

# Springfield

## Water and Sewer Commission

Springfield, Massachusetts



## Comprehensive Annual Financial Report

For the Fiscal Year Ended June 30, 2017

# **SPRINGFIELD WATER AND Sewer Commission**

## **Springfield, Massachusetts**

Comprehensive Annual Financial Report  
For the Year Ended June 30, 2017



### **COMMISSIONERS**

Daniel Rodríguez, Chair  
William Leonard  
Vanessa Otero

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**

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December 6, 2017

Springfield Water and  
Sewer Commission  
PO Box 995  
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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, 2017. 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, 2017.

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 2017 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 or 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 2017, the plant output was 11,300 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 2017 to meet the average annual power supply needs of approximately 1,600 homes in Massachusetts.

## **SEWER SYSTEM**

### *Wastewater Collection*

The Springfield Water and Sewer Commission services approximately 37,200 sewer accounts. The sewer collection consists of 145 miles of combined sewer (sewer and stormwater pipe), 314 miles of separated sewer pipe, 23 combined sewer overflow outfalls, 11,100 manholes, and 33 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 United Water 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. United Water 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	Daniel Rodriguez	Appointed by Mayor	June 30, 2019
Commissioner	William E. Leonard	Appointed by Mayor	June 30, 2018
Commissioner	Vanessa Otero	Appointed by Mayor	June 30, 2020

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. 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, Mercy Medical Center, and Solutia, Inc. 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 Babson Capital Management LLC 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. Bank of America, Santander Bank, Citizens Bank, Berkshire Bank and TD 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.

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 July of 2013, MGM International approved the host community agreement with the City of Springfield and has been awarded a state gaming license for its proposed \$800 million resort casino complex to be built in the City's downtown neighborhood. It is anticipated that the Casino will open in the fall of 2018.

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**

- Maintenance of Dam Facilities including design for the hydraulic components of the Intake Dam and toe drain construction for the Cherry Valley Dam in Ludlow, the construction of improvements to the Intake Dam access road
- Water Treatment Plant Facilities long term Planning Phase II engineering. Water Treatment Plant Facilities improvements including rapid sand filters wash water troughs, air valve actuators and air scour piping, chlorine feed piping replacement, chemical feed pump enhancements, and bulk chemical improvements
- Water Main Replacement in conjunction with the 2016-2017 infrastructure improvements project and 2017-18 infrastructure project that focuses on the Alden Street water main replacement in the vicinity of Springfield College

### **Wastewater**

- Comprehensive collection system cleaning, condition assessment and system mapping
- 2016-17 sewer infrastructure improvements construction project and design of the 2017-18 sewer system improvements
- Preliminary Design for the three pipe Connecticut River CSO and sewage system crossing and York Street pump station improvements
- Wastewater Treatment Plant electrical distribution upgrade
- Main Interceptor rehabilitation project



## Power Generation

- Power Generation System Improvements including replacement of the On-site Main Power Poles and 637 transmission line, and refurbishing of the Unit #2 butter fly valve and actuator.
- Engineering final design for the replacement of the electronic controls, SCADA and governor systems.
- Engineering final design for the major overhaul and rehabilitation of Power Unit #2.

## System Wide Support

- 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 75 % 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.

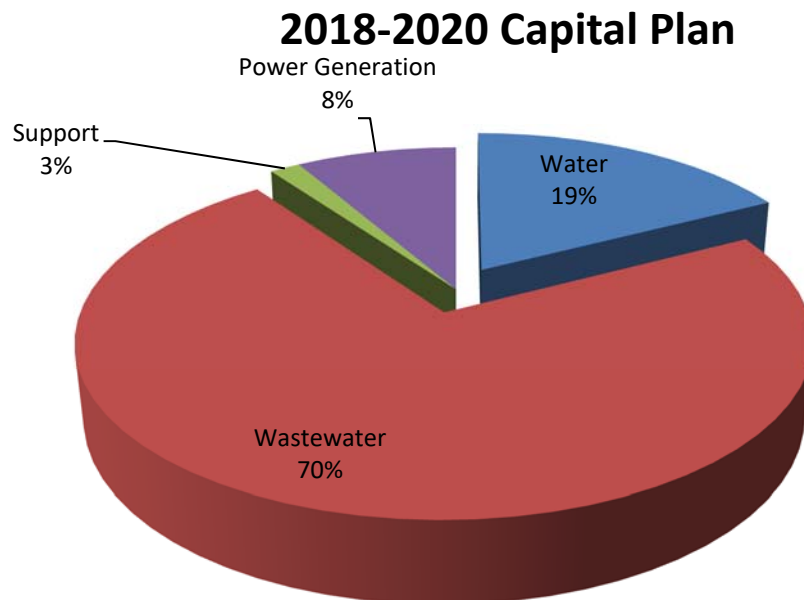
<i>Table I</i>			
<b>2018-2020 Capital Improvement Program Funding Sources</b>			
<b>Funding Source</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>
Revenues and Reserves	\$ 8,408,000	\$ 13,971,000	\$ 8,307,000
Bonds*	\$ 13,756,700	\$ 33,538,000	\$ 42,443,000
<b>Total</b>	<b>\$ 22,164,700</b>	<b>\$ 47,509,000</b>	<b>\$ 50,750,000</b>
*Includes SRF Funding			

*Table II*

2018-2020 Capital Improvement Program Funding of Activity Areas			
Activity Area	2018	2019	2020
Water	\$ 10,598,000	\$ 6,296,000	\$ 5,750,000
Wastewater	\$ 9,312,700	\$ 36,283,000	\$ 39,070,000
Power Generation	\$ 1,035,000	\$ 3,575,000	\$ 4,725,000
Support	\$ 1,219,000	\$ 1,355,000	\$ 1,205,000
<b>Total</b>	<b>\$ 22,164,700</b>	<b>\$ 47,509,000</b>	<b>\$ 50,750,000</b>

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 70% Wastewater improvements, 19% Water improvements, 8% 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 is presenting its Capital Expenditure program totaling \$95,101,000 for the three-year period 2017-2019. Expenditures are divided in four categories: Water Projects total \$28,750,000, Sewer Projects total \$54,411,000, Power Generation Projects total \$7,700,000 and other Support Projects total \$4,240,000.

Funding approval for the Fiscal Year 2017 Capital Projects total \$15,395,000. The spending plan is as follows: Water Projects total \$5,650,000 (37%), Sewer Projects total \$7,520,000 (49%), Power Generation Projects total \$500,000 (3%), and other Support Projects total \$1,725,000 (11%).

The various projects scheduled in fiscal year 2018 include the completion of the construction of a six mile 54" Transmission Main, the design for the sewer Connecticut River crossing, both Water and Wastewater Treatment Plant facilities improvements, a water and sewer rehabilitation project, the repair and replacement of sewer and drain pipe. Historically the Commission replaces over 3,000 feet of water distribution pipe 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', with a large, stylized loop at the end.

Joshua D. Schimmel  
Executive Director



Government Finance Officers Association

**Certificate of  
Achievement  
for Excellence  
in Financial  
Reporting**

Presented to

**Springfield Water and Sewer Commission  
Massachusetts**

For its Comprehensive Annual  
Financial Report  
for the Fiscal Year Ended

**June 30, 2016**

Executive Director/CEO

## **SPRINGFIELD WATER AND SEWER COMMISSION**

### **Commissioners**

Daniel Rodriguez, Chair

William E. Leonard

Vanessa Otero

### **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

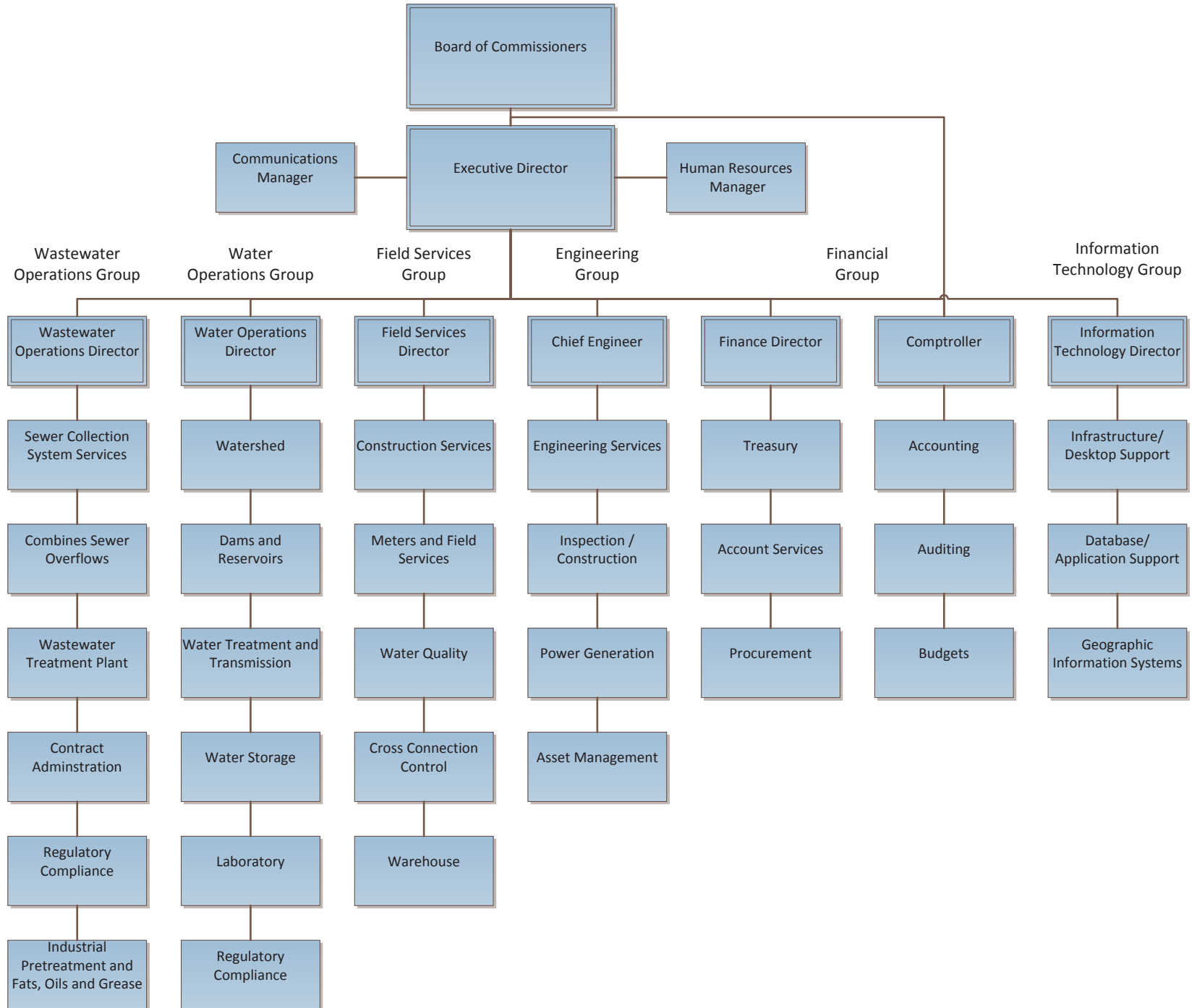
James M. Richardson, Information Technology Director

Susan Tower, Laboratory and Regulatory Manager

Jaimye Bartak, Communications Manager

# Springfield Water and Sewer Commission

## Organization Chart





## INDEPENDENT AUDITORS' REPORT

To the Commissioners  
Springfield Water and Sewer Commission  
Springfield, Massachusetts

### **Additional Offices:**

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

### **Report on the Financial Statements**

We have audited the accompanying financial statements of the business-type activities and aggregate remaining fund information of the Springfield Water and Sewer Commission, as of and for the year ended June 30, 2017 and the related notes to the financial statements, which collectively comprise 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.

## **Opinion**

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

## **Other Matters**

### *Required Supplementary Information*

Accounting principles generally accepted in the United States of America require that Management's Discussion and Analysis, and the Pension and OPEB Schedules appearing on pages 54 to 58 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.

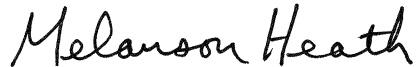
## **Other Information**

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 supplementary information appearing on page 59 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 an opinion 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 December 6, 2017, 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 to describe the scope of our testing of internal control over financial reporting and compliance and the results of that testing, and not to provide an opinion on internal control over financial reporting or on compliance. 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.

December 6, 2017

## **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, 2017.

### **A. OVERVIEW OF THE 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, 2017, it shows our net worth of \$123,894,230, which is comprised of \$140,096,489 invested in capital assets, \$46,627,990 restricted for other purposes, namely restricted cash and inventory, and a deficit of \$(62,830,249) 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, 2017 was a change of \$(2,450,437).

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>2017</u>	<u>2016</u>
Current Assets	\$ 94,452,567	\$ 106,746,813
Noncurrent Assets	2,840,055	2,948,216
Capital Assets	<u>317,429,679</u>	<u>297,552,240</u>
Total Assets	414,722,301	407,247,269
Deferred Outflows	<u>83,682,679</u>	<u>84,918,426</u>
Total Assets and Deferred Outflows	498,404,980	492,165,695
Current Liabilities	19,667,073	36,521,963
Noncurrent Liabilities	<u>250,985,194</u>	<u>238,558,430</u>
Total Liabilities	270,652,267	275,080,393
Deferred Inflows	<u>103,858,483</u>	<u>90,740,635</u>
Total Liabilities and Deferred Inflows	374,510,750	365,821,028
Net Investment in Capital Assets	140,096,489	124,851,184
Restricted - Other Purposes	46,627,990	37,694,132
Unrestricted	<u>(62,830,249)</u>	<u>(36,200,649)</u>
Total Net Position	<u>\$ 123,894,230</u>	<u>\$ 126,344,667</u>

	<u>2017</u>	<u>2016</u>
Operating Revenues	\$ 71,080,673	\$ 69,046,482
Operating Expenses	<u>(58,206,763)</u>	<u>(58,405,991)</u>
Operating Income	12,873,910	10,640,491
Nonoperating Revenues (Expenses)	(4,289,220)	(4,143,687)
Special Items	<u>(11,035,127)</u>	<u>(328,509)</u>
Increase (Decrease) in Net Position after Transfers	(2,450,437)	6,168,295
Beginning Net Position	<u>126,344,667</u>	<u>120,176,372</u>
Ending Net Position	<u>\$ 123,894,230</u>	<u>\$ 126,344,667</u>

**C. FINANCIAL HIGHLIGHTS**

The Commission ended the year with operating income of approximately \$12.9 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 2017, 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 \$180,000 more than budget. Wholesale water charges and fees were also more than budget by approximately \$320,000. Power generation revenues were more than estimates by approximately \$150,000. These and other factors resulted in total operating revenue of approximately \$71 million in fiscal year 2017, approximately \$430,000 more than budget, and \$2 million more than the prior year.

Operating expenses were less than budget by approximately \$2.8 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 \$(11,035,127) for fiscal year 2017.

As a result of the key elements described above, the activities for the year resulted in a change in net position of \$(2,450,437).

#### **D. BUDGETARY HIGHLIGHTS**

In fiscal year 2017 the Commission established a stabilization fund to provide reserves to protect the financial condition of the Commission. As a result, the original budget was increased by \$5 million, which represents a transfer to the newly created fund. This transfer was funded by surplus.

#### **E. CAPITAL ASSET AND DEBT ADMINISTRATION**

**Capital assets.** Total investment in capital assets at year-end amounted to \$317,429,679 (net of accumulated depreciation), an increase of approximately \$20 million from the prior year. 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 \$(8.8 million).
- \$1.1 million in electrical distribution upgrade.
- \$9.7 million in Main Interceptor project.
- \$200,000 in hydrant projects.
- \$800,000 in meter replacements.
- \$2 million in York Street and river design projects.
- \$3.1 million in sewer main rehabilitation projects.
- \$2.5 million in transmission system rehabilitations.
- \$2.6 million in collection system assessment and rehabilitation.
- \$2.1 million in distribution system assessment and rehabilitation.
- New vehicles and equipment purchases of \$2 million.
- Computer software and equipment purchases of \$300,000.
- Various other projects of \$2.4 million.

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

**Change in credit rating.** During the fiscal year, the Commission credit rating was upgraded by S&P from AA- to AA.

**Long-term debt.** At the end of the current fiscal year, total bonded debt outstanding was \$185,598,197, 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, 2017

**ASSETS**

Current:

Cash	\$ 26,145,697
Investments	6,904,339
Restricted cash	22,377,152
Restricted investments	22,606,537
Accounts receivable, net of allowance for uncollectibles	7,850,155
Intergovernmental receivable	7,946,522
Inventory, net of allowance	622,165
Total current assets	94,452,567

Noncurrent:

Intergovernmental receivable, net of current portion	1,322,692
Inventory held by others	1,022,136
Health insurance deposit	495,227
Capital assets, net of accumulated depreciation	244,987,233
Land and construction in progress	72,442,446
Total noncurrent assets	320,269,734

**DEFERRED OUTFLOWS OF RESOURCES**

Non-pension related deferred outflows of resources	79,063,461
Pension related deferred outflows of resources	4,619,218

**TOTAL ASSETS AND DEFERRED OUTFLOWS OF RESOURCES**

498,404,980

**LIABILITIES**

Current:

Accounts payable	4,384,007
Accrued payroll and withholdings	299,146
Notes payable	2,000,000
Accrued interest payable	1,764,063
Current portion of loans payable	11,051,478
Current portion of accrued compensated absences	168,379
Total current liabilities	19,667,073

Noncurrent:

Loans payable, net of current portion	174,546,719
Accrued compensated absences, net of current portion	1,279,730
Net OPEB liability	4,473,959
Net pension liability	70,364,834
Other accrued liabilities	319,952
Total noncurrent liabilities	250,985,194

**DEFERRED INFLOWS OF RESOURCES**

Non-pension related deferred inflows of resources	101,078,957
Pension related deferred inflows of resources	2,779,526

**TOTAL LIABILITIES AND DEFERRED INFLOWS OF RESOURCES**

374,510,750

**NET POSITION**

Net investment in capital assets	140,096,489
Restricted:	
Reserve for inventory	1,644,301
Reserve for stabilization fund	5,010,483
Reserve for debt covenants and scholarships	39,973,206
Unrestricted	(62,830,249)

**TOTAL NET POSITION**

\$ 123,894,230

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, 2017

**Operating Revenues:**

Water and sewer usage	\$ 70,958,566
Other	<u>122,107</u>
Total Operating Revenues	71,080,673

**Operating Expenses:**

Salaries and wages	13,196,653
Employee benefits	11,035,903
Operations	22,467,683
Intergovernmental	572,476
Capital outlay	1,209,614
Depreciation and amortization	9,040,841
Other	<u>683,593</u>
Total Operating Expenses	<u>58,206,763</u>
Operating Income	12,873,910

**Nonoperating Revenues (Expenses):**

Interest income	233,262
Interest expense	(4,678,636)
Grant reimbursement revenue	<u>156,154</u>
Total Nonoperating Revenues (Expenses), Net	<u>(4,289,220)</u>
Excess revenues before deferral adjustments	8,584,690
Excess revenues used to fund deferrals	<u>(11,035,127)</u>
Change in Net Position	(2,450,437)
Net Position at Beginning of Year	<u>126,344,667</u>
Net Position at End of Year	<u><u>\$ 123,894,230</u></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, 2017

**Cash Flows From Operating Activities:**

Receipts from customers and users	\$ 72,234,438
Payments to vendors	(36,304,560)
Payments to employees	<u>(9,434,961)</u>
Net Cash Provided By Operating Activities	26,494,917

**Cash Flows From Noncapital Financing Activities:**

Intergovernmental reimbursements	<u>266,908</u>
Net Cash Provided By Noncapital Financing Activities	266,908

**Cash Flows From Capital and Related Financing Activities:**

Acquisition and construction of capital assets	(28,719,218)
Proceeds from intergovernmental loans and grants	13,212,428
Premium on refunded bond	3,707,257
Principal payments on bonds and loans	(9,563,498)
Principal payments on capital leases	(158,328)
Payments of interest	<u>(7,409,419)</u>
Net Cash (Used For) Capital and Related Financing Activities	(28,930,778)

**Cash Flows From Investing Activities:**

Purchase of investments	(29,510,876)
Receipt of investment income	<u>233,262</u>
Net Cash (Used For) Investing Activities	<u>(29,277,614)</u>
Net Change in Cash and Short-Term Investments	(31,446,567)

Cash and Short Term Investments, Beginning of Year	<u>79,969,416</u>
Cash and Short Term Investments, End of Year	<u><u>\$ 48,522,849</u></u>

**Reconciliation of Operating Income to Net Cash Provided by (Used For) Operating Activities:**

Operating income	\$ 12,873,910
Adjustments to reconcile operating income to net cash provided by (used for) operating activities:	
Depreciation and amortization	9,040,841
Changes in assets and liabilities:	
Accounts receivable	1,153,765
Inventory	279,072
Accounts payable and accrued payroll	(664,338)
Accrued compensated absences	129,558
Net OPEB liability	1,048,186
Net pension liability, net of deferrals	2,547,122
Other accrued liabilities	<u>86,801</u>
Net Cash Provided By Operating Activities	<u><u>\$ 26,494,917</u></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, 2017

**ASSETS**

Current:

Cash	\$ 2,459
Investments	<u>753,127</u>

<b>TOTAL ASSETS</b>	755,586
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**NET POSITION**

Total net position held in trust	<u>755,586</u>
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<b>TOTAL NET POSITION</b>	<u><u>\$ 755,586</u></u>
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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, 2017

**Additions:**

Employer contributions	\$ 716,848
Interest	<u>43,957</u>
Total Additions	760,805

**Deductions:**

Benefit payments	<u>451,848</u>
Change in Net Position	308,957

**Net Position restricted for benefits:**

Net Position at Beginning of Year	<u>446,629</u>
Net Position at End of Year	<u><u>\$ 755,586</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 *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 equivalents. 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 market value. 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 expenditures/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. As of June 30, 2017, none of the Commission's bank balance of \$78.6 million 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.

Massachusetts General Law Chapter 44, Section 55 limits deposits "in a bank or trust company or banking company to an amount not exceeding sixty per cent 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.

The Commission votes annually to fund capital projects from current year revenue. Included in the Commission's cash balance is \$9,309,325 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, 2017:

Stabilization Fund	\$ 5,010,483
Reserve Funds:	
Operating Reserve Fund	8,285,964
Renewal/Replacement Fund	1,000,000
Debt Service Fund	15,440,996
Debt Service Reserve Fund	15,164,090
Other Funds:	
Scholarship Trust Fund	82,156
Total	<u>\$ 44,983,689</u>
Restricted balances:	
Restricted cash	22,377,152
Restricted investments	<u>22,606,537</u>
Total	<u>\$ 44,983,689</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 505 of the General Bond Resolution.

Of the Commission's investments, certificates of deposit, 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.

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>	<u>Exempt from Disclosure</u>	<u>Investment Maturities (in Years)</u>	
			<u>Less Than 1</u>	<u>1-5</u>
Certificates of deposit	\$ 13,239,989	\$ -	\$ 3,813,069	\$ 9,426,920
Government bonds	16,270,887	-	4,394,589	11,876,298
Mutual funds	<u>753,127</u>	<u>753,127</u>	<u>-</u>	<u>-</u>
Total investments	\$ <u>30,264,003</u>	\$ <u>753,127</u>	\$ <u>8,207,658</u>	\$ <u>21,303,218</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, 2017 all of the Commission's investments in governmental bonds 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, 2017:

Customer Accounts:		
Billed water, sewer and wastewater regional	\$	3,330,742
Less: allowances		<u>(518,421)</u>
Total billed		2,812,321
Unbilled water (including power generation) and sewer		5,087,929
Adjustment to wastewater regional and sewer pump station for actual usage through June 30, 2017		<u>(50,095)</u>
Total customer accounts	\$	<u><u>7,850,155</u></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, 2017. These funds are expected to be drawn down as project costs are incurred in fiscal year 2018.	\$ 7,838,361	\$ -
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>108,161</u>	<u>1,322,692</u>
Total Balance June 30, 2017	<u><u>\$ 7,946,522</u></u>	<u><u>\$ 1,322,692</u></u>

## 8. Inventory for Consumption

This inventory balance at June 30, 2017 consists of the following:

Fuel inventory (gasoline and diesel)	\$ 54,239
Materials inventory (parts and supplies)	834,260
Less adjustment for obsolete and slow moving materials inventory	<u>(266,334)</u>
Total	<u>\$ 622,165</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, 2017 was as follows (in thousands):

	Beginning Balance	Increases	Decreases	Convert to Capital Assets	Ending Balance
Capital assets, being depreciated:					
Furniture and fixtures	\$ 9,599	\$ -	\$ -	\$ 430	\$ 10,029
Vehicles and equipment	9,644	-	-	985	10,629
Buildings and improvements	8,889	-	-	95	8,984
Infrastructure	<u>364,569</u>	<u>-</u>	<u>-</u>	<u>10,882</u>	<u>375,451</u>
Total capital assets, being depreciated	392,701	-	-	12,392	405,093
Less accumulated depreciation for:					
Furniture and fixtures	(5,253)	(774)	-	-	(6,027)
Vehicles and equipment	(7,578)	(1,093)	-	-	(8,671)
Buildings and improvements	(2,112)	(309)	-	-	(2,421)
Infrastructure	<u>(136,321)</u>	<u>(6,666)</u>	<u>-</u>	<u>-</u>	<u>(142,987)</u>
Total accumulated depreciation	<u>(151,264)</u>	<u>(8,842)</u>	<u>-</u>	<u>-</u>	<u>(160,106)</u>
Total capital assets, being depreciated, net	241,437	(8,842)	-	12,392	244,987
Capital assets, not being depreciated:					
Land	5,651	-	-	-	5,651
Construction in progress	<u>50,464</u>	<u>28,719</u>	<u>-</u>	<u>(12,392)</u>	<u>66,791</u>
Total capital assets, not being depreciated	<u>56,115</u>	<u>28,719</u>	<u>-</u>	<u>(12,392)</u>	<u>72,442</u>
Capital assets, net	<u>\$ 297,552</u>	<u>\$ 19,877</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ 317,429</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, 2017:

Non-pension related:	
Unamortized loss on refunding of debt	\$ 2,132,397
Deferred charges	<u>76,931,064</u>
Total Non-Pension Related	79,063,461
Total Pension Related	<u>4,619,218</u>
Total Deferred Outflows	<u>\$ 83,682,679</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 *Accounting and Financial Reporting for Pensions* are more formally discussed in Note 17 on page 46.

### 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, 2017:

Non-pension related:	
Deferred credits	\$ 101,078,957
Pension Related	<u>2,779,526</u>
Total Deferred Inflows	<u>\$ 103,858,483</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 in accordance with GASB Statement No. 68 *Accounting and Financial Reporting for Pensions* are more formally discussed in Note 17 on page 46.

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:

	<u>06/30/16</u>	Increase <u>(Decrease)</u>	<u>06/30/17</u>
<u>Deferred Charges</u>			
Accrued workers compensation	\$ 233,151	\$ 86,801	\$ 319,952
Accrued compensated absences	1,318,551	129,558	1,448,109
Net OPEB liability	3,425,773	1,048,186	4,473,959
Net pension liability	72,326,184	(1,961,350)	70,364,834
Privatization costs	<u>423,969</u>	<u>(99,759)</u>	<u>324,210</u>
Total Deferred Charges	<u>\$ 77,727,628</u>	<u>\$ (796,564)</u>	<u>\$ 76,931,064</u>
<u>Deferred Credits</u>			
Capital improvements, net of depreciation	\$ 34,775,688	\$ 1,201,304	\$ 35,976,992
Principal debt payments	55,469,720	9,137,018	64,606,738
Group insurance deposit	<u>495,227</u>	<u>-</u>	<u>495,227</u>
Total Deferred Credits	<u>\$ 90,740,635</u>	<u>\$ 10,338,322</u>	<u>\$ 101,078,957</u>
Net change for year		(11,134,886)	
Less privatization costs included in amortization expense		<u>99,759</u>	
Excess revenues used to fund deferrals		<u>\$ (11,035,127)</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 2018.

The following summarizes activity in notes payable during fiscal year 2017:

<u>Purpose</u>	<u>Balance Beginning of Year</u>	<u>Increase in Loan Amount</u>	<u>Converted to Long-Term Debt</u>	<u>Balance End of Year</u>
Massachusetts Clean Water Trust Interim note 14-27	\$ 19,621,815	\$ 5,326,372	\$ (22,948,187)	\$ 2,000,000

## 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, 2017 follows:

	<u>Serial Maturities Through</u>	<u>Interest Rate(s)%</u>	<u>Loan Balance Outstanding June 30, 2017</u>	<u>Bond Premium Amortization</u>	<u>Total Balance June 30, 2017</u>
Sewer (MCWT 94-24 / 95-07 / 98-133)	08/01/20	1.00 - 2.75	1,620,344	-	1,620,344
Sewer (United Water)	10/01/20	Various	305,787	-	305,787
Revenue bonds (refunding)	11/01/21	4.0 - 5.0	3,880,000	-	3,880,000
Sewer CSO (MCWT CW-01-39)	08/01/22	1.00 - 2.75	1,256,617	-	1,256,617
Revenue bonds - 2014C	07/15/26	3.0 - 5.0	14,425,000	2,376,453	16,801,453
Revenue bonds - 2008A	10/15/28	4.0 - 5.75	1,330,000	4,704	1,334,704
Sewer CSO (MCWT CW-08-36)	07/15/30	2.00	7,218,131	-	7,218,131
Revenue bonds - 2010B	11/15/30	3.0 - 5.0	5,460,000	451,529	5,911,529
Revenue bonds - 2017B (refunding)	04/15/31	2.0 - 5.0	20,925,000	3,707,257	24,632,257
Sewer CSO (MCWT CW-08-36-A)	07/15/32	2.00	5,111,595	-	5,111,595
Sewer CSO (MCWT CW-10-06)	07/15/32	2.00	1,429,137	-	1,429,137
Sewer CSO (MCWT CW-11-01)	07/15/32	2.00	5,331,200	-	5,331,200
Sewer CSO (MCWT CW-11-22)	01/15/33	2.00	1,306,576	-	1,306,576
Revenue bonds - 2014A	07/15/34	3.0 - 5.0	23,890,000	1,326,976	25,216,976
Sewer CSO (MCWT CW-12-03)	01/15/35	2.00	18,052,680	-	18,052,680
Sewer CSO (MCWT CW-13-16)	01/15/35	2.00	20,769,702	-	20,769,702
Sewer CSO (MCWT CW-14-27)	01/15/37	2.00	22,948,187	-	22,948,187
Sewer CSO (MCWT CW-06-27)	07/15/37	2.00	22,471,322	-	22,471,322
Total Long-Term Debt			\$ 177,731,278	\$ 7,866,919	\$ 185,598,197



**B. Future Debt Service**

The annual payments to retire all general obligation long-term debt outstanding (including bond premium amortization) as of June 30, 2017 are as follows:

	<u>Principal</u>	<u>Interest</u>	<u>Total</u>
2018	\$ 11,051,478	\$ 5,126,366	\$ 16,177,844
2019	11,248,151	5,210,269	16,458,420
2020	11,510,029	4,637,266	16,147,295
2021	11,701,017	4,588,538	16,289,555
2022	11,368,646	3,905,574	15,274,220
2023 - 2027	54,052,972	14,271,161	68,324,133
2028 - 2032	45,293,074	6,660,132	51,953,206
Thereafter	<u>29,372,830</u>	<u>1,673,019</u>	<u>31,045,849</u>
Total	<u>\$ 185,598,197</u>	<u>\$ 46,072,325</u>	<u>\$ 231,670,522</u>

**C. Long-Term Debt Activity**

The following summarizes activity in long-term obligations during 2017 (in thousands):

	<u>Balance</u> <u>Balance</u> <u>07/01/16</u>	<u>Increase</u>	<u>Decrease</u>	<u>Balance</u> <u>06/30/17</u>	<u>Less</u> <u>Current</u> <u>Portion</u>	<u>Equals</u> <u>Long -Term</u> <u>Portion</u>
<u>Long-Term Debt:</u>						
Loans Payable	\$ 170,822	\$ 47,580	\$ (32,804)	\$ 185,598	\$ (11,051)	\$ 174,547
Accrued compensated absences	1,319	265	(136)	1,448	(168)	1,280
Net OPEB liability	3,426	1,048	-	4,474	-	4,474
Net pension liability	72,326	-	(1,961)	70,365	-	70,365
<u>Other:</u>						
Capital lease payable	158	-	(158)	-	-	-
Accrued workers compensation	<u>233</u>	<u>87</u>	<u>-</u>	<u>320</u>	<u>-</u>	<u>320</u>
Total	<u>\$ 248,284</u>	<u>\$ 48,980</u>	<u>\$ (35,059)</u>	<u>\$ 262,205</u>	<u>\$ (11,219)</u>	<u>\$ 250,986</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, 2017.

*E. Advance Refunding*

On May 3, 2017 the Commission issued refunding revenue bonds in the amount of \$20,925,000 (interest rate ranging from 2% - 5%), to advance refund \$8,490,000 of 2008 bonds with interest rates ranging from 5% - 5.75% and \$13,650,000 of 2010 bonds with an interest rate of 5%. The 2008 and 2010 bonds mature on October 15, 2028 and November 15, 2030 and are redeemable October 15, 2018 and November 15, 2020, respectively. The refunding bonds were issued at 119% and, after paying issuance costs of \$172,787, the net proceeds were \$ 24,805,045. The net proceeds 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 bonds are called on October 15, 2018 and November 15, 2020, respectively. The advance refunding met the requirements of an in-substance debt defeasance and the refunded bonds were removed from the Commission's financial statements.

As a result of the advance refunding, the Commission reduced its total debt service cash flow requirements by \$(2,244,505) which resulted in an economic gain (difference between the present value of the debt service payments on the old and new debt) of \$2,431,894.

Defeased debt still outstanding at June 30, 2017 is \$22,140,000.

**14. Restricted Net Position**

The balance in restricted net position of \$46,627,990 represents the restricted cash balance for required reserves and scholarships of \$39,973,206, the balance in the Commission's Stabilization fund of \$5,010,483, and the total value of inventory of \$1,644,301.

**15. Other Post-Employment Benefits – OPEB (GASB 45)**

GASB Statement No. 45, *Accounting and Financial Reporting by Employers for Post-Employment Benefits Other Than Pensions*, requires governments to account for other post-employment benefits (OPEB), primarily healthcare, on an accrual basis rather than on a pay-as-you-go basis. The effect is the recognition of an actuarially required contribution as an expense on the statement of activities when a future retiree earns their post-employment benefits, rather than when they use their post-employment benefit. To the extent that an entity does not fund their actuarially required contribution, a post-employment benefit liability is recognized on the statement of net position over time.

*A. Plan Description*

In addition to providing the pension benefits described in Note 17, the Commission provides post-employment healthcare benefits for retired employees through the City of Springfield's plan administered through the Group Insurance Commission (GIC). The GIC is a quasi-independent state agency that administers an agent multi-employer defined benefit OPEB plan. As of December 31, 2015, the actuarial valuation date, approximately 172 retirees and 234 active employees meet the eligibility requirements. The plan does not issue a separate financial report.

*B. Benefits Provided*

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

*C. Funding Policy*

Retirees contribute 25% of the cost of the health plan, as determined by the Commission. The Commission contributes the remainder of the health plan costs on a pay-as-you-go basis.

*D. Annual OPEB Costs and Net OPEB Liability*

The Commission's fiscal 2017 annual OPEB expense is calculated based on the annual required contribution of the employer (ARC), an amount actuarially determined in accordance with the parameters of GASB Statement No. 45. The ARC represents a level of funding that, if paid on an ongoing basis, is projected to cover the normal cost per year and amortize the unfunded actuarial liability over a period of thirty years. The following table shows the components of the Commission's annual OPEB cost for the year ending June 30, 2017, the amount actually contributed to the plan, and the change in the Commission's net OPEB liability based on an actuarial valuation as of December 31, 2015 (in thousands):

Annual Required Contribution (ARC)	\$ 1,732
Interest on net OPEB obligation	162
Adjustment to ARC	<u>(129)</u>
Annual OPEB cost	1,765
Contributions made	<u>(717)</u>
Increase in net OPEB liability	1,048
Net OPEB liability - beginning of year	<u>3,426</u>
Net OPEB liability - end of year	<u><u>\$ 4,474</u></u>

The Commission's annual OPEB cost, the percentage of annual OPEB cost contributed to the plan, and the net OPEB liability were as follows:

Fiscal Year <u>Ended</u>	Annual OPEB <u>Cost</u>	Percentage of OPEB <u>Cost Contributed</u>	Net OPEB <u>Liability</u>
2017	\$1,765	41%	\$4,474
2016	\$1,664	50%	\$3,426
2015	\$1,593	16%	\$2,600

*E. Funding Status and Funding Progress*

The funded status of the plan as of December 31, 2015, the date of the most recent actuarial valuation was as follows (in thousands):

Actuarial accrued liability (AAL)	\$ 17,343
Actuarial value of plan assets	<u>(429)</u>
Unfunded actuarial accrued liability (UAAL)	<u>\$ 16,914</u>
Funded ratio (actuarial value of plan assets/AAL)	<u>2.47%</u>
Covered payroll (active plan members)	N/A
UAAL as a percentage of covered payroll	N/A

Actuarial valuations of an ongoing plan involve estimates of the value of reported amount and assumptions about the probability of occurrence of events far into the future. Examples included assumptions about future employment, mortality, and the healthcare cost trend. Amounts determined regarding the funded status of the plan and the annual required contributions of the employer are subject to continual revision as actual results are compared with past expectations and new estimates are made about the future. The schedule of OPEB funding progress, presented as required supplementary information following the notes to the financial statements, presents multiyear trend information that shows whether the actuarial value of plan assets is increasing or decreasing over time relative to the actuarial accrued liabilities for benefits.

*F. Actuarial Methods and Assumptions*

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

In the December 31, 2015 actuarial valuation the projected unit credit cost method was used. The actuarial assumptions included a 4.75% investment rate of return and an initial annual healthcare cost trend rate of 6%, which decreases to a 5% long-term rate for all healthcare benefits after ten years. The amortization costs for the initial UAAL is a level percentage of payroll for a period of 30 years, on a closed basis. This has been calculated assuming the amortization payment increases at a rate of 4%.

**16. Other Post-Employment Benefits – OPEB (GASB 74)**

In August 2015, the Commission established an OPEB Trust fund to provide funding for future employee health care costs.

### Investments

The OPEB Trust fund has a formal investment policy which states that the investment of fund monies must be consistent with the prudent person standard set forth in Massachusetts General Law Chapter 203C. At June 30, 2017, investments consisted of mutual funds. Concentration and rate of return information was not available.

### Net OPEB Liability

The components of the net OPEB liability were as follows (in thousands):

Total OPEB liability	\$ 24,214
Plan fiduciary net position	<u>(756)</u>
Net OPEB liability	<u>\$ 23,458</u>
Plan fiduciary net position as a percentage of the total OPEB liability	3%

#### A. Actuarial Assumptions

The total OPEB liability was determined by an actuarial valuation as of December 31, 2015, using the following actuarial assumptions, applied to all periods included in the measurement, unless otherwise specified:

Inflation	4.0%
Salary increases	4.25 – 6.0%
Investment rate of return	6.5%, net of OPEB plan including inflation

Pre-retirement rates for mortality were based on RP-2000 Employee Mortality Table projected generationally with Scale BB from 2009 and post-retirement rates for mortality were based on RP-2000 Healthy Annuitant Mortality Table projected generationally with Scale BB from 2009. For disabled retirees, the table was set forward three years.

The actuarial assumptions used in the December 31, 2015 valuation were based on the results of an actuarial experience study for the year then ended.

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, 2017 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%
Alternatives	<u>20.00%</u>	3.75% - 10.47%
Total	<u>100.00%</u>	

**B. Discount Rate**

The discount rate used to measure the total OPEB liability was 4.0%. The projection of cash flows used to determine the discount rate assumed that contributions from plan member 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.

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

The following presents the net OPEB liability as well as what the net OPEB liability would be if it were calculated using a discount rate that is 1-percentage-point lower (3.0 percent) or 1-percentage-point higher (5.0 percent) than the current discount rate (in thousands):

	1% Decrease (3.0%)	Discount Rate (4.0%)	1% Increase (5.0%)
Net OPEB liability	\$28,560	\$23,458	\$19,491

**C. 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 were calculated using healthcare cost trend rates that are 1-percentage-point lower (5.0 percent) or 1-percentage-point higher (7.0 percent) than the current healthcare cost trend rates (in thousands):

	1% Decrease (5.0%)	Healthcare Cost Trend Rates (6.0%)	1% Increase (7.0%)
Net OPEB liability	\$18,636	\$23,458	\$30,023

**17. 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, 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 10 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 February 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 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:

Membership Date	% of Compensation
Prior to 1975	5% of regular compensation
1975 – 1983	7% of regular compensation
1984 to 6/30/1996	8% of regular compensation
7/1/1996 to present	9% of regular compensation
7/1/2001 to present	11% of regular compensation (for teachers hired after 7/1/01 and those accepting provisions of Chapter 114 of the Acts of 2000)
1979 to present	An additional 2% of regular compensation in excess of \$30,000

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

#### Participant Refunds

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

#### Employer Contributions

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

The Commission's contribution to the System for the year ended June 30, 2017 was approximately \$4.2 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, 2017, the Commission reported a liability of \$70 million for its proportionate share of the net pension liability. The net pension liability was measured as of December 31, 2016, and the total pension liability used to calculate the net pension liability was determined by an actuarial valuation as of January 1, 2016, rolled forward to December 31, 2016. 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, 2017, the Commission's proportion was 8.235 percent, which was a decrease of (0.45) from its proportion measured as of June 30, 2016.

For the year ended June 30, 2017, the Commission recognized pension expense of \$6.7 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	\$ 651	\$ -
Changes of assumptions	2,830	-
Net difference between projected and actual earnings on pension plan investments	1,138	-
Changes in proportion and differences between contributions and proportionate share of contributions	<u>-</u>	<u>2,779</u>
Total	<u>\$ 4,619</u>	<u>\$ 2,779</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:

2018	\$ 549
2019	549
2020	539
2021	<u>203</u>
Total	<u>\$ 1,840</u>

Changes of Assumptions

Investment rate of return was reduced from 7.75% in 2014 to 7.65% in 2016 to more closely mirror a new 30-year study. This had the effect of increasing the total actuarial liability by \$24.2 million.

The ultimate rates for salary increases were between 4.25 – 4.75%, which is higher than the estimate of 4.0% used in the 2014 valuation. This had the effect of increasing the total actuarial liability by \$6 million.

While the mortality tables did not change, the Scale was changed from AA to BB, along with other modifications 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 \$23.8 million.

The provisions of Chapter 176 changed MGL Chapter 32 in several ways, including increasing normal retirement age from 65 to 67 and increasing the number of years for determining average compensation from 3 to 5 years. Since these changes affect members hired after April 1, 2012, the impact is more long-term, although in 2016 the effect was to reduce the total pension liability by \$2.6 million.

*D. Actuarial Assumptions*

The total pension liability in the January 1, 2016 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:	7.65%
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, 2016 valuation were based on the results of the most recent actuarial experience study, which was for the two years ending December 31, 2015.

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>
Large Cap Equities	14.50%	7.50%
Small/Mid Cap Equities	3.50%	7.75%
International Equities (Unhedged)	16.00%	7.83%
Emerging International Equities	6.00%	9.61%
High-Yield Bonds	1.50%	5.75%
Bank Loans	1.50%	6.00%
EMD (External)	1.00%	5.75%
EMD (Local Currency)	2.00%	6.50%
Private Debt	4.00%	9.06%
TIPS	3.00%	3.75%
Long Treasuries	10.00%	3.75%
Private Equity	10.00%	9.50%
Real Estate (Core)	10.00%	6.50%
Hedge Funds	9.00%	6.48%
Timber/Natural Resources	4.00%	6.00%
Portfolio Completion	4.00%	6.48%
Total	<u>100.00%</u>	

*E. Discount Rate*

The discount rate used to measure the total pension liability was 7.65%. 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 7.65 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 (6.65%) or 1 percentage-point higher (8.65%) than the current rate (in thousands):

<u>Fiscal Year Ended</u>	<u>1% Decrease to 6.65%</u>	<u>Current Discount Rate 7.65%</u>	<u>1% Increase to 8.65%</u>
June 30, 2017	\$80,811	\$70,365	\$61,511

*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.

## **18. 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.

Outstanding Legal Issue – There is a pending legal issue in which the Commission is involved. The amount of the claim is not material and as a result, no liability has been recorded in the Commission's financial statements.

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. Completion of final design is anticipated in calendar year 2018. 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 nearing completion at this time. The Commission anticipates that the US EPA will issue a new NPDES Permit for CSOs and the Springfield Regional Wastewater Treatment Facility that 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 June 30, 2017, the Trust contracted with an insurance carrier for excess liability coverage which takes effect when an individual claim exceeds \$275,000.

If the Trust were to experience a cash deficit, each member would be required to contribute additional funds. At June 30, 2017, according to the Trust's unaudited financial statements, after accruing an estimated liability for incurred but unreported claims of approximately \$4.4 million, the Trust was in a surplus position of \$18.7 million.

## **19. Subsequent Events**

### Debt

In July 2017, the Commission issued a general revenue bond for \$21,070,000. The bond carries an interest rate of 2-5% and is payable over the next twenty years.

**20. Transactions with City of Springfield**

Other than the retirement system contribution previously noted, the Commission's fiscal year 2017 transactions with the City consist of payments for Police Department services of \$880,000, for retiree health insurance of \$264,500, and other City Department services and fees totaling \$425.

**21. Wastewater Regional Operations Management**

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

- All assets remain the property of the Commission.
- Equipment/inventory used over the 20-year term is to be replaced/ reimbursed by SUEZ Water.
- The Commission continues to control the customer billing process.
- The Commission agreed to incur a maximum of \$10.3 million for the initial capital improvements to the facility. These improvements became the property of the Commission upon acceptance of the work performed.
- SUEZ Water bills the Commission monthly for the cost of providing service and an administrative fee. The monthly cost as of June 2017 was approximately \$910,000.
- 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, 2017, the letter of credit was approximately \$20.7 million.

**22. Implementation of New GASB Standard**

The Government Accounting Standards Board (GASB) has issued Statement No. 75, Accounting and Financial Reporting for Post-Employment Benefits Other than Pensions, replacing requirements of Statements No. 45 and 57, effective for the Commission beginning with its year ending June 30, 2018. This statement establishes standards for recognizing and measuring liabilities, deferred outflows of resources, deferred inflows of resources, and expense/expenditures. In addition, this Statement details the recognition and disclosure requirements for employers with payables to defined benefit OPEB plans that are administered through trusts that meet the specific criteria and for employers whose employees are provided with defined contribution OPEB.

SPRINGFIELD WATER AND SEWER COMMISSION

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

JUNE 30, 2017

(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, 2017	December 31, 2016	8.235%	\$70,365	\$12,530	561.57%	25.92%
June 30, 2016	December 31, 2015	8.685%	\$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)

JUNE 30, 2017

(Unaudited)

(Amounts expressed in thousands)

**Springfield Contributory Retirement System**

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<u>Fiscal Year</u>	<u>Contractually Required Contribution</u>	<u>Contributions in Relation to the Contractually Required Contribution</u>	<u>Contribution Deficiency (Excess)</u>	<u>Covered Payroll</u>	<u>Contributions as a Percentage of Covered Payroll</u>
June 30, 2017	\$ 4,165	\$ 4,165	\$ -	\$ 12,351	33.72%
June 30, 2016	\$ 4,143	\$ 4,143	\$ -	\$ 12,606	32.87%
June 30, 2015	\$ 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  
SCHEDULE OF OPEB FUNDING PROGRESS (GASB 45)

JUNE 30, 2017

(Unaudited)

(Amounts expressed in thousands)

<b>Other Post-Employment Benefits</b>						
Actuarial Valuation <u>Date</u>	Actuarial Value of Assets <u>(a)</u>	Actuarial Accrued Liability (AAL) - Entry Age <u>(b)</u>	Unfunded AAL (UAAL) <u>(b-a)</u>	Funded Ratio <u>(a/b)</u>	Covered Payroll <u>(c)</u>	UAAL as a Percent- age of Covered Payroll <u>[(b-a)/c]</u>
12/31/15	\$429	\$17,343	\$16,914	2.47%	N/A	N/A
12/31/13	-	\$15,837	\$15,837	0.0%	N/A	N/A

See Independent Auditors' Report.



SPRINGFIELD WATER AND SEWER COMMISSION  
OTHER POST-EMPLOYMENT BENEFITS (OPEB)  
SCHEDULE OF CHANGES IN THE NET OPEB LIABILITY (GASB 74)

(Unaudited)

(Amounts expressed in thousands)

	<u>2017</u>
<b>Total OPEB liability</b>	
Service cost	\$ 1,513
Interest on unfunded liability - time value of \$	888
Changes of assumptions	(3,592)
Benefit payments, including refunds of member contributions	<u>(452)</u>
Net change in total OPEB liability	(1,643)
Total OPEB liability - beginning	<u>25,857</u>
<b>Total OPEB liability - ending (a)</b>	<u><u>\$ 24,214</u></u>
<b>Plan fiduciary net position*</b>	
Contributions - employer	\$ 717
Net investment income	44
Benefit payments, including refunds of member contributions	<u>(452)</u>
Net change in plan fiduciary net position	309
Plan fiduciary net position - beginning	<u>447</u>
<b>Plan fiduciary net position - ending (b)</b>	<u><u>\$ 756</u></u>
<b>Net OPEB liability (asset) - ending (a-b)</b>	<u><u>\$ 23,458</u></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)

(Unaudited)

(Amounts expressed in thousands)

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

FOR THE YEAR ENDED JUNE 30, 2017

	Original <u>Budget</u>	Final <u>Budget</u>	<u>Actual</u>	Variance Favorable (Unfavorable)
Expenditures and other uses:				
Salaries and wages	\$ 14,080,700	\$ 13,849,700	\$ 13,039,890	\$ 809,810
Employee benefits	7,649,136	7,649,136	7,353,794	295,342
Operations	23,390,680	23,621,680	22,664,247	957,433
Intergovernmental	594,371	594,371	572,476	21,895
Capital outlay	403,950	403,950	309,413	94,537
Other	567,015	567,015	551,750	15,265
Debt principal	9,137,018	9,137,018	9,137,018	-
Debt interest	5,326,253	5,326,253	4,678,586	647,667
Transfer out	<u>-</u>	<u>5,000,000</u>	<u>5,000,000</u>	<u>-</u>
Total Expenditures	\$ <u>61,149,123</u>	\$ <u>66,149,123</u>	\$ <u>63,307,174</u>	\$ <u>2,841,949</u>

See Independent Auditors' Report.

## Notes to Supplemental Schedule

### Schedule of Operating Expenditures - Budget and Actual

#### Budgetary Basis

The appropriation appearing on page 59 of the financial statements represents the operating budget of the Commission that was originally authorized in June 2016.

#### 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)	\$ 58,206,763
Non-operating expenditures (GAAP basis)	4,678,636
Net down effect of adding Stabilization fund activity	5,000,000
Reverse capital expenditures appropriated in a prior fiscal year	(900,569)
Reverse the effect of prior year and current year GAAP accruals of:	
Accounts payable and accrued payroll	6,044
Interest on long-term debt	(63,207)
Amortization of deferred loss on refunding	32,846
Accrued compensated absences	(129,558)
Capital lease liability	158,328
Net OPEB liability	(1,048,186)
Net pension liability, net of deferrals	(2,547,122)
Accrued workers compensation	<u>(86,801)</u>
Budgetary basis	<u>\$ 63,307,174</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 62 and 63.

- 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 64 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><b>2017</b></u>	<u><b>2016</b></u>	<u><b>2015</b></u>	<u><b>2014</b></u>	<u><b>2013</b></u>	<u><b>2012</b></u>	<u><b>2011</b></u>	<u><b>2010</b></u>	<u><b>2009</b></u>	<u><b>2008</b></u>
Net investment in capital assets	\$ 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	\$ 99,253,813
Restricted	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	21,028,273
Unrestricted	<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>	<u>(14,323,906)</u>
Total net position	<u><u>\$ 123,894,230</u></u>	<u><u>\$ 126,344,667</u></u>	<u><u>\$ 120,176,372</u></u>	<u><u>\$ 113,334,230</u></u>	<u><u>\$ 117,733,760</u></u>	<u><u>\$ 114,429,711</u></u>	<u><u>\$ 108,632,334</u></u>	<u><u>\$ 104,307,687</u></u>	<u><u>\$ 106,045,372</u></u>	<u><u>\$ 105,958,180</u></u>

Source: Audited Financial Statements (2008 - 2009 as modified)

**Table 2**  
**Changes in Net Position**  
**Last Ten Fiscal 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>
<b>Operating Revenues</b>										
Water and sewer usage	\$ 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	\$ 50,785,869
Other income	<u>122,107</u>	<u>220,121</u>	<u>252,568</u>	<u>442,440</u>	<u>323,306</u>	<u>468,610</u>	<u>208,003</u>	<u>132,699</u>	<u>301,775</u>	<u>1,095,018</u>
Total Operating Revenues	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	51,880,887
<b>Operating and Maintenance Expenses</b>										
Salaries and wages	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	11,519,326
Employee benefits	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	4,561,640
Operations	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	20,341,337
Intergovernmental	572,476	557,125	540,163	519,315	504,188	493,920	500,914	486,892	477,701	454,092
Capital outlay	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	1,485,567
Other	<u>683,593</u>	<u>379,835</u>	<u>521,140</u>	<u>561,054</u>	<u>413,520</u>	<u>615,729</u>	<u>355,459</u>	<u>358,107</u>	<u>308,747</u>	<u>315,916</u>
<b>Total Operating Expenses</b>	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	38,677,878
Depreciation and amortization	<u>9,040,841</u>	<u>8,623,900</u>	<u>7,951,427</u>	<u>7,142,654</u>	<u>7,104,089</u>	<u>6,977,531</u>	<u>7,044,059</u>	<u>6,342,586</u>	<u>6,073,872</u>	<u>5,563,974</u>
Excess Operating Revenues	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	7,639,035
<b>Non-operating Revenues (Expenses)</b>										
Interest income	233,262	15,564	15,027	13,709	16,180	19,618	30,006	49,600	278,324	1,331,957
Interest expense	(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)	(2,289,887)
Other	<u>-</u>	<u>83,797</u>	<u>81,045</u>	<u>661,249</u>	<u>-</u>	<u>38,574</u>	<u>9,781</u>	<u>(4,015)</u>	<u>(125,989)</u>	<u>(124,260)</u>
<b>Total Non-operating Expenses</b>	(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)	(1,082,190)
Capital grants and contributions	<u>156,154</u>	<u>792,512</u>	<u>1,643,475</u>	<u>-</u>	<u>1,227,663</u>	<u>1,737,571</u>	<u>362,428</u>	<u>2,740,324</u>	<u>251,763</u>	<u>810,072</u>
Excess revenues before deferral adjustments and special items	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	7,366,917
Excess revenues used to fund reserves and other deferrals	(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)	8,911,616
Special item	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>(4,949,004)</u>	<u>-</u>	<u>-</u>
Change in Net Position	\$ <u>(2,450,437)</u>	\$ <u>6,168,295</u>	\$ <u>6,842,142</u>	\$ <u>(4,399,530)</u>	\$ <u>3,304,049</u>	\$ <u>5,797,377</u>	\$ <u>4,324,647</u>	\$ <u>(1,737,685)</u>	\$ <u>87,192</u>	\$ <u>16,278,533</u>

Source: Audited Financial Statements  
(2008 - 2009 as modified)

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

<b>Top 25 Customers</b>	<b>2017</b>	<b>2016</b>	<b>2015</b>	<b>2014</b>	<b>2013</b>	<b>2012</b>	<b>2011</b>	<b>2010</b>	<b>2009</b>	<b>2008</b>
Solutia, Inc.	\$ 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	\$ 6,057,017
Town of Agawam	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	2,246,468
Town of Longmeadow	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	1,471,751
Town of East Longmeadow	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	652,052
Town of West Springfield	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	1,878,700
Springfield Housing Authority	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	780,427
Bay State Medical Center	989,015	873,883	901,132	780,102	852,355	850,642	816,729	680,250	601,332	551,069
Town of Ludlow DPW	806,227	902,631	824,146	694,297	561,993	557,463	840,323	812,734	568,675	728,241
Smith & Wesson	584,161	492,162	441,301	344,034	431,508	289,926	246,791	251,808	214,299	188,073
Western New England University	512,172	491,598	509,482	395,069	369,050	331,600	305,976	254,167	232,358	249,617
Catholic Health East-APSS	450,068	458,863	437,435	510,245	523,085	411,536	364,181	310,942	321,948	295,951
Springfield College	448,211	495,982	442,041	432,570	454,455	393,046	397,374	316,715	300,403	288,408
City of Springfield/Schools	445,895	468,008	388,135	356,808	376,492	363,417	367,620	338,933	273,876	274,862
Related Springfield Assoc. (frmly Chestnut Park)	438,962	421,723	338,939	292,262	284,248	261,429	249,389	326,922	347,583	268,606
Carando/Smithfield Foods	321,213	292,089	252,159	216,350	219,284	209,441	197,765	168,268	145,846	111,158
Unifirst Corporation	260,479	265,276	202,413	183,622	190,246	170,994	205,421	182,214	138,989	129,081
Pynchon I Apartments, Ltd	235,502	250,244	243,464	227,474	231,734	235,228	184,723	170,722	144,068	129,353
Pynchon II Apartments, Ltd.	230,128	198,254	205,079	183,432	-	-	-	-	-	-
Cardaropoli, Attilio	227,042	-	-	203,646	211,948	210,895	188,688	184,870	175,842	151,382
Colonial Estates	220,564	-	-	-	-	-	-	-	-	-
Armory Commons	188,622	206,610	182,313	147,790	-	-	-	-	-	-
Allen Park 1 & 2	185,138	191,870	206,815	177,904	-	-	-	-	-	-
Town of Wilbraham	178,341	300,733	191,960	286,722	-	-	-	-	-	-
Spring Meadow Apartments	173,163	221,225	172,518	176,398	170,576	141,701	151,868	126,981	121,183	118,395
Sheraton Hotel	169,898	-	-	-	-	-	-	-	-	-
Mass Power	-	259,600	199,286	-	168,371	157,513	42,665	42,726	-	-
Springfield Technical Comm College	-	183,651	-	-	-	-	-	-	-	-
American International College	-	178,442	-	-	-	-	-	-	-	-
Park Tenants Assoc., Inc.	-	-	183,227	-	-	-	-	-	-	-
MassMutual Financial	-	-	163,940	-	-	-	-	-	-	-
Taylor Consulting & Contracting	-	-	-	329,687	374,304	317,496	308,924	275,433	263,040	249,521
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	99,593
Hampden County Sheriff's Dept.	-	-	-	-	347,398	327,756	136,214	123,957	129,267	149,943
City of Springfield/Parks Dept	-	-	-	-	206,635	130,685	60,831	-	-	39,917
<b>Total</b>	<b>\$23,856,706</b>	<b>\$23,235,852</b>	<b>\$ 22,447,538</b>	<b>\$ 22,416,536</b>	<b>\$ 21,540,107</b>	<b>\$ 21,244,771</b>	<b>\$ 21,290,903</b>	<b>\$ 18,792,659</b>	<b>\$ 17,130,847</b>	<b>\$ 17,109,585</b>
<b>Percent of Total Operating Revenue</b>	<b>34%</b>	<b>34%</b>	<b>33%</b>	<b>35%</b>	<b>35%</b>	<b>37%</b>	<b>39%</b>	<b>37%</b>	<b>35%</b>	<b>34%</b>

Source: Commission Billing Records



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

<b>Water Sales (1000 gals)</b>	<b><u>2017</u></b>	<b><u>2016</u></b>	<b><u>2015</u></b>	<b><u>2014</u></b>	<b><u>2013</u></b>	<b><u>2012</u></b>	<b><u>2011</u></b>	<b><u>2010</u></b>	<b><u>2009</u></b>	<b><u>2008</u></b>
Residential	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	4,444,149
Commercial	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	1,222,881
Industrial	246,874	301,338	332,947	292,994	305,685	351,324	467,409	444,615	344,988	350,023
Municipal	124,078	119,125	99,915	98,405	125,987	118,816	127,844	88,114	91,505	85,240
Solutia contract	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	2,923,054
Town contracts	<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>	<u>3,415,697</u>
Total water billed	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	12,441,044
Water supplied	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	12,949,030
% Accounted for	90.8%	90.4%	93.0%	95.3%	93.1%	94.6%	95.2%	90.6%	93.7%	96.1%
<b>Sewer Sales (1000 gals)</b>	<b><u>2017</u></b>	<b><u>2016</u></b>	<b><u>2015</u></b>	<b><u>2014</u></b>	<b><u>2013</u></b>	<b><u>2012</u></b>	<b><u>2011</u></b>	<b><u>2010</u></b>	<b><u>2009</u></b>	<b><u>2008</u></b>
Residential	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	4,131,375
Commercial	549,491	555,334	532,273	536,765	545,418	557,926	568,273	570,593	619,296	668,646
Industrial	182,541	175,459	164,419	161,525	177,979	166,274	168,006	165,854	186,198	269,809
Municipal	61,530	62,876	56,562	53,819	55,634	56,434	60,679	58,861	61,011	62,969
Food Service	35,447	36,666	36,320	36,333	39,310	44,412	44,978	46,179	48,735	50,537
Medical	137,163	148,388	137,709	150,742	168,482	172,983	166,605	151,009	150,338	145,483
Solutia contract	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	1,936,864
Town contracts	<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>	<u>4,824,793</u>
Total sewer billed	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	12,090,476
Wastewater treated	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	15,141,264
% Accounted for *	81.8%	82.1%	77.6%	75.8%	81.3%	73.4%	79.5%	74.5%	73.3%	79.9%

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><b>2017</b></u>	<u><b>2016</b></u>	<u><b>2015*</b></u>	<u><b>2014</b></u>	<u><b>2013</b></u>	<u><b>2012</b></u>	<u><b>2011</b></u>	<u><b>2010</b></u>	<u><b>2009</b></u>	<u><b>2008</b></u>
Billings	\$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	\$47,344,404
Adjustments	\$345,814	(\$281,823)	(\$767,583)	(\$304,095)	\$164,551	(\$2,770,914)	(\$1,725,815)	\$503,508	\$231,708	\$716,058
Write-offs	<u>\$104,364</u>	<u>\$99,880</u>	<u>\$88,395</u>	<u>\$80,900</u>	<u>\$158,965</u>	<u>\$132,792</u>	<u>\$131,347</u>	<u>\$129,019</u>	<u>\$105,530</u>	<u>\$47,423</u>
Net Billings	\$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	\$48,107,885
Payments	\$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	\$49,506,099
Collection rate	101.2%	100.0%	99.9%	99.6%	99.1%	102.7%	100.6%	98.4%	99.6%	102.9%
Ending Receivables (before accruals)	\$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	\$5,179,230

\*FY 2015 adjusted during FY 2016

Source: Commission Billing System

**Table 6**  
**Water and Sewer Rate Structure**  
**Last Ten Fiscal Years**

<b>Water Rates (per 1000 gals)</b>	<b><u>2018</u></b>	<b><u>2017</u></b>	<b><u>2016</u></b>	<b><u>2015</u></b>	<b><u>2014</u></b>	<b><u>2013</u></b>	<b><u>2012</u></b>	<b><u>2011</u></b>	<b><u>2010</u></b>	<b><u>2009</u></b>	<b><u>2008</u></b>
Residential	\$4.02	\$3.86	\$3.72	\$3.56	\$3.34	\$3.21	\$3.06	\$2.91	\$2.70	\$2.50	\$2.31
Commercial	\$4.02	\$3.86	\$3.72	\$3.56	\$3.34	\$3.21	\$3.06	\$2.91	\$2.70	\$2.50	\$2.31
Municipal	\$2.99	\$2.87	\$2.77	\$2.65	\$2.49	\$2.39	\$2.27	\$2.17	\$2.01	\$1.67	\$1.24
Industrial	\$2.99	\$2.87	\$2.77	\$2.65	\$2.49	\$2.39	\$2.27	\$2.17	\$2.01	\$1.67	\$1.24
Solutia contract	\$2.82	\$2.66	\$2.51	\$2.35	\$2.14	\$2.01	\$1.86	\$1.71	\$1.30	\$1.30	\$1.24
Town contracts	\$0.18	\$1.18	\$1.18	\$1.09	\$1.19	\$1.14	\$1.17	\$0.93	\$0.90	\$0.93	\$0.81
Residential Water % Change	4.2%	4.0%	4.5%	6.4%	4.2%	4.8%	5.0%	7.9%	8.0%	8.1%	
<b>Sewer Rates (per 1000 gals)</b>	<b><u>2018</u></b>	<b><u>2017</u></b>	<b><u>2016</u></b>	<b><u>2015</u></b>	<b><u>2014</u></b>	<b><u>2013</u></b>	<b><u>2012</u></b>	<b><u>2011</u></b>	<b><u>2010</u></b>	<b><u>2009</u></b>	<b><u>2008</u></b>
Residential	\$6.59	\$6.34	\$6.10	\$5.80	\$5.11	\$4.87	\$4.47	\$4.13	\$3.82	\$3.40	\$3.02
Commercial	\$7.25	\$6.97	\$6.70	\$6.38	\$5.61	\$5.35	\$4.91	\$4.55	\$4.21	\$3.74	\$3.33
Industrial	\$7.91	\$7.61	\$7.30	\$6.95	\$6.12	\$5.84	\$5.36	\$4.96	\$4.59	\$4.08	\$3.62
Municipal	\$6.59	\$6.34	\$6.10	\$5.80	\$5.11	\$4.87	\$4.47	\$4.13	\$3.82	\$3.40	\$3.02
Food Service	\$8.57	\$8.24	\$7.91	\$7.54	\$6.64	\$6.32	\$5.80	\$5.37	\$4.97	\$4.41	\$3.93
Medical	\$7.25	\$6.97	\$6.70	\$6.38	\$5.61	\$5.35	\$4.91	\$4.55	\$4.21	\$3.74	\$3.33
Solutia contract	\$1.06	\$1.06	\$1.11	\$1.10	\$0.99	\$1.08	\$0.88	\$0.78	\$0.92	\$0.98	\$0.99
Town contracts	\$1.06	\$1.06	\$1.11	\$1.10	\$0.99	\$1.08	\$0.88	\$0.78	\$0.92	\$0.98	\$0.99
Residential Sewer % Change	4.0%	3.9%	5.1%	13.6%	4.9%	9.0%	8.1%	8.0%	12.6%	12.4%	
<b>Water Rates (per 100 CF)</b>	<b><u>2018</u></b>	<b><u>2017</u></b>	<b><u>2016</u></b>	<b><u>2015</u></b>	<b><u>2014</u></b>	<b><u>2013</u></b>	<b><u>2012</u></b>	<b><u>2011</u></b>	<b><u>2010</u></b>	<b><u>2009</u></b>	<b><u>2008</u></b>
Residential	\$3.01	\$2.89	\$2.78	\$2.66	\$2.50	\$2.40	\$2.29	\$2.18	\$2.02	\$1.87	\$1.73
Commercial	\$3.01	\$2.89	\$2.78	\$2.66	\$2.50	\$2.40	\$2.29	\$2.18	\$2.02	\$1.87	\$1.73
Municipal	\$2.24	\$2.15	\$2.07	\$1.98	\$1.86	\$1.79	\$1.70	\$1.62	\$1.50	\$1.25	\$0.93
Industrial	\$2.24	\$2.15	\$2.07	\$1.98	\$1.86	\$1.79	\$1.70	\$1.62	\$1.50	\$1.25	\$0.93
Solutia contract (per 100 CF)	\$2.11	\$1.99	\$1.88	\$1.76	\$1.60	\$1.50	\$1.39	\$1.28	\$0.97	\$0.97	\$0.93
Town contracts (per million gals)	\$1,637.14	\$1,178.06	\$1,033.95	\$1,481.78	\$1,186.59	\$1,141.50	\$1,165.25	\$928.30	\$904.78	\$927.33	\$812.57
Residential Water % Change	4.2%	4.0%	4.5%	6.4%	4.2%	4.9%	5.0%	7.9%	8.0%	8.1%	
<b>Sewer Rates (per 100 CF)</b>	<b><u>2018</u></b>	<b><u>2017</u></b>	<b><u>2016</u></b>	<b><u>2015</u></b>	<b><u>2014</u></b>	<b><u>2013</u></b>	<b><u>2012</u></b>	<b><u>2011</u></b>	<b><u>2010</u></b>	<b><u>2009</u></b>	<b><u>2008</u></b>
Residential	\$4.93	\$4.74	\$4.56	\$4.34	\$3.82	\$3.64	\$3.34	\$3.09	\$2.86	\$2.54	\$2.26
Commercial	\$5.42	\$5.21	\$5.01	\$4.77	\$4.20	\$4.00	\$3.67	\$3.40	\$3.15	\$2.80	\$2.49
Industrial	\$5.92	\$5.69	\$5.46	\$5.20	\$4.58	\$4.37	\$4.01	\$3.71	\$3.43	\$3.05	\$2.71
Municipal	\$4.93	\$4.74	\$4.56	\$4.34	\$3.82	\$3.64	\$3.34	\$3.09	\$2.86	\$2.54	\$2.26
Food Service	\$6.41	\$6.16	\$5.92	\$5.64	\$4.97	\$4.73	\$4.34	\$4.02	\$3.72	\$3.30	\$2.94
Medical	\$5.42	\$5.21	\$5.01	\$4.77	\$4.20	\$4.00	\$3.67	\$3.40	\$3.15	\$2.80	\$2.49
Solutia contract (per million gals)	\$1,145.39	\$1,060.86	\$1,108.27	\$1,099.26	\$993.00	\$1,076.52	\$881.28	\$779.83	\$921.96	\$976.82	\$992.48
Town contracts (per million gals)	\$1,145.39	\$1,060.86	\$1,108.27	\$1,099.26	\$993.00	\$1,076.52	\$881.28	\$779.83	\$921.96	\$976.82	\$992.48
Residential Sewer % Change	4.0%	3.9%	5.1%	13.6%	4.9%	9.0%	8.1%	8.0%	12.6%	12.4%	

Source: Fiscal Year 2017 Commission's adopted Rules and Regulations Chapter 5

\* FY 2017 Town & Solutia Contract rates per million gallons are estimated

\* 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>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>
Outstanding Principal <sup>(5)</sup>	\$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	\$77,996,972
City Springfield Population	153,703	153,703	153,991	153,060	153,060	153,060	153,060	153,060	152,082	152,082
Town of Ludlow Population <sup>(1)</sup>	21,103	21,103	21,103	21,103	21,103	21,103	21,103	21,103	22,161	22,410
Per Capita Debt	1,062	977	1,024	784	699	723	671	536	511	447
City of Springfield:										
Total Personal Income <sup>(2)(3)</sup>	\$2,109,884,000	\$2,855,971,442	\$2,832,940,301	\$2,834,365,080	\$2,829,007,980	\$2,868,803,580	\$2,820,011,453	\$2,771,151,300	\$2,704,896,656	\$2,656,348,702
Town of Ludlow:										
Estimated Total Personal Income <sup>(3)(4)</sup>	\$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	\$619,502,040
Debt per Personal Income	6.89%	4.97%	5.25%	3.99%	3.57%	3.65%	3.43%	2.78%	2.68%	2.38%

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>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>
<b>Operating revenue</b>										
Beginning revenue cash	\$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	\$14,359,980
Deposits to revenue acct	<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>	<u>\$55,619,646</u>
Total cash receipts	\$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	\$69,979,626
<b>Operating transfers</b>										
To operating accts	\$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	\$35,817,651
To (from) debt service reserve	<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>	<u>\$1,449,300</u>
Total operating transfers	\$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	\$37,266,951
<b>Net revenue</b>	<b>\$60,434,763</b>	<b>\$62,782,709</b>	<b>\$46,765,489</b>	<b>\$53,024,248</b>	<b>\$52,226,283</b>	<b>\$45,093,918</b>	<b>\$28,005,246</b>	<b>\$29,242,967</b>	<b>\$21,972,156</b>	<b>\$32,712,674</b>
<b>Debt service requirement</b>	\$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	\$4,042,476
<b>Debt coverage</b>	393.8%	489.0%	437.5%	505.0%	528.3%	461.1%	383.4%	438.2%	373.8%	809.2%
Alternate (no begin balance)	163.9%	170.1%	204.1%	234.1%	225.8%	210.1%	244.2%	229.0%	104.5%	454.0%
125% of debt service required	\$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	\$5,053,095
140% of debt service required	\$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	\$5,659,467

Source: Commission Accounting System

**Table 9**  
**Population, Income and Employment**  
**Last Ten Calendar Years**

	<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>	<u>2007</u>
<b>United States</b>										
Total Personal Income (\$000)	\$16,017,781,445	\$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	\$11,634,322,000
Per Capita Income (\$)	\$49,571	\$47,665	\$46,129	\$44,765	\$42,693	\$41,663	\$39,937	\$38,846	\$40,166	\$38,615
Population	323,127,513	321,467,160	318,857,056	316,128,839	313,914,040	311,591,917	309,330,219	306,771,529	304,374,846	301,290,332
Employment	(2)	(2)	185,798,800	182,278,200	179,603,300	175,834,700	173,737,400	174,208,800	181,755,100	180,943,800
<b>New England</b>										
Total Personal Income (\$000)	\$886,594,738	\$867,004,548	\$831,543,055	\$801,066,757	\$763,754,701	\$740,176,699	\$705,912,532	\$684,352,455	\$702,966,446	\$673,337,441
Per Capita Income (\$)	\$60,200	\$58,863	\$56,642	\$54,797	\$52,446	\$51,074	\$48,840	\$47,513	\$48,944	\$42,820
Population	14,727,584	14,729,289	14,680,722	14,618,806	14,562,704	14,492,360	14,453,587	14,403,575	14,362,641	14,259,321
Employment	(2)	(2)	9,378,271	9,217,266	9,125,273	9,002,996	8,935,730	8,940,282	9,275,239	9,155,067
<b>Massachusetts</b>										
Total Personal Income (\$000)	\$443,700,515	\$414,723,656	\$399,204,457	\$383,152,205	\$363,459,345	\$353,228,041	\$336,319,665	\$324,495,729	\$333,046,494	\$316,895,851
Per Capita Income (\$)	\$65,137	\$61,032	\$59,182	\$57,248	\$54,687	\$53,261	\$51,304	\$49,788	\$50,897	\$48,995
Population	6,811,779	6,795,177	6,745,408	6,692,824	6,646,144	6,587,536	6,555,466	6,517,613	6,543,595	6,467,915
Employment	(2)	(2)	4,428,065	4,322,176	4,250,566	4,168,887	4,130,436	4,113,976	4,251,139	4,198,813
<b>Western Massachusetts <sup>(1)</sup></b>										
Total Personal Income (\$000)	(2)	(2)	\$36,463,080	\$37,085,939	\$35,830,064	\$33,513,709	\$32,252,907	\$31,464,101	\$32,150,902	\$30,809,227
Per Capita Income (\$)	(2)	(2)	\$44,002	\$44,805	\$43,311	\$40,689	\$39,135	\$38,215	\$39,084	\$37,493
Population	(2)	(2)	828,677	827,721	827,274	823,662	824,138	823,343	822,611	821,736
Employment	(2)	(2)	470,214	465,367	454,490	449,577	446,402	446,278	458,340	460,296

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

Source: Bureau of Economic Analysis

Bureau of the Census

Boston Water and Sewer Commission CAFR

(2) 2015 and 2016 information unavailable

**Table 10**  
**Demographic and Economic Statistics**  
**2016 Calendar Year End Summary**

	<b>Springfield, MA <sup>(1)</sup></b>	<b>United States <sup>(2)</sup></b>
<b>ECONOMY</b>		
Unemployment Rate	4.6%	4.9%
Recent Job Growth	2.5%	0.4%
3 Year Average	1.4%	1.7%
5 Year Average	1.2%	1.7%
Future Job Growth*	1.0%	1.3%
Sales Tax	6.25%	0.0%
Income Per Capita	\$18,553	\$29,979
Household Income (Median)	\$34,728	\$53,889
<b>HOUSEHOLD INCOME</b>		
Income less than 10K	11.3%	6.7%
Income between 10K and 15K	9.2%	4.8%
Income between 15K and 25K	13.7%	9.7%
Income between 25K and 35K	10.9%	9.5%
Income between 35K and 50K	15.8%	13.0%
Income between 50K and 75K	14.9%	17.7%
Income between 75K and 100K	10.4%	12.3%
Income between 100K and 150K	9.4%	14.0%
Income between 150K and 200K	3.5%	5.8%
Income greater than 200K	0.8%	6.4%
<b>POPULATION BY OCCUPATION</b>		
Management, business, science, and arts occupations	29.5%	37.6%
Service occupations	26.4%	18.1%
Sales and office occupations	21.1%	23.3%
Natural resources, construction, and maintenance occupations	7.5%	8.8%
Production, transportation, and material moving occupations	15.5%	12.2%

\* Projected growth between 2015 and 2016

(1) Source: U.S. Census Bureau, 2016

(2) Source: Bureau of Labor Statistics 2015/2016

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

<b>Water Accounts</b>	<b><u>2017</u></b>	<b><u>2016</u></b>	<b><u>2015</u></b>	<b><u>2014</u></b>	<b><u>2013</u></b>	<b><u>2012</u></b>	<b><u>2011</u></b>	<b><u>2010</u></b>	<b><u>2009</u></b>	<b><u>2008</u></b>
Residential	40,358	40,303	40,226	40,245	40,274	40,242	40,377	40,246	40,075	40,009
Commercial	2,174	2,175	2,186	2,184	2,190	2,184	2,188	2,188	2,177	2,183
Industrial	87	88	91	92	92	95	97	94	94	92
Municipal	162	158	154	147	147	149	143	137	128	124
Solutia contract	23	24	24	22	23	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	42,810	42,754	42,687	42,696	42,732	42,699	42,834	42,694	42,503	42,437
% Change	0.1%	0.2%	0.0%	-0.1%	0.1%	-0.3%	0.3%	0.4%	0.2%	0.0%
<b>Sewer Accounts</b>	<b><u>2017</u></b>	<b><u>2016</u></b>	<b><u>2015</u></b>	<b><u>2014</u></b>	<b><u>2013</u></b>	<b><u>2012</u></b>	<b><u>2011</u></b>	<b><u>2010</u></b>	<b><u>2009</u></b>	<b><u>2008</u></b>
Residential	35,298	35,243	35,181	35,205	35,224	35,220	35,321	35,192	35,034	34,976
Commercial	1,689	1,689	1,701	1,699	1,707	1,706	1,710	1,709	1,701	1,700
Industrial	102	104	104	105	105	107	108	105	105	108
Municipal	96	97	97	92	92	95	94	93	91	84
Food Service	67	71	70	70	70	72	74	73	73	73
Medical	19	19	19	19	20	20	20	20	20	21
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>8</u>	<u>8</u>	<u>8</u>	<u>8</u>	<u>8</u>
Totals	37,278	37,230	37,179	37,197	37,225	37,229	37,336	37,201	37,033	36,971
% Change	0.1%	0.1%	0.0%	-0.1%	0.0%	-0.3%	0.4%	0.5%	0.2%	0.0%

Source: Commission Billing System



**Table 12**  
**Largest Private Employers**  
**Current Year and Nine Years Prior**

<u>Employer</u>	<u>Nature of Business</u>	<u>2017</u>			<u>2008</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	9,490	1	14.9%	8,772	1	13.2%
Massachusetts Mutual Financial Group	Insurance	7,000	2	11.0%	4,230	2	6.3%
Sisters of Providence	Healthcare	4,173	3	6.6%	2,200	4	3.3%
Smith & Wesson	Firearms	1,480	4	2.3%	587	8	0.9%
Big Y	Grocery	1,299	5	2.0%	1,002	5	1.5%
Western New England University	Education	855	6	1.3%	492	n/a	0.7%
Springfield Technical Community College	Education	792	7	1.2%	420	n/a	0.6%
Springfield College	Education	1,000	8	1.6%	560	9	0.8%
Center for Human Development	Social Services	1,500	9	2.4%	327	6	0.5%
Eastman Chemical (formerly Solutia Inc.)	Chemical	400	10	0.6%	504	10	0.8%
Union News	Newspaper	270	n/a	0.4%	700	7	1.1%
US Postal Service	Mail	-	n/a	n/a	2,267	3	10.3%
		28,259		44.3%	22,061		40.0%

Source: City of Springfield June 30, 2017 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>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>
Administration	7	7	8	8	9	8	7	8	7	7
General Accounting	4	4	4	4	4	4	4	5	5	4
Customer Service	8	8	8	8	8	7	7	9	9	10
Information Systems	7	6	5	5	5	4	4	4	4	4
Asset Management	4									
Engineering	21	26	24	23	22	22	21	22	22	22
Operations management	3	3	3	3	3	3	3	5	5	5
SERTS	1	0	0	1	1	1	1	0	0	0
Water Supply Administration	3	4	4	4	4	4	4	4	3	3
Ludlow Reservoir	6	7	6	6	6	6	6	7	7	7
Provin Mountain	9	9	8	8	8	8	8	8	8	7
West Parish Filters	35	35	36	41	41	39	38	44	41	41
Watershed Management	1	2	2	2	3	2	2	0	2	2
Borden Brook	3									
Laboratory	5	5	5	5	5	5	5	0	4	3
Cross Connection Control	4	5	5	5	5	5	5	5	5	4
Warehouse Management	4	4	4	5	5	5	5	5	6	6
Customer Field Service	5	5	6	6	7	7	7	9	9	11
Meters & Field Service	22	21	22	21	23	21	21	21	26	20
Water Quality	14	17	18	20	20	19	16	16	15	16
Water Distribution	35	34	33	34	31	32	31	32	31	31
WW Operations Management	1	1	1	1	1	1	1	0	0	0
Sewer Collection Services	39	38	36	28	29	27	27	29	29	32
Industrial Pretreatment	2	2	2	2	2	2	2	2	2	3
FOG	1	2	2	2	3	3	1	1	0	0
Wastewater Treatment	0	0	1	1	1	1	1	1	1	1
Totals	244	245	243	243	246	236	227	237	241	239

Source: Commission Budget Documents

**Table 14**  
**Water and Sewer Distribution System**  
**Year-End 2017 Summary**

**Water Distribution System**

<b><u>Appurtenances</u></b>		<b><u>Water Main City Wide</u></b>	
Hydrants	6,224	Total Linear Feet	3,074,695
Valves	19,252	Total Linear Miles	582
Meters	46,043		
		Water Booster Pump Stations	5

**Sewer Collection System**

<b><u>Appurtenances</u></b>		<b><u>Sewer Pipes City Wide</u></b>	
CSO Regulator Structures & Outfalls	23	Total Linear Feet	2,440,377
Manholes	11,319		
Regulators	23	Combined Sewer Miles	150
Flood Control Gates	42	Separated Sewer Miles	<u>312</u>
		Total Sewer Miles	462
		Sewage Pumping Stations	27
		Flood Control Pumping Stations	7
		Active CSO's	23

Source: Commission's GIS System

**Table 15**  
**Insurance Coverage**  
**2017 - 2018**

<b><u>Provider</u></b>	<b><u>Policy Period</u></b>	<b><u>Type of Coverage</u></b>	<b><u>Liability Limits</u></b>	<b><u>Annual Premium</u></b>
ACE American Insurance Company	4/2/17 - 4/2/18	Property	\$ 100,000,000	\$ 159,000
Navigators Insurance Company	4/2/17 - 4/2/18	Special Excess Liability	\$ 15,000,000	\$ 63,000
Allied World Insurance	4/2/17 - 4/2/18	Excess Liability	\$ 10,000,000	\$ 47,436
Allied World Insurance	4/2/17 - 4/2/18	Primary Liability (with Auto)	\$ 1,000,000/3,000,000	\$ 38,533
Safety Insurance Company	4/2/17 - 4/2/18	Automobile	\$ 1,000,000	\$ 3,220
Hanover Insurance Group	4/2/17 - 4/2/18	Crime	\$ 1,000,000	\$ 4,746

Source: Commission's Insurance Records

**Table 16**  
**Water and Sewer Sales**  
**Last Ten Fiscal Years**

**Water Revenues**

	<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>
Residential	\$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	\$10,161,529
Commercial	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	2,811,971
Industrial	944,766	1,080,588	1,136,290	962,255	944,594	1,057,444	1,327,881	879,719	562,681	430,509
Municipal	472,383	432,235	348,218	332,415	389,889	358,006	362,457	174,344	149,246	104,840
Solutia contract	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	3,595,200
Town contracts	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	2,583,694
Total	<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>	<u>\$19,687,744</u>
% Change	10.6%	-0.1%	1.1%	3.6%	4.8%	1.9%	17.6%	8.9%	-3.0%	

**Sewer Revenues**

	<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>
Residential	\$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	\$11,328,219
Commercial	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	2,207,961
Industrial	1,102,505	1,004,203	912,485	806,654	836,129	733,930	677,357	753,881	751,760	970,302
Municipal	339,232	352,828	304,162	276,567	261,290	250,156	245,215	222,698	205,547	188,571
FoodServ	226,155	217,125	202,774	184,378	184,039	196,404	180,897	227,807	213,053	196,609
Medical	848,081	868,499	760,404	760,560	790,687	762,874	673,337	629,875	556,734	480,404
Solutia contract	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	2,122,526
Town contracts	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	5,287,283
Total	<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>	<u>\$22,781,875</u>
% Change	2.5%	9.4%	5.7%	0.3%	13.8%	-7.2%	11.4%	5.0%	4.5%	

Source: Commission Billing System

**Table 17**  
**Capital Spending by Category**  
**Last Ten Fiscal 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>	<u>Totals</u>	<u>% of Total</u>
Water	\$ 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	\$ 4,425,890	\$ 85,838,009	32%
Sewer	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	21,554,038	156,849,968	59%
Power Generation	894,471	253,744	221,315	652,885	249,872	117,351	4,723	109,068	990,465	353,217	3,847,111	1%
Support	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	1,849,204	20,762,630	8%
Total	<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>\$ 28,182,349</u>	<u>\$ 267,297,718</u>	<u>100%</u>

Source: Commission's Accounting System