859
<u>Cash Flows From Capital and Related Financing Activities:</u>	
Acquisition and construction of capital assets	(23,320,121)
Proceeds from intergovernmental loans and grants	7,850,217
Issuance of bonds	24,661,731
Principal payments on bonds and loans	(12,246,064)
Payments of interest	(5,055,677)
Net Cash (Used For) Capital and Related Financing Activities	<u>(8,109,914)</u>
<u>Cash Flows From Investing Activities:</u>	
Purchase of investments	(4,614,165)
Receipt of investment income	<u>768,883</u>
Net Cash (Used For) Investing Activities	<u>(3,845,282)</u>
Net Change in Cash and Short-Term Investments	12,803,321
Cash and Short Term Investments, Beginning of Year	<u>48,522,849</u>
Cash and Short Term Investments, End of Year	<u>\$ 61,326,170</u>
<u>Reconciliation of Operating Income to Net Cash Provided by (Used For) Operating Activities:</u>	
Operating income	\$ 18,693,330
Adjustments to reconcile operating income to net cash provided by (used for) operating activities:	
Depreciation and amortization	9,494,640
Changes in assets, liabilities, and deferred outflows/inflows	
Accounts receivable	(2,548,528)
Inventory	(14,295)
Deferred outflows	(832,144)
Accounts payable and accrued payroll	(1,306,666)
Accrued compensated absences	13,188
Net pension liability	(999,848)
Net OPEB liability	(1,423,711)
Deferred inflows	3,494,102
Other accrued liabilities	(80,410)
Net Cash Provided By Operating Activities	<u>\$ 24,489,658</u>

The accompanying notes are an integral part of these financial statements.

SPRINGFIELD WATER AND SEWER COMMISSION
STATEMENT OF FIDUCIARY NET POSITION
OTHER POST-EMPLOYMENT BENEFIT TRUST FUND
JUNE 30, 2018

ASSETS	
Current:	
Cash	\$ 9,123
Investments	<u>1,798,908</u>
TOTAL ASSETS	1,808,031
 NET POSITION	
Total net position restricted for OPEB	<u>1,808,031</u>
TOTAL NET POSITION	<u><u>\$ 1,808,031</u></u>

The accompanying notes are an integral part of these financial statements.

SPRINGFIELD WATER AND SEWER COMMISSION
 STATEMENT OF CHANGES IN FIDUCIARY NET POSITION
 OTHER POST-EMPLOYMENT BENEFIT TRUST FUND
 FOR THE YEAR ENDED JUNE 30, 2018

Additions:	
Employer contributions	\$ 1,450,775
Interest	<u>52,445</u>
Total Additions	1,503,220
 Deductions:	
Benefit payments	<u>450,775</u>
Change in Net Position	1,052,445
 Net Position restricted for benefits:	
Beginning of Year	<u>755,586</u>
End of Year	<u><u>\$ 1,808,031</u></u>

The accompanying notes are an integral part of these financial statements.

SPRINGFIELD WATER AND SEWER COMMISSION

Notes to Financial Statements

1. Summary of Significant Accounting Policies

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. Regulation and Basis of Accounting

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. Investments

Investments consist of certificates of deposit, governmental bonds and mutual funds, and are carried at mark value, fair value, except certificate 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. Capital Assets

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:

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

H. Compensated Absences

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. Net Position

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. Use of Estimates

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. Stewardship, Compliance and Accountability

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 sixty percent 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, 2018, none of the Commission's bank balance of \$62,545,407 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 Commission's cash balance is \$7,872,051 voted by the Commission in prior years that has been reserved for ongoing capital projects.

4. Restricted Cash and Investments

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, 2018:

Stabilization Fund	\$ 12,122,575
Reserve Funds:	
Operating Reserve Fund	8,613,185
Renewal/Replacement Fund	1,000,000
Debt Service Fund	17,445,846
Debt Service Reserve Fund	17,445,846
Other Funds:	
Project Accounts	2,345,076
Scholarship Trust Fund	82,443
Total	<u>\$ 59,054,971</u>
Restricted balances:	
Restricted cash	33,727,408
Restricted investments	<u>25,327,563</u>
Total	<u>\$ 59,054,971</u>

5. Investments

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, corporate equities and mutual funds are exempt from credit risk, and all government bonds have an implied rating of AAA.

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 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).

The Commission's investments are 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. The Commission manages this custodial credit risk with SIPC and excess SIPC.

C. Concentration of Credit Risk

The Commission's investment policy places no limit on the amount that may be invested in any one issuer. There are no investments in any one issuer greater than 5% of 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 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:

<u>Investment Type</u>	<u>Amount</u>	Exempt from <u>Disclosure</u>	<u>Investment Maturities (in Years)</u>	
			<u>Less Than 1</u>	<u>1-5</u>
Certificates of deposit	\$ 13,425,794	\$ -	\$ 4,874,181	\$ 8,551,613
Corporate equities	1,125,588	1,125,588	-	-
Government bonds	20,699,246	-	7,154,314	13,544,932
Bond mutual funds	<u>673,321</u>	<u>673,321</u>	<u>-</u>	<u>-</u>
Total investments	<u>\$ 35,923,949</u>	<u>\$ 1,798,909</u>	<u>\$ 12,028,495</u>	<u>\$ 22,096,545</u>

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. Level 1 inputs are quoted prices in active markets for identical assets; Level 2 inputs are significant other observable inputs; Level 3 inputs are significant unobservable inputs.

As of June 30, 2018 all of the Commission's investments in governmental bonds, corporate equities and mutual funds are considered Level 1. Certificates of deposit are exempt from fair value disclosure.

6. Accounts Receivable

Accounts receivable consist of the following at June 30, 2018:

Customer Accounts:	
Billed water, sewer and wastewater regional	\$ 4,164,095
Less: allowances	<u>(490,196)</u>
Total billed	3,673,899
Unbilled water (including power generation) and sewer	5,922,929
Adjustment to wastewater regional and sewer pump station for actual usage through June 30, 2018	<u>801,855</u>
Total customer accounts	<u>\$ 10,398,683</u>

7. Intergovernmental Receivables

The balance in this account represents the following:

	<u>Current</u>	<u>Non Current</u>
Massachusetts Clean Water Trust loan funds not yet requested (or expended on project costs) as of June 30, 2018. These funds are expected to be drawn down as project costs are incurred in fiscal year 2019.	\$ 624,021	\$ -
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.	<u>106,789</u>	<u>1,215,903</u>
Total Balance June 30, 2018	<u>\$ 730,810</u>	<u>\$ 1,215,903</u>

8. Inventory for Consumption

This inventory balance at June 30, 2018 consists of the following:

Fuel inventory (gasoline and diesel)	\$ 64,241
Materials inventory (parts and supplies)	821,725
Less adjustment for obsolete and slow moving materials inventory	<u>(249,506)</u>
Total	<u>\$ 636,460</u>

9. 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.

10. Capital Assets

Capital asset activity for the year ended June 30, 2018 was as follows (in thousands):

	<u>Beginning Balance</u>	<u>Increases</u>	<u>Decreases</u>	<u>Convert CIP</u>	<u>Ending Balance</u>
Capital assets, being depreciated:					
Furniture and fixtures	\$ 10,029	\$ -	\$ -	\$ 2,006	\$ 12,035
Vehicles and equipment	10,629	-	-	1,068	11,697
Buildings and improvements	8,984	-	-	-	8,984
Infrastructure	<u>375,451</u>	<u>-</u>	<u>-</u>	<u>36,826</u>	<u>412,277</u>
Total capital assets, being depreciated	405,093	-	-	39,900	444,993
Less accumulated depreciation for:					
Furniture and fixtures	(6,027)	(858)	-	-	(6,885)
Vehicles and equipment	(8,671)	(1,034)	-	-	(9,705)
Buildings and improvements	(2,421)	(304)	-	-	(2,725)
Infrastructure	<u>(142,987)</u>	<u>(7,199)</u>	<u>-</u>	<u>-</u>	<u>(150,186)</u>
Total accumulated depreciation	<u>(160,106)</u>	<u>(9,395)</u>	<u>-</u>	<u>-</u>	<u>(169,501)</u>
Total capital assets, being depreciated, net	244,987	(9,395)	-	39,900	275,492
Capital assets, not being depreciated:					
Land	5,651	-	-	-	5,651
Construction in progress (CIP)	<u>66,791</u>	<u>23,321</u>	<u>-</u>	<u>(39,900)</u>	<u>50,212</u>
Total capital assets, not being depreciated	<u>72,442</u>	<u>23,321</u>	<u>-</u>	<u>(39,900)</u>	<u>55,863</u>
Capital assets, net	<u>\$ 317,429</u>	<u>\$ 13,926</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ 331,355</u>

11. 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, 2018:

Non-pension related:	
Unamortized loss on refunding of debt	\$ 1,906,891
Deferred charges	<u>93,324,716</u>
Total Non-Pension Related	95,231,607
Total Pension Related	<u>5,451,362</u>
Total Deferred Outflows	<u>\$ 100,682,969</u>

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 obligation, 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, in accordance with GASB Statement No. 68 are more formally discussed in Note 15 on page 43.

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, 2018:

Non-pension related:	
Deferred credits	\$ 112,402,219
Pension Related	<u>6,273,628</u>
Total Deferred Inflows	<u>\$ 118,675,847</u>

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 will be recognized as expense in future years and are more fully described Note 15 on page 43.

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:

	06/30/17 <u>(Restated)</u>	Increase <u>(Decrease)</u>	06/30/18
<u>Deferred Charges</u>			
Accrued workers compensation	\$ 319,952	\$ (80,410)	\$ 239,542
Accrued compensated absences	1,448,109	13,188	1,461,297
Net pension liability	70,364,834	(999,848)	69,364,986
Net OPEB liability	23,458,151	(1,423,711)	22,034,440
Privatization costs	<u>324,210</u>	<u>(99,759)</u>	<u>224,451</u>
Total Deferred Charges	<u>\$ 95,915,256</u>	<u>\$ (2,590,540)</u>	<u>\$ 93,324,716</u>
<u>Deferred Credits</u>			
Capital improvements, net of depreciation	\$ 35,976,992	\$ (51,932)	\$ 35,925,060
Principal debt payments	64,606,738	11,375,194	75,981,932
Group insurance deposit	<u>495,227</u>	<u>-</u>	<u>495,227</u>
Total Deferred Credits	<u>\$ 101,078,957</u>	<u>\$ 11,323,262</u>	<u>\$ 112,402,219</u>
Net change for year		(13,913,802)	
Less privatization costs included in amortization expense		<u>99,759</u>	
Excess revenues used to fund deferrals		<u>\$ (13,814,043)</u>	

12. Notes Payable

During fiscal year 2017 the Commission was awarded an interim loan of \$2 million with the Massachusetts Clean Water Trust (MCWT) for additional costs related to the main interceptor project. The interim loan carries an interest rate of 0% and is scheduled to be converted to a permanent loan by the end of 2019.

The following summarizes activity in notes payable during fiscal year 2018:

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

13. Long-Term Debt

A. Revenue Bonds

Certain debt issued after separating from the City 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, 2018 follows:

	Serial Maturities <u>Through</u>	Interest Rate(s)% <u></u>	Loan Balance Outstanding <u>June 30, 2018</u>	Bond Premium <u>Amortization</u>	Total Balance <u>June 30, 2018</u>
Sewer (MCWT 94-24 / 95-07 / 98-133)	08/01/20	1.00 - 2.75	1,238,584	-	1,238,584
Sewer (United Water)	10/01/20	Various	211,702	-	211,702
Revenue bonds (refunding)	11/01/21	4.0 - 5.0	3,170,000	-	3,170,000
Sewer CSO (MCWT CW-01-39)	08/01/22	1.00 - 2.75	1,063,653	-	1,063,653
Revenue bonds - 2014C	07/15/26	3.0 - 5.0	13,080,000	2,138,808	15,218,808
Revenue bonds - 2008A	10/15/28	4.0 - 5.75	665,000	2,352	667,352
Sewer CSO (MCWT CW-08-36)	07/15/30	2.00	6,766,872	-	6,766,872
Revenue bonds - 2010B	11/15/30	3.0 - 5.0	4,095,000	338,645	4,433,645
Revenue bonds - 2017B (refunding)	04/15/31	2.0 - 5.0	20,865,000	3,442,453	24,307,453
Sewer CSO (MCWT CW-08-36-A)	07/15/32	2.00	4,841,030	-	4,841,030
Sewer CSO (MCWT CW-10-06)	07/15/32	2.00	1,353,491	-	1,353,491
Sewer CSO (MCWT CW-11-01)	07/15/32	2.00	5,049,010	-	5,049,010
Sewer CSO (MCWT CW-11-22)	01/15/33	2.00	1,237,416	-	1,237,416
Revenue bonds - 2014A	07/15/34	3.0 - 5.0	22,985,000	1,253,378	24,238,378
Sewer CSO (MCWT CW-12-03)	01/15/35	2.00	17,222,447	-	17,222,447
Sewer CSO (MCWT CW-13-16)	01/15/35	2.00	19,875,099	-	19,875,099
Sewer CSO (MCWT CW-14-27)	01/15/37	2.00	22,019,911	-	22,019,911
Sewer CSO (MCWT CW-06-27)	07/15/37	2.00	21,639,682	-	21,639,682
Revenue bonds - 2017C	07/14/17	2.0 - 5.0	20,055,000	3,412,145	23,467,145
Total Long-Term Debt			<u>\$ 187,433,897</u>	<u>\$ 10,587,781</u>	<u>\$ 198,021,678</u>

B. Future Debt Service

The annual payments to retire all general obligation long-term debt outstanding (including bond premium amortization) as of June 30, 2018 are as follows:

	<u>Principal</u>	<u>Interest</u>	<u>Total</u>
2019	\$ 12,482,737	\$ 6,160,119	\$ 18,642,856
2020	12,749,615	5,544,916	18,294,531
2021	12,940,603	5,474,988	18,415,591
2022	12,603,233	4,739,024	17,342,257
2023	11,994,854	4,323,897	16,318,751
2024 - 2028	59,173,338	15,715,063	74,888,401
2029 - 2033	49,342,364	7,354,629	56,696,993
Thereafter	<u>26,734,934</u>	<u>1,456,323</u>	<u>28,191,257</u>
Total	<u>\$ 198,021,678</u>	<u>\$ 50,768,959</u>	<u>\$ 248,790,637</u>

C. Changes in Long-Term Liabilities

During the year ended June 30, 2018, the following changes occurred in long-term liabilities:

	Total Balance 07/01/17 <u>(Restated)</u>	<u>Additions</u>	<u>Reductions</u>	Total Balance 06/30/18	Less Current Portion	Long -Term Portion 06/30/18
Loans payable	\$ 177,732	\$ 21,070	\$ (11,368)	\$ 187,434	\$ (11,612)	\$ 175,822
Unamortized premium	<u>7,866</u>	<u>3,592</u>	<u>(870)</u>	<u>10,588</u>	<u>(871)</u>	<u>9,717</u>
Subtotal	185,598	24,662	(12,238)	198,022	(12,483)	185,539
Accrued compensated absences	1,448	202	(189)	1,461	(92)	1,369
Net pension liability	70,365	-	(1,000)	69,365	-	69,365
Net OPEB liability	23,458	-	(1,424)	22,034	-	22,034
Other:						
Accrued workers compensation	<u>320</u>	<u>-</u>	<u>(80)</u>	<u>240</u>	<u>-</u>	<u>240</u>
Total	<u>\$ 281,189</u>	<u>\$ 24,864</u>	<u>\$ (14,931)</u>	<u>\$ 291,122</u>	<u>\$ (12,575)</u>	<u>\$ 278,547</u>

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, 2018.

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 2008 and 2010 refunded bonds are called for payment on October 15, 2018 and November 15, 2020, respectively. 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, 2018, the amount of defeased debt outstanding but removed was \$4,760,000.

14. Restricted Net Position

The balance in restricted net position of \$58,368,491 represents the restricted cash balance for required reserves and scholarships of \$44,587,320, the balance in the Commission's Stabilization fund of \$12,122,575, and the total value of inventory of \$1,658,596.

15. 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. Plan Description

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 Retirement Benefits

The System provides for retirement allowance benefits up to a maximum of 80% of a member's highest three-year average annual rate of regular compensation for those hired prior to April 2, 2012 and the highest five-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 percent, 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.

If a participant was a member prior to April 1, 2012, 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 City 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.

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.

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%.

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.

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, 2018 was approximately \$4.6 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. Pension Liabilities, Pension Expense, and Deferred Outflows of Resources and Deferred Inflows of Resources Related to Pensions

At June 30, 2018, the Commission reported a liability of approximately \$69 million for its proportionate share of the net pension liability. The net pension liability was measured as of December 31, 2017, and the total pension liability used to calculate the net pension liability was determined by an actuarial valuation as of January 1, 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, 2018, the Commission's proportion was 8 percent.

For the year ended June 30, 2018, the Commission recognized pension expense of \$6.3 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 of <u>Resources</u>
Differences between expected and actual experience	\$ 452	\$ 722
Changes of assumptions	4,266	-
Net difference between projected and actual earnings on pension plan investments	733	1,760
Changes in proportion and differences between contributions and proportionate share of contributions	<u>-</u>	<u>3,792</u>
Total	<u>\$ 5,451</u>	<u>\$ 6,274</u>

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:	
2019	\$ 397
2020	373
2021	(447)
2022	(960)
2023	<u>(186)</u>
Total	<u>\$ (823)</u>

Changes of Assumptions

Investment rate of return was reduced from 7.65% in 2016 to 7.40% in 2018 to more closely align with the national average. This had the effect of increasing the total actuarial liability by \$29.4 million.

While the mortality tables did not change, modifications were made to how the tables were used, to better reflect a general improvement in mortality. This had the effect of increasing the total pension liability by \$6 million.

D. Actuarial Assumptions

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%
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.

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:

<u>Asset Class</u>	<u>Target Asset Allocation</u>	<u>Long-term Expected Real Rate of Return</u>
Domestic equities	19.10%	7.75%
International equities	18.10%	7.80%
Emerging international equities	8.30%	9.30%
Core fixed income	12.30%	3.75%
Value added fixed income	7.80%	8.80%
Private equity	10.20%	9.50%
Real estate	8.50%	6.70%
Timberland	3.50%	6.25%
Hedge fund and portfolio completion	<u>12.20%</u>	6.40%
Total	<u>100.00%</u>	

E. 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.

F. Sensitivity of the Proportionate Share of the Net Pension Liability to Changes in the Discount Rate

The following presents the Commission's proportionate share of the net pension liability calculated using the discount rate of 7.40 percent, 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):

1%	Current Discount Rate	1%
Decrease		Increase
<u>(6.4%)</u>	<u>(7.4%)</u>	<u>(8.4%)</u>
\$79,821	\$69,365	\$60,478

G. Pension Plan Fiduciary Net Position

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

16. 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 an OPEB Trust Fund to provide funding for future employee health care costs.

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, 2018.

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.

Plan Membership

At June 30, 2018, the following employees were covered by the benefit terms:

Inactive employees or beneficiaries	
currently receiving benefit payments	121
Active employees	<u>217</u>
Total	<u>338</u>

B. Investments

The OPEB trust fund assets consist of corporate equities and bond 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.

Rate of return. For the year ended June 30, 2018, the annual money-weighted rate of return on investments, net of investment expense, was 6.5 percent. 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	3.7%, 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	3.8%
Healthcare cost trend rates	8.0% for 2018, fluctuating 0.5% to an ultimate rate of 5.0% as of July 31, 2024 and later years
Retirees' share of benefit-related costs	25.0%

Mortality rates were based on RP 2014 Healthy Male and Female Tables using Projection Scale AA for 3.5 years plus seven 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, 2018 are summarized in the following table.

<u>Asset Class</u>	<u>Target Asset Allocation</u>	<u>Long-Term Expected Real Rate of Return</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	<u>100.00%</u>	

D. Discount Rate

The discount rate used to measure the net OPEB liability was 3.8%. 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 (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 March 1, 2018).

E. Net OPEB Liability

The components of the net OPEB liability, measured as of June 30, 2018, were as follows (in thousands):

Total OPEB liability	\$ 23,842
Plan fiduciary net position	<u>(1,808)</u>
Net OPEB liability	<u>\$ 22,034</u>
 Plan fiduciary net position as a percentage of the total OPEB liability	 7.58%

F. Changes in the Net OPEB Liability

	Increase (Decrease)		
	Total OPEB Liability <u>(a)</u>	Plan Fiduciary Net Position <u>(b)</u>	Net OPEB Liability <u>(a) - (b)</u>
Balances at 06/30/17	\$ 24,214	\$ 756	\$ 23,458
Changes for the year:			
Service cost	754	-	754
Interest	912	-	912
Contributions - employer	-	1,451	(1,451)
Net investment income	-	52	(52)
Differences between expected and actual experience	(3,365)	-	(3,365)
Changes in assumptions or other inputs	1,778	-	1,778
Benefit payments	<u>(451)</u>	<u>(451)</u>	<u>-</u>
Net Changes	<u>(372)</u>	<u>1,052</u>	<u>(1,424)</u>
Balances at 06/30/18	<u>\$ 23,842</u>	<u>\$ 1,808</u>	<u>\$ 22,034</u>

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 one percentage-point lower or one percentage-point higher than the current discount rate (in thousands):

1% Decrease	Current Discount Rate	1% Increase
<u>(2.8%)</u>	<u>(3.8%)</u>	<u>(4.8%)</u>
\$29,666	\$22,034	\$16,796

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 one percentage-point lower or one percentage-point higher than the current healthcare cost trend rates (in thousands):

1% Decrease	Current Healthcare Cost Trend Rates	1% Increase
<u>(7.0%)</u>	<u>(8.0%)</u>	<u>(9.0%)</u>
\$16,899	\$22,034	\$29,731

I. OPEB Expense and Deferred Outflows of Resources and Deferred Inflows of Resources Related to OPEB

For the year ended June 30, 2018, the Commission recognized an OPEB expense of approximately \$1.4 million. At June 30, 2018, the Commission reported no deferred outflows and inflows of resources related to OPEB.

17. Commitments and Contingencies

Grants – 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.

Sewer Overflow – 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 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 Main Intercepting Sewer Rehabilitation and CSO Outfall Improvements Project is substantially complete at this time. The Commission has received a draft NPDES Permit from the USEPA for CSOs and the Springfield Regional Wastewater Treatment Facility. The Commission has provided and continues to provide 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.

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

Self-Insurance – 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 March 31, 2018, the Trust contracted with an insurance carrier for excess liability coverage which takes effect when an individual claim exceeds \$275,000. The Trust did not have excess liability coverage for the period starting April 1, 2018 through June 30, 2018.

If the Trust were to experience a cash deficit, each member would be required to contribute additional funds. At June 30, 2018, 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 \$22 million.

18. Transactions with City of Springfield

Other than the retirement system contribution previously noted, the Commission's fiscal year 2018 transactions with the City consist of payments for Police Department services of \$759,000 and for retiree health insurance of \$295,000.

19. 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 2018 was approximately \$937,000.
- 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 to maintain a value equal to 150% of the contract value, which changes based on a number of factors. At June 30, 2018, the letter of credit was approximately \$21.2 million.

SPRINGFIELD WATER AND SEWER COMMISSION
 SCHEDULE OF PROPORTIONATE SHARE OF THE NET PENSION LIABILITY (GASB 68)
 REQUIRED SUPPLEMENTARY INFORMATION

JUNE 30, 2018

(Unaudited)

(Amounts expressed in thousands)

Springfield Contributory Retirement System						
<u>Fiscal Year</u>	<u>Measurement Date</u>	<u>Proportion of the Net Pension Liability</u>	<u>Proportionate Share of the Net Pension Liability</u>	<u>Covered Payroll</u>	<u>Proportionate Share of the Net Pension Liability as a Percentage of Covered Payroll</u>	<u>Plan Fiduciary Net Position Percentage of the Total Pension Liability</u>
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.

SPRINGFIELD WATER AND SEWER COMMISSION
 SCHEDULE OF PENSION CONTRIBUTIONS (GASB 68)
 REQUIRED SUPPLEMENTARY INFORMATION
 JUNE 30, 2018
 (Unaudited)
 (Amounts expressed in thousands)

Springfield Contributory Retirement System

<u>Fiscal Year</u>	<u>Measurement Date</u>	<u>Contractually Required Contribution</u>	Contributions in Relation to the <u>Contractually Required Contribution</u>	<u>Contribution Deficiency (Excess)</u>	<u>Covered Payroll</u>	<u>Contributions as a Percentage of Covered Payroll</u>
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)
 SCHEDULE OF CHANGES IN NET OPEB LIABILITY (GASB 74 AND 75)
 REQUIRED SUPPLEMENTARY INFORMATION
 (Unaudited)
 (Amounts expressed in thousands)

	<u>2018</u>	<u>2017</u>
Total OPEB liability		
Service cost	\$ 754	\$ 1,513
Interest on unfunded liability - time value of \$	912	888
Differences between expected and actual experience	(3,365)	-
Changes of assumptions	1,778	(3,592)
Benefit payments, including refunds of member contributions	<u>(451)</u>	<u>(452)</u>
Net change in total OPEB liability	(372)	(1,643)
Total OPEB liability - beginning	<u>24,214</u>	<u>25,857</u>
Total OPEB liability - ending (a)	<u>\$ 23,842</u>	<u>\$ 24,214</u>
Plan fiduciary net position		
Contributions - employer	\$ 1,451	\$ 717
Net investment income	52	44
Benefit payments, including refunds of member contributions	<u>(451)</u>	<u>(452)</u>
Net change in plan fiduciary net position	1,052	309
Plan fiduciary net position - beginning	<u>756</u>	<u>447</u>
Plan fiduciary net position - ending (b)	<u>\$ 1,808</u>	<u>\$ 756</u>
Net OPEB liability (asset) - ending (a-b)	<u>\$ 22,034</u>	<u>\$ 23,458</u>

*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
OTHER POST-EMPLOYMENT BENEFITS (OPEB)
SCHEDULES OF NET OPEB LIABILITY, CONTRIBUTIONS,
AND INVESTMENT RETURNS (GASB 74 AND 75)
REQUIRED SUPPLEMENTARY INFORMATION

(Unaudited)

(Amounts expressed in thousands)

Schedule of Net OPEB Liability	<u>2018</u>	<u>2017</u>
Total OPEB liability	\$ 23,842	\$ 24,214
Plan fiduciary net position	<u>(1,808)</u>	<u>(756)</u>
Net OPEB liability (asset)	<u>\$ 22,034</u>	<u>\$ 23,458</u>
Plan fiduciary net position as a percentage of the total OPEB liability	7.58%	3.12%
Covered payroll	\$ 12,433	\$ 12,097
Participating employer net OPEB liability (asset) as a percentage of covered payroll	177.22%	193.92%
 Schedule of Contributions	 <u>2018</u>	 <u>2017</u>
Actuarially determined contribution	\$ 1,992	\$ 1,732
Contributions in relation to the actuarially determined contribution	<u>(1,451)</u>	<u>(717)</u>
Contribution deficiency (excess)	<u>\$ 541</u>	<u>\$ 1,015</u>
Covered payroll	\$ 12,433	\$ 12,097
Contributions as a percentage of covered payroll	11.67%	5.93%
 Schedule of Investment Returns	 <u>2018</u>	 <u>2017</u>
Annual money weighted rate of return, net of investment expense	6.50%	6.50%

*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

SCHEDULE OF OPERATING EXPENDITURES
BUDGET AND ACTUAL

REQUIRED SUPPLEMENTARY INFORMATION

FOR THE YEAR ENDED JUNE 30, 2018

	<u>Original Budget</u>	<u>Final Budget</u>	<u>Actual</u>	Variance Favorable <u>(Unfavorable)</u>
Expenditures and other uses:				
Salaries and wages	\$ 14,834,980	\$ 14,334,980	\$ 13,303,865	\$ 1,031,115
Employee benefits	8,702,186	9,202,186	8,961,527	240,659
Operations	24,403,228	24,403,228	23,372,889	1,030,339
Intergovernmental	608,637	608,637	586,514	22,123
Capital outlay	372,750	372,750	271,870	100,880
Other	516,786	516,786	516,891	(105)
Debt principal	11,210,194	11,375,195	11,375,195	-
Debt interest	6,232,490	6,067,489	6,037,347	30,142
Transfer out	<u>-</u>	<u>7,000,000</u>	<u>7,000,000</u>	<u>-</u>
Total Expenditures	<u>\$ 66,881,251</u>	<u>\$ 73,881,251</u>	<u>\$ 71,426,098</u>	<u>\$ 2,455,153</u>

See Independent Auditors' Report.

Notes to Supplemental Schedule

Schedule of Operating Expenditures - Budget and Actual

Budgetary Basis

The appropriation appearing on page 58 of the financial statements represents the operating budget of the Commission that was originally authorized in June 2017.

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)	\$ 57,955,221
Non-operating expenditures (GAAP basis)	5,455,009
Net down effect of adding Stabilization fund activity	7,000,000
Reverse capital expenditures appropriated in a prior fiscal year	(941,845)
Remove depreciation expense not budgeted for	(9,494,640)
Add long-term debt payments budgeted for	11,375,195
Reverse the effect of prior year and current year GAAP accruals of:	
Accounts payable and accrued payroll	(296,305)
Interest on long-term debt	(309,402)
Amortization of deferred loss on refunding	870,870
Inventory adjustment	(16,828)
Accrued compensated absences	(13,188)
Net OPEB liability	1,423,711
Net pension liability, net of deferrals	(1,662,110)
Accrued workers compensation	80,410
Budgetary basis	<u>\$ 71,426,098</u>

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 61 and 62.

- 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 63 through 67.

- 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 68 and 69.

- 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 70 through 73.

- Population, Income and Employment – Last Ten Calendar Years
- Demographic and Economic Statistics – 2016 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 74 through 78.

- Divisional Breakdown of SWSC Funded (Budgeted) Positions – Last Ten Budget Years
- Water and Sewer Distribution System – Year-End 2017
- Insurance Coverage – 2017 – 2018
- 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>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>
Net investment in capital assets	\$ 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	\$ 92,904,693
Restricted	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	24,079,997
Unrestricted	<u>(69,189,511)</u>	<u>(62,830,249)</u>	<u>(36,200,649)</u>	<u>(29,816,125)</u>	<u>(42,378,183)</u>	<u>(17,512,709)</u>	<u>(8,663,848)</u>	<u>(8,569,063)</u>	<u>(12,933,706)</u>	<u>(10,939,318)</u>
Total net position	<u>\$ 124,895,503</u>	<u>\$ 123,894,230</u>	<u>\$ 126,344,667</u>	<u>\$ 120,176,372</u>	<u>\$ 113,334,230</u>	<u>\$ 117,733,760</u>	<u>\$ 114,429,711</u>	<u>\$ 108,632,334</u>	<u>\$ 104,307,687</u>	<u>\$ 106,045,372</u>

Source: Audited Financial Statements (2009 as modified)

Table 2
Changes in Net Position
Last Ten Fiscal 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>
Operating Revenues										
Water and sewer usage	\$ 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	\$ 50,879,536
Other income	283,345	122,107	220,121	252,568	442,440	323,306	468,610	208,003	132,699	301,775
Total Operating Revenues	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	51,181,311
Operating and Maintenance Expenses										
Salaries and wages	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	12,448,253
Employee benefits	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	4,429,019
Operations	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	21,371,672
Intergovernmental	586,514	572,476	557,125	540,163	519,315	504,188	493,920	500,914	486,892	477,701
Capital outlay	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	971,581
Other	500,063	683,593	379,835	521,140	561,054	413,520	615,729	355,459	358,107	308,747
Total Operating Expenses	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	40,006,973
Depreciation and amortization	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	6,073,872
Excess Operating Revenues	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	5,100,466
Non-operating Revenues (Expenses)										
Interest income	768,883	233,262	15,564	15,027	13,709	16,180	19,618	30,006	49,600	278,324
Interest expense	(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)	(3,289,552)
Other	-	-	83,797	81,045	661,249	-	38,574	9,781	(4,015)	(125,989)
Total Non-operating Expenses	(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)	(3,137,217)
Capital grants and contributions	808,112	156,154	792,512	1,643,475	-	1,227,663	1,737,571	362,428	2,740,324	251,763
Excess revenues before deferral adjustments and special items	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	2,215,012
Excess revenues used to fund reserves and other deferrals	(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)	(2,127,820)
Special item	-	-	-	-	-	-	-	-	(4,949,004)	-
Change in Net Position	\$ 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)	\$ 87,192

Source: Audited Financial Statements
(2009 as modified)

**Table 3
Largest Users
Last Ten Fiscal Years**

Top 25 Customers	2018	2017	2016	2015	2014	2013	2012	2011	2010	2009
Solutia, Inc.	\$ 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	\$ 6,231,898
Town of Agawam	\$ 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	\$ 2,777,483
Town of Longmeadow	\$ 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	\$ 949,817
Town of West Springfield	\$ 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	\$ 1,305,916
Town of East Longmeadow	\$ 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	\$ 765,457
Springfield Housing Authority	\$ 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	\$ 875,106
Bay State Medical Center	\$ 1,016,664	\$ 989,015	\$ 873,883	\$ 901,132	\$ 780,102	\$ 852,355	\$ 850,642	\$ 816,729	\$ 680,250	\$ 601,332
Town of Ludlow DPW	\$ 812,133	\$ 806,227	\$ 902,631	\$ 824,146	\$ 694,297	\$ 561,993	\$ 557,463	\$ 840,323	\$ 812,734	\$ 568,675
Catholic Health East-APSS	\$ 584,889	\$ 450,068	\$ 458,863	\$ 437,435	\$ 510,245	\$ 523,085	\$ 411,536	\$ 364,181	\$ 310,942	\$ 321,948
Smith & Wesson	\$ 536,624	\$ 584,161	\$ 492,162	\$ 441,301	\$ 344,034	\$ 431,508	\$ 289,926	\$ 246,791	\$ 251,808	\$ 214,299
Western New England University	\$ 482,811	\$ 512,172	\$ 491,598	\$ 509,482	\$ 395,069	\$ 369,050	\$ 331,600	\$ 305,976	\$ 254,167	\$ 232,358
Friendly Ice Cream Corp	\$ 412,348	\$ 353,305	\$ 230,315	\$ 238,405	\$ 213,031	\$ 201,050	\$ 265,956	\$ 231,586	\$ 238,307	\$ 217,209
Springfield College	\$ 397,675	\$ 448,211	\$ 495,982	\$ 442,041	\$ 432,570	\$ 454,455	\$ 393,046	\$ 397,374	\$ 316,715	\$ 300,403
East Springfield Realty LLC	\$ 389,201	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
City of Springfield/Schools	\$ 375,004	\$ 445,895	\$ 468,008	\$ 388,135	\$ 356,808	\$ 376,492	\$ 363,417	\$ 367,620	\$ 338,933	\$ 273,876
Carando/Smithfield Foods	\$ 299,477	\$ 321,213	\$ 292,089	\$ 252,159	\$ 216,350	\$ 219,284	\$ 209,441	\$ 197,765	\$ 168,268	\$ 145,846
Pynchon I Apartments, Ltd	\$ 291,895	\$ 235,502	\$ 250,244	\$ 243,464	\$ 227,474	\$ 231,734	\$ 235,228	\$ 184,723	\$ 170,722	\$ 144,068
Pynchon II Apartments, Ltd.	\$ 256,756	\$ 230,128	\$ 198,254	\$ 205,079	\$ 183,432	\$ -	\$ -	\$ -	\$ -	\$ -
Rayes (fmly Related Springfield Assoc.)	\$ 247,736	\$ 438,962	\$ 421,723	\$ 338,939	\$ 292,262	\$ 284,248	\$ 261,429	\$ 249,389	\$ 326,922	\$ 347,583
Town of Wilbraham	\$ 235,049	\$ 178,341	\$ 300,733	\$ 191,960	\$ 286,722	\$ -	\$ -	\$ -	\$ -	\$ -
Colonial Estates	\$ 225,850	\$ 220,564	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Unifirst Corporation	\$ 216,016	\$ 260,479	\$ 265,276	\$ 202,413	\$ 183,622	\$ 190,246	\$ 170,994	\$ 205,421	\$ 182,214	\$ 138,989
Park Tenants Assoc., Inc.	\$ 214,785	\$ -	\$ -	\$ 183,227	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
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	\$ 175,842
Spring Meadow Apartments	\$ -	\$ 173,163	\$ 221,225	\$ 172,518	\$ 176,398	\$ 170,576	\$ 141,701	\$ 151,868	\$ 126,981	\$ 121,183
Mass Power	\$ -	\$ -	\$ 259,600	\$ 199,286	\$ -	\$ -	\$ 157,513	\$ -	\$ 42,726	\$ -
Springfield Technical Comm College	\$ -	\$ -	\$ 183,651	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Taylor Consulting & Contracting	\$ -	\$ -	\$ -	\$ -	\$ 329,687	\$ 374,304	\$ 317,496	\$ 308,924	\$ 275,433	\$ 263,040
Styrolution America, LLC	\$ -	\$ -	\$ -	\$ -	\$ 186,233	\$ 600,479	\$ 1,009,955	\$ 453,877	\$ 413,474	\$ 161,301
Mass Municipal Wholesale	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 435,073	\$ 276,108	\$ 217,681	\$ 121,490	\$ 85,159
Hampden County Sheriff's Dept.	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 347,398	\$ 327,756	\$ 136,214	\$ 123,957	\$ 129,267
City of Springfield/Parks Dept	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 206,635	\$ -	\$ 60,831	\$ -	\$ -
Total	\$ 24,818,453	\$ 24,040,113	\$ 23,287,725	\$ 22,522,003	\$ 22,481,777	\$ 21,572,786	\$ 21,380,042	\$ 21,479,824	\$ 19,030,966	\$ 17,348,056
Percent of Total Operating Revenue	34%	34%	34%	33%	35%	35%	37%	39%	37%	35%

Source: Commission Billing Records

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

Water Sales (1000 gals)	<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>
Residential	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	4,185,643
Commercial	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	1,132,181
Industrial	267,357	246,874	301,338	332,947	292,994	305,685	351,324	467,409	444,615	344,988
Municipal	111,240	124,078	119,125	99,915	98,405	125,987	118,816	127,844	88,114	91,505
Solutia contract	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	2,353,797
Town contracts	<u>2,533,247</u>	<u>2,720,622</u>	<u>2,938,450</u>	<u>2,940,024</u>	<u>2,846,092</u>	<u>3,026,692</u>	<u>3,085,764</u>	<u>3,039,522</u>	<u>2,821,122</u>	<u>2,625,343</u>
Total water billed	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	10,733,457
Water supplied	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	11,459,680
% Accounted for	90.5%	90.8%	90.4%	93.0%	95.3%	93.1%	94.6%	95.2%	90.6%	93.7%
Sewer Sales (1000 gals)	<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>
Residential	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	3,912,041
Commercial	578,290	549,491	555,334	532,273	536,765	545,418	557,926	568,273	570,593	619,296
Industrial	182,626	182,541	175,459	164,419	161,525	177,979	166,274	168,006	165,854	186,198
Municipal	53,868	61,530	62,876	56,562	53,819	55,634	56,434	60,679	58,861	61,011
Food Service	34,875	35,447	36,666	36,320	36,333	39,310	44,412	44,978	46,179	48,735
Medical	142,256	137,163	148,388	137,709	150,742	168,482	172,983	166,605	151,009	150,338
Solutia contract	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	1,691,288
Town contracts	<u>4,130,910</u>	<u>3,527,632</u>	<u>3,773,133</u>	<u>4,160,382</u>	<u>4,424,605</u>	<u>4,076,072</u>	<u>4,961,971</u>	<u>4,632,295</u>	<u>4,855,892</u>	<u>5,172,245</u>
Total sewer billed	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	11,841,152
Wastewater treated	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	16,162,350
% Accounted for *	75.8%	81.8%	82.1%	77.6%	75.8%	81.3%	73.4%	79.5%	74.5%	73.3%

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 5
Billings and Collections
Last Ten Fiscal 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>
Billings	\$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	\$47,638,051
Adjustments	\$313,365	\$345,814	(\$281,823)	(\$767,583)	(\$304,095)	\$164,551	(\$2,770,914)	(\$1,725,815)	\$503,508	\$231,708
Write-offs	\$4,025	\$104,364	\$99,880	\$88,395	\$80,900	\$158,965	\$132,792	\$131,347	\$129,019	\$105,530
Net Billings	\$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	\$47,975,289
Payments	\$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	\$47,769,213
Collection rate	99.2%	101.9%	100.0%	99.9%	99.6%	99.1%	102.7%	100.6%	98.4%	99.6%
Ending Receivables (before accruals)	\$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	\$5,279,777

*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>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	\$4.30	\$4.02	\$3.86	\$3.72	\$3.56	\$3.34	\$3.21	\$3.06	\$2.91	\$2.70
Commercial	\$4.30	\$4.02	\$3.86	\$3.72	\$3.56	\$3.34	\$3.21	\$3.06	\$2.91	\$2.70
Municipal	\$3.21	\$2.99	\$2.87	\$2.77	\$2.65	\$2.49	\$2.39	\$2.27	\$2.17	\$2.01
Industrial	\$3.21	\$2.99	\$2.87	\$2.77	\$2.65	\$2.49	\$2.39	\$2.27	\$2.17	\$2.01
Solutia contract	\$3.10	\$2.82	\$2.66	\$2.51	\$2.35	\$2.14	\$2.01	\$1.86	\$1.71	\$1.30
Town contracts	\$1.49	\$1.72	\$1.53	\$1.18	\$1.09	\$1.19	\$1.14	\$1.17	\$0.93	\$0.90
Residential Water % Change	7.0%	4.2%	4.0%	4.5%	6.4%	4.2%	4.8%	5.0%	7.9%	
Sewer Rates (per 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	\$7.11	\$6.59	\$6.34	\$6.10	\$5.80	\$5.11	\$4.87	\$4.47	\$4.13	\$3.82
Commercial	\$7.82	\$7.25	\$6.97	\$6.70	\$6.38	\$5.61	\$5.35	\$4.91	\$4.55	\$4.21
Industrial	\$8.53	\$7.91	\$7.61	\$7.30	\$6.95	\$6.12	\$5.84	\$5.36	\$4.96	\$4.59
Municipal	\$7.11	\$6.59	\$6.34	\$6.10	\$5.80	\$5.11	\$4.87	\$4.47	\$4.13	\$3.82
Food Service	\$9.25	\$8.57	\$8.24	\$7.91	\$7.54	\$6.64	\$6.32	\$5.80	\$5.37	\$4.97
Medical	\$7.82	\$7.25	\$6.97	\$6.70	\$6.38	\$5.61	\$5.35	\$4.91	\$4.55	\$4.21
Solutia contract	\$1.20	\$1.18	\$1.22	\$1.11	\$1.10	\$0.99	\$1.08	\$0.88	\$0.78	\$0.92
Town contracts	\$1.20	\$1.18	\$1.22	\$1.11	\$1.10	\$0.99	\$1.08	\$0.88	\$0.78	\$0.92
Residential Sewer % Change	7.9%	4.0%	3.9%	5.1%	13.6%	4.9%	9.0%	8.1%	8.0%	
Water Rates (per 100 CF)	<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	\$3.22	\$3.01	\$2.89	\$2.78	\$2.66	\$2.50	\$2.40	\$2.29	\$2.18	\$2.02
Commercial	\$3.22	\$3.01	\$2.89	\$2.78	\$2.66	\$2.50	\$2.40	\$2.29	\$2.18	\$2.02
Municipal	\$2.40	\$2.24	\$2.15	\$2.07	\$1.98	\$1.86	\$1.79	\$1.70	\$1.62	\$1.50
Industrial	\$2.40	\$2.24	\$2.15	\$2.07	\$1.98	\$1.86	\$1.79	\$1.70	\$1.62	\$1.50
Solutia contract (per 100 CF)	\$2.32	\$2.11	\$1.99	\$1.88	\$1.76	\$1.60	\$1.50	\$1.39	\$1.28	\$0.97
Town contracts (per million gals)	\$1,491.03	\$1,717.86	\$1,526.61	\$1,178.93	\$1,089.71	\$1,186.59	\$1,141.50	\$1,165.25	\$928.30	\$904.78
Residential Water % Change	7.0%	4.2%	4.0%	4.5%	6.4%	4.2%	4.8%	5.0%	7.9%	
Sewer Rates (per 100 CF)	<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	\$5.32	\$4.93	\$4.74	\$4.56	\$4.34	\$3.82	\$3.64	\$3.34	\$3.09	\$2.86
Commercial	\$5.85	\$5.42	\$5.21	\$5.01	\$4.77	\$4.20	\$4.00	\$3.67	\$3.40	\$3.15
Industrial	\$6.38	\$5.92	\$5.69	\$5.46	\$5.20	\$4.58	\$4.37	\$4.01	\$3.71	\$3.43
Municipal	\$5.32	\$4.93	\$4.74	\$4.56	\$4.34	\$3.82	\$3.64	\$3.34	\$3.09	\$2.86
Food Service	\$6.92	\$6.41	\$6.16	\$5.92	\$5.64	\$4.97	\$4.73	\$4.34	\$4.02	\$3.72
Medical	\$5.85	\$5.42	\$5.21	\$5.01	\$4.77	\$4.20	\$4.00	\$3.67	\$3.40	\$3.15
Solutia contract (per million gals)	\$1,197.77	\$1,145.39	\$1,060.86	\$1,108.27	\$1,099.26	\$993.00	\$1,076.52	\$881.28	\$779.83	\$921.96
Town contracts (per million gals)	\$1,197.77	\$1,145.39	\$1,060.86	\$1,108.27	\$1,099.26	\$993.00	\$1,076.52	\$881.28	\$779.83	\$921.96
Residential Sewer % Change	7.9%	4.0%	3.9%	5.1%	13.6%	4.9%	9.0%	8.1%	8.0%	
Average Combined Rate Increase	7.4%	4.1%	4.0%	4.8%	10.0%	4.6%	6.9%	6.6%	8.0%	

Source: Fiscal Year 2019 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)	2019	2018	2017	2016	2015	2014	2013	2012	2011	2010
Agawam	\$1,419.70	\$1,431.59	\$1,503.64	\$1,375.92	\$1,323.70	\$1,257.70	\$1,342.30	\$1,134.67	\$935.30	\$1,130.49
Longmeadow	\$1,098.91	\$1,072.83	\$1,108.53	\$959.04	\$996.43	\$905.70	\$981.02	\$770.80	\$689.65	\$818.91
Chicopee	\$748.98	\$652.23	\$631.46	\$577.91	\$590.72	\$544.06	\$595.67	\$521.33	\$421.74	\$538.58
E. Longmeadow	\$1,165.29	\$991.09	\$1,055.03	\$945.34	\$922.99	\$836.94	\$1,014.96	\$761.77	\$704.36	\$824.36
Ludlow	\$1,397.55	\$1,488.14	\$1,746.10	\$1,426.13	\$1,255.64	\$951.57	\$1,158.34	\$932.27	\$800.91	\$933.74
W. Springfield	\$1,277.77	\$1,194.23	\$1,253.45	\$1,143.72	\$1,312.10	\$1,073.14	\$1,011.77	\$905.60	\$741.26	\$914.12
Wilbraham	\$1,185.47	\$1,281.69	\$1,116.32	\$1,061.65	\$1,103.27	\$1,060.60	\$1,060.75	\$1,336.43	\$810.97	\$1,125.81
Springfield	\$1,151.51	\$1,123.16	\$1,178.85	\$1,087.99	\$1,029.08	\$968.49	\$1,087.95	\$840.11	\$766.07	\$876.72
Solutia / Nova	\$1,069.37	\$1,030.71	\$988.48	\$901.90	\$1,032.79	\$887.57	\$886.90	\$829.64	\$749.16	\$992.03
Friendly	\$9,179.87	\$12,232.93	\$10,498.96	\$7,752.63	\$8,171.27	\$7,286.10	\$7,504.95	\$8,467.50	\$6,503.32	\$7,017.35
Totals	\$1,197.77	\$1,175.82	\$1,217.98	\$1,108.27	\$1,099.26	\$993.00	\$1,076.52	\$881.28	\$779.83	\$921.96
* FY 2019 Town & Solutia Contract rates per million gallons are estimated										
** Solutia Contract was extended for 6 months under current contract terms										
Solutia contract (per million gals)***	\$1,197.77	\$1,175.82	\$1,217.98	\$1,108.27	\$1,099.26	\$993.00	\$1,076.52	\$881.28	\$779.83	\$921.96
Town contracts (per million gals)***	\$1,197.77	\$1,175.82	\$1,217.98	\$1,108.27	\$1,099.26	\$993.00	\$1,076.52	\$881.28	\$779.83	\$921.96

*** 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>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>
Outstanding Principal ⁽⁵⁾	\$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	\$89,013,967
City Springfield Population	154,341	154,758	153,703	153,991	153,060	153,060	153,060	153,060	153,060	152,082
Town of Ludlow Population ⁽¹⁾	21,502	21,502	21,103	21,103	21,103	21,103	21,103	21,103	21,103	22,161
Per Capita Debt	1,126	1,053	977	1,024	784	699	723	671	536	511
City of Springfield:										
Total Personal Income ⁽²⁾⁽³⁾	\$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	\$1,937,568,000
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	\$612,618,684
Debt per Personal Income	7.09%	6.89%	6.40%	6.81%	5.26%	4.77%	4.76%	4.44%	3.64%	3.49%

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>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>
Operating revenue										
Beginning revenue cash	\$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	\$15,831,305
Deposits to revenue acct	<u>\$74,568,571</u>	<u>\$73,080,877</u>	<u>\$67,844,909</u>	<u>\$66,470,471</u>	<u>\$65,134,734</u>	<u>\$62,750,659</u>	<u>\$60,793,884</u>	<u>\$60,094,482</u>	<u>\$53,095,118</u>	<u>\$50,770,243</u>
Total cash receipts	\$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	\$66,601,548
Operating transfers										
To operating accts	\$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	\$43,487,273
To (from) debt service reserve	<u>\$19,186</u>	<u>\$1,247,387</u>	<u>\$1,223,597</u>	<u>\$477,261</u>	<u>(\$13,242)</u>	<u>(\$236,031)</u>	<u>\$994,454</u>	<u>\$967,540</u>	<u>\$506,951</u>	<u>\$1,142,119</u>
Total operating transfers	\$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	\$44,629,392
Net revenue	\$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	\$21,972,156
Debt service requirement	\$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	\$5,877,999
Debt coverage	326.9%	393.8%	489.0%	437.5%	505.0%	528.3%	461.1%	383.4%	438.2%	373.8%
Alternate (no begin balance)	187.5%	163.9%	170.1%	204.1%	234.1%	225.8%	210.1%	244.2%	229.0%	104.5%
125% of debt service required	\$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	\$7,347,498
140% of debt service required	\$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	\$8,229,198

Source: Commission Accounting System

Table 9
Population, Income and Employment
Last Ten Calendar Years

	<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>	<u>2008</u>
United States										
Total Personal Income (\$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	\$12,225,589,000
Per Capita Income (\$)	\$51,640	\$49,831	\$47,665	\$46,129	\$44,765	\$42,693	\$41,663	\$39,937	\$38,846	\$40,166
Population	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	304,374,846
Employment	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	181,755,100
New England										
Total Personal Income (\$000)	\$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	\$702,966,446
Per Capita Income (\$)	\$64,303	\$62,033	\$58,863	\$56,642	\$54,797	\$52,446	\$51,074	\$48,840	\$47,513	\$48,944
Population	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	14,362,641
Employment	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	9,275,239
Massachusetts										
Total Personal Income (\$000)	\$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	\$333,046,494
Per Capita Income (\$)	\$67,630	\$65,186	\$61,032	\$59,182	\$57,248	\$54,687	\$53,261	\$51,304	\$49,788	\$50,897
Population	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	6,543,595
Employment	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	4,251,139
Western Massachusetts ⁽¹⁾										
Total Personal Income (\$000)	(2)	\$40,025,022	\$39,196,508	\$36,463,080	\$37,085,939	\$35,830,064	\$33,513,709	\$32,252,907	\$31,464,101	\$32,150,902
Per Capita Income (\$)	(2)	\$48,365	\$47,201	\$44,002	\$44,805	\$43,311	\$40,689	\$39,135	\$38,215	\$39,084
Population	(2)	827,568	830,411	828,677	827,721	827,274	823,662	824,138	823,343	822,611
Employment	(2)	493,325	478,874	470,214	465,367	454,490	449,577	446,402	446,278	458,340

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

Source: Bureau of Economic Analysis

Bureau of the Census

Boston Water and Sewer Commission CAFR

(2) 2017 information is not presented as it is unavailable

Table 10
Demographic and Economic Statistics
2017 Calendar Year End Summary

	Springfield, MA ⁽¹⁾	United States ⁽²⁾
ECONOMY		
Unemployment Rate	4.5%	4.4%
Recent Job Growth	1.1%	0.4%
3 Year Average	1.2%	1.0%
5 Year Average	1.2%	2.2%
Future Job Growth*	1.0%	1.3%
Sales Tax	6.25%	0.0%
Income Per Capita	\$ 19,027	\$ 29,829
Household Income (Median)	\$ 35,742	\$ 55,322
HOUSEHOLD INCOME		
Income less than 10K	13.6%	6.5%
Income between 10K and 15K	11.8%	4.5%
Income between 15K and 25K	11.7%	9.3%
Income between 25K and 35K	9.7%	9.1%
Income between 35K and 50K	14.8%	12.7%
Income between 50K and 75K	16.9%	17.6%
Income between 75K and 100K	9.5%	12.5%
Income between 100K and 150K	7.4%	14.6%
Income between 150K and 200K	3.5%	6.3%
Income greater than 200K	1.1%	6.9%
POPULATION BY OCCUPATION		
Management, business, science, and arts occupations	24.8%	37.6%
Service occupations	31.0%	18.1%
Sales and office occupations	23.4%	23.3%
Natural resources, construction, and maintenance occupations	8.2%	8.8%
Production, transportation, and material moving occupations	12.7%	12.2%

* Projected growth between 2016 and 2017

(1) Source: U.S. Census Bureau, 2017

(2) Source: Bureau of Labor Statistics 2016/2017

Table 11
Distribution of Customers by Account Type
Last Ten Fiscal Years

Water Accounts	<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>
Residential	40,394	40,358	40,303	40,226	40,245	40,274	40,242	40,377	40,246	40,075
Commercial	2,175	2,174	2,175	2,186	2,184	2,190	2,184	2,188	2,188	2,177
Industrial	86	87	88	91	92	92	95	97	94	94
Municipal	169	162	158	154	147	147	149	143	137	128
Solutia contract	25	23	24	24	22	23	23	23	23	23
Town contracts	<u>6</u>	<u>6</u>	<u>6</u>	<u>6</u>	<u>6</u>	<u>6</u>	<u>6</u>	<u>6</u>	<u>6</u>	<u>6</u>
Totals	42,855	42,810	42,754	42,687	42,696	42,732	42,699	42,834	42,694	42,503
% Change	0.1%	0.1%	0.2%	0.0%	-0.1%	0.1%	-0.3%	0.3%	0.4%	
Sewer Accounts	<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>
Residential	35,347	35,298	35,243	35,181	35,205	35,224	35,220	35,321	35,192	35,034
Commercial	1,695	1,689	1,689	1,701	1,699	1,707	1,706	1,710	1,709	1,701
Industrial	101	102	104	104	105	105	107	108	105	105
Municipal	99	96	97	97	92	92	95	94	93	91
Food Service	65	67	71	70	70	70	72	74	73	73
Medical	19	19	19	19	19	20	20	20	20	20
Solutia contract	1	1	1	1	1	1	1	1	1	1
Town contracts	<u>6</u>	<u>6</u>	<u>6</u>	<u>6</u>	<u>6</u>	<u>6</u>	<u>8</u>	<u>8</u>	<u>8</u>	<u>8</u>
Totals	37,333	37,278	37,230	37,179	37,197	37,225	37,229	37,336	37,201	37,033
% Change	0.1%	0.1%	0.1%	0.0%	-0.1%	0.0%	-0.3%	0.4%	0.5%	

Source: Commission Billing System

Table 12
Largest Private Employers
Current Year and Nine Years Prior

<u>Employer</u>	<u>Nature of Business</u>	<u>2018</u>			<u>2009</u>		
		<u>Employees</u>	<u>Rank</u>	<u>Percentage of Total Commission Employment</u>	<u>Employees</u>	<u>Rank</u>	<u>Percentage of Total Commission Employment</u>
BayState Health Systems	Healthcare	8,859	1	14.0%	9,115	1	13.7%
Massachusetts Mutual Financial Group	Insurance	3,709	2	5.9%	4,366	2	6.6%
Sisters of Providence	Healthcare	2,775	3	4.4%	2,253	4	3.4%
Smith & Wesson	Firearms	1,960	4	3.1%	862	8	1.3%
Big Y	Grocery	1,004	5	1.6%	950	5	1.4%
Western New England University	Education	881	6	1.4%	589	n/a	0.9%
Springfield Technical Community College	Education	792	7	1.2%	420	n/a	0.6%
Springfield College	Education	617	8	1.0%	560	9	0.8%
Center for Human Development	Social Services	569	9	0.9%	327	6	0.5%
Eastman Chemical (formerly Solutia Inc.)	Chemical	380	10	0.6%	500	10	0.8%
Union News	Newspaper	265	n/a	0.4%	700	7	1.1%
US Postal Service	Mail	-	n/a	n/a	2,267	3	3.4%
		<u>21,811</u>		<u>34.5%</u>	<u>22,909</u>		<u>34.5%</u>

Source: City of Springfield June 30, 2018 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>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>
Administration	8	7	7	8	8	9	8	7	8	7
General Accounting	4	4	4	4	4	4	4	4	5	5
Customer Service	8	8	8	8	8	8	7	7	9	9
Information Systems	10	7	6	5	5	5	4	4	4	4
Asset Management	4	4	0	0	0	0	0	0	0	0
Engineering	19	21	26	24	23	22	22	21	22	22
Operations management	3	3	3	3	3	3	3	3	5	5
SERTS	1	1	0	0	1	1	1	1	0	0
Water Supply Administration	3	3	4	4	4	4	4	4	4	3
Ludlow Reservoir	6	6	7	6	6	6	6	6	7	7
Provin Mountain	9	9	9	8	8	8	8	8	8	8
West Parish Filters	37	35	35	36	41	41	39	38	44	41
Watershed Management	1	1	2	2	2	3	2	2	0	2
Borden Brook	3	3	0	0	0	0	0	0	0	0
Laboratory	5	5	5	5	5	5	5	5	0	4
Cross Connection Control	4	4	5	5	5	5	5	5	5	5
Warehouse Management	4	4	4	4	5	5	5	5	5	6
Customer Field Service	5	5	5	6	6	7	7	7	9	9
Meters & Field Service	22	22	21	22	21	23	21	21	21	26
Water Quality	13	14	17	18	20	20	19	16	16	15
Water Distribution	36	35	34	33	34	31	32	31	32	31
WW Operations Management	1	1	1	1	1	1	1	1	0	0
Sewer Collection Services	39	39	38	36	28	29	27	27	29	29
Industrial Pretreatment	2	2	2	2	2	2	2	2	2	2
FOG	1	1	2	2	2	3	3	1	1	0
Wastewater Treatment	0	0	0	1	1	1	1	1	1	1
Totals	248	244	245	243	243	246	236	227	237	241

Source: Commission Budget Documents

Table 14
Water and Sewer Distribution System
Year-End 2018 Summary

Water Distribution System

	<u>Appurtenances</u>		<u>Water Main City Wide</u>
Hydrants	6,224	Total Linear Feet	3,074,600
Valves	19,380	Total Linear Miles	582
Meters	46,185		
		Water Booster Pump Stations	5

Sewer Collection System

	<u>Appurtenances</u>		<u>Sewer Pipes City Wide</u>
CSO Regulator Structures & Outfalls	23	Total Linear Feet	2,485,296
Manholes	11,351	Combined Sewer Miles	151
Regulators	23	Separated Sewer Miles	320
Flood Control Gates	42	Total Sewer Miles	471
		Sewage Pumping Stations	27
		Flood Control Pumping Stations	7
		Active CSO's	23

Source: Commission's GIS System

Table 15
Insurance Coverage
2018 - 2019

<u>Provider</u>	<u>Policy Period</u>	<u>Type of Coverage</u>	<u>Liability Limits</u>	<u>Annual Premium</u>
ACE American Insurance Company	4/2/18 - 4/2/19	Property	\$ 100,000,000	\$ 165,500
Navigators Insurance Company	4/2/18 - 4/2/19	Special Excess Liability	\$ 15,000,000	\$ 64,000
Allied World Insurance	4/2/18 - 4/2/19	Excess Liability	\$ 10,000,000	\$ 48,910
Allied World Insurance	4/2/18 - 4/2/19	Primary Liability (with Auto)	\$ 1,000,000/3,000,000	\$ 39,744
Safety Insurance Company	4/2/18 - 4/2/19	Automobile	\$ 1,000,000	\$ 3,220
Hanover Insurance Group	4/2/18 - 4/2/19	Crime	\$ 1,000,000	\$ 4,746

Source: Commission's Insurance Records

Table 16
Water and Sewer Sales
Last Ten Fiscal Years

Water Revenues

	<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>
Residential	\$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	\$10,187,463
Commercial	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	2,815,316
Industrial	1,019,910	944,766	1,080,588	1,136,290	962,255	944,594	1,057,444	1,327,881	879,719	562,681
Municipal	428,362	472,383	432,235	348,218	332,415	389,889	358,006	362,457	174,344	149,246
Solutia contract	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	3,114,315
Town contracts	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	2,273,571
Total	<u>\$30,192,539</u>	<u>\$30,236,771</u>	<u>\$27,327,026</u>	<u>\$27,361,920</u>	<u>\$27,062,487</u>	<u>\$26,130,142</u>	<u>\$24,931,961</u>	<u>\$24,458,313</u>	<u>\$20,802,186</u>	<u>\$19,102,593</u>
% Change	-0.1%	10.6%	-0.1%	1.1%	3.6%	4.8%	1.9%	17.6%	8.9%	

Sewer Revenues

	<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>
Residential	\$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	\$12,316,969
Commercial	3,656,813	3,335,785	3,229,732	2,965,577	2,719,577	2,560,645	2,462,284	2,293,367	2,380,012	2,293,384
Industrial	1,142,754	1,102,505	1,004,203	912,485	806,654	836,129	733,930	677,357	753,881	751,760
Municipal	342,826	339,232	352,828	304,162	276,567	261,290	250,156	245,215	222,698	205,547
FoodServ	228,551	226,155	217,125	202,774	184,378	184,039	196,404	180,897	227,807	213,053
Medical	914,203	848,081	868,499	760,404	760,560	790,687	762,874	673,337	629,875	556,734
Solutia contract	2,247,072	2,078,416	2,014,469	2,261,036	2,206,801	2,185,406	2,210,627	1,980,404	1,999,189	1,838,090
Town contracts	5,562,796	4,551,677	4,902,426	3,536,341	4,224,251	4,479,628	2,930,462	5,747,728	5,318,784	5,621,189
Total	<u>\$36,378,716</u>	<u>\$34,899,457</u>	<u>\$34,057,504</u>	<u>\$31,144,186</u>	<u>\$29,478,312</u>	<u>\$29,385,928</u>	<u>\$25,815,176</u>	<u>\$27,827,757</u>	<u>\$24,978,205</u>	<u>\$23,796,726</u>
% Change	4.2%	2.5%	9.4%	5.7%	0.3%	13.8%	-7.2%	11.4%	5.0%	

Source: Commission Billing System

Table 17
Capital Spending by Category
Last Ten Fiscal 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>	<u>Totals</u>	<u>% of Total</u>
Water	\$ 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	\$ 4,537,565	\$ 89,498,638	34%
Sewer	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	17,543,689	151,001,505	57%
Power Generation	952,337	894,471	253,744	221,315	652,885	89,872	117,351	4,723	109,068	990,465	4,446,231	2%
Support	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	1,441,007	20,066,046	8%
Total	<u>\$ 25,897,051</u>	<u>\$ 30,310,708</u>	<u>\$ 35,705,461</u>	<u>\$ 28,827,673</u>	<u>\$ 32,179,502</u>	<u>\$ 22,033,873</u>	<u>\$ 19,139,035</u>	<u>\$ 18,709,240</u>	<u>\$ 27,697,151</u>	<u>\$ 24,512,726</u>	<u>\$ 265,012,420</u>	<u>100%</u>

Source: Commission's Accounting System