

Erie County Water Authority  
Comprehensive Annual Financial Report  
For The Years Ended December 31, 2017 and 2016

ERIE COUNTY



NEW YORK



**ERIE COUNTY WATER AUTHORITY**

**Comprehensive Annual Financial Report**

**For The Years Ended December 31, 2017 and 2016**

**PREPARED BY:**

**THE FINANCE DEPARTMENT  
ERIE COUNTY WATER AUTHORITY**



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# INTRODUCTORY SECTION





# Erie County Water Authority

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May 21, 2018

## INTRODUCTION

**Management Representation.** This report was prepared by the Finance Department of the Erie County Water Authority (the “Authority”) in conformance with current accounting and financial reporting principles promulgated by the Governmental Accounting Standards Board (“GASB”). Responsibility for both the accuracy of the presented data and the completeness and fairness of the presentation, including all disclosures, rests with the Board of Commissioners and management of the Authority.

Drescher & Malecki, LLP have issued an unmodified (“clean”) opinion on the Erie County Water Authority’s financial statements for the year ended December 31, 2017. The independent auditors' report is located at the front of the financial section of this report.

We believe the information as presented is accurate in all material respects, and is presented in a manner designed to fairly set forth the financial position and results of operations of the Authority. We further acknowledge the Authority’s responsibility for the design and implementation of programs and internal controls to provide reasonable assurance that fraud is prevented and detected. The cost of internal controls should not exceed the benefits to be derived, as such the objective is to provide reasonable rather than absolute assurance. No significant deficiencies or material weaknesses in the design or operation of internal controls over financial reporting that are reasonably likely to adversely affect the Authority’s ability to record, process, summarize and report financial data have been identified.

The Management Discussion and Analysis beginning on page 12 provides complementary information not included in this introduction.

## ORGANIZATION PROFILE

The Erie County Water Authority is a Public Benefit Corporation formed in 1949 to provide a potable water supply to the residents of Erie County, New York. The Authority was created by an Act of the New York State Legislature, codified in Sections 1050 through 1073 of Title 3 (the “Erie County Water Authority Act”) of Article 5 of the Public Authorities Law of the State of New York (as amended), to, among other things, finance, construct, operate and maintain a water supply and distribution system to benefit the residents of the County of Erie, New York. The Authority became operational in 1953.

The Authority is financially self-sustaining, paying all operating expenses from revenues generated from the sale of water to 170,042 customers. The Erie County Water Authority is not an agency of New York State, nor an agency of Erie County government. The Authority is completely independent with respect to rate setting, budgeting, bonding authority, debt management and credit rating. The Authority’s debt has been rated AA+ by both Standard & Poor’s and Fitch rating services.

The Erie County Water Authority is governed by a Board of Commissioners. The Board consists of three members appointed by the Chairman of the Legislature of Erie County, subject to confirmation by a majority of said Legislature. Each Board member is appointed for a three-year term and continues to hold office until a successor is confirmed. The three-year terms of office are staggered. The enabling



State legislation provides that the officers of the Authority shall consist of a Chairman, a Vice-Chairman and Treasurer who shall be members of the Authority, and a Secretary, who need not be a member of the Authority. The Board establishes policy and is responsible for the overall operations of the Authority.

The Erie County Water Authority is organized into the following departments: Production, Water Quality, Distribution, Engineering, Administration, Finance, Office of the Secretary, Executive, Human Resources, and Information Technology. The Office of the Secretary, which includes legal counsel, reports directly to the Board of Commissioners. The remaining departments are under the supervision and administrative control of the Executive Director.

The Erie County Water Authority operates its business activities on a direct service basis where the Authority owns the assets and is responsible for their operation, maintenance, improvement and replacement; on a leased managed service basis where the Authority is responsible for the operation and maintenance of the assets while the municipality is responsible for the improvement and replacement of assets; and on a bulk sale basis where the Authority contracts with the customer to provide water while the customer owns the assets and is responsible for their operation, maintenance, improvements and replacement, as well as billings and customer collections. No financial consideration is afforded municipalities in lease managed agreements with the Authority.

The Erie County Water Authority's water supply comes from Lake Erie and the Niagara River. Annually, the Authority treats and distributes approximately 25 billion gallons of high-quality water for residential, commercial, and industrial use in thirty-six municipalities, as well as the Seneca Nation of Indians. The municipalities are located in Erie County and parts of Chautauqua, Cattaraugus, Wyoming and western Genesee Counties. Before water is delivered, the Authority rigorously treats it to remove harmful contaminants. Two treatment plants handle that process: the Sturgeon Point Water Treatment Plant in the Town of Evans, New York and the Van de Water Treatment Plant on the upper Niagara River in the Town of Tonawanda, New York. These two water treatment plants, along with 38 pump stations, 37 water tanks, 4 process tanks, 3,628 miles of pipe, and 18,969 fire hydrants, all operated in direct service areas or under lease management agreements, serve approximately 550,000 people in Western New York, 24 hours a day, 365 days a year. The water produced and delivered by the Erie County Water Authority has always met or exceeded the most stringent water quality standards mandated by federal, state, and local government regulations.

## **FINANCIAL INFORMATION**

**Budgetary Controls.** Although not obligated to legally adopt a budget, the Authority believes that budget preparation and implementation are important in maintaining fiscal responsibility and accountability, and it is a good business practice to conduct the budgetary process annually. Operating and capital budgets are prepared by management and approved by the Board of Commissioners. The purpose of the budget process is to authorize and control expenditures, evaluate projected revenue to determine the Authority's ability to meet its obligations under various bond covenants and to provide analysis for planning purposes.

Each department head evaluates and specifically identifies their operating and maintenance needs for the coming year. A capital budget is also prepared for the coming year and the next succeeding four years. A series of budget hearings are held with each department head, the Executive Director, the Deputy Director and the Budget Director. A final budget is prepared for review by the Board of Commissioners, and subsequently approved by the Board of Commissioners.

**Financial Reporting.** Financial statements and an investment report are prepared monthly, usually within two weeks of the last day of the month. A monthly presentation is made to the Board of Commissioners, comparing actual results of operations with the budget. If unforeseen circumstances arise which alter the projections used in the budget process, a revision may be prepared by management for consideration and approval by the Board of Commissioners.

The Authority retains an independent audit firm to review the Authority's financial statements at the end of the fiscal year. A copy of the independent audit firm's opinion on the Authority's financial statements is contained in this report on page 10.

## **OTHER RELEVANT INFORMATION**

**Meetings of the Board of Commissioners.** The Board of Commissioners takes an active role in establishing policy and in carrying out its responsibility of oversight of the Authority. The Board of Commissioners holds public meetings on a regular schedule which is posted on the Authority's website. The Board of Commissioners schedules work sessions with management as needed.

**External Oversight.** In addition to annual review by an independent audit firm, the Authority is subject to periodic audits by the Office of the New York State Comptroller and the Erie County Comptroller. The Authority also reports annually to the New York State Public Authorities Budget Office as required by the Public Authorities Accountability Act of 2005 and the Public Authorities Reform Act of 2009. In 2014, the Erie County Comptroller completed a review of the Authority's compliance with the reporting requirements of the Public Authorities Accountability Act of 2005 and the Public Authorities Reform Act of 2009. The resulting audit report found no significant matters effecting compliance with applicable laws, rules or procedures. The New York State Comptroller's Office conducted a cyber security audit and the Authority's Budget Office (ABO) conducted a review in 2017. The State Comptroller's Office has issued its final report and a corrective action plan to address minor deficiencies is being developed. The ABO has concluded their review. The Authority is currently evaluating a draft report of their recommendations.

**Operations.** The Authority's enabling state legislation, Section 1054(10) grants the power to make rules for the sale of water and the collection of rents and charges, subject to agreements with bondholders. In compliance with this section, the Authority has established a Board-approved Tariff which establishes policies relating to water service. It includes charges and fees for water and provisions relating to system hookups, extensions of mains, public and private fire protection services and such other matters of importance in servicing its customers and accounts. The complete Tariff is available on the Authority's website.

In addition to departmental policy and procedures manuals, an Authority-wide internal policy and procedures manual is maintained. It contains sections relating to employment policies, compensation, fringe benefits, code of ethics, and rules of the work environment. These policies have been approved by the Board of Commissioners by formal resolution and are implemented by all operating units of the Authority, subject to provisions in current collective bargaining agreements.

The Authority's enabling State legislation requires that all construction projects exceeding \$5,000 must be competitively bid. The Board of Commissioners has adopted a procurement policy to openly promote fair competition and to acquire the best quality of goods and services at the most reasonable price from responsible providers. The Authority's procedures fully comply with the provisions of the New York State Finance Law relative to the procurement of goods, services and construction work and activity relating to real property. A copy of the Authority's Purchasing and Procurement Disclosure policy can be found on the website.

## ECONOMIC CONDITION AND OUTLOOK

The local economic outlook for Western New York has improved as a result of several economic development projects in the region and general stabilization in the State and National economies. The Authority service area within Erie County encompasses some of the most affluent, growing communities in Western New York.

Due to individual conservation efforts and changes in Federal and State laws and regulations, which require appliances to use less water, significant increases in water consumption are generally not projected. At present, over 35% of the bills sent to Authority customers are for the monthly or quarterly minimum consumption. Exceptions resulting from extreme weather conditions, however, do occur. Drought conditions in the summer of 2016 resulted in a 7.4% increase in billed consumption over 2015. Rainfall from June through September was 3.9 inches lower than average for the period. Consumption in 2017 returned to pre-2016 levels.

Given the reality of lower consumption and rising repair and infrastructure costs, the Authority adopted an infrastructure investment charge with the 2011 budget. The infrastructure investment charge was implemented to maintain the Authority's infrastructure and to allow for a more equitable distribution among customer classifications of fixed costs. Revenues generated from the charge are being used for infrastructure repairs, replacements and improvements.

Due to the changing dynamics of customer demand, the Authority began a comprehensive rate study with a national consulting firm in October of 2015. The goal was to update the rate structure to more accurately represent the current business environment and to ensure that costs are being fairly allocated and recovered from the appropriate customer classes. The new rate structure, which became effective on January 1, 2017, eliminates declining block rates and assigns volumetric rates and infrastructure charges based on water meter size. Implementation resulted in the following changes:

- Increased Infrastructure Investment Charges for large meter customers are being phased in over a three-year period beginning in 2017, resulting in higher fixed water revenue as a percentage of total revenues;
- Although volumetric rates for small meters remained unchanged, rates for customers with larger meters experienced a small rate decrease to mitigate the elimination of the declining block structure; and
- Surcharges for excessive summer usage were removed from the rate structure. The revenue was replaced by increases to the Infrastructure Investment Charge which is a more stable revenue source.

In order to help stabilize water rates, the Authority, over the past decade, has been able to use its unrestricted cash to reduce the total amount of outstanding debt, either by executing bond call provisions or refundings. On September 29, 2016, the Authority issued \$30,725,000 of Water Revenue Refunding Bonds. The issuance of the 2016 Series Refunding Bonds reduced debt service by \$9,330,782 and has a net present value cash flow savings of \$6,787,290. To further reduce long-term interest costs, current unrestricted and internally restricted cash balances are being used to fund a five year capital plan which prioritizes new investment and needed improvements.

The prudent practices of the Erie County Water Authority are reflected in the operating results, reported over a ten-year period in the Statistical Section of this report.

## **LONG TERM FINANCIAL PLANNING**

The Authority has been exposed to significant cost increases primarily for employee health care costs and pension costs. To mitigate the negative cost pressures, the Authority has reduced its workforce from 267 budgeted full-time equivalents in 2008 to 249.8 budgeted full-time equivalents in 2017. Through its membership in the Labor Management Healthcare Coalition, which negotiates with and selects healthcare providers for Coalition members, the trend in health care costs has stabilized. The Authority maintains a seat on the Labor Management Healthcare Coalition, giving the Authority more control over its future healthcare costs. Personnel and fringe benefit costs account for approximately fifty-eight percent of the Authority's operating and maintenance expenses.

The Authority is part of a consortium of municipal power users formed to secure lower prices for electricity purchases through aggregation of purchases in the open market. Erie County, which acts as the lead agency in the consortium, purchases electricity by competitive bid and bills the Authority monthly.

The Authority has also begun a program to revamp how it plans for capital expenditures in one to five year time frames and also longer horizons up to fifty years.

In past years, security risks, disasters, and power outages highlighted a need for infrastructure enhancements and redundancy throughout the system. Most recently, aging infrastructure in our distribution and transmission system have resulted in decreased efficiency and increased maintenance costs. The biggest fiscal challenge on the horizon is to generate sufficient resources to replace inadequate infrastructure in our system.

## **MAJOR INITIATIVES**

Over the past seventeen years the Authority has been engaged in a series of water system consolidations whereby independent municipal water system operators have transferred ownership of their systems to the Authority. The pace of these consolidations has increased in the past three years and is in keeping with the original intention for the creation of the Authority. The continuation of this trend will have the effect of shifting costs from smaller systems and rate bases to the Authority. However, due to economies of scale enjoyed by the Authority, the overall community-wide costs should be lower in a coordinated, unified system compared to those of a patchwork network of small systems.

In January of 2016, the Town of Marilla converted their system from lease managed to direct service. Discussions continue with the Towns of Aurora, Eden, and West Seneca, and with the Village of Hamburg on converting their systems from lease managed to direct service.

The New York State Infrastructure Improvement Act is a program created to provide \$255 million to support essential drinking water and infrastructure projects statewide, awarding grants through a competitive application and review process. In October of 2017, the Authority applied for and was awarded \$1.2 million to replace a thirty-six inch transmission main with a history of leaks that currently serves approximately 215,000 consumers.

The Authority continues to see increases in payments received through telephone or website access. In 2017, 127,803 electronic payments were received as compared to 112,667 payments in 2016 and 95,956

in 2015. In addition to providing more convenience to our customers, these payment options have reduced the number of paper payments that require processing through a lockbox operation.

In a continuing effort to enhance customer service, the Authority has launched a notification system called ECWA Alerts. Subscribers receive updates sent to their cell phone, landline or email address to keep informed of relevant water main breaks or vital issues in their area. ECWA Alerts was enhanced in 2017 to provide specific notification to registered medical facilities and other water-dependent service organizations.

In late 2014 the Authority embarked on its most comprehensive technology and work methods update in over twenty years. "ECWA Advance" is the project name and is a multifaceted effort to modernize the Authority's work and asset management systems, increase automation of the supervisory control and data acquisition processes in both the plants and the transmission/distribution system, the building of a high speed wide area network to connect all of the authority's facilities and the introduction of an information technology master plan and governance structure to manage these systems. This initiative continues with projected completion dates in 2018. Similar efforts to modernize technology are just beginning in other areas of the Authority, such as our Customer Service and Finance systems, and are expected to continue over the next several years.

#### **AWARDS AND ACKNOWLEDGEMENTS**

In November of 2016 the Authority received the Local Government Efficiency Program Collaboration Award for Regional Water Services Implementation by the New York Department of State in recognition of its leadership role in municipal efforts to increase capacity and implement local projects that enhance the efficiency and effectiveness of the delivery of municipal water services. The Authority and local governments in Erie County have been partners on eight Local Government Efficiency Awards provided by the Department of State over the last eight years. The focus of the grants has been on establishing a resilient and efficient, long-term regional water infrastructure system.

In order to provide meaningful financial and operational data for its operations, the Authority, starting with fiscal year 2004, has prepared and issued a Comprehensive Annual Financial Report. The Authority has received recognition for its financial reporting efforts. The Certificate of Achievement for Excellence in Financial Reporting has been presented to the Authority by the Government Finance Officers Association of the United States and Canada each year since 2004. The Certificate of Achievement for Excellence in Financial Reporting for 2016 is presented on page 7.

As it looks toward the future, the Erie County Water Authority is well positioned to continue to efficiently meet the demand for safe, clean drinking water in the communities that it serves.

Respectfully Submitted,

A handwritten signature in blue ink, reading "Robert J. Lichtenthal, Jr.", written in a cursive style.

Robert J. Lichtenthal, Jr., Deputy Director



Government Finance Officers Association

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

Presented to

**Erie County Water Authority  
New York**

For its Comprehensive Annual  
Financial Report  
for the Fiscal Year Ended

**December 31, 2016**

*Christopher P. Morill*

Executive Director/CEO



**ERIE COUNTY WATER AUTHORITY**  
**Members of the Board of Commissioners**

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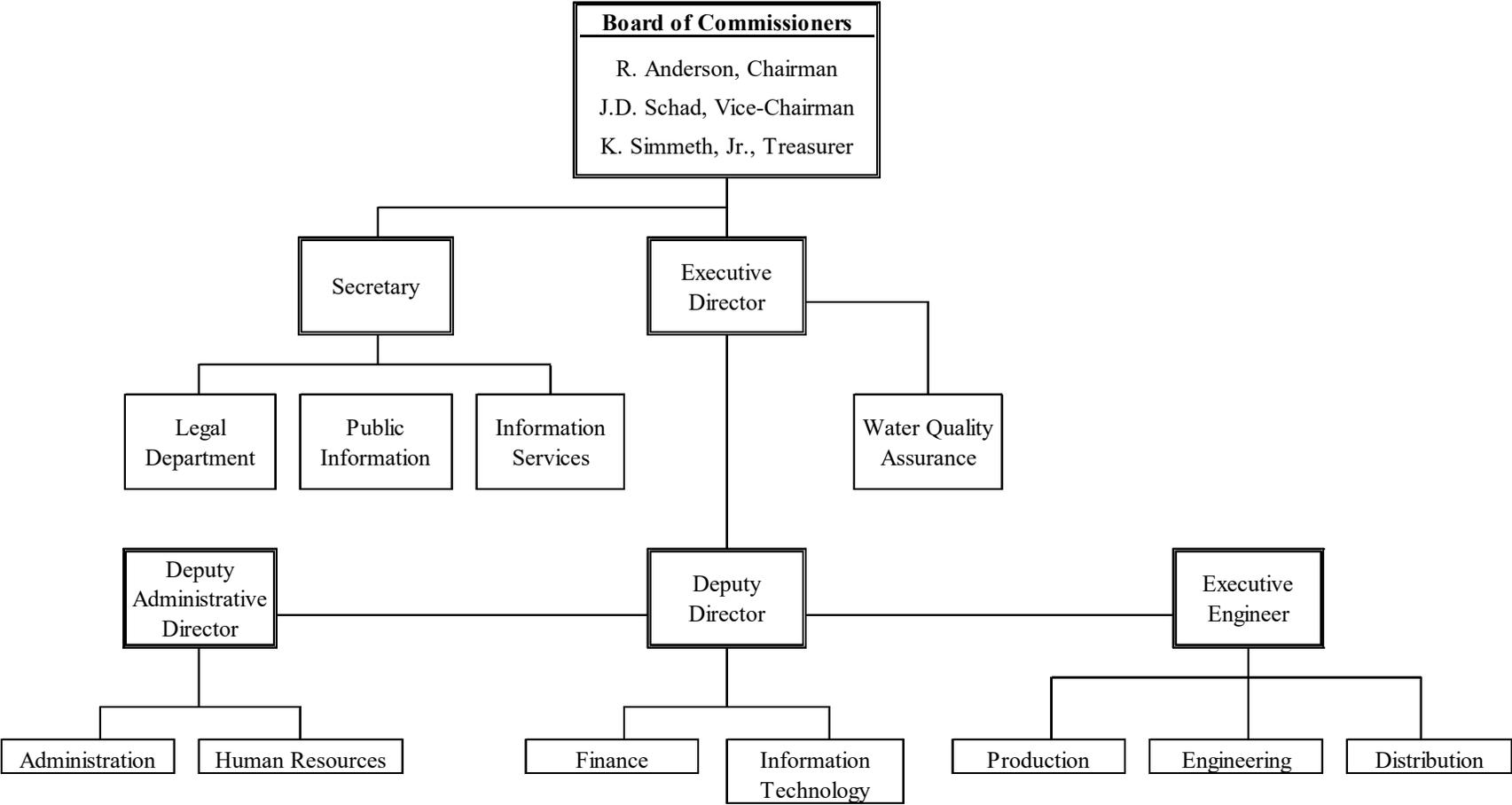
Members of the Board of the Erie County Water Authority are appointed by the Chairman of the Erie County Legislature upon receiving nominations from the majority of the Majority Caucus or the Minority Caucus, subject to confirmation by a majority of the Legislature. Each Member is appointed to a three year term; and, not more than two members of the Authority's Board of Commissioners, at any time, shall belong to the same political party.

<b><u>Board Members on 12/31/2017</u></b>	<b><u>Most Recent Appointment Date</u></b>
Robert Anderson, Chairman	2015
Jerome D. Schad, Esq., Vice Chairman	2016
Karl J. Simmeth, Jr., Treasurer	2017



**ERIE COUNTY WATER AUTHORITY**  
**Organizational Chart**

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## FINANCIAL SECTION



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Certified Public Accountants

## **INDEPENDENT AUDITORS' REPORT**

The Board of Commissioners  
Erie County Water Authority

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

We have audited the accompanying financial statements of the business-type activities of the Erie County Water Authority (the "Authority"), as of and for the years ended December 31, 2017 and 2016, and the related notes to the financial statements, which collectively comprise the Authority's basic financial statements as listed in the table of contents.

### ***Management's Responsibility for the Financial Statements***

The Authority'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.

### ***Auditor's Responsibility***

Our responsibility is to express an opinion on these financial statements based on our audits. We conducted our audits in accordance with auditing standards generally accepted in the United States of America. Those standards require that we plan and perform the audits 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 opinions.

## ***Opinions***

In our opinion, the financial statements referred to above present fairly, in all material respects, the respective financial position of the business-type activities of the Authority, as of December 31, 2017 and 2016, and the respective changes in financial position and, cash flows thereof for the years 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 the Management's Discussion and Analysis and other Required Supplementary Information, as listed in the table of contents, be presented to supplement the basic financial statements. Such information, although not 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 statements. We do not express an opinion or provide any assurance on the information because the limited procedures do not provide us with sufficient evidence to express an opinion or provide any assurance.

### ***Other Information***

Our audit was conducted for the purpose of forming opinions on the financial statements that collectively comprise the Authority's basic financial statements. The Introductory Section and the Statistical Section, as listed in the table of contents, are presented for the purpose of additional analysis and are not a required part of the basic financial statements.

The Introductory and Statistical Section, as listed in the table of contents, have 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 them.



March 22, 2018

**ERIE COUNTY WATER AUTHORITY**  
**Management's Discussion and Analysis**  
**For the Years Ended December 31, 2017 and 2016**

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Management provides the following discussion and analysis (“MD&A”) of the Erie County Water Authority’s (the “Authority”) financial activities and statements for the years ended December 31, 2017 and 2016. The information contained in this analysis should be used by the reader in conjunction with the information contained in the audited financial statements and the notes to those financial statements, all of which follow this narrative on the subsequent pages. The Authority is not required to legally adopt a budget; therefore, comparative budgetary information is not included in this report.

**Financial Highlights**

- The Authority’s net position increased \$14,412,814 as a result of activity for the year ended December 31, 2017. Net income represents \$12,784,445 of the 2017 increase. The remaining increase of \$1,628,369 resulted from capital contributions (contributions in aid of construction). During 2016, the Authority’s net position increased \$21,040,163. Net income represents \$19,396,076 of the 2016 increase. The remaining increase of \$1,644,087 resulted from capital contributions.
- The assets and deferred outflows of resources of the Authority exceeded its liabilities and deferred inflows of resources by \$358,668,071 and \$344,255,257, representing net position at December 31, 2017 and 2016, respectively. At December 31, 2017 and 2016, unrestricted net position was \$17,313,135 and \$22,836,468 respectively, and may be used to meet the Authority’s ongoing obligations.
- The Authority’s bonded indebtedness, net of related bond premiums and discounts, decreased \$9,097,408 in 2017 compared to a net decrease of \$11,112,313 in 2016. The net decrease in 2017 resulted from scheduled principal payments of \$8,590,000 and annual net amortization of premiums and discounts of \$507,408. A principal decrease of \$14,890,000 in 2016 resulted from the issuance of the 2016 Series Refunding Bonds in the amount of \$30,725,000 whose proceeds were used to redeem \$7,850,000 in 2012 Series Bonds and \$29,705,000 of 2007 Series Bonds. Scheduled principal payments throughout the year on all issues totaled \$8,060,000 in 2016. The 2016 Series Refunding Bonds resulted in increased bond premiums of \$4,378,154 and bond discounts of \$109,654, offset by annual net amortization of \$490,813.

**Overview of the Financial Statements**

This discussion and analysis are intended to serve as an introduction to the Authority’s basic financial statements. The financial statements are organized as follows:

- The *Statement of Net Position* presents information on all of the Authority’s assets, deferred outflows of resources, liabilities, and deferred inflows of resources, with the difference reported as “net position”. Over time, increases or decreases in net position may serve as a useful indicator of whether the financial position of the Authority is improving or deteriorating.
- The *Statement of Revenue, Expenses, and Changes in Net Position* presents information showing how the Authority’s net position changed during the most recent reporting period. All changes in net position are reported as soon as the underlying event giving rise to the change occurs, regardless of the timing of related cash flows. Thus,

revenues and expenses are reported in this statement for some items that will result in cash flows in future periods (e.g., earned but unbilled revenue and earned but unused vacation leave).

- The *Statement of Cash Flows* presents information depicting the Authority’s cash flow activities for the most recent reporting period and the effect that these activities had on the Authority’s cash and cash equivalent balances.
- The *Notes to Financial Statements* present additional information that is essential to a full understanding of the data provided in the financial statements. The notes to the financial statements can be found following the financial statements section of this report.

## Financial Analysis

As noted earlier, net position may over time serve as a useful indicator of an entity’s financial position. In the case of the Authority, assets and deferred outflows of resources exceeded liabilities and deferred inflows of resources by \$358,668,071 at December 31, 2017 compared to \$344,255,257 at December 31, 2016, as presented below in Table 1:

**Table 1—Condensed Statements of Net Position**

	December 31,		Increase/(Decrease)	
	2017	2016	Dollars	Percent
Current assets	\$ 46,299,755	\$ 46,028,227	\$ 271,528	0.6
Noncurrent assets:				
Other noncurrent assets	30,403,535	31,621,936	(1,218,401)	(3.9)
Capital assets	380,221,994	369,413,111	10,808,883	2.9
Total assets	<u>456,925,284</u>	<u>447,063,274</u>	<u>9,862,010</u>	2.2
Deferred outflows of resources	<u>6,316,419</u>	<u>11,107,335</u>	<u>(4,790,916)</u>	(43.1)
Current liabilities	20,914,751	21,577,629	(662,878)	(3.1)
Noncurrent liabilities	<u>82,835,319</u>	<u>91,245,363</u>	<u>(8,410,044)</u>	(9.2)
Total liabilities	<u>103,750,070</u>	<u>112,822,992</u>	<u>(9,072,922)</u>	(8.0)
Deferred inflows of resources	<u>823,562</u>	<u>1,092,360</u>	<u>(268,798)</u>	(24.6)
Net investment in capital assets	332,979,635	313,073,344	19,906,291	6.4
Restricted	8,375,301	8,345,445	29,856	0.4
Unrestricted	<u>17,313,135</u>	<u>22,836,468</u>	<u>(5,523,333)</u>	(24.2)
Total net position	<u>\$ 358,668,071</u>	<u>\$ 344,255,257</u>	<u>\$ 14,412,814</u>	4.2

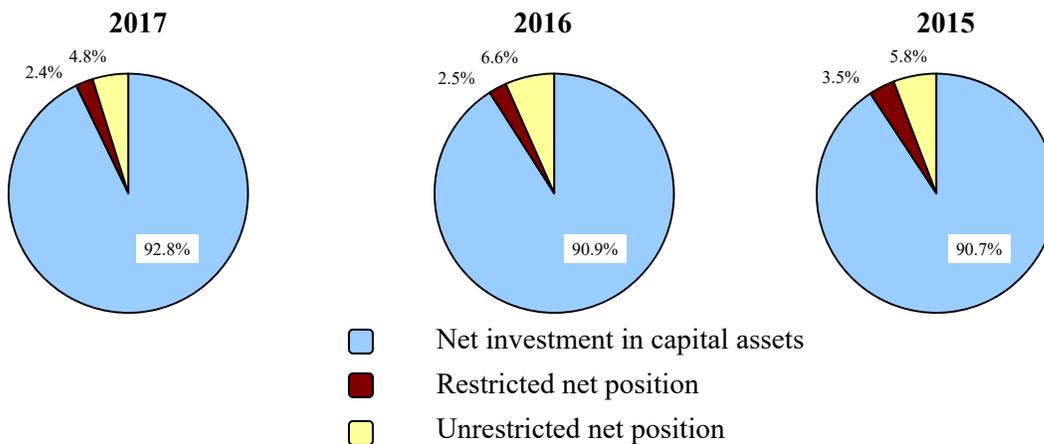
(continued)

**Table 1—Condensed Statements of Net Position**

(concluded)

	December 31,		Increase/(Decrease)	
	2016	2015	Dollars	Percent
Current assets	\$ 46,028,227	\$ 48,260,946	\$ (2,232,719)	(4.6)
Noncurrent assets:				
Other noncurrent assets	31,621,936	21,655,499	9,966,437	46.0
Capital assets	369,413,111	360,641,152	8,771,959	2.4
Total assets	<u>447,063,274</u>	<u>430,557,597</u>	<u>16,505,677</u>	3.8
Deferred outflows of resources	<u>11,107,335</u>	<u>2,500,423</u>	<u>8,606,912</u>	344.2
Current liabilities	21,577,629	17,674,779	3,902,850	22.1
Noncurrent liabilities	<u>91,245,363</u>	<u>92,168,147</u>	<u>(922,784)</u>	(1.0)
Total liabilities	<u>112,822,992</u>	<u>109,842,926</u>	<u>2,980,066</u>	2.7
Deferred inflows of resources	<u>1,092,360</u>	-	<u>1,092,360</u>	n/a
Net investment in capital assets	313,073,344	293,189,072	19,884,272	6.8
Restricted	8,345,445	11,255,102	(2,909,657)	(25.9)
Unrestricted	<u>22,836,468</u>	<u>18,770,920</u>	<u>4,065,548</u>	21.7
Total net position	<u>\$ 344,255,257</u>	<u>\$ 323,215,094</u>	<u>\$ 21,040,163</u>	6.5

At December 31, 2017, the largest portion of the Authority’s net position, 92.8%, consists of the Authority’s investment in capital assets, as compared to 90.9% and 90.7% at December 31, 2016 and 2015, respectively. This amount is presented net of any outstanding debt which was used to acquire such capital assets. The second portion of net position, 4.8%, at December 31, 2017, as compared to 6.6% and 5.8%, at December 31, 2016, and 2015, respectively consists of unrestricted net position. These assets are not limited in any way with regards to how and what they may be used for. The remainder of net position, 2.4%, 2.5% and 3.5% at December 31, 2017, 2016 and 2015, respectively, is restricted for various purposes.



The Authority's liabilities totaled \$103,750,070, \$112,822,992, and \$109,842,926, at December 31, 2017, 2016 and 2015, respectively. The largest component of liabilities is outstanding water revenue bonds.

The Authority had current ratios of 2.21, 2.13, and 2.73, at December 31, 2017, 2016 and 2015, respectively. Such a ratio implies that the Authority has sufficient assets on hand to cover its liabilities that will come due in the ensuing year.

A comparison of current assets as compared to current liabilities of the Authority at December 31, 2017, 2016 and 2015 follows:

**Table 2—Comparison of Current Assets and Current Liabilities**

	December 31,		
	2017	2016	2015
Current assets	\$ 46,299,755	\$ 46,028,227	\$ 48,260,946
Current liabilities	20,914,751	21,577,629	17,674,779
Ratio of current assets to current liabilities	2.21	2.13	2.73

Table 3 shows the changes in net position for the years ended December 31, 2017, 2016 and 2015:

**Table 3—Changes in Net Position**

	Year Ended December 31,	
	2017	2016
Operating revenues	\$ 73,291,512	\$ 79,711,080
Operating expenses:		
Operation and administration	27,918,914	28,452,632
Maintenance	13,770,443	13,813,338
Depreciation	12,823,738	12,713,386
Other postemployment benefit expense	5,118,264	4,522,436
Total operating expenses	<u>59,631,359</u>	<u>59,501,792</u>
Operating income	<u>13,660,153</u>	<u>20,209,288</u>
Nonoperating revenues (expenses):		
Interest income	434,340	359,812
Gain on sale of investments	-	852,694
Interest on loans receivable	90,084	58,554
Interest capitalization during construction	151,474	105,383
Interest expense	<u>(1,551,606)</u>	<u>(2,189,655)</u>
Total nonoperating revenues (expenses)	<u>(875,708)</u>	<u>(813,212)</u>
Net income before contribution in aid of construction	12,784,445	19,396,076
Contribution in aid of construction	<u>1,628,369</u>	<u>1,644,087</u>
Change in net position	14,412,814	21,040,163
Total net position - beginning of year	<u>344,255,257</u>	<u>323,215,094</u>
Total net position - end of year	<u>\$ 358,668,071</u>	<u>\$ 344,255,257</u>

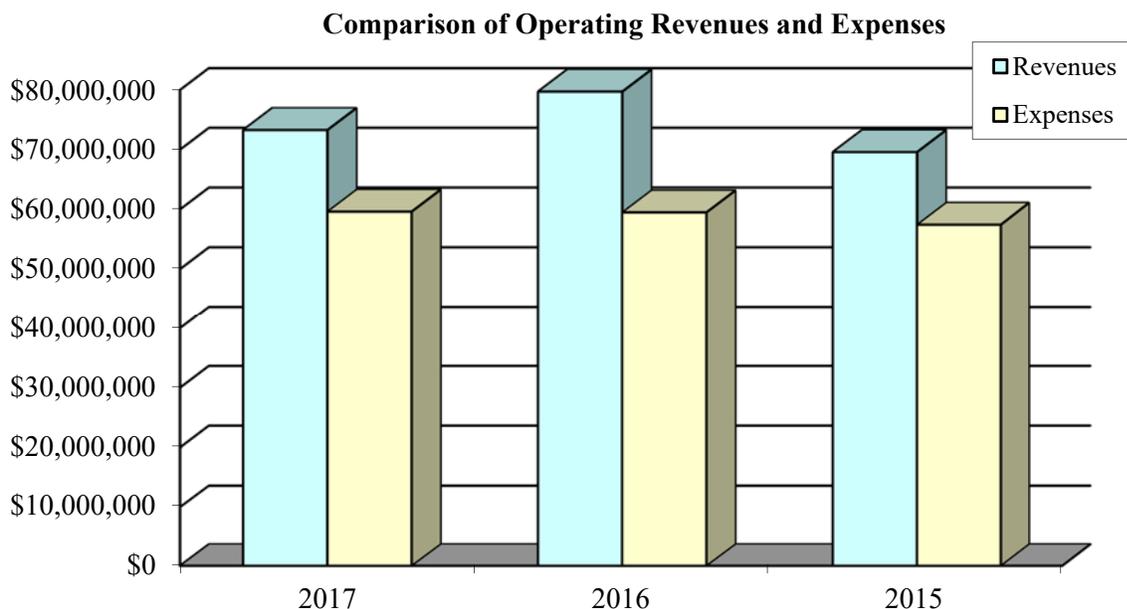
(continued)

**Table 3—Changes in Net Position**

(concluded)

	Year Ended December 31,	
	2016	2015
Operating revenues	\$ 79,711,080	\$ 69,595,215
Operating expenses:		
Operation and administration	28,452,632	27,858,447
Maintenance	13,813,338	13,880,273
Depreciation	12,713,386	12,494,706
Other postemployment benefit expense	4,522,436	3,202,218
Total operating expenses	59,501,792	57,435,644
Operating income	20,209,288	12,159,571
Nonoperating revenues (expenses):		
Interest income on investments	359,812	355,130
Gain on sale of investments	852,694	-
Interest on loans receivable	58,554	-
Interest capitalization during construction	105,383	239,440
Interest expense	(2,189,655)	(2,642,469)
Total nonoperating revenues (expenses)	(813,212)	(2,047,899)
Net income before contribution in aid of construction	19,396,076	10,111,672
Contribution in aid of construction	1,644,087	4,134,020
Change in net position	21,040,163	14,245,692
Total net position - beginning of year	323,215,094	308,969,402
Total net position - end of year	\$ 344,255,257	\$ 323,215,094

The following chart depicts an 8.1% decrease in operating revenues from \$79,711,080 in 2016 to \$73,291,512 in 2017, compared to a 14.5% increase in operating revenues from \$69,595,215 in 2015 to \$79,711,080 in 2016. Operating expenses increased 0.2% from \$59,501,792 in 2016 to \$59,631,359 in 2017, compared to a 3.6% increase from \$57,435,644 in 2015 to \$59,501,792 in 2016.



A summary of operating revenues for the years ended December 31, 2017, 2016 and 2015 is presented below in Table 4:

**Table 4—Summary of Operating Revenues**

	Year Ended December 31,		Increase/(Decrease)	
	2017	2016	Dollars	Percent
Water sales:				
Residential	\$ 36,925,206	\$ 41,060,222	\$ (4,135,016)	(10.1)
Commercial	7,577,863	8,601,762	(1,023,899)	(11.9)
Industrial	1,957,186	1,910,133	47,053	2.5
Public authorities	2,438,488	2,519,639	(81,151)	(3.2)
Fire protection	4,366,663	4,336,263	30,400	0.7
Sales to other utilities	3,940,896	4,281,064	(340,168)	(7.9)
Infrastructure investment charge	14,186,008	13,251,131	934,877	7.1
Other water sales	1,348,055	3,153,218	(1,805,163)	(57.2)
Total water sales	72,740,365	79,113,432	(6,373,067)	(8.1)
Other operating revenues:				
Rents from water towers	505,662	551,765	(46,103)	(8.4)
Miscellaneous	45,485	45,883	(398)	(0.9)
Operating revenues	<u>\$ 73,291,512</u>	<u>\$ 79,711,080</u>	<u>\$ (6,419,568)</u>	(8.1)
	Year Ended December 31,		Increase/(Decrease)	
	2016	2015	Dollars	Percent
Water sales:				
Residential	\$ 41,060,222	\$ 36,335,268	\$ 4,724,954	13.0
Commercial	8,601,762	7,899,110	702,652	8.9
Industrial	1,910,133	1,721,516	188,617	11.0
Public authorities	2,519,639	2,394,994	124,645	5.2
Fire protection	4,336,263	4,275,127	61,136	1.4
Sales to other utilities	4,281,064	3,625,852	655,212	18.1
Infrastructure investment charge	13,251,131	10,355,324	2,895,807	28.0
Other water sales	3,153,218	2,281,933	871,285	38.2
Total water sales	79,113,432	68,889,124	10,224,308	14.8
Other operating revenues:				
Rents from water towers	551,765	546,065	5,700	1.0
Miscellaneous	45,883	160,026	(114,143)	(71.3)
Operating revenues	<u>\$ 79,711,080</u>	<u>\$ 69,595,215</u>	<u>\$ 10,115,865</u>	14.5

Water sales represent the vast majority of revenue for the Authority, 99.2% for the year ended December 31, 2017, 99.3% and 99.0% for the years ended December 31, 2016 and December 31, 2015, respectively.

The following are some of the issues and events affecting revenue in 2017:

- Revenue from water sales decreased 8.1% in 2017, compared to a 14.8% increase in 2016. Decreases of 6.2% in total water output from both treatment plants and 7.7% in billed consumption in 2017 resulted in revenue reductions. Billed consumption in 2017 was 16.4 billion gallons, compared to 17.7 billion gallons and 16.5 billion gallons in 2016 and 2015, respectively. Metered water sales are heavily impacted by weather extremes, as was the case in 2016. Total precipitation of 3.11 inches in June and July of 2016 was 54.9% lower than the normal level of 6.89 inches.
- The Authority asked for voluntary water restrictions in many of our larger service areas between August 6<sup>th</sup> and August 13<sup>th</sup>, 2017 due to a leak in the forty-two-inch transmission main leaving our Sturgeon Point Treatment Plant. Those restrictions also contributed to the reduction in consumption in 2017. The main was subsequently repaired.
- As a result of the rate study completed in 2016, a new rate structure was adopted and became effective January 1, 2017. The structural changes were designed to allow for a more equitable distribution of fixed costs among customer classifications, and to ensure a more dependable revenue stream in years of extreme weather. Although the changes were largely revenue neutral overall, a summary of the changes are as follows:
  - ✓ Revenue from Infrastructure Investment Charges (IIC), a fixed fee based on meter size, increased 7.1% in 2017. IIC revenue represented 19.5% of all water revenue — up from 16.8% in 2016. Charges on meters one-inch and smaller remained unchanged. Recommended increases on larger meters are being phased-in over a three-year period beginning in 2017.
  - ✓ The declining block rate structure was eliminated. Volumetric rates per gallon are now based on a flat rate per 1,000 gallons with minimum billed usages based on meter size. Rates for those customers with small meters (one-inch and smaller) remained the same. Rates for larger meters, and customers who buy water for resale to others experienced slight decreases in their rate per 1,000 gallons to mitigate the elimination of the declining block structure.
  - ✓ Surcharges for excessive summer usage were also removed from the rate structure. On average, summer surcharges made up 1.6% of total water revenue over the past ten years.
- Revenue from leasing space to cell antenna operators decreased 8.0% due to two contract terminations in March. These losses were somewhat mitigated by contractual escalations and one new contract at a lower rate in October of 2017.
- Revenue from interest on investments increased \$74,528, 20.7%, due to higher overall rates and a significant improvement in US Treasury security interest rates during 2017.

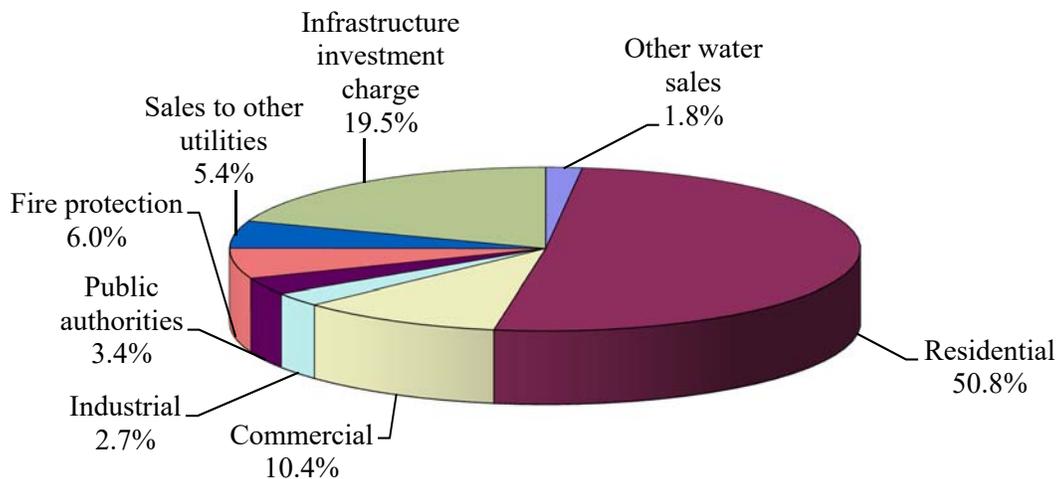
Comparatively, these issues and events impacted revenue in 2016:

- Revenue from Infrastructure Investment Charges increased \$2,895,807 from \$10,355,324 in 2015 to \$13,251,131 in 2016. The 2015 rate of \$15.45 per billing for quarterly customers was increased to \$19.65; monthly customers saw an increase from \$5.15 per billing to \$6.55 effective January 1, 2016.

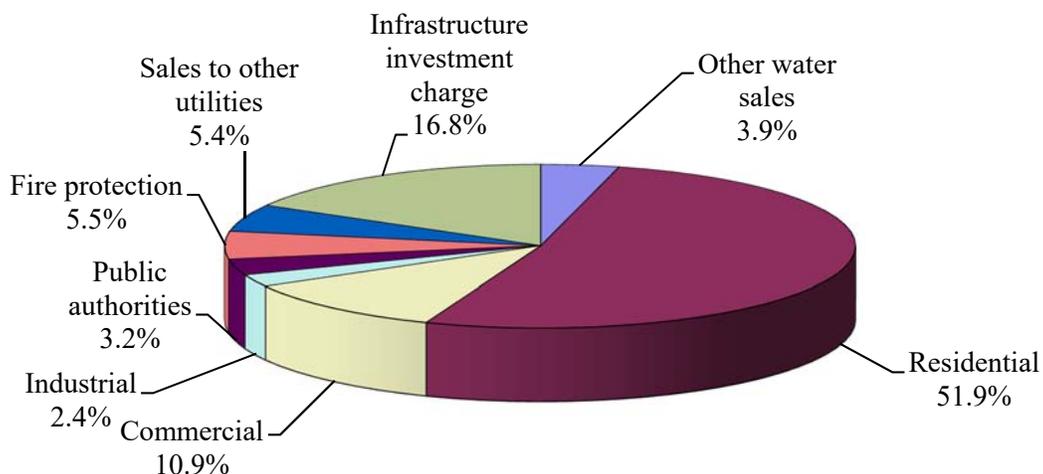
- Metered rates rose 3.9% (or \$.12) per thousand gallons on January 1, 2016 for all monthly and quarterly customers giving rise to increases in revenues recognized for all metered water categories.
- Summer surcharge revenue increased \$829,005 as a result of a rate increase from \$.75 to \$.78 per thousand gallons effective January 1, 2016. Surcharges are assessed on water bills where consumption exceeds 120% of the winter bill. Billed consumption increased an average of 23.7% in July, August and September 2016 over the same months in 2015.
- Miscellaneous revenue decreased \$114,143 in 2016 as a result of \$108,350 in payments received from the Federal and State Emergency Management Agencies in 2015 for a November 2014 storm claim and a \$9,668 decrease in proceeds received from equipment auctions and sales of scrap metal during 2016.

As presented in the illustration below, residential water sales represent the largest portion of water sales for the Authority, which was 50.8%, 51.9%, and 52.7%, of total water sales for the years ended December 31, 2017, 2016 and 2015, respectively. Infrastructure investment charges were the next largest revenue component at 19.5%, 16.8%, and 15.0% in the years ended December 31, 2017, 2016, and 2015, respectively.

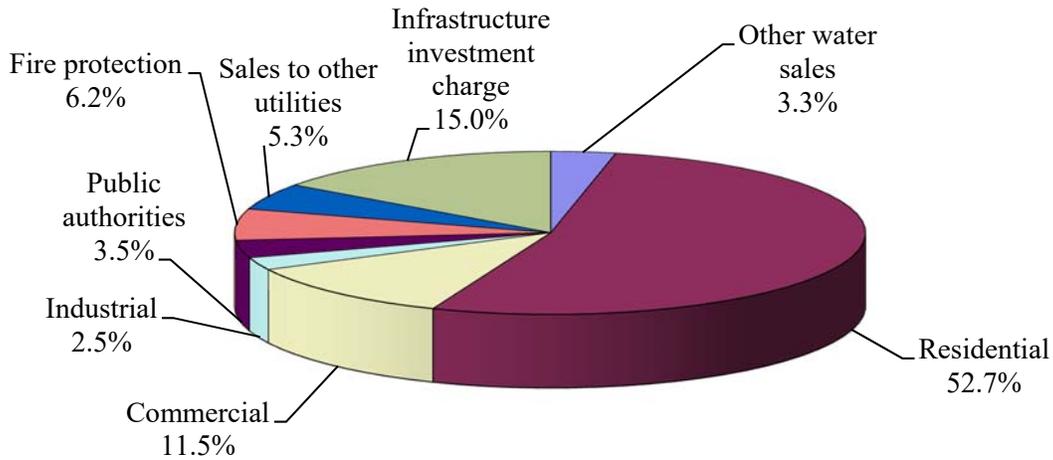
**2017 Water Sales Revenue**



**2016 Water Sales Revenue**



### 2015 Water Sales Revenue



As illustrated below, operation and administration expenses are the largest expense and account for 45.6%, 46.1%, and 46.4%, of the Authority’s expenses for the years ended December 31, 2017, 2016 and 2015, respectively. The second largest expense for the Authority for the years ended December 31, 2017, 2016 and 2015 was maintenance, which was 22.5%, 22.4%, and 23.1%, respectively.

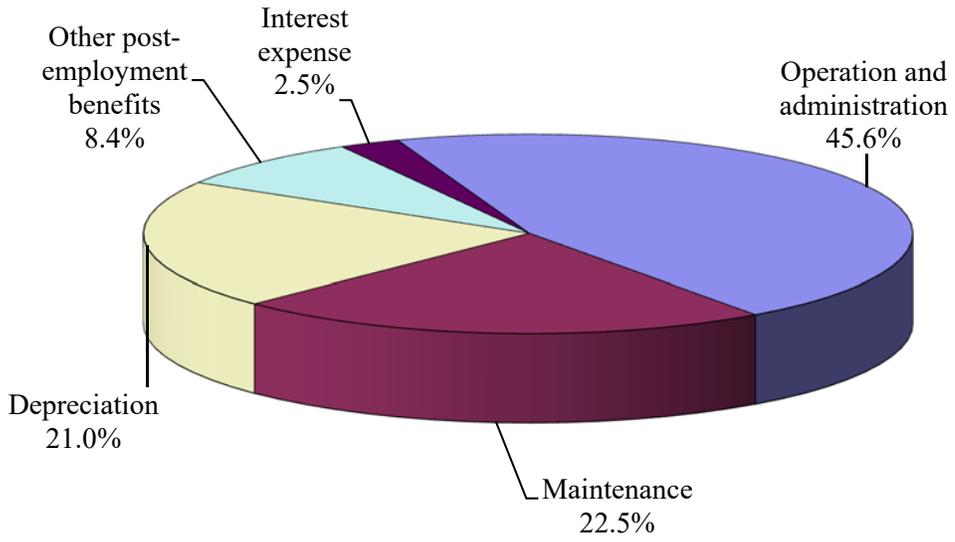
**Table 5—Summary of Expenses**

	Year Ended December 31,		Increase/(Decrease)	
	2017	2016	Dollars	Percent
Operation and administration	\$ 27,918,914	\$ 28,452,632	\$ (533,718)	(1.9)
Maintenance	13,770,443	13,813,338	(42,895)	(0.3)
Depreciation	12,823,738	12,713,386	110,352	0.9
Interest expense	1,551,606	2,189,655	(638,049)	(29.1)
Other postemployment benefits	5,118,264	4,522,436	595,828	13.2
Total	<u>\$ 61,182,965</u>	<u>\$ 61,691,447</u>	<u>\$ (508,482)</u>	<u>(0.8)</u>

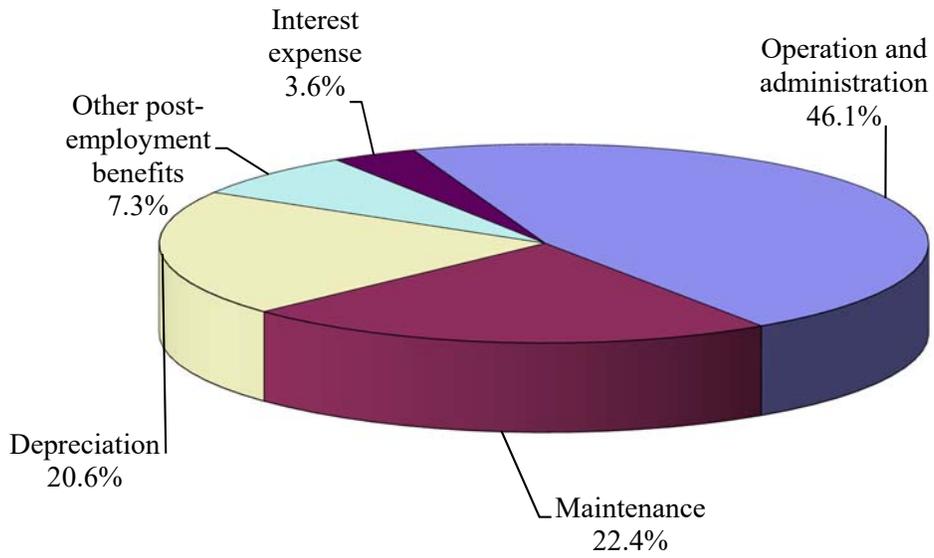
  

	Year Ended December 31,		Increase/(Decrease)	
	2016	2015	Dollars	Percent
Operation and administration	\$ 28,452,632	\$ 27,858,447	\$ 594,185	2.1
Maintenance	13,813,338	13,880,273	(66,935)	(0.5)
Depreciation	12,713,386	12,494,706	218,680	1.8
Interest expense	2,189,655	2,642,469	(452,814)	(17.1)
Other postemployment benefits	4,522,436	3,202,218	1,320,218	41.2
Total	<u>\$ 61,691,447</u>	<u>\$ 60,078,113</u>	<u>\$ 1,613,334</u>	<u>2.7</u>

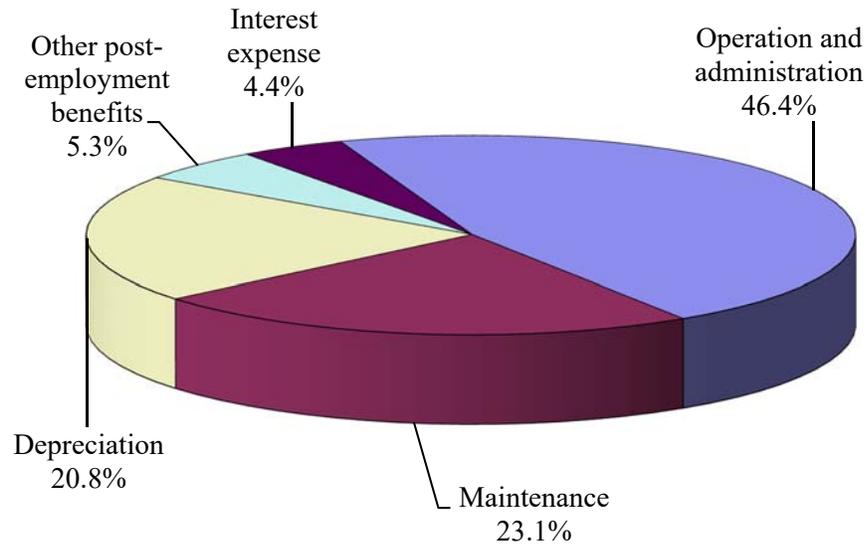
### 2017 Expenses



### 2016 Expenses



## 2015 Expenses



The following are some of the issues and events affecting expenses in 2017:

- Operation and administration expenses decreased 1.9%, or \$533,718.
- ✓ Health insurance costs decreased \$457,538, 16.1%, from \$2,837,324 in 2016 to \$2,379,786 in 2017. The decline is a direct result of lower medical and prescription claims for both active and Medicare eligible retirees.
- ✓ Pension expense decreased \$144,391, due, in part, to improved market results on New York State and Local Retirement System (NYSLRS) investments. The Authority is allocated 0.0561145% of the NYSLRS's net pension liability. Contributions based on employee retirement tiers and salaries also decreased \$340,519 from \$2,733,700 in 2016 to \$2,393,181 in 2017.
- ✓ Power costs decreased \$370,744, 11.2%, from \$3,309,796 in 2016 to \$2,939,052 in 2017. The amount paid for the commodity decreased \$512,130 which was offset by a \$141,386 increase in delivery charges. Overall, usage decreased 13.8% during 2017, while the commodity rate increased 2.4%.
- ✓ The cost of small service installations increased 16.0%, a net cost increase of \$105,538. Although tariff fees remained unchanged, new contracts in 2017 contained a 46.0% increase in our payments to contractors for installations in the North service area.
- ✓ In 2016, the Authority contracted with an engineering firm to review operational processes at our water treatment plants. Payments under that contract increased \$114,379 in 2017.

- Maintenance expenses decreased 0.3%, or \$42,895.
  - ✓ A significant decrease in the number of main breaks and hydrant replacements in 2017 resulted in reduced payments to contractors for repairs and restoration costs. In 2016, Authority forces and contractors responded to 1,554 breaks compared to 1,250 in 2017, a 19.5% reduction. Repair payments to contractors decreased \$244,423, 15.5%, even with \$406,507 in payments for the Sturgeon Point repair (mentioned below). Restoration costs decreased 25.8%, or \$578,121 as a result of the decreased number of breaks in 2017.
  - ✓ On August 6, 2017, a serious leak was discovered in the forty-two-inch water transmission main leaving the Sturgeon Point Water Treatment Plant. The repair, which was completed with no loss of service to Authority customers, cost \$1,078,538.
- Interest expense decreased \$638,049 due to a decrease in the bond principal outstanding as a result of the 2017 bond maturities and the refunding of the 2007 Series Bonds and 2012 Series Bonds in September of 2016. Overall, true interest costs on the 2016 Series Bonds are lower at 2.40% as compared to the 2007 Series Bonds at 4.77%, and 2012 Series Bonds at 2.41%.
- Other postemployment benefit (OPEB) expense increased \$595,828 from \$4,522,436 in 2016 to \$5,118,264 in 2017. In addition to the accumulation of interest on unpaid actuarial accrued liability and normal cost plus the current amortization of unpaid liability, updated health care trend rates impacted the Authority's net OPEB obligation.

Comparatively, these issues and events impacted expenses in 2016:

- Operation and administration expenses increased 2.1%, or \$594,185.
  - ✓ Corporate and fiscal expenses increased as a result of \$274,336 in bond issuance costs related to the 2016 Series Refunding Bonds.
  - ✓ Expenses paid to contractors for studies increased as a result of increased payments of \$51,138 for a cost of service and rate structure study completed in 2016. Payments also increased \$192,358 under the Authority's contract for management and operations enhancements in conjunction with the installation of a new work asset management system in 2016.
  - ✓ Outfall rehabilitation and erosion control projects at the Sturgeon Point treatment plant increased operation and administration expenses \$203,085 in 2016.
  - ✓ A new contract to review processes and procedures at both treatment plants in an effort to improve performance increased engineering costs \$55,174 in 2016.
  - ✓ Power costs decreased \$215,845, 6.1%, from \$3,525,641 in 2015 to \$3,309,796 in 2016. While usage increased 4.9% during 2016, the average cost per kilowatt hour was 18.0% lower than in 2015.
  - ✓ Postage expense decreased \$45,160, 9.9%, from \$454,870 in 2015 to \$409,710 in 2016 due to the expiration on April 10, 2016 of USS Exigent Surcharge Pricing. Postage rates for bills and read-by-mail postcards decreased 4.1% and 5.7%, respectively.

- Maintenance expenses decreased 0.5%, or \$66,935.
  - ✓ A decrease in the number of repairs performed by outside contractors in 2016 resulted in a \$251,116 savings in payments to repair contractors. Contractors made 705 repairs in 2016 as compared to 922 in 2015. Payments to contractors for repairs decreased 13.7% from \$1,830,487 in 2015 to \$1,579,371 in 2016.
  - ✓ Materials and supplies expense increased \$103,138 from \$1,281,096 in 2015 to \$1,384,234 in 2016. While there was a decrease in the amount of materials used during repairs in 2016, there was an increase of \$172,753 in materials purchased and expensed in the Control and Water Quality Units in 2016.
- Interest expense decreased \$452,814 due entirely to a decrease in the bond principal outstanding as a result of the 2016 bond maturities and the refunding of the 2017 Series and 2012 Series Bonds with a principal balance of \$37,555,000 with the 2016 Series Refunding Bonds with a principal balance of \$30,725,000.
- Other postemployment benefit expense increased \$1,320,218 from \$3,202,218 2015 to \$4,522,436 in 2016. In addition to the accumulation of interest on unpaid actuarial accrued liability and normal cost plus the current amortization of unpaid liability, increases resulted from greater than expected claims costs and a change in accounting for accrued sick time with no cash value used to offset premium contributions in retirement. These benefits are now considered a post-employment benefit; they were previously accounted for as compensated absences. The change increased the overall OPEB liability in 2016.

**Table 6—Summary of Cash Flow Activities**

	Year Ended December 31,		Increase/(Decrease)
	2017	2016	Dollars
Cash flows provided (used) by:			
Operating activities	\$ 30,955,017	\$ 38,166,569	\$ (7,211,552)
Capital and related financing activities	(32,492,312)	(34,331,732)	1,839,420
Investing activities	<u>(15,123,932)</u>	<u>(1,284,186)</u>	<u>(13,839,746)</u>
Net (decrease) increase in cash and cash equivalents	(16,661,227)	2,550,651	(19,211,878)
Cash and cash equivalents, beginning of year	<u>39,968,273</u>	<u>37,417,622</u>	<u>2,550,651</u>
Cash and cash equivalents, end of year	<u>\$ 23,307,046</u>	<u>\$ 39,968,273</u>	<u>\$ (16,661,227)</u>

	Year Ended December 31,		Increase/(Decrease)
	2016	2015	Dollars
Cash flows provided (used) by:			
Operating activities	\$ 38,166,569	\$ 23,730,946	\$ 14,435,623
Capital and related financing activities	(34,331,732)	(24,980,603)	(9,351,129)
Investing activities	(1,284,186)	594,802	(1,878,988)
Net increase (decrease) in cash and cash equivalents	2,550,651	(654,855)	3,205,506
Cash and cash equivalents, beginning of year	37,417,622	38,072,477	(654,855)
Cash and cash equivalents, end of year	<u>\$ 39,968,273</u>	<u>\$ 37,417,622</u>	<u>\$ 2,550,651</u>

At December 31, 2017, 2016, and 2015, cash and cash equivalents were restricted for various purposes as presented below:

**Table 7—Summary of Cash and Cash Equivalents**

	Year Ended December 31,		
	2017	2016	2015
Unrestricted	\$ 12,703,139	\$ 20,556,168	\$ 28,722,627
Restricted	10,603,907	19,412,105	8,694,995
Total	<u>\$ 23,307,046</u>	<u>\$ 39,968,273</u>	<u>\$ 37,417,622</u>

Total cash and cash equivalents decreased \$16,661,227 from \$39,968,273 in 2016 to \$23,307,046 in 2017, primarily due to an increased use of investments.

Total cash and cash equivalents increased \$2,550,651 from \$37,417,622 in 2015 to \$39,968,273 in 2016.

## Capital Assets

The Authority's investment in capital assets as of December 31, 2017 amounted to \$380,221,994 (net of accumulated depreciation) as compared to \$369,413,111 as of December 31, 2016 and \$360,641,152 as of December 31, 2015. This investment includes land, buildings and structures, mains and hydrants, equipment, construction in progress and other (service installations, leasehold improvements, etc.). The Authority's greatest investment in capital assets is in buildings and structures and mains and hydrants.

Presented in Table 8 is a comparative summary of capital assets. Additional information on the Authority's capital assets can be found in Note 4 of the financial statements.

**Table 8—Summary of Capital Assets (Net of Accumulated Depreciation)**

	December 31,		Increase/(Decrease)	
	2017	2016	Dollars	Percent
Capital assets not being depreciated:				
Land	\$ 2,231,137	\$ 2,231,137	\$ -	-
Construction work in progress	6,972,702	3,990,410	2,982,292	74.7
Total capital assets, not being depreciated	9,203,839	6,221,547	2,982,292	47.9
Capital assets being depreciated:				
Buildings and structures	290,606,197	279,652,616	10,953,581	3.9
Mains and hydrants	230,584,540	226,025,894	4,558,646	2.0
Equipment	60,926,418	58,878,144	2,048,274	3.5
Other	54,254,087	58,218,045	(3,963,958)	(6.8)
Total capital assets, being depreciated	636,371,242	622,774,699	13,596,543	2.2
Less accumulated depreciation	265,353,087	259,583,135	5,769,952	2.2
Total capital assets, being depreciated, net	371,018,155	363,191,564	7,826,591	2.2
Total capital assets, net	\$ 380,221,994	\$ 369,413,111	\$ 10,808,883	2.9
	December 31,		Increase/(Decrease)	
	2016	2015	Dollars	Percent
Capital assets not being depreciated:				
Land	\$ 2,231,137	\$ 2,231,137	\$ -	-
Construction work in progress	3,990,410	3,244,739	745,671	23.0
Total capital assets, not being depreciated	6,221,547	5,475,876	745,671	13.6
Capital assets being depreciated:				
Buildings and structures	279,652,616	270,685,457	8,967,159	3.3
Mains and hydrants	226,025,894	220,347,032	5,678,862	2.6
Equipment	58,878,144	56,395,640	2,482,504	4.4
Other	58,218,045	56,192,707	2,025,338	3.6
Total capital assets, being depreciated	622,774,699	603,620,836	19,153,863	3.2
Less accumulated depreciation	259,583,135	248,455,560	11,127,575	4.5
Total capital assets, being depreciated, net	363,191,564	355,165,276	8,026,288	2.3
Total capital assets, net	\$ 369,413,111	\$ 360,641,152	\$ 8,771,959	2.4

## Debt Administration

At December 31, 2017 the Authority had \$47,242,359 in water revenue bond principal outstanding, net of unamortized amounts of bond premiums and discounts, as compared to \$56,339,767 and \$67,452,080 December 31, 2016 and 2015, respectively. Water revenue bonds outstanding, net of unamortized amounts of bond premiums and discounts, decreased \$9,097,408 during the year ended December 31, 2017, as a result of principal payments and amortization of premiums and discounts as shown in Table 9.

**Table 9—Summary of Bond Payments, Premiums and Discounts**

	Year Ended December 31,	
	2017	2016
1998D Series	\$ 1,080,000	\$ 1,040,000
2003F Series	740,000	725,000
2007 Series	-	29,705,000
2008 Series	5,340,000	5,090,000
2012 Series	-	9,055,000
2016 Series	1,430,000	-
Total water revenue bond payments	8,590,000	45,615,000
Amortization of bond premiums	512,844	492,202
Amortization of bond discount	(5,436)	(1,389)
Total water revenue bond payments, bond premiums and bond discounts	<u>\$ 9,097,408</u>	<u>\$ 46,105,813</u>

The Authority's issuance of 1998D Series and 2003F Series Bonds were through the New York State Environmental Facilities Corporation (EFC) and are rated based on the EFC's rating.

The Authority's bond ratings have remained stable receiving an AA+ rating from both Fitch Ratings and Standard & Poor's Rating Services.

For additional information on long-term debt activity, see Note 5 to the basic financial statements.

## Economic Factors

The local economic outlook for Western New York has improved as a result of several economic development projects in the region. However, due to individual conservation efforts and changes in Federal and State laws and regulations which require appliances to use less water, significant increases in consumption other than those caused by extreme weather conditions are not expected.

A nearly four decade effort to promote conservation and water appliance efficiency is showing results with decreased water consumption per customer. At present, over 35% of the bills sent to Authority customers are for the monthly or quarterly minimum. Given the reality of rising repair and replacement costs of an aging infrastructure, and decreasing consumption, the Authority established an infrastructure investment charge in 2011. The infrastructure investment charge was implemented to maintain the Authority's aggressive investment program in very costly system-wide infrastructure, and to allow for a more equitable distribution among customer classifications of fixed costs to provide a dependable, high quality water supply and fire protection services to all customers.

In an effort to measure the effectiveness of this approach, the Authority contracted with consultants to conduct a Cost of Service and Rate Structure Review. A new rate structure, based on their recommendations, was adopted and is effective January 1, 2017. The new structure assigns infrastructure charges and volumetric rates on meter size and removes the declining block rate structure. A complete summary of the Authority's rate structure can be found in Table 10. As a result of implementing recommended changes, the infrastructure investment charge was 19.5% of water sales in 2017 as compared to 16.8% and 15.0% 2016 and 2015, respectively. Recommended increases in infrastructure charges for larger meters customers are being phased in over a three-year period beginning in 2017.

Over the past fifteen years the Authority has also been engaged in a series of water system consolidations whereby independent municipal water system operators have transferred ownership of their systems to the Authority. The continuation of this trend will have the effect of shifting costs from smaller systems and rate bases to the Authority. However, due to economies of scale enjoyed by the Authority, the overall community-wide costs should be lower in a coordinated, unified system compared to those of a patchwork network of small systems.

**Table 10—Tariff Rates**

All rates are presented as quarterly. Some accounts are billed monthly at one-third of the quarterly fees. A complete copy of the Tariff can be found at [www.ecwa.org](http://www.ecwa.org).

**A. SMALL METER CUSTOMERS - Installed Meter Sizes 5/8", 3/4" and 1"**

2017 Volumetric Rate — \$3.17 per 1000 gallons  
 2018 Volumetric Rate — \$3.23 per 1000 gallons

Size of Meter (inches)	Quarterly Commodity Allowance (gallons)	Quarterly Minimum Commodity Charge		Quarterly Infrastructure Investment Charge		Quarterly Minimum Charge	
		2017	2018	2017	2018	2017	2018
5/8	9,000	\$ 28.53	\$ 29.07	\$ 19.65	\$ 19.65	\$ 48.18	\$ 48.72
3/4	9,000	28.53	29.07	19.65	19.65	48.18	48.72
1	9,000	28.53	29.07	19.65	19.65	48.18	48.72

(continued)

**Table 10—Tariff Rates**

(concluded)

**B. LARGE METER CUSTOMERS - Installed Meter Sizes 1 1/4" and larger**

2017 Volumetric Rate — \$2.84 per 1000 gallons

2018 Volumetric Rate — \$2.89 per 1000 gallons

Size of Meter (inches)	Quarterly Commodity Allowance (gallons)	Quarterly Minimum Commodity Charge		Quarterly Infrastructure Investment Charge		Quarterly Minimum Charge	
		2017	2018	2017	2018	2017	2018
				\$	\$	\$	\$
1 1/4	27,000	76.68	78.03	25.38	50.76	102.60	128.79
1 1/2	39,000	110.76	112.71	25.38	50.76	136.14	163.47
2	63,000	178.92	182.07	40.59	81.18	219.51	263.25
3	120,000	340.80	346.80	76.11	152.22	416.91	499.02
4	198,000	562.32	572.22	126.87	253.74	689.19	825.96
6	390,000	1,107.60	1,127.10	253.71	507.42	1,361.31	1,634.52
8	630,000	1,789.20	1,820.70	405.90	811.80	2,195.10	2,632.50
10	900,000	2,556.00	2,601.00	583.50	1,167.00	3,139.50	3,768.00
12	1,230,000	3,493.20	3,554.70	1,090.86	2,181.72	4,584.06	5,736.42
20	2,820,000	8,008.80	8,149.80	4,694.76	9,389.52	12,703.56	17,539.32
24	3,840,000	10,905.60	11,097.60	9,480.84	18,961.68	20,386.44	30,059.28

**C. PUBLIC CORPORATIONS AND SPECIAL IMPROVEMENT DISTRICTS - Customers who buy water for resale**

2017 Volumetric Rate — \$2.48 per 1000 gallons

2018 Volumetric Rate — \$2.53 per 1000 gallons

Size of Meter (inches)	Quarterly Commodity Allowance (gallons)	Quarterly Minimum Commodity Charge		Quarterly Infrastructure Investment Charge		Quarterly Minimum Charge	
		2017	2018	2017	2018	2017	2018
				\$	\$	\$	\$
1 1/4	27,000	66.96	68.31	25.38	50.76	92.34	119.07
1 1/2	39,000	96.72	98.67	25.38	50.76	122.10	149.43
2	63,000	156.24	159.39	40.59	81.18	196.83	240.57
3	120,000	297.60	303.60	76.11	152.22	373.71	455.82
4	198,000	491.04	500.94	126.87	253.74	617.91	754.68
6	390,000	967.20	986.70	253.71	507.42	1,220.91	1,494.12
8	630,000	1,562.40	1,593.90	405.90	811.80	1,968.30	2,405.70
10	900,000	2,232.00	2,277.00	583.50	1,167.00	2,815.50	3,444.00
12	1,230,000	3,050.40	3,111.90	1,090.86	2,181.72	4,141.26	5,293.62
20	2,820,000	6,993.60	7,134.60	4,694.76	9,389.52	11,688.36	16,524.12
24	3,840,000	9,523.20	9,715.20	9,480.84	18,961.68	19,004.04	28,676.88

### **Requests for Information**

This financial report is designed to provide a general overview of the Authority's finances. Questions concerning any of the information provided in this report or requests for additional financial information should be addressed to Robert J. Lichtenthal, Jr., Deputy Director, Erie County Water Authority, 295 Main Street, Rm. 350, Buffalo, New York 14203-2494.

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# BASIC FINANCIAL STATEMENTS



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**ERIE COUNTY WATER AUTHORITY**  
**Statements of Net Position**  
**December 31, 2017 and 2016**

	<b>2017</b>	<b>2016</b>
<b>ASSETS</b>		
Current assets:		
Cash and cash equivalents	\$ 12,703,139	\$ 20,556,168
Restricted cash and cash equivalents	1,451,796	967,482
Unrestricted investments	11,758,380	3,800,000
Restricted investments	1,185,927	1,674,105
Customer accounts receivable, (net of allowance for doubtful accounts)	5,066,187	5,024,359
Materials and supplies	2,369,571	2,454,809
Accrued revenue	8,228,853	8,618,909
Prepaid expenses and other assets	<u>3,535,902</u>	<u>2,932,395</u>
Total current assets	<u>46,299,755</u>	<u>46,028,227</u>
Noncurrent assets:		
Investments	-	549,983
Restricted cash and cash equivalents	9,152,111	18,444,623
Restricted investments	18,961,349	10,258,105
Loans receivable	2,290,075	2,369,225
Capital assets, not being depreciated	9,203,839	6,221,547
Capital assets, net of accumulated depreciation	<u>371,018,155</u>	<u>363,191,564</u>
Total noncurrent assets	<u>410,625,529</u>	<u>401,035,047</u>
Total assets	<u>456,925,284</u>	<u>447,063,274</u>
<b>DEFERRED OUTFLOWS OF RESOURCES</b>		
Post-measurement date retirement contributions	1,754,021	1,789,968
Changes in retirement system assumptions	3,311,948	8,000,814
Advanced refunding of 2007 Series Bonds	<u>1,250,450</u>	<u>1,316,553</u>
Total deferred outflows of resources	<u>6,316,419</u>	<u>11,107,335</u>
<b>LIABILITIES</b>		
Current liabilities:		
Accounts payable	6,271,334	7,855,874
Advances for construction	507,701	562,123
Construction retention	1,020,108	979,000
Accrued interest on water revenue bonds	243,891	287,202
Accrued liabilities	1,635,248	1,480,314
Compensated absences	1,373,712	1,315,708
Water revenue bonds - current portion	<u>9,862,757</u>	<u>9,097,408</u>
Total current liabilities	<u>20,914,751</u>	<u>21,577,629</u>
Noncurrent liabilities:		
Compensated absences	1,318,834	1,298,779
Net pension liability	5,272,641	8,958,247
Other postemployment benefits	38,864,242	33,745,978
Water revenue bonds - long term	<u>37,379,602</u>	<u>47,242,359</u>
Total noncurrent liabilities	<u>82,835,319</u>	<u>91,245,363</u>
Total liabilities	<u>103,750,070</u>	<u>112,822,992</u>
<b>DEFERRED INFLOWS OF RESOURCES</b>		
Changes in retirement system assumptions	<u>823,562</u>	<u>1,092,360</u>
Total deferred inflows of resources	<u>823,562</u>	<u>1,092,360</u>
<b>NET POSITION</b>		
Net investment in capital assets	332,979,635	313,073,344
Restricted:		
Debt service reserve account	6,619,191	6,668,524
Debt service account	1,756,110	1,676,921
Unrestricted	<u>17,313,135</u>	<u>22,836,468</u>
Total net position	<u>\$ 358,668,071</u>	<u>\$ 344,255,257</u>

The notes to the financial statements are an integral part of these statements.

**ERIE COUNTY WATER AUTHORITY**  
**Statements of Revenue, Expenses, and Changes in Net Position**  
**Years Ended December 31, 2017 and 2016**

	<b>2017</b>	<b>2016</b>
Operating revenues	\$ 73,291,512	\$ 79,711,080
Operating expenses:		
Operation and administration	27,918,914	28,452,632
Maintenance	13,770,443	13,813,338
Depreciation	12,823,738	12,713,386
Other postemployment benefits	5,118,264	4,522,436
Total operating expenses	59,631,359	59,501,792
Operating income	13,660,153	20,209,288
Nonoperating revenues (expenses):		
Interest income	434,340	359,812
Gain on sale of investments	-	852,694
Interest on loans receivable	90,084	58,554
Interest capitalization during construction	151,474	105,383
Interest expense	(1,551,606)	(2,189,655)
Total nonoperating revenues (expenses)	(875,708)	(813,212)
Net income before contribution in aid of construction	12,784,445	19,396,076
Contribution in aid of construction	1,628,369	1,644,087
Change in net position	14,412,814	21,040,163
Net position—beginning	344,255,257	323,215,094
Net position—ending	\$ 358,668,071	\$ 344,255,257

The notes to the financial statements are an integral part of these statements.

**ERIE COUNTY WATER AUTHORITY**  
**Statements of Cash Flows**  
**Years Ended December 31, 2017 and 2016**

	<b>2017</b>	<b>2016</b>
<b>CASH FLOWS FROM OPERATING ACTIVITIES</b>		
Receipts from customers	\$ 73,120,940	\$ 77,522,153
Payments to contractors	(18,586,949)	(15,432,468)
Payments to employees including fringe benefits	(23,578,974)	(23,923,116)
Net cash provided by operating activities	30,955,017	38,166,569
<b>CASH FLOWS FROM CAPITAL AND RELATED FINANCING ACTIVITIES</b>		
Acquisition and construction of capital assets	(23,591,512)	(21,552,746)
Bond repayment	(8,590,000)	(8,060,000)
Issuance of refunding bonds	-	30,725,000
Refunding bond payments	-	(37,555,000)
Net refunding premium and discount activity	-	2,798,909
Interest paid on revenue bonds	(1,884,747)	(2,488,903)
Advances for construction	(54,422)	156,921
Contribution in aid of construction	1,628,369	1,644,087
Net cash used for capital and related financing activities	(32,492,312)	(34,331,732)
<b>CASH FLOWS FROM INVESTING ACTIVITIES</b>		
Purchase of investment securities	(47,743,691)	(17,436,325)
Proceeds from sale or maturity of investments	32,125,466	14,882,169
Interest received	494,293	1,269,970
Net cash (used for) provided by investing activities	(15,123,932)	(1,284,186)
Net (decrease) increase in cash	(16,661,227)	2,550,651
Cash and cash equivalents—beginning (including amounts restricted for future construction, debt service reserve, debt service, and customer deposits)	39,968,273	37,417,622
Cash and cash equivalents—ending (including amounts restricted for future construction, debt service reserve, debt service, and customer deposits)	\$ 23,307,046	\$ 39,968,273

(continued)

**ERIE COUNTY WATER AUTHORITY**  
**Statements of Cash Flows**  
**Years Ended December 31, 2017 and 2016**

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(concluded)

	<b>2017</b>	<b>2016</b>
<b>Reconciliation of operating income to net cash provided by operating activities:</b>		
Operating income:	\$ 13,660,153	\$ 20,209,288
Adjustments to reconcile operating income to net cash provided by operating activities:		
Depreciation expense	12,823,738	12,713,386
Other postemployment benefits expense	5,118,264	4,522,436
(Increase) in accounts receivable	(41,828)	(828,613)
Decrease (increase) in material and supplies	85,238	(338,252)
Decrease (Increase) in accrued revenue	390,056	(1,264,865)
(Increase) in other assets	(578,616)	(224,561)
Decrease in other loans receivable	79,150	28,476
Decrease (increase) in other deferred outflows of resources	4,724,813	(7,290,359)
(Decrease) increase in accounts payable	(1,584,540)	4,457,136
Increase (decrease) in other accrued liabilities	154,934	(83,211)
Increase (decrease) in compensated absences	78,059	(1,851,363)
(Decrease) increase in net pension liability	(3,685,606)	7,024,711
(Decrease) increase in deferred inflows of resources	(268,798)	1,092,360
Total adjustments	17,294,864	17,957,281

The notes to the financial statements are an integral part of these statements.

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**ERIE COUNTY WATER AUTHORITY**  
**Notes to the Financial Statements**  
**Years Ended December 31, 2017 and 2016**

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**1. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES**

**Reporting entity**—The Erie County Water Authority (the “Authority”) is a public benefit corporation created in 1949 by the State of New York. The accounts of the Authority are maintained generally in accordance with the Uniform System of Accounts prescribed by the New York State Public Service Commission (PSC), although the Authority is not subject to PSC rules and regulations. The rates established by the Authority do not require PSC approval.

The Authority operates its business activities on a direct service basis where the Authority owns the assets and is responsible for their operation, maintenance, improvement and replacement; on a leased managed service basis where the Authority is responsible for the operation and maintenance of the assets while the lessor is responsible for the improvement and replacement of assets; and on a bulk sales basis where the Authority contracts with the customer to provide water while the customer owns the assets and is responsible for their operation, maintenance, improvement and replacement as well as billings and customer collections.

**Basis of accounting**—The financial statements of the Authority have been prepared in conformity with generally accepted accounting principles (GAAP) as applied to governmental units. The Governmental Accounting Standards Board (GASB) is the accepted standard-setting body for establishing governmental accounting and financial reporting principles.

The activities of the Authority are accounted for similar to those often found in the private sector using the flow of economic resources measurement focus and the accrual basis of accounting. All assets, deferred outflows, liabilities, deferred inflows, net position, revenues and expenses are accounted for through a single enterprise fund with revenues recorded when earned and expenses recorded at the time liabilities are incurred.

Revenues from providing water services are reported as operating revenues. Operating revenues are recorded as water service is supplied. Water supplied, but not billed, as of the calendar year end is estimated based upon historical usage and has been accounted for as accrued revenue.

Transactions which are capital, financing or investing related are reported as nonoperating revenues. All expenses related to operating the system are reported as operating expenses. Interest expense and financing costs are reported as nonoperating expenses.

**Budgets**—The Authority is not required to have a legally adopted budget.

**Compensated absences**—Authority employees earn vacation, sick leave and compensatory time in varying amounts. In the event of termination or upon retirement, represented employees are entitled to payment for accrued vacation, sick and compensatory time limited to amounts defined under their respective collectively bargained agreements. All non-represented employees receive benefits as defined by Authority policy or by resolution of the Board.

**Retirement plan**—The Authority provides retirement benefits for all of its employees through contributions to the New York State and Local Employees' Retirement System. The system provides various plans and options, some of which require employee contributions.

**Cash and cash equivalents**—The Authority considers cash and cash equivalents to be all unrestricted and restricted cash accounts and short-term investments purchased with an original maturity of three months or less.

**Investments**—The Authority considers cash invested for more than three months investments. Investments are carried at fair value based on quoted market prices. The cost of investments sold is determined using the specific identification method and then adjusted to fair value changes to reflect the combined net change in these elements in the statements of revenue, expenses and changes in net position.

**Customer accounts receivable**—All receivables are reported at their gross values and, where appropriate, are reduced by the estimated portion that is expected to be uncollectible. The Authority recognizes water revenues in the period in which the service is provided. Billings to customers generally consist of revenues earned from the prior three months for quarterly billed customers and revenues earned from the prior month for monthly-billed customers.

**Materials and supplies**—Materials and supplies are stated at the lower of cost or market, cost being determined on the basis of moving-average cost.

**Accrued revenue**—This account represents earned water revenues as of the end of the year that have not yet been billed to customers.

**Prepaid expenses and other assets**—These consist primarily of certain payments reflecting costs applicable to future accounting periods and interest earned from securities and investments but not yet received.

**Capital assets**—Capital assets are defined by the Authority as assets with an initial, individual cost of more than \$10,000 and an estimated useful life in excess of two years. Infrastructure assets with individual costs less than \$10,000 are treated as a class of assets and are capitalized. The cost of additions to capital assets, including purchased property or property contributed in aid of construction, and replacement of property, is capitalized. Cost includes direct material, labor, overhead and an allowance for funds used during construction equivalent to the average cost of borrowed funds advanced for construction purposes. Overhead is added proportionately to the cost of a project on a monthly basis. The cost of retirements of capital assets is charged against accumulated depreciation. Maintenance and repairs are charged to expenses as incurred, and major betterments are capitalized.

Depreciation of capital assets is computed using the composite and straight-line methods based upon annual rates established in accordance with PSC guidelines: buildings and structures, 15 to 76 years; hydrants and mains, 64 to 100 years; equipment, 5 to 43 years; and other, 4 to 50 years. Depreciation expense approximated 2.04% and 2.07% of the original cost of average depreciable property for the years ended December 31, 2017 and 2016 respectively.

**Long-term obligations**—Long term debt is reported as a liability in the statements of net position. Bond premiums and bond discounts are deferred and amortized over the life of the bonds using the straight-line method. Bonds payable are reported net of the applicable bond premium or discount.

***Advances for construction***—Advances for construction primarily represent amounts received from contractors for water system expansions. Upon completion of the expansion, the cost of the construction is transferred to contributions in aid of construction, with any remaining advance being refunded.

***Accrued liabilities***—Included are provisions for estimated losses and surcharges collected from customers on behalf of various municipalities and unpaid at year end.

***Contributions in aid of construction***—Contributions in aid of construction represent amounts received from individuals, governmental agencies, and others to reimburse the Authority for construction costs incurred on capital projects or the original cost of certain water plant systems conveyed to the Authority by municipalities and others. Only those water plant systems resulting in increased revenue generation are assigned any value and, therefore, recorded as a contribution in aid of construction.

***Risk management***—The Authority limits its risk exposure to risks of loss related to torts; theft of, damage to, and destruction of assets; errors and omissions; injuries to employees; and natural disasters through various insurance policies. Insurance coverage has remained relatively stable from the previous year. Insurance expense for the years ended December 31, 2017 and 2016 totaled \$2,656,697 and \$2,596,072, respectively. There were no settlements that significantly exceeded insurance coverage or reserved amounts for each of the last three years. Any unpaid claims outstanding as of December 31, 2017 and 2016 have been adequately reserved for.

***Use of estimates***—The preparation of the financial statements in conformity with accounting principles generally accepted in the United States of America requires management to make estimates and assumptions that affect the amounts reported in the financial statements and related notes. Actual results could differ from those estimates.

***Adoption of new accounting pronouncements***—During the year ended December 31, 2017, the Authority implemented GASB Statements No. 74, *Financial Reporting for Postemployment Benefit Plans Other Than Pension Plans*; No. 80, *Blending Requirements for Certain Component Units — an Amendment of GASB Statement No. 14*; No. 81, *Irrevocable Split-Interest Agreements*; and 82, *Pension Issues — an amendment of GASB Statements No. 67, No. 68, and No. 73*; effective for the year ended December 31, 2017. None of the Statements had a material effect on the Authority's financial operations.

***Future impacts of accounting pronouncements***—The Authority has not completed the process of evaluating the impact that will result from adopting GASB Statements No. 75, *Accounting and Financial Reporting for Postemployment Benefits Other Than Pensions*; No. 85, *Omnibus 2017*; and No. 86, *Certain Debt Extinguishment Issues*, effective for the year ending December 31, 2018 or GASB No. 83, *Certain Asset Retirement Obligations*; and No. 84, *Fiduciary Activities*, effective for the year ending December 31, 2019 or GASB No. 87, *Leases*, effective for the fiscal year ending December 31, 2020. The Authority is therefore unable to disclose the impact that adopting these Statements will have on its financial position and results of operations when such statements are adopted, if any.

## 2. CASH, CASH EQUIVALENTS AND INVESTMENTS

**Deposits**—All uninsured bank deposits are fully collateralized.

**Investments**—The Authority's bond resolutions and investment guidelines allow for monies to be invested in the following instruments:

- Obligations of the United States Government;
- Obligations of Federal Agencies which represent full faith and credit of the United States Government;
- Bonds issued by the Federal National Mortgage Association or the Federal Home Loan Mortgage Corporation with remaining maturities not exceeding three years;
- Time deposits and money market accounts;
- Commercial paper which matures not more than 270 days after the date of purchase; and
- Municipal obligations of any state, instrumentality, or local governmental unit of such state.

**Restricted cash, cash equivalents, and investments**—Cash has been deposited into various trust accounts with a fiscal agent to satisfy certain legal covenants, or restricted internally through Board resolution. Further, the amounts are invested in compliance with the Authority's investment guidelines. The following is a brief synopsis of restricted cash:

**Restricted for debt service**—Cash restricted for debt service was established to fulfill the debt service requirements on the outstanding water revenue bonds as they become due and payable.

**Restricted for customer deposits**—Cash restricted for customer deposits was established to keep customer deposits for future work to be performed and deposits taken from customers to secure payment of their water bills segregated from the Authority's operating cash.

**Restricted for employee pension contributions**—New employees meeting eligibility requirements can elect participation in the New York State Voluntary Defined Contribution Program sponsored by the State University of New York (SUNY) Optional Retirement Plan. Eligible employees have a 366 day vesting period during which the employer retains the employee and employer contributions.

**Restricted employee payroll withholdings**—Employee elective payroll withholding under Title 26 U.S. Code §125 - Cafeteria plans and §105(h) - Amounts received under accident and health plans.

**Restricted for future construction**—Cash restricted for future construction was established to maintain a construction account, which has been committed for future capital expenditures.

**Restricted for debt service reserve**—The Authority restricts investments in the debt service reserve account as required by various bond resolutions.

As of December 31, 2017 and 2016, the Authority had the following restricted cash, cash equivalents, and investments:

	December 31, 2017		December 31, 2016	
	Amortized Cost	Fair Value	Amortized Cost	Fair Value
Restricted for debt service:				
Cash	\$ 570,183	\$ 570,183	\$ 2,816	\$ 2,816
Investments - U.S. Treasury bills	1,185,468	1,185,927	1,674,119	1,674,105
	<u>1,755,651</u>	<u>1,756,110</u>	<u>1,676,935</u>	<u>1,676,921</u>
Restricted for customer deposits:				
Cash	849,784	849,784	898,640	898,640
Restricted for employee payroll withholdings:				
Cash	31,829	31,829	16,643	16,643
Current restricted cash, cash equivalents, and investments	<u>\$ 2,637,264</u>	<u>\$ 2,637,723</u>	<u>\$ 2,592,218</u>	<u>\$ 2,592,204</u>
Restricted for future construction:				
Cash	\$ 9,152,025	\$ 9,152,025	\$ 18,444,587	\$ 18,444,587
Investment - Certificate of Deposit	5,490,921	5,490,921	3,639,000	3,639,000
Investment - U.S. Treasury bills	3,969,894	3,976,407	-	-
Investment - U.S. Treasury notes	2,877,609	2,874,916	-	-
	<u>21,490,449</u>	<u>21,494,269</u>	<u>22,083,587</u>	<u>22,083,587</u>
Restricted for debt service reserve:				
Cash	86	86	49,419	49,419
Investment - State and Local Government Series Treasury bonds	6,619,105	6,619,105	6,619,105	6,619,105
	<u>6,619,191</u>	<u>6,619,191</u>	<u>6,668,524</u>	<u>6,668,524</u>
Noncurrent restricted cash, cash equivalents, and investments	<u>\$ 28,109,640</u>	<u>\$ 28,113,460</u>	<u>\$ 28,752,111</u>	<u>\$ 28,752,111</u>
Total restricted cash, cash equivalents and investments	<u>\$ 30,746,904</u>	<u>\$ 30,751,183</u>	<u>\$ 31,344,329</u>	<u>\$ 31,344,315</u>

***Fair value measurement***—The Authority reports its fair value measures using a three-level hierarchy that prioritizes the inputs used to measure fair value. This hierarchy, established by GAAP, requires that entities maximize the use of observable inputs and minimize the use of unobservable inputs when measuring fair value. The three levels of inputs used to measure fair value are as follows:

- Level 1. Quoted prices for identical assets or liabilities in active markets to which the Authority has access at the measurement date.

- Level 2. Inputs other than quoted process included in Level 1 that are observable for the asset or liability, either directly or indirectly. Level 2 inputs include:
  - Quoted prices for similar assets or liabilities in active markets;
  - Observable inputs other than quoted prices for the asset or liability (for example, interest rates and yield curves);and
  - Inputs derived principally from, or corroborated by, observable market data by correlation or by other means.
- Level 3. Unobservable inputs for the asset or liability. Unobservable inputs should be used to measure fair value to the extent that observable inputs are not available.

Authority has the following fair value measurements as of December 31, 2017:

- Money market funds, DDA and NOW accounts of \$23,307,046 are values using quoted prices for identical assets in active markets (Level 1 input).
- Certificates of deposit of \$7,339,921 are values using quoted prices for identical assets in active markets (Level 1 input).
- U.S. treasury bills of \$15,071,714 and treasury notes of \$2,874,916 are values using quoted prices for identical assets in active markets (Level 1 input).
- Treasury Securities - State and Local Government Series (SLGS) of \$6,619,105 is valued using quoted prices for similar assets or liabilities in active markets (Level 2 input).

Description	12/31/2017	Level 1	Level 2	Level 3
Money Market/DDA/NOW Accounts	\$ 23,307,046	\$ 23,307,046	\$ -	\$ -
Certificate of Deposit	7,339,921	7,339,921	-	-
U.S. Treasury bills/notes	17,946,630	17,946,630	-	-
Treasury Securities - SLGS	6,619,105	-	6,619,105	-
Total	<u>\$ 55,212,702</u>	<u>\$ 48,593,597</u>	<u>\$ 6,619,105</u>	<u>\$ -</u>

**Custodial credit risk**—For deposits, this is the risk that in the event of a bank failure, the Authority’s deposits may not be returned. For cash equivalents and investments, this is the risk that in the event of the failure of the counterparty, the Authority will not be able to recover the value of its investments that are in the possession of an outside party. By State statute all deposits in excess of FDIC insurance coverage must be collateralized. As of December 31, 2017 and 2016, all uninsured bank deposits were fully collateralized with securities held by the pledging financial institutions’ trust departments or agents in the Authority’s name and all of the Authority’s cash equivalents and investments were registered in the Authority’s name.

**Interest rate risk**—For investments, this is the risk that potential purchasers of debt securities will not agree to pay face value for those securities if interest rates subsequently increase. There is the prospect of a loss should those securities be sold prior to maturity. The Authority uses the specific identification method to identify the maturity for each investment and evaluate risk accordingly. For the year ended December 31, 2017, the Authority had \$17,946,630 in US Treasury securities and

\$6,619,105 in SLGS with the longest maturity dates being December 15, 2018 and July 15, 2023, respectively.

### **3. CUSTOMER ACCOUNTS RECEIVABLE**

Customer accounts receivable primarily represent amounts due from customers for current and past due water services provided, including penalties, unpaid bill charges, collection fees and shut-off charges.

Customers are billed either on a monthly or quarterly basis depending on the type of customer and the level of water usage. Municipalities are billed for hydrant maintenance annually. Customers are provided a fifteen day (15) payment period from the billing date to pay their current water charges. A late penalty of 10% is assessed on any unpaid balance 10 days after the due date. An account will receive a collection letter if the account is active, has a receivable balance greater than \$100, has a receivable that is 90 days or greater in arrears and has no current collections activity. The collection letter indicates that the customer could be subject to the discontinuance of their water service and additional delinquent charges.

Following fifteen (15) days from the collection letter date, an unpaid account is sent to a collector who schedules a visit to the customer with an unpaid bill notice. At the visit, the account is “posted,” and the customer has three (3) working days to either pay the bill in full, or submit a partial payment (25%-33%) with a signed promissory agreement for the remaining balance. The agreement is normally kept to a term of 90 days, with some exceptions to 180 days. In agreements with lease managed water districts and in some direct service districts, unpaid water bills are referred to municipalities for payment per the terms of the service agreement. Allowances for doubtful accounts at December 31, 2017 and 2016 total \$214,404 and \$406,070 respectively. At its meeting of December 21, 2017, the Authority’s Board approved a write-off of \$187,495 in customer accounts receivable.

#### 4. CAPITAL ASSETS

Capital asset activity for the years ended December 31, 2017 and December 31, 2016 is presented below:

	Balance 1/1/2017	Additions	Retirements & Reclassifications	Balance 12/31/2017
Capital assets not being depreciated:				
Land	\$ 2,231,137	\$ -	\$ -	\$ 2,231,137
Construction work in progress	<u>3,990,410</u>	<u>22,944,823</u>	<u>(19,962,531)</u>	<u>6,972,702</u>
Total non-depreciable capital assets	<u>6,221,547</u>	<u>22,944,823</u>	<u>(19,962,531)</u>	<u>9,203,839</u>
Capital assets being depreciated:				
Buildings and structures	279,652,616	10,953,581	-	290,606,197
Mains and hydrants	226,025,894	4,566,550	(7,904)	230,584,540
Equipment	58,878,144	3,420,645	(1,372,371)	60,926,418
Other	<u>58,218,045</u>	<u>2,308,241</u>	<u>(6,272,199)</u>	<u>54,254,087</u>
Total depreciable capital assets	<u>622,774,699</u>	<u>21,249,017</u>	<u>(7,652,474)</u>	<u>636,371,242</u>
Less accumulated depreciation:				
Buildings and structures	139,030,016	6,704,184	-	145,734,200
Mains and hydrants	52,810,592	2,279,755	(7,904)	55,082,443
Equipment	35,589,174	2,897,307	(773,683)	37,712,798
Other	<u>32,153,353</u>	<u>942,492</u>	<u>(6,272,199)</u>	<u>26,823,646</u>
Total accumulated depreciation	<u>259,583,135</u>	<u>12,823,738</u>	<u>(7,053,786)</u>	<u>265,353,087</u>
Capital assets being depreciated, net	<u>363,191,564</u>	<u>8,425,279</u>	<u>(598,688)</u>	<u>371,018,155</u>
Total capital assets, net	<u>\$ 369,413,111</u>	<u>\$ 31,370,102</u>	<u>\$ (20,561,219)</u>	<u>\$ 380,221,994</u>
	Balance 1/1/2016	Additions	Retirements & Reclassifications	Balance 12/31/2016
Capital assets not being depreciated:				
Land	\$ 2,231,137	\$ -	\$ -	\$ 2,231,137
Construction work in progress	<u>3,244,739</u>	<u>20,832,606</u>	<u>(20,086,935)</u>	<u>3,990,410</u>
Total non-depreciable capital assets	<u>5,475,876</u>	<u>20,832,606</u>	<u>(20,086,935)</u>	<u>6,221,547</u>
Capital assets being depreciated:				
Buildings and structures	270,685,457	9,771,900	(804,741)	279,652,616
Mains and hydrants	220,347,032	5,695,280	(16,418)	226,025,894
Equipment	56,395,640	3,940,092	(1,457,588)	58,878,144
Other	<u>56,192,707</u>	<u>2,025,338</u>	<u>-</u>	<u>58,218,045</u>
Total depreciable capital assets	<u>603,620,836</u>	<u>21,432,610</u>	<u>(2,278,747)</u>	<u>622,774,699</u>
Less accumulated depreciation:				
Buildings and structures	133,115,443	6,719,314	(804,741)	139,030,016
Mains and hydrants	50,608,934	2,218,076	(16,418)	52,810,592
Equipment	33,538,192	2,815,634	(764,652)	35,589,174
Other	<u>31,192,991</u>	<u>960,362</u>	<u>-</u>	<u>32,153,353</u>
Total accumulated depreciation	<u>248,455,560</u>	<u>12,713,386</u>	<u>(1,585,811)</u>	<u>259,583,135</u>
Capital assets being depreciated, net	<u>355,165,276</u>	<u>8,719,224</u>	<u>(692,936)</u>	<u>363,191,564</u>
Total capital assets, net	<u>\$ 360,641,152</u>	<u>\$ 29,551,830</u>	<u>\$ (20,779,871)</u>	<u>\$ 369,413,111</u>

## 5. LONG-TERM DEBT

*Summary of long-term debt*—the following is a summary of the Authority’s water revenue bonds outstanding at December 31, 2017:

Series	Final Annual Installment Payment Due	Year of Earliest Principal Payment	Interest Rate	Original Issue	Principal Outstanding 12/31/2017
1998D Series	10/15/2019	2000	0.845-3.355% (*)	\$ 16,859,700	\$ 2,295,000
2003F Series	7/15/2023	2004	0.79-4.50% (*)	15,544,443	5,768,384
2008 Series	12/1/2018	2009	4.00-5.00%	45,770,000	5,610,000
2016 Series	12/1/2036	2017	2.00-5.00%	30,725,000	29,295,000
					42,968,384
Less portion due within one year					(9,380,000)
					<u>\$ 33,588,384</u>

(\*) Gross rates subject to subsidy from the New York State Environmental Facilities Corporation (EFC)

All outstanding bonds have been issued under the Authority’s Fourth Resolution and, therefore, all of the current bondholders have equal claims against the Authority’s revenues.

### *1998D Series Bonds*

The Current Interest 1998D Series Bonds were issued to the EFC under their aggregate pool financing identified as New York State Environmental Facilities Corporation State Clean Water and Drinking Water Revolving Funds Revenue 1998D Series in 1998.

The 1998D Series Bonds in the amount of \$16,859,700, representing the Authority's portion of the financing, were issued to cover the cost of the construction of two new clearwell water tanks and a new pumping station at the Authority's Sturgeon Point plant.

Interest on the 1998D Series Bonds ranges from 0.845% to 3.355% and is payable semi-annually on April 15 and October 15. The terms of the EFC borrowings provide for an interest subsidy of approximately one-third of the stated interest rates shown above. The subsidy is generated from a United States Environmental Protection Agency grant to the EFC which the EFC invests and credits the borrower with the earnings on the invested funds as an offset to the interest payable on the bonds.

Principal is payable on October 15. The final maturity of the bonds is October 15, 2019.

### *2003F Series Bonds*

On July 24, 2003 the 2003F Series Bonds were issued to the EFC under their aggregate pool financing identified as New York State Environmental Facilities Corporation State Clean Water and Drinking Water Revolving Funds Revenue 2003F Series Bonds.

The 2003F Series Bonds in the amount of \$15,544,443 representing the Authority's portion of this financing were issued to cover the cost of new pump stations along with meters, water mains, a pump station and a storage tank in the City of Tonawanda.

On August 1, 2013 EFC refunded the 2003F Series Bonds. New bonds were issued in the same principal denomination. The Authority paid off \$691,616 on the outstanding bond principal. The Authority did not issue new bonds to EFC. The interest rates on the outstanding bonds were significantly reduced. The net present value savings as calculated by EFC is \$1,382,895.

Interest on the 2003F Series Bonds ranges from 0.79% to 4.50% and is payable semi-annually on January 15 and July 15. The terms of the EFC borrowings provide for an interest subsidy of approximately one-third of the stated interest rates shown above. The subsidy is generated from a United States Environmental Protection Agency grant to the EFC which the EFC invests and credits the borrower with the earnings on the invested funds as an offset to the interest payable on the bonds.

Principal is payable on July 15. The final maturity of the bonds is July 15, 2023.

### ***2007 Series Bonds***

On September 13, 2007, the 2007 Series Bonds were issued for \$35,194,288, which includes a premium of \$194,288 that is amortized over the life of the bonds. The purpose of these bonds includes the replacement of various water mains and valves in the distribution system, construction of new pump stations, upgrades to the coagulation basins, the replacement of electrical equipment and installation of standby emergency generators at the Authority's Sturgeon Point and Van de Water Treatment Plants.

The 2007 Series Bonds were advance refunded on September 29, 2016 as part of the 2016 bond issuance and is discussed in more detail in the 2016 Series Refunding Bonds Section. Outstanding bonds were called on the first allowable date, December 1, 2017.

The required rebate calculation was performed on the 2007 Series Bonds for the period from September 13, 2007 to September 13, 2017. The Authority owed arbitrage rebate of \$53,687. The Authority elected to pay 90% of this amount or \$48,318 to the IRS in November 2017. The final rebate calculation was performed on the final maturity date of December 1, 2017. The total owed by the Authority for the 2007 Bonds was calculated to be \$26,728. Therefore, the Authority is owed a refund from the IRS of \$21,590.

Interest on the 2007 Series Bonds ranged from 4.50% to 5.00% and was payable semi-annually on June 1 and December 1.

Principal was payable on December 1. The original final maturity of the bonds was scheduled for December 1, 2037.

### ***2008 Series Bonds***

On June 25, 2008, the Authority issued \$45,770,000 of Water Revenue Refunding Bonds, Series 2008. The proceeds of the issue, including a \$3,081,304 premium which is amortized over the life of the 2008 Series Bonds, were used to refund the principal of the 1993A Series and 1993B Series Bonds, \$27,500,000 and \$15,000,000, respectively. A portion of the proceeds covered the costs of issuance including a fee in connection with the termination of the swap agreement related to the 1993A Series and 1993B Series Bonds. The remaining proceeds were deposited into the 2008 Series Debt Service Reserve Account. The 1993A Series and 1993B Series Bonds were redeemed on July 25, 2008. The issuance of the 2008 Series Refunding Bonds reduced the debt service by \$7,481,572 and has a net present value cash flow savings of \$8,393,467.

Interest on the 2008 Series Bonds ranges from 4.0% to 5.0% and is payable semi-annually on June 1 and December 1.

Principal is payable on December 1. The final maturity of the bonds is December 1, 2018.

### ***2012 Series Bonds***

On June 8, 2012, the Authority issued \$12,500,000 of Bonds under a Bond Direct Purchase Agreement. The bonds were issued under the Authority's Fourth Bond Resolution. The purpose of these bonds is to provide funds for the acquisition and construction of Sturgeon Point clarifier/thickener improvements, pump station improvements, raw water pumps, Van De Water coagulation basins and the Texas/Lang interconnection with the City of Buffalo.

The 2012 Series Bonds were refunded on September 29, 2016 as part of the 2016 bond issuance and is discussed in more detail in the 2016 Series Refunding Bonds Section.

Interest on the 2012 bonds was 2.41% and was payable semi-annually on June 1 and December 1.

Principal was payable annually on June 1. The original final maturity of the bonds was scheduled for June 1, 2022.

### ***2016 Series Refunding Bonds***

On September 29, 2016, the Authority issued \$30,725,000 of Water Revenue Refunding Bonds, Series 2016. The proceeds of the issue after premium of \$4,378,154 and discount of \$109,654 were used to refund the principal of the 2007 Series and 2012 Series Bonds, \$29,705,000 and \$7,850,000, respectively. A portion of the proceeds were deposited into a Rebate Liability Fund to be used to pay any arbitrage rebate due on the 2007 Series Bonds in September 2017. The remainder of the proceeds covered the costs of issuance. The issuance of the 2016 Series Refunding Bonds reduced the debt service by \$9,330,782 and has a net present value cash flow savings of \$6,787,290.

The advance refunding resulted in a deferred outflow of resources of \$1,333,446 which is being amortized over the life of the 2016 Series Refunding Bonds. The deferred outflow is the difference between the reacquisition price, which is the amount deposited into the escrow account, and the carrying amount of the 2007 Series Bonds at the time of defeasance.

The 2012 Series Bonds were redeemed immediately. The remaining net proceeds from the issuance and certain existing funds were deposited into an escrow account by an escrow agent pursuant to the refunding agreement, and invested in U.S. Government securities for the 2007 Series Bonds. The maturities of these invested funds and related earnings thereon provided sufficient cash flow to meet the debt service requirements of the defeased bonds. These advance refunding transactions effectively released the Authority from its obligation to repay these bonds and constituted in-substance defeasances. The 2007 Series Bonds were callable on December 1, 2017. Prior to December 31, 2017, interest and principal payments were being made from the escrow account. On December 1, 2017 the remaining bonds were redeemed. The principal outstanding on the bonds defeased is \$0 at December 31, 2017 versus \$28,870,000 at December 31, 2016, which had maturities ranging from 2017 to 2037.

Interest on the 2016 Refunding Bonds ranges from 2.00% to 5.00% and is payable semi-annually on June 1 and December 1.

Principal is payable on December 1. The final maturity of the bonds is December 1, 2036.

**Long-term debt requirements**—Long-term debt requirements are summarized as follows:

Year ending December 31,	Bond Principal	Interest on Bonded Debt
2018	\$ 9,380,000	\$ 1,782,210
2019	3,905,000	1,363,393
2020	2,860,000	1,196,769
2021	2,985,000	1,071,952
2022	3,115,000	932,483
2023-2027	7,303,384	3,157,637
2028-2032	6,990,000	1,752,215
2033-2036	<u>6,430,000</u>	<u>484,688</u>
	42,968,384	11,741,347
Less portion due within one year	<u>9,380,000</u>	<u>1,782,210</u>
	<u>\$ 33,588,384</u>	<u>\$ 9,959,137</u>

**Summary of changes in long-term debt**—The following is a summary of changes in water revenue bonds and other long-term debt for the years ended December 31, 2017 and December 31, 2016:

	Balance 1/1/2017	Additions and Appreciation	Reductions	Balance 12/31/2017	Due Within One Year
1998D Series	\$ 3,375,000	\$ -	\$ (1,080,000)	\$ 2,295,000	\$ 1,125,000
2003F Series	6,508,384	-	(740,000)	5,768,384	760,000
2008 Series	10,950,000	-	(5,340,000)	5,610,000	5,610,000
2016 Series	<u>30,725,000</u>	<u>-</u>	<u>(1,430,000)</u>	<u>29,295,000</u>	<u>1,885,000</u>
Total bonds payable	51,558,384	-	(8,590,000)	42,968,384	9,380,000
Bond premiums	4,889,648	-	(512,844)	4,376,804	488,193
Bond discounts	<u>(108,265)</u>	<u>-</u>	<u>5,436</u>	<u>(102,829)</u>	<u>(5,436)</u>
Net bonds payable	<u>\$ 56,339,767</u>	<u>-</u>	<u>\$ (9,097,408)</u>	<u>\$ 47,242,359</u>	<u>\$ 9,862,757</u>
Compensated absences	<u>\$ 2,614,487</u>	<u>\$ 751,815</u>	<u>\$ (673,756)</u>	<u>\$ 2,692,546</u>	<u>\$ 1,373,712</u>

	Balance 1/1/2016	Additions and Appreciation	Reductions	Balance 12/31/2016	Due Within One Year
1998D Series	\$ 4,415,000	\$ -	\$ (1,040,000)	\$ 3,375,000	\$ 1,080,000
2003F Series	7,233,384	-	(725,000)	6,508,384	740,000
2007 Series	29,705,000	-	(29,705,000)	-	-
2008 Series	16,040,000	-	(5,090,000)	10,950,000	5,340,000
2012 Series	9,055,000	-	(9,055,000)	-	-
2016 Series	-	30,725,000	-	30,725,000	1,430,000
Total bonds payable	66,448,384	30,725,000	(45,615,000)	51,558,384	8,590,000
Bond premiums	1,003,696	4,378,154	(492,202)	4,889,648	512,844
Bond discounts	-	(109,654)	1,389	(108,265)	(5,436)
Net bonds payable	<u>\$ 67,452,080</u>	<u>\$ 34,993,500</u>	<u>\$ (46,105,813)</u>	<u>\$ 56,339,767</u>	<u>\$ 9,097,408</u>
Compensated absences	<u>\$ 4,465,850</u>	<u>\$ 186,499</u>	<u>\$ (2,037,862)</u>	<u>\$ 2,614,487</u>	<u>\$ 1,315,708</u>

## 6. PENSION PLAN

**Plan Description**—The Authority participates in the New York State and Local Employees’ Retirement System (“State Plan”), which is a cost-sharing, multiple-employer, public employee retirement system. The State Plan provides retirement, disability, and death benefits to members as authorized by the New York State Retirement and Social Security Law (NYSRSSL). The net position of the State Plan is held in the New York State Common Retirement Fund (the “Fund”), which was established to hold all net assets and record changes in plan net position allocated to the State Plan. The Comptroller of the State of New York (“Comptroller”) serves as the trustee of the Fund and is the administrative head of the State Plan. The Comptroller is an elected official determined in a direct statewide election and serves a four year term. Thomas P. DiNapoli has served as Comptroller since February 7, 2007. In November 2014 he was elected for a new term commencing January 1, 2015. Once a public employer elects to participate in the State Plan, the election is irrevocable. The New York State Constitution provides that pension membership is a contractual relationship and plan benefits cannot be diminished or impaired. Benefits can be changed for future members only by enactment of a State statute. The Authority also participates in the Public Employees’ Group Life Insurance Plan (GLIP) which provides death benefits in the form of life insurance. The State Plan is included in the State’s financial report as a pension trust fund. That report, including information with regard to benefits provided, may be found at [www.osc.state.ny.us/retire/publications/index.php](http://www.osc.state.ny.us/retire/publications/index.php) or obtained by writing to the New York State and Local Retirement System, 110 State Street, Albany, New York 12244.

**Funding Policy**—Plan members who joined the State Plan before July 27, 1976 are not required to make contributions. Those joining on or after July 27, 1976 are required to contribute 3% of their annual salary for the first ten years of their membership, and members hired after January 1, 2010 generally contribute 3% of their salary for the duration of their membership. For members hired after April 1, 2012 the contribution rate varies from 3% to 6% depending on salary.

Under the authority of the NYSRSSL, the Comptroller annually certifies the actuarially determined rates expressly used in computing the employers' contributions based on salaries paid during the State Plans fiscal year ending March 31. Contributions for the current year and two preceding years were equal to 100% of the contributions required, as presented below.

<u>Year Ended December 31,</u>	<u>Amount</u>
2017	\$ 2,338,695
2016	2,386,624
2015	2,595,193

***Pension Liabilities, Pension Expense, and Deferred Outflows and Inflows of Resources Related to Pensions***—The Authority's proportionate share of net pension liability was \$5,272,641 and \$8,958,247 as of December 31, 2017 and 2016, respectively. The net pension liability is measured as of March 31 of each year, and the total pension liability used to calculate the net pension liability was determined by an actuarial valuation as of that date. The Authority's proportion of the net pension liability was based on the Authority's long-term share of contributions to the pension plan relative to the projected contributions of all participating members, actuarially determined.

At December 31, 2017 and 2016 the Authority's proportion of the pension liability was 0.056%. For the years ended December 31, 2017 and December 31, 2016, the Authority recognized pension expense of \$3,121,087 and \$2,849,957, respectively. As of December 31, 2017, the Authority reported deferred outflows of resources and deferred inflows of resources related to pensions from the following sources:

	<u>Deferred Outflows of Resources</u>	<u>Deferred Inflows of Resources</u>
Differences between expected and actual experience	\$ 132,127	\$ 800,680
Changes of assumptions	1,801,327	-
Net difference between projected and actual earnings on pension plan investments	1,053,160	-
Changes in proportion and differences between Authority contributions and proportionate share of contributions	325,334	22,882
Authority contributions subsequent to the measurement date	<u>1,754,021</u>	<u>-</u>
Total deferred outflows/inflows of resources	<u>\$ 5,065,969</u>	<u>\$ 823,562</u>

The \$1,754,021 reported as deferred outflows of resources related to pensions resulting from Authority contributions subsequent to the measurement date will be recognized as a reduction of the net pension liability in the year ending December 31, 2018. Other amounts reported as deferred outflows of resources related to pensions will be recognized in pension expense as follows:

<u>Year Ending December 31,</u>	<u>Amount</u>
2018	\$ 1,098,803
2019	1,098,803
2020	962,242
2021	(671,461)

**Actuarial assumptions**—The total pension liability for the March 31, 2017 measurement dates was determined by using an actuarial valuation as of April 1, 2016, with update procedures used to roll forward the total pension liability to March 31, 2017. The valuation used the following actuarial assumptions:

Actuarial cost method	Aggregate cost
Inflation	2.5%
Salary scale	3.8%, indexed by service
Investment rate of return, including inflation	7.0% compounded annually, net of investment expense
Cost of living adjustments	1.3% annually
Decrements	Developed from the Plan's 2015 experience study of the period April 1, 2010 through March 31, 2015
Mortality improvement	Society of Actuaries Scale MP-2014

The long-term expected rate of return on pension plan investments was determined using a building-block method in which best estimate ranges of expected future real rates of return (expected return, net of investment expenses and inflation) are developed for each major asset class. These ranges are combined to produce the long term expected rate of return by weighting the expected future real rates of return by the target asset allocation percentage and by adding expected inflation.

The target allocation and best estimates of arithmetic real rates of return for each major asset class are summarized as follows.

Asset class	Target allocation	Long-term expected real rate of return
Domestic equity	36.00%	4.55%
International equity	14.00%	6.35%
Private equity	10.00%	7.75%
Real estate	10.00%	5.80%
Absolute return strategies	2.00%	4.00%
Opportunistic portfolio	3.00%	5.89%
Real assets	3.00%	5.54%
Bonds and mortgages	17.00%	1.31%
Cash	1.00%	-0.25%
Inflation-indexed bonds	4.00%	1.50%
	100.00%	

**Discount rate**—The discount rate used to calculate the total pension liability was 7.0%. The projection of cash flows used to determine the discount rate assumes that contributions from plan members will be made at the current contribution rates and that contributions from employers will be made at the statutorily required rates, actuarially determined. Based upon the assumptions, the State Plan's fiduciary net position was projected to be available to make all projected future benefit payments of current 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.

***Sensitivity of the proportionate share of the net pension liability to the discount rate assumption—***  
The following presents the Authority's proportionate share of the net pension liability calculated using the discount rate of 7.0%, as well as what the Authority's proportionate share of the net pension liability would be if it were calculated using a discount rate that is 1% lower (6.0%) or 1% higher (8.0%) than the current rate:

	1% Decrease 6.0%	Current Assumption 7.0%	1% Increase 8.0%
Employer's proportionate share of the net pension liability/(asset)	\$ 16,839,771	\$ 5,272,641	\$ (4,507,345)

***Collective net position liability of participating employers and actuarial information—***The components of the net position liability of the employers as of March 31, 2017 were as follows:

	2017
	(in thousands)
Employers' total pension liability	\$ 177,400,586
Plan net position	(168,004,363)
Employers' net pension liability	<u>\$ 9,396,223</u>
Fiduciary net position as a percentage of total pension liability	94.7%

## 7. LABOR RELATIONS

Certain Authority employees are represented by two bargaining units, Brotherhood of Western New York Water Workers ("Brotherhood"), and Civil Service Employees Association, Inc. (CSEA). The CSEA and the Authority entered into a five-year collective bargaining agreement dated May 1, 2017.

On November 23, 2011, the Authority entered into a collective bargaining agreement with the American Federation of State, County and Municipal Employees (AFSCME) which expired on March 31, 2017. On November 15, 2016 the New York State Labor Relations Board Case No. C-6400 was approved allowing employees previously represented by AFSCME to organize as the Brotherhood. The provisions of the Authority's contract with AFSCME will remain in place until a new contract with the Brotherhood is executed. Negotiations with the Brotherhood have begun and are on-going.

## 8. POSTEMPLOYMENT BENEFITS

***Plan Description—***The Authority provides retiree health plans through Labor Management Healthcare Fund (LMHF). Retirees must meet age and years of service requirements to qualify for health benefits under this multiple-employer defined benefit healthcare plan (the "Plan"). Retiree benefits continue for the lifetime of the retiree and spousal benefits continue for their lifetime unless they remarry. There were 166 and 160 retirees receiving health care benefits at December 31, 2017 and December 31, 2016 respectively.

**Funding Policy**—Authorization for the Authority to pay a portion, or all, of retiree health insurance premiums was enacted by resolution of the Authority’s Board of Commissioners or through union contracts, which are ratified by the Board of Commissioners. Retired employees that met the age and years of service requirements and were enrolled in any healthcare plan prior to June 1, 2004 are not required to make a contribution. Retirees enrolling in the Traditional Blue PPO 812 plan after June 1, 2004 are required to make contributions equal to the difference between the Traditional Blue PPO 812 plan premium and the highest premium of any other plan offered to that retiree.

Represented Brotherhood employees hired after November 23, 2011 who meet the eligibility requirements will pay 15% of the total premium of the Core Plan for the duration of their retirement. To be eligible, employees represented by the Brotherhood must be 58 years of age. Employees hired before January 1, 2006 must have 15 years of service, and employees hired after January 1, 2006, become eligible after 20 years of service.

Employees represented by the CSEA hired after July 26, 2012 who meet the eligibility requirements will pay 15% of the total premium of the Core Plan for the duration of their retirement. Eligibility criteria for CSEA employees hired prior to January 1, 2008 is 55 years of age with a minimum of ten years of service, while employees hired on or after January 1, 2008 must be 58 with a minimum of fifteen years of service with the Authority.

Retirees not represented by a collective bargaining agreement who meet the eligibility requirements contribute 15% of the full premium for a single, double or family point of service (“POS”) contract. Eligibility requirements for non-represented employees is 55 years of age with a minimum of 15 years of service; or a minimum of 10 years of service , and the sum of age and service years is equal to or greater than 70.

The Authority’s annual postemployment benefit (OPEB) cost is calculated based on the annual required contributions (ARC) of the employer, an amount actuarially determined in accordance with the parameters of GASB. The ARC represents a level funding that, if paid on an ongoing basis, is projected to cover the normal cost each year and amortize any unfunded actuarial liability over a period not to exceed thirty years. The following table shows the components of the Authority’s annual OPEB cost, the amount actually contributed to the plan, and the changes in the Authority’s net OPEB obligation for 2017, 2016, and 2015.

	Year Ended December 31,		
	2017	2016	2015
Annual required contribution	\$ 7,585,438	\$ 6,784,692	\$ 5,039,133
Interest on net OPEB obligation	1,687,299	1,461,177	1,301,066
Adjustment to annual required contribution	<u>(2,195,224)</u>	<u>(1,901,033)</u>	<u>(1,692,724)</u>
Annual OPEB costs (expense)	7,077,513	6,344,836	4,647,475
Contributions made	<u>(1,959,249)</u>	<u>(1,822,400)</u>	<u>(1,445,257)</u>
Increase in net OPEB obligation	5,118,264	4,522,436	3,202,218
Net OPEB obligation—beginning	<u>33,745,978</u>	<u>29,223,542</u>	<u>26,021,324</u>
Net OPEB obligation—ending	<u>\$ 38,864,242</u>	<u>\$ 33,745,978</u>	<u>\$ 29,223,542</u>
Percentage of ARC Contributed	25.8%	26.9%	28.7%

**Funding Status and Funding Progress**—As of January 1, 2017, the most recent actuarial valuation date, the plan was not funded. Since there were no assets, the unfunded actuarial liability for benefits was \$74,787,897. The ratio of unfunded actuarial accrued liability to covered payroll of \$15,873,626 is 4.71 for 2017.

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

Fiscal Year Ending	Valuation Date	Annual OPEB Cost	Contributions Made	Percentage Contributed	Net OPEB Obligation
December 31, 2017	January 1, 2017	\$ 7,077,513	\$ 1,959,249	27.7%	\$ 38,864,242
December 31, 2016	January 1, 2016	6,344,836	1,822,400	28.7%	33,745,978
December 31, 2015	January 1, 2015	4,647,475	1,445,257	31.1%	29,223,542

**Actuarial Methods and Assumptions**—Actuarial valuations involve estimates of the value of reported amounts and assumptions about the probability of events far into the future, and are subject to continual revision as actual results are compared to past expectations and new estimates are made about the future. The required schedule of funding progress for the most recent and past two actuarial valuations immediately follows the notes to the financial statements and presents multiyear trend information about whether the actuarial value of plan assets is increasing or decreasing over time relative to the actuarial accrued liability for benefits.

Calculations are based on the types of benefits provided under the terms of the substantive plan, the plan as understood by the employer and the plan members at the time of the valuation, and on the pattern of cost sharing between the employer and plan members. The projection of benefits does not incorporate the potential effect of a change in the pattern of cost sharing between the employer and plan members in the future. Calculations reflect a long-term perspective, so methods and assumptions used include techniques that are designed to reduce short-term volatility.

In the January 1, 2017 actuarial valuation the actuarial methods and assumptions listed below were used.

*Actuarial cost method* – Projected Unit Credit

*Investment rate of return and discount rate* – 5%

*Annual rate of increase in the consumer price index* – 2.25%

*Healthcare cost trend rate* – The assumed rates of increase in health care costs are presented in the table below. The trend rate schedule has been developed based on a review of published National trend survey data in relation to the retiree health plan offerings and updated long-term rates based on the Society of Actuaries Long Term Healthcare Cost Trends Model (The Getzen model).

<u>Year</u>	<u>Pre-65 Medical</u>	<u>Post-65 Medical Medicare Advantage</u>	<u>Prescription Drug</u>
2017	7.500%	5.800%	10.500%
2018	7.250%	5.700%	10.000%
2019	7.000%	5.600%	10.250%
2020	6.750%	5.500%	10.250%
2021	6.500%	5.400%	10.000%
2022	6.307%	5.390%	9.223%
2023	6.113%	5.380%	8.447%
2024	5.920%	5.370%	7.670%
2025	5.340%	5.340%	5.340%

*Mortality* – The sex-distinct RP-2014 Mortality Tables for employees and healthy annuitants, adjusted backward to 2006 with Scale MP-2014, and then adjusted for mortality improvements with Scale MP-2016 mortality improvement scale on a generational basis. This assumption was based on a review of published mortality tables and the demographics and industry of the Plan.

*Turnover* – Rates of turnover are based on experience under the New York State Employees’ Retirement System (State Plan).

*Retirement incidence* – Rates of retirement are based on the experience under the State Plan.

*Election percentage* – It was assumed 97% of future retirees eligible for coverage will elect postretirement healthcare coverage.

*Spousal coverage* – 80% of future retirees are assumed to elect spousal coverage upon retirement.

*Per capita costs* – All retiree health plans are offered through LMHF. Actual claims experience from LMHF was used to develop retiree claim costs for ECWA.

## **9. NET POSITION AND RESERVES**

The Authority financial statements utilize a net position presentation. Net position is categorized into net investment in capital assets, restricted and unrestricted.

**Net investment in capital assets**—This category groups all capital assets into one component of net position. Accumulated depreciation and the outstanding balances of debt that are attributable to the acquisition, construction or improvement of these assets reduce the balance in this category.

	December 31,	
	2017	2016
Capital assets, net of accumulated depreciation	\$ 380,221,994	\$ 369,413,111
Related debt:		
Water revenue bonds issued for capital assets	(42,968,384)	(51,558,384)
Bond premium	(4,376,804)	(4,889,648)
Bond discount	102,829	108,265.00
Net investment in capital assets	<u>\$ 332,979,635</u>	<u>\$ 313,073,344</u>

**Restricted net position**—This category presents external restrictions imposed by creditors, grantors, contributors, or laws and regulations of other governments and restrictions imposed by law through constitutional provisions or enabling legislation.

For the years ended December 31, 2017 and 2016, net position was restricted for the following purposes:

- **Debt Service Reserve Account** — During 1998, the Authority established a Debt Service Reserve Account as required by the 1998D Series bond resolution. The bond resolution requires a reserve amount equal to the average of the annual installments of debt service. The required amount was determined by EFC and must remain on deposit until the bonds mature.

During 2003, per the 2003F bond resolution the Authority established a Debt Service Reserve Account from a portion of the 2003F bond proceeds. The required debt service reserve is based on ten percent of the total principal of the loan. The required amount was determined by EFC and must remain on deposit until the bonds mature.

During 2008, the Authority established a Debt Service Reserve Account as required by the 2008 Series bond resolution to maintain a specified amount of funds to meet future debt service requirements. The Authority established the Debt Service Reserve Account based on ten percent of the total principal of the loan.

- **Debt Service Account** — The 1992 Fourth Resolution, 1998D, 2003F, 2008, and 2016 Supplemental Fourth Resolution bond resolutions require that a specified amount of funds be maintained in the Debt Service Account. The requirements of the Debt Service Account state that the Authority must deposit funds to provide for monthly interest and principal payments to start not later than six months prior to the payment of interest and twelve months prior to the payment of principal.

**Unrestricted net position**—This category represents the amount of net position the Authority has not restricted for any project or other purpose. Management intends to utilize a portion of unrestricted net position to finance the Authority’s projected five-year capital spending, which will require future resources in excess of \$153,000,000.

When an expense is incurred for purposes for which both restricted and unrestricted amounts are available, the Authority’s policy concerning which to apply first varies with the intended use and associated legal requirements. Management typically makes this decision on a transactional basis.

## **10. COMMITMENTS AND CONTINGENCIES**

The Authority maintains and operates certain facilities employed in the sale and distribution of water which it leases from various local municipal water districts pursuant to lease management agreements. No financial consideration is afforded the municipalities in conjunction with these lease agreements. Such agreements generally are for at least ten-year terms and automatically renew for additional ten-year terms unless terminated by either party one year prior to expiration of the term. The agreements provide that the municipalities obtain water exclusively from the Authority. Future maintenance and operating costs to be incurred by the Authority under such arrangements presently in effect are not determinable.

The Authority is also committed under various operating leases for the use of certain equipment and office space. Rental expense for 2017 and 2016 aggregated \$230,334 and \$228,709. Future commitments under these leases total \$1,013,792.

The Authority is subject to various laws and regulations, which primarily establish uniform minimum national water quality standards. The Authority has established procedures for the on-going evaluation of its operations to identify potential exposures and assure continued compliance with these regulatory standards.

The Authority is involved in litigation and other matters arising in its normal operating, financing, and investing activities. While the resolution of such litigation or other matters could have a material effect on earnings and cash flows in the year of resolution, the Authority has obtained various liability, property, and workers' compensation insurance policies which would reduce exposure to loss on the part of the Authority. Management has made provisions for anticipated losses in the accompanying financial statements as advised by legal counsel. None of this litigation and none of these other matters are expected to have a material effect on the financial condition of the Authority at this time.

## **11. SUBSEQUENT EVENTS**

Management has evaluated subsequent events through March 22, 2018, which is the date the financial statements are available for issuance, and have determined that there are no subsequent events that require disclosure under generally accepted accounting principles.

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## REQUIRED SUPPLEMENTARY INFORMATION



**ERIE COUNTY WATER AUTHORITY**  
**Schedule of Funding Progress-Other Postemployment Benefits Plan**  
**Year Ended December 31, 2017**

Actuarial Valuation Date	Actuarial Value of Assets	Actuarial Accrued Liability (AAL)	Unfunded AAL (UAAL)	Funded Ratio	Covered Payroll	Ratio of UAAL to Covered Payroll
January 1, 2016	\$ -	\$ 66,999,419	\$ 66,999,419	-	\$ 13,651,198	4.91
January 1, 2014	-	45,566,345	45,566,345	-	15,140,745	3.01
January 1, 2012	-	41,810,183	41,810,183	-	14,873,087	2.81

**ERIE COUNTY WATER AUTHORITY**  
**Schedule of the Authority's Proportionate Share of the**  
**Net Pension Liability—New York State Employees' Retirement System**  
**Last Four Fiscal Years\***

	Year Ended December 31,			
	2017	2016	2015	2014
Measurement date	March 31, 2017	March 31, 2016	March 31, 2015	March 31, 2014
Authority's proportion of the net pension liability/(asset)	0.0561145%	0.0558137%	0.0572349%	0.0572349%
Authority's proportionate share of the net pension liability/(asset)	<u>\$ 5,272,641</u>	<u>\$ 8,958,247</u>	<u>\$ 1,933,536</u>	<u>\$ 2,586,366</u>
Authority's covered-employee payroll	\$ 15,648,444	\$ 15,035,523	\$ 15,112,883	\$ 15,752,018
Authority's proportionate share of the net pension liability/(asset) as a percentage of its covered-employee payroll	33.7%	59.6%	12.8%	16.4%
Plan fiduciary net position as a percentage of the total pension liability	94.7%	90.7%	97.9%	97.2%

\* Information prior to the year ended December 31, 2014 is not available.

**ERIE COUNTY WATER AUTHORITY**  
**Schedule of Contributions to the New York State Employees' Retirement System**  
**Last Ten Fiscal Years**  
**(Dollar amounts in thousands)**

	2017	2016	2015	2014	2013	2012	2011	2010	2009	2008
Contractually required contribution	\$ 2,339	\$ 2,387	\$ 2,595	\$ 2,996	\$ 2,905	\$ 2,564	\$ 2,208	\$ 1,658	\$ 962	\$ 1,123
Contributions in relation to required contribution	<u>2,339</u>	<u>2,387</u>	<u>2,595</u>	<u>2,996</u>	<u>2,905</u>	<u>2,564</u>	<u>2,208</u>	<u>1,658</u>	<u>962</u>	<u>1,123</u>
Contribution deficiency (excess)	-	-	-	-	-	-	-	-	-	-
Covered employee payroll	\$15,800	\$15,567	\$15,708	\$15,438	\$14,800	\$14,550	\$14,446	\$14,431	\$14,642	\$14,462
Contributions as a percentage of covered payroll	14.804%	15.334%	16.520%	19.407%	19.628%	17.622%	15.285%	11.489%	6.570%	7.765%

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# STATISTICAL SECTION

## (UNAUDITED)

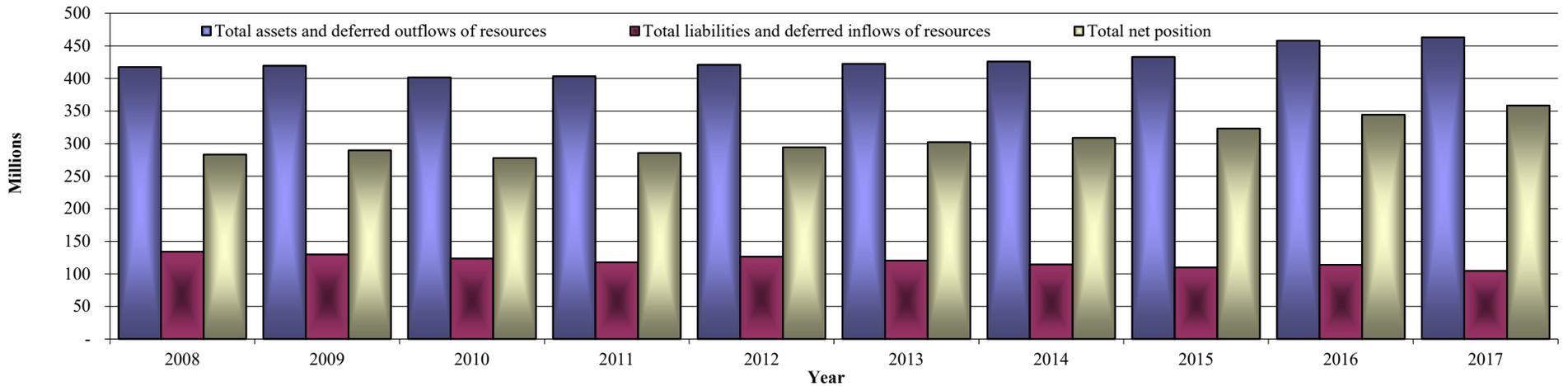
This section of the Erie County Water Authority’s comprehensive annual financial report presents detailed information as a context for understanding what the information in the financial statements, note disclosures, and required supplementary information says about the Authority’s overall financial health.

<b>Contents</b>	<b>Page</b>
Financial Trends .....	59
<i>These schedules contain trend information to help the reader understand how the Authority’s financial performance and well-being have changed over time.</i>	
Revenue Capacity.....	64
<i>These schedules contain information to help the reader assess the Authority’s most significant local revenue source, the charges for services.</i>	
Debt Capacity.....	66
<i>These schedules present information to help the reader assess the affordability of the Authority’s current levels of outstanding debt and the Authority’s ability to issue additional debt in the future.</i>	
Demographic and Economic Information .....	69
<i>These schedules offer demographic and economic indicators to help the reader understand the environment within which the Authority’s financial activities take place.</i>	
Operating Information.....	71
<i>These schedules contain service and infrastructure data to help the reader understand how the information in the Authority’s financial report relates to the services the Authority provides and the activities it performs.</i>	



**ERIE COUNTY WATER AUTHORITY**  
**Summary Comparison of the Statements of Net Position**  
**Last Ten Fiscal Years**  
**(Unaudited)**

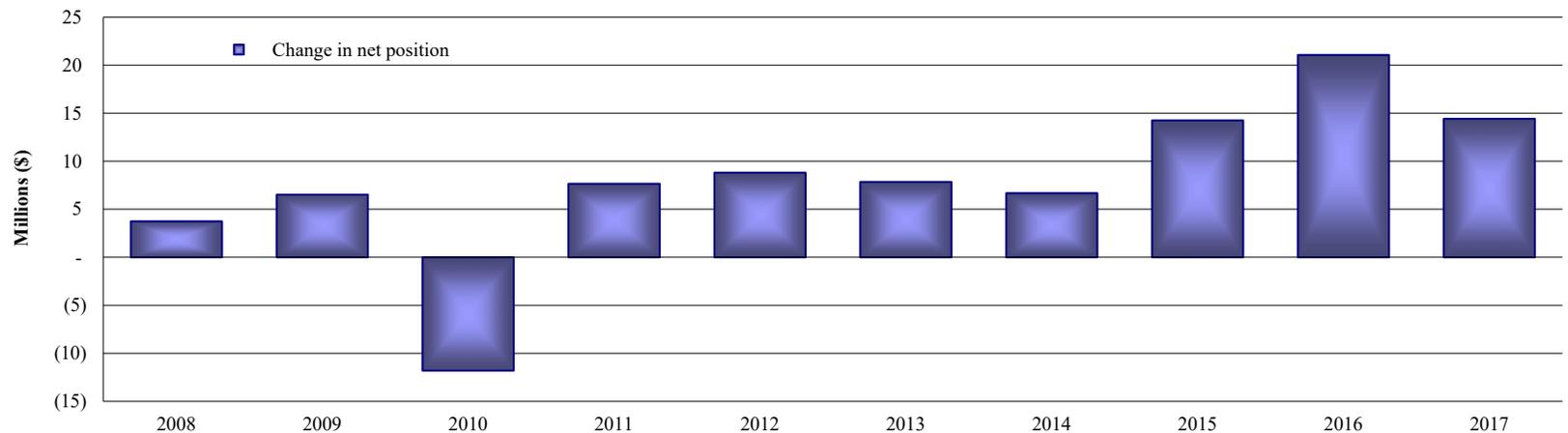
	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Current assets	\$ 34,532,183	\$ 34,300,828	\$ 32,618,968	\$ 33,731,489	\$ 37,060,817	\$ 41,428,587	\$ 44,186,699	\$ 48,260,946	\$ 46,028,227	\$ 46,299,755
Noncurrent assets	382,934,469	385,286,142	369,006,078	369,665,417	383,976,400	381,169,996	379,656,663	382,296,651	401,035,047	410,625,529
Total assets	417,466,652	419,586,970	401,625,046	403,396,906	421,037,217	422,598,583	423,843,362	430,557,597	447,063,274	456,925,284
Deferred outflows of resources	-	-	-	-	-	-	2,246,850	2,500,423	11,107,335	6,316,419
Current liabilities	21,500,615	20,315,641	20,156,959	17,040,662	18,178,378	17,979,626	18,367,368	17,674,779	21,577,629	20,914,751
Noncurrent liabilities	112,692,580	109,483,903	103,470,034	100,702,928	108,395,149	102,317,118	96,167,076	92,168,147	91,245,363	82,835,319
Total liabilities	134,193,195	129,799,544	123,626,993	117,743,590	126,573,527	120,296,744	114,534,444	109,842,926	112,822,992	103,750,070
Deferred inflows of resources	-	-	-	-	-	-	-	-	1,092,360	823,562
Net investment in capital assets	224,964,824	247,452,433	245,207,926	259,274,082	255,114,864	270,186,065	278,715,700	293,189,072	313,073,344	332,979,635
Restricted	12,137,312	12,132,185	11,242,676	11,250,168	19,662,029	11,225,943	11,234,946	11,255,102	8,345,445	8,375,301
Unrestricted	46,171,321	30,202,808	21,547,451	15,129,066	19,686,797	20,889,831	19,018,756	18,770,920	22,836,468	17,313,135
Total net position	\$ 283,273,457	\$ 289,787,426	\$ 277,998,053	\$ 285,653,316	\$ 294,463,690	\$ 302,301,839	\$ 308,969,402	\$ 323,215,094	\$ 344,255,257	\$ 358,668,071



Source: Erie County Water Authority Annual Audited Financial Statements

**ERIE COUNTY WATER AUTHORITY**  
**Comparison of Statements of Revenue, Expenses and Changes in Net Position**  
**Last Ten Fiscal Years**  
**(Unaudited)**

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Operating revenues	\$ 56,284,871	\$ 54,688,581	\$ 57,701,068	\$ 59,529,303	\$ 65,763,547	\$ 63,555,781	\$ 65,908,808	\$ 69,595,215	\$ 79,711,080	\$ 73,291,512
Operating expenses	50,991,963	46,008,550	49,673,825	49,928,877	52,348,289	54,382,827	57,811,984	57,435,644	59,501,792	59,631,359
Operating income	5,292,908	8,680,031	8,027,243	9,600,426	13,415,258	9,172,954	8,096,824	12,159,571	20,209,288	13,660,153
Nonoperating revenues (expenses)	(2,293,744)	(2,789,449)	(3,300,655)	(2,930,395)	(2,995,149)	(2,727,346)	(2,554,433)	(2,047,899)	(813,212)	(875,708)
Net income before contribution in aid of construction and special item	2,999,164	5,890,582	4,726,588	6,670,031	10,420,109	6,445,608	5,542,391	10,111,672	19,396,076	12,784,445
Contribution in aid of construction	755,542	623,387	1,088,835	985,232	1,884,809	1,392,541	1,464,688	4,134,020	1,644,087	1,628,369
Special items & GASB implementation changes										
Change in estimated fair value of acquired assets	-	-	(17,604,796)	-	-	-	-	-	-	-
Change in estimated useful life of assets	-	-	-	-	(3,494,544)	-	-	-	-	-
GASB Statement Nos. 68 & 71 implementation	-	-	-	-	-	-	(339,516)	-	-	-
Change in net position	3,754,706	6,513,969	(11,789,373)	7,655,263	8,810,374	7,838,149	6,667,563	14,245,692	21,040,163	14,412,814
Total net position - beginning of year	279,518,751	283,273,457	289,787,426	277,998,053	285,653,316	294,463,690	302,301,839	308,969,402	323,215,094	344,255,257
Total net position - end of year	\$ 283,273,457	\$ 289,787,426	\$ 277,998,053	\$ 285,653,316	\$ 294,463,690	\$ 302,301,839	\$ 308,969,402	\$ 323,215,094	\$ 344,255,257	\$ 358,668,071



Source: Erie County Water Authority Annual Audited Financial Statements

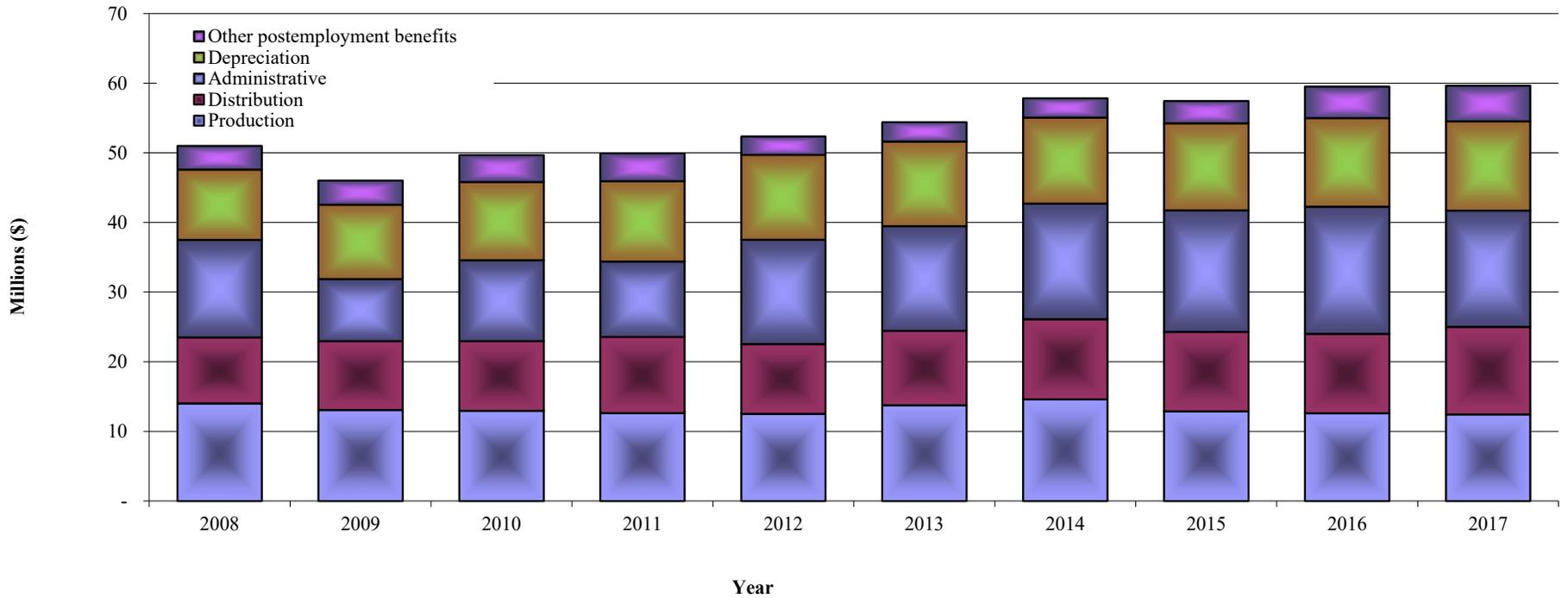
**ERIE COUNTY WATER AUTHORITY**  
**Operating Revenues by Source**  
**Last Ten Fiscal Years**  
**(Unaudited)**

	<b>2008</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>
Water revenue										
Residential	\$ 34,520,149	\$ 33,301,075	\$ 35,224,872	\$ 35,663,644	\$ 38,069,148	\$ 35,784,899	\$ 35,954,051	\$ 36,335,268	\$ 41,060,222	\$ 36,925,206
Commercial	7,003,921	6,859,468	6,973,293	6,866,248	7,482,928	7,245,844	7,450,855	7,899,110	8,601,762	7,577,863
Industrial	1,901,354	1,664,086	1,604,491	1,549,584	1,651,835	1,585,025	1,689,835	1,721,516	1,910,133	1,957,186
Public authorities	2,052,689	1,988,592	2,170,750	2,015,272	2,255,872	2,147,079	2,275,352	2,394,994	2,519,639	2,438,488
Fire protection	3,799,498	3,783,547	3,816,992	3,903,155	4,015,933	4,145,727	4,266,755	4,275,127	4,336,263	4,366,663
Sales to other utilities	4,920,668	4,966,093	5,322,260	5,086,522	5,206,479	4,275,543	3,686,340	3,625,852	4,281,064	3,940,896
Infrastructure investment charge	-	-	-	1,901,758	3,841,349	5,885,407	7,992,100	10,355,324	13,251,131	14,186,008
Other water revenue	1,584,878	1,598,547	1,861,997	1,969,950	2,482,331	1,883,493	2,011,698	2,281,933	3,153,218	1,348,055
Total water revenue	<u>55,783,157</u>	<u>54,161,408</u>	<u>56,974,655</u>	<u>58,956,133</u>	<u>65,005,875</u>	<u>62,953,017</u>	<u>65,326,986</u>	<u>68,889,124</u>	<u>79,113,432</u>	<u>72,740,365</u>
Rents from water towers	492,929	504,254	490,467	487,231	538,936	524,616	531,608	546,065	551,765	505,662
Other operating revenue	<u>8,785</u>	<u>22,919</u>	<u>235,946</u>	<u>85,939</u>	<u>218,736</u>	<u>78,148</u>	<u>50,214</u>	<u>160,026</u>	<u>45,883</u>	<u>45,485</u>
Total operating revenue	<u>\$ 56,284,871</u>	<u>\$ 54,688,581</u>	<u>\$ 57,701,068</u>	<u>\$ 59,529,303</u>	<u>\$ 65,763,547</u>	<u>\$ 63,555,781</u>	<u>\$ 65,908,808</u>	<u>\$ 69,595,215</u>	<u>\$ 79,711,080</u>	<u>\$ 73,291,512</u>
Water sales as a percent of total operating revenue	99.1%	99.0%	98.7%	99.0%	98.8%	99.1%	99.1%	99.0%	99.3%	99.2%

Source: Erie County Water Authority Financial Records

**ERIE COUNTY WATER AUTHORITY**  
**Operating Expenses**  
**Last Ten Fiscal Years**  
**(Unaudited)**

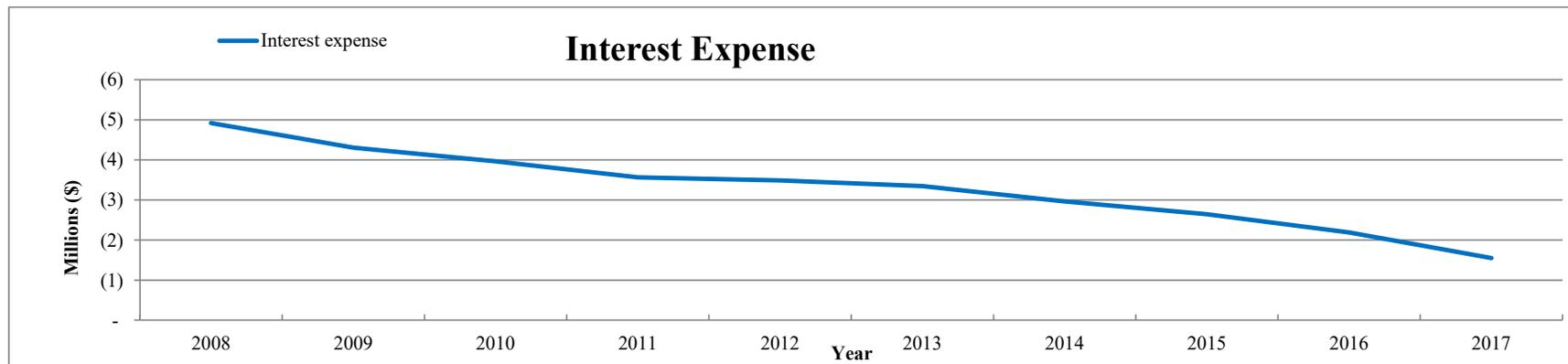
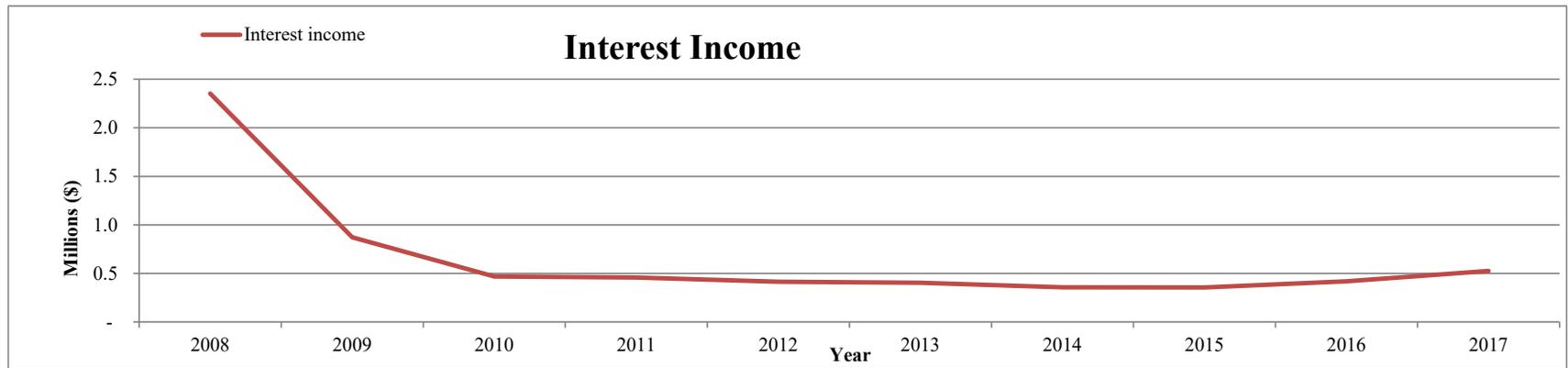
	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Production	\$ 14,020,769	\$ 13,069,199	\$ 12,953,657	\$ 12,608,144	\$ 12,505,594	\$ 13,741,174	\$ 14,574,682	\$ 12,867,788	\$ 12,585,854	\$ 12,431,358
Distribution	9,471,675	9,866,044	9,999,395	10,969,000	10,031,342	10,689,735	11,520,474	11,432,437	11,409,348	12,561,859
Administrative	13,996,804	8,937,341	11,618,936	10,821,314	14,975,977	15,026,294	16,603,641	17,438,495	18,270,768	16,696,140
Depreciation	10,097,531	10,666,557	11,220,774	11,509,330	12,174,628	12,153,619	12,355,427	12,494,706	12,713,386	12,823,738
Other postemployment benefits	3,405,184	3,469,409	3,881,063	4,021,089	2,660,748	2,772,005	2,757,760	3,202,218	4,522,436	5,118,264
<b>Total operating expenses</b>	<b>\$ 50,991,963</b>	<b>\$ 46,008,550</b>	<b>\$ 49,673,825</b>	<b>\$ 49,928,877</b>	<b>\$ 52,348,289</b>	<b>\$ 54,382,827</b>	<b>\$ 57,811,984</b>	<b>\$ 57,435,644</b>	<b>\$ 59,501,792</b>	<b>\$ 59,631,359</b>



Source: Erie County Water Authority Financial Records

**ERIE COUNTY WATER AUTHORITY**  
**Nonoperating Revenues and Expenses**  
**Last Ten Fiscal Years**  
**(Unaudited)**

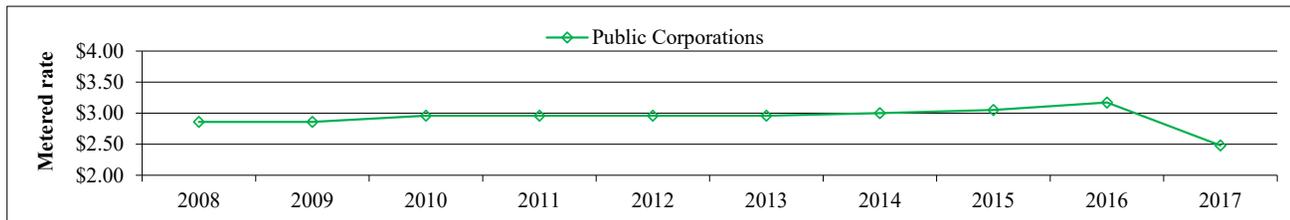
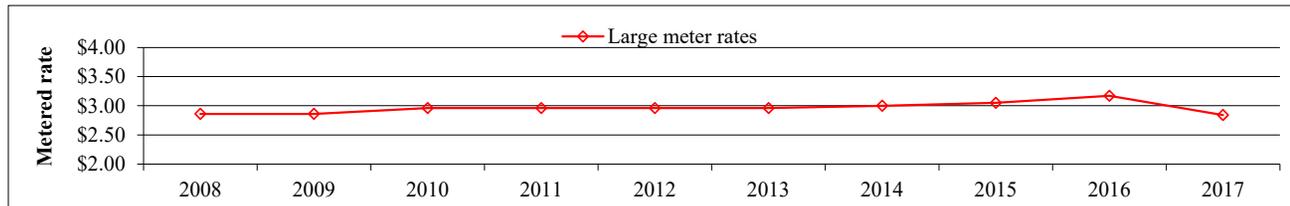
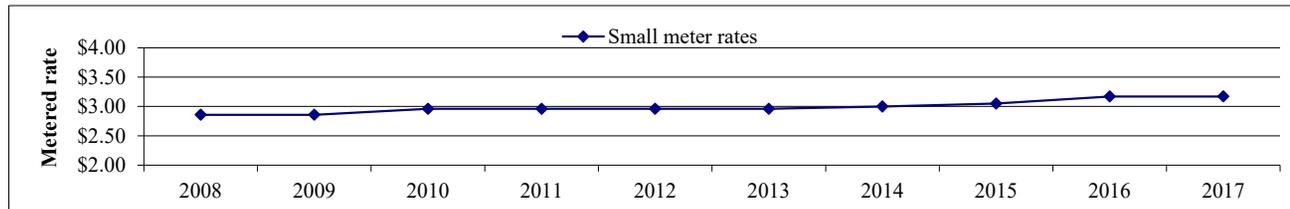
	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Nonoperating revenues and (expenses)										
Interest expense	\$ (4,920,438)	\$ (4,304,720)	\$ (3,963,295)	\$ (3,562,970)	\$ (3,485,877)	\$ (3,345,294)	\$ (2,966,823)	\$ (2,642,469)	\$ (2,189,655)	\$ (1,551,606)
Gain on sale of investments	-	-	150,107	-	-	-	-	-	852,694	-
Interest income	2,353,043	871,878	467,408	458,260	414,187	402,767	356,668	355,130	418,366	524,424
Interest capitalized during construction	273,651	643,393	45,125	174,315	76,541	215,181	55,722	239,440	105,383	151,474
Net nonoperating (expenses)	\$ (2,293,744)	\$ (2,789,449)	\$ (3,300,655)	\$ (2,930,395)	\$ (2,995,149)	\$ (2,727,346)	\$ (2,554,433)	\$ (2,047,899)	\$ (813,212)	\$ (875,708)



Source: Erie County Water Authority Annual Audited Financial Statements

**ERIE COUNTY WATER AUTHORITY**  
**Metered Water Rate History**  
**Last Ten Fiscal Years**  
**(Unaudited)**

	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
	(Base Year)										
Small meter rates	\$2.81	\$2.86	\$2.86	\$2.96	\$2.96	\$2.96	\$2.96	\$3.00	\$3.05	\$3.17	\$3.17
Percentage increase (%)		1.78%	0.00%	3.50%	0.00%	0.00%	0.00%	1.35%	1.67%	3.93%	0.00%
Large meter rates	\$2.81	\$2.86	\$2.86	\$2.96	\$2.96	\$2.96	\$2.96	\$3.00	\$3.05	\$3.17	\$2.84
Percentage increase/(decrease) %		1.78%	0.00%	3.50%	0.00%	0.00%	0.00%	1.35%	1.67%	3.93%	-10.41%
Public Corporations	\$2.81	\$2.86	\$2.86	\$2.96	\$2.96	\$2.96	\$2.96	\$3.00	\$3.05	\$3.17	\$2.48
Percentage increase/(decrease) %		1.78%	0.00%	3.50%	0.00%	0.00%	0.00%	1.35%	1.67%	3.93%	-21.77%



Source: Erie County Water Authority Tariff

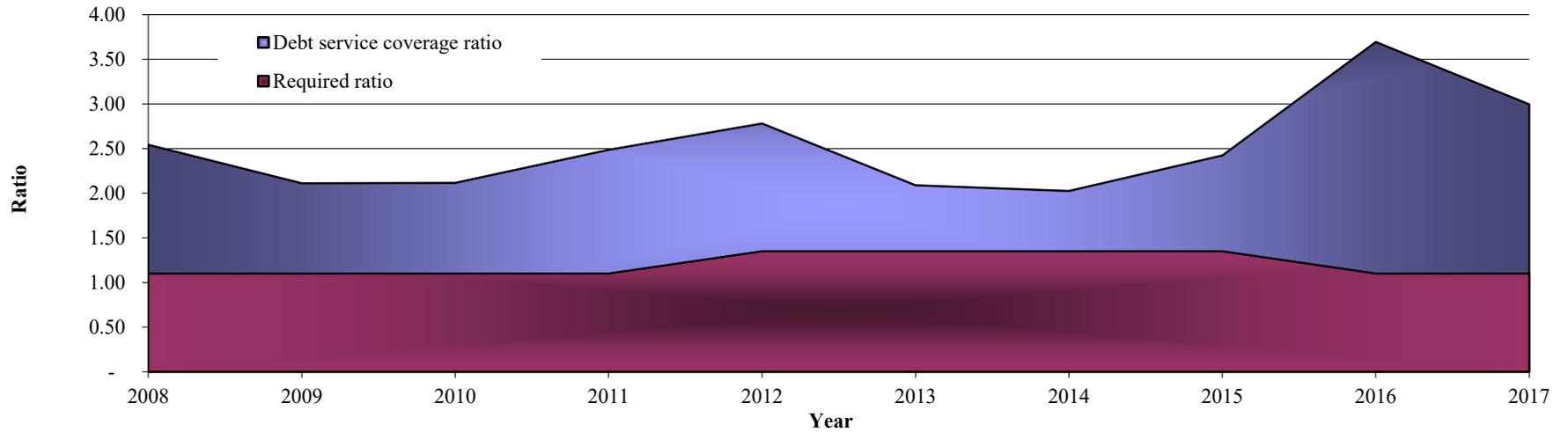
**ERIE COUNTY WATER AUTHORITY**  
**Largest Customers**  
**Current Year and Nine Years Ago**  
**(Unaudited)**

Year End December 31, 2017		Year End December 31, 2008																																																									
Non-Municipal Customers		Non-Municipal Customers																																																									
Benderson Development Co.	\$ 404,437	ArcelorMittal	\$ 409,513																																																								
Upstate Farms Cooperative	374,323	Upstate Farms Cooperative	216,825																																																								
Rosina Food Products, Inc.	222,606	Mayer Brothers Apple Products, Inc.	215,498																																																								
Mayer Brothers Apple Products, Inc.	221,928	DDR Corp.	206,785																																																								
Republic Engineered Products	204,243	Rosina Food Products, Inc.	183,983																																																								
Delta Sonic	191,359	Benderson Development Co.	167,696																																																								
BGMHC, LLC	133,506	BGMHC, LLC	114,278																																																								
Uniland Development Co.	127,912	Uniland Development Co.	112,824																																																								
Pyramid Company of Buffalo	127,084	Delta Sonic	111,537																																																								
Sky Harbor Property, LLC	109,831	Pyramid Company of Buffalo	88,095																																																								
Total of Largest Non-Municipal Customers	<u>\$ 2,117,229</u>	Total of Largest Non-Municipal Customers	<u>\$ 1,827,034</u>																																																								
Percent of total billings	2.9%	Percent of total billings	3.3%																																																								
<table border="0" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: center; width: 45%; border-bottom: 1px solid black;">Governmental Customers</th> <th style="text-align: center; width: 10%;"></th> <th style="text-align: center; width: 45%; border-bottom: 1px solid black;">Governmental Customers</th> <th style="text-align: center; width: 10%;"></th> </tr> </thead> <tbody> <tr> <td>Town of Elma</td> <td style="text-align: right;">\$ 1,655,535</td> <td>Town of Elma</td> <td style="text-align: right;">\$ 1,183,945</td> </tr> <tr> <td>State University of New York at Buffalo</td> <td style="text-align: right;">662,811</td> <td>Town of Evans*</td> <td style="text-align: right;">1,005,104</td> </tr> <tr> <td>Village of East Aurora</td> <td style="text-align: right;">628,445</td> <td>Village of East Aurora</td> <td style="text-align: right;">508,632</td> </tr> <tr> <td>Village of Angola</td> <td style="text-align: right;">368,021</td> <td>Village of Williamsville *</td> <td style="text-align: right;">502,461</td> </tr> <tr> <td>Monroe County Water Authority</td> <td style="text-align: right;">294,629</td> <td>State University of New York at Buffalo</td> <td style="text-align: right;">483,178</td> </tr> <tr> <td>Village of Orchard Park</td> <td style="text-align: right;">271,313</td> <td>Village of Angola</td> <td style="text-align: right;">307,834</td> </tr> <tr> <td>Seneca Nation of Indians</td> <td style="text-align: right;">229,605</td> <td>Village of Blasdell*</td> <td style="text-align: right;">293,072</td> </tr> <tr> <td>Town of Amherst</td> <td style="text-align: right;">221,039</td> <td>Seneca Nation of Indians</td> <td style="text-align: right;">254,253</td> </tr> <tr> <td>Village of Silver Creek</td> <td style="text-align: right;">187,711</td> <td>Village of Orchard Park</td> <td style="text-align: right;">229,549</td> </tr> <tr> <td>Niagara Frontier Transportation Authority</td> <td style="text-align: right;">164,687</td> <td>Monroe County Water Authority</td> <td style="text-align: right;">219,107</td> </tr> <tr> <td>Town of Hanover</td> <td style="text-align: right;">119,869</td> <td>Village of Silver Creek</td> <td style="text-align: right;">193,729</td> </tr> <tr> <td style="padding-left: 20px;">Total of Largest Municipal Customers</td> <td style="text-align: right; border-top: 1px solid black;"><u>\$ 4,803,665</u></td> <td style="padding-left: 20px;">Total of Largest Municipal Customers</td> <td style="text-align: right; border-top: 1px solid black;"><u>\$ 5,180,864</u></td> </tr> <tr> <td>Percent of total billings</td> <td style="text-align: center;">6.5%</td> <td>Percent of total billings</td> <td style="text-align: center;">9.3%</td> </tr> </tbody> </table>				Governmental Customers		Governmental Customers		Town of Elma	\$ 1,655,535	Town of Elma	\$ 1,183,945	State University of New York at Buffalo	662,811	Town of Evans*	1,005,104	Village of East Aurora	628,445	Village of East Aurora	508,632	Village of Angola	368,021	Village of Williamsville *	502,461	Monroe County Water Authority	294,629	State University of New York at Buffalo	483,178	Village of Orchard Park	271,313	Village of Angola	307,834	Seneca Nation of Indians	229,605	Village of Blasdell*	293,072	Town of Amherst	221,039	Seneca Nation of Indians	254,253	Village of Silver Creek	187,711	Village of Orchard Park	229,549	Niagara Frontier Transportation Authority	164,687	Monroe County Water Authority	219,107	Town of Hanover	119,869	Village of Silver Creek	193,729	Total of Largest Municipal Customers	<u>\$ 4,803,665</u>	Total of Largest Municipal Customers	<u>\$ 5,180,864</u>	Percent of total billings	6.5%	Percent of total billings	9.3%
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Percent of total billings	6.5%	Percent of total billings	9.3%																																																								

\*These municipalities converted from bulk sale to direct service or lease managed customers

**ERIE COUNTY WATER AUTHORITY**  
**Debt Service Coverage Ratio**  
**Last Ten Fiscal Years**  
**(Unaudited)**

	<u>2008</u>	<u>2009</u>	<u>2010</u>	<u>2011</u>	<u>2012</u>	<u>2013</u>	<u>2014</u>	<u>2015</u>	<u>2016</u>	<u>2017</u>
Operating revenues	\$ 56,284,871	\$ 54,688,581	\$ 57,701,068	\$ 59,529,303	\$ 65,763,547	\$ 63,555,781	\$ 65,908,808	\$ 69,595,215	\$ 79,711,080	\$ 73,291,512
Interest income	2,353,043	871,878	467,408	458,260	414,187	402,767	356,668	355,130	418,366	524,424
Operating expenses less non-cash expenses	<u>(37,489,248)</u>	<u>(31,872,584)</u>	<u>(34,571,988)</u>	<u>(34,398,458)</u>	<u>(37,512,913)</u>	<u>(39,457,203)</u>	<u>(42,698,802)</u>	<u>(41,738,720)</u>	<u>(42,265,970)</u>	<u>(41,689,357)</u>
Net revenues	\$ 21,148,666	\$ 23,687,875	\$ 23,596,488	\$ 25,589,105	\$ 28,664,821	\$ 24,501,345	\$ 23,566,674	\$ 28,211,625	\$ 37,863,476	\$ 32,126,579
Debt service	\$ <u>8,320,776</u>	\$ <u>11,223,798</u>	\$ <u>11,159,540</u>	\$ <u>10,299,764</u>	\$ <u>10,310,728</u>	\$ <u>11,731,272</u>	\$ <u>11,642,106</u>	\$ <u>11,645,333</u>	\$ <u>10,253,117</u>	\$ <u>10,727,082</u>
Debt service coverage ratio	2.54	2.11	2.11	2.48	2.78	2.09	2.02	2.42	3.69	2.99
Required ratio	1.10	1.10	1.10	1.10	1.35	1.35	1.35	1.35	1.10	1.10



Source: Erie County Water Authority Financial Records

**ERIE COUNTY WATER AUTHORITY**  
**Debt Service Maturity Schedule**  
**(Unaudited)**

	Issued Directly by the Authority				EFC Financings				Total Principal & Interest
	2008 Series Bonds		2016 Series Bonds		Serial Bonds		Total Principal	Total Interest	
	Principal	Interest	Principal	Interest	Principal	Interest			
2018	\$ 5,610,000	\$ 280,500	\$ 1,885,000	\$ 1,250,863	\$ 1,885,000	\$ 250,847	\$ 9,380,000	\$ 1,782,210	\$ 11,162,210
2019	-	-	1,955,000	1,175,463	1,950,000	187,930	3,905,000	1,363,393	5,268,393
2020	-	-	2,055,000	1,077,713	805,000	119,056	2,860,000	1,196,769	4,056,769
2021	-	-	2,155,000	974,963	830,000	96,989	2,985,000	1,071,952	4,056,952
2022	-	-	2,260,000	867,213	855,000	65,270	3,115,000	932,483	4,047,483
2023	-	-	1,010,000	754,213	1,738,384	(83,178)	2,748,384	671,035	3,419,419
2024	-	-	1,060,000	703,713	-	-	1,060,000	703,713	1,763,713
2025	-	-	1,110,000	650,713	-	-	1,110,000	650,713	1,760,713
2026	-	-	1,165,000	595,213	-	-	1,165,000	595,213	1,760,213
2027	-	-	1,220,000	536,963	-	-	1,220,000	536,963	1,756,963
2028	-	-	1,280,000	475,963	-	-	1,280,000	475,963	1,755,963
2029	-	-	1,340,000	411,963	-	-	1,340,000	411,963	1,751,963
2030	-	-	1,405,000	344,963	-	-	1,405,000	344,963	1,749,963
2031	-	-	1,455,000	288,763	-	-	1,455,000	288,763	1,743,763
2032	-	-	1,510,000	230,563	-	-	1,510,000	230,563	1,740,563
2033	-	-	1,545,000	189,038	-	-	1,545,000	189,038	1,734,038
2034	-	-	1,585,000	146,550	-	-	1,585,000	146,550	1,731,550
2035	-	-	1,630,000	99,000	-	-	1,630,000	99,000	1,729,000
2036	-	-	1,670,000	50,100	-	-	1,670,000	50,100	1,720,100
<b>Total</b>	<b>\$ 5,610,000</b>	<b>\$ 280,500</b>	<b>\$ 29,295,000</b>	<b>\$ 10,823,933</b>	<b>\$ 8,063,384</b>	<b>\$ 636,914</b>	<b>\$ 42,968,384</b>	<b>\$ 11,741,347</b>	<b>\$ 54,709,731</b>

Source: Official Statements from Bond Issues and Erie County Water Authority Financial Records

**ERIE COUNTY WATER AUTHORITY**  
**Principal Debt Outstanding by Issue**  
**(Unaudited)**

	Issued Directly by the Authority		EFC Financings		Total					
	Series 2008	Series 2016	Series 1998B	Series 2003F						
2018	\$ 5,610,000	\$ 1,885,000	\$ 1,125,000	\$ 760,000	\$ 9,380,000					
2019	-	1,955,000	1,170,000	780,000	3,905,000					
2020	-	2,055,000	-	805,000	2,860,000					
2021	-	2,155,000	-	830,000	2,985,000					
2022	-	2,260,000	-	855,000	3,115,000					
2023	-	1,010,000	-	1,738,384	2,748,384					
2024	-	1,060,000	-	-	1,060,000					
2025	-	1,110,000	-	-	1,110,000					
2026	-	1,165,000	-	-	1,165,000					
2027	-	1,220,000	-	-	1,220,000					
2028	-	1,280,000	-	-	1,280,000					
2029	-	1,340,000	-	-	1,340,000					
2030	-	1,405,000	-	-	1,405,000					
2031	-	1,455,000	-	-	1,455,000					
2032	-	1,510,000	-	-	1,510,000					
2033	-	1,545,000	-	-	1,545,000					
2034	-	1,585,000	-	-	1,585,000					
2035	-	1,630,000	-	-	1,630,000					
2036	-	1,670,000	-	-	1,670,000					
Bonds payable	5,610,000	29,295,000	2,295,000	5,768,384	42,968,384					
Bond premiums	271,155	4,105,649	-	-	4,376,804					
Bond discount	-	102,829	-	-	102,829					
Total bonds payable	<u>\$ 5,881,155</u>	<u>\$ 33,297,820</u>	<u>\$ 2,295,000</u>	<u>\$ 5,768,384</u>	<u>\$ 47,242,359</u>					
	<u>2008</u>	<u>2009</u>	<u>2010</u>	<u>2011</u>	<u>2012</u>	<u>2013</u>	<u>2014</u>	<u>2015</u>	<u>2016</u>	<u>2017</u>
Total principal debt outstanding	\$ 110,924,347	\$ 104,407,112	\$ 94,414,876	\$ 87,897,640	\$ 93,610,404	\$ 84,766,552	\$ 76,279,316	\$ 67,452,080	\$ 56,339,767	\$ 47,242,359
Outstanding debt per customer	\$ 704	\$ 661	\$ 595	\$ 549	\$ 584	\$ 511	\$ 454	\$ 400	\$ 333	\$ 278

Source: Official Statements from Bond Issues and Erie County Water Authority Business Office Records

**ERIE COUNTY WATER AUTHORITY**  
**Demographic and Economic Statistics**  
**Last Ten Fiscal Years**  
**(Unaudited)**

	Erie County			Unemployment Rate <sup>1</sup>		Labor Force <sup>1</sup>
	Population <sup>2</sup>	Per Capita Income <sup>3</sup>	Aggregate Income <sup>4</sup>	Erie County	New York State	
2008	909,858	\$ 37,319	\$ 24,329,360,300	6.9%	5.4%	588,528
2009	909,247	38,106	24,210,326,900	8.6%	8.3%	573,029
2010	919,224	39,568	23,321,852,100	8.4%	8.6%	567,703
2011	920,312	41,307	24,618,932,800	8.3%	8.3%	563,243
2012	920,935	43,149	25,246,355,000	8.2%	8.5%	565,377
2013	922,758	43,649	25,923,551,800	6.7%	7.7%	552,803
2014	924,449	44,710	26,935,703,600	5.6%	6.3%	544,196
2015	924,122	46,623	27,302,424,000	5.1%	5.3%	548,778
2016	923,116	47,559	28,967,352,200	5.1%	4.8%	544,148
2017	925,528	n/a	n/a	5.5%	4.7%	538,720

(n/a: not available)

Sources:

<sup>1</sup> US Department of Labor – Bureau of Labor Statistics

<sup>2</sup> US Bureau of the Census

<sup>3</sup> US Bureau of Economic Analysis

<sup>4</sup> US Bureau of the Census – American Community Survey

**ERIE COUNTY WATER AUTHORITY**  
**Ten Largest Employers in Western New York**  
**Current Year and Nine Years Ago**  
**(Unaudited)**

Employer	2017			2008		
	Employees	Percentage of Total Labor Force	Rank	Employees	Percentage of Total Labor Force	Rank
State of New York	23,400	4.3%	1	16,608	2.8%	1
United States of America	9,000	1.7%	2	9,500	1.6%	4
Kaleida Health	8,113	1.5%	3	10,000	1.7%	3
Buffalo City School District	7,552	1.4%	4	5,389	0.9%	7
Catholic Health System	7,347	1.4%	5	4,949	0.8%	8
M&T Bank	7,000	1.3%	6	4,820	0.8%	10
University at Buffalo	6,992	1.3%	7	10,035	1.7%	2
Tops Friendly Markets	5,423	1.0%	8	n/a	n/a	n/a
Erie County	4,300	0.8%	9	6,383	1.1%	5
Seneca Gaming Corp.	4,000	0.7%	10	n/a	n/a	n/a
HSBC Bank USA N.A.	n/a	n/a	n/a	5,848	1.0%	6
Employer Services Corp.	n/a	n/a	n/a	4,880	0.8%	9
Total of Largest Employers	<u>83,127</u>	15.4%		<u>78,412</u>	13.3%	

Source: Business First Buffalo 2017 Book Lists; Business First of Buffalo 2008 Book of Lists

**ERIE COUNTY WATER AUTHORITY**  
**Operating Statistics**  
**Last Ten Years**  
**(Unaudited)**

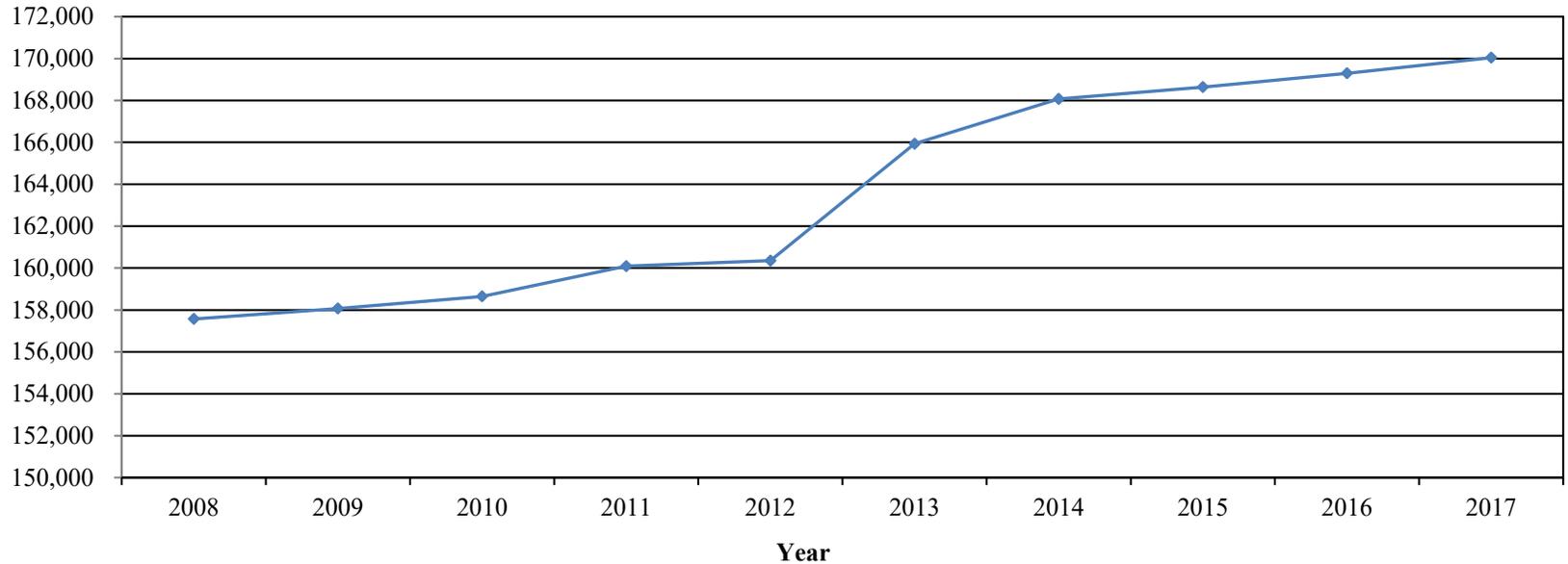
	<b>2008</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>
Total number of customers	157,571	158,069	158,650	160,088	160,355	165,933	168,069	168,637	169,297	170,042
Number of employees	267.0	264.8	258.9	250.9	247.8	247.1	245.9	245.9	246.0	249.8
Customers per employee	590.2	596.9	612.8	638.1	647.1	671.5	683.5	685.8	688.2	680.7
Total water output (MG)	25,174.7	24,676.8	24,503.2	24,630.0	24,834.6	23,917.5	25,069.3	25,741.7	26,499.2	24,850.3
Output per customer (gallons)	159,767.3	156,114.1	154,448.2	153,852.9	154,872.6	144,139.5	149,160.8	152,645.6	156,524.9	146,142.1
Total water sales (MG)	17,637.5	17,269.6	17,378.1	17,345.4	18,335.2	16,909.6	16,573.6	16,513.0	17,732.0	16,373.0
Sales per customer (gallons)	111,933.7	109,253.6	109,537.3	108,349.2	114,341.3	101,906.2	98,611.9	97,920.4	104,739.0	96,288.0
Percentage of water sold	70.1%	70.0%	70.9%	70.4%	73.8%	70.7%	66.1%	64.1%	66.9%	65.9%
Average daily production (MGD)	69.0	67.6	67.1	67.5	68.0	65.5	68.7	70.5	72.6	68.1
Peak daily production (MGD)	94.7	89.0	99.6	115.3	118.9	90.9	82.3	91.1	110.4	86.8
Average daily sales (MGD)	48.3	47.3	47.6	47.5	50.2	46.3	45.4	45.2	48.6	44.9
Total operating expenses	\$ 50,991,963	\$ 46,008,550	\$ 49,673,825	\$ 49,928,877	\$ 52,348,289	\$ 54,382,827	\$ 57,811,984	\$ 57,435,644	\$ 59,501,792	\$ 59,631,359
Operating expense per customer	\$ 324	\$ 291	\$ 313	\$ 312	\$ 326	\$ 328	\$ 344	\$ 341	\$ 351	\$ 351
Total operating revenues	\$ 56,284,871	\$ 54,688,581	\$ 57,701,068	\$ 59,529,303	\$ 65,763,547	\$ 63,555,781	\$ 65,908,808	\$ 69,595,215	\$ 79,711,080	\$ 73,291,512
Operating revenue per customer	\$ 357	\$ 346	\$ 364	\$ 372	\$ 410	\$ 383	\$ 392	\$ 413	\$ 471	\$ 431

Source: Erie County Water Authority's Financial, Production and Business Office Records

**ERIE COUNTY WATER AUTHORITY**  
**Number of Customers by Classification**  
**Last Ten Fiscal Years**  
**(Unaudited)**

	<b>2008</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>
Number of customers:										
Residential	148,218	148,697	149,255	150,592	150,810	156,183	158,317	158,579	159,187	159,886
Commercial	7,244	7,240	7,249	7,315	7,332	7,480	7,479	7,656	7,659	7,659
Industrial	333	322	322	321	322	327	317	336	338	337
Public authorities	595	593	595	599	598	627	620	692	718	717
Fire protection	1,161	1,197	1,209	1,241	1,273	1,296	1,315	1,353	1,374	1,422
Bulk sales	20	20	20	20	20	20	21	21	21	21
<b>Total number of customers</b>	<b>157,571</b>	<b>158,069</b>	<b>158,650</b>	<b>160,088</b>	<b>160,355</b>	<b>165,933</b>	<b>168,069</b>	<b>168,637</b>	<b>169,297</b>	<b>170,042</b>

**Total Number of Customers**

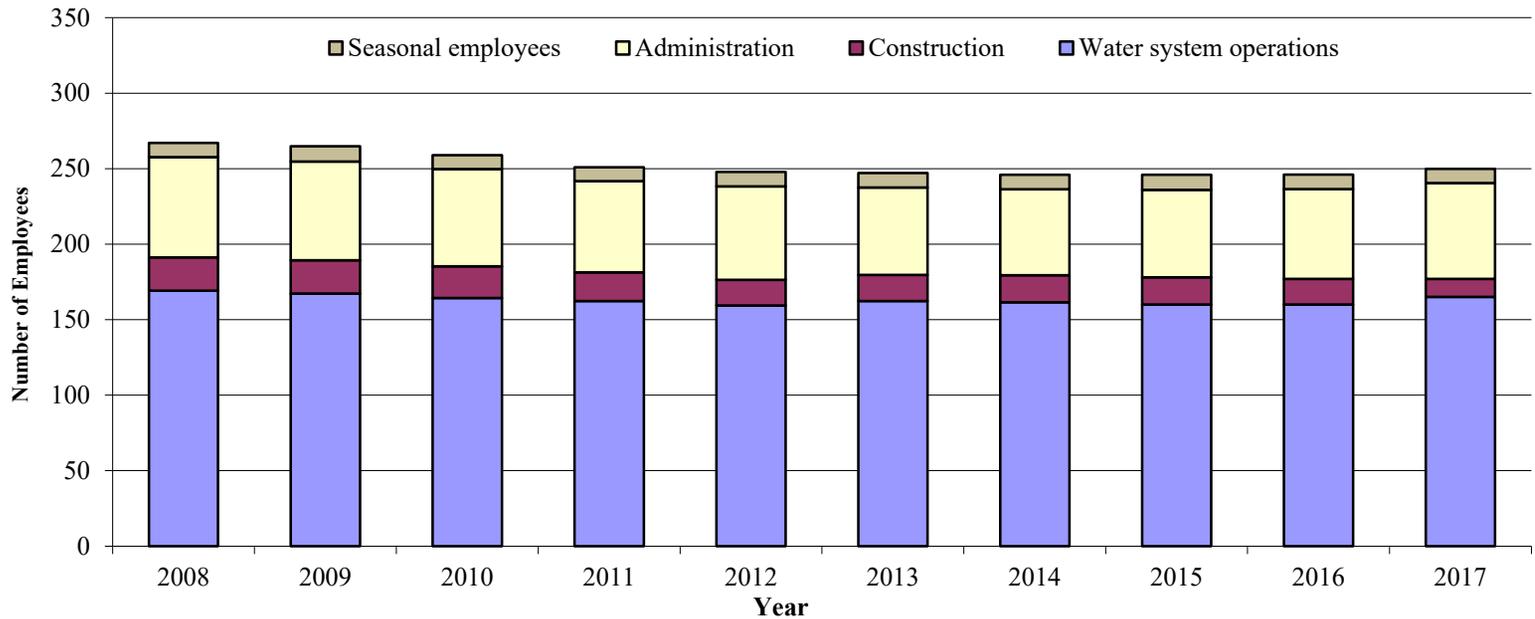


Source: Erie County Water Authority's Financial and Business Office Records

**ERIE COUNTY WATER AUTHORITY**  
**Number of Employees<sup>1</sup> by Function**  
**Last Ten Fiscal Years**  
**(Unaudited)**

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Water system operations	169.2	167.3	164.3	162.3	159.3	162.3	161.4	160.0	160.0	165.0
Construction	22.0	22.0	21.0	19.0	17.0	17.3	18.0	18.0	17.0	12.0
Administration	66.4	65.4	64.4	60.4	61.9	57.9	56.9	57.9	59.4	63.4
Seasonal employees	9.4	10.1	9.2	9.2	9.6	9.6	9.6	10.0	9.6	9.4
Total number of employees	<u>267.0</u>	<u>264.8</u>	<u>258.9</u>	<u>250.9</u>	<u>247.8</u>	<u>247.1</u>	<u>245.9</u>	<u>245.9</u>	<u>246.0</u>	<u>249.8</u>

<sup>1</sup>Number of employees represents the number of full time equivalents based on 2,080 hours.



Source: Erie County Water Authority Financial Records

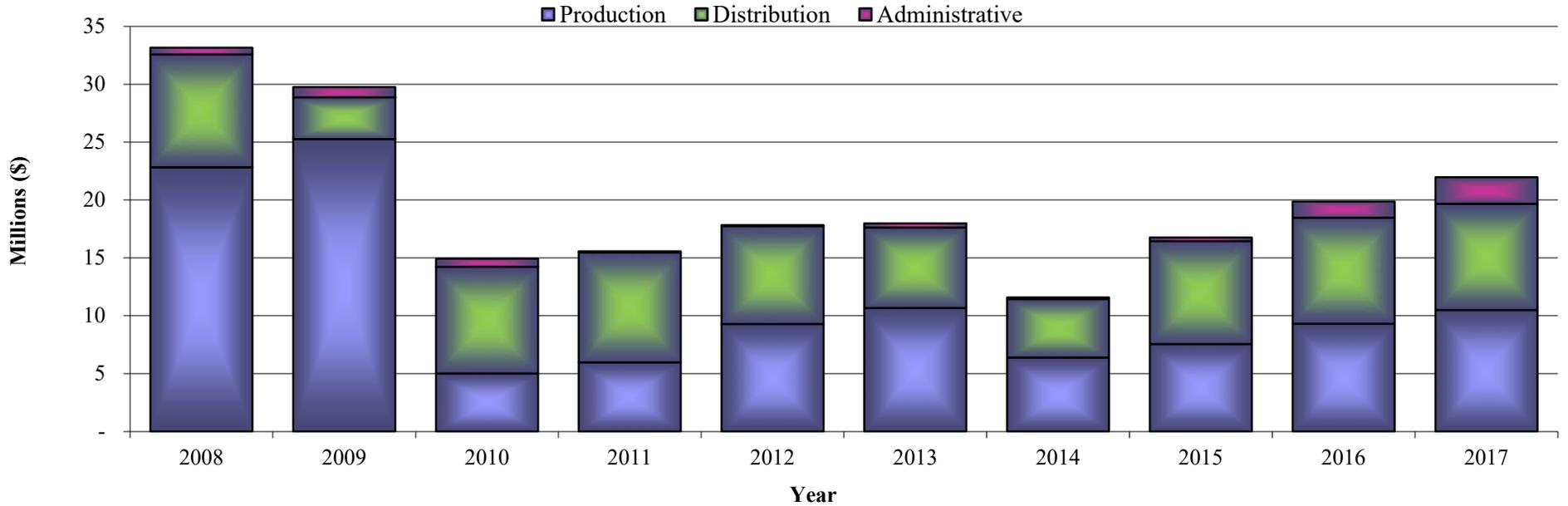
**ERIE COUNTY WATER AUTHORITY**  
**Operating and Capital Indicators**  
**Last Ten Fiscal Years**  
**(Unaudited)**

	<b>2008</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>
Main lines in direct service areas (miles)	2,151	2,154	2,157	2,408	2,415	2,470	2,510	2,465	2,455	2,453
Main lines in lease managed areas (miles)	<u>1,229</u>	<u>1,230</u>	<u>1,230</u>	<u>1,085</u>	<u>1,095</u>	<u>1,179</u>	<u>1,181</u>	<u>1,152</u>	<u>1,163</u>	<u>1,175</u>
Total main lines	3,380	3,384	3,387	3,493	3,510	3,649	3,691	3,617	3,618	3,628
Number of hydrants in direct service areas	7,175	7,194	7,222	8,751	8,804	9,157	9,348	9,381	9,783	9,811
Number of hydrants in lease managed areas	<u>9,959</u>	<u>9,983</u>	<u>10,030</u>	<u>8,693</u>	<u>8,847</u>	<u>9,324</u>	<u>9,511</u>	<u>9,488</u>	<u>9,167</u>	<u>9,158</u>
Total number of hydrants	17,134	17,177	17,252	17,444	17,651	18,481	18,859	18,869	18,950	18,969
Number of direct service water tanks	21	21	21	21	19	19	19	19	19	19
Number of lease managed water tanks	<u>19</u>	<u>19</u>	<u>19</u>	<u>19</u>	<u>19</u>	<u>18</u>	<u>18</u>	<u>18</u>	<u>18</u>	<u>18</u>
Total number of water tanks	40	40	40	40	38	37	37	37	37	37
Storage capacity of direct service tanks (MM gallons)	66.4	66.4	66.4	66.4	63.3	63.3	63.3	63.3	63.3	63.3
Storage capacity of lease managed tanks (MM gallons)	<u>8.5</u>	<u>8.5</u>	<u>8.5</u>	<u>8.5</u>	<u>8.5</u>	<u>8.0</u>	<u>8.0</u>	<u>8.0</u>	<u>8.0</u>	<u>8.0</u>
Total storage capacity of tanks (MM gallons)	74.9	74.9	74.9	74.9	71.8	71.3	71.3	71.3	71.3	71.3
Number of direct service pump stations	23	23	23	23	23	23	23	23	23	23
Number of lease managed pump stations	<u>15</u>	<u>15</u>	<u>15</u>	<u>15</u>	<u>15</u>	<u>15</u>	<u>15</u>	<u>15</u>	<u>15</u>	<u>15</u>
Number of pump stations	38	38	38	38	38	38	38	38	38	38
Number of new service taps in direct service areas	109	78	78	157	211	236	224	193	189	251
Number of new service taps in lease managed areas	<u>442</u>	<u>463</u>	<u>413</u>	<u>238</u>	<u>259</u>	<u>298</u>	<u>355</u>	<u>398</u>	<u>357</u>	<u>264</u>
Total number of new service taps	551	541	491	395	470	534	579	591	546	515

Sources: Erie County Water Authority Financial Records

**ERIE COUNTY WATER AUTHORITY**  
**Annual Capital Project Expenditures**  
**Last Ten Years**  
**(Unaudited)**

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Production	\$ 22,828,605	\$ 25,254,324	\$ 5,016,033	\$ 5,985,653	\$ 9,287,492	\$ 10,667,575	\$ 6,397,188	\$ 7,559,124	\$ 9,311,730	\$ 10,502,150
Distribution	9,752,934	3,609,036	9,203,944	9,490,992	8,455,965	6,964,898	5,031,063	8,878,951	9,161,837	9,167,498
Administrative	578,635	900,627	712,168	94,310	88,084	347,340	153,826	316,327	1,403,477	2,300,890
Total capital expenditures	\$ 33,160,174	\$ 29,763,987	\$ 14,932,145	\$ 15,570,955	\$ 17,831,541	\$ 17,979,813	\$ 11,582,077	\$ 16,754,402	\$ 19,877,044	\$ 21,970,538
Capital expenditures per customer	\$ 210	\$ 188	\$ 94	\$ 97	\$ 111	\$ 108	\$ 69	\$ 99	\$ 117	\$ 129



Sources: Erie County Water Authority Financial Records

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