

**City of Chicago
Department of Water Management
Water Fund**

**Comprehensive Annual Financial Report
For the Years Ended December 31, 2016 and 2015**



**Rahm Emanuel, Mayor
Carole L. Brown, Chief Financial Officer
Erin Keane, City Comptroller
Alfonzo Conner, Jr. Commissioner**

Water Fund
An Enterprise Fund of
The City of Chicago

**Comprehensive Annual Financial Report
For the Year Ended December 31, 2016 and 2015**



Prepared By:
The Department of Water Management
Bureau of Administrative Support

PART I - INTRODUCTORY SECTION

Letter of Transmittal	1
Certificate of Achievement for Excellence in Financial Reporting	6
Organization Chart / List of Principal Officials.....	7

PART II – FINANCIAL SECTION

Independent Auditors’ Report and Financial Statements

Independent Auditor’s Report	8
Management’s Discussion and Analysis.....	11
Statement of Net Position	21
State of Revenues, Expenses and Changes in Net Position.....	22
Statements of Cash Flows	23
Notes to the Financial Statements	25
Required Supplementary Information	52
Additional Supplementary Information	58

PART III- STATISTICAL DATA (Unaudited)

Changes in Net Position, Years Ended December 31, 2016.....	61
Net Position by Component, Years Ended December 31, 2016.....	62
Historical Financial Operations, Ten Years Ended December 31, 2016	63
Water System Accounts, Ten Years Ended December 31, 2016.....	64
Ten Largest Suburban Customers, Year ended Customers by Component	65
Revenue Bond Coverage, Ten Years Ended December 31, 2016.....	66
Long Term Debt	67
Capital Improvement Program, 2017–2021	68
Water System Pumpage and Capacity, Ten Years Ended December 31, 2016	69
Miscellaneous Statistical Data, Years Ended December 31, 2016.....	70
Operating Information by Function, Seven Years Ended December 31, 2016.....	71
Population of Service Area, Last Five Census Periods	72
Principal Employers	73
Population and Income Statistics	74

INTRODUCTORY SECTION



**DEPARTMENT OF WATER MANAGEMENT
CITY OF CHICAGO**

June 30, 2017

To the Honorable Mayor Rahm Emanuel,
Members of the City Council and Citizens of the City of Chicago:

I am pleased to submit to you the Comprehensive Annual Financial Report (CAFR) for the City of Chicago Department of Water Management, Water Fund, for the year ended December 31, 2016. Responsibility for both the accuracy of the data and completeness and fairness of the presentation, including all disclosures, rests with management. The purpose of the CAFR is to provide complete and accurate information, which complies with the requirements of the Municipal Code of the City of Chicago.

The financial section includes management's discussion and analysis (MD & A). This letter of transmittal is designed to complement the MD & A and should be read in conjunction with it.

REPORTING ENTITY

The Department of Water has been accounted for as a separate enterprise fund of the City of Chicago (City) which operates and maintains the City's Water system. Effective January 1, 2003, Water Department merged with the Sewer Department to form the Department of Water Management. The Water system treats and distributes water to the City's residential and commercial businesses, and suburban customers. The water system provides water intake, filtration and treatment. Water is then distributed through over 4,368 miles of mains which covers a service area of roughly 806 square miles and is inhabited by approximately 5.3 million people or 44% of the State of Illinois.

ECONOMIC CONDITION AND OUTLOOK

Department of Water Management's primary source of revenue is a water service charge which is set by City ordinance. The water service charge covers the costs of operations, maintenance and debt service.

As of January 1, 2016, the metered water rate is set at \$28.52 per 1,000 cubic feet or \$3.81 per 1,000 gallons. The metered rate is also applicable to the system's suburban customers. It is not expected that there will be a significant change in the population, either industrial or suburban that would lead to a significant change in revenues.

MAJOR INITIATIVE

The Department of Water Management's, Water Division's Five-Year Capital Improvement Program (CIP) for the years 2017 – 2021 is forecasted to be approximately \$2.0 billion. The CIP addresses the renewal and replacement of the Water System's infrastructure, and continues to focus on three major areas: purification plants, pumping stations and water distribution system.

The primary capital expenditures are for the annual water main replacement program. The department is planning to replace 90 miles in 2017 with proposed increases annually bringing the 5 year total to over 470 miles of water mains to be replaced during this period. The Meter Save Program will target installation of meters and automatic meter reading devices to non-metered customers on a volunteer basis. The department is planning to install 15,000 meters each year from 2017 to 2021.

The CIP includes work for the rehabilitation and upgrade of the two purification plants – the world's two largest purification facilities. The work will include replacement/upgrading of the chemical storage and handling systems; full replacement of filter backwash controls; filter underdrain replacement; and roof replacement at the Sawyer Water Purification Plant. At the Jardine Water Purification Plant the medium voltage electrical switchgear along with existing sediment pumping system will be upgraded; and the laboratory will be modernized.

The 5 year CIP also includes design and construction work on three of the departments' steam powered pumping station to convert them to electric power. During this period construction will be completed on one of these stations, one will be partially constructed, and one will be in the design phase. Additionally, the 5 year CIP includes work for upgrades of pumps and motors at various existing electric powered stations.

The Department of Water Management may revise the list of specific improvements and revise cost allocations among improvements, as well as make substitutions to meet current needs and to provide for the most efficient operation of the Water System. In all, the 5-year CIP Program is annually updated to ensure continued economic and reliable delivery of water to all customers.

PROPRIETARY OPERATIONS

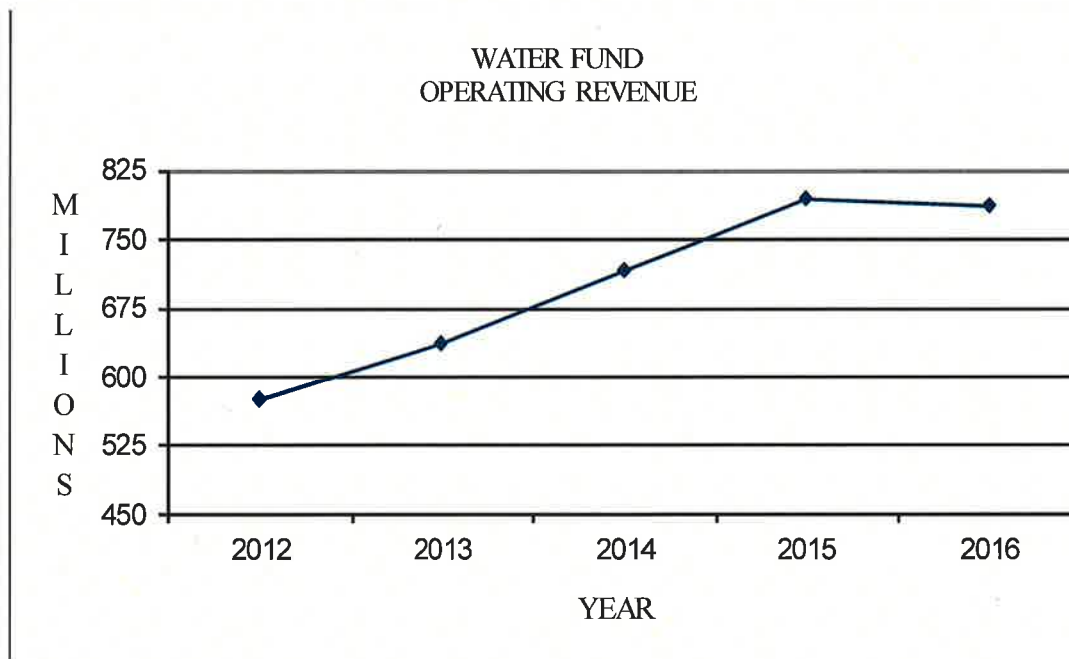
The Department of Water Management, Water Fund, is responsible for implementing and maintaining an internal control structure to ensure the integrity of the Water Fund's operations and to allow for the preparation of financial statements in conformity with accounting principles generally accepted in the United States of America. The internal control structure is designed to provide reasonable assurance that the assets, resources and operations of the Department of Water Management, Water Fund, are handled in a manner that protects against waste, theft or neglect that may hinder or impair the financial operations of the Fund. This objective is being met by adequate supervision of employees, segregation of duties and multiple approval and budgetary controls over all expenditures.

The Water Fund's budget is developed and implemented along with the City's annual budget based upon an analysis of its historical operations and maintenance costs. The Commissioner of the Department of Water Management recommends the final proposed budget to the Budget Director. After approval by the Budget Director, the proposed budget is recommended to the Mayor for submission to the City Council for its approval following public hearings.

The budget process is designed to ensure that Department of Water Management, Water Fund, will have adequate funding to meet its operational objectives. The Department of Water Management, Water Fund, cannot by law, exceed the level of funding as established by the City Council-approved budget. The Budget Director uses an allotment system to manage each department's expenditures against its respective annual appropriation. The Budget Director, through the allotment system, has the authority to institute economic measures for Department of Water Management, Water Fund, to insure that its expenditures do not exceed its revenues collections. The Water Fund uses encumbrances to control expenditures by preventing appropriated dollars from being used for any purpose other than that which they have been legally appropriated.

OPERATING REVENUES

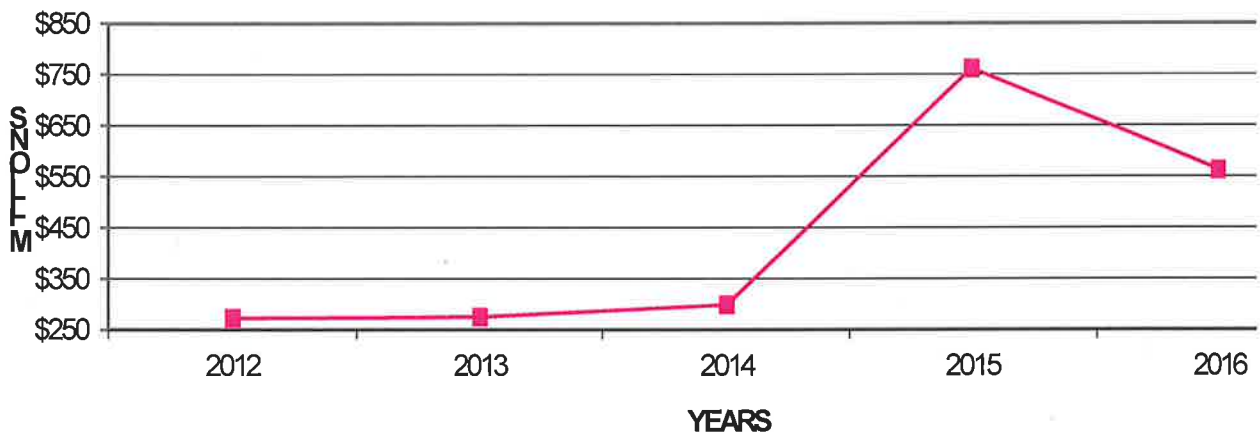
Gross operating revenue for 2016 reflect a decrease of 0.9% over 2015 resulting from a decrease in water fees offset by an increase in penalties and other revenue related to water fees. There was no water rate increase in 2016. For the years 2015, 2014 and 2013 the rate increases were 15% for each year. For the year 2012 the rate increase was 25%. Below is a graph representing gross operating revenues for the years 2012 through 2016.



OPERATING EXPENSES

Operating expenses for the year ended December 31, 2016 decreased by 26.0% compared to the year ended December 31, 2015. This decrease is primarily due to decreases in pension costs resulting from decreases in pension liabilities for both municipal and laborers, and workmen's compensation costs offset by increases in indirect costs and salaries.

WATER FUND OPERATING EXPENSES



DEBT ADMINISTRATION

The Department of Water Management, Water Fund, issues bonds to finance its capital improvements program. The City has covenanted to establish, maintain and collect at all times the fees, charges and rates sufficient to produce net revenues available for bonds, as adjusted, at least equal the greater of (A) 120 percent of the aggregate current annual debt service on the senior lien revenue bonds, or (B) the sum of the aggregate current annual debt service on the senior lien revenue bonds plus 110 percent of the aggregate current annual second lien revenue bonds debt service, and that the City management maintain all covenant reserve account balances at specified amounts. The City conducts an annual review of the water service charge to ensure revenue is being generated to comply with the covenant. The ordinances authorizing the issuances of revenue bonds provide for the creation of separate accounts into which net revenues, as defined, or bond proceeds are to be credited, as appropriate. Any net revenues remaining after providing sufficient funds for all required deposits into bond accounts may be transferred to the Water Rate Stabilization Fund to be used for any lawful purpose of the Water Fund. The Department of Water Management, Water Fund, has provided certain annual financial information disclosure for its revenue bonds in the Statistical Section of this report.

LONG TERM FINANCIAL PLANNING

The Department of Water Management, Water Fund's capital activities are funded through Water Fund revenue bonds and Water fund revenue. The Department of Water Management, Water Fund has realized savings through advance refunding as interest rates have changed.

INDEPENDENT AUDIT

City ordinances require the Department of Water Management's, Water Fund, financial statements to be audited by independent certified accountants. The audit was conducted by Deloitte & Touche, LLP and a consortium of Chicago-based minority and women-owned certified public accounting firms. An unmodified audit opinion, rendered by Deloitte & Touche, LLP, is included in the financial section of this report.

AWARD

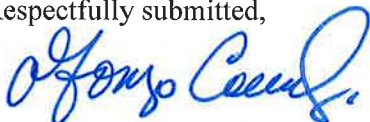
The Government Finance Officers Association of the United States and Canada (GFOA) awarded a Certificate of Achievement for Excellence in Financial Reporting to the Water Fund, an Enterprise Fund of the City of Chicago, for its CAFR for the fiscal year ended December 31, 2015. This was the seventeenth year that the government unit has achieved this prestigious award, which is the highest form of recognition for excellence in state and local government financial reporting. In order to be awarded a Certificate of Achievement, a government must publish an easily readable and efficiently organized CAFR. This report must satisfy both generally accepted accounting principles and applicable legal requirements.

A Certificate of Achievement is valid for a period of one year only. I believe that our current CAFR continues to meet the Certificate of Achievement Program's requirements and we are submitting it to the GFOA to determine its eligibility for another certificate.

ACKNOWLEDGMENTS

This report could not have been prepared without the dedication and effective assistance of the entire staff of Department of Water Management and Department of Finance. I wish to express my appreciation to them, and particularly those who contributed directly to the preparation of the report.

Respectfully submitted,



ALFONZO CONNER, JR.
Commissioner



Government Finance Officers Association

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

Presented to

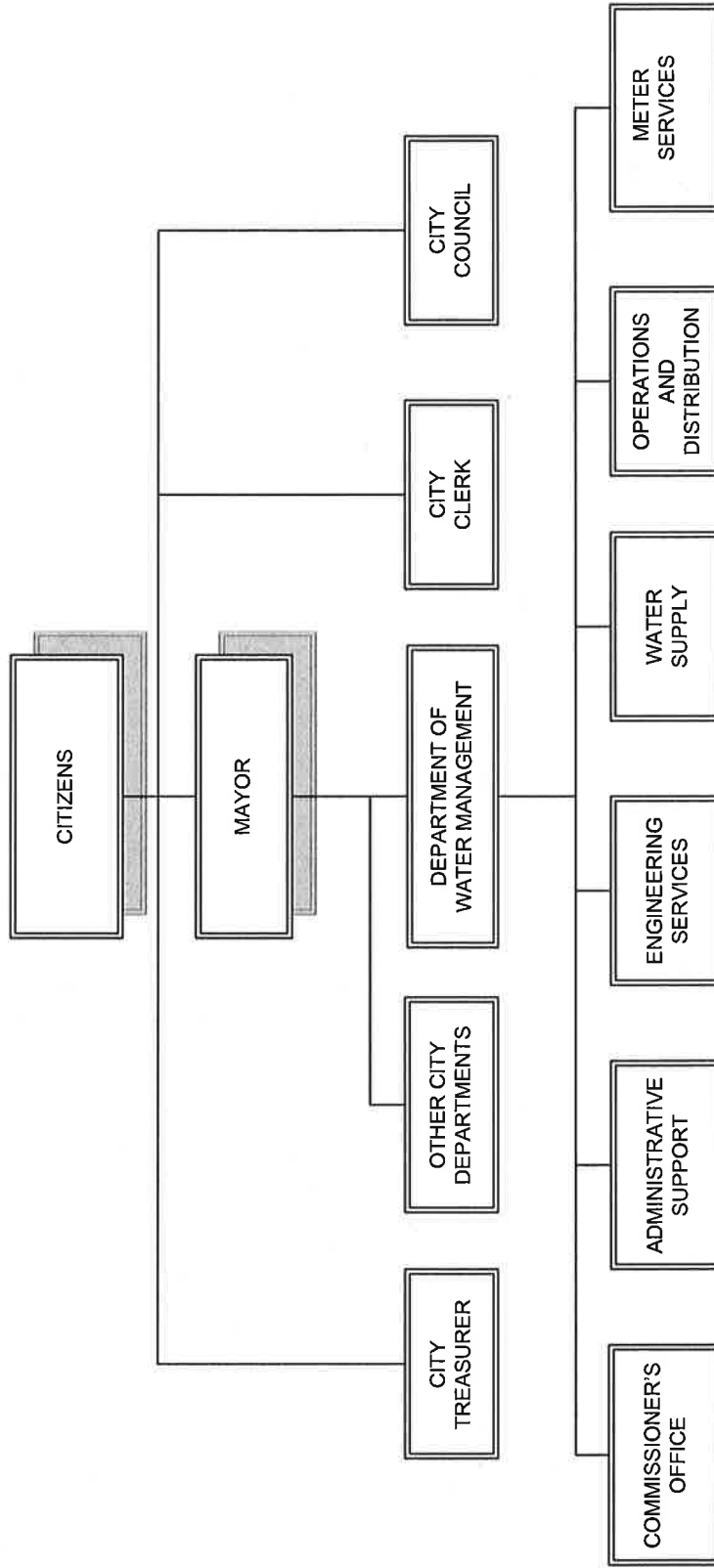
**Water Fund, an Enterprise Fund
of the City of Chicago, Illinois**

For its Comprehensive Annual
Financial Report
for the Fiscal Year Ended

December 31, 2015

Executive Director/CEO

CITY OF CHICAGO
DEPARTMENT OF WATER MANAGEMENT
 As of 12/31/16



List of Principal Officials

Rahm Emanuel	Mayor
Alfonzo Conner, Jr.	Commissioner

FINANCIAL SECTION

INDEPENDENT AUDITORS' REPORT

To the Honorable Rahm Emanuel, Mayor
and Members of the City Council
City of Chicago, Illinois

Report on the Financial Statements

We have audited the accompanying financial statements of the Water Fund ("Water Fund"), an enterprise fund of the City of Chicago, Illinois (the "City"), as of and for the years ended December 31, 2016 and 2015, and the related notes to the financial statements, which collectively comprise the Water Fund's basic financial statements as listed in the table of contents.

Management's Responsibility for the Financial Statements

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 audit to obtain reasonable assurance about whether the financial statements are free from material misstatement.

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

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

Opinion

In our opinion, the financial statements referred to above present fairly, in all material respects, the financial position of the Water Fund, as of December 31, 2016 and 2015, and the changes in its financial position, and its cash flows for the years then ended in accordance with accounting principles generally accepted in the United States of America.

Emphasis of Matter

As discussed in Note 1 to the basic financial statements, the basic financial statements referred to above present only the Water Fund, an enterprise fund of the City, and do not purport to, and do not, present the financial position of the City as of December 31, 2016 and 2015, changes in its financial position, or, where applicable, its cash flows, thereof, in conformity with accounting principles generally accepted in the United States of America. Our opinion is not modified with respect to this matter.

Other Matters

Required Supplementary Information

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

Other Information

Our audit was conducted for the purpose of forming an opinion on the financial statements that collectively comprise the Water Fund's basic financial statements. The introductory section, additional supplementary information, and statistical section are presented for purposes of additional analysis and are not a required part of the basic financial statements.

The additional supplementary information as listed in the table of contents is the responsibility of management and was derived from and relates directly to the underlying accounting and other records used to prepare the basic financial statements. Such information has been subjected to the auditing procedures applied in the audit of the basic financial statements and certain additional procedures, including comparing and reconciling such information directly to the underlying accounting and other records used to prepare the basic financial statements or to the basic financial statements themselves, and other additional procedures in accordance with auditing standards generally accepted in the United States of America by us and other auditors. In our opinion, the procedures

performed as described above, and the reports of the other auditors, the additional supplementary information is fairly stated, in all material respects, in relation to the basic financial statements as a whole.

The introductory section and statistical section 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.

Deloitte & Touche LLP

June 30, 2017

CITY OF CHICAGO, ILLINOIS WATER FUND

MANAGEMENT'S DISCUSSION AND ANALYSIS

The following discussion and analysis of the City of Chicago, Illinois (the "City"), Water Fund's ("Water Fund") financial performance provides an introduction and overview of the Water Fund's financial activities for the years ended December 31, 2016 and 2015. Please read this discussion in conjunction with the Water Fund's basic financial statements and the notes to basic financial statements following this section.

FINANCIAL HIGHLIGHTS

2016

- Gross operating revenues for 2016 decreased by \$6.8 million compared to 2015 operating revenues. This decrease is primarily due to the decrease in water fees of \$13.1 million due to the continued conversion of non-metered accounts to metered accounts, offset by an increase in penalties and other revenues related to water fees of \$6.3 million. There was no water rate increase in 2016.
- Operating expenses before depreciation and amortization for 2016 decreased by \$199.4 million compared to 2015 mainly due to decreases in pension expenses resulting from decreases in pension liabilities, for both Municipal and Laborers' calculated under the Governmental Accounting Standards Board ("GASB") Statement No. 68. *"Accounting and Financial Reporting for Pensions—an amendment of GASB Statement No. 27"* ("GASB 68") and decreases in workmen's compensation costs, offset by increases in salaries and indirect costs.
- The Water Fund's net position at December 31, 2016, was \$895.7 million. This is a decrease of \$55.8 million over net position at December 31, 2015.
- Utility plant additions in 2016 were \$395.3 million due to the continuing capital improvement program.

2015

- Gross operating revenues for 2015 increased by \$77.8 million compared to 2014 operating revenues. This increase is primarily due to a water rate increase of 15% offset by a decrease in consumption and the conversion in 2015 of 23,820 accounts from non-metered to metered.
- Operating expenses before depreciation and amortization for 2015 increased by \$439.1 million compared to 2014 mainly due to increases in pension costs resulting from the implementation of GASB 68, indirect costs, workmen's compensation costs, and salaries offset by decreases in overtime pay, utility costs and tort/non-tort judgment settlement payments.
- The Water Fund's net position at December 31, 2015, was \$951.5 million. This is a decrease of \$731.7 million over net position at December 31, 2014.
- Utility plant additions in 2015 were \$414.2 million due to the continuing capital improvement program.

OVERVIEW OF THE BASIC FINANCIAL STATEMENTS

This discussion and analysis is intended to serve as an introduction to the Water Fund's basic financial statements. The Water Fund's basic financial statements comprise the financial statements and the notes to basic financial statements. In addition to the basic financial statements, this report also presents additional information after the notes to basic financial statements.

The statements of net position present all of the Water Fund's assets, deferred outflows, liabilities, and deferred inflows using the accrual basis of accounting. The difference between assets, deferred outflows, liabilities, and deferred inflows is reported as net position. The increase or decrease in net position may serve as an indicator, over time, as to whether the Water Fund's financial position is improving or deteriorating.

The statements of revenues, expenses, and changes in net position present all current-year revenues and expenses, regardless of when cash is received or paid, and the ensuing change in net position.

The statements of cash flows report how cash and cash equivalents are provided and used by the Water Fund's operating, capital financing, and investing activities. These statements present the cash received and disbursed, the net increase or decrease in cash and cash equivalents for the year, and the cash and cash equivalents balance at year-end.

The notes to basic financial statements are an integral part of the basic financial statements; accordingly, such disclosures are essential for a full understanding of the information provided in the basic financial statements.

In addition to the basic financial statements, this report includes statistical data. The statistical data section presents unaudited debt service coverage calculation and includes certain unaudited information related to the Water Fund's historical financial and nonfinancial operating results and capital activities.

FINANCIAL ANALYSIS

At December 31, 2016, the Water Fund's financial position continued to be strong with total assets and deferred outflows of \$5,556.3 million, total liabilities and deferred inflows of \$4,660.6 million, and net position of \$895.7 million. A comparative condensed summary of the Water Fund's net position at December 31, 2016, 2015, and 2014, is as follows:

(In thousands)	Net Position		
	2016	2015	2014
Current assets	\$ 907,109	\$ 806,467	\$ 542,748
Restricted and other assets - Noncurrent	44,323	145,667	390,988
Utility plant—net	<u>4,131,632</u>	<u>3,822,825</u>	<u>3,482,199</u>
Total assets	<u>5,083,064</u>	<u>4,774,959</u>	<u>4,415,935</u>
Deferred outflows	<u>473,223</u>	<u>751,081</u>	<u>129,229</u>
Total assets and deferred outflows	<u>\$ 5,556,287</u>	<u>\$ 5,526,040</u>	<u>\$ 4,545,164</u>
Current liabilities	\$ 390,995	\$ 383,371	\$ 305,342
Long-term liabilities	<u>4,194,609</u>	<u>4,180,106</u>	<u>2,556,616</u>
Total liabilities	<u>4,585,604</u>	<u>4,563,477</u>	<u>2,861,958</u>
Deferred inflows	<u>74,957</u>	<u>11,050</u>	
Total liabilities and deferred inflows	<u>\$ 4,660,561</u>	<u>\$ 4,574,527</u>	<u>\$ 2,861,958</u>
Net position:			
Net investment in capital assets	\$ 1,621,976	\$ 1,514,009	\$ 1,393,968
Restricted for capital projects	411	677	599
Unrestricted	<u>(726,661)</u>	<u>(563,173)</u>	<u>288,639</u>
Total net position	<u>\$ 895,726</u>	<u>\$ 951,513</u>	<u>\$ 1,683,206</u>

2016

Current assets of \$907.1 million at December 31, 2016, increased by \$100.6 million (12.5%) over 2015 as a result of increases in investments of \$208.3 million offset by a decrease in cash and cash equivalents of \$106.4 million. Noncurrent restricted investments and other assets decreased by \$101.3 million (69.6%) due to the continuing improvements in the capital construction program. In addition, utility plant—net, increased by \$308.8 million (8.1%) due to increased project activities through the year ended December 31, 2016. Deferred outflows decreased by \$277.9 million (37.0%) during 2016 due to changes in actuarial assumptions related to pensions calculated under GASB 68.

The increase in current liabilities of \$7.6 million (2.0%) during 2016 is directly related to the timing of payments of accounts payable and increases in accrued liabilities and in current portion of long-term debt. Noncurrent liabilities increased by \$14.5 million (0.3%).

At December 31, 2016 net position was \$895.7 a decrease of \$55.8 (5.9%) over 2015.

2015

Current assets of \$806.5 million at December 31, 2015, increased by \$263.7 million (48.6%) over 2014 as a result of increases in cash and cash equivalents of \$286.3, investments of \$21.7 million offset by a decrease in due from other City funds of \$57.6 million. Restricted and other assets decreased by \$245.3 million (62.7%) due to the issuance of long-term debt in 2014. In addition, utility plant—net, increased by \$340.6 million (9.8%) due to increased projects performed through the year ended December 31, 2015. The increase in deferred outflows of \$621.9 million (481.2%) during 2015 is mainly due to the implementation of GASB 68.

The increase in current liabilities of \$78.0 million (25.6%) during 2015 is directly related to the timing of payments of accounts payable and increases in accrued liabilities and in current portion of long-term debt. Noncurrent liabilities increased by \$1,623.5 million (63.5%) mainly due to net pension liability of \$1,646.4 resulting from the implementation of GASB 68 offset by a decrease in long term debt payable of \$16.7 million.

Net position may serve as a useful indicator, over a period of time, of the Water Fund's basic financial position. At December 31, 2015, net position was \$951.5 million, a decrease of \$731.7 million (43.5%) over 2014.

The primary sources of the Water Fund's operating revenues are water usage fees. These revenues fund all Water Fund operating expenses, fund deposits, capital construction, and debt service requirements. A comparative condensed summary of the Water Fund's revenues, expenses, and changes in net position for the years ended December 31, 2016, 2015, and 2014, is as follows:

(In thousands)	Revenues, Expenses, and Changes in Net Position		
	2016	2015	2014
Revenues:			
Operating revenues:			
Water sales—net	\$ 735,881	\$ 750,163	\$ 670,559
Other operating revenues	<u>25,530</u>	<u>19,245</u>	<u>22,075</u>
Total operating revenues	761,411	769,408	692,634
Nonoperating revenues	<u>1,234</u>	<u>3,327</u>	<u>(972)</u>
Total revenues	<u>762,645</u>	<u>772,735</u>	<u>691,662</u>
Expenses:			
Operating expenses	538,380	737,810	298,722
Depreciation and amortization	67,984	56,444	57,949
Interest expense	107,897	106,092	98,762
Swap Termination Fee	101,751		
Transfers out	<u>2,420</u>	<u>625</u>	<u></u>
Total expenses	<u>818,432</u>	<u>900,971</u>	<u>455,433</u>
Change in net position	(55,787)	(128,236)	236,229
Net position—beginning of year (as restated 2015 and 2014)	<u>951,513</u>	<u>1,079,749</u>	<u>1,446,977</u>
Net position—end of year	<u>\$895,726</u>	<u>\$ 951,513</u>	<u>\$1,683,206</u>

2016

Water sales and other operating revenues comprise the Water Fund's \$761.4 million operating revenues. The decrease in 2016 operating revenues of \$8.0 million (1.0%) from 2015 was primarily due to a decrease in net water fees of \$14.3 million due to the continued conversion from non-metered to metered accounts, offset by an increase in penalties and other revenues related to water fees of about \$6.3 million.

In 2016, net nonoperating revenue of \$1.2 million were composed of net interest income and net revenue that relates to constructions done by Department of Water Management for other City departments and private companies.

2015

Water sales and other operating revenues comprise the Water Fund's \$769.4 million operating revenues. The increase in 2015 operating revenues of \$76.8 million (11.1%) from 2014 was primarily due to a 15% water rate increase offset by the conversion of 23,820 non-metered accounts to metered.

In 2015, net nonoperating revenue of \$3.3 million were composed of net interest income and net revenue that relates to constructions done by Department of Water Management for other City departments and private companies.

A comparative summary of the Water Fund's operating expenses, as classified in the basic financial statements, for the years ended December 31, 2016, 2015, and 2014, is as follows:

(In thousands)	Operating Expenses		
	2016	2015	2014
Source of supply	\$ 107	\$ 198	\$ 283
Power and pumping	39,624	41,343	43,087
Purification	57,514	57,112	58,504
Transmission and distribution	39,155	37,266	43,681
Customer accounting and collection	15,318	14,734	11,888
Administrative and general	20,279	22,072	22,045
Central services and General Fund reimbursements	126,421	129,060	119,234
Pension Expense	<u>239,962</u>	<u>436,025</u>	
Operating expenses before depreciation and amortization	538,380	737,810	298,722
Depreciation and amortization	<u>67,984</u>	<u>56,444</u>	<u>57,949</u>
Total operating expenses	<u>\$606,364</u>	<u>\$794,254</u>	<u>\$356,671</u>

2016

Operating expenses before depreciation and amortization for the year ended 2016 decreased by \$199.4 million (27.0%) from the year ended 2015 primarily due to decreases in pension expenses of \$196.1 million and workmen's compensation of \$20.6 million offset by an increase in indirect costs of \$19.2 million.

Pension expense for 2016 was \$240.0 million as calculated under GASB 68, of which \$12.3 million was paid under statutory requirements.

2015

Operating expenses before depreciation and amortization for the year ended 2015 increased by \$439.1 million (147.0%) from the year ended 2014 primarily due to an increase in pension expense of \$436.0 million resulting from the implementation of GASB 68. This was offset by a decrease in transmission and distribution of about \$6.4 million (14.7%) resulting from decreases in overtime pay and tort/non tort judgment settlement payments.

A comparative summary of the Water Fund's cash flows for the years ended December 31, 2016, 2015, and 2014, is as follows:

(In thousands of dollars)	Cash Flows		
	2016	2015	2014
Cash from activities:			
Operating	\$ 437,776	\$ 524,932	\$ 325,346
Capital and related financing	(440,790)	(465,219)	(27,902)
Investing	<u>(103,382)</u>	<u>226,625</u>	<u>(297,828)</u>
Net change in cash and cash equivalents	(106,396)	286,338	(384)
Cash and cash equivalents:			
Beginning of year	<u>322,485</u>	<u>36,147</u>	<u>36,531</u>
End of year	<u>\$ 216,089</u>	<u>\$ 322,485</u>	<u>\$ 36,147</u>

2016

As of December 31, 2016, the Water Fund's cash and cash equivalents of \$216.1 million decreased from December 31, 2015 by \$106.4 million mainly due to the cash provided of \$437.8 million from operating activities, cash provided by issuance of bonds and IEPA loans of \$243.5 million offset by cash used in acquisition and construction of capital assets of \$384.8 million and net cash used in investing activities of \$103.4 million. Total cash and cash equivalents at December 31, 2016, are composed of unrestricted and restricted cash and cash equivalents of \$141.9 million and \$74.2 million, respectively.

2015

As of December 31, 2015, the Water Fund's cash and cash equivalents of \$322.5 million increased from December 31, 2014, by \$286.3 million mainly due to the cash provided of \$524.9 million from operating activities, and cash inflow of \$226.6 offset by cash outflow of \$465.2 mainly used in acquisition and construction of capital assets of \$358.1 million. Total cash and cash equivalents at December 31, 2015, are composed of unrestricted and restricted cash and cash equivalents of \$296.1 million and \$26.4 million, respectively.

UTILITY PLANT AND DEBT ADMINISTRATION

2016

At the end of 2016 and 2015, the Water Fund had \$4,131.6 million and \$3,822.8 million, respectively, invested in utility plant, net of accumulated depreciation. During 2016, the Water Fund expended \$395.3 million on capital activities. This included \$1.8 million for structures and improvements, \$209.5 million for distribution plant, \$3.5 million for equipment, and \$180.5 million for construction in progress.

During 2016, net completed projects totaling \$48.9 million were transferred from construction in progress to applicable capital accounts. The major completed projects were installation and replacements of water mains (\$20.5 million), and meter save program (\$25.1 million).

2015

At the end of 2015 and 2014, the Water Fund had \$3,822.8 million and \$3,482.2 million, respectively, invested in utility plant, net of accumulated depreciation. During 2015, the Water Fund expended \$414.2 million on capital activities. This included \$1.8 million for land and land rights, \$3.0 million for structures and improvements, \$243.1 million for distribution plant, \$6.0 million for equipment, and \$160.3 million for construction in progress.

During 2015, net completed projects totaling \$366.3 million were transferred from construction in progress to applicable capital accounts. The major completed projects relate to installation and replacements of water mains (\$284.5 million), and meter save program (\$74.5 million).

The Water Fund's utility plant at December 31, 2016, 2015, and 2014, is summarized as follows:

(In thousands)	Net Utility Plant at Year-End		
	2016	2015	2014
Utility plant not depreciated:			
Land and land rights	\$ 6,858	\$ 6,858	\$ 5,083
Construction in progress	<u>366,506</u>	<u>242,155</u>	<u>457,645</u>
Total utility plant not depreciated	<u>373,364</u>	<u>249,013</u>	<u>462,728</u>
Utility plant being depreciated:			
Structures and improvements	588,740	586,046	579,534
Distribution plant	3,586,644	3,348,185	2,755,650
Equipment	<u>665,174</u>	<u>659,971</u>	<u>651,121</u>
Total utility plant being depreciated	<u>4,840,558</u>	<u>4,594,202</u>	<u>3,986,305</u>
Less accumulated depreciation:			
Structures and improvements	(221,605)	(213,318)	(205,279)
Distribution plant	(483,112)	(447,587)	(420,433)
Equipment	<u>(377,573)</u>	<u>(359,485)</u>	<u>(341,122)</u>
Total accumulated depreciation	<u>(1,082,290)</u>	<u>(1,020,390)</u>	<u>(966,834)</u>
Total utility plant being depreciated—net	<u>3,758,268</u>	<u>3,573,812</u>	<u>3,019,471</u>
Total utility plant—net	<u>\$ 4,131,632</u>	<u>\$ 3,822,825</u>	<u>\$3,482,199</u>

The Water Fund's capital activities are funded through Water Fund revenue bonds IEPA loans and Water Fund revenue. Additional information on the Water Fund's capital assets is presented in Note 5 of the notes to basic financial statements.

The Water Fund's long-term liabilities at December 31, 2016, 2015, and 2014, are summarized as follows:

(In thousands)	Long-Term Liabilities at Year-End		
	2016	2015	2014
Revenue bonds and notes payable	\$ 2,468,397	\$ 2,391,395	\$ 2,381,771
Add:			
Accretion of capital appreciation bonds	26,345	33,254	39,093
Bond discount/premium	<u>161,189</u>	<u>91,344</u>	<u>97,175</u>
Total revenue bonds/notes payable—net	2,655,931	2,515,993	2,518,039
Less current portion of accretion	(10,252)	(9,953)	(9,571)
Less current bonds/notes payable	<u>(79,305)</u>	<u>(65,758)</u>	<u>(51,535)</u>
Total long-term revenue bonds/notes payable—net	2,566,374	2,440,282	2,456,933
Derivative instrument liability	-	91,806	98,106
Long-term purchase obligations			
Water pipe extension certificates	<u>1,577</u>	<u>1,577</u>	<u>1,577</u>
Total long-term liabilities	<u>\$ 2,567,951</u>	<u>\$ 2,533,665</u>	<u>\$ 2,556,616</u>

Additional information on the Water Fund's long-term debt is presented in Note 4 of the notes to basic financial statements.

The Water Fund's revenue bonds at December 31, 2016, have underlying credit ratings with each of the three major rating agencies as follows:

	Moody's	Standard & Poor's	Fitch Ratings	Kroll
Senior Lien Water Revenue Bonds	Baa1	A+	AA+	NR
Second Lien Water Revenue Bonds	Baa2	A	AA	AA

In April, 2016 S & P upgraded the ratings of the Water Fund senior lien revenue bonds from A to A+, and the Water Fund second lien revenue bonds from A- to A, each with a stable outlook.

Swaps—In May, 2016, the Water Fund terminated the swaps relating to its (1) Second Lien Water Revenue Bonds, Series 2000 for a termination payment of \$32.3 million and (2) Second Lien Water Revenue Refunding Bonds Series 2004 for total termination payments of \$69.5 million.

Commercial Paper and Lines of Credit—In May, 2016, the Water Fund drew \$91.5 million under the water line of credit to fund the swap termination payments prior to the issuance of

Second Lien Water Revenue Bonds, Series 2016A-1 (Tax Exempt) and Series 2016A-2 (Taxable). Proceeds from the bonds were used to repay the water line of credit in full. In July, 2016, the Water Fund terminated the line of credit.

At December 31, 2016, the Water Fund was in compliance with the debt covenants as stated within the bond ordinances. Additional information on certain of the Water Fund's debt covenants is presented in Note 4 of the notes to the basic financial statements.

Requests for Information

This financial report is designed to provide the reader with a general overview of the Water Fund's finances. Questions concerning any of the information provided in this report, or requests for additional financial information, should be addressed to the City of Chicago Department of Finance.

CITY OF CHICAGO, ILLINOIS WATER FUND

**STATEMENTS OF NET POSITION
AS OF DECEMBER 31, 2016 AND 2015
(In thousands)**

	2016	2015		2016	2015
ASSETS			LIABILITIES		
CURRENT ASSETS:			CURRENT LIABILITIES:		
Cash and cash equivalents (Note 2)	\$ 141,931	\$ 296,084	Accounts payable	\$ 20,637	\$ 23,660
Investments (Note 2)	361,553	101,612	Due to other City funds	9,106	22,061
Accounts receivable—net of allowance for doubtful accounts of approximately \$141,775 in 2016 and \$120,575 in 2015	168,527	173,260	Accrued liabilities	166,682	138,279
Interest receivable	133	206	Unearned revenue	18,158	19,856
Due from other City funds	35,906	33,672	Liabilities payable from restricted assets:		
Inventories	22,236	20,691	Accounts payable	66,675	85,192
Cash and cash equivalents—restricted	74,158	26,401	Interest payable	20,180	18,612
Investments—restricted	102,254	153,863	Current portion of long-term debt (Note 4)	<u>89,557</u>	<u>75,711</u>
Interest receivable—restricted	<u>411</u>	<u>678</u>	(Note 4)		
Total current assets	<u>907,109</u>	<u>806,467</u>	Total current liabilities	<u>390,995</u>	<u>383,371</u>
NONCURRENT ASSETS:			NONCURRENT LIABILITIES:		
Investments—restricted assets	<u>39,898</u>	<u>141,005</u>	Liabilities payable from restricted assets:		
Other assets	<u>4,425</u>	<u>4,662</u>	Long-term debt—net of current maturities (Note 4)	2,566,374	2,440,282
Utility plant (Note 5):			Net pension liability (Note 6)	1,626,658	1,646,441
Land and land rights	6,858	6,858	Derivative instrument liability		91,806
Structures and improvements	588,740	586,046	Water pipe extension certificates	<u>1,577</u>	<u>1,577</u>
Distribution plant	3,586,644	3,348,185	Total noncurrent liabilities	<u>4,194,609</u>	<u>4,180,106</u>
Equipment	665,174	659,971	Total liabilities	<u>4,585,604</u>	<u>4,563,477</u>
Construction in progress	<u>366,506</u>	<u>242,155</u>	DEFERRED INFLOWS (Note 10)	<u>74,957</u>	<u>11,050</u>
Total utility plant	5,213,922	4,843,215	NET POSITION (Note 1):		
Less accumulated depreciation	<u>(1,082,290)</u>	<u>(1,020,390)</u>	Net investment in capital assets	1,621,976	1,514,009
Utility plant—net	<u>4,131,632</u>	<u>3,822,825</u>	Restricted for capital projects	411	677
Total noncurrent assets	4,175,955	3,968,492	Unrestricted	<u>(726,661)</u>	<u>(563,173)</u>
DEFERRED OUTFLOWS (Note 10)	<u>473,223</u>	<u>751,081</u>	Total net position	895,726	951,513
TOTAL ASSETS AND DEFERRED OUTFLOWS	<u>\$ 5,556,287</u>	<u>\$ 5,526,040</u>	TOTAL	<u>\$ 5,556,287</u>	<u>\$ 5,526,040</u>

See notes to basic financial statements.

CITY OF CHICAGO, ILLINOIS WATER FUND

STATEMENTS OF REVENUES, EXPENSES, AND CHANGES IN NET POSITION FOR THE YEARS ENDED DECEMBER 31, 2016 AND 2015 (In thousands)

	2016	2015
OPERATING REVENUES:		
Water sales:		
Water sales	\$ 760,638	\$ 773,756
Less: provision for doubtful accounts	<u>(24,757)</u>	<u>(23,593)</u>
Water sales—net	735,881	750,163
Other operating revenues	<u>25,530</u>	<u>19,245</u>
Total operating revenues	<u>761,411</u>	<u>769,408</u>
OPERATING EXPENSES:		
Source of supply	107	198
Power and pumping	39,624	41,343
Purification	57,514	57,112
Transmission and distribution	39,155	37,266
Customer accounting and collection	15,318	14,734
Administrative and general	20,279	22,072
Central services and General Fund reimbursements	126,421	129,060
Pension expense (Note 6)	<u>239,962</u>	<u>436,025</u>
Total operating expenses before depreciation and amortization	<u>538,380</u>	<u>737,810</u>
OPERATING INCOME BEFORE DEPRECIATION AND AMORTIZATION	223,031	31,598
DEPRECIATION AND AMORTIZATION	<u>67,984</u>	<u>56,444</u>
OPERATING INCOME (LOSS)	<u>155,047</u>	<u>(24,846)</u>
NONOPERATING REVENUES (EXPENSES):		
Interest income	629	3,136
Interest expense	(107,897)	(106,092)
Swap termination fee	(101,751)	
Other	<u>605</u>	<u>191</u>
Total nonoperating expenses—net	<u>(208,414)</u>	<u>(102,765)</u>
TRANSFERS OUT	<u>(2,420)</u>	<u>(625)</u>
CHANGE IN NET POSITION	(55,787)	(128,236)
TOTAL NET POSITION—Beginning of year	<u>951,513</u>	<u>1,079,749</u>
TOTAL NET POSITION—End of year	<u>\$ 895,726</u>	<u>\$ 951,513</u>

See notes to basic financial statements.

CITY OF CHICAGO, ILLINOIS WATER FUND

STATEMENTS OF CASH FLOWS FOR THE YEARS ENDED DECEMBER 31, 2016 AND 2015 (In thousands)

	2016	2015
CASH FLOWS FROM OPERATING ACTIVITIES:		
Received from customers	\$ 764,497	\$ 752,908
Transactions with other City funds	(115,919)	(29,944)
Payments to vendors	(84,493)	(76,860)
Payments to employees	<u>(126,309)</u>	<u>(121,172)</u>
Net cash provided by operating activities	<u>437,776</u>	<u>524,932</u>
CASH FLOWS FROM CAPITAL AND RELATED FINANCING ACTIVITIES:		
Acquisition and construction of capital assets	(384,783)	(358,083)
Interest paid	(100,722)	(132,908)
Proceeds from issuance of bonds and IEPA loans	219,254	78,364
Principal paid on bonds	(70,281)	(52,435)
Payments of bonds issuance costs	(3,112)	(348)
Swap termination fee	(101,751)	
Construction reimbursements	<u>605</u>	<u>191</u>
Net cash used in capital and related financing activities	<u>(440,790)</u>	<u>(465,219)</u>
CASH FLOWS FROM INVESTING ACTIVITIES:		
Sales and purchases of investments—net	(107,225)	223,420
Investment interest	<u>3,843</u>	<u>3,205</u>
Net cash (used in) provided by investing activities	<u>(103,382)</u>	<u>226,625</u>
NET CHANGE IN CASH AND CASH EQUIVALENTS	(106,396)	286,338
CASH AND CASH EQUIVALENTS—Beginning of year	<u>322,485</u>	<u>36,147</u>
CASH AND CASH EQUIVALENTS—End of year	<u>\$ 216,089</u>	<u>\$ 322,485</u>
RECONCILIATION OF CASH AND CASH EQUIVALENTS REPORTED IN THE STATEMENTS OF NET POSITION:		
Unrestricted	\$ 141,931	\$ 296,084
Restricted	<u>74,158</u>	<u>26,401</u>
TOTAL	<u>\$ 216,089</u>	<u>\$ 322,485</u>

(Continued)

CITY OF CHICAGO, ILLINOIS WATER FUND

STATEMENTS OF CASH FLOWS FOR THE YEARS ENDED DECEMBER 31, 2016 AND 2015 (In thousands)

	2016	2015
RECONCILIATION OF OPERATING INCOME TO NET CASH PROVIDED BY OPERATING ACTIVITIES:		
Operating income (loss)	\$ 155,047	\$ (24,846)
Adjustments to reconcile:		
Depreciation and amortization	67,984	56,444
Pension expense other than contribution	227,639	423,345
Provision for doubtful accounts	24,757	23,593
Changes in assets and liabilities:		
(Increase) decrease in accounts receivable	(19,973)	(37,538)
Decrease (increase) in inventories	(1,545)	501
(Increase) decrease in due from other City funds	(2,234)	56,927
Increase (decrease) in unrestricted accounts payable	(3,023)	(2,508)
Increase (decrease) in due to other City funds	(12,955)	1,907
Increase (decrease) in accrued liabilities	3,777	29,662
Increase (decrease) in unearned revenue	<u>(1,698)</u>	<u>(2,555)</u>
 NET CASH PROVIDED BY OPERATING ACTIVITIES	 <u>\$ 437,776</u>	 <u>\$ 524,932</u>

SUPPLEMENTAL DISCLOSURE OF NONCASH ITEMS—Property additions in 2016 and 2015 of \$69,532 and \$85,942, respectively, have outstanding accounts payable.

The accretion adjustments of Series 1997 and Series 2000 capital appreciation bonds for the year ended December 31, 2016 was \$3,004 respectively.

See notes to basic financial statements.

(Concluded)

CITY OF CHICAGO, ILLINOIS WATER FUND

NOTES TO BASIC FINANCIAL STATEMENTS AS OF AND FOR THE YEARS ENDED DECEMBER 31, 2016 AND 2015

1. ORGANIZATION AND SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

Organization—The Water Fund (“Water Fund”) purifies and provides Lake Michigan water for the City of Chicago, Illinois (the “City”) and approximately 125 suburbs. The Water Fund is included in the City’s reporting entity as an enterprise fund.

The accompanying basic financial statements present only the Water Fund and are not intended to present the financial position of the City, and the results of its operations and the cash flows of its proprietary-fund types.

Basis of Accounting—The accounting policies of the Water Fund are based upon accounting principles generally accepted in the United States of America as prescribed by the Governmental Accounting Standards Board (GASB). The accounting and financial reporting treatment applied to a fund is determined by its measurement focus. The accounts of the Water Fund are reported using the flow of economic resources measurement focus.

The Water Fund uses the accrual basis of accounting under which revenues are recognized when earned and expenses are recognized when the liability is incurred.

When both restricted and unrestricted resources are available for use, it is the City’s policy to use restricted resources first, then unrestricted resources, as they are needed.

Annual Appropriated Budget—The Water Fund has a legally adopted annual budget, which is not required to be reported.

Management’s Use of Estimates—The preparation of basic 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 reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the basic financial statements, and the reported amounts of revenues and expenses during the reporting period. Actual results could differ from those estimates.

Cash, Cash Equivalents, and Investments—Cash, cash equivalents, and investments generally are held with the City Treasurer as required by the Municipal Code of Chicago (the “Code”). Interest earned on pooled investments is allocated to participating funds based upon their average combined cash and investment balances. Due to contractual agreements or legal restrictions, the cash and investments of certain funds are segregated and earn and receive interest directly.

The Code permits deposits only to City Council-approved depositories, which must be organized state or national banks and federal and state savings and loan associations, located within the City, whose deposits are federally insured.

Investments authorized by the Code include interest-bearing general obligations of the City, State of Illinois (the "State"), and the U.S. government; U.S. Treasury bills and other non-interest-bearing general obligations of the U.S. government purchased in the open market below face value; domestic money market funds regulated by and in good standing with the Securities and Exchange Commission; and tax anticipation warrants issued by the City. The City is prohibited by ordinance from investing in derivatives, as defined, without City Council approval.

The Water Fund values its investments at fair value or amortized cost as applicable. U.S. government securities purchased at a price other than par with a maturity of less than one year are reported at amortized cost. The fair value of U.S. agency securities, corporate bonds, and municipal bonds are estimated using recently executed transactions, market price quotations (where observable), or bond spreads.

Repurchase agreements can be purchased only from banks and certain other institutions authorized to do business in the State. The City Treasurer requires that securities pledged to secure these agreements have a fair value equal to the cost of the repurchase agreements, plus accrued interest.

Investments generally may not have a maturity in excess of 30 years from the date of purchase. Certain other investment balances are held in accordance with the specific provisions of applicable bond ordinances.

Cash equivalents include certificates of deposit and other investments with maturities of three months or less when purchased.

Accounts Receivable Allowance—Management has provided an allowance for amounts recorded at year-end, which may be uncollectible.

Transactions with the City—The City's General Fund provides services to all other funds. The amounts allocated to other funds for these services are treated as operating expenses by the Water Fund and consist mainly of employee benefits, self-insured risks, and administrative expenses.

Inventories—Inventories, composed mainly of materials and supplies, are stated at cost, determined principally on the average cost method.

Utility Plant—Utility plant is recorded at cost or, for donated assets at acquisition value. Utility plant is defined by the Water Fund as assets with an initial cost of more than \$5,000 and an estimated useful life in excess of two years. Such assets are recorded at historical cost. Depreciation is provided using the straight-line method and begins in the year following the year of acquisition or completion. Estimated useful lives are as follows:

Structures and improvements	50–100 years
Distribution plant	25–100 years
Equipment	6–33 years

Costs of repairs and maintenance that do not significantly extend the useful life of assets are charged to operations.

Deferred Outflows—Deferred outflows represent unamortized loss on bond refundings, the fair value of derivative instruments that are deemed to be effective hedges, differences between estimated and actual investment earnings related to pensions, and changes in actuarial assumptions related to pensions.

Deferred Inflows—Deferred inflows represent the differences between projected and actual actuarial experience related to pensions.

Net Position—Net position is composed of net earnings from operating and nonoperating revenues, expenses, and capital grants. Net position is displayed in three components—net investment in capital assets, restricted for capital projects, and unrestricted. Net investment in capital assets consists of all capital assets, net of accumulated depreciation and reduced by outstanding debt, net of debt service reserve, and unspent bond proceeds. Restricted for capital projects consist of assets for which constraints are placed thereon by external parties (such as lenders and grantors) and laws, regulations, and enabling legislation reduced by liabilities and deferred inflows of resources related to those assets. Unrestricted consists of the net amount of all other assets, deferred outflows, liabilities, and deferred inflows not categorized as either of the above.

Employee Benefits—Employee benefits are granted for vacation and sick leave, workers' compensation, and health care. Unused vacation leave is accrued and may be carried over for one year. Sick leave is accumulated at the rate of one day for each month worked, up to a maximum of 200 days. Severance of employment terminates all rights to receive compensation for any unused sick leave. Sick leave pay is not accrued. Employee benefit claims outstanding, including claims incurred but not reported, are estimated and recorded as liabilities.

Employees are eligible to defer a portion of their salaries until future years under the City's deferred compensation plan created in accordance with Internal Revenue Code Section 457. The deferred compensation is not available to employees until termination, retirement, death, or unforeseeable emergency. The plan is administered by third-party administrators, who maintain the investment portfolio. The plan's assets have been placed in trust accounts with the plan administrators for the exclusive benefit of participants and their beneficiaries, and are not considered assets of the City.

The City is subject to the State Unemployment Compensation Act and has elected the reimbursing employer option for providing unemployment insurance benefits for eligible former employees. Under this option, the City reimburses the State for claims paid by the State.

Bond Insurance Costs, Bond Premiums, Discounts, and Refunding Transactions—Bond insurance, bond premiums, and bond discounts are deferred and amortized over the term of the related debt, except in the case of refunding debt transactions where the amortization period is over the term of the refunding or refunded debt, whichever is shorter.

Derivatives—The Water Fund enters into interest rate swap agreements to hedge interest rates and cash flows on outstanding variable interest rate debt. For existing swaps, the net interest expenditures resulting from these arrangements are recorded as interest expense. The fair value of derivative instruments that are deemed to be effective is accounted for as deferred outflows. Derivative instruments that are deemed not effective are adjusted to fair value with the change in fair value recorded to investment earnings. All interest rate swaps are approved by City Council.

Capitalized Interest—Interest expense, on construction bond proceeds, are capitalized during construction of those capital projects paid for from the bond proceeds and are being amortized over the depreciable life of the related assets on a straight-line basis. Interest capitalized in 2016 and 2015 totaled \$6.9 million and \$13.4 million, respectively.

Revenue Recognition—Revenue from water sales is recognized when the water is consumed by customers. Of the accounts receivable balances, \$78.3 million and \$79.1 million represent revenue recognized on water sales, which had not yet been billed to customers at December 31, 2016 and 2015, respectively. Unearned revenue represents amounts billed to non-metered customers prior to usage.

Revenues and Expenses—The Water Fund distinguishes operating revenues and expenses from nonoperating items. Operating revenues and expenses generally result from providing services and producing and delivering goods in connection with the Water Fund's principal ongoing operations. The principal operating revenues of the Water Fund are charges to customers for sales and services. Operating expenses include the cost of sales and services, administrative expenses, and depreciation and amortization on capital assets. All revenues and expenses not meeting this definition are reported as nonoperating revenues and expenses.

Adopted Accounting Standards— GASB Statement No. 72, *Fair Value Measurement and Application* ("GASB 72"), addressed accounting and financial reporting issues related to fair value measurements. The Water Fund adopted GASB 72 for the year ended December 31, 2016. This Statement provides guidance for determining a fair value measurement for financial reporting purposes and the related disclosures. This Statement required a government to use valuation techniques that are appropriate under the circumstances and for which sufficient data are available to measure fair value. This Statement established a hierarchy of inputs to valuation techniques used to measure fair value. This Statement also required disclosures to be made about fair value measurements, the level of fair value hierarchy, and valuation techniques (see Note 2).

GASB Statement No. 76, *The Hierarchy of Generally Accepted Accounting Principles for State and Local Governments* ("GASB 76"), supersedes Statement No. 55, *The Hierarchy of Generally Accepted Accounting Principles for State and Local Governments*. The Water Fund adopted GASB 76 for the year ended December 31, 2016 and there was no impact on the Water Fund's financial statements.

GASB Statement No. 77, *Tax Abatement Disclosures* ("GASB 77"), required governments that enter into tax abatement agreements to disclose: (1) Brief descriptive information concerning the agreement; (2) The gross dollar amount of taxes abated during the period; and (3) Commitments made by government, other than to abate taxes, that are part of the tax abatement agreement. The Water Fund adopted GASB 77 for the year ended December 31, 2016 and there was no impact on the Water Fund's financial statements.

Upcoming Accounting Standards—Other accounting standards that the Water Fund is currently reviewing for applicability and potential impact on the financial statements include:

GASB Statement No. 75, *Accounting and Financial Reporting for Postemployment Benefits Other Than Pensions* ("GASB 75"), replaces the requirements of Statements No. 45, *Accounting and Financial Reporting by Employers for Postemployment Benefits Other Than Pensions*, as amended, and No. 57, *OPEB Measurements by Agent Employers and Agent Multiple-Employer Plans*, for OPEB. GASB 75 will be effective for the Water Fund beginning

with its year ending December 31, 2018. This Statement establishes standards for recognizing and measuring liabilities, deferred outflows of resources, deferred inflows of resources, and expense/expenditures. In addition, this Statement details the recognition and disclosure requirements for employers with payables to defined benefit OPEB plans that are administered through trusts that meet the specified criteria and for employers whose employees are provided with defined contribution OPEB.

GASB Statement No. 80, *Blending Requirements for Certain Component Units, an amendment of GASB Statement No. 14* ("GASB 80"), amends the blending requirements for the financial statement presentation of component units of all state and local governments. GASB 80 will be effective for the Water Fund beginning with its year ending December 31, 2017.

GASB Statement No. 82, *Pension Issues—An Amendment of GASB Statements No. 67, No. 68 and No. 73* ("GASB 82"), addresses issues regarding (1) the presentation of payroll-related measures in required supplementary information, (2) the selection of assumptions and the treatment of deviations from the guidance in an Actuarial Standard of Practice for financial reporting purposes, and (3) the classification of payments made by employers to satisfy employee (Plan member) contribution requirements. GASB 82 will be effective for the Water Fund beginning with its year ending December 31, 2017.

GASB Statement No. 83, *Certain Asset Retirement Obligations – ("GASB 83")*, addresses accounting and financial reporting for certain asset retirement obligations (AROs). A government that has legal obligations to perform future asset retirement activities related to its tangible capital assets will have to recognize a liability based on the guidance in this statement. This Statement also requires disclosure of information about the nature of a government's AROs, the methods and assumptions used for the estimates of the liabilities, and the estimated remaining useful life of the associated tangible capital assets. GASB 83 will be effective for the Water Fund beginning with its year ending December 31, 2019.

GASB Statement No. 84, *Fiduciary Activities – ("GASB 84")* will improve the guidance regarding the identification of fiduciary activities for accounting and financial reporting purposes and how those activities should be reported. GASB 84 will be effective for the Water Fund beginning with its year ending December 31, 2019.

GASB Statement No. 85, *Omnibus – ("GASB 85")* the objective of this Statement is to address practice issues that have been identified during implementation and application of certain GASB Statements. The statement addresses various miscellaneous issues related to blending component units, goodwill, fair value measurement and application, and postemployment benefits (OPEB). GASB 85 will be effective for the Water Fund beginning with its year ending December 31, 2018.

GASB Statement No. 86, *Certain Debt Extinguishment Issues – ("GASB 86")* establishes accounting and financial reporting for in-substance defeasance of debt by providing guidance for transactions in which cash and other monetary assets acquired with only existing resources (resources other than the proceeds of refunding debt) are placed in an irrevocable trust for the sole purpose of extinguishing debt. GASB 86 will be effective for the Water Fund beginning with its year ending December 31, 2018.

2. RESTRICTED AND UNRESTRICTED CASH, CASH EQUIVALENTS, AND INVESTMENTS

Cash Equivalents and Investments—The Water Fund’s cash equivalents and investments as of December 31, 2016, are as follows (in thousands):

	Investment Maturities (in Years)				Fair Value
	Less than 1	1–5	6–10	More than 10	
U.S. agencies	\$ 17,605	\$ 10,938	\$ -	\$ -	\$ 28,543
Commercial Paper	17,971				17,971
Certificates of deposit and other short-term	60,502				60,502
Corporate bonds	3,811	22,450	20,886		47,147
Municipal bonds	<u>4,757</u>	<u>58,721</u>			<u>63,478</u>
Subtotal	<u>\$104,646</u>	<u>\$92,109</u>	<u>\$20,886</u>	<u>\$ -</u>	217,641
Share in City’s pooled funds					<u>368,262</u>
Total					<u>\$585,903</u>

Cash Equivalents and Investments—The Water Fund’s cash equivalents and investments as of December 31, 2015, are as follows (in thousands):

	Investment Maturities (in Years)				Fair Value
	Less than 1	1–5	6–10	More than 10	
U.S. agencies	\$ 55,479	\$ 115,557	\$ 4,558	\$ -	\$ 175,594
Certificates of deposit and other short-term	26,952				26,952
Corporate bonds	2,999	35,748	20,442		59,189
Municipal bonds	<u>5,803</u>	<u>54,282</u>			<u>60,085</u>
Subtotal	<u>\$91,233</u>	<u>\$205,587</u>	<u>\$25,000</u>	<u>\$ -</u>	321,820
Share in City’s pooled funds					<u>211,163</u>
Total					<u>\$532,983</u>

Investment Fair Value Measurements—The City categorizes the fair value measurements of its investments based the hierarchy established by generally accepted accounting principles. The hierarchy is based on the valuation techniques used to measure fair value.

Level 1—Inputs are unadjusted quoted prices in active markets for identical assets

Level 2—Observable inputs other than quoted market prices, and

Level 3—Unobservable Inputs

The recurring fair value measurements of investments for as of December 31, 2016 and 2015 are as follows (dollars in thousands).

Investments by Fair Value Level	2016			2015		
	Level 1	Level 2	Level 3	Level 1	Level 2	Level 3
U.S. agencies	-	28,543	-	-	167,705	-
Corporate bonds		47,147			57,688	
Municipal bonds		60,694			60,085	
	<u>-</u>	<u>136,384</u>	<u>-</u>	<u>-</u>	<u>285,478</u>	<u>-</u>

U.S. agencies include investments in government-sponsored enterprises, such as Federal National Mortgage Association, Federal Home Loan Banks, and Federal Home Loan Mortgage Corp.

Money market investments and participating interest-earning investment contracts that have a remaining maturity at the time of purchase of one year or less and are held by governments other than the external investment pools are measured at amortized cost and are not reflected in the table above. The total of these investments at amortized cost for the Water Fund are \$81.3 million and \$36.3 million as of December 31, 2016 and 2015, respectively.

The Water Fund's share in the City's pooled fund of \$368.2 million and \$211.1 million as of December 31, 2016 and 2015, respectively, is categorized as Level 2 in the fair value hierarchy; however, pooled funds are not reflected in the table above.

Interest Rate Risk—As a means of limiting its exposure to fair value losses arising from rising interest rates, the City's investment policy requires that investments generally may not have a maturity date in excess of 30 years from the date of purchase. Certain other investments are held in accordance with the specific provisions of applicable ordinances.

Credit Risk—With regard to credit risk, the Code limits the investments in securities to:

- 1) Interest-bearing general obligations of the United States and the State of Illinois;
- 2) United States treasury bills and other non-interest bearing general obligations of the United States or United States government agencies when offered for sale at a price below the face value of same, so as to afford the city a return on such investment in lieu of interest;
- 3) Tax anticipation warrants, municipal bonds, notes, commercial paper or other instruments representing a debt obligation issued by the City of Chicago;
- 4) Commercial paper which: (1) at the time of purchase, is rated in the two highest classifications by at least two accredited ratings agencies; and (2) matures not more than 270 days after the date of purchase;

- 5) Reverse repurchase agreement if: (1) the term does not exceed 90 days; and (2) the maturity of the investment acquired with the proceeds of the reverse repurchase agreement does not exceed the expiration date of the reverse repurchase agreement; Reverse repurchase agreements may be transacted with primary dealers and financial institutions, provided that the City has on file a master repurchase agreement;
- 6) Certificates of deposit of banks or savings and loan associations designated as municipal depositories which are insured by federal deposit insurance; provided that any amount of the deposit in excess of the federal deposit insurance shall be collateralized as noted in Custodial Credit Risk—Cash and Certificates of Deposit below;
- 7) Bankers acceptance of banks whose senior obligations, at the time of purchase, are rated in either the AAA or AA rating categories by at least two accredited ratings agencies;
- 8) Tax-exempt securities exempt from federal arbitrage provisions applicable to investments of proceeds of the City's tax-exempt debt obligations;
- 9) Domestic money market mutual funds regulated by and in good standing with the Securities and Exchange Commission; provided that such money market mutual funds' portfolios are limited to investments authorized by this section;
- 10) Any other suitable investment instrument permitted by state laws governing municipal investments generally, subject to the reasonable exercise of prudence in making investments of public funds;
- 11) Except where otherwise restricted or prohibited, a non-interest-bearing savings account, non-interest-bearing checking account or other non-interest bearing demand account established in a national or state bank, or a federal or state savings and loan association, when, in the determination of the treasurer, the placement of such funds in the non-interest bearing account is used as compensating balances to offset fees associated with that account that will result in cost savings to the City;
- 12) Bonds of companies organized in the United States with assets exceeding \$500.0 million that, at the time of purchase, are rated not less than A-, or equivalent rating, by at least two accredited ratings agencies;
- 13) Debt instruments of international financial institutions, including but not limited to the World Bank and the International Monetary Fund, that, at the time of purchase, are rated within 4 intermediate credit ratings of the United States sovereign credit rating by at least two accredited ratings agencies, but not less than an A-rating, or equivalent rating. The maturity of investments authorized in this subsection shall not exceed 10 years. For purposes of this subsection, an "international financial institution" means a financial institution that has been established or chartered by more than one country and the owners or shareholders are generally national governments or other international institutions such as the United Nations;
- 14) United States dollar denominated debt instruments of foreign sovereignties that, at the time of purchase, are rated within 4 intermediate credit ratings of the United States sovereign credit rating by at least two accredited ratings agencies, but not less than an A-rating or equivalent rating;

- 15) Interest-bearing bonds of any county, township, city, village, incorporated town, municipal corporation, or school district, of the State of Illinois, of any other state, or of any political subdivision or agency of the State of Illinois or of any other state, whether the interest earned thereon is taxable or tax-exempt under federal law. The bonds shall be registered in the name of the city or held under a custodial agreement at a bank. The bonds shall be rated, at the time of purchase, not less than A-, or equivalent rating, by at least two accredited rating agencies with nationally recognized expertise in rating bonds of states and their political subdivisions;
- 16) Bonds registered and regulated by the Securities and Exchange Commission and for which the full faith and credit of the State of Israel is pledged for payment; provided that the bonds have an A-rating or above or equivalent rating by at least two accredited ratings agencies;
- 17) Bonds, notes, debentures, or other similar obligations of agencies of the United States rated, at the time of purchase, no less than AAA by at least two accredited rating agencies.

Total holdings across all funds held by the Treasurer shall have no less than an overall average rating of Aa1 on a quarterly basis, as rated by two accredited rating agencies. A schedule summarizing the Water Fund's exposure to credit risk as of December 31, 2016 and 2015, is as follows (in thousands):

Quality Rating	2016	2015
Aaa/AAA	\$ 13,470	\$ 26,200
Aa/AA	102,585	228,552
A/A	34,763	26,950
P1/A1	7,978	
M1G1/SP-1+	2,784	
Not rated	<u>56,061</u>	<u>40,118</u>
Total	<u>\$217,641</u>	<u>\$321,820</u>

The Water Fund participates in the City's pooled cash and investments account, which includes amounts from other City funds and is maintained by the City Treasurer. Individual cash or investments are not specifically identifiable to any participant in the pool. The City Treasurer's pooled fund is included in the City's financial statements.

Custodial Credit Risk—Cash and Certificates of Deposit—This is the risk that in the event of a bank failure, the City's Deposits may not be returned. The City's Investment Policy states that in order to protect the City public fund deposits, depository institutions are to maintain collateral pledges on City deposits and certificates of deposit during the term of the deposit.

For certificates of deposit of banks or savings and loan associations designated as municipal depositories which are insured by federal deposit insurance, any amount of the deposit in excess of the federal deposit insurance shall be either: (1) fully collateralized at least 102 percent by: (i) marketable U.S. government securities marked to market at least monthly; (ii) bonds, notes, or other securities constituting the direct and general obligation of any agency or instrumentality of the United States; or (iii) bonds, notes or other securities constituting a direct and general obligation of any county, township, city, village,

incorporated town, municipal corporation, or school district, of the State of Illinois or of any other state, or of any political subdivision or agency of the State of Illinois or any other state which are rated in either the AAA or AA rating categories by at least two accredited ratings agencies and maintaining such rating during the term of such investments;

(2) secured by a corporate surety bond issued by an insurance company licensed to do business in Illinois and having a claims-paying rating in the top rating category as rated by a nationally recognized statistical rating organization and maintaining such rating during the term of such investment; or (3) fully collateralized at least 102 percent by an irrevocable letter of credit issued in favor of the City of Chicago by the Federal Home Loan Bank, provided that the Federal Home Loan Bank's short-term debt obligations are rated in the highest rating category by at least one accredited ratings agency throughout the term of the certificate of deposit.

The collateral required to secure City funds must be held in safekeeping and pursuant to collateral agreements which would prohibit release or substitution of pledged assets without proper written notification and authorization of the City Treasurer. The final maturity of acceptable collateral pledged shall not exceed 120 months.

The bank balance of cash and certificates of deposit with the City's various municipal depositories was \$514.1 million. 84.7 percent of the bank balance was either insured or collateralized with securities held by City agents in the City's name. \$78.7 million was uncollateralized at December 31, 2016, and thus was subject to custodial credit risk.

Investments reported in the basic financial statements as of December 31, 2016 and 2015, are summarized as follows (in thousands):

	2016	2015
Per Note 2:		
Investments—Water Fund	\$217,641	\$321,820
Investments—City Treasurer Pooled Fund	<u>368,262</u>	<u>211,163</u>
	<u>\$585,903</u>	<u>\$532,983</u>
Per financial statements:		
Restricted investments—current	\$102,254	\$153,863
Restricted investments—noncurrent	39,898	141,005
Unrestricted investments	361,553	101,612
Investments included as cash and cash equivalents on the statements of net position	<u>82,198</u>	<u>136,503</u>
	<u>\$585,903</u>	<u>\$532,983</u>

3. RESTRICTED ASSETS AND ACCOUNTS

Water sales are pledged to pay outstanding Water Revenue Bonds. The ordinances authorizing the issuance of outstanding Water Revenue Bonds provide for the creation of separate accounts into which net revenues, as defined, or proceeds are to be credited, are as follows:

Water Revenue Bonds, Series 2001, 2000, 1997, and Refunding Bonds Series 1993 (“Senior Lien Revenue Bonds”):

Bond Principal and Interest Account—No later than 10 days prior to each principal or interest payment date, an amount sufficient to pay principal, redemption premium, if any, and interest becoming due, whether upon maturity, redemption, or otherwise.

Bond Debt Service Reserve Account—For each series, an amount equal to the least of (i) the maximum annual debt service requirement; (ii) 10% of the original principal amount less original issue discount; or (iii) 125% of the average annual debt service requirement. The required balance of the Series 2000, 1997, 1995, and 1993 bonds was met by the purchase of surety bonds. The required balance of the Series 2001 Second Lien Revenue Bonds is being met with a deposit of a portion of the proceeds of the Series 2001 Senior Lien Revenue Bonds.

Construction Account—Certain proceeds of the Senior Lien Revenue Bonds were deposited in this account for the purpose of paying construction costs of projects as defined in the ordinance.

Water Revenue Bonds, Series 2000, 2006A, 2008, 2010A, 2010B, 2010C, 2012, 2014, and Refunding Bonds, Series 2004 and 2001 (“Second Lien Revenue Bonds”):

Principal and Interest Account—Deposits are required to be transferred no later than the business day preceding each May 1 and November 1, in an amount sufficient to pay principal and interest as due on outstanding Second Lien Revenue Bonds.

Second Lien Bonds Account—On the date of issuance of any series of Second Lien Revenue Bonds that bear interest at a variable rate paying interest more than semiannually, an amount equal to the interest payable during a six-month period will be transferred to a restricted account. The amount transferred will be calculated based on the maximum rate payable on such bonds.

Construction Account—Certain proceeds of the Second Lien Revenue Bonds were deposited in this account for the purpose of paying construction costs of projects as defined in the ordinance.

Water Rate Stabilization Account—Any net revenues remaining after providing sufficient funds for all required deposits in the Water Revenue Bonds accounts may be transferred to the water rate stabilization account upon the direction of the City to be used for any lawful purpose of the Water Fund.

For accounts established by ordinances with balances, the amounts at December 31, 2016 and 2015, are as follows (in thousands):

	2016	2015
Second Lien Revenue Bonds	\$ 4,596	\$ 15,749
Water rate stabilization	91,197	91,197
Construction	<u>120,517</u>	<u>214,323</u>
Total	<u>\$216,310</u>	<u>\$321,269</u>

At December 31, 2016 and 2015, management is not aware of any instances of noncompliance with the funding requirements and restrictions on assets as stated in the ordinances.

4. LONG-TERM DEBT

Long-term debt as of December 31, 2016 and 2015, consisted of the following (in thousands):

	2016	2015
\$49,880 Series 1993 Water Revenue Refunding Bonds, issued October 1, 1993, due through 2016; interest at 4.125% to 6.5%	\$ -	\$ 5,565
\$277,911 Series 1997 Water Revenue Bonds, issued September 1, 1997, due through 2019; interest at 3.9% to 5.25%	5,089	7,876
\$100,000 Series 2000 Second Lien Water Revenue Bonds, issued December 22, 1999, due 2030, variable floating interest rate; interest at 0.058% as of December 31, 2015	100,000	100,000
\$156,819 Series 2000 Senior Lien Water Revenue Bonds, issued May 2, 2000, due 2030; interest at 4.375% to 5.875%	9,871	12,766
\$81,500 Series 2001 Second Lien Water Revenue Refunding Bonds, issued December 13, 2001, due 2030; interest at 3.0% to 5.75%	80,745	80,800
\$2,292 Illinois Environmental Protection Agency Loan Agreement, signed June 30, 2003, due 2025; interest at 2.57%	1,400	1,536
\$3,605 Illinois Environmental Protection Agency Loan Agreement, signed October 16, 2003, due 2022; interest at 2.905%	1,328	1,528
\$500,000 Series 2004 Second Lien Water Revenue Refunding Bonds, issued August 5, 2004, due through 2031, variable floating interest rate; interest at 0.059% as of December 31, 2015	344,575	344,575
\$215,400 Series 2006A Second Lien Water Revenue Bonds, issued July 26, 2006, due through 2036; interest at 4.5% to 5.0%	174,605	179,635
\$549,915 Series 2008 Second Lien Water Revenue Bonds, issued April 2, 2008, due through 2038; interest at 4.0% to 5.25%	436,215	453,540
\$313,580 Series 2010A-C Second Lien Water Revenue Bonds, issued November 10, 2010, due through 2040; interest at 2.0% to 6.742%	300,355	300,355
\$6,000 Illinois Environmental Protection Agency Loan Agreement, signed January 21, 2011, due 2031; interest at 2.57%	4,637	4,917
\$9,077 Illinois Environmental Protection Agency Loan Agreement, issued February 2, 2010, due 2031; noninterest bearing	6,839	7,294
\$399,445 Series 2012 Second Lien Water Revenue Bonds, issued May 17, 2012, due through 2042; interest at 4.0% to 5.0%	391,745	399,445
\$1,527 Illinois Environmental Protection Agency Loan Agreement, issued July 8, 2010, due 2032; interest at 1.25%	1,280	1,352
\$1,502 Illinois Environmental Protection Agency Loan Agreement, issued September 15, 2013, due 2032; interest at 1.25%	1,259	1,330
\$6,092 Illinois Environmental Protection Agency Loan Agreement, issued October 25, 2013, due 2032; interest at 1.25%	5,105	5,391
\$6,542 Illinois Environmental Protection Agency Loan Agreement, signed May 27, 2014, due 2034; interest at 2.2950%	5,878	6,149
\$39,421 Illinois Environmental Protection Agency Loan Agreement, signed August 5, 2013, due 2034; interest at 1.93%	36,187	37,849
\$15,000 Illinois Environmental Protection Agency Loan Agreement, signed September 19, 2013, due 2034; interest at 1.93%	13,796	14,428
\$47,000 Illinois Environmental Protection Agency Loan Agreement, signed March 3, 2014, due 2034; interest at 1.99%	44,149	46,101
\$15,058 Illinois Environmental Protection Agency Loan Agreement, signed October, 15, 2014, due 2035; interest at 1.99%	14,420	15,058
\$367,925 Series 2014 Second Lien Water Revenue Bonds, issued September 17, 2014, due 2044; interest at 3.0% to 5.0%	357,610	363,905
\$59,595 Series 2016A-1 Tax-Exempt Second Lien Water Revenue Bonds, issued May 23, 2016, due 2031; interest at 4.0% to 5.0%	59,595	
\$22,120 Series 2016A-2 Taxable Second Lien Water Revenue Bonds, issued May 23, 2016, due 2017; interest at 1.68.0% to 2.0%	16,395	
\$55,615 Illinois Environmental Protection Agency Loan Agreement, signed May 18, 2016, due 2036; interest at 2.21%	55,319	
	<u>55,319</u>	
Total	2,468,397	2,391,395
Add accretion of capital appreciation bonds	26,345	33,254
Less current portion of accretion	(10,252)	(9,953)
Less current portion of long-term debt	(79,305)	(65,758)
Add unamortized bond discount/premium—net	161,189	91,344
	<u>161,189</u>	<u>91,344</u>
Long term portion—net	<u>\$2,566,374</u>	<u>\$2,440,282</u>

Long-term debt changed during the years ended December 31, 2016 and 2015, as follows (in thousands):

	Balance January 1, 2016	Additions	Reductions	Balance December 31, 2016	Due within One Year
Revenue bonds/notes payable	\$ 2,391,395	\$ 137,330	\$(60,328)	\$ 2,468,397	\$ 79,305
Accretion of capital appreciation bonds	33,254	3,044	(9,953)	26,345	10,252
Unamortized bond discount/ premium—net	<u>91,344</u>	<u>81,924</u>	<u>(12,079)</u>	<u>161,189</u>	<u> </u>
Total	<u>\$ 2,515,993</u>	<u>\$ 222,298</u>	<u>\$(82,360)</u>	<u>\$ 2,655,931</u>	<u>\$ 89,557</u>

	Balance January 1, 2015	Additions	Reductions	Balance December 31, 2015	Due within One Year
Revenue bonds/notes payable	\$ 2,381,771	\$ 62,059	\$(52,435)	\$ 2,391,395	\$ 65,758
Accretion of capital appreciation bonds	39,093	3,732	(9,571)	33,254	9,953
Unamortized bond discount/ premium—net	<u>97,175</u>	<u> </u>	<u>(5,831)</u>	<u>91,344</u>	<u> </u>
Total	<u>\$ 2,518,039</u>	<u>\$ 65,791</u>	<u>\$(67,837)</u>	<u>\$ 2,515,993</u>	<u>\$ 75,711</u>

Interest expense includes amortization of the deferred loss on bond refunding for 2016 and 2015 of \$2.5 million and \$2.5 million, respectively; net of amortization of bond premium of \$12.1 million and \$5.8 million, respectively; and accretion of Series 1997 and Series 2000 capital appreciation bonds of \$3.0 million and \$3.7 million, respectively.

As defined in the bond ordinances, net revenues are pledged for the payment of principal and interest on the bonds. Ordinances include covenants, which require that net revenues available for bonds, as adjusted, at least equal the greater of (i) 120% of the aggregate current annual debt service on the Senior Lien Revenue Bonds or (ii) the sum of the aggregate current annual debt service of the Senior Lien Revenue Bonds, plus 110% of the aggregate current annual Second Lien Revenue Bonds debt service, and that City management maintain all covenant reserve account balances at specified amounts. The above requirements were met in 2016 and 2015.

Rate Increase—Water rates are set by ordinance and established in an amount designed to pay the costs of Water Fund operations and capital improvements, including any related debt service. The water rate effective January 1, 2016, was \$28.52 per 1,000 cubic feet.

Issuance of Debt—On May 18, 2016, a loan agreement was signed with the Illinois Environment Protection Agency for the replacement of approximately 24 miles of damaged, undersized, leaking and antiquated water mains located throughout the City with new 8-inch water mains. In 2016, the Water Fund drew \$55.3 million from this loan agreement. The loan agreement has an interest rate of 2.21 percent with maturity dates from July 31, 2016 to January 31, 2036.

Second Lien Water Revenue Bonds, Series 2016 A-1 (59.6 million) were sold at premium in May 2016. The bonds have interest rates ranging from 4.00 percent to 5.00 percent and maturity dates from November 1, 2023 to November 1, 2031. The net proceeds of \$69.5 million were used to refund the Line of Credit Notes used for the swap termination.

Second Lien Water Revenue Bonds, Series 2016 A-2 (22.1 million) were sold at premium in May 2016. The bonds have interest rates ranging from 1.68 percent to 2.00 percent and maturity dates from November 1, 2016 to November 1, 2017. The net proceeds of \$22.0 million were used to refund the Line of Credit Notes used for the swap termination.

In May 2016, the City converted \$100.0 million outstanding of the Series 2000 Second Lien Water Revenue Bonds to fixed rate at premium. The bonds have an interest rate at 5.0 percent and maturity dates ranging from November 1, 2028 to November 1, 2030. The net proceeds of \$17.3 million will be used to finance certain capital projects.

In May 2016, the City converted \$344.6 million outstanding of the Series 2004 Second Lien Water Revenue Bonds to fixed rate at premium. The bonds have interest rates ranging from 2.0 percent to 5.0 percent and maturity date ranging from November 1, 2017 to November 1, 2027. The net proceeds of \$51.8 million will be used to finance certain capital projects.

A schedule of bond and note debt service requirements to maturity at December 31, 2016, is as follows (in thousands):

Years Ending December 31	Principal	Interest	Total Debt Service
2017	\$ 79,305	\$ 130,090	\$ 209,395
2018	84,018	127,950	211,968
2019	87,835	119,168	207,003
2020	91,783	115,519	207,302
2021	93,703	106,057	199,760
2022–2026	534,881	460,700	995,581
2027–2031	574,854	323,293	898,147
2032–2036	454,822	197,595	652,417
2037–2041	377,230	80,635	457,865
2042–2044	<u>89,966</u>	<u>7,845</u>	<u>97,811</u>
Total	<u>\$ 2,468,397</u>	<u>\$ 1,668,852</u>	<u>\$ 4,137,249</u>

In July, 2016, the Water Fund terminated the line of credit. At December 31, 2016, the Water Fund did not have commercial paper or line of credit outstanding.

During 2016, the Water Fund terminated the swaps associated with the 2000 2nd Lien Water Revenue Refunding Bonds in the amount of \$32.3 million and the Series 2004 Water Variable Rate Revenue Refunding Bonds in the amount of \$69.5 million. Swap termination payments were recorded as Swap Termination Fees.

5. UTILITY PLANT

Utility plant changed during the years ended December 31, 2016 and 2015, as follows (in thousands):

	Balance— January 1, 2016	Additions	Disposals, Adjustments and Transfers	Balance— December 31, 2016
Utility plant not depreciated:				
Land and land rights	\$ 6,858	\$ -	\$ -	\$ 6,858
Construction in progress	<u>242,155</u>	<u>180,539</u>	<u>(56,188)</u>	<u>366,506</u>
Total utility plant not depreciated	<u>249,013</u>	<u>180,539</u>	<u>(56,188)</u>	<u>373,364</u>
Utility plant being depreciated:				
Structures and improvements	586,046	1,772	922	588,740
Distribution plant	3,348,185	209,528	28,931	3,586,644
Equipment	<u>659,971</u>	<u>3,509</u>	<u>1,694</u>	<u>665,174</u>
Total utility plant being depreciated	<u>4,594,202</u>	<u>214,809</u>	<u>31,547</u>	<u>4,840,558</u>
Less accumulated depreciation:				
Structures and improvements	(213,318)	(8,287)		(221,605)
Distribution plant	(447,587)	(37,489)	1,964	(483,112)
Equipment	<u>(359,485)</u>	<u>(18,557)</u>	<u>469</u>	<u>(377,573)</u>
Total accumulated depreciation	<u>(1,020,390)</u>	<u>(64,333)</u>	<u>2,433</u>	<u>(1,082,290)</u>
Utility plant being depreciated—net	<u>3,573,812</u>	<u>150,476</u>	<u>33,980</u>	<u>3,758,268</u>
Utility plant—net	<u>\$ 3,822,825</u>	<u>\$ 331,015</u>	<u>\$ (22,208)</u>	<u>\$ 4,131,632</u>
	Balance— January 1, 2015	Additions	Disposals and Transfers	Balance— December 31, 2015
Utility plant not depreciated:				
Land and land rights	\$ 5,083	\$ 1,775	\$ -	\$ 6,858
Construction in progress	<u>457,645</u>	<u>150,811</u>	<u>(366,301)</u>	<u>242,155</u>
Total utility plant not depreciated	<u>462,728</u>	<u>152,586</u>	<u>(366,301)</u>	<u>249,013</u>
Utility plant being depreciated:				
Structures and improvements	579,534	2,636	3,876	586,046
Distribution plant	2,755,650	235,755	356,780	3,348,185
Equipment	<u>651,121</u>	<u>5,823</u>	<u>3,027</u>	<u>659,971</u>
Total utility plant being depreciated	<u>3,986,305</u>	<u>244,214</u>	<u>363,683</u>	<u>4,594,202</u>
Less accumulated depreciation:				
Structures and improvements	(205,279)	(8,039)		(213,318)
Distribution plant	(420,433)	(29,376)	2,222	(447,587)
Equipment	<u>(341,122)</u>	<u>(18,676)</u>	<u>313</u>	<u>(359,485)</u>
Total accumulated depreciation	<u>(966,834)</u>	<u>(56,091)</u>	<u>2,535</u>	<u>(1,020,390)</u>
Utility plant being depreciated—net	<u>3,019,471</u>	<u>188,123</u>	<u>366,218</u>	<u>3,573,812</u>
Utility plant—net	<u>\$ 3,482,199</u>	<u>\$ 340,709</u>	<u>\$ (83)</u>	<u>\$ 3,822,825</u>

6. PENSION PLANS

Plan Description—Eligible Water employees participate in one of two single-employer defined benefit pension plans (Plans). These Plans are: the Municipal Employees' Annuity and Benefit Fund of Chicago (Municipal); and the Laborers' and Retirement Board Employees' Annuity and Benefit Fund of Chicago (Laborers'). Plans are administered by individual retirement boards of trustees comprised of City officials or their designees and of trustees elected by plan members. Certain employees of the Chicago Board of Education participate in the Municipal Employees' Fund or the Laborers' and Retirement Board Employees' Annuity and Benefit Fund. Each Plan issues a publicly available financial report that includes financial statements and required supplementary information that can be obtained at www.meabf.org, and www.labfchicago.org.

Benefits Provided—The Plans provide retirement, disability, and death benefits as established by State law. Benefits generally vest after 10 years of credited service. Employees qualify for an unreduced retirement age minimum formula annuity based on a combination of years of service and age of retirement. Employees may also receive a reduced retirement age minimum formula annuity if they do not meet the age and service requirements for the unreduced retirement age annuity. The requirement of age and service are different for employees who became members before January 1, 2011, and those who became members on or after January 1, 2011. The annuity is computed by multiplying the final average salary by a percentage ranging from 2.2 percent to 2.5 percent per year of credited service. The final average salary is the employee's highest average annual salary for any four consecutive years within the last 10 years of credited service for participants who became members before January 1, 2011 and any eight consecutive years within the last 10 years of credited service for participants who became members on or after January 1, 2011.

Benefit terms provide for annual adjustments to each employee's retirement allowance subsequent to the employees' retirement date. For participants who became members before January 1, 2011, the annual adjustments for Municipal and Laborers are 3.0 percent, compounded, for annuitants born before 1955 and 1.5 percent, simple, born in 1955 or later. For participants that first became members on or after January 1, 2011, the annual adjustments are equal to the lesser of 3.0 percent and 50 percent of CPI-U of the original benefit.

Contributions—Historically, State law required City contributions at statutorily, not actuarially, determined rates. State law also requires covered employees to contribute a percentage of their salaries. The City's contribution was calculated based on the total amount of contributions by employees to the Plan made in the calendar year two years prior, multiplied by 1.25 for the Municipal, and 1.00 for the Laborers'. The City's contributions are budgeted in the same year as the applicable levy year for the property taxes funding the contributions. The City's contributions are then paid to the pension funds in the following year (which is when the levy property taxes are collected and paid to the City by the Cook County Treasurer). The Water Fund's proportion of the contribution was determined based on the rates of Water Fund's salaries within each corresponding pension plan to the total budgeted salaries for 2016.

The contribution to the two pension plans from the Water Fund was \$12.3 million and \$12.7 million for the years ended December 31, 2016 and 2015, respectively.

Pension Liabilities, Pension Expense, and Deferred Outflows of Resources and Deferred Inflows of Resources Related to Pensions—At December 31, 2016 and 2015, the Water Fund recorded a liability of \$1,626.7 million and \$1,646.7 million, respectively, for its proportionate share of the net pension liability. The net pension liability

was measured as of December 31, 2016 and 2015, and the total pension liability used to calculate the net pension liability was determined by an actuarial valuation as of those dates. The Water Fund's proportion of the net pension liability was determined based on the rates of Water Fund's salaries within each corresponding pension plan to the total budgeted salaries for 2016. At December 31, 2016 and 2015, the Water Fund's proportion was 6.7 percent and 6.8 percent of the Municipal plan, respectively, and 14.7 percent and 15.6 percent, respectively, of the Laborer's plan.

For the years ended December 31, 2016 and 2015, the Water Fund recognized pension expense of \$240.0 million and \$436.0 million, respectively.

At December 31, 2016 and 2015, the Water Fund reported total deferred outflows of resources of \$447.2 million and \$630.7 million, respectively, and deferred inflows of resources of \$54.6 million and \$11.1 million, respectively, related to pensions from the following sources:

Municipal (dollars in thousands):

	2016		2015	
	Deferred Outflows of Resources	Deferred Inflows of Resources	Deferred Outflows of Resources	Deferred Inflows of Resources
Differences between expected and actual experience	\$ -	\$11,158	\$ -	\$5,950
Changes of assumptions	347,987	30,833	471,908	
Net difference between projected and actual earnings on pension plan investments	<u>12,392</u>	<u> </u>	<u>13,441</u>	<u> </u>
Total	<u>\$360,379</u>	<u>\$41,991</u>	<u>\$485,349</u>	<u>\$5,950</u>

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

**Year Ended
December 31**

2017	\$ 109,056
2018	109,056
2019	109,056
2020	<u>(8,780)</u>
Total	<u>\$318,388</u>

Laborers' (dollars in thousands):

	2016		2015	
	Deferred Outflows of Resources	Deferred Inflows of Resources	Deferred Outflows of Resources	Deferred Inflows of Resources
Differences between expected and actual experience	\$ -	\$ 6,029	\$ -	\$5,101
Changes of assumptions	72,507	6,589	130,150	
Net difference between projected and actual earnings on pension plan investments	<u>14,288</u>	<u> </u>	<u>15,189</u>	<u> </u>
Total	<u>\$86,795</u>	<u>\$12,618</u>	<u>\$145,339</u>	<u>\$5,101</u>

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

**Year Ended
December 31**

2017	\$48,751
2018	21,954
2019	2,585
2020	<u>887</u>
	<u>\$74,177</u>

Deferred inflows related to changes in proportionate share of contributions – For the year ended December 31, 2016, the Water Fund reported a pension benefit of \$6.3 million and deferred inflows of \$20.3 million related to changes in its proportionate share of contributions. This deferred amount will be recognized as a pension benefit over a period of three years.

Actuarial Assumptions—The total pension liability in the December 31, 2016 and 2015 actuarial valuation was determined using the following actuarial assumptions, applied to all periods included in the measurement:

	Municipal	Laborers'
Inflation	3.00 %	3.00 %
Salary increases	4.5%–8.25% (a)	3.75 % (b)
Investment rate of return	7.50 % (c)	7.50 % (d)

- (a) Varying by years of service
- (b) Plus a service—based increase in the first 15 years
- (c) Net of investment expense
- (d) Net of investment expense, including inflation

Mortality rates were based on the RP-2000 Health Annuitant Mortality Table for Males or Females, as appropriate. The actuarial assumptions used in the December 31, 2016 valuation were adjusted based on the results of actuarial experience study for the period:

Municipal—January 1, 2005–December 31, 2009

Laborers'—January 1, 2004–December 31, 2011

The long term expected rate of return on pension plan investments was determined using the building-block method in which best-estimate ranges of expected future real rates of return (expected returns, net of pension plan investment expense and inflation) are developed for each major asset class. These ranges are combined to produce the long-term expected rate of return by weighting the expected future real rates of return by the target asset allocation percentage and by adding expected inflation. The target allocation and best estimates of arithmetic real rates of return for each major asset class as of December 31, 2016 and 2015, are summarized in the following tables:

2016

	<u>Target Allocation</u>		<u>Long-Term Expected Real Rate of Return</u>	
	<u>Municipal</u>	<u>Laborers'</u>	<u>Municipal</u>	<u>Laborers'</u>
Asset class:				
Domestic equity	26.0 %	12.0 %	4.8 %	6.4 %
Non U.S. equity		18.0		8.0
Global equity		20.0		6.8
International equity	22.0		5.0	
Fixed income	27.0	16.0	0.5	2.6
Hedge funds	10.0	8.0	2.8	3.9
Private equity	5.0		8.6	
Private markets		7.0		7.2
GAA		7.0		4.3
Real estate	10.0	8.0	5.2	4.6
Risk Parity				
Private real estate		<u>4.0</u>		
Total	<u>100.0 %</u>	<u>100.0 %</u>		

2015

	<u>Target Allocation</u>		<u>Long-Term Expected Real Rate of Return</u>	
	<u>Municipal</u>	<u>Laborers'</u>	<u>Municipal</u>	<u>Laborers'</u>
Asset class:				
Domestic equity	26.0 %	22.0 %	4.9 %	5.9 %
Non U.S. equity		13.0		7.9
Global equity		14.0		6.5
International equity	22.0		5.0	
Fixed income	27.0	16.0	0.5	2.6
Hedge funds	10.0	8.0	3.0	3.8
Private equity	5.0		8.6	
Private markets		11.0		6.9
GAA		8.0		4.7
Real estate	10.0	6.0	6.0	4.4
Risk Parity		<u>2.0</u>		5.0
Total	<u>100.0 %</u>	<u>100.0 %</u>		

Discount Rate

Municipal—The discount rate used to measure the total pension liability as of December 31, 2016 and 2015 was 3.91 and 3.73 percent, respectively. This Single Discount Rate was based on an expected rate of return on pension plan investments of 7.5 percent for December 31, 2016 and 2015 and a municipal bond rate of 3.78 and 3.6 percent as of December 31, 2016 and 2015, respectively (based on the Bond Buyer 20- Bond Index of general obligation municipal bonds). The projection of cash flows used to determine the discount rate assumed member contributions will be made at the current contribution rate and that employer contributions will be made at the 1.25 multiple of member contributions from two years prior. For this purpose, only employer contributions that are intended to fund benefits of current plan members and their beneficiaries are included. Projected employer contributions and contributions from future plan members that are intended to fund the service costs of future plan members and their beneficiaries are not included. Based on those assumptions, the pension plan’s fiduciary net position was not projected to be available to make all projected future benefit payments of current plan members. The projected benefit payments through 2023 were discounted at the expected long-term rate of return. Starting in 2024, the projected benefit payments were discounted at the municipal bond rate. Therefore, a single equivalent blended discount rate of 3.91 percent and 3.73 percent as of December 31, 2016 and 2015, respectively, was calculated using the long-term expected rate of return and the municipal bond index.

Laborers’—A Single Discount Rate of 4.17 and 4.04 percent, as of December 31, 2016 and 2015, respectively, was used to measure the total pension liability. This Single Discount Rate was based on an expected rate of return on pension plan investments of 7.5 percent as of December 31, 2016 and 2015, and a municipal bond rate of 3.78 and 3.6 percent as of December 31, 2016 and 2015, respectively. The projection of cash flows used to determine this Single Discount Rate assumed that plan member contributions will be made at the current contribution rate and that employer contributions will be made under the statutory funding policy. Based on these assumptions, the pension plan’s fiduciary net position and future contributions were sufficient to finance the benefit payments through the year 2027. As a result, the long-term expected rate of return on pension plan investments was applied to projected benefit payments through the year 2027, and the municipal bond rate was applied to all benefit payments after that date.

Sensitivity of the Water Fund’s Proportionate Share of the Net Pension Liability to Changes in the Discount Rate

Municipal—The following presents the Water Fund’s allocated share of the net pension liability as of December 31, 2016 and 2015, calculated using the discount rate of 3.91% and 3.73%, respectively, as well as what the net pension liability would be if it were calculated using a discount rate that is 1 percentage point lower or 1 percentage point higher than the current rate (dollars in thousands):

2016	Current		
	1% Decrease	Discount Rate	1% Increase
Net pension liability			
December 31, 2016:			
Municipal discount rate	2.91%	3.91%	4.91%
Municipal liability	\$ 1,488,017	\$ 1,255,259	\$ 1,064,112

2015	1% Decrease	Current Discount Rate	1% Increase
Net pension liability December 31, 2015:			
Municipal discount rate	2.73%	3.73%	4.73%
Municipal liability	\$ 1,503,684	\$ 1,260,613	\$ 1,061,422

Laborers'—The following presents the Water Fund's allocated share of the net pension liability as of December 31, 2016 and 2015, calculated using the discount rate of 4.17% and 4.04%, respectively, as well as what the net pension liability would be if it were calculated using a discount rate that is 1 percentage point lower or 1 percentage point higher than the current rate (dollars in thousands):

2016	1% Decrease	Current Discount Rate	1% Increase
Net pension liability December 31, 2016:			
Laborers' discount rate	3.17 %	4.17 %	5.17 %
Laborers' liability	\$449,108	\$371,399	\$307,509

2015	1% Decrease	Current Discount Rate	1% Increase
Net pension liability December 31, 2015:			
Laborers' discount rate	3.04 %	4.04 %	5.04 %
Laborers' liability	\$470,583	\$385,827	\$316,351

Pension Plan Fiduciary Net Position—Detailed information about the pension plans' fiduciary net position is available in the separately issued Pension Plans' financial reports.

7. OTHER POST EMPLOYMENT BENEFITS (OPEB)—PENSION FUNDS

Funded Status and Funding Progress—

State law authorized the two respective Pension Funds (Municipal and Laborers') to provide a fixed monthly dollar subsidy to each annuitant who has elected coverage under any City health plan through December 31, 2016. After that date, no Pension Fund subsidies are authorized. The liabilities for the monthly dollar Pension Fund subsidies contributed on behalf of annuitants enrolled in the medical plan by their respective Pension Funds are included in the NPO actuarial valuation reports of the respective two Pension Funds under GASB 43.

Pursuant to the provisions contained in P.A. 98-0043, the City terminated health insurance supplement payments to eligible annuitants as of December 31, 2016, resulting in no OPEB liability at December 31, 2016.

Other Post Employment Benefits—City Obligation—Up to June 30, 2013, the annuitants who retired prior to July 1, 2005 received a 55 percent subsidy from the City and the annuitants who retired on or after July 1, 2005 received a 50, 45, 40 and zero percent subsidy from the City based on the annuitant's length of actual employment with the City for the gross cost of retiree health care under a court approved settlement agreement, known as the "Settlement Plan." The pension funds contributed their subsidies of \$65 per month for each Medicare eligible annuitant and \$95 per month for each Non-Medicare eligible annuitant to their gross cost. The annuitants contributed a total of \$110.9 million in 2016 to the gross cost of their retiree health care pursuant to premium amounts set by the City.

As described above, the City of Chicago subsidized a portion of the cost (based upon service) for hospital and medical coverage for eligible retired employees and their dependents based upon a settlement agreement entered in 2003 and which expired on June 30, 2013.

On May 15, 2013, the City announced plans to, among other things: (i) continue the then current plan for the remaining six months of 2013; then, as of January 1, 2014, (ii) provide a healthcare plan to, and for the lifetimes of, former employees who retired before August 23, 1989 with a contribution from the City of up to 55 percent of the cost of that plan to the annuitant; and (iii) provide employees who retired on or after August 23, 1989 with healthcare benefits in a new Retiree Health Plan (Health Plan), but with significant changes to the terms including increases in premiums and deductibles, reduced benefits and the phase-out of the Health Plan for such employees by December 31, 2016.

The cost of health benefits is recognized as an expenditure in the accompanying financial statements as claims are reported and are funded on a pay-as-you-go basis. In 2016, the net expense to the City for providing these benefits to approximately 22,195 annuitants plus their dependents was approximately \$45.7 million.

Plan Description Summary— The City of Chicago was party to a written legal settlement agreement outlining the provisions of the Settlement Plans, which ended June 30, 2013, but the City voluntarily continued those Settlement Plans until the end of 2013. As of January 1, 2014, the Health Plan provided for annual modifications to the City's level of subsidy during the three-year phase out. The Health Plan, along with any further City subsidy expired as of December 31, 2016, for all but the group of former employees (the Korshak class of members) who retired before August 23, 1989, who shall have lifetime benefits. Duty Disabled retirees who have statutory pre-63/65 coverage will continue to have fully subsidized coverage under the active health plan until age 65.

The provisions of the Health Plan provide, in general, that the City pay a percentage of the cost (based upon an employee's service) for hospital, medical, and drug coverage to eligible retired employees and their dependents for the specified period, ending December 31, 2016. During the three-year phase out of the Health Plan, the percentage subsidies were revised to reduce by approximately 25 percent of 2013 subsidy levels in 2014, 50 percent of 2013 subsidy levels in 2015, and 75 percent of 2013 subsidy levels in 2016.

Funding Policy—No assets are accumulated or dedicated to funding the retiree health plan benefits.

Annual OPEB Cost and Net OPEB Obligation—The City's annual other post-employment benefit (OPEB) cost (expense) is calculated based on the annual required contribution of the employer (ARC). The ARC (Annual Required Contribution) represents a level of funding

that, if paid on an ongoing basis, is projected to cover the normal cost each year and to amortize any unfunded actuarial liabilities over a period of ten years.

The following table shows the components of the City's annual OPEB costs for the year for the Plans, the amount actually contributed to the Plans, and changes in the City's net OPEB obligation to the retiree Health Plan. The *Net OPEB Obligation* is the amount entered upon the City's Statement of Net Position as of year-end as the net liability for the other post-employment benefits—the Health Plan. The amount of the annual cost that is recorded in the Statement of Changes in Net Position for 2016 is the Annual OPEB Cost (expense).

**Annual OPEB Cost and Contributions Made
(dollars in thousands)**

	2016 Health Plan	2015 Health Plan
Contribution rates:		
City	Pay As You Go	Pay As You Go
Plan members	N/A	N/A
Annual required contribution	\$ 98,517	\$106,723
Interest on net OPEB obligation	5,185	5,326
Adjustment to annual required contribution	<u>(19,673)</u>	<u>(20,209)</u>
Annual OPEB cost	84,029	91,840
Contributions made	<u>89,671</u>	<u>96,551</u>
Decrease in net OPEB obligation	(5,642)	(4,711)
Net OPEB obligation—beginning of year	<u>172,851</u>	<u>177,562</u>
Net OPEB obligation—end of year	<u>\$167,209</u>	<u>\$172,851</u>

The City's annual OPEB cost, the percentage of annual OPEB cost contributed to the plan, and the net OPEB obligation for fiscal year 2016, 2015 and 2014 are as follows (dollars in thousands):

**Schedule of Contributions,
OPEB Costs and Net Obligations**

Fiscal Year Ended	Annual OPEB Cost	Percentage of Annual OPEB Cost Contributed	Net OPEB Obligation
December 31, 2016	\$ 84,029	106.7 %	\$167,209
December 31, 2015	91,840	105.1	172,851
December 31, 2014	112,432	113.9	177,562

Funded Status and Funding Progress—As of January 1, 2016, the most recent actuarial valuation date, the actuarial accrued liability for benefits was \$715.5 million all of which was unfunded. The covered payroll (annual payroll of active employees covered by the plan) was approximately \$2,536.6 million and the ratio of the unfunded actuarial liability to the covered payroll was 27.9%.

Actuarial valuations of an ongoing plan involve estimates of the value of reported amounts and assumptions about the probability of occurrence of events far into the future. Examples include assumptions about future employment, mortality, and the healthcare cost trend. Amounts determined regarding the funded status of the plan and the annual required contributions of the employer are subject to continual revisions as the results are compared with past expectations and new estimates are made about the future. The schedule of funding progress, presents, as required, supplementary information following the notes to the financial statements (dollars in thousands, unaudited).

Actuarial Valuation Date	Actuarial Value of Assets	Actuarial Accrued Liability (AAL)	Unfunded Actuarial Accrued Liability (UAAL)	Funded Ratio	Covered Payroll	UAAL as a Percentage of Covered Payroll
December 31, 2015	\$ -	\$ 715,522	\$ 715,522	- %	\$ 2,563,649	27.9 %
December 31, 2014		780,637	780,637		2,487,787	31.4 %

Actuarial Method and Assumptions—Projections of benefits for financial reporting purposes are based on the substantive plan (the plan understood by the employer and plan members) and included the types of benefits provided at the time of each valuation and the historical pattern of sharing of benefit costs between the employer and plan members to that point. The actuarial method and assumptions used include techniques that are designed to reduce the effects of short term volatility in actuarial accrued liabilities and the actuarial value of assets, consistent with the long term perspective of the calculations.

For the Health Plan benefits (not provided by the Pension Funds), the entry age normal actuarial cost method was used. The actuarial assumptions included an annual healthcare cost trend rate of 8.0% initially, reduced by decrements to an ultimate rate of 5.0% in 2027. The range of rates included a 3.0% inflation assumption. Rates included a 2.5% inflation assumption. The plan has not accumulated assets and does not hold assets in a segregated trust. However, the funds expected to be used to pay benefits are assumed to be invested for durations which will yield an annual return rate of 3.0%. The remaining Unfunded Accrued Actuarial Liability is being amortized as a level dollar amount over ten years. The benefits include the provisions under the new Health Plan, which will be completely phased-out by December 31, 2016, except for the Korshak category, which is entitled to lifetime benefits.

Summary of Assumptions and Methods

	Health Plan	
	2016	2015
Actuarial valuation date	December 31, 2015	December 31, 2014
Actuarial cost method	Entry Age Normal	Entry Age Normal
Amortization method	Level Dollar, open	Level Dollar, open
Remaining amortization period	10 years	10 years
Asset valuation method	Market Value	Market Value
Actuarial assumptions:		
Investment rate of return	3.0 %	3.0 %
Projected salary increases	2.5 %	2.5 %
Healthcare inflation rate	8.0% initial to 5.0% in 2027	8.0% initial to 5.0% in 2026

The OPEB benefit information pertaining expressly to the Water Fund employees is not available as the obligation is the responsibility of the general government. Accordingly, no

obligation has been recorded in the accompanying basic financial statements. Amounts for the City are recorded within the City's government-wide basic financial statements.

8. RELATED-PARTY TRANSACTIONS

Included in operating expenses are reimbursements to the General Fund of the City for services provided by other City departments, employee fringe benefits, and certain payments made on behalf of the Water Fund. Such reimbursements amounted to \$100.7 million and \$89.4 million in 2016 and 2015, respectively.

9. COMMITMENTS AND CONTINGENCIES

The Water Fund has certain contingent liabilities resulting from litigation, claims, or commitments incident to the ordinary course of business. Management expects that final resolution of these contingencies will not have a material adverse effect on the financial position or results of operations of the Water Fund.

The Water Fund provides workers' compensation benefits and employee health benefits under self-insurance programs administered by the City. Such claims outstanding, including claims incurred but not reported, are estimated and recorded as liabilities in the basic financial statements.

Uninsured claim expenditures and liabilities are reported when it is probable that a loss has occurred and the amount of that loss can be reasonably estimated. These losses include an estimate of claims that have been incurred but not reported. Changes in the claims liability amounts for the years ended December 31, 2016 and 2015, are as follows (in thousands):

	2016	2015
Balance—January 1	\$ 53,545	\$ 36,707
Claims incurred on current and prior-year events	32,874	54,088
Claims paid on current and prior-year events	<u>(36,188)</u>	<u>(37,250)</u>
Balance—December 31	<u>\$ 50,231</u>	<u>\$ 53,545</u>

The City purchases annuity contracts from commercial insurers to satisfy certain liabilities, accordingly, no liability is reported for those claims. Property and casualty risks for the Water Fund are transferred to commercial insurers. Claims have not exceeded the purchased insurance coverage in the past three years.

At December 31, 2016 and 2015, the Water Fund entered into contracts with outstanding commitments of approximately \$805.9 million and \$121.3 million, respectively, for construction projects.

10. DEFERRED OUTFLOWS/INFLOWS OR RESOURCES

(Dollars in thousands)	2016	2015
Deferred outflows of resources:		
Deferred outflows from pension activities	\$447,174	\$630,689
Accumulated decrease in fair value of hedging derivatives		91,806
Unamortized deferred bond refunding costs	<u>26,049</u>	<u>28,586</u>
Total deferred outflows of resources	<u>\$473,223</u>	<u>\$751,081</u>
Deferred inflows of resources:		
Deferred inflows from pension activities	<u>\$ 74,957</u>	<u>\$ (11,050)</u>

11. SUBSEQUENT EVENTS

Ratings—In May, 2017 Fitch downgraded the ratings of the Water Fund senior lien revenue bonds from AA+ to AA, with a negative outlook and the Water Fund second lien revenue bonds from AA to AA- with a negative outlook.

Bonds—In June, 2017, the City sold Second Lien Water Revenue Refunding Bonds, Series 2017 (\$199.4 million). The 2017 bonds were issued at interest rates between 5.0% and 5.25% and maturity dates between November 1, 2017 and November 1, 2036. Proceeds will be used to refund a portion of certain outstanding water bonds and pay costs of issuance.

* * * * *

REQUIRED SUPPLEMENTARY INFORMATION

CITY OF CHICAGO, ILLINOIS WATER FUND

SCHEDULE OF CHANGES IN THE NET PENSION LIABILITY AND RELATED RATIOS LAST TWO FISCAL YEARS (Dollars are in thousands)

	2016	2015
MUNICIPAL EMPLOYEES:		
Total pension liability:		
Service cost	\$ 619,743	\$ 226,816
Interest	878,369	909,067
Benefit changes		2,140,009
Differences between expected and actual experience	(127,119)	(109,835)
Assumption changes	(578,920)	8,711,755
Benefit payments including refunds	(859,672)	(826,036)
Pension plan administrative expense	<u> </u>	<u> </u>
Net change in total pension liability	(67,599)	11,051,776
Total pension liability—beginning	<u>23,358,870</u>	<u>12,307,094</u>
Total pension liability—ending ^(a)	<u>23,291,271</u>	<u>23,358,870</u>
Plan fiduciary net position:		
Contributions—employer	149,718	149,225
Contributions—employee	130,391	131,428
Net investment income	281,419	114,025
Benefit payments including refunds of employee contribution	(859,672)	(826,036)
Administrative expenses	<u>(7,056)</u>	<u>(6,701)</u>
Net change in plan fiduciary net position	(305,200)	(438,059)
Plan fiduciary net position—beginning	<u>4,741,427</u>	<u>5,179,486</u>
Plan fiduciary net position—ending ^(b)	<u>4,436,227</u>	<u>4,741,427</u>
NET PENSION LIABILITY—ending ^{(a)-(b)}	<u>\$ 18,855,044</u>	<u>\$ 18,617,443</u>
PLAN FIDUCIARY NET POSITION AS A PERCENTAGE OF THE TOTAL PENSION LIABILITY	<u>19.05 %</u>	<u>20.30 %</u>
COVERED-EMPLOYEE PAYROLL *	<u>\$ 1,646,939</u>	<u>\$ 1,643,481</u>
EMPLOYER'S NET PENSION LIABILITY AS A PERCENTAGE OF COVERED-EMPLOYEE PAYROLL	<u>1,144.85 %</u>	<u>1,132.81 %</u>
ALLOCATED NET PENSION LIABILITY	<u>\$ 1,255,259</u>	<u>\$ 1,260,613</u>
ALLOCATION PERCENTAGE	<u>6.66 %</u>	<u>6.77 %</u>

* Covered-employee payroll is the amount in force as of the valuation date and likely differs from actual payroll paid during fiscal year.

Note: Beginning with fiscal year 2015, the City will accumulate ten years of data.

(Continued)

CITY OF CHICAGO, ILLINOIS WATER FUND

SCHEDULE OF CHANGES IN THE NET PENSION LIABILITY AND RELATED RATIOS LAST TWO FISCAL YEARS (Dollars are in thousands)

	2016	2015
LABORERS':		
Total pension liability:		
Service cost *	\$ 82,960	\$ 38,389
Interest	150,166	153,812
Benefit changes		384,033
Differences between expected and actual experience	(30,428)	(46,085)
Assumption changes	(62,905)	1,175,935
Benefit payments including refunds	(154,683)	(152,530)
Pension plan administrative expense	<u>(4,080)</u>	<u>(3,844)</u>
Net change in total pension liability	(18,970)	1,549,710
Total pension liability—beginning	<u>3,712,615</u>	<u>2,162,905</u>
Total pension liability—ending ^(a)	<u>3,693,645</u>	<u>3,712,615</u>
Plan fiduciary net position:		
Contributions-employer	12,603	12,412
Contributions-employee	17,246	16,844
Net investment income	57,997	(22,318)
Benefit payments including refunds of employee contribution	(154,683)	(152,530)
Administrative expenses	<u>(4,080)</u>	<u>(3,844)</u>
Net change in plan fiduciary net position	(70,917)	(149,436)
Plan fiduciary net position—beginning	<u>1,238,657</u>	<u>1,388,093</u>
Plan fiduciary net position—ending ^(b)	<u>1,167,740</u>	<u>1,238,657</u>
NET PENSION LIABILITY—Ending ^{(a)-(b)}	<u>\$ 2,525,905</u>	<u>\$ 2,473,958</u>
PLAN FIDUCIARY NET POSITION AS A PERCENTAGE OF THE TOTAL PENSION LIABILITY	<u>31.61 %</u>	<u>33.36 %</u>
COVERED-EMPLOYEE PAYROLL **	<u>\$ 208,155</u>	<u>\$ 204,773</u>
EMPLOYER'S NET PENSION LIABILITY AS A PERCENTAGE OF COVERED-EMPLOYEE PAYROLL	<u>1,213.47 %</u>	<u>1,208.15 %</u>
ALLOCATED NET PENSION LIABILITY	<u>\$ 371,399</u>	<u>\$ 385,827</u>
ALLOCATED PERCENTAGE	<u>14.70 %</u>	<u>15.60 %</u>

* Includes pension plan administrative expense.

** Covered-employee payroll is the amount in force as of the valuation date and likely differs from actual payroll paid during fiscal year.

Note: Beginning with fiscal year 2015, the City will accumulate ten years of data.

(Concluded)

CITY OF CHICAGO, ILLINOIS

SCHEDULE OF CONTRIBUTIONS LAST TEN YEARS (Dollars are in thousands)

Municipal Employees':

Years Ended December 31	Actuarially Determined Contributions*	Contributions in Relation to the			Contributions as a Percentage of	
		Actuarially Determined Contribution	Contribution Deficiency	Covered Employee Payroll**	Covered Employee Payroll	
2007	\$ 343,123	\$ 139,606	\$ 203,517	\$ 1,564,459	8.92 %	
2008	360,387	146,803	213,584	1,543,977	9.51	
2009	413,509	148,047	265,462	1,551,973	9.54	
2010	483,948	154,752	329,196	1,541,388	10.04	
2011	611,756	147,009	464,747	1,605,993	9.15	
2012	690,823	148,859	541,964	1,590,794	9.36	
2013	820,023	148,197	671,826	1,580,289	9.38	
2014	839,039	149,747	689,292	1,602,978	9.34	
2015	677,200	149,225	527,975	1,643,481	9.08	
2016	961,770	149,718	812,052	1,646,939	9.09	

* The funding method mandated by the Illinois Pension Code is insufficient to avoid insolvency, and without a change, the Fund is projected to become insolvent within the next 10 years (during 2025). Therefore, the actuarially determined contribution is comprised of an employer normal cost payment and a 30-year, level dollar amortization payment on the unfunded actuarial accrued liability.

** Covered-employee payroll is the amount in force as of the valuation date and likely differs from actual payroll paid during fiscal year.

Laborers':

Years Ended December 31	Actuarially Determined Contributions*	Contributions in Relation to the			Contributions as a Percentage of	
		Actuarially Determined Contribution	Contribution Deficiency	Covered Employee Payroll**	Covered Employee Payroll	
2007	\$ 21,726	\$ 13,256	\$ 8,470	\$ 192,847	6.87 %	
2008	17,652	15,233	2,419	216,744	7.03	
2009	33,518	14,627	18,891	208,626	7.01	
2010	46,665	15,352	31,313	199,863	7.68	
2011	57,259	12,779	44,480	195,238	6.55	
2012	77,566	11,853	65,713	198,790	5.96	
2013	106,199	11,583	94,616	200,352	5.78	
2014	106,019	12,161	93,858	202,673	6.00	
2015	79,851	12,412	67,439	204,773	6.06	
2016	117,033	12,603	104,430	208,155	6.05	

* The LABF Statutory Funding does not conform to Actuarial Standards of Practice, therefore, the actuarially determined contribution is equal to the normal cost plus an amount to amortize the unfunded liability using dollar payments and a 30 year open amortization period.

** Covered-employee payroll is the amount in force as of the valuation date and likely differs from actual payroll paid during fiscal year.

(Continued)

CITY OF CHICAGO, ILLINOIS

SCHEDULE OF CONTRIBUTIONS

Actuarial Methods and Assumptions	Municipal Employees'		Laborers'	
Actuarial valuation date	12/31/2016	(a)	12/31/2016	(b)
Actuarial cost method	Entry age normal		Entry age normal	
Amortization method	Level dollar, open		Level dollar, open	(c)
Remaining amortization period	30 years		30 years	
Asset valuation method	5-yr Smoothed Market		5-yr Smoothed Market	
Actuarial assumptions				
Inflation	3.0%		3.0%	
Salary increases	4.5%-8.25%	(d)	3.75%	(e)
Investment rate of return	7.5%	(f)	7.5%	(g)
Retirement age	(h)		(i)	
Mortality	(j)		(k)	
Other information	(l)		(m)	

(a) Actuarially determined contribution amount is determined as of December 31, with appropriate interest to the middle of the year

(b) Actuarially determined contribution rates are calculated as of December 31, which is 12 months prior to the end of the fiscal year in which contributions are reported.

(c) The statutory contributions are based on a multiple of member contributions from the second prior year. The statutory contribution multiple is 1.00.

(d) Varying years of service.

(e) Plus a service-based increase in the first 15 years.

(f) Net of investment expense.

(g) Net of investment expense, including inflation.

(h) For employees first hired prior to January 1, 2011, rates of retirement are based on the recent experience of the Fund (adopted December 31, 2010). For employees first hired on or after January 1, 2011, rates of retirement for each age from 62 to 80 were used (adopted December 31, 2011).

(i) Experience-based table of rates that are specific to the type of eligibility condition. Last updated for the December 31, 2012, valuation pursuant to an experience study of the period January 1, 2004, through December 31, 2011.

(j) Post-retirement mortality rates were based on the RP-2000 Health Mortality Tables with mortality improvements projected to 2010 using Scale AA. Pre-retirement mortality rates were based on the post-retirement mortality assumption, multiplied by 85% for males and 70% for females.

(k) RP2000 Combined Healthy Mortality table, sex distinct, set forward one year for males and set back two years for females. No adjustment is made for post-disabled mortality.

(l) Other assumptions: Same as those used in the December 31, 2016, actuarial funding valuations.

(m) There were no benefit changes during the year.

(Concluded)

CITY OF CHICAGO, ILLINOIS

SCHEDULE OF OTHER POSTEMPLOYMENT BENEFITS FUNDING PROGRESS

LAST THREE YEARS

(Dollars are in thousands)

	Actuarial Valuation Date	Actuarial Value of Assets (a)	Actuarial Accrued Liability (AAL) Entry Age (b)	Unfunded Actuarial Liability (UAAL) (b-a)	Funded Ratio (a/b)	Covered Payroll (c)	Unfunded (Surplus) AAL as a Percentage of Covered Payroll ((b-a)/c)
City of Chicago:							
Settlement Plan							
2014	12/31/2013	\$ -	498,205	498,205	- %	2,425,000	20.54 %
2015	12/31/2014		311,748	311,748	- %	2,487,787	12.53
2016	12/31/2015		254,910	254,910	- %	2,563,649	9.94
CBA Special Benefits							
2014	12/31/2013		466,421	466,421	- %	1,400,269	33.31 %
2015	12/31/2014		468,889	468,889		1,438,428	32.60
2016	12/31/2015		460,612	460,612		1,499,552	30.72

ADDITIONAL SUPPLEMENTARY INFORMATION

CITY OF CHICAGO, ILLINOIS WATER FUND

**ADDITIONAL SUPPLEMENTARY INFORMATION
SCHEDULE OF UTILITY PLANT
FOR THE YEAR ENDED DECEMBER 31, 2016
(In thousands)**

	Assets				Accumulated Depreciation					Net Balance— December 31, 2016
	Balance— January 1, 2016	Additions	Adjustments/ Disposals	Transfers	Balance— December 31, 2016	Balance— January 1, 2016	Provision	Adjustments/ Disposals	Balance— December 31, 2016	
LAND AND LAND RIGHTS:										
Power and pumping	\$ 4,142	\$ -	\$ -	\$ -	\$ 4,142	\$ -	\$ -	\$ -	\$ -	\$ 4,142
Distribution reservoir	300				300					300
Purification	1,739				1,739					1,739
General and maintenance	677				677					677
Total land and land rights	6,858	-	-	-	6,858	-	-	-	-	6,858
STRUCTURES AND IMPROVEMENTS:										
Cribs	17,921	63			17,984	5,525	178		5,703	12,281
Lake and land tunnels	118,377				118,377	41,142	1,172		42,314	76,063
Intake structures	9,531				9,531	4,755	95		4,850	4,681
Power and pumping structures	135,126	354			135,480	37,337	1,829		39,166	96,314
Purification buildings	248,656	1,195		258	250,109	109,399	4,032		113,431	136,678
Distribution reservoirs	16,979				16,979	5,908	226		6,134	10,845
Offices, maintenance, and general	39,417			703	40,120	9,252	755		10,007	30,113
Contract retainage	39	160	(39)		160					160
Total structures and improvements	586,046	1,772	(39)	961	588,740	213,318	8,287	-	221,605	367,135
DISTRIBUTION PLANT:										
Mains and accessories	3,152,227	196,165	(1,976)	20,520	3,366,936	398,465	31,542	(1,964)	428,043	2,938,893
Meters and installations	164,759	30		25,114	189,903	38,676	5,708		44,384	145,519
Hydrants and valves	16,472				16,472	10,446	239		10,685	5,787
Contract retainage	14,727	13,333	(14,727)		13,333					13,333
Total distribution plant	3,348,185	209,528	(16,703)	45,634	3,586,644	447,587	37,489	(1,964)	483,112	3,103,532
EQUIPMENT:										
Power production	62,067	436			62,503	48,253	1,246		49,499	13,004
Pumping	222,567	266		688	223,521	105,325	6,784		112,109	111,412
Purification	324,597	936		1,635	327,168	167,801	8,152		175,953	151,215
Heavy machinery	24,894	555	(351)		25,098	17,255	1,327	(316)	18,266	6,832
Transportation	8,728	1,002	(170)		9,560	5,902	576	(153)	6,325	3,235
Miscellaneous	17,010	175			17,185	14,949	472		15,421	1,764
Contract retainage	108	139	(108)		139					139
Total equipment	659,971	3,509	(629)	2,323	665,174	359,485	18,557	(469)	377,573	287,601
Total structures and improvements, distribution plant, and equipment	4,594,202	214,809	(17,371)	48,918	4,840,558	1,020,390	64,333	(2,433)	1,082,290	3,758,268
CONSTRUCTION IN PROGRESS:										
Filtration plants	43,434	23,639		(1,787)	65,286					65,286
Pumping stations	77,929	6,586		(688)	83,827					83,827
Water mains	113,522	140,172		(46,443)	207,251					207,251
Contract retainage	7,270	10,142	(7,270)		10,142					10,142
Total construction in progress	242,155	180,539	(7,270)	(48,918)	366,506	-	-	-	-	366,506
TOTAL UTILITY PLANT	\$4,843,215	\$395,348	\$(24,641)	\$ -	\$5,213,922	\$1,020,390	\$64,333	\$(2,433)	\$1,082,290	\$4,131,632

STATISTICAL DATA (UNAUDITED)

The statistical data section includes selected financial and operating information, generally presented on a multiyear basis. Statistical section information is presented in five categories—financial trends, revenue capacity, debt capacity, operating, and demographic and economic information. Schedules in the statistical section are the following:

Financial Trends Information—These schedules contain trend information to help the reader understand how the Water Fund’s basic financial performance and well-being have changed over time.

Revenue Capacity Information—These schedules contain information to help the reader assess the Water Fund’s most significant local revenue source and water sales charge.

Debt Capacity Information—These schedules present information to help the reader assess the affordability of the Water Fund’s current levels of outstanding debt and the Water Fund’s ability to issue additional debt in the future.

Operating Information—These schedules contain service and infrastructure data to help the reader understand how the information in the Water Fund’s financial report relates to the services the Department of Water Management and the Water Fund and how it provides the activities it performs.

Demographic and Economic Information—These schedules offer demographic and economic indicators to help the reader understand where the environment within which the City’s financial activities take place.

CITY OF CHICAGO, ILLINOIS WATER FUND

STATISTICAL DATA CHANGES IN NET POSITION (UNAUDITED) THREE YEARS ENDED DECEMBER 31, 2014–2016 (In millions)

	2014	2015	2016
OPERATING REVENUES:			
Water sales	\$ 693.1	\$ 773.8	\$ 760.6
Provision for doubtful accounts	(22.5)	(23.6)	(24.8)
Other operating revenues	<u>22.1</u>	<u>19.2</u>	<u>25.6</u>
Total operating revenues	<u>692.7</u>	<u>769.4</u>	<u>761.4</u>
OPERATING EXPENSES:			
Source of supply	0.3	0.2	0.1
Power and pumping	43.1	41.3	39.6
Purification	58.5	57.1	57.5
Transmission and distribution	43.7	37.3	39.2
Customer accounting and collection	11.9	14.7	15.3
Administrative and general	22.0	22.1	20.3
Central services and General Fund reimbursements	119.2	129.1	126.4
Pension expense	<u> </u>	<u>436.0</u>	<u>240.0</u>
Total operating expenses	<u>298.7</u>	<u>737.8</u>	<u>538.4</u>
OPERATING INCOME BEFORE DEPRECIATION AND AMORTIZATION	394.0	31.6	223.0
DEPRECIATION AND AMORTIZATION	<u>58.0</u>	<u>56.4</u>	<u>68.0</u>
OPERATING INCOME	<u>336.0</u>	<u>(24.8)</u>	<u>155.0</u>
NONOPERATING REVENUES (EXPENSES):			
Interest income	(0.5)	3.1	0.6
Interest expenses	(98.8)	(106.1)	(107.9)
Swap Termination Fee			(101.7)
Other operating revenues	<u>(0.5)</u>	<u>0.2</u>	<u>0.6</u>
Total nonoperating expenses—net	<u>(99.8)</u>	<u>(102.8)</u>	<u>(208.4)</u>
TRANSFERS OUT	<u> </u>	<u>(0.6)</u>	<u>(2.4)</u>
CHANGE IN NET POSITION	236.2	(128.2)	(55.8)
TOTAL NET POSITION—Beginning of year, as restated	<u>1,447.0</u>	<u>1,079.7</u>	<u>951.5</u>
TOTAL NET POSITION—End of year	<u>\$ 1,683.2</u>	<u>\$ 951.5</u>	<u>\$ 895.7</u>

CITY OF CHICAGO, ILLINOIS WATER FUND

STATISTICAL DATA

NET POSITION BY COMPONENTS (UNAUDITED)

SEVEN YEARS ENDED DECEMBER 31, 2010–2016

(In millions)

	2010 (As Restated)*	2011 (As Restated)*	2012 (As Restated)*	2013	2014	2015	2016
NET POSITION:							
Net investment in capital assets	\$ 964.9	\$ 1,046.1	\$ 1,062.3	\$ 1,233.2	\$ 1,394.0	\$ 1,514.0	\$ 1,622.0
Restricted for capital projects	0.4	0.2	1.3	0.7	0.6	0.7	0.4
Unrestricted	<u>85.4</u>	<u>47.0</u>	<u>187.8</u>	<u>213.1</u>	<u>288.6</u>	<u>(563.2)</u>	<u>(726.7)</u>
TOTAL NET POSITION	<u>\$ 1,050.7</u>	<u>\$ 1,093.3</u>	<u>\$ 1,251.4</u>	<u>\$ 1,447.0</u>	<u>\$ 1,683.2</u>	<u>\$ 951.5</u>	<u>\$ 895.7</u>

* Restatement due to the implementation of GASB 65 in 2013

Water Fund intends to provide ten year information as it becomes available.

CITY OF CHICAGO, ILLINOIS WATER FUND

STATISTICAL DATA HISTORICAL FINANCIAL OPERATIONS (UNAUDITED) TEN YEARS ENDED DECEMBER 31, 2007–2016 (In millions)

	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
OPERATING REVENUES:										
Water sales	\$ 323.6	\$ 358.0	\$ 396.9	\$ 445.5	\$ 441.8	\$ 562.6	\$ 620.5	\$ 693.1	\$ 773.8	\$ 760.6
Other operating revenues	<u>10.8</u>	<u>12.2</u>	<u>13.3</u>	<u>12.9</u>	<u>12.4</u>	<u>13.7</u>	<u>16.6</u>	<u>22.1</u>	<u>19.2</u>	<u>25.6</u>
Total operating revenues	<u>334.4</u>	<u>370.2</u>	<u>410.2</u>	<u>458.4</u>	<u>454.2</u>	<u>576.3</u>	<u>637.1</u>	<u>715.2</u>	<u>793.0</u>	<u>786.2</u>
OPERATING EXPENSES:										
Source of supply	0.3	0.2	0.1	0.1	0.2	0.2	0.1	0.3	0.2	0.1
Power and pumping	52.2	54.7	47.5	42.9	38.2	41.7	43.2	43.1	41.3	39.6
Purification	44.2	48.4	49.4	49.7	66.5	56.1	60.9	58.5	57.1	57.5
Transmission and distribution	47.0	47.1	40.9	38.7	39.0	36.5	29.5	43.7	37.3	39.2
Provision for doubtful accounts	3.7	8.3	10.4	15.9	14.0	15.7	25.4	22.5	23.6	24.8
Customer accounting and collection	14.8	12.8	11.2	10.3	10.6	10.0	11.6	11.9	14.7	15.3
Administrative and general	14.9	18.1	16.1	18.5	17.1	21.9	21.2	22.0	22.1	20.3
Central services and General Fund reimbursements	83.7	87.2	98.5	103.0	96.6	107.4	108.7	119.3	129.1	126.4
Pension expense	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u>436.0</u>	<u>240.0</u>
Total operating expenses	<u>260.8</u>	<u>276.8</u>	<u>274.1</u>	<u>279.1</u>	<u>282.2</u>	<u>289.5</u>	<u>300.6</u>	<u>321.3</u>	<u>761.4</u>	<u>563.2</u>
INTEREST INCOME (OTHER THAN FROM CONSTRUCTIONAL ACCOUNT)	<u>4.9</u>	<u>3.7</u>	<u>1.0</u>	<u>(0.3)</u>	<u>2.0</u>	<u>0.3</u>	<u>0.4</u>	<u>(0.5)</u>	<u>3.1</u>	<u>0.6</u>
NET REVENUES—As defined (Note 4)	<u>\$ 78.5</u>	<u>\$ 97.1</u>	<u>\$ 137.1</u>	<u>\$ 179.0</u>	<u>\$ 174.0</u>	<u>\$ 287.1</u>	<u>\$ 336.9</u>	<u>\$ 393.4</u>	<u>\$ 34.7</u>	<u>\$ 223.6</u>

Source: City of Chicago Comptroller's Office.

CITY OF CHICAGO, ILLINOIS WATER FUND

STATISTICAL DATA WATER SYSTEM ACCOUNTS (UNAUDITED) TEN YEARS ENDED DECEMBER 31, 2007-2016

Years Ended December 31	Nonmetered	Metered	Total
2007	320,579	175,256	495,835
2008	319,205	178,457	497,662
2009	318,088	179,649	497,737
2010	314,002	183,618	497,620
2011	304,519	192,304	496,823
2012	290,863	205,097	495,960
2013	273,426	220,759	494,185
2014	250,304	241,304	491,608
2015	227,801	266,284	494,085
2016	206,913	287,351	494,264

CITY OF CHICAGO, ILLINOIS WATER FUND

STATISTICAL DATA TEN LARGEST SUBURBAN CUSTOMERS (UNAUDITED) FOR THE YEAR ENDED DECEMBER 31, 2016 (In thousands)

Customer	Amount of Sales
Dupage Water Commision	\$102,711
Oak Lawn, Illinois	39,539
Northwest Suburban Municipal Joint Action Water Agency	38,086
Bedford Park, Illinois	29,817
Harvey, Illinois	12,033
Cicero, Illinois	11,460
Melrose Park, Illinois	11,053
Niles, Illinois	8,227
Alsip, Illinois	8,095
Village of McCook	<u>7,361</u>
Total	<u>\$268,382</u>

Source: City of Chicago Department of Water Management.

CITY OF CHICAGO, ILLINOIS WATER FUND

STATISTICAL DATA REVENUE BOND COVERAGE (UNAUDITED) TEN YEARS ENDED DECEMBER 31, 2007–2016 (In millions)

PRIOR BONDS COVERAGE CALCULATION

COMBINED PRIOR BONDS, SENIOR LIEN, AND SECOND LIEN DEBT SERVICE CALCULATION

	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
REVENUES AVAILABLE FOR BONDS:										
Net revenues—as defined (Note 4)	\$ 78.5	\$ 97.1	\$ 137.1	\$ 179.0	\$ 174.0	\$ 287.1	\$ 336.9	\$ 393.4	\$ 34.7	\$ 223.6
Pension expense other than contribution (Note)									423.3	227.6
Transfer from (to) Water Rate Stabilization account & PAYGO Fund	7.9			(10.0)		(13.5)	(13.5)			
Other Available Funds (Note)	<u>2.9</u>	<u>18.2</u>	<u>18.9</u>	<u>6.0</u>	<u>43.4</u>	<u>63.8</u>	<u>146.2</u>	<u>176.4</u>	<u>236.1</u>	<u>421.7</u>
NET REVENUES AVAILABLE FOR BONDS	<u>\$ 89.3</u>	<u>\$ 115.3</u>	<u>\$ 156.0</u>	<u>\$ 175.0</u>	<u>\$ 217.4</u>	<u>\$ 337.4</u>	<u>\$ 469.6</u>	<u>\$ 569.8</u>	<u>\$ 694.1</u>	<u>\$ 872.9</u>
DEBT SERVICE REQUIREMENTS:										
Senior debt service requirements	<u>\$ 38.0</u>	<u>\$ 27.5</u>	<u>\$ 33.8</u>	<u>\$ 29.1</u>	<u>\$ 14.1</u>	<u>\$ 13.9</u>	<u>\$ 21.5</u>	<u>\$ 21.5</u>	<u>\$ 21.5</u>	<u>\$ 21.5</u>
Senior debt service coverage ratio	<u>2.3</u>	<u>4.2</u>	<u>4.6</u>	<u>6.0</u>	<u>15.4</u>	<u>24.3</u>	<u>21.8</u>	<u>26.5</u>	<u>32.3</u>	<u>40.6</u>
Second lien debt service requirements	\$ 43.2	\$ 62.5	\$ 75.7	\$ 82.1	\$ 106.6	\$ 116.5	\$ 125.6	\$ 126.0	\$ 150.4	153.0
Subordinate lien debt service requirements	<u>0.4</u>	<u>0.4</u>	<u>0.4</u>	<u>0.4</u>	<u>0.4</u>	<u>1.2</u>	<u>1.3</u>	<u>1.9</u>	<u>6.9</u>	<u>12.1</u>
Total second and subordinate lien debt service requirements	<u>\$ 43.6</u>	<u>\$ 62.9</u>	<u>\$ 76.1</u>	<u>\$ 82.5</u>	<u>\$ 107.0</u>	<u>\$ 117.7</u>	<u>\$ 126.9</u>	<u>\$ 127.9</u>	<u>\$ 157.3</u>	<u>165.1</u>
TOTAL COMBINED SENIOR, SECOND, AND SUBORDINATE LIEN DEBT SERVICE REQUIREMENTS	<u>\$ 81.6</u>	<u>\$ 90.4</u>	<u>\$ 109.9</u>	<u>\$ 111.6</u>	<u>\$ 121.1</u>	<u>\$ 131.6</u>	<u>\$ 148.4</u>	<u>\$ 149.4</u>	<u>\$ 178.8</u>	<u>\$ 186.6</u>
TOTAL COMBINED SENIOR AND SECOND LIEN DEBT SERVICE COVERAGE RATIO	<u>1.1</u>	<u>1.3</u>	<u>1.4</u>	<u>1.6</u>	<u>1.8</u>	<u>2.6</u>	<u>3.2</u>	<u>3.8</u>	<u>3.9</u>	<u>4.7</u>
WATER RATE STABILIZATION ACCOUNT YEAR-END BALANCE	<u>\$ 51.4</u>	<u>\$ 51.4</u>	<u>\$ 51.4</u>	<u>\$ 61.4</u>	<u>\$ 61.4</u>	<u>\$ 74.9</u>	<u>\$ 88.4</u>	<u>\$ 88.4</u>	<u>\$ 91.2</u>	<u>\$ 91.2</u>

Note: Of the \$240.0 million of pension expense for 2016, \$12.3 million is the portion of the City's pension contribution payable in 2016 to the pension funds and allocable to the Water Fund. The remaining portion of the pension expense for 2016, \$227.6 million is recognized on the income statement of the Water Fund for 2016 pursuant to GASB 68 but is not due and payable by the City during 2016; accordingly, that portion is not included in Operating Expenses for purposes of calculation of the debt service coverage ratio.

As provided in the Ordinance, Gross Revenues remaining in any period after providing sufficient funds for Operations and Maintenance Costs, for paying required debt service on all bonds and notes secured by Water System revenues, for paying any required amounts into any other accounts established for any bonds or notes secured by Water System revenues and to make any deposits into the Water Rate Stabilization Account ("Other Available Funds"), can be applied to debt service for any future period.

CITY OF CHICAGO, ILLINOIS WATER FUND

STATISTICAL DATA

LONG-TERM DEBT (UNAUDITED)

SEVEN YEARS ENDED DECEMBER 31, 2010–2016

(In millions)

	2010	2011	2012	2013	2014	2015	2016
Senior lien bonds	\$ 83.4	\$ 68.9	\$ 60.7	\$ 49.0	\$ 37.5	\$ 26.2	\$ 15.0
Second lien bonds	1,614.3	1,586.9	1,951.1	1,921.6	2,258.6	2,222.3	2,261.8
Commercial paper	51.5	46.5					
Subordinate lien—IEPA loan	<u>4.6</u>	<u>18.9</u>	<u>18.4</u>	<u>26.3</u>	<u>85.7</u>	<u>142.9</u>	<u>191.6</u>
Total long-term debt	1,753.8	1,721.2	2,030.2	1,996.9	2,381.8	2,391.4	2,468.4
Accretion of capital appreciation bonds	45.9	46.9	47.7	43.9	39.1	33.3	26.3
Unamortized bond discount/premium—net	31.7	30.5	71.0	66.9	97.0	91.3	161.2
Unamortized deferred loss on bond refunding	(41.2)	(38.7)	(36.2)				
Due within one year	<u>(46.5)</u>	<u>(48.9)</u>	<u>(51.0)</u>	<u>(53.0)</u>	<u>(61.0)</u>	<u>(75.7)</u>	<u>(89.5)</u>
Total	<u>\$ 1,743.7</u>	<u>\$ 1,711.0</u>	<u>\$ 2,061.7</u>	<u>\$ 2,054.7</u>	<u>\$ 2,456.9</u>	<u>\$ 2,440.3</u>	<u>\$ 2,566.4</u>

Water Fund intends to provide ten-year information as it becomes available.

CITY OF CHICAGO, ILLINOIS WATER FUND

**STATISTICAL DATA
CAPITAL IMPROVEMENT PROGRAM (UNAUDITED)
2017–2021
(In thousands)**

Years	Amount
2017	\$ 335,495
2018	393,103
2019	440,948
2020	458,449
2021	<u>355,224</u>
Total	<u>\$1,983,219</u>

Note: The information presented in the table above reflects the Water Fund's expected allocation of resources to various projects, but does not necessarily represent an expectation of actual cash expenditures for these projects.

Source: City of Chicago Department of Water Management.

CITY OF CHICAGO, ILLINOIS WATER FUND

STATISTICAL DATA

WATER SYSTEM PUMPAGE AND CAPACITY (UNAUDITED)

TEN YEARS ENDED DECEMBER 31, 2007–2016

Years	Total Pumpage (MGD)	Average Daily Pumpage (MGD)	Maximum Daily Pumpage (MGD)	System's Rated Pumpage Capacity (MGD)	Maximum Daily Pumpage as % of Capacity
2007	315,916	866	1,200	2,160	56
2008	301,912	827	1,136	2,160	53
2009	295,121	809	1,112	2,160	51
2010	282,368	773	1,012	2,160	47
2011	281,506	771	1,317	2,160	61
2012	289,545	793	1,248	2,160	58
2013	276,039	756	1,095	2,160	51
2014	274,552	752	1,023	2,160	47
2015	262,606	719	890	2,160	41
2016	255,872	701	934	2,160	43

Note: Million Gallons Daily (MGD).

Source: City of Chicago Department of Water Management.

CITY OF CHICAGO, ILLINOIS WATER FUND

**MISCELLANEOUS STATISTICAL DATA (UNAUDITED)
FOR THE YEARS ENDED DECEMBER 31, 2016 AND 2015**

	2016	2015
AREA SERVED (IN SQUARE MILES):		
Chicago	228	228
125 suburbs	<u>578</u>	<u>578</u>
TOTAL AREA SERVED	<u><u>806</u></u>	<u><u>806</u></u>
WATER WORKS FACILITIES:		
Filtration plants	2	2
Continuous service capacity:		
South Water Filtration Plant (MGD)	720	720
Jardine Water Purification Plant (MGD)	1,440	1,440
Pumping stations—steam	3	3
Pumping stations—electric	9	9
Installed pumping capacity (MGD)	3,661	3,661
Crib intakes in service	2	2
Shore intakes (filtration plants)	2	2
Water supply tunnels (6 to 20 feet in diameter)—miles	64	64
DISTRIBUTION SYSTEM:		
Water mains (miles)	4,295	4,311
Fire hydrants	48,190	48,543
Valves	48,670	48,954

Note: Million Gallons Daily (MGD).

Source: City of Chicago Department of Water Management.

CITY OF CHICAGO, ILLINOIS WATER FUND

STATISTICAL DATA OPERATING INFORMATION BY FUNCTION (UNAUDITED) SEVEN YEARS ENDED DECEMBER 31, 2010–2016 (Number of employees)

Function	2010	2011	2012	2013	2014	2015	2016
Administration	65	63	62	61	62	61	61
Agency management	37	39	37	37	34	36	36
Safety and security	19	17	16	16	26	27	27
Capital design and construction services	10	10	8	8	9	9	9
Engineering services	4	4	4	4	4	6	6
Inspection services	32	32	30	29	29	27	27
Water quality	48	48	48	47	47	47	47
Water pumping	233	231	234	222	220	214	214
Water treatment	324	326	323	336	334	344	344
Systems installation	39	39	34	75	76	75	75
Systems maintenance	582	581	583	542	527	520	520
Billings and customer service	65	66	50	50	48	46	46
Water meter installation and repair	<u>76</u>	<u>78</u>	<u>82</u>	<u>84</u>	<u>88</u>	<u>93</u>	<u>93</u>
Total	<u>1,534</u>	<u>1,534</u>	<u>1,511</u>	<u>1,511</u>	<u>1,504</u>	<u>1,505</u>	<u>1,505</u>

Water Fund intends to provide ten year information as it becomes available.

CITY OF CHICAGO, ILLINOIS WATER FUND

**STATISTICAL DATA
POPULATION OF SERVICE AREA (UNAUDITED)
LAST FIVE CENSUS PERIODS**

Years	Chicago		Suburban Customers		Total	Number of Suburbs Served
1970	3,369,357	(1)	1,127,446	(1)	4,496,803	72
1980	3,005,072	(1)	1,152,614	(1)	4,157,686	75
1990	2,783,726	(1)	1,589,557	(2)	4,373,283	95
2000	2,896,016	(1)	2,410,021		5,306,037	125
2010	2,695,598	(1)	2,600,496		5,296,094	125

⁽¹⁾ U.S. Department of Commerce—Census Bureau.

⁽²⁾ 23 suburban customers not included (under the DWC contract; fully served May 1, 1992) with a population of 610,478, which increases total population to 4,983,761.

CITY OF CHICAGO, ILLINOIS WATER FUND

STATISTICAL DATA PRINCIPAL EMPLOYERS (NONGOVERNMENT) (UNAUDITED) FOR THE YEAR ENDED DECEMBER 31, 2016, AND NINE YEARS AGO

Employer	2016 ⁽¹⁾			2007 ⁽¹⁾		
	Number of Employees	Rank	Percentage of Total City Employment	Number of Employees	Rank	Percentage of Total City Employment
Advocate Health Care	18,930	1	1.48%			
University of Chicago	16,374	2	1.28			
Northwestern Memorial Healthcare	15,747	3	1.23			
JP Morgan Chase & Co. (2)	15,229	4	1.19	9,114	1	0.73%
United Continental Holdings Inc.	15,157	5	1.18	6,102	2	0.49
Walgreen Boots Alliance Inc.	12,685	6	0.99			
Northwestern University	10,241	7	0.80			
Presence Health	10,183	8	0.79			
Abbott Laboratories	9,800	9	0.76			
Jewel Food Stores, Inc.	9,660	10	0.75	5,424	3	0.43
Northern Trust Corporation				4,787	4	0.38
Accenture LLP				4,283	5	0.34
SBC/AT&T (3)				4,002	6	0.32
American Airlines				3,645	7	0.29
Ford Motor Company				3,367	8	0.27
CVS Corporation				3,120	9	0.25
Deloitte & Touche				2,988	10	0.24

NOTES:

- (1) Source Reprinted with permission from the January 16, 2017's issue of Crain's Chicago Business. ©2017 Crain Communication, Inc. All right reserved.
- (2) J.P. Morgan Chase formerly known as Banc One.
- (3) AT&T Inc. formerly known as SBC Ameritech. Number of employees is a state wide number.
- (4) Source: City of Chicago, Department of Revenue, Employer's Expense Tax Returns.

CITY OF CHICAGO, ILLINOIS WATER FUND

STATISTICAL DATA

POPULATION AND INCOME STATISTICS (UNAUDITED)

TEN YEARS ENDED DECEMBER 31, 2007–2016

Year	Population ⁽¹⁾	Median Age ⁽²⁾	Number of Households ⁽²⁾	City Employment	Unemployment Rate ⁽³⁾	Per Capita Income ⁽⁴⁾	Total Income
2007	2,896,016	33.7	1,033,328	1,249,238	5.7	\$ 43,714	126,596,443,424
2008	2,896,016	34.1	1,032,746	1,237,856	6.4	45,328	131,270,613,248
2009	2,896,016	34.5	1,037,069	1,171,841	10.0	43,727	126,634,091,632
2010	2,695,598	34.8	1,045,666	1,116,830	10.1	45,957	123,881,597,286
2011	2,695,598	33.2	1,048,222	1,120,402	9.3	45,977	123,935,509,246
2012	2,695,598	33.0	1,030,746	1,144,896	8.9	48,305	130,210,861,390
2013	2,695,598	33.5	1,062,029	1,153,725	8.3	49,071	132,275,689,458
2014	2,695,598	33.9	1,031,672	1,264,234	*	50,690	136,639,862,620
2015	2,695,598	34.2	1,053,229	1,273,727	*	53,886	145,254,993,828
2016	2,695,598	N/A (5)	N/A (5)	1,282,117	*	N/A (5)	N/A ⁽⁵⁾

Notes:

⁽¹⁾ Source: U.S. Census Bureau.

⁽²⁾ Source: American Fact finder—United States Census Bureau data estimates. Data not available for 2016.

⁽³⁾ Source: Bureau of Labor Statistics 2016, Unemployment rate for Chicago-Naperville-Illinois Metropolitan Area.

⁽⁴⁾ Source: U.S. Department of Commerce, Bureau of Economic Analysis, Per Capita Personal

Income for Chicago-Naperville-Illinois Metropolitan Area

⁽⁵⁾ N/A means not available at time of publication.

* December 2016 data