

Springfield
Water and Sewer Commission
Springfield, Massachusetts



Comprehensive Annual
Financial Report

For the Fiscal Year Ended June 30, 2016

SPRINGFIELD WATER AND Sewer Commission
Springfield, Massachusetts

Comprehensive Annual Financial Report
For the Year Ended June 30, 2016



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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November 28, 2016

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, 2016. 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, 2016.

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 2016 because the Commission's federal expenditures were above \$750,000.

In July 2014, based on solid financial operations 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" at the time of its sale of general revenue bonds. 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 head for potential energy at the Cobble Mountain Reservoir Dam to generate green power 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 FY 2016, the plant output was 20,400 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 FY-16 to meet the annual power supply needs of approximately 2,000 homes.

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, 2017
Commissioner	William E. Leonard	Appointed by Mayor	June 30, 2018
Commissioner	Vanessa Otero	Appointed by Mayor	June 30, 2019

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 five groups: Administration, Engineering, Water Operations, Wastewater Operations, and the Financial group.

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 Water Operations group is responsible for all reservoirs and watersheds, water treatment facilities, water transmission mains and easements, and testing for compliance with water quality regulations. This group is also 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, and pavement patching. 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, and there is 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.

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. Ten-year contracts with the communities of Agawam, East Longmeadow, Longmeadow, Ludlow, and West Springfield commenced on July 1, 2005. A ten-year contract with the Commission's largest user, Solutia, commenced on February 9, 2015 that expires on June 30, 2025. An eight-year contract with the community of Wilbraham commenced on June 18, 2007. 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 153,060 people behind the Cities of Boston and Worcester and the fourth largest City in New England.

Springfield is the region's cultural and economic center. Springfield is home to several of the region's largest employers, including Massachusetts Mutual Life Insurance Company, Baystate Health, 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. Construction is anticipated in the years 2016-2018.

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 College, 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 Structures including design for the hydraulic components of the Intake Dam and toe drain construction for the Cherry Valley Dam in Ludlow and West Parish Filters Dam #3.
- Water Treatment Plant Facilities long term Planning Phase II engineering and hydraulic design improvements for the front end of the plan and clear well.
- Water Treatment Plant Facilities improvements including rapid sand filters wash water troughs and chemical feed pumps enhancements.
- Completion of the construction of a new 6.5 mile long, 54/48 inch diameter PCCP South Transmission main from Provin Mountain storage facility to the Connecticut River.
- Water Main Replacement in conjunction with the 2015-2016 infrastructure improvement project.

Wastewater

- Comprehensive collection system cleaning, condition assessment and system mapping.
- The 21 prioritized streets sewer system program completion.
- 2016 sewer infrastructure improvements project.
- 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 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 70 % 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.

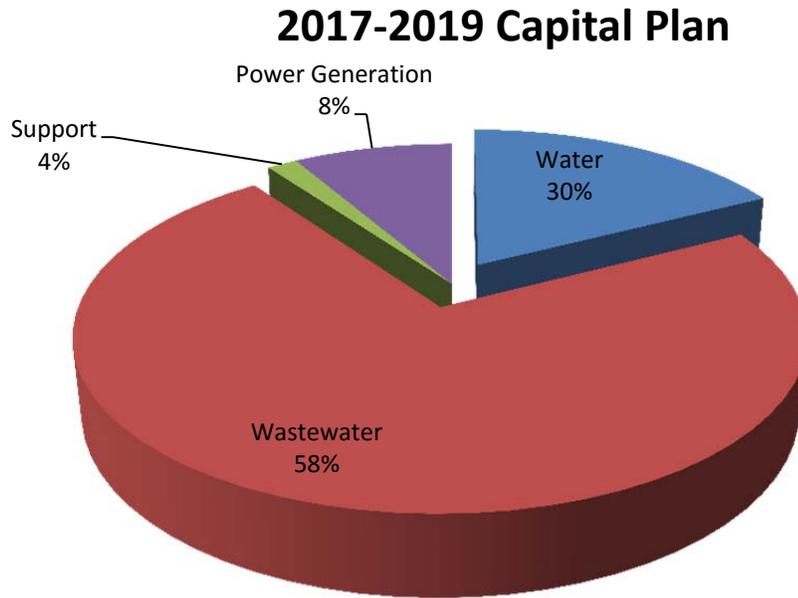
<i>Table I</i>			
2017-2019 Capital Improvement Program			
Funding Sources			
Funding Source	2017	2018	2019
Revenues and Reserves	\$ 9,045,000	\$ 8,969,000	\$ 10,879,000
Bonds*	\$ 6,350,000	\$ 12,900,000	\$ 46,958,000
Total	\$ 15,395,000	\$ 21,869,000	\$ 57,837,000

*Includes SRF Funding

<i>Table II</i>			
2017-2019 Capital Improvement Program			
Funding of Activity Areas			
Activity Area	2017	2018	2019
Water	\$ 5,650,000	\$ 8,500,000	\$ 14,600,000
Wastewater	\$ 7,520,000	\$ 10,159,000	\$ 36,732,000
Power Generation	\$ 500,000	\$ 2,250,000	\$ 4,950,000
Support	\$ 1,725,000	\$ 960,000	\$ 1,555,000
Total	\$ 15,395,000	\$ 21,869,000	\$ 57,837,000

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

Over the next three years, Capital expenditures are expected to fund 58% Wastewater improvements, 30% Water improvements, 8% Power Generation projects and 4% 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 \$120,790,500 for the three year period 2016-2018. Expenditures are divided in four categories: Water Projects total \$31,605,000, Sewer Projects total \$81,965,500, Power Generation Projects total \$3,400,000 and other Support Projects total \$3,820,000.

Funding approval for the Fiscal Year 2016 Capital Projects total \$18,188,500. The spending plan is as follows: Water Projects total \$7,035,000 (39%), Sewer Projects total \$9,453,500 (52%), Power Generation Projects total \$500,000 (3%), and other Support Projects total \$1,200,000 (6%).

The various projects scheduled in fiscal year 2016 include the continued construction of replacing 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, and 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 black ink, appearing to read "Joshua D. Schimmel". The signature is fluid and cursive, with a large loop at the end.

Joshua D. Schimmel
Executive Director



Government Finance Officers Association

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, 2015

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

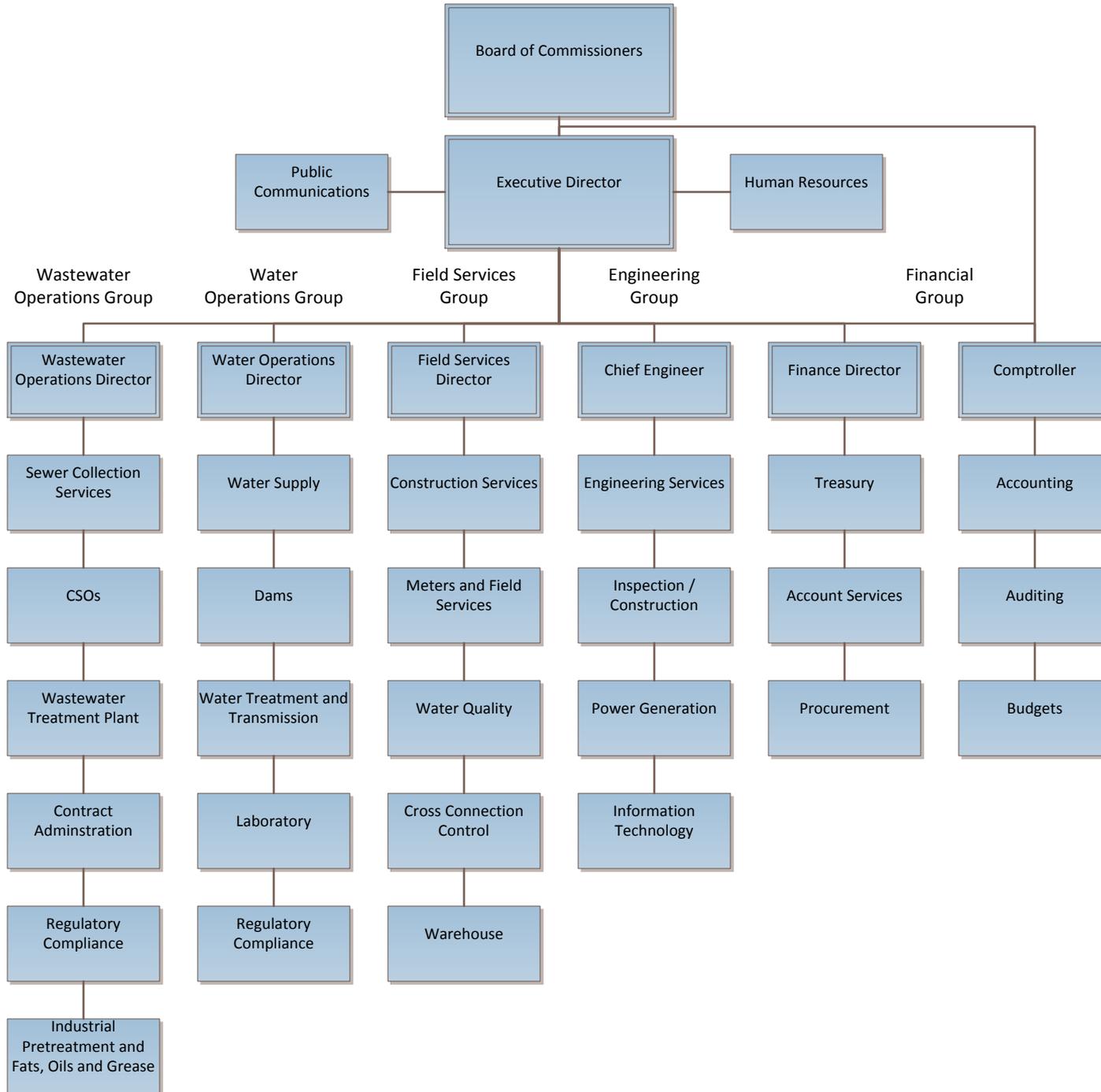
William D. Fuqua, Wastewater Operations Director

James R. Laurila, Drinking Water Operations Director

Susan Tower, Laboratory and Regulatory 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 June 30, 2016 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 auditor's 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, 2016, 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 Schedules of OPEB Funding Progress, Schedule of Proportionate Share of Net Pension Liability, and Schedule of Pension Contributions 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.

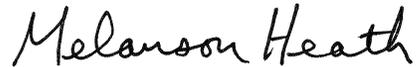
Other Information

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 pages 51 through 54 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 8, 2016 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 8, 2016

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, 2016.

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) statement of fiduciary net position, (5) 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, 2016, it shows our net worth of \$126,344,667, which is comprised of \$124,851,184 invested in capital assets, \$37,694,132 restricted for other purposes, namely restricted cash and inventory, and \$(36,200,649) 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, 2016 was a change of \$6,168,295.

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. In fiscal year 2016, the Commission established an other post-employment benefits trust fund and contributed \$432,253 to the fund.

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>2016</u>	<u>2015</u>
Current Assets	\$ 106,746,813	\$ 111,035,248
Noncurrent Assets	2,948,216	3,057,577
Capital Assets	<u>297,552,240</u>	<u>271,839,662</u>
Total Assets	407,247,269	385,932,487
Deferred Outflows	<u>84,918,426</u>	<u>69,118,436</u>
Total Assets and Deferred Outflows	492,165,695	455,050,923
Current Liabilities	36,521,963	16,550,112
Noncurrent Liabilities	<u>238,558,430</u>	<u>237,674,191</u>
Total Liabilities	275,080,393	254,224,303
Deferred Inflows	<u>90,740,635</u>	<u>80,751,595</u>
Total Liabilities and Deferred Inflows	365,821,028	334,975,898
Net Investment in Capital Assets	124,851,184	113,624,261
Restricted - Other Purposes	37,694,132	36,368,236
Unrestricted	<u>(36,200,649)</u>	<u>(29,816,125)</u>
Total Net Position	\$ <u><u>126,344,667</u></u>	\$ <u><u>120,176,372</u></u>

	<u>2016</u>	<u>2015</u>
Operating Revenues	\$ 69,046,482	\$ 67,421,360
Operating Expenses	<u>(57,973,738)</u>	<u>(54,893,356)</u>
Operating Income	11,072,744	12,528,004
Nonoperating Revenues (Expenses)	(4,143,687)	(2,998,803)
Special Items	<u>(328,509)</u>	<u>(2,687,059)</u>
Increase in Net Position before Transfers	6,600,548	6,842,142
Transfer out	<u>(432,253)</u>	<u>-</u>
Increase in Net Position after Transfers	6,168,295	6,842,142
Beginning Net Position	<u>120,176,372</u>	<u>113,334,230</u>
Ending Net Position	\$ <u><u>126,344,667</u></u>	\$ <u><u>120,176,372</u></u>

C. FINANCIAL HIGHLIGHTS

The Commission ended the year with operating income of approximately \$11.1 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 2016, 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 \$740,000 more than budget. Wholesale water charges and fees were also more than budget by approximately \$1.8 million. Power generation revenues were less than estimates by approximately \$(830,000). These and other factors resulted in total operating revenue of approximately \$69 million in fiscal year 2016, approximately \$1.9 million more than budget, and \$1.6 million more than the prior year.

Operating expenses were less than budget by approximately \$1.1 million, primarily as a result of vacant positions and less overtime needed than anticipated. In addition, there was conservative budgeting for general operational expenses and decrease in workers compensation claims.

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 \$(328,509) for fiscal year 2016.

As a result of the key elements described above the activities for the year resulted in a change in net position of \$6,168,295.

D. BUDGETARY HIGHLIGHTS

The original budget was increased by \$432,253 which represents a transfer to the other post-employment trust 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 \$297,552,240 (net of accumulated depreciation), an increase of approximately \$25.7 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 \$(8.4 million).
- \$9.8 million in South Transmission Main project.

- \$9.9 million in Main Interceptor project.
- \$207,000 in hydrant projects.
- \$1.2 million in meter replacements.
- \$885,000 in York Street and river design projects.
- \$2.2 million in sewer main rehabilitation projects.
- Water main projects of \$450,000.
- \$780,000 in transmission system rehabilitations.
- \$4.8 million in collection system assessment and rehabilitation.
- New vehicles and equipment purchased of \$1.4 million.
- Computer software and equipment purchases of \$307,000.
- Various general building improvements of \$85,000.
- Various other projects of \$2.1 million.

Additional information on the Commission’s capital assets can be found at Footnote 10 on page 36.

Long-term debt. At the end of the current fiscal year, total bonded debt outstanding was \$170,821,830, all of which was backed by dedicated revenues of the Commission.

Additional information on the Commission’s long-term debt can be found at Footnote 14 on page 39.

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, 2016

ASSETS	
Current:	
Cash	\$ 43,901,664
Restricted cash	36,067,752
Accounts receivable, net of allowance for uncollectibles	9,003,920
Intergovernmental receivable	16,872,240
Inventory, net of allowance	<u>901,237</u>
Total current assets	106,746,813
Noncurrent:	
Intergovernmental receivable, net of current portion	1,430,853
Inventory held by others	1,022,136
Health insurance deposit	495,227
Capital assets, net of accumulated depreciation	241,436,917
Land and construction in progress	<u>56,115,323</u>
Total noncurrent assets	300,500,456
DEFERRED OUTFLOWS OF RESOURCES	
Non-pension related deferred outflows of resources	78,570,262
Pension related deferred outflows of resources	<u>6,348,164</u>
TOTAL ASSETS AND DEFERRED OUTFLOWS OF RESOURCES	492,165,695
LIABILITIES	
Current:	
Accounts payable	5,087,036
Accrued payroll and withholdings	260,455
Notes payable	19,621,815
Accrued interest payable	1,827,270
Current portion of loans payable	9,463,435
Current portion of capital lease payable	158,328
Current portion of accrued compensated absences	<u>103,624</u>
Total current liabilities	36,521,963
Noncurrent:	
Loans payable, net of current portion	161,358,395
Accrued compensated absences, net of current portion	1,214,927
Net OPEB obligation	3,425,773
Net pension liability	72,326,184
Other accrued liabilities	<u>233,151</u>
Total noncurrent liabilities	238,558,430
DEFERRED INFLOWS OF RESOURCES	<u>90,740,635</u>
TOTAL LIABILITIES AND DEFERRED INFLOWS OF RESOURCES	365,821,028
NET POSITION	
Net investment in capital assets	124,851,184
Restricted:	
Reserve for inventory	1,923,373
Reserve for debt covenants and scholarships	35,770,759
Unrestricted	<u>(36,200,649)</u>
TOTAL NET POSITION	<u>\$ 126,344,667</u>

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

SPRINGFIELD WATER AND SEWER COMMISSION

STATEMENT OF REVENUES, EXPENSES AND
CHANGES IN FUND NET POSITION

FOR THE YEAR ENDED JUNE 30, 2016

Operating Revenues:

Water and sewer usage	\$ 68,826,361
Other	<u>220,121</u>
Total Operating Revenues	69,046,482

Operating Expenses:

Salaries and wages	13,210,801
Employee benefits	10,705,918
Operations	23,210,770
Intergovernmental	557,125
Capital outlay	1,285,389
Depreciation and amortization	8,623,900
Other	<u>379,835</u>
Total Operating Expenses	<u>57,973,738</u>
Operating Income	11,072,744

Nonoperating Revenues (Expenses):

Interest income	15,564
Interest expense	(5,035,560)
Grant reimbursement revenue	792,512
Other	<u>83,797</u>
Total Nonoperating Revenues (Expenses), Net	<u>(4,143,687)</u>
Excess revenues before deferral adjustments	6,929,057
Excess revenues used to fund deferrals	<u>(328,509)</u>
Change in Net Position before Transfers	6,600,548
Transfer out	<u>(432,253)</u>
Change in Net Position after Transfers	6,168,295
Net Position at Beginning of Year	<u>120,176,372</u>
Net Position at End of Year	<u><u>\$ 126,344,667</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, 2016

<u>Cash Flows From Operating Activities:</u>	
Receipts from customers and users	\$ 68,211,171
Payments to vendors	(36,060,529)
Payments to employees	<u>(9,793,366)</u>
Net Cash Provided By Operating Activities	22,357,276
<u>Cash Flows From Noncapital Financing Activities:</u>	
Intergovernmental reimbursements	263,861
Transfer to OPEB trust fund	<u>(432,253)</u>
Net Cash (Used For) Noncapital Financing Activities	(168,392)
<u>Cash Flows From Capital and Related Financing Activities:</u>	
Acquisition and construction of capital assets	(34,137,412)
Proceeds from intergovernmental loans and grants	19,606,829
Principal payments on bonds and loans	(8,368,227)
Principal payments on capital leases	(277,714)
Payments of interest	<u>(4,993,156)</u>
Net Cash (Used For) Capital and Related Financing Activities	(28,169,680)
<u>Cash Flows From Investing Activities:</u>	
Receipt of investment income	<u>15,564</u>
Net Change in Cash and Short-Term Investments	(5,965,232)
Cash and Short Term Investments, Beginning of Year	<u>85,934,648</u>
Cash and Short Term Investments, End of Year	<u>\$ 79,969,416</u>
<u>Reconciliation of Operating Income to Net Cash Provided by (Used For) Operating Activities:</u>	
Operating income	\$ 11,072,744
Adjustments to reconcile operating income to net cash provided by (used for) operating activities:	
Depreciation and amortization	8,623,900
Changes in assets and liabilities:	
Accounts receivable	(835,311)
Inventory	(184,994)
Deferred outflows	(6,246,817)
Accounts payable and accrued payroll	267,223
Accrued compensated absences	(33,620)
Net OPEB obligation	826,210
Net pension liability	8,888,903
Other accrued liabilities	<u>(20,962)</u>
Net Cash Provided By Operating Activities	<u>\$ 22,357,276</u>

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

SPRINGFIELD WATER AND SEWER COMMISSION

STATEMENT OF FIDUCIARY NET POSITION

JUNE 30, 2016

ASSETS

Current:

Cash	\$ 817
Investments	<u>445,812</u>

TOTAL ASSETS 446,629

NET POSITION

Total net position held in trust 446,629

TOTAL NET POSITION \$ 446,629

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

SPRINGFIELD WATER AND SEWER COMMISSION
STATEMENT OF CHANGES IN FIDUCIARY NET POSITION
FOR THE YEAR ENDED JUNE 30, 2016

Additions:	
Interest	\$ <u>14,376</u>
Total Additions	14,376
Transfer in	<u>432,253</u>
Change in Net Position after Transfers	446,629
Net Position at Beginning of Year	<u>-</u>
Net Position at End of Year	\$ <u><u>446,629</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 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 for the other post-employment benefits trust fund consist of mutual funds. Investments are carried at market value.

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 United Water Environmental Services, Inc., the Commission transferred custody of certain inventory to United Water. The value stated was a negotiated value, which will be replaced by United 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 estimated fair market 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, 2016, none of the Commission's bank balance of \$81,135,130 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.

4. Restricted Cash

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

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 addition, the Bond Resolution establishes several other reserves which may be activated in future years.

The restricted cash balance reported in the financial statements is comprised of the following at June 30, 2016:

Reserve Funds:	
Operating Reserve Fund	\$ 7,822,312
Renewal/Replacement Fund	1,000,000
Debt Service Fund	14,071,895
Debt Service Reserve Fund	12,794,683
Other Funds:	
Project Accounts	296,993
Scholarship Trust Fund	<u>81,869</u>
Total	<u>\$ 36,067,752</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).

All of the Commission's investments are in mutual funds, which are exempt from credit risk.

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 does not have a policy for custodial credit risk.

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 places no limit on the amount that may be invested in any one issuer. There are no investments in any one issuer other mutual funds.

D. Interest Rate Risk

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

All of the Commission's investments are in mutual funds, which are exempt from interest rate risk.

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, 2016 all of the Commission's investments in mutual funds are considered Level 1.

6. Accounts Receivable

Accounts receivable consist of the following at June 30, 2016:

Customer Accounts:		
Billed water, sewer and wastewater regional		\$ 4,249,281
Less: allowances		<u>(576,305)</u>
Total billed		3,672,976
Unbilled water (including power generation) and sewer		5,504,504
Adjustment to wastewater regional and sewer pump station for actual usage through June 30, 2016		<u>(173,560)</u>
Total customer accounts		<u>\$ 9,003,920</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, 2016. These funds are expected to be drawn down as project costs are incurred in fiscal year 2017.	\$ 16,237,879	\$ -
Amount due from the Pioneer Valley Planning Commission for grant expenditures incurred in fiscal year 2016.	525,000	-
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>109,361</u>	<u>1,430,853</u>
Total Balance June 30, 2016	<u>\$ 16,872,240</u>	<u>\$ 1,430,853</u>

8. Inventory for Consumption

This inventory balance at June 30, 2016 consists of the following:

Fuel inventory (gasoline and diesel)	\$ 47,455
Materials inventory (parts and supplies)	987,967
Less adjustment for obsolete and slow moving materials inventory	<u>(134,185)</u>
Total	<u>\$ 901,237</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, 2016 was as follows (in thousands):

	<u>Beginning Balance</u>	<u>Increases</u>	<u>Decreases</u>	<u>Convert to Capital Assets</u>	<u>Ending Balance</u>
Capital assets, being depreciated:					
Furniture and fixtures	\$ 8,070	\$ -	\$ (10)	\$ 1,539	\$ 9,599
Vehicles and equipment	9,562	-	(465)	547	9,644
Buildings and improvements	8,754	-	-	135	8,889
Infrastructure	<u>328,610</u>	<u>-</u>	<u>-</u>	<u>35,959</u>	<u>364,569</u>
Total capital assets, being depreciated	354,996	-	(475)	38,180	392,701
Less accumulated depreciation for:					
Furniture and fixtures	(4,529)	(734)	10	-	(5,253)
Vehicles and equipment	(7,104)	(939)	465	-	(7,578)
Buildings and improvements	(1,807)	(305)	-	-	(2,112)
Infrastructure	<u>(129,874)</u>	<u>(6,447)</u>	<u>-</u>	<u>-</u>	<u>(136,321)</u>
Total accumulated depreciation	<u>(143,314)</u>	<u>(8,425)</u>	<u>475</u>	<u>-</u>	<u>(151,264)</u>
Total capital assets, being depreciated, net	211,682	(8,425)	-	38,180	241,437
Capital assets, not being depreciated:					
Land	5,421	-	-	230	5,651
Construction in progress	<u>54,737</u>	<u>34,137</u>	<u>-</u>	<u>(38,410)</u>	<u>50,464</u>
Total capital assets, not being depreciated	<u>60,158</u>	<u>34,137</u>	<u>-</u>	<u>(38,180)</u>	<u>56,115</u>
Capital assets, net	<u>\$ 271,840</u>	<u>\$ 25,712</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ 297,552</u>

11. Deferred Outflows and Inflows

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, 2016:

Non-pension related:	
Unamortized refunding of debt	\$ 842,634
Deferred charges	<u>77,727,628</u>
Total Non-Pension Related	78,570,262
Pension related:	
Difference between expected and actual experience	883,480
Changes of assumptions	3,837,008
Net difference between projected and actual pension plan investment earnings	1,539,077
Changes in proportion and differences between contributions and proportionate share of contributions	<u>88,599</u>
Total Pension Related	<u>6,348,164</u>
Total Deferred Outflows	<u>\$ 84,918,426</u>

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 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.

Deferred inflows consists of the balance of deferred credits.

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.

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>06/30/15</u>	Increase (Decrease)	<u>06/30/16</u>
<u>Deferred Charges</u>			
Accrued workers compensation	\$ 266,771	\$ (33,620)	\$ 233,151
Accrued compensated absences	1,339,513	(20,962)	1,318,551
Net OPEB obligation	2,599,563	826,210	3,425,773
Net pension liability	63,437,281	8,888,903	72,326,184
Privatization costs	<u>523,728</u>	<u>(99,759)</u>	<u>423,969</u>
Total Deferred Charges	<u>\$ 68,166,856</u>	<u>\$ 9,560,772</u>	<u>\$ 77,727,628</u>
<u>Deferred Credits</u>			
Capital improvements, net of depreciation	\$ 32,828,457	\$ 1,947,231	\$ 34,775,688
Principal debt payments	47,427,911	8,041,809	55,469,720
Group insurance deposit	<u>495,227</u>	<u>-</u>	<u>495,227</u>
Total Deferred Credits	<u>\$ 80,751,595</u>	<u>\$ 9,989,040</u>	<u>\$ 90,740,635</u>
Net change for year		(428,268)	
Less privatization costs included in amortization expense		<u>99,759</u>	
Excess revenues used to fund deferrals		<u>\$ (328,509)</u>	

12. Notes Payable

During fiscal year 2016 the Commission drew \$19,621,815 against an interim loan agreement with the Massachusetts Clean Water Trust (MCWT) for the main interceptor project. The interim loan carries an interest rate of .09% and is scheduled to be converted to a permanent loan in early 2017. The original loan amount of \$23,476,251, has been adjusted twice and as of September 2016 the total loan award is \$23,475,000, of which \$526,813 will be forgiven (converted to a grant) by MCWT.

13. Capital Lease Obligations

The Commission is the lessee of certain equipment under capital leases expiring in fiscal year 2017. Future minimum lease payments under the capital leases consisted of the following as of June 30, 2016:

2017	\$ 160,270
Total minimum lease payments	160,270
Less amounts representing interest	<u>(1,942)</u>
Present Value of Minimum Lease Payments	<u>\$ 158,328</u>

14. 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, 2016 follows:

	Serial Maturities <u>Through</u>	Interest Rate(s)% <u>Rate(s)%</u>	Loan Balance Outstanding <u>June 30, 2016</u>	Bond Premium <u>Amortization</u>	Total Balance <u>June 30, 2016</u>
Sewer (MCWT 94-24 / 95-07 / 98-133)	08/01/20	1.00 - 2.75	1,997,836	-	1,997,836
Sewer (United Water)	10/01/20	Various	399,872	-	399,872
Revenue bonds (refunding)	11/01/21	4.0 - 5.0	4,560,000	-	4,560,000
Sewer CSO (MCWT CW-01-39)	08/01/22	1.00 - 2.75	1,444,874	-	1,444,874
Revenue bonds	07/15/26	4.25 - 5.0	885,000	-	885,000
Revenue bonds	07/15/26	3.0 - 5.0	14,845,000	2,615,491	17,460,491
Revenue bonds	10/15/28	4.0 - 5.75	10,455,000	28,225	10,483,225
Sewer CSO (MCWT CW-08-36)	07/15/30	2.00	7,660,454	-	7,660,454
Revenue bonds	11/15/30	3.0 - 5.0	20,475,000	1,636,793	22,111,793
Sewer CSO (MCWT CW-08-36-A)	07/15/32	2.00	5,376,405	-	5,376,405
Sewer CSO (MCWT CW-10-06)	07/15/32	2.00	1,503,175	-	1,503,175
Sewer CSO (MCWT CW-11-01)	07/15/32	2.00	5,607,387	-	5,607,387
Sewer CSO (MCWT CW-11-22)	01/15/33	2.00	1,374,264	-	1,374,264
Revenue bonds	07/15/34	3.0 - 5.0	24,765,000	1,398,400	26,163,400
Sewer CSO (MCWT CW-12-03)	01/15/35	2.00	18,865,253	-	18,865,253
Sewer CSO (MCWT CW-13-16)	01/15/35	2.00	21,645,275	-	21,645,275
Sewer CSO (MCWT CW-06-27)	07/15/37	2.00	23,283,126	-	23,283,126
Total Long-Term Debt			<u>\$ 165,142,921</u>	<u>\$ 5,678,909</u>	<u>\$ 170,821,830</u>

B. Future Debt Service

The annual payments to retire all general obligation long-term debt outstanding (including bond premium amortization) as of June 30, 2016 are as follows:

	<u>Principal</u>	<u>Interest</u>	<u>Total</u>
2017	\$ 9,463,435	\$ 5,254,197	\$ 14,717,632
2018	9,698,336	5,000,988	14,699,324
2019	9,919,833	4,708,471	14,628,304
2020	10,183,450	4,389,736	14,573,186
2021	10,373,376	3,998,340	14,371,716
2022 - 2026	48,329,726	14,725,182	63,054,908
2027 - 2031	43,478,134	6,964,009	50,442,143
Thereafter	<u>29,375,540</u>	<u>1,939,809</u>	<u>31,315,349</u>
Total	<u>\$ 170,821,830</u>	<u>\$ 46,980,732</u>	<u>\$ 217,802,562</u>

C. Long-Term Debt Activity

The following summarizes activity in long-term obligations during 2016 (in thousands):

	Balance Balance <u>07/01/15</u>	<u>Increase</u>	<u>Decrease</u>	Balance <u>06/30/16</u>	Less Current <u>Portion</u>	Equals Long -Term <u>Portion</u>
<u>Long-Term Debt:</u>						
Loans Payable	\$ 179,270	\$ -	\$ (8,448)	\$ 170,822	\$ (9,464)	\$ 161,358
Other:						
Capital lease payable	436	-	(278)	158	(158)	-
Accrued compensated absences	1,339	189	(209)	1,319	(104)	1,215
Net OPEB obligation	2,600	826	-	3,426	-	3,426
Net pension liability	63,438	8,888	-	72,326	-	72,326
Accrued workers compensation	<u>267</u>	<u>-</u>	<u>(34)</u>	<u>233</u>	<u>-</u>	<u>233</u>
Total	<u>\$ 247,350</u>	<u>\$ 9,903</u>	<u>\$ (8,969)</u>	<u>\$ 248,284</u>	<u>\$ (9,726)</u>	<u>\$ 238,558</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, 2016.

E. Advance Refunding

On October 24, 2014 the Commission issued refunding revenue bonds in the amount of \$15,245,000 (interest rate ranging from 3% - 5%), to advance refund \$5,180,000 of 2003 bonds with an interest rate of 4% and \$11,605,000 of 2006 bonds with an interest rate of 5%. The 2003 and 2006 bonds mature on July 1, 2023 and July 15, 2026 and are redeemable July 1, 2013 and July 15, 2016, respectively. The refunding bonds were issued at 119% and, after paying issuance costs of \$167,437, the net proceeds were \$17,996,683. 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 2003 and 2006 bonds are called on November 24, 2014 and July 15, 2016, 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 \$2,408,285 which resulted in an economic gain (difference between the present value of the debt service payments on the old and new debt) of \$2,193,000.

Defeased debt still outstanding at June 30, 2016 is \$11,605,000.

15. Restricted Net Position

The balance in restricted net position of \$37,694,132 represents the restricted cash balance for required reserves and scholarships of \$35,770,759 and the total value of inventory of \$1,923,373.

16. 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 material to the Commission's financial statements; however, the outcome cannot be determined at this time. 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 AO further requires completion of the project by December 31, 2020. The Commission has contracted with engineers and has begun the design of this project and anticipates project completion pursuant to the December 31, 2020 requirement. 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.

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, 2016 the Trust contracted with an insurance carrier for excess liability coverage which takes effect when an individual claim exceeds \$250,000.

If the Trust were to experience a cash deficit, each member would be required to contribute additional funds. At June 30, 2016, according to the Trust's unaudited financial statements, after accruing an estimated liability for incurred but unreported claims of approximately \$3.7 million, the Trust was in a surplus position of approximately \$20.5 million.

17. Post-Employment Health Care and Life Insurance Benefits

GASB Statement 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 18, 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 and prescription drug 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 Obligation

The Commission's fiscal 2016 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, 2016, the amount actually contributed to the plan, and the change in the Commission's net OPEB obligation based on an actuarial valuation as of December 31, 2015 (in thousands):

Annual Required Contribution (ARC)	\$	1,639
Interest on net OPEB obligation		123
Adjustment to ARC		(98)
Annual OPEB cost		1,664
Contributions made		(838)
Increase in net OPEB obligation		826
Net OPEB obligation - beginning of year		2,600
Net OPEB obligation - end of year	\$	<u>3,426</u>

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

Fiscal Year <u>Ended</u>	Annual OPEB <u>Cost</u>	Percentage of OPEB <u>Cost Contributed</u>	Net OPEB <u>Obligation</u>
2016	\$ 1,664	50%	\$ 3,426
2015	\$ 1,593	16%	\$ 2,600
2014	\$ 1,494	16%	\$ 1,261

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>2.54%</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.

In August 2015, the Commission voted to establish an OPEB trust fund under Massachusetts General Law Chapter 32B, Section 20. The balance in the trust fund is \$446,629 as of June 30, 2016.

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%.

18. 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 100 percent, the normal yearly amount of the retirement allowance shall be based on the average annual rate of regular compensation received by the member during the period of 5 consecutive years preceding retirement. Benefit payments are based upon a member's age, length of creditable service, level of compensation and group classification.

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:

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

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

Participant 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, 2016 was \$4,143,409, 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, 2016, the Commission reported a liability of \$72,326,184 for its proportionate share of the net pension liability. The net pension liability was measured as of December 31, 2015, and the total pension liability used to calculate the net pension

liability was determined by an actuarial valuation as of January 1, 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, 2016, the Commission's proportion was 8.685 percent, which was an increase of 0.015 from its proportion measured as of June 30, 2015.

For the year ended June 30, 2016, the Commission recognized pension expense of \$6,764,398. In addition, the Commission reported deferred outflows of resources related to pensions from the following sources (in thousands):

	Deferred Outflows of <u>Resources</u>
Differences between expected and actual experience	\$ 884
Changes of assumptions	3,837
Net difference between projected and actual earnings on pension plan investments	1,539
Changes in proportion and differences between contributions and proportionate	<u>88</u>
Total	<u>\$ 6,348</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:	
2017	\$ 1,460
2018	1,460
2019	1,461
2020	1,435
2021	<u>532</u>
Total	<u>\$ 6,348</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%

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 period 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%	8.00%
Emerging International Equities	6.00%	9.50%
High-Yield Bonds	1.50%	6.00%
Bank Loans	1.50%	6.00%
EMD (External)	1.00%	6.00%
EMD (Local Currency)	2.00%	6.50%
TIPS	3.00%	4.00%
Long Treasuries	10.00%	3.50%
Private Equity	10.00%	9.50%
Private Debt	4.00%	8.00%
Real Estate (Core)	10.00%	6.50%
Hedge Funds	9.00%	6.50%
Timber/Natural Resources	4.00%	7.01%
Portfolio Completion	<u>4.00%</u>	6.18%
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 (6.65%)</u>	<u>Current Discount Rate (7.65%)</u>	<u>1% Increase (8.65%)</u>
June 30, 2016	\$ 82,767	\$ 72,326	\$ 63,461

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.

19. Transactions with City of Springfield

Other than the retirement system contribution noted above, the Commission's fiscal year 2016 transactions with the City consist of payments for Police Department services of \$1,062,780, for retiree health insurance of \$264,500, and other City department services and fees totaling \$750.

20. Wastewater Regional Operations Management

In August 2000, the Commission entered into an agreement with United Water, Springfield LLC (now United Water Environmental Services, Inc.) 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 United 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.
- United Water bills the Commission monthly for the cost of providing service and an administrative fee. The monthly cost as of June 2016 was approximately \$904,000.
- In September 2000, United 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, United 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, 2016, the letter of credit was approximately \$20.5 million.

SPRINGFIELD WATER AND SEWER COMMISSION

REQUIRED SUPPLEMENTARY INFORMATION

SCHEDULE OF OPEB FUNDING PROGRESS

JUNE 30, 2016

(Unaudited)

Other Post-Employment Benefits

Actuarial Valuation Date	Actuarial Value of Assets (a)	Actuarial Accrued Liability (AAL) - Entry Age (b)	Unfunded AAL (UAAL) (b-a)	Funded Ratio (a/b)	Covered Payroll (c)	UAAL as a Percent- age of Covered Payroll [(b-a)/c]
12/31/15	\$ 428,560	\$ 17,343,126	\$ 16,914,566	2.53%	N/A	N/A
12/31/13	\$ -	\$ 15,836,718	\$ 15,836,718	0.0%	N/A	N/A

See Independent Auditors' Report.

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

JUNE 30, 2016

(Amounts expressed in thousands)

(Unaudited)

Springfield Contributory Retirement System

Fiscal Year	Proportion of the Net Pension Liability	Proportionate Share of the Net Pension Liability	Covered Payroll	Proportionate Share of the Net Pension Liability as a Percentage of Covered Payroll	Plan Fiduciary Net Position Percentage of the Total Pension Liability
June 30, 2016	8.685%	\$ 72,326	\$ 13,215	547.30%	25.70%
June 30, 2015	8.67%	\$ 63,437	\$ 12,512	507.01%	28.83%

Information above is presented as of the most recent measurement date.

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
 REQUIRED SUPPLEMENTARY INFORMATION

JUNE 30, 2016

(Amounts expressed in thousands)

(Unaudited)

Springfield Contributory Retirement System

<u>Fiscal Year</u>	<u>Contractually Required Contribution</u>	Contributions in Relation to the <u>Contractually Required Contribution</u>	<u>Contribution Deficiency (Excess)</u>	<u>Covered Payroll</u>	<u>Contributions as a Percentage of Covered Payroll</u>
June 30, 2016	\$ 4,143	\$ 4,143	\$ -	\$ 13,215	31.35%
June 30, 2015	\$ 3,902	\$ 3,902	\$ -	\$ 12,512	31.19%

Information above is presented as of the most recent measurement date.

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 OPERATING EXPENDITURES
BUDGET AND ACTUAL

FOR THE YEAR ENDED JUNE 30, 2016

	<u>Original Budget</u>	<u>Final Budget</u>	<u>Actual</u>	Variance Favorable (Unfavorable)
Expenditures:				
Salaries and wages	\$ 13,696,400	\$ 13,696,400	\$ 13,253,500	\$ 442,900
Employee benefits	7,045,286	7,045,286	6,838,989	206,297
Operations	23,302,682	23,293,891	23,124,002	169,889
Intergovernmental	574,494	574,494	557,125	17,369
Capital outlay	359,800	359,800	326,047	33,753
Other	526,850	526,850	415,367	111,483
Debt principal	8,045,502	8,045,502	8,041,809	3,693
Debt interest	<u>5,161,585</u>	<u>5,170,376</u>	<u>5,034,772</u>	<u>135,604</u>
Total Expenditures	<u>\$ 58,712,599</u>	<u>\$ 58,712,599</u>	<u>\$ 57,591,611</u>	<u>\$ 1,120,988</u>

See Independent Auditors' Report.

Notes to Supplemental Schedule

Schedule of Operating Expenditures - Budget and Actual

Budgetary Basis

The appropriation appearing on page 54 of the financial statements represents the operating budget of the Commission that was originally authorized in June 2015.

Budget/GAAP Reconciliation

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

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

Operating expenditures (GAAP basis)	\$ 57,973,738
Non-operating expenditures (GAAP basis)	5,035,560
Reverse capital expenditures appropriated in a prior fiscal year	(959,347)
Reverse the effect of prior year and current year GAAP accruals of:	
Inventory	(20,542)
Deferred outflows	6,348,164
Accounts payable and accrued payroll	(996,714)
Interest on long-term debt	(128,717)
Accrued compensated absences	20,962
Net OPEB obligation	(826,210)
Net pension liability	(8,888,903)
Accrued workers compensation	<u>33,620</u>
Budgetary basis	<u>\$ 57,591,611</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 57 and 58.

- 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 59 through 62.

- 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 63 and 64.

- 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 65 through 68.

- Population, Income and Employment – Last Ten Calendar Years
- Demographic and Economic Statistics – 2015 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 69 through 73.

- Divisional Breakdown of SWSC Funded (Budgeted) Positions – Last Ten Budget Years
- Water and Sewer Distribution System – Year-End 2016
- Insurance Coverage – 2016 – 2017
- 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>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>
Net investment in capital assets	\$ 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	\$ 91,217,173
Restricted	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	18,230,031
Unrestricted	<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>	<u>(19,767,557)</u>
Total net position	<u>\$ 126,344,667</u>	<u>\$ 120,176,372</u>	<u>\$ 113,334,230</u>	<u>\$ 117,733,760</u>	<u>\$ 114,429,711</u>	<u>\$ 108,632,334</u>	<u>\$ 104,307,687</u>	<u>\$ 106,045,372</u>	<u>\$ 105,958,180</u>	<u>\$ 89,679,647</u>

Source: Audited Financial Statements (2007 - 2009 as modified)

Table 2
Changes in Net Position
Last Ten Fiscal 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>
Operating Revenues										
Water and sewer usage	\$ 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	\$ 45,613,639
Other income	220,121	252,568	442,440	323,306	468,610	208,003	132,699	301,775	1,095,018	257,114
Total Operating Revenues	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	45,870,753
Operating and Maintenance Expenses										
Salaries and wages	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	11,215,796
Employee benefits	10,705,918	9,877,386	7,708,445	6,339,698	6,225,431	4,790,965	4,787,846	4,429,019	4,561,640	3,578,421
Administration (indirect costs)	-	-	-	-	-	-	-	-	-	184,601
Operations	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	18,951,060
Intergovernmental	557,125	540,163	519,315	504,188	493,920	500,914	486,892	477,701	454,092	466,727
Capital outlay	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	2,345,374
Other	379,835	521,140	561,054	413,520	615,729	355,459	358,107	308,747	315,916	271,347
Total Operating Expenses	49,349,838	46,941,929	44,747,540	42,510,079	42,201,756	39,196,741	40,714,321	40,006,973	38,677,878	37,013,326
Depreciation and amortization	8,623,900	7,951,427	7,142,654	7,104,089	6,977,531	7,044,059	6,342,586	6,073,872	5,563,974	5,267,390
Excess Operating Revenues	11,072,744	12,528,004	12,442,093	12,613,726	13,015,693	10,891,268	5,258,323	5,100,466	7,639,035	3,590,037
Non-operating Revenues (Expenses)										
Interest income	15,564	15,027	13,709	16,180	19,618	30,006	49,600	278,324	1,331,957	2,132,353
Interest expense	(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)	(1,916,024)
Other	83,797	81,045	661,249	-	38,574	9,781	(4,015)	(125,989)	(124,260)	(9,523)
Total Non-operating Expenses	(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)	206,806
Capital grants and contributions	792,512	1,643,475	-	1,227,663	1,737,571	362,428	2,740,324	251,763	810,072	1,308,411
Excess revenues before deferral adjustments and special items	6,929,057	9,529,201	8,785,509	9,454,305	10,544,055	7,320,968	4,735,034	2,215,012	7,366,917	5,105,254
Excess revenues used to fund reserves and other deferrals	(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	1,660,566
Special item	-	-	-	-	-	-	(4,949,004)	-	-	-
Transfer out	(432,253)	-	-	-	-	-	-	-	-	-
Change in Net Position	\$ 6,168,295	\$ 6,842,142	\$ (4,399,530)	\$ 3,304,049	\$ 5,797,377	\$ 4,324,647	\$ (1,737,685)	\$ 87,192	\$ 16,278,533	\$ 6,765,820

Source: Audited Financial Statements
(2007 - 2009 as modified)

Table 3
Largest Users
Last Ten Fiscal Years

Top 25 Customers	2016	2015	2014	2013	2012	2011	2010	2009	2008	2007
Solutia, Inc.	\$ 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	\$ 5,061,960
Town of Agawam	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	2,230,101
Springfield Housing Authority	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	747,012
Town of West Springfield	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	1,591,699
Town of Longmeadow	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	1,217,322
Town of East Longmeadow	1,246,046	1,200,725	1,251,602	1,332,632	1,280,605	1,252,253	888,999	765,457	652,052	689,773
Town of Ludlow DPW	902,631	824,146	694,297	561,993	557,463	840,323	812,734	568,675	728,241	569,166
Bay State Medical Center	873,883	901,132	780,102	852,355	850,642	816,729	680,250	601,332	551,069	578,639
Springfield College	495,982	442,041	432,570	454,455	393,046	397,374	316,715	300,403	288,408	211,803
Smith & Wesson	492,162	441,301	344,034	431,508	289,926	246,791	251,808	214,299	188,073	165,396
Western New England University	491,598	509,482	395,069	369,050	331,600	305,976	254,167	232,358	249,617	229,729
City of Springfield/Schools	468,008	388,135	356,808	376,492	363,417	367,620	338,933	273,876	274,862	216,916
Catholic Health East-APSS	458,863	437,435	510,245	523,085	411,536	364,181	310,942	321,948	295,951	323,846
Chestnut Park Associates	421,723	338,939	292,262	284,248	261,429	249,389	326,922	347,583	268,606	283,009
Town of Wilbraham	300,733	191,960	286,722	-	-	-	-	-	-	-
Carando/Smithfield Foods	292,089	252,159	216,350	219,284	209,441	197,765	168,268	145,846	111,158	89,059
Unifirst Corporation	265,276	202,413	183,622	190,246	170,994	205,421	182,214	138,989	129,081	125,129
Mass Power	259,600	199,286	-	168,371	157,513	42,665	42,726	-	-	-
Pynchon I Apartments, Ltd	250,244	243,464	227,474	231,734	235,228	184,723	170,722	144,068	129,353	127,061
Spring Meadow Apartments	221,225	172,518	176,398	170,576	141,701	151,868	126,981	121,183	118,395	89,550
Armory Commons	206,610	182,313	147,790	-	-	-	-	-	-	-
Pynchon II Apartments, Ltd.	198,254	205,079	183,432	-	-	-	-	-	-	-
Allen Park 1 & 2	191,870	206,815	177,904	-	-	-	-	-	-	-
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	254,060
Cardaropoli, Attilio	-	-	203,646	211,948	210,895	188,688	184,870	175,842	151,382	131,714
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	122,180
Hampden County Sheriff's Dept.	-	-	-	347,398	327,756	136,214	123,957	129,267	149,943	166,819
City of Springfield/Parks Dept	-	-	-	206,635	130,685	60,831	-	-	39,917	-
Total	\$ 23,235,852	\$ 22,447,538	\$ 22,416,536	\$ 21,540,107	\$ 21,244,771	\$ 21,290,903	\$ 18,792,659	\$ 17,130,847	\$ 17,109,585	\$ 15,221,942
Percent of Total Operating Revenue	34%	33%	35%	35%	37%	39%	37%	35%	34%	34%

Source: Commission Billing Records

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

Water Sales (1000 gals)	<u>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>
Residential	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	4,260,825
Commercial	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	1,203,263
Industrial	301,338	332,947	292,994	305,685	351,324	467,409	444,615	344,988	350,023	307,750
Municipal	119,125	99,915	98,405	125,987	118,816	127,844	88,114	91,505	85,240	75,134
Solutia contract	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	2,803,959
Town contracts	<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>	<u>3,226,712</u>
Total water billed	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	11,877,643
Water supplied	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	12,789,950
% Accounted for	90.4%	93.0%	95.3%	93.1%	94.6%	95.2%	90.6%	93.7%	96.1%	92.9%
Sewer Sales (1000 gals)	<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>
Residential	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	3,975,095
Commercial	555,334	532,273	536,765	545,418	557,926	568,273	570,593	619,296	668,646	644,217
Industrial	175,459	164,419	161,525	177,979	166,274	168,006	165,854	186,198	269,809	188,323
Municipal	62,876	56,562	53,819	55,634	56,434	60,679	58,861	61,011	62,969	53,513
Food Service	36,666	36,320	36,333	39,310	44,412	44,978	46,179	48,735	50,537	50,889
Medical	148,388	137,709	150,742	168,482	172,983	166,605	151,009	150,338	145,483	155,791
Solutia contract	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	1,834,589
Town contracts	<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>	<u>4,809,061</u>
Total sewer billed	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	11,711,478
Wastewater treated	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	15,245,199
% Accounted for *	82.1%	77.6%	75.8%	81.3%	73.4%	79.5%	74.5%	73.3%	79.9%	76.8%

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>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>
Billings	\$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	\$42,439,650
Adjustments	(\$281,823)	(\$767,583)	(\$304,095)	\$164,551	(\$2,770,914)	(\$1,725,815)	\$503,508	\$231,708	\$716,058	\$325,253
Write-offs	\$99,880	\$88,395	\$80,900	\$158,965	\$132,792	\$131,347	\$129,019	\$105,530	\$47,423	\$46,348
Net Billings	\$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	\$42,811,251
Payments	\$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	\$41,484,027
Collection rate	100.0%	99.9%	99.6%	99.1%	102.7%	100.6%	98.4%	99.6%	102.9%	96.9%
Ending Receivables (before accruals)	\$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	\$6,624,868

*FY 2015 adjusted during FY 2016

Source: Commission Billing System

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

Water Rates (per 1000 gals)	<u>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>2007</u>
Residential	\$3.86	\$3.72	\$3.56	\$3.34	\$3.21	\$3.06	\$2.91	\$2.70	\$2.50	\$2.31	\$2.14
Commercial	\$3.86	\$3.72	\$3.56	\$3.34	\$3.21	\$3.06	\$2.91	\$2.70	\$2.50	\$2.31	\$2.14
Municipal	\$2.87	\$2.77	\$2.65	\$2.49	\$2.39	\$2.27	\$2.17	\$2.01	\$1.67	\$1.24	\$1.07
Industrial	\$2.87	\$2.77	\$2.65	\$2.49	\$2.39	\$2.27	\$2.17	\$2.01	\$1.67	\$1.24	\$1.07
Solutia contract	\$2.66	\$2.51	\$2.35	\$2.14	\$2.01	\$1.86	\$1.71	\$1.30	\$1.30	\$1.24	\$1.07
Town contracts	\$1.18	\$1.18	\$1.09	\$1.19	\$1.14	\$1.17	\$0.93	\$0.90	\$0.93	\$0.81	\$0.72
Residential Water % Change	4.0%	4.5%	6.4%	4.2%	4.8%	5.0%	7.9%	8.0%	8.1%	8.1%	
Sewer Rates (per 1000 gals)	<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>2007</u>
Residential	\$6.34	\$6.10	\$5.80	\$5.11	\$4.87	\$4.47	\$4.13	\$3.82	\$3.40	\$3.02	\$2.69
Commercial	\$6.97	\$6.70	\$6.38	\$5.61	\$5.35	\$4.91	\$4.55	\$4.21	\$3.74	\$3.33	\$2.95
Industrial	\$7.61	\$7.30	\$6.95	\$6.12	\$5.84	\$5.36	\$4.96	\$4.59	\$4.08	\$3.62	\$3.22
Municipal	\$6.34	\$6.10	\$5.80	\$5.11	\$4.87	\$4.47	\$4.13	\$3.82	\$3.40	\$3.02	\$2.69
Food Service	\$8.24	\$7.91	\$7.54	\$6.64	\$6.32	\$5.80	\$5.37	\$4.97	\$4.41	\$3.93	\$3.49
Medical	\$6.97	\$6.70	\$6.38	\$5.61	\$5.35	\$4.91	\$4.55	\$4.21	\$3.74	\$3.33	\$2.95
Solutia contract	\$1.06	\$1.11	\$1.10	\$0.99	\$1.08	\$0.88	\$0.78	\$0.92	\$0.98	\$0.99	\$0.98
Town contracts	\$1.06	\$1.11	\$1.10	\$0.99	\$1.08	\$0.88	\$0.78	\$0.92	\$0.98	\$0.99	\$0.98
Residential Sewer % Change	3.9%	5.1%	13.6%	4.9%	9.0%	8.1%	8.0%	12.6%	12.4%	12.4%	
Water Rates (per 100 CF)	<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>2007</u>
Residential	\$2.89	\$2.78	\$2.66	\$2.50	\$2.40	\$2.29	\$2.18	\$2.02	\$1.87	\$1.73	\$1.60
Commercial	\$2.89	\$2.78	\$2.66	\$2.50	\$2.40	\$2.29	\$2.18	\$2.02	\$1.87	\$1.73	\$1.60
Municipal	\$2.15	\$2.07	\$1.98	\$1.86	\$1.79	\$1.70	\$1.62	\$1.50	\$1.25	\$0.93	\$0.80
Industrial	\$2.15	\$2.07	\$1.98	\$1.86	\$1.79	\$1.70	\$1.62	\$1.50	\$1.25	\$0.93	\$0.80
Solutia contract (per 100 CF)	\$1.99	\$1.88	\$1.76	\$1.60	\$1.50	\$1.39	\$1.28	\$0.97	\$0.97	\$0.93	\$0.80
Town contracts (per million gals)	\$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	\$724.94
Residential Water % Change	4.0%	4.5%	6.4%	4.2%	4.9%	5.0%	7.9%	8.0%	8.1%	8.1%	
Sewer Rates (per 100 CF)	<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>2007</u>
Residential	\$4.74	\$4.56	\$4.34	\$3.82	\$3.64	\$3.34	\$3.09	\$2.86	\$2.54	\$2.26	\$2.01
Commercial	\$5.21	\$5.01	\$4.77	\$4.20	\$4.00	\$3.67	\$3.40	\$3.15	\$2.80	\$2.49	\$2.21
Industrial	\$5.69	\$5.46	\$5.20	\$4.58	\$4.37	\$4.01	\$3.71	\$3.43	\$3.05	\$2.71	\$2.41
Municipal	\$4.74	\$4.56	\$4.34	\$3.82	\$3.64	\$3.34	\$3.09	\$2.86	\$2.54	\$2.26	\$2.01
Food Service	\$6.16	\$5.92	\$5.64	\$4.97	\$4.73	\$4.34	\$4.02	\$3.72	\$3.30	\$2.94	\$2.61
Medical	\$5.21	\$5.01	\$4.77	\$4.20	\$4.00	\$3.67	\$3.40	\$3.15	\$2.80	\$2.49	\$2.21
Solutia contract (per million gals)	\$1,060.86	\$1,108.27	\$1,099.26	\$993.00	\$1,076.52	\$881.28	\$779.83	\$921.96	\$976.82	\$992.48	\$981.38
Town contracts (per million gals)	\$1,060.86	\$1,108.27	\$1,099.26	\$993.00	\$1,076.52	\$881.28	\$779.83	\$921.96	\$976.82	\$992.48	\$981.38
Residential Sewer % Change	3.9%	5.1%	13.6%	4.9%	9.0%	8.1%	8.0%	12.6%	12.4%	12.4%	

Source: Fiscal Year 2016 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>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>
Outstanding Principal ⁽⁵⁾⁽⁶⁾	\$165,142,921	\$173,265,029	\$134,265,667	\$121,778,599	\$126,004,616	\$116,833,740	\$93,332,236	\$89,013,967	\$77,996,972	\$49,489,106
City Springfield Population	153,703	153,991	153,060	153,060	153,060	153,060	153,060	152,082	152,082	152,082
Town of Ludlow Population ⁽¹⁾	21,103	21,103	21,103	21,103	21,103	21,103	21,103	22,161	22,410	22,382
Per Capita Debt	945	990	771	699	723	671	536	511	447	284
City of Springfield:										
Total Personal Income ⁽²⁾⁽³⁾	\$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	\$2,607,800,748
Town of Ludlow:										
Estimated Total Personal Income ⁽³⁾⁽⁴⁾	\$583,371,332	\$583,371,332	\$583,371,332	\$583,371,332	\$583,371,332	\$583,371,332	\$583,371,332	\$612,618,684	\$619,502,040	\$618,728,008
Debt per Personal Income	4.80%	5.07%	3.93%	3.57%	3.65%	3.43%	2.78%	2.68%	2.38%	1.53%

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

(6) Net of bond premium

Table 8
Debt Coverage
Last Ten Fiscal 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>
Operating revenue										
Beginning revenue cash	\$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	\$12,878,590
Deposits to revenue acct	\$67,844,909	\$66,470,471	\$65,134,734	\$62,750,659	\$60,793,884	\$60,094,482	\$53,095,118	\$50,770,243	\$55,619,646	\$45,374,834
Total cash receipts	\$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	\$58,253,424
Operating transfers										
To operating accts	\$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	\$35,896,055
To (from) debt service reserve	\$1,223,597	\$477,261	(\$13,242)	(\$236,031)	\$994,454	\$967,540	\$506,951	\$1,142,119	\$1,449,300	\$1,505,300
Total operating transfers	\$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	\$37,401,355
Net revenue	\$62,782,709	\$46,765,489	\$53,024,248	\$52,226,283	\$45,093,918	\$28,005,246	\$29,242,967	\$21,972,156	\$32,712,674	\$20,852,069
Debt service requirement	\$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	\$3,050,843
Debt coverage	489.0%	437.5%	505.0%	528.3%	461.1%	383.4%	438.2%	373.8%	809.2%	683.5%
Alternate (no begin balance)	170.1%	204.1%	234.1%	225.8%	210.1%	244.2%	229.0%	104.5%	454.0%	261.4%
125% of debt service required	\$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	\$3,813,554
140% of debt service required	\$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	\$4,271,180

Source: Commission Accounting System

Table 9
Population, Income and Employment
Last Ten Calendar Years

	<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>	<u>2006</u>
United States										
Total Personal Income (\$000)	\$15,324,108,725	\$14,708,582,165	\$14,151,427,000	\$13,401,868,693	\$12,981,740,848	\$12,353,777,000	\$11,916,773,000	\$12,225,589,000	\$11,634,322,000	\$10,966,808,000
Per Capita Income (\$)	\$47,665	\$46,129	\$44,765	\$42,693	\$41,663	\$39,937	\$38,846	\$40,166	\$38,615	\$36,629
Population	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	299,398,484
Employment	(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	178,342,900
New England										
Total Personal Income (\$000)	\$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	\$631,474,719
Per Capita Income (\$)	\$58,863	\$56,642	\$54,797	\$52,446	\$51,074	\$48,840	\$47,513	\$48,944	\$42,820	\$44,252
Population	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	14,269,989
Employment	(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	9,210,832
Massachusetts										
Total Personal Income (\$000)	\$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	\$297,754,674
Per Capita Income (\$)	\$61,032	\$59,182	\$57,248	\$54,687	\$53,261	\$51,304	\$49,788	\$50,897	\$48,995	\$46,255
Population	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	6,434,389
Employment	(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	4,214,576
Western Massachusetts ⁽¹⁾										
Total Personal Income (\$000)	(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	\$29,152,369
Per Capita Income (\$)	(2)	\$44,002	\$44,805	\$43,311	\$40,689	\$39,135	\$38,215	\$39,084	\$37,493	\$35,497
Population	(2)	828,677	827,721	827,274	823,662	824,138	823,343	822,611	821,736	821,261
Employment	(2)	470,214	465,367	454,490	449,577	446,402	446,278	458,340	460,296	455,890

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

Source: Bureau of Economic Analysis
Bureau of the Census
Boston Water and Sewer Commission CAFR

(2) 2015 information unavailable

Table 10
Demographic and Economic Statistics
2015 Calendar Year End Summary

	Springfield, MA ⁽¹⁾	United States ⁽²⁾
ECONOMY		
Unemployment Rate	7.2%	5.3%
Recent Job Growth	-0.3%	1.7%
3 Year Average	0.9%	1.5%
5 Year Average	0.8%	1.4%
Future Job Growth*	N/A	1.3%
Sales Tax	6.25%	0.0%
Income Taxes	5.3%	5.3%
Income Per Capita	\$18,435	\$28,555
Household Income (Median)	\$34,731	\$53,482
HOUSEHOLD INCOME		
Income less than 10K	13.6%	6.9%
Income between 10K and 15K	11.8%	5.0%
Income between 15K and 25K	11.7%	10.2%
Income between 25K and 35K	9.7%	9.8%
Income between 35K and 50K	14.8%	13.2%
Income between 50K and 75K	16.9%	17.8%
Income between 75K and 100K	9.5%	12.2%
Income between 100K and 150K	7.4%	13.6%
Income between 150K and 200K	3.5%	5.5%
Income greater than 200K	1.1%	5.8%
POPULATION BY OCCUPATION		
Management, business, science, and arts occupations	37.5%	37.1%
Service occupations	20.2%	18.0%
Sales and office occupations	24.5%	23.6%
Natural resources, construction, and maintenance occupations	6.2%	9.0%
Production, transportation, and material moving occupations	11.6%	12.3%

* Projected growth between 2014 and 2015

(1) Source: U.S. Census Bureau, 2015 estimate

(2) Source: Bureau of Labor Statistics 2014/2015

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

Water Accounts	<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>
Residential	40,303	40,226	40,245	40,274	40,242	40,377	40,246	40,075	40,009	40,017
Commercial	2,175	2,186	2,184	2,190	2,184	2,188	2,188	2,177	2,183	2,190
Industrial	88	91	92	92	95	97	94	94	92	93
Municipal	158	154	147	147	149	143	137	128	124	121
Solutia contract	24	24	22	23	23	23	23	23	23	23
Town contracts	6	6	6	6	6	6	6	6	6	6
Totals	42,754	42,687	42,696	42,732	42,699	42,834	42,694	42,503	42,437	42,450
% Change	0.2%	0.0%	-0.1%	0.1%	-0.3%	0.3%	0.4%	0.2%	0.0%	0.4%
Sewer Accounts	<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>
Residential	35,243	35,181	35,205	35,224	35,220	35,321	35,192	35,034	34,976	34,987
Commercial	1,689	1,701	1,699	1,707	1,706	1,710	1,709	1,701	1,700	1,703
Industrial	104	104	105	105	107	108	105	105	108	108
Municipal	97	97	92	92	95	94	93	91	84	82
Food Service	71	70	70	70	72	74	73	73	73	73
Medical	19	19	19	20	20	20	20	20	21	21
Solutia contract	1	1	1	1	1	1	1	1	1	1
Town contracts	6	6	6	6	8	8	8	8	8	8
Totals	37,230	37,179	37,197	37,225	37,229	37,336	37,201	37,033	36,971	36,983
% Change	0.1%	0.0%	-0.1%	0.0%	-0.3%	0.4%	0.5%	0.2%	0.0%	0.4%

Source: Commission Billing System

Table 12
Largest Private Employers
Current Year and Nine Years Prior

<u>Employer</u>	<u>Nature of Business</u>	<u>2016</u>			<u>2007</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	9,925	1	15.6%	8,772	1	13.2%
Massachusetts Mutual Financial Group	Insurance	4,273	2	6.7%	4,230	2	6.3%
Sisters of Providence	Healthcare	1,942	3	3.1%	2,200	4	3.3%
Smith & Wesson	Firearms	1,518	4	2.4%	587	8	0.9%
Big Y	Grocery	1,002	5	1.6%	1,002	5	1.5%
Western New England University	Education	879	6	1.4%	492	n/a	0.7%
Springfield Technical Community College	Education	805	7	1.3%	420	n/a	0.6%
Springfield College	Education	698	8	1.1%	560	9	0.8%
Center for Human Development	Social Services	507	9	0.8%	327	6	0.5%
Eastman Chemical (formerly Solutia Inc.)	Chemical	384	10	0.6%	504	10	0.8%
Union News	Newspaper	350	n/a	0.6%	700	7	1.1%
US Postal Service	Mail	-	n/a	n/a	2,267	3	3.4%
		<u>22,283</u>		<u>35.2%</u>	<u>22,061</u>		<u>33.1%</u>

Source: City of Springfield June 30, 2015 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>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>
Administration	7	8	8	9	8	7	8	7	7	7
General Accounting	4	4	4	4	4	4	5	5	4	6
Customer Service	8	8	8	8	7	7	9	9	10	10
Information Systems	6	5	5	5	4	4	4	4	4	4
Engineering	26	24	23	22	22	21	22	22	22	15
Operations management	3	3	3	3	3	3	5	5	5	5
SERTS	0	0	1	1	1	1	0	0	0	0
Water Supply Administration	4	4	4	4	4	4	4	3	3	3
Ludlow Reservoir	7	6	6	6	6	6	7	7	7	7
Provin Mountain	9	8	8	8	8	8	8	8	7	6
West Parish Filters	35	36	41	41	39	38	44	41	41	38
Watershed Management	2	2	2	3	2	2	0	2	2	2
Laboratory	5	5	5	5	5	5	0	4	3	4
Cross Connection Control	5	5	5	5	5	5	5	5	4	3
Warehouse Management	4	4	5	5	5	5	5	6	6	3
Customer Field Service	5	6	6	7	7	7	9	9	11	11
Meters & Field Service	21	22	21	23	21	21	21	26	20	18
Water Quality	17	18	20	20	19	16	16	15	16	15
Water Distribution	34	33	34	31	32	31	32	31	31	0
WW Operations Management	1	1	1	1	1	1	0	0	0	0
Sewer Collection Services	38	36	28	29	27	27	29	29	32	0
Industrial Pretreatment	2	2	2	2	2	2	2	2	3	3
FOG	2	2	2	3	3	1	1	0	0	0
Wastewater Treatment	0	1	1	1	1	1	1	1	1	1
Totals	245	243	243	246	236	227	237	241	239	161

* Municipal Agreement with the City of Springfield to provide water and sewer services was terminated and 67 City DPW employees were transferred to SWSC in Fiscal Year 2007.

Source: Commission Budget Documents

Table 14
Water and Sewer Distribution System
Year-End 2016 Summary

Water Distribution System

	<u>Appurtenances</u>		<u>Water Main City Wide</u>
Hydrants	6,226	Total Linear Feet	3,144,768
Valves	19,148	Total Linear Miles	595
Meters	45,843		
		Water Booster Pump Stations	4

Sewer Collection System

	<u>Appurtenances</u>		<u>Sewer Pipes City Wide</u>
CSO Regulator Structures & Outfalls	23	Total Linear Feet	2,426,150
Manholes	11,194	Combined Sewer Miles	145
Regulators	23	Separated Sewer Miles	314
Flood Control Gates	42	Total Sewer Miles	459
		Sewage Pumping Stations	26
		Flood Control Pumping Stations	7
		Active CSO's	23

Source: Commission's GIS System

Table 15
Insurance Coverage
2016 - 2017

<u>Provider</u>	<u>Policy Period</u>	<u>Type of Coverage</u>	<u>Liability Limits</u>	<u>Annual Premium</u>
ACE American Insurance Company	4/2/16 - 4/2/17	Property	\$ 100,000,000	\$ 165,000
Navigators Insurance Company	4/2/16 - 4/2/17	Special Excess Liability	\$ 15,000,000	\$ 65,000
Allied World Insurance	4/2/16 - 4/2/17	Excess Liability	\$ 10,000,000	\$ 48,836
Allied World Insurance	4/2/16 - 4/2/17	Primary Liability (with Auto)	\$ 1,000,000/3,000,000	\$ 39,673
Safety Insurance Company	4/2/16 - 4/2/17	Automobile	\$ 1,000,000	\$ 3,154
Hanover Insurance Group	4/2/16 - 4/2/17	Crime	\$ 1,000,000	\$ 4,520

Source: Commission's Insurance Records

Table 16
Water and Sewer Sales
Last Ten Fiscal Years

Water Revenues

	<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>
Residential	\$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	\$9,506,574
Commercial	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	2,557,739
Industrial	1,080,588	1,136,290	962,255	944,594	1,057,444	1,327,881	879,719	562,681	430,509	329,145
Municipal	432,235	348,218	332,415	389,889	358,006	362,457	174,344	149,246	104,840	80,358
Solutia contract	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	2,998,886
Town contracts	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	2,098,080
Total	<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>	<u>\$17,570,782</u>
% Change	-0.1%	1.1%	3.6%	4.8%	1.9%	17.6%	8.9%	-3.0%	12.0%	0.1%

Sewer Revenues

	<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>
Residential	\$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	\$10,817,077
Commercial	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	1,894,757
Industrial	1,004,203	912,485	806,654	836,129	733,930	677,357	753,881	751,760	970,302	604,245
Municipal	352,828	304,162	276,567	261,290	250,156	245,215	222,698	205,547	188,571	143,082
FoodServ	217,125	202,774	184,378	184,039	196,404	180,897	227,807	213,053	196,609	176,888
Medical	868,499	760,404	760,560	790,687	762,874	673,337	629,875	556,734	480,404	458,210
Solutia contract	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	1,662,295
Town contracts	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	4,920,016
Total	<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>	<u>\$20,676,570</u>
% Change	9.4%	5.7%	0.3%	13.8%	-7.2%	11.4%	5.0%	4.5%	10.2%	2.6%

Source: Commission Billing System

Table 17
Capital Spending by Category
Last Ten Fiscal 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>	<u>Totals</u>	<u>% of Total</u>
Water	\$ 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	\$ 6,114,959	\$ 69,065,027	32%
Sewer	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	9,040,002	128,650,066	59%
Power Generation	253,744	221,315	652,885	249,872	117,351	4,723	109,068	990,465	353,217	16,101	2,714,997	1%
Support	<u>2,255,125</u>	<u>2,528,713</u>	<u>2,465,150</u>	<u>3,444,255</u>	<u>1,831,025</u>	<u>625,839</u>	<u>1,837,328</u>	<u>1,441,007</u>	<u>1,849,204</u>	<u>2,262,880</u>	<u>18,285,401</u>	<u>8%</u>
Total	<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>\$ 17,433,942</u>	<u>\$ 218,715,491</u>	<u>100%</u>

Source: Commission's Accounting System