# City of Chicago Department of Water Management Water Fund

Comprehensive Annual Financial Report For the Years Ended December 31, 2015 and 2014



Rahm Emanuel, Mayor Carole Brown, Chief Financial Officer Erin Keane, City Comptroller Barrett Murphy, Commissioner

#### **Water Fund**

## An Enterprise Fund of The City of Chicago

Comprehensive Annual Financial Report For the Years Ended December 31, 2015 and 2014



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

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### DEPARTMENT OF WATER MANAGEMENT CITY OF CHICAGO

June 30, 2016

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, 2015. 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 CAFR is presented in three sections: introductory, financial and statistical. 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 Five-Year Capital Improvement Program (CIP) 2016 – 2020 is forecasted to be approximately \$2.2 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 2016 with proposed increases annually bringing the 5 year total to over 450 miles of water mains to be replaced in this period. Automatic meter reading devices will continue to be installed to customers who have meters and the Meter Save Program will target installation of meters to non-metered customers on a volunteer basis.

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 system, instrumentation and processing equipment; full replacement of filter backwash controls, and roof replacement at the South Water Purification Plant. At the Jardine Water Purification Plant, the medium voltage electrical switchgear will be upgraded and the laboratory will be modernized.

The 5 year CIP also includes design and construction work on three of the departments' four steam powered pumping station to convert them to electric power. During this period construction will be completed on one of these stations, the second one will be partially constructed and the third one will be partially designed. Additionally, the 5 year CIP includes work for upgrades of pumps and motors at various existing electric powered stations; structural and façade restoration at the two active water intake cribs and the development of work plans for the demolition of the two inactive water intake cribs.

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

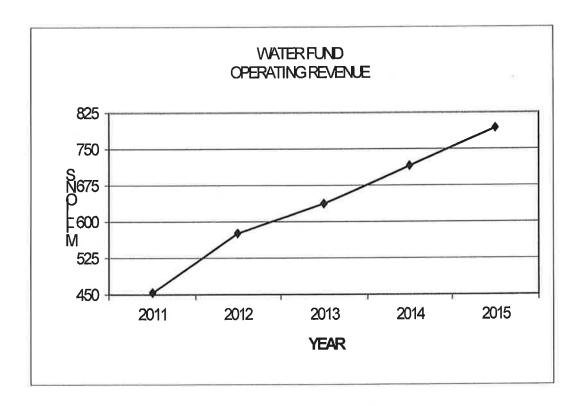
The Department of Water Management, Water Fund, is responsible for implementing and maintaining an internal control structure to ensure the integrity of the Water Fund's operations and to allow for the preparation of financial statements in conformity with accounting principles generally accepted in 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**

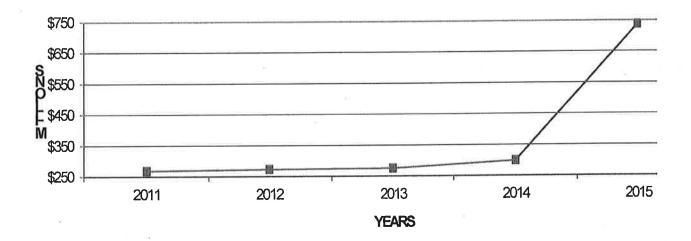
Gross operating revenue for 2015 reflect an increase of 10.9% over 2014 resulting from a water rate increase of 15% offset by the conversion of 23,820 non-metered accounts to metered. For the years 2015, 2014 and 2013 the rate increases were 15% for each year. For the year 2012 the rate increase was 25%. There was no rate increase during the year 2011. Below is a graph representing gross operating revenues for the years 2011 through 2015.



#### **OPERATING EXPENSES**

Operating expenses for the year ended December 31, 2015 increased by 147.2% compared to the year ended December 31, 2014. This increase is primarily 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 in tort/non-tort judgment settlement payments.

#### 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, 2014. This was the sixteenth 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,

BARRETT B. MURPHY

Commissioner



Government Finance Officers Association

# Certificate of Achievement for Excellence in Financial Reporting

Presented to

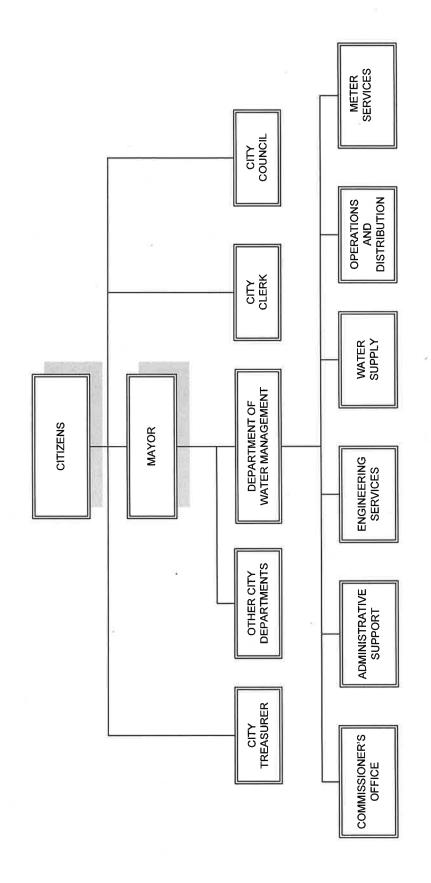
Water Fund, an Enterprise Fund of the City of Chicago, Illinois

For its Comprehensive Annual Financial Report for the Fiscal Year Ended

**December 31, 2014** 

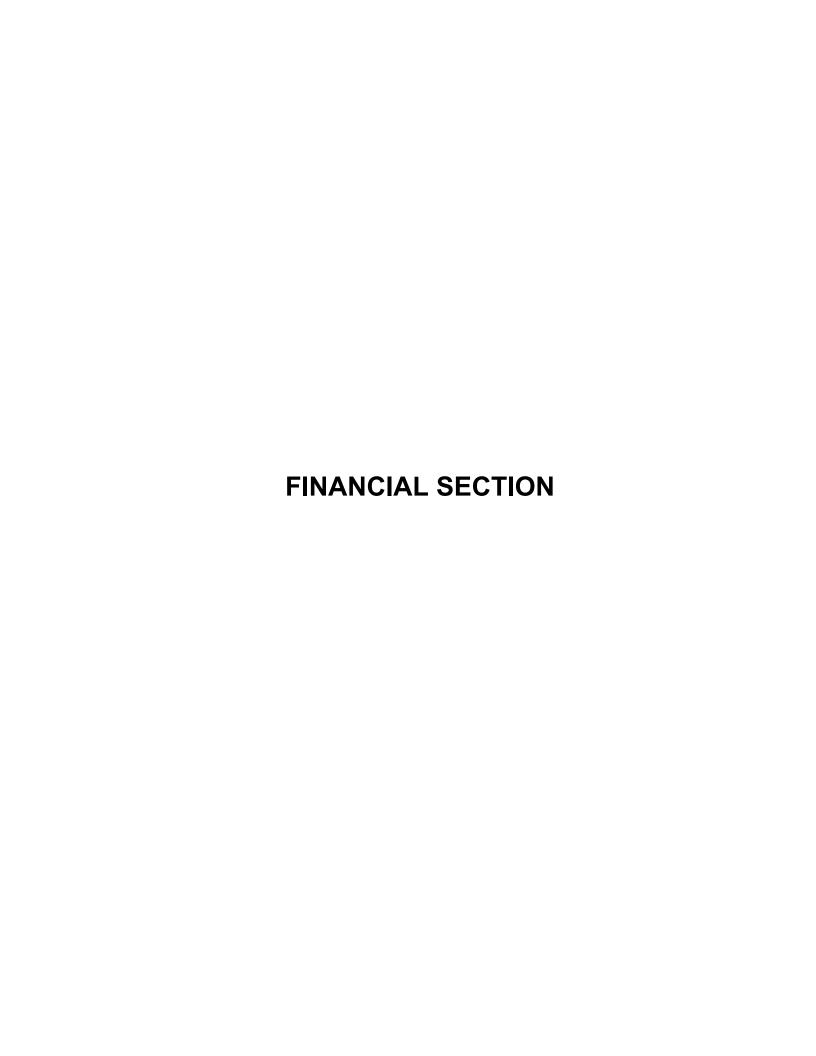
Executive Director/CEO

# CITY OF CHICAGO DEPARTMENT OF WATER MANAGEMENT As of 12/31/15



# List of Principal Officials

Rahm Emanuel Mayor Thomas H. Powers, P.E. Commissioner





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#### INDEPENDENT AUDITORS' REPORT

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

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, 2015 and 2014, 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, 2015 and 2014, 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, 2015 and 2014, changes in its financial position, or where applicable, its cash flows, in conformity with accounting principles generally accepted in the United States of America. Our opinion is not modified with respect to this matter.

As discussed in Notes 1 and 11 to the basic financial statements, beginning net position at January 1, 2015 was restated due to the City's adoption of Governmental Accounting Standards Board (GASB) Statement No. 68, *Accounting and Financial Reporting for Pensions—an amendment of GASB Statement No. 27*; and, ending net position as of December 31, 2015 reflects changes in certain benefits and actuarial assumptions (Note 6). Our opinion is not modified with respect to these matters.

#### **Other Matters**

#### Required Supplementary Information

Accounting principles generally accepted in the United States of America require that the management's discussion and analysis and the 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 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 audits were 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. In our opinion, 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.

June 30, 2016

Deloite & Souch ILP

#### 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, 2015 and 2014. 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**

#### 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.

#### 2014

- Operating gross revenues for 2014 increased by \$78.1 million compared to 2013 operating revenues. This
  increase is primarily due to a water rate increase of 15% offset by a decrease in consumption and the
  conversion in 2014 of approximately 20,000 accounts from non-metered to metered. Decrease in
  provision for doubtful accounts of about \$2.9 million was a result of an increase in collected amount for
  over 365 days' receivables.
- Operating expenses before depreciation and amortization for 2014 increased by \$23.5 million compared
  to 2013 mainly due to increases in overtime pay due to inclement weather resulting in increases in broken
  mains; Department of Water Management's share of Citywide's central services costs and in tort/non-tort
  judgment settlement offset by the decrease in costs of chemicals used for water purification.
- The Water Fund's net position at December 31, 2014, was \$1,683.2 million. This is an increase of \$236.2 million over net position at December 31, 2013.
- Utility plant additions in 2014 were \$364.8 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, 2015, the Water Fund's financial position continued to be strong with total assets and deferred outflows of \$5,526.0 million, total liabilities and deferred inflows of \$4,574.5 million, and net position of \$951.5 million. A comparative condensed summary of the Water Fund's net position at December 31, 2015, 2014, and 2013, is as follows:

		<b>Net Position</b>	
(In thousands)	2015	2014	2013
Current assets	\$ 806,467	\$ 542,748	\$ 423,372
Restricted and other assets	145,667	390,988	110,593
Utility plant—net	3,822,825	3,482,199	3,181,856
Deferred outflows	751,081	129,229	111,907
Total assets and deferred outflows	\$ 5,526,040	\$ 4,545,164	\$ 3,827,728
Current liabilities	\$ 383,371	\$ 305,342	\$ 246,266
Long-term liabilities	4,180,106	2,556,616	2,134,485
Deferred inflows	11,050		
Total liabilities	\$ 4,574,527	\$ 2,861,958	\$ 2,380,751
Net position:			
Net investment in capital assets	\$ 1,514,009	\$ 1,393,968	\$ 1,233,185
Restricted for capital projects	677	599	719
Unrestricted	(563,173)	288,639	213,073
Total net position	\$ 951,513	\$ 1,683,206	\$ 1,446,977

#### 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.

#### 2014

Current assets of \$542.7 million at December 31, 2014, increased by \$119.4 million (28.2%) over 2013 as a result of increases in investments of \$25.4 million, accounts receivable of \$23.2 million resulting from an increase in water rate and in due from other City funds of \$71.8 million. Restricted and other assets increased by \$280.4 million (253.5%) primarily due to the funding of the capital improvement program through the issuance of long-term debt in 2014 and the increase of utility plant—net by \$300.3 million (9.4%). The increase in deferred outflows of \$17.3 million (15.5%) during 2014 is mainly due to a change in the fair value of interest rate swaps.

The increase in current liabilities of \$59.1 million (24.0%) during 2014 is directly related to the timing of payments of accounts payable and an increase in current portion of long-term debt. Long-term liabilities increased by \$422.1 million (19.8%) mainly due to debt issuances in 2014.

Net position may serve as a useful indicator, over a period of time, of the Water Fund's basic financial position. At December 31, 2014, net position was \$1,683.2 million, an increase of \$236.2 million (20.8%) over 2013.

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, 2015, 2014, and 2013, is as follows:

	Revenues, Expenses, and Changes in Net Position				ges in	
(In thousands)		2015		2014		2013
Revenues:						
Operating revenues:						
Water sales—net	\$	750,163	\$	670,559	\$	595,098
Other operating revenues		19,245		22,075		16,616
Total operating revenues		769,408		692,634		611,714
Nonoperating revenues		3,327		(972)		963
Total revenues		772,735		691,662		612,677
Expenses:						
Operating expenses		737,810		298,722		275,192
Depreciation and amortization		56,444		57,949		49,630
Interest expense		106,092		98,762		92,252
Transfers out		625				
Total expenses		900,971		455,433		417,074
Change in net position		(128,236)		236,229		195,603
Net position—beginning of year (as restated)		1,079,749		1,446,977		1,251,374
Net position—end of year	\$	951,513	\$	1,683,206	\$	1,446,977

#### 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.

#### 2014

Water sales and other operating revenues comprise the Water Fund's \$692.6 million operating revenues. The increase in 2014 operating revenues of \$80.9 million (13.2%) from 2013 was primarily due to a 15% water rate increase offset by the conversion of 20,256 non-metered accounts to metered.

In 2014, net nonoperating revenue of (\$1.0 million) were composed of net interest income, grants and net revenue that relates to construction done by Department of Water Management for other City departments and private companies totaling \$0.5 million.

A comparative summary of the Water Fund's operating expenses, as classified in the basic financial statements, for the years ended December 31, 2014, 2013, and 2012, is as follows:

	Operating Expenses			
(In thousands)	2015	2014	2013	
Source of supply	\$ 198	\$ 283	\$ 99	
Power and pumping	41,343	43,087	43,230	
Purification	57,112	58,504	60,836	
Transmission and distribution	37,266	43,681	29,496	
Customer accounting and collection	14,734	11,888	11,615	
Administrative and general	22,072	22,045	21,188	
Central services and General Fund reimbursements	129,060	119,234	108,728	
Pension Expense	436,025			
Operating expenses before depreciation and amortization	737,810	298,722	275,192	
Depreciation and amortization	56,444	57,949	49,630	
Total operating expenses	\$794,254	\$356,671	\$ 324,822	

#### 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.

#### 2014

Operating expenses before depreciation and amortization for the year ended 2014 increased by \$23.5 million (8.6%) from the year ended 2013 due to increases in transmission and distribution of about \$14.2 million (48.1%) and central services of about \$10.5 million (9.7%). This was offset by a decrease in purification of about \$2.3 million resulting from a decrease in chemical costs.

A comparative summary of the Water Fund's cash flows for the years ended December 31, 2015, 2014, and 2013, is as follows:

	Cash Flows					
(In thousands of dollars)		2015		2014		2013
Cash from activities:						
Operating Operating	\$	524,932	\$	325,346	\$	310,205
Capital and related financing		(465,219)		(27,902)		(520,166)
Investing		226,625		(297,828)		122,961
Net change in cash and cash equivalents		286,338		(384)		(87,000)
Cash and cash equivalents:						
Beginning of year		36,147		36,531		123,531
End of year	\$	322,485	\$	36,147	\$	36,531

#### 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.

#### 2014

As of December 31, 2014, the Water Fund's cash and cash equivalents of \$36.1 million decreased from December 31, 2013, by \$0.4 million mainly due to the cash provided of \$325.3 million from operating activities, cash provided by issuance of bonds and notes of \$462.5 million offset by cash used in acquisition and construction of capital assets of \$333.7 million, and net cash used in investing activities of \$297.8 million. Total cash and cash equivalents at December 31, 2014, are composed of unrestricted and restricted cash and cash equivalents of \$23.6 million and \$12.6 million, respectively.

#### UTILITY PLANT AND DEBT ADMINISTRATION

#### 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).

#### 2014

At the end of 2014 and 2013, the Water Fund had \$3,482.2 million and \$3,181.9 million, respectively, invested in utility plant, net of accumulated depreciation. During 2014, the Water Fund expended \$364.8 million on capital activities. This included \$16.4 million for structures and improvements, \$62.0 million for distribution plant, \$4.0 million for equipment, and \$282.4 million for construction in progress.

During 2014, net completed projects totaling \$137.6 million were transferred from construction in progress to applicable capital accounts. The major completed projects relate to installation and replacements of water mains (\$109.4 million), and Jardine Water Purification plant's east building filter roof replacement and structural repair (\$26.3 million).

The Water Fund's utility plant at December 31, 2015, 2014, and 2013, is summarized as follows:

	Net Utility Plant at Year-End			
(In thousands)	2015	2014	2013	
Utility plant not depreciated:				
Land and land rights	\$ 6,858	\$ 5,083	\$ 5,083	
Construction in progress	242,155	457,645	317,086	
Total utility plant not depreciated	249,013	462,728	322,169	
Utility plant being depreciated:				
Structures and improvements	586,046	579,534	535,802	
Distribution plant	3,348,185	2,755,650	2,590,751	
Equipment	659,971	651,121	647,530	
Total utility plant being depreciated	4,594,202	3,986,305	3,774,083	
Less accumulated depreciation:				
Structures and improvements	(213,318)	(205,279)	(197,555)	
Distribution plant	(447,587)	(420,433)	(394,281)	
Equipment	(359,485)	(341,122)	(322,560)	
Total accumulated depreciation	(1,020,390)	(966,834)	(914,396)	
Total utility plant being depreciated—net	3,573,812	3,019,471	2,859,687	
Total utility plant—net	\$ 3,822,825	\$ 3,482,199	\$ 3,181,856	

The Water Fund's capital activities are funded through Water Fund revenue bonds 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, 2015, 2014, and 2013, are summarized as follows:

	Long-Term Liabilities at Year-End			
(In thousands)	2015	2014	2013	
Revenue bonds and notes payable Add:	\$2,391,395	\$2,381,771	\$1,996,858	
Accretion of capital appreciation bonds	33,254	39,093	43,885	
Bond discount/premium	91,344	97,175	66,934	
Total revenue bonds/notes payable—net	2,515,993	2,518,039	2,107,677	
Less current portion of accretion	(9,953)	(9,571)	(9,169)	
Less current bonds/notes payable	(65,758)	(51,535)	(43,846)	
Total long-term revenue bonds/notes payable—net	2,440,282	2,456,933	2,054,662	
Derivative instrument liability Long-term purchase obligations	91,806	98,106	78,246	
Water pipe extension certificates	1,577	1,577	1,577	
Total long-term liabilities	\$2,533,665	\$2,556,616	\$2,134,485	

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, 2015, 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 May 2015, Moody's Investors Service downgraded the ratings of the Water Fund senior lien revenue bonds from A2 to Baa1, and the Water Fund second lien revenue bonds from A3 to Baa2, each with a negative outlook.

In May 2015, subsequent to the Moody's downgrade, Standard and Poor's (S&P) downgraded the Water senior lien revenue bonds from AA to A, and the Water second lien revenue bonds from AA- to A-, each with a negative watch.

**Swaps**—In May and June 2015, the City transferred and modified certain thresholds with respect to additional termination events (ATE) for its Water swaps. The City transferred the swaps with UBS related to its Water Second Lien Revenue Bonds, Series 2000 (\$100 million notional amount), and Series 2004 (\$173.3 million notional amount) to Barclays. At the same time, the ATE rating threshold was reduced from below Baa1 by Moody's or BBB+ by S&P to below Baa3 or BBB- by Moody's and S&P, respectively. In addition, the swap with Royal Bank of Canada relating to the City's Water Second Lien Revenue Bonds, Series 2004 (\$182.2 million notional amount) was modified to reduce the ATE rating threshold from below Baa1 by Moody's or BBB+ by S&P to below BBB+ by S&P or Fitch.

At December 31, 2015, 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.

#### STATEMENTS OF NET POSITION AS OF DECEMBER 31, 2015 AND 2014 (In thousands)

	2015	2014		2015	2014
ASSETS AND DEFERRED OUTFLOWS			LIABILITIES		
CURRENT ASSETS:			CURRENT LIABILITIES:		
Cash and cash equivalents (Note 2)	\$ 296,084	\$ 23,551	Accounts payable	\$ 23,660	\$ 26,168
Investments (Note 2)	101,612	101,359	Due to other City funds	22,061	20,130
Accounts receivable—net of allowance for doubtful accounts			Accrued liabilities	138,279	92,312
of approximately \$120,575 in 2015 and \$107,201 in 2014	173,260	159,613	Unearned revenue	19,856	22,411
Interest receivable	206	163	Liabilities payable from restricted assets:		
Due from other City funds	33,672	91,224	Accounts payable	85,192	63,827
Inventories	20,691	21,192	Interest payable	18,612	19,388
Cash and cash equivalents—restricted	26,401	12,596	Current portion of long-term debt (Note 4)	75,711	61,106
Investments—restricted	153,863	132,451			
Interest receivable—restricted	678	599	Total current liabilities	383,371	305,342
Total current assets	806,467	542,748	NONCURRENT LIABILITIES:		
			Long-term debt—net of current maturities (Note 4)	2,440,282	2,456,933
NONCURRENT ASSETS:			Net Pension Liability (Note 6)	1,646,441	
Investments—restricted assets	141,005	386,090	Derivative instrument liability	91,806	98,106
Other assets	4,662	4,898	Water pipe extension certificates	1,577	1,577
Utility plant (Note 5):			Total noncurrent liabilities	4,180,106	2,556,616
Land and land rights	6,858	5,083			
Structures and improvements	586,046	579,534	Total liabilities	4,563,477	2,861,958
Distribution plant	3,348,185	2,755,650			
Equipment	659,971	651,121	DEFERRED INFLOWS (Note 10)	11,050	
Construction in progress	242,155	457,645			
Total utility plant	4,843,215	4,449,033	NET POSITION (Note 1):		
Less accumulated depreciation	(1,020,390)	(966,834)	Net investment in capital assets	1,514,009	1,393,968
Utility plant—net	3,822,825	3,482,199	Restricted for capital projects	677	599
Total noncurrent assets	3,968,492	3,873,187	Unrestricted	(563,173)	288,639
DEFERRED OUTFLOWS (Note 10)	751,081	129,229	Total net position	951,513	1,683,206
TOTAL ASSETS AND DEFERRED OUTFLOWS	\$ 5,526,040	\$4,545,164	TOTAL	\$5,526,040	\$4,545,164

See notes to basic financial statements.

## STATEMENTS OF REVENUES, EXPENSES, AND CHANGES IN NET POSITION FOR THE YEARS ENDED DECEMBER 31, 2015 AND 2014 (In thousands)

	2015	2014
	2010	2014
OPERATING REVENUES:		
Water sales: Water sales	\$ 773,756	\$ 693,096
Less: provision for doubtful accounts	(23,593)	(22,537)
Water sales—net	750,163	670,559
Other operating revenues	19,245	22,075
Total operating revenues	769,408	692,634
OPERATING EXPENSES:		
Source of supply	198	283
Power and pumping	41,343	43,087
Purification	57,112	58,504
Transmission and distribution	37,266	43,681
Customer accounting and collection	14,734	11,888
Administrative and general	22,072	22,045
Central services and General Fund reimbursements	129,060	119,234
Pension expense (Note 6)	436,025	
Total operating expenses before depreciation and amortization	737,810	298,722
OPERATING INCOME BEFORE DEPRECIATION AND		
AMORTIZATION	31,598	393,912
DEPRECIATION AND AMORTIZATION	56,444	57,949
OPERATING INCOME (LOSS)	(24,846)	335,963
NONOPERATING REVENUES (EXPENSES):		
Interest income	3,136	(515)
Interest expense	(106,092)	(98,762)
Other	191	(457)
Total nonoperating expenses—net	(102,765)	(99,734)
Transfers Out	(625)	
CHANGE IN NET POSITION	(128,236)	236,229
TOTAL NET POSITION—Beginning of year, as restated (Note 11)	1,079,749	1,446,977
TOTAL NET POSITION—End of year	\$ 951,513	\$1,683,206

See notes to basic financial statements.

#### STATEMENTS OF CASH FLOWS FOR THE YEARS ENDED DECEMBER 31, 2015 AND 2014 (In thousands)

CASH FLOWS FROM OPERATING ACTIVITIES:   Received from customers   \$ 752,908   \$ 670,519   \$ 173		2015	2014
Received from customers         \$ 752,908         \$ 670,519           Transactions with other City funds         (29,944)         (143,903)           Payments to vendors         (76,860)         (80,663)           Payments to employees         (121,172)         (120,607)           Net cash provided by operating activities         524,932         325,346           CASH FLOWS FROM CAPITAL AND RELATED         FINANCING ACTIVITIES:         325,346           Acquisition and construction of capital assets         (358,083)         (333,734)           Interest paid         (132,908)         (109,432)           Proceeds from issuance of bonds and IEPA loans         78,364         462,500           Principal paid on bonds         (52,435)         (43,633)           Payments of bonds issuance costs         (348)         (3,146)           Construction reimbursements         191         (457)           Net cash used in capital and related financing activities         (465,219)         (27,902)           CASH FLOWS FROM INVESTING ACTIVITIES:         223,420         (306,037)           Investment interest         3,205         8,209           Net cash (used in) provided by investing activities         226,625         (297,828)           NET CHANGE IN CASH AND CASH EQUIVALENTS         286,338	CASH FLOWS FROM OPERATING ACTIVITIES:		
Transactions with other City funds         (29,944)         (143,903)           Payments to vendors         (76,860)         (80,663)           Payments to employees         (121,172)         (120,607)           Net cash provided by operating activities         524,932         325,346           CASH FLOWS FROM CAPITAL AND RELATED FINANCING ACTIVITIES:         325,346         325,346           Acquisition and construction of capital assets         (358,083)         (333,734)           Interest paid         (132,908)         (109,432)           Proceeds from issuance of bonds and IEPA loans         78,364         462,500           Principal paid on bonds         (52,435)         (43,633)           Payments of bonds issuance costs         (348)         (3,146)           Construction reimbursements         191         (457)           Net cash used in capital and related financing activities         (465,219)         (27,902)           CASH FLOWS FROM INVESTING ACTIVITIES:         223,420         (306,037)           Investment interest         223,420         (306,037)           Investment interest         226,625         (297,828)           NET CHANGE IN CASH AND CASH EQUIVALENTS         286,338         (384)           CASH AND CASH EQUIVALENTS—Beginning of year         36,147 <td< td=""><td></td><td>\$ 752.908</td><td>\$ 670.519</td></td<>		\$ 752.908	\$ 670.519
Payments to vendors		· · · · · · · · · · · · · · · · · · ·	·
Payments to employees         (121,172)         (120,607)           Net cash provided by operating activities         524,932         325,346           CASH FLOWS FROM CAPITAL AND RELATED FINANCING ACTIVITIES:         325,346         333,734           Acquisition and construction of capital assets Interest paid (132,908) (109,432)         (109,432)         (109,432)           Proceeds from issuance of bonds and IEPA loans Principal paid on bonds (52,435) (43,633)         (334,633)         (348)           Payments of bonds issuance costs (348) (24,500)         (348) (3,146)         (348) (3,146)           Construction reimbursements         191 (457)         (457)           Net cash used in capital and related financing activities         (465,219) (27,902)         (27,902)           CASH FLOWS FROM INVESTING ACTIVITIES: Sales and purchases of investments—net (3,205) (306,037)         (306,037)         (306,037)           Investment interest         3,205         8,209           Net cash (used in) provided by investing activities         226,625 (297,828)           NET CHANGE IN CASH AND CASH EQUIVALENTS         286,338 (384)           CASH AND CASH EQUIVALENTS—Beginning of year         36,147 (36,531)           CASH AND CASH EQUIVALENTS—End of year         \$322,485 (36,54)           CASH AND CASH EQUIVALENTS—FINANCE STATEMENTS OF NET POSITION: Unrestricted         \$296,084 (32,551)	•		, , ,
CASH FLOWS FROM CAPITAL AND RELATED FINANCING ACTIVITIES:       (358,083)       (333,734)         Acquisition and construction of capital assets       (132,908)       (109,432)         Proceeds from issuance of bonds and IEPA loans       78,364       462,500         Principal paid on bonds       (52,435)       (43,633)         Payments of bonds issuance costs       (348)       (3,146)         Construction reimbursements       191       (457)         Net cash used in capital and related financing activities       (465,219)       (27,902)         CASH FLOWS FROM INVESTING ACTIVITIES:       223,420       (306,037)         Investment interest       3,205       8,209         Net cash (used in) provided by investing activities       226,625       (297,828)         NET CHANGE IN CASH AND CASH EQUIVALENTS       286,338       (384)         CASH AND CASH EQUIVALENTS—Beginning of year       36,147       36,531         CASH AND CASH EQUIVALENTS—End of year       \$322,485       \$36,147         RECONCILIATION OF CASH AND CASH EQUIVALENTS       \$296,084       \$23,551         RECONCILIATION THE STATEMENTS OF NET POSITION:       \$296,084       \$23,551         Unrestricted       \$296,084       \$23,551         Restricted       26,401       12,596			
CASH FLOWS FROM CAPITAL AND RELATED FINANCING ACTIVITIES:       (358,083)       (333,734)         Acquisition and construction of capital assets       (132,908)       (109,432)         Proceeds from issuance of bonds and IEPA loans       78,364       462,500         Principal paid on bonds       (52,435)       (43,633)         Payments of bonds issuance costs       (348)       (3,146)         Construction reimbursements       191       (457)         Net cash used in capital and related financing activities       (465,219)       (27,902)         CASH FLOWS FROM INVESTING ACTIVITIES:       223,420       (306,037)         Investment interest       3,205       8,209         Net cash (used in) provided by investing activities       226,625       (297,828)         NET CHANGE IN CASH AND CASH EQUIVALENTS       286,338       (384)         CASH AND CASH EQUIVALENTS—Beginning of year       36,147       36,531         CASH AND CASH EQUIVALENTS—End of year       \$322,485       \$36,147         RECONCILIATION OF CASH AND CASH EQUIVALENTS       \$296,084       \$23,551         REPORTED IN THE STATEMENTS OF NET POSITION:       \$296,084       \$23,551         Unrestricted       \$296,084       \$23,551         Restricted       26,401       12,596			
FINANCING ACTIVITIES:	Net cash provided by operating activities	524,932	325,346
Acquisition and construction of capital assets   (358,083)   (333,734)     Interest paid   (132,908)   (109,432)     Proceeds from issuance of bonds and IEPA loans   78,364   462,500     Principal paid on bonds   (52,435)   (43,633)     Payments of bonds issuance costs   (348)   (3,146)     Construction reimbursements   191   (457)     Net cash used in capital and related financing activities   (465,219)   (27,902)     CASH FLOWS FROM INVESTING ACTIVITIES:   Sales and purchases of investments—net   223,420   (306,037)     Investment interest   3,205   8,209     Net cash (used in) provided by investing activities   226,625   (297,828)     NET CHANGE IN CASH AND CASH EQUIVALENTS   286,338   (384)     CASH AND CASH EQUIVALENTS—Beginning of year   36,147   36,531     CASH AND CASH EQUIVALENTS—End of year   \$322,485   \$36,147     RECONCILIATION OF CASH AND CASH EQUIVALENTS   REPORTED IN THE STATEMENTS OF NET POSITION:   Unrestricted   \$296,084   \$23,551     Restricted   \$296,084   \$23,551     Restricted   \$296,401   12,596			
Interest paid   (132,908)   (109,432)     Proceeds from issuance of bonds and IEPA loans   78,364   462,500     Principal paid on bonds   (52,435)   (43,633)     Payments of bonds issuance costs   (348)   (3,146)     Construction reimbursements   191   (457)     Net cash used in capital and related financing activities   (465,219)   (27,902)     CASH FLOWS FROM INVESTING ACTIVITIES:   Sales and purchases of investments—net   223,420   (306,037)     Investment interest   3,205   8,209     Net cash (used in) provided by investing activities   226,625   (297,828)     NET CHANGE IN CASH AND CASH EQUIVALENTS   286,338   (384)     CASH AND CASH EQUIVALENTS—Beginning of year   36,147   36,531     CASH AND CASH EQUIVALENTS—End of year   \$322,485   \$36,147     RECONCILIATION OF CASH AND CASH EQUIVALENTS   REPORTED IN THE STATEMENTS OF NET POSITION:   Unrestricted   \$296,084   \$23,551     Restricted   \$296,084   \$23,551     Restricted   \$296,084   \$23,551     Restricted   \$26,401   12,596		(250,002)	(222 724)
Proceeds from issuance of bonds and IEPA loans         78,364         462,500           Principal paid on bonds         (52,435)         (43,633)           Payments of bonds issuance costs         (348)         (3,146)           Construction reimbursements         191         (457)           Net cash used in capital and related financing activities         (465,219)         (27,902)           CASH FLOWS FROM INVESTING ACTIVITIES:         223,420         (306,037)           Sales and purchases of investments—net         223,420         (306,037)           Investment interest         3,205         8,209           Net cash (used in) provided by investing activities         226,625         (297,828)           NET CHANGE IN CASH AND CASH EQUIVALENTS         286,338         (384)           CASH AND CASH EQUIVALENTS—Beginning of year         36,147         36,531           CASH AND CASH EQUIVALENTS—End of year         \$322,485         \$36,147           RECONCILIATION OF CASH AND CASH EQUIVALENTS         \$296,084         \$23,551           Unrestricted         \$296,084         \$23,551           Restricted         26,401         12,596			
Principal paid on bonds         (52,435)         (43,633)           Payments of bonds issuance costs         (348)         (3,146)           Construction reimbursements         191         (457)           Net cash used in capital and related financing activities         (465,219)         (27,902)           CASH FLOWS FROM INVESTING ACTIVITIES:         223,420         (306,037)           Sales and purchases of investments—net         223,420         (306,037)           Investment interest         3,205         8,209           Net cash (used in) provided by investing activities         226,625         (297,828)           NET CHANGE IN CASH AND CASH EQUIVALENTS         286,338         (384)           CASH AND CASH EQUIVALENTS—Beginning of year         36,147         36,531           CASH AND CASH EQUIVALENTS—End of year         \$ 322,485         \$ 36,147           RECONCILIATION OF CASH AND CASH EQUIVALENTS         REPORTED IN THE STATEMENTS OF NET POSITION:         \$ 296,084         \$ 23,551           Unrestricted         \$ 296,084         \$ 23,551           Restricted         26,401         12,596			
Payments of bonds issuance costs         (348)         (3,146)           Construction reimbursements         191         (457)           Net cash used in capital and related financing activities         (465,219)         (27,902)           CASH FLOWS FROM INVESTING ACTIVITIES: Sales and purchases of investments—net         223,420         (306,037)           Investment interest         3,205         8,209           Net cash (used in) provided by investing activities         226,625         (297,828)           NET CHANGE IN CASH AND CASH EQUIVALENTS         286,338         (384)           CASH AND CASH EQUIVALENTS—Beginning of year         36,147         36,531           CASH AND CASH EQUIVALENTS—End of year         \$ 322,485         \$ 36,147           RECONCILIATION OF CASH AND CASH EQUIVALENTS REPORTED IN THE STATEMENTS OF NET POSITION: Unrestricted         \$ 296,084         \$ 23,551           Restricted         \$ 296,084         \$ 23,551           Restricted         \$ 26,401         12,596		· · · · · · · · · · · · · · · · · · ·	
Construction reimbursements         191         (457)           Net cash used in capital and related financing activities         (465,219)         (27,902)           CASH FLOWS FROM INVESTING ACTIVITIES:			
Net cash used in capital and related financing activities  CASH FLOWS FROM INVESTING ACTIVITIES: Sales and purchases of investments—net Investment interest  Net cash (used in) provided by investing activities  NET CHANGE IN CASH AND CASH EQUIVALENTS  CASH AND CASH EQUIVALENTS—Beginning of year  CASH AND CASH EQUIVALENTS—End of year  RECONCILIATION OF CASH AND CASH EQUIVALENTS  REPORTED IN THE STATEMENTS OF NET POSITION: Unrestricted Restricted  \$ 296,084 \$ 23,551		. ,	
CASH FLOWS FROM INVESTING ACTIVITIES: Sales and purchases of investments—net Investment interest  Net cash (used in) provided by investing activities  NET CHANGE IN CASH AND CASH EQUIVALENTS  CASH AND CASH EQUIVALENTS—Beginning of year  CASH AND CASH EQUIVALENTS—End of year  RECONCILIATION OF CASH AND CASH EQUIVALENTS  REPORTED IN THE STATEMENTS OF NET POSITION: Unrestricted  Restricted  \$296,084 \$23,551  26,401 12,596			(137)
Sales and purchases of investments—net Investment interest       223,420 3,205 8,209       (306,037) 8,209         Net cash (used in) provided by investing activities       226,625 (297,828)         NET CHANGE IN CASH AND CASH EQUIVALENTS       286,338 (384)         CASH AND CASH EQUIVALENTS—Beginning of year       36,147 36,531         CASH AND CASH EQUIVALENTS—End of year       \$ 322,485 \$ 36,147         RECONCILIATION OF CASH AND CASH EQUIVALENTS REPORTED IN THE STATEMENTS OF NET POSITION: Unrestricted Restricted       \$ 296,084 \$ 23,551 26,401 12,596	Net cash used in capital and related financing activities	(465,219)	(27,902)
Sales and purchases of investments—net Investment interest       223,420 3,205 8,209       (306,037) 3,205 8,209         Net cash (used in) provided by investing activities       226,625 (297,828)         NET CHANGE IN CASH AND CASH EQUIVALENTS       286,338 (384)         CASH AND CASH EQUIVALENTS—Beginning of year       36,147 36,531         CASH AND CASH EQUIVALENTS—End of year       \$ 322,485 \$ 36,147         RECONCILIATION OF CASH AND CASH EQUIVALENTS REPORTED IN THE STATEMENTS OF NET POSITION: Unrestricted Restricted       \$ 296,084 \$ 23,551 26,401 12,596	CASH ELOWS EDOM INVESTING ACTIVITIES.		
Investment interest         3,205         8,209           Net cash (used in) provided by investing activities         226,625         (297,828)           NET CHANGE IN CASH AND CASH EQUIVALENTS         286,338         (384)           CASH AND CASH EQUIVALENTS—Beginning of year         36,147         36,531           CASH AND CASH EQUIVALENTS—End of year         \$ 322,485         \$ 36,147           RECONCILIATION OF CASH AND CASH EQUIVALENTS REPORTED IN THE STATEMENTS OF NET POSITION: Unrestricted Restricted         \$ 296,084         \$ 23,551           Restricted         26,401         12,596		223 420	(306.037)
Net cash (used in) provided by investing activities  226,625 (297,828)  NET CHANGE IN CASH AND CASH EQUIVALENTS  CASH AND CASH EQUIVALENTS—Beginning of year  CASH AND CASH EQUIVALENTS—End of year  RECONCILIATION OF CASH AND CASH EQUIVALENTS  REPORTED IN THE STATEMENTS OF NET POSITION:  Unrestricted  Restricted  \$296,084 \$23,551  26,401 12,596		· · · · · · · · · · · · · · · · · · ·	
NET CHANGE IN CASH AND CASH EQUIVALENTS  CASH AND CASH EQUIVALENTS—Beginning of year  CASH AND CASH EQUIVALENTS—End of year  RECONCILIATION OF CASH AND CASH EQUIVALENTS REPORTED IN THE STATEMENTS OF NET POSITION: Unrestricted Restricted  \$ 296,084 \$ 23,551 Restricted	investment interest		0,207
CASH AND CASH EQUIVALENTS—Beginning of year 36,147 36,531  CASH AND CASH EQUIVALENTS—End of year \$322,485 \$36,147  RECONCILIATION OF CASH AND CASH EQUIVALENTS REPORTED IN THE STATEMENTS OF NET POSITION: Unrestricted \$296,084 \$23,551 Restricted \$26,401 12,596	Net cash (used in) provided by investing activities	226,625	(297,828)
CASH AND CASH EQUIVALENTS—End of year \$ 322,485 \$ 36,147  RECONCILIATION OF CASH AND CASH EQUIVALENTS REPORTED IN THE STATEMENTS OF NET POSITION: Unrestricted \$ 296,084 \$ 23,551 Restricted \$ 26,401 12,596	NET CHANGE IN CASH AND CASH EQUIVALENTS	286,338	(384)
CASH AND CASH EQUIVALENTS—End of year \$ 322,485 \$ 36,147  RECONCILIATION OF CASH AND CASH EQUIVALENTS REPORTED IN THE STATEMENTS OF NET POSITION: Unrestricted \$ 296,084 \$ 23,551 Restricted \$ 26,401 12,596	CACH AND CACH FOLINAL ENTS Designing of some	26 147	26 521
RECONCILIATION OF CASH AND CASH EQUIVALENTS REPORTED IN THE STATEMENTS OF NET POSITION: Unrestricted \$ 296,084 \$ 23,551 Restricted \$ 26,401 12,596	CASH AND CASH EQUIVALENTS—Beginning of year	30,147	30,331
REPORTED IN THE STATEMENTS OF NET POSITION: Unrestricted Restricted \$296,084 \$23,551 12,596	CASH AND CASH EQUIVALENTS—End of year	\$ 322,485	\$ 36,147
Unrestricted       \$ 296,084       \$ 23,551         Restricted       26,401       12,596			
Restricted <u>26,401</u> 12,596		¢ 206.094	¢ 22.551
TOTAL \$ 322.485 \$ 36.147	Restricted	20,401	12,390
101AL 9 322,403 9 30,147	TOTAL	\$ 322.485	\$ 36.147
<u> </u>	TOTAL	ψ 322,403	Ψ 30,147
(Continued)			(Continued)

#### STATEMENTS OF CASH FLOWS FOR THE YEARS ENDED DECEMBER 31, 2015 AND 2014 (In thousands)

	2015	2014
RECONCILIATION OF OPERATING INCOME TO NET CASH		
PROVIDED BY OPERATING ACTIVITIES:		
Operating income (loss)	\$ (24,846)	\$335,963
Adjustments to reconcile:		
Depreciation and amortization	56,444	57,949
Pension expense other than contribution	423,345	
Provision for doubtful accounts	23,593	22,537
Changes in assets and liabilities:		
(Increase) decrease in accounts receivable	(37,538)	(45,813)
Decrease (increase) in inventories	501	647
(Increase) decrease in due from other City funds	56,927	(71,789)
Increase (decrease) in unrestricted accounts payable	(2,508)	5,518
Increase in due to other City funds	1,907	5,257
Increase (decrease) in accrued liabilities	29,662	13,916
Increase (decrease) in unearned revenue	(2,555)	1,161
NET CASH PROVIDED BY OPERATING ACTIVITIES	\$524,932	\$325,346

SUPPLEMENTAL DISCLOSURE OF NONCASH ITEMS—Property additions in 2015 and 2014 of \$85,942 and \$64,553, respectively, have outstanding accounts payable.

The fair market value adjustments to investments gain/(loss) for the years 2015 and 2014 were (\$2,014.3) and (\$707.6), respectively.

See notes to basic financial statements.

(Concluded)

#### NOTES TO BASIC FINANCIAL STATEMENTS AS OF AND FOR THE YEARS ENDED DECEMBER 31, 2015 AND 2014

#### 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 fair value at the date of acquisition. Utility plant is defined by the Water Fund as assets with an initial cost of more than \$5 thousand 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 the fair value of derivative instruments that are deemed to be effective hedges, unamortized loss on bond refundings and 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 Issuance Costs, Bond Premiums, Discounts, and Refunding Transactions**—Bond issuance costs related to 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 2015 and 2014 totaled \$13.4 million and \$0.6 million, respectively.

**Revenue Recognition**—Revenue from water sales is recognized when the water is consumed by customers. Of the accounts receivable balances, \$79.1 million and \$73.4 million represent revenue recognized on water sales, which had not yet been billed to customers at December 31, 2015 and 2014, 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. 68, Accounting and Financial Reporting for Pensions ("GASB 68"), establishes new financial reporting requirements for most governments that provide their employees with pension benefits through these types of plans. GASB 68 became effective for the Water Fund beginning with its year ended December 31, 2015. GASB 68 replaces the requirements of GASB Statement No. 27, Accounting for Pensions by State and Local Governmental Employers, and GASB Statement No. 50, Pension Disclosures, as they relate to governments that provide pensions through pension plans administered as trusts or similar arrangements that meet certain criteria. GASB 68 requires governments providing defined benefit pensions to recognize their long-term obligation for pension benefits as a liability for the first time, and to more comprehensively and comparably measure the annual costs of pension benefits. The Statement also enhances accountability and transparency through revised and new note disclosures and required supplementary information. Beginning net position at January 1, 2015 was restated as a result of the implementation of this standard (see Note 11).

GASB Statement No. 71, Pension Transition for Contributions Made Subsequent to the Measurement Date—an amendment of GASB Statement No. 68 ("GASB 71"), relates to amounts associated with contributions, if any, made by a state or local government employer or nonemployer contributing entity to a defined benefit pension plan after the measurement date of the government's beginning net pension liability. GASB 71 became effective for the Water Fund beginning with its year ended December 31, 2015. This statement amends paragraph 137 of GASB 68 to require that, at transition, a government recognize a beginning deferred outflow of resources for its pension contributions, if any, made subsequent to the measurement date of the beginning net pension liability and requires that beginning balances for other deferred outflows of resources and deferred inflows of resources related to pensions be reported at transition only if it is practical to determine all such amounts. There was no impact on the Water Fund's Financial Statements as a result of the implementation of GASB 71.

**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. 72 Fair Value Measurement and Application ("GASB 72"), addresses accounting and financial reporting issues related to fair value measurements. GASB 72 will be effective for the Water Fund beginning with its year ending December 31, 2016. This Statement provides guidance for determining a fair value measurement for financial reporting purposes and the related disclosures. This Statement requires 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 establishes a hierarchy of inputs to valuation techniques used to measure fair value. This Statement also requires disclosures to be made about fair value measurements, the level of fair value hierarchy, and valuation techniques.

GASB Statement No. 74, Financial Reporting for Postemployment Benefit Plans Other Than Pension Plans ("GASB 74"), replaces Statements No. 43, Financial Reporting for Postemployment Benefit Plans Other Than Pension Plans, as amended, and No. 57, OPEB (Other Postemployment Benefits) Measurement by Agent Employers and Agent Multiple-Employer Plans. GASB 74 will be effective for the Water Fund beginning with its year ending December 31, 2017. Included are requirements for defined contribution OPEB plans that replace the requirements for those OPEB plans in Statement No. 25, Financial Reporting for Defined Benefit Pension Plans and Note Disclosures for Defined Contribution Plans, as amended, Statement 43, and Statement No. 50, Pension Disclosures. GASB 74 also includes requirements to address financial reporting for assets accumulated for purposes of providing defined benefit OPEB through OPEB plans that are not administered through trusts that meet specified criteria.

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. 76, The Hierarchy of Generally Accepted Accounting Principles for State and Local Governments ("GASB 76"), supercedes Statement No. 55, The Hierarchy of Generally Accepted Accounting Principles for State and Local Governments. GASB 76 will be effective for the Water Fund beginning with its year ending December 31, 2016.

GASB Statement No. 79, Certain External Investment Pools and Pool Participants ("GASB 79"), addresses accounting and financial reporting for certain external investment pools and pool participants. It establishes criteria for an external investment pool to qualify for making the election to measure all of its investments at amortized cost for financial reporting purposes. GASB 79 establishes additional note disclosure requirements for qualifying external investment pools that measure all of their investments at amortized costs for financial reporting purposes and for governments that participate in those pools. GASB 79 will be effective for the Water Fund beginning with its year ending December 31, 2016.

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.

#### 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, 2015, are as follows (in thousands):

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

**Cash Equivalents and Investments**—The Water Fund's cash equivalents and investments as of December 31, 2014, are as follows (in thousands):

	Investment Maturities (in Years)						
	Less than 1	1–5	6–10	More than 10	Fair Value		
U.S. agencies Certificates of deposit and	\$ 29,909	\$ 356,444	\$ 14,659	\$ -	\$401,012		
other short-term	16,185				16,185		
Commercial paper	78,964				78,964		
Corporate bonds	5,809	8,977			14,786		
Municipal bonds	6,669	16,184			22,853		
Subtotal	\$137,536	\$381,605	<u>\$14,659</u>	<u>\$ -</u>	533,800		
Share in City's pooled funds					116,710		
Total					\$650,510		

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.

**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 Arating 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, 2015 and 2014, is as follows (in thousands):

Quality Rating	2015	2014
Aaa/AAA	\$ 26,200	\$ 23,540
Aa/AA	228,552	400,950
A/A	26,950	4,300
P1/A1		82,364
Not rated	40,118	22,646
Total	\$ 321,820	\$ 533,800

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 \$626.6 million. 98.3 percent of the bank balance was either insured or collateralized with securities held by City agents in the City's name. \$10.5 million was uncollateralized at December 31, 2015, and thus was subject to custodial credit risk.

Investments reported in the basic financial statements as of December 31, 2015 and 2014, are summarized as follows (in thousands):

	2015	2014
Per Note 2:		
Investments—Water Fund	\$ 321,820	\$ 533,800
Investments—City Treasurer Pooled Fund	211,163	116,710
	\$ 532,983	\$ 650,510
Per financial statements:		
Restricted investments—current	\$ 153,863	\$ 132,451
Restricted investments—noncurrent	141,005	386,090
Unrestricted investments	101,612	101,359
Investments included as cash and cash equivalents on the		
statements of net position	136,503	30,610
	\$532,983	\$650,510

#### 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, 2015 and 2014, are as follows (in thousands):

	2015	2014
Second Lien Revenue Bonds Water rate stabilization Construction	\$ 15,749 91,197 214,323	\$ 14,810 88,397 427,930
Total	\$321,269	\$531,137

At December 31, 2015 and 2014, 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, 2015 and 2014, consisted of the following (in thousands):

	2015	2014
\$49,880 Series 1993 Water Revenue Refunding Bonds, issued October 1, 1993, due through 2016; interest at 4.125% to 6.5%	\$ 5,565	\$ 10,790
\$277,911 Series 1997 Water Revenue Bonds, issued September 1, 1997, due through 2019; interest at 3.9% to 5.25%	7,876	10,849
\$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%	12,766	15,857
\$81,500 Series 2001 Second Lien Water Revenue Refunding Bonds, issued December 13, 2001, due 2030; interest at 3.0% to 5.75%	80,800	80,850
\$2,292 Illinois Environmental Protection Agency Loan Agreement, signed June 30, 2003, due 2025; interest at 2.57%	1,536	1,669
\$3,605 Illinois Environmental Protection Agency Loan Agreement, signed October 16, 2003, due 2022; interest at 2.905%	1,528	1,723
\$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	355,575
\$215,400 Series 2006A Second Lien Water Revenue Bonds, issued July 26, 2006, due through 2036; interest at 4.5% to 5.0%	179,635	184,425
\$549,915 Series 2008 Second Lien Water Revenue Bonds, issued April 2, 2008, due through 2038; interest at 4.0% to 5.25%	453,540	470,035
\$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%	4,917	5,192
\$9,077 Illinois Environmental Protection Agency Loan Agreement, issued February 2, 2010, due 2031; noninterest bearing	7,294	7,750
\$399,445 Series 2012 Second Lien Water Revenue Bonds, issued May 17, 2012, due through 2042; interest at 4.0% to 5.0%	399,445	399,445
\$1,527 Illinois Environmental Protection Agency Loan Agreement, issued July 8, 2010, due 2032; interest at 1.25%	1,352	1,423
\$1,502 Illinois Environmental Protection Agency Loan Agreement, issued September 15, 2013, due 2032; interest at 1.25%	1,330	1,399
\$6,092 Illinois Environmental Protection Agency Loan Agreement, issued October 25, 2013, due 2032; interest at 1.25%	5,391	5,674
\$6,542 Illinois Environmental Protection Agency Loan Agreement, signed May 27, 2014, due 2034; interest at 2.2950%	6,149	6,413
\$39,421 Illinois Environmental Protection Agency Loan Agreement, signed August 5, 2013, due 2034; interest at 1.93%	37,849	39,422
\$15,000 Illinois Environmental Protection Agency Loan Agreement, signed September 19, 2013, due 2034; interest at 1.93%	14,428	15,000
\$47,000 Illinois Environmental Protection Agency Loan Agreement, signed March 3, 2014, due 2034; interest at 1.99%	46,101	
\$15,058 Illinois Environmental Protection Agency Loan Agreement, signed October, 15, 2014, due 2035; interest at 1.99%	15,058	
\$367,925 Series 2014 Second Lien Water Revenue Bonds, issued September 17, 2014, due 2044; interest at 3.0% to 5.0%	363,905	367,925
Total	2,391,395	2,381,771
Add accretion of capital appreciation bonds	33,254	39,093
Less current portion of accretion Less current portion of long-term debt	(9,953) (65,758)	(9,571) (51,535)
Add unamortized bond discount/premium—net	91,344	97,175
Long term portion—net	\$2,440,282	\$2,456,933

Long-term debt changed during the years ended December 31, 2015 and 2014, is as follows (in thousands):

	Balance January 1, 2015	Additions	Reductions	Balance December 31, 2015	Due within One Year
Revenue bonds/notes payable Accretion of capital appreciation bonds Unamortized bond discount/premium—net	\$2,381,771 39,093 97,175	\$62,059 3,732	\$(52,435) (9,571) (5,831)	\$2,391,395 33,254 91,344	\$65,758 9,953
Total	\$2,518,039	\$65,791	\$(67,837)	\$2,515,993	\$75,711
	Balance			Balance	Due within
	January 1, 2014	Additions	Reductions	December 31, 2014	One Year
Revenue bonds/notes payable Accretion of capital appreciation bonds Unamortized bond discount/premium—net	•	Additions \$428,889 4,377 34,836	Reductions \$(43,976) (9,169) (4,595)	•	

Interest expense includes amortization of the deferred loss on bond refunding for 2015 and 2014 of \$2.5 million and \$2.5 million, respectively; net of amortization of bond premium of \$5.8 million and \$4.6 million, respectively; and accretion of Series 1997 and Series 2000 capital appreciation bonds of \$9.9 million and \$9.6 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 2015 and 2014

**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, 2015, was \$28.52 per 1,000 cubic feet.

**Issuance of Debt**—On March 3, 2014, a loan agreement was signed with the Illinois Environmental Protection Agency to replace approximately 26 miles of damaged, undersized and leaking water mains located throughout the City. In 2015 the Water Fund drew \$47.0 million from this loan agreement. The loan has an interest rate of 1.995% with maturity dates from December 17, 2015, to June 17, 2035.

On October 15, 2014, a loan agreement was signed with the Illinois Environmental Protection Agency to install water meters at residences throughout the City that are currently non-metered. In 2015, the Water Fund drew \$15.0 million from this loan agreement. The loan has an interest rate of 1.995% with maturity dates from February 28, 2016, to August 28, 2035.

A schedule of bond and note debt service requirements to maturity at December 31, 2015, is as follows (in thousands):

Years Ending December 31	Principal	Interest	Total Debt Service
2016	\$ 65,758	\$ 122,692	\$ 188,450
2017	67,986	120,482	188,468
2018	70,381	118,137	188,518
2019	78,436	110,083	188,519
2020	81,590	107,050	188,640
2021–2025	488,940	451,555	940,495
2026–2030	541,416	338,959	880,375
2031–2035	438,748	218,769	657,517
2036–2040	424,645	104,366	529,011
2041–2044	133,495	14,520	148,015
Total	\$2,391,395	\$1,706,613	\$4,098,008

Debt service requirements above exclude commercial paper issues, as the timing of payments is not certain. There was no commercial paper outstanding at December 31, 2015.

The Water Fund's variable-rate bonds may bear interest from time to time at a flexible rate, a daily rate, a weekly rate, an adjustable long rate, or the fixed rate as determined from time to time by the remarketing agent, in consultation with the City. At December 31, 2015, the variable-rate bonds were in the weekly rate interest mode. For the requirements calculated above, interest on variable-rate debt was calculated at the rate in effect at December 31, 2015, or the effective rate of a related swap agreement, if applicable. An irrevocable letter of credit provides for the timely payment of principal and interest on the Series 2000 until October 30, 2017. An irrevocable letter of credit provides for the timely payment of principal and interest on the Series 2004 bonds until November 5, 2018. At December 31, 2015, there were no outstanding letter of credit advances. In the event the bonds are put back to the bank and not successfully remarketed, or if the letter of credit expires without an extension or substitution, the bank bonds will convert to a term loan (see Note 10 for subsequent events related to the effect of the ratings downgrade on the swap and liquidity agreements). There is no principal due on potential term loans within the next fiscal year.

**Derivatives—Pay-Fixed, Receive—Variable Interest Rate Swaps—Objective of the Swaps—In** order to protect against changes in cash flows, which includes the potential of rising interest rates, the Water Fund has entered into various separate pay-fixed, receive-variable interest rate swaps at a cost less than what the Water Fund would have paid to issue fixed-rate debt (in thousands).

	Changes in Fair Value		Fair Value December 31		
	Classification	Amount	Classification	Amount	Notional
Cash flow hedges—pay-fixed					
interest rate swaps	Deferred outflow of resources	\$6,300	Deferred outflow of resources	\$91,806	\$444,575

**Terms, Fair Values, and Credit Risk**—The terms, including the fair value and credit ratings of the outstanding swaps as of December 31, 2015, are as follows (in thousands). The notional amounts of the swaps match the principal amounts of the associated debt. The Water Fund's swap agreements contain scheduled reductions to outstanding notional amounts that are expected to approximately follow scheduled or anticipated reductions in the associated "bonds payable" category. Under the swap, the Water Fund pays the counterparty a fixed payment and receives a variable payment computed according to the London InterBank Offered Rate (LIBOR).

Associated Bond Issue	Notional Amounts	Effective Date	Terms	Fair Values	Maturity Date (Note 10)	Counterparty Credit Rating
Hedging instruments:					, ,	
Bonds (Series 2004)	\$166,745	August 5, 2004	Pay 3.8694%; receive 67% of 1-month LIBOR	\$(27,127)	November 1, 2025	A2/A
Bonds (Series 2004)	177,830	August 5, 2004	Pay 3.8669%; receive 67% of 1-month LIBOR	(35,932)	November 1, 2031	Aa3/AA-
Bonds (Series 2000)	100,000	April 16, 2008	Pay 3.8694%; receive 67% of 1-month LIBOR	(28,747)	November 1, 2030	A2/A
Total	\$277,830			<u>\$(91,806)</u>		

**Fair Value**—As of December 31, 2015 and 2014, the swaps had a negative fair value of \$91.8 million and \$98.1 million, respectively. As per industry convention, the fair values of the Water Fund's outstanding swaps were estimated using the zero-coupon method. This method calculates the future net settlement payments required by the swap, assuming that the forward rates implied by the yield curve correctly anticipate future spot rates. These payments are then discounted using the spot rates implied by the current yield curve for hypothetical zero-coupon bonds due on the date of each future net settlement of the swap. Because interest rates declined subsequent to the date of execution, the Water Fund's swaps had negative values.

**Credit Risk**—The Water Fund is exposed to credit risk (counterparty risk) through the counterparties with which it enters into agreements. If minimum credit rating requirements are not maintained, the counterparty is required to post collateral to a third party. This protects the Water Fund by mitigating the credit risk and, therefore, the ability to pay a termination payment, inherent in a swap. Collateral on all swaps is to be in the form of cash or eligible collateral held by a third-party custodian. Upon credit events, the swaps also allow transfers, credit support, and termination if the counterparty is unable to meet the said credit requirements.

Basis Risk—Basis risk refers to the mismatch between the variable-rate payments received on a swap contract and the interest payment actually owed on the bonds. The two significant components driving this risk are credit and LIBOR ratios. Credit may create basis risk because the Water Fund's bonds may trade differently from the swap index as a result of a credit change in the Water Fund. LIBOR ratios (or spreads) may create basis risk if LIBOR swaps of the Water Fund's bonds trade higher than the LIBOR received on the swap. This can occur due to many factors, including, without limitation, changes in marginal tax rates, tax-exempt status of bonds, and supply and demand for variable-rate bonds. The Water Fund is exposed to basis risk on the swaps if the rate paid on the bonds is higher than the rate received. The Water Fund is liable for the difference. The difference would need to be available on the debt service payment date and would add additional underlying cost to the transaction.

**Tax Risk**—The swap exposes the Water Fund to tax risk or a permanent mismatch (shortfall) between the floating rate received on the swap and the variable rate paid on the underlying variable-rate bonds due to tax law changes such that the federal or state tax exception of municipal debt is eliminated or its value reduced. There have been no tax law changes since the execution of this swap agreement.

**Termination Risk**—The swap has the risk that it could be terminated as a result of certain events, including a ratings downgrade for the issuer or swap counterparty, covenant violation, bankruptcy, payment default, or other defined events of default. Termination of a swap may result in a payment made by the issuer or to the issuer depending upon the market at the time of termination.

**Rollover Risk**—The City may be exposed to rollover risk if the swap terminates early or if the term of the swap is shorter than that of the bonds.

**Swap Payments and Associated Debt**—Debt service requirements for the Water Fund's outstanding variable-rate debt and net swap payments, assuming current interest rates (December 31, 2015) remain the same for their term, are as follows (in thousands):

Years Ending December 31	Principal	Interest	Swaps—Net	Total
2016	\$ 11,450	\$ 222	\$ 16,940	\$ 28,612
2017	11,925	216	16,502	28,643
2018	12,425	210	16,045	28,680
2019	20,975	204	15,543	36,722
2020	28,725	193	14,717	43,635
2021–2025	194,385	704	53,782	248,871
2026–2031	164,690	283	21,624	186,597
Total	\$ 444,575	\$ 2,032	\$155,153	\$601,760

**Defeased Bonds**—Defeased bonds are removed from the statements of net position when related assets have been placed in irrevocable trusts that, together with interest earned thereon, provide amounts sufficient for payment of all principal and interest. There were no defeased bonds outstanding at December 31, 2015.

#### 5. UTILITY PLANT

Utility plant changed during the years ended December 31, 2015 and 2014, as follows (in thousands):

	Balance— January 1, 2015	Additions	Disposals and Transfers	Balance— December 31, 2015
Utility plant not depreciated: Land and land rights Construction in progress	\$ 5,083 457,645	\$ 1,775 	\$ - _(366,301)	\$ 6,858 242,155
Total utility plant not depreciated	462,728	152,586	(366,301)	249,013
Utility plant being depreciated: Structures and improvements Distribution plant Equipment	579,534 2,755,650 651,121	2,636 235,755 5,823	3,876 356,780 3,027	586,046 3,348,185 659,971
Total utility plant being depreciated	3,986,305	244,214	363,683	4,594,202
Less accumulated depreciation: Structures and improvements Distribution plant Equipment  Total accumulated depreciation	(205,279) (420,433) (341,122) (966,834)	(8,039) (29,376) (18,676) (56,091)	2,222 313 2,535	(213,318) (447,587) (359,485) (1,020,390)
-		· <u> </u>		<u> </u>
Utility plant being depreciated—net	3,019,471	188,123	366,218	3,573,812
Utility plant—net	\$3,482,199	\$340,709	<u>\$ (83)</u>	\$ 3,822,825
	Balance— January 1, 2014	Additions	Disposals and Transfers	Balance— December 31, 2014
Utility plant not depreciated: Land and land rights Construction in progress  Total utility plant not depreciated	January 1,	\$ - 282,375	and Transfers  \$ - (141,816)	December 31,
Land and land rights	January 1, 2014  \$ 5,083	\$ - 282,375	and Transfers	December 31, 2014  \$ 5,083 457,645
Land and land rights Construction in progress  Total utility plant not depreciated  Utility plant being depreciated: Structures and improvements Distribution plant	\$ 5,083 317,086 322,169 535,802 2,590,751	\$ - 282,375 282,375 16,447 62,000	\$ - (141,816) (141,816) 27,285 102,899	\$ 5,083 457,645 462,728 579,534 2,755,650
Land and land rights Construction in progress  Total utility plant not depreciated  Utility plant being depreciated: Structures and improvements Distribution plant Equipment	\$ 5,083 317,086 322,169 535,802 2,590,751 647,530	\$ - 282,375 282,375 16,447 62,000 4,002	and Transfers \$ - (141,816) (141,816) 27,285 102,899 (411)	\$ 5,083 457,645 462,728 579,534 2,755,650 651,121
Land and land rights Construction in progress  Total utility plant not depreciated  Utility plant being depreciated: Structures and improvements Distribution plant Equipment  Total utility plant being depreciated  Less accumulated depreciation: Structures and improvements Distribution plant	\$ 5,083 317,086 322,169 535,802 2,590,751 647,530 3,774,083 (197,555) (394,281)	\$ - 282,375 282,375 16,447 62,000 4,002 82,449 (7,724) (27,757)	and Transfers  \$ - (141,816) (141,816)  27,285 102,899 (411) 129,773	\$ 5,083 457,645 462,728 579,534 2,755,650 651,121 3,986,305 (205,279) (420,433)
Land and land rights Construction in progress  Total utility plant not depreciated  Utility plant being depreciated: Structures and improvements Distribution plant Equipment  Total utility plant being depreciated  Less accumulated depreciation: Structures and improvements Distribution plant Equipment	\$ 5,083 317,086 322,169 535,802 2,590,751 647,530 3,774,083 (197,555) (394,281) (322,560)	\$ - 282,375 282,375 16,447 62,000 4,002 82,449 (7,724) (27,757) (19,321)	and Transfers  \$ - (141,816) (141,816)  27,285 102,899 (411) 129,773	\$ 5,083 457,645 462,728 579,534 2,755,650 651,121 3,986,305 (205,279) (420,433) (341,122)

#### 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 City's contributions to Municipal and Laborers' are determined pursuant to the formulas set forth in the Illinois Pension Code (the Pension Code). Pursuant to Public Act 098-641 (P.A. 98-641), the City's contributions to Municipal and Laborers' were scheduled to increase beginning in 2015; however, in July 2015 the Circuit Court of Cook County (Circuit Court) determined P.A. 98-641 to be unconstitutional. As a result of such determination by the court, the provisions of the Pension Code governing the City's contributions to Municipal and Laborers' have reverted to the provisions in effect prior to the enactment of P.A. 98-641. Furthermore, in March 2016, the Illinois Supreme Court upheld the ruling made by the Circuit Court.

The contribution to the two pension plans from the Water Fund was \$12.7 million for the year ended December 31, 2015.

Pension Liabilities, Pension Expense, and Deferred Outflows of Resources and Deferred Inflows of Resources Related to Pensions—At December 31, 2015, the Water Fund recorded a liability of \$1,646.4 million for its proportionate share of the net pension liability. The net pension liability was measured as of December 31, 2015, and the total pension liability used to calculate the net pension liability was determined by an actuarial valuation as of that date. 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. At December 31, 2015, the Water Fund's proportion was 6.8 percent of the Municipal plan, and 15.6 percent of the Laborer's plan.

Changes in Benefits and Actuarial Assumptions—As discussed above, P.A. 98-0641 was determined to be unconstitutional resulting in changes in the discount rate caused by a change in the required funding policy and changes in benefits for the participants of the Municipal and Laborers pension plans, which include restoring full automatic annual increase and changes in the retirement age for certain participants.

The change in the discount rate assumption increased the Water Fund's allocated net pension liability by \$589.9 million for Municipal and \$183.4 million for Laborers'. This impact is being amortized over a five-year period for Municipal and a four-year period for Laborers'. The change in benefits increased the Water Fund's allocated share on the net pension liability by \$144.9 million for Municipal and \$59.9 for Laborers'. This impact is recognized as a portion of 2015 pension expense in its entirety.

For the year ended December 31, 2015, the Water Fund recognized pension expense of \$436.0 million.

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

Municipal Employees' (dollars in thousands):

	Deferred Outflows of Resources	Deferred Inflows of Resources
Differences between expected and actual experience Changes of assumptions Net difference between projected and actual	\$ - 471,908	\$ 5,950
earnings on pension plan investments	13,441	
Total	<u>\$ 485,349</u>	\$ 5,950

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

Year Ended December 31	
2016	\$ 119,850
2017	119,850
2018	119,850
2019	119,850
2020	
Thereafter	

Laborers' (dollars in thousands):

	Deferred Outflows of Resources	Deferred Inflows of Resources
Differences between expected and actual experience Changes of assumptions	\$ - 130,150	\$5,101
Net difference between projected and actual earnings on pension plan investments	15,189	
Total	<u>\$ 145,339</u>	\$5,101

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

Year Ended December 31	
2016	\$ 54,955
2017	54,955
2018	26,532
2019	3,797
2020	
Thereafter	

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

	Municipal Employees'	Laborers'
Inflation	3.00 %	3.00 %
Salary increases	4.5% - 8.25% (a)	3.75% <sup>(b)</sup>
Investment rate of return	7.50% <sup>(c)</sup>	7.50% <sup>(d)</sup>

- (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, 2015 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 are summarized in the following table:

			Long-Tern	n Expected
	Target A	llocation	Real Rate	of Return
	Municipal	Laborers'	Municipal	Laborers'
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	0.2	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		2.0		5.0
Total	100.0 %	100.0 %		

#### **Discount Rate**

Municipal—The discount rate used to measure the total pension liability was 3.73%. The Single Discount Rate was based on an expected rate of return on pension plan investments of 7.5 percent and a municipal bond rate of 3.6 percent (based on the Bond Buyer 20-Bond Index of general obligation municipal bonds as of December 31, 2015). 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 municipal employees 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 3.73% was calculated using the long-term expected rate of return and the municipal bond index.

Laborers'—A Single Discount Rate of 4.04 percent 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 and a municipal bond rate of 3.6 percent (based on the Bond Buyer 20-Bond Index of general obligation municipal bonds as of December 31, 2015). 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 at rates equal to the difference between statutory contribution rates and the member rate. Based on these assumptions, the laborers' pension plan's fiduciary net position and future contributions were projected to be 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, 2015, calculated using the discount rate of 3.73 percent, as well as what the net pension liability would be if it were calculated using a discount rate that is 1 percentage point lower (2.73 percent) or 1 percentage point higher (4.73 percent) than the current rate (dollars in thousands):

	Current				
	1% Decrease	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, 2015, calculated using the discount rate of 4.04 percent, as well as what the net pension liability would be if it were calculated using a discount rate that is 1 percentage point lower (3.04 percent) or 1 percentage point higher (5.04 percent) than the current rate (dollars in thousands):

	Current			
	1% Decrease	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 plan's fiduciary net position is available in the separately issued Pension Plan's financial report.

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

The Pension Funds also contribute a portion of the City's contribution as subsidy toward the cost for each of their annuitants to participate in the City's health benefits plans, which include basic benefits for eligible annuitants and their dependents and supplemental benefits for Medicare eligible annuitants and their dependents. The amounts below represent the accrued liability of the City's pension plans related to their own annuitants and the subsidy paid to the City (see section c). The plan is financed on a pay as you go basis (dollars in thousands).

	Annual OPEB Cost and Contributions Made for Fiscal Year Ended December 31, 2015						
	Municipal	Laborers'	Total				
Contribution rates city	to the Pension	ne City's employ in Funds is used ince supplement					
Annual required contribution Interest on net OPEB obligation Adjustment to annual—required contribution	\$ 9,174 2,406 (27,331)	\$ 2,402 209 (2,376)	\$ 11,576 2,615 (29,707)				
Annual OPEB cost (gain)— contributions made	(15,751)	235	(15,516)				
	8,491	2,154	10,645				
Decrease in net OPEB obligation	(24,242)	(1,919)	(26,161)				
Net OPEB obligation—beginning of year	53,486	4,649	58,135				
Net OPEB obligation—end of year	\$ 29,244	\$ 2,730	\$ 31,974				

Actuarial Method and Assumptions—For the Pension Funds' subsidies, the actuarial valuation for the fiscal year ended December 31, 2015 was determined using the Entry Age Normal actuarial cost method. 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.

	Municipal	Laborers'
Actuarial valuation date	December 31, 2015	December 31, 2015
Actuarial cost method	Entry Age	Entry Age
	Normal	Normal
Amortization method	Level Dollar	Level Dollar
Remaining amortization method	1 year closed	1 year closed
Asset valuation method	No Assets	No Assets
	(Pay-as-you-go)	(Pay-as-you-go)
Actuarial assumptions:		
OPEB investment		
Rate of return (a)	4.5 %	4.5 %
Projected salary increases (a)	3.0 %	3.0 %
Inflation		
Seniority/merit	(b)	(C)
Healthcare cost trend rate (d)	- %	- %

<sup>(</sup>a) Compounded Annually

<sup>(</sup>d) Trend not applicable—fixed dollar subsidy

	OPEB Cost Summary				
	(Dollars in thousands) Percentage				
	Year	Annual OPEB Cost		of Annual OPEB Obligation	Net OPEB Obligation
Municipal	2013 2014 2015	\$ 13,389 (13,100) (15,750)	*	71.01 %	\$75,637 53,486 29,244
Laborers'	2013 2014 2015	3,009 567 235		83.67 416.04 917.15	6,442 4,649 2,730

The negative cost is primarily due to the insurance subsidy ending in 2016.

<sup>(</sup>b) Service-based increases equivalent to a level annual rate of increase of 1.4 percent over a full career

<sup>(</sup>c) Service-based increases equivalent to a level annual rate of increase of 1.9 percent over a full career

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 (a)	Actuarial Accrued Liability (AAL) Entry Age (b)	Unfunded (Surplus) UAAL (b-a)	Funded Ratio (a/b)	Covered Payroll (c)	Unfunded (Surplus) AAL as a Percentage of Covered Payroll ((b-a)/c)
Municipal	December 31, 2015	\$ -	\$8,147	\$8,147	- %	\$1,643,481	0.50 %
Laborers'	December 31, 2015		2,133	2,133		204,773	1.04

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 \$104.4 million in 2015 to the gross cost of their retiree health care pursuant to premium amounts set forth in the below-referenced settlement agreement.

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) provide a lifetime healthcare plan to former employees who retired before August 23, 1989 with a contribution from the City of up to 55% of the cost of that plan; and (ii) beginning July 1, 2013, 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 2015, the net expense to the City for providing these benefits to approximately 22,697 annuitants plus their dependents was approximately \$44.0 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. The Health Plan provides for annual modifications to the City's level of subsidy. It is set to phase out over three years, at which the Health Plan, along with any further City subsidy, will expire by 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 and medical coverage to eligible retired employees and their dependents for the specified period, ending December 31, 2016. The percentage subsidies were revised to reduce by approximately 25 percent of 2013 subsidy levels in 2014 and 50 percent of 2013 subsidy levels in 2015, and 75% of 2013 subsidy levels in 2016.

In addition, State law authorizes 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.

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 2015 is the Annual OPEB Cost (expense).

Annual OPEB Cost and Contributions Made

(dollars in thousands)						
•	2015 Health Plan	2014 Health Plan				
Contribution rates:						
City	Pay As You Go	Pay As You Go				
Plan members	N/A	N/A				
Annual required contribution	\$ 106,723	\$ 128,625				
Interest on net OPEB obligation	5,326	5,795				
Adjustment to annual required contribution	(20,209)	(21,988)				
Annual OPEB cost	91,840	112,432				
Contributions made	96,551	128,061				
Decrease in net OPEB obligation	(4,711)	(15,629)				
Net OPEB obligation—beginning of year	177,562	193,191				
Net OPEB obligation—end of year	\$172,851	\$ 177,562				

The City's annual OPEB cost, the percentage of annual OPEB cost contributed to the plan, and the net OPEB obligation for fiscal year 2015, 2014 and 2013 are as follows (dollars in thousands):

Schedule of Contributions,
OPEB Costs and Net Obligations

	Of ED 003t3 and Net Obligation3						
Fiscal Year Ended	Annual OPEB Cost	Percentage of Annual OPEB Cost Contributed	Net OPEB Obligation				
December 31, 2015	\$ 91,840	105.1 %	\$ 172,851				
December 31, 2014	112,432	113.9	177,562				
December 31, 2013	117,166	118.6	193,191				

**Funded Status and Funding Progress**—As of January 1, 2015, the most recent actuarial valuation date, the actuarial accrued liability for benefits was \$780.6 million all of which was unfunded. The covered payroll (annual payroll of active employees covered by the plan) was approximately \$2,488.0 million and the ratio of the unfunded actuarial liability to the covered payroll was 31.4%.

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	٧	ctuarial alue of Assets	Actuarial Accrued Liability (AAL)	Unfunded Actuarial Accrued Liability (UAAL)	Funde Ratio		Covered Payroll	UAAL as a Percentage of Covered Payroll
December 31, 2014 December 31, 2013	\$	-	\$780,637 964,626	\$780,637 964,626	-	%	\$2,487,787 2,425,000	31.4 % 39.8

**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 2026. 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								
	2015	2014						
Actuarial valuation date	December 31, 2014	December 31, 2013						
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 2026	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 \$89.4 million and \$77.4 million in 2015 and 2014, 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, 2015 and 2014, are as follows (in thousands):

	2015	2014
Balance—January 1	\$ 36,707	\$ 35,093
Claims incurred on current and prior-year events Claims paid on current and prior-year events	54,088 (37,250)	36,156 (34,542)
Balance—December 31	\$ 53,545	\$ 36,707

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, 2015 and 2014, the Water Fund entered into contracts with outstanding commitments of approximately \$121.3 million and \$137.6 million, respectively, for construction projects.

#### 10. DEFERRED OUTFLOWS/INFLOWS OR RESOURCES

(Dollars in thousands)	FY 2015	FY 2014
Deferred outflows of resources: Deferred outflows from pension activities	\$ 630,689	\$ -
Accumulated decrease in fair value of hedging derivatives	91,806	98,106
Unamortized deferred bond refunding costs	28,586	31,123
Total deferred outflows of resources	<u>\$751,081</u>	<u>\$129,229</u>
Deferred inflows of resources: Deferred inflows from pension activities	<u>\$ (11,050)</u>	\$ -

#### 11. RESTATEMENT DUE TO IMPLEMENTATION OF NEW ACCOUNTING STANDARDS

During fiscal year 2015, the Water Fund implemented two new accounting standards. GASB Statement No. 68, *Accounting and Financial Reporting for Pensions an amendment of GASB Statement No. 27*, revised standards of accounting and reporting for pension expenses and liabilities as well as allowing for the deferral of certain pension expense elements. As a result of implementing this statement, net position was restated at January 1, 2015. The net position at January 1, 2014 was not restated as it was not practical since the information was not available. The impact of these changes on the beginning balances reported in the financial statements is shown below (in thousands):

	As Originally Reported	GASB 68 Adjustment	As Restated after GASB 68 Impact
Total net position, January 1, 2015	\$1,683,206	\$ (603,457)	\$1,079,749

#### 12. SUBSEQUENT EVENTS

**Ratings**—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 City 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 City 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.

**Bonds**—In May, 2016, the City converted its Second Lien Water Revenue Bonds, Series 2000 (\$100 million) and Second Lien Water Revenue Refunding Bonds, Series 2004 )\$344.6 million) variable rate to fixed rate. The bonds were converted at interest rates ranging from 2.0 percent to 5.0 percent and maturity dates from November 1, 2017 to January 1, 2030. Proceeds will be used to pay the purchase price of the bonds mandatorily tendered on the conversion date, costs of capital improvements to the Water System and the costs of conversion. In addition, concurrently with the conversion of the Series 2000 and Series 2004 bonds the sold Second Lien Water Revenue Bonds, Series 2016A-1 (Tax Exempt) and Series 2016A-2 (Taxable) (\$81.7 million). The Series 2016A-1 and A-2 bonds were issued at interest rates ranging from 1.68 percent to 5.0 percent and maturity dates from November 1, 2016 to November 1, 2031. Proceeds will be used to repay the outstanding water line of credit and pay costs of issuance.

\* \* \* \* \* \*

**REQUIRED SUPPLEMENTARY INFORMATION** 

## SCHEDULE OF CHANGES IN THE NET PENSION LIABILITY AND RELATED RATIOS Last Fiscal Year (dollars are in thousands)

	2015
MUNICIPAL EMPLOYEES': Total pension liability:	
Service cost Interest Benefit changes Differences between expected and actual experience	\$ 226,816 909,067 2,140,009 (109,835)
Assumption changes Benefit payments including refunds Pension plan administrative expense	8,711,755 (826,036)
Net change in total pension liability	11,051,776
Total pension liability—beginning	12,307,094
Total pension liability—ending (a)	23,358,870
Plan fiduciary net position: Contributions-employer Contributions-employee Net investment income Benefit payments including refunds of employee contribution Administrative expenses Other	149,225 131,428 114,025 (826,036) (6,701)
Net change in plan fiduciary net position	(438,059)
Plan fiduciary net position—beginning	5,179,486
Plan fiduciary net position—ending (b)	4,741,427
NET PENSION LIABILITY —ending (a)-(b)	\$ 18,617,443
PLAN FIDUCIARY NET POSITION AS A PERCENTAGE OF THE TOTAL PENSION LIABILITY	20.30 %
COVERED-EMPLOYEE PAYROLL*	\$ 1,643,481
EMPLOYER'S NET PENSION LIABILITY AS A PERCENTAGE OF COVERED-EMPLOYEE PAYROLL	1132.81 %
ALLOCATED NET PENSION LIABILITY	\$ 1,260,613
ALLOCATION PERCENTAGE	6.8 %

<sup>\*</sup> Covered payroll is the amount in force as of the valuation date and likely differs form actual payroll paid during fiscal year.

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

## SCHEDULE OF CHANGES IN THE NET PENSION LIABILITY AND RELATED RATIOS Last Fiscal Year (dollars are in thousands)

	2015
LABORERS': Total pension liability: Service cost * Interest Benefit changes Differences between expected and actual experience Assumption changes Benefit payments including refunds Pension plan administrative expense	\$ 38,389 153,812 384,033 (46,085) 1,175,935 (152,530) (3,844)
Net change in total pension liability	1,549,710
Total pension liability—beginning	2,162,905
Total pension liability—ending (a)	3,712,615
Plan fiduciary net position: Contributions-employer Contributions-employee Net investment income Benefit payments including refunds of employee contribution Administrative expenses Other	12,412 16,844 (22,318) (152,530) (3,844)
Net change in plan fiduciary net position	(149,436)
Plan fiduciary net position—beginning	1,388,093
Plan fiduciary net position—ending (b)	1,238,657
NET PENSION LIABILITY—Ending (a)-(b)	\$2,473,958
PLAN FIDUCIARY NET POSITION AS A PERCENTAGE OF THE TOTAL PENSION LIABILITY	33.36 %
COVERED-EMPLOYEE PAYROLL **	\$ 204,773
EMPLOYER'S NET PENSION LIABILITY AS A PERCENTAGE OF COVERED-EMPLOYEE PAYROLL	<u>1208.15</u> %
ALLOCATED NET PENSION LIABILITY	\$ 385,827
ALLOCATED PERCENTAGE	15.60 %

<sup>\*</sup> Includes pension plan administrative expense.

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

<sup>\*\*</sup> Covered payroll is the amount in force as of the valuation date and likely differs from actual payroll paid during fiscal year.

#### 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 Actuarially Determined Contribution	Contribution Deficiency	Covered Employee Payroll**	Contributions as a Percentage of Covered Employee Payroll
2006	\$ 325,914	\$ 157,063	\$ 168,851	\$1,475,877	10.64 %
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

<sup>\*</sup> 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.

#### Laborers':

Years Ended December 31	Actuarially Determined Contributions*	Contributions in Relation to the Actuarially Determined Contribution	Contribution Deficiency	Covered Employee Payroll**	Contributions as a Percentage of Covered Employee Payroll
2006	\$ 21,142	\$ 106	\$ 21,036	\$ 193,176	0.06 %
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

<sup>\*</sup> 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.

(Continued)

<sup>\*\*</sup> Covered payroll is the amount in force as of the valuation date and likely differs from actual payroll paid during fiscal year.

<sup>\*\*</sup> Covered payroll is the amount in force as of the valuation date and likely differs from actual payroll paid during fiscal year.

<u>s</u> c					-
	HEDULE OF CONTRIBUTIONS				
A - 4	uarial Methods	Manadalasa			
	Assumptions	Municipal Employees'		Laborers'	
anu	Assumptions	Employees		Laborers	H
Act	uarial valuation date	12/31/2015	(a)	12/31/2015	(t
Act	uarial cost method	Entry age normal		Entry age normal	Ì
Am	ortization method	Level dollar, open		Level dollar, open	(c
Rer	naining amortization period	30 years		30 years	Ì
	et valuation method	5-yr. Smoothed		5-yr. Smoothed	
		Market		Market	
Act	uarial assumptions:				
In	flation	3.0 %		3.0 %	-
Sa	ary increases	4.5%-8.25 %	` '	3.75 %	+ `
In	vestment rate of return	7.5 %	(f)	7.5 %	( {
Re	tirement age	(h)		(i)	
M	ortality	(j)		(k)	
Ot	her information	(1)		(m)	
(a)	Astronically, determined contribution our count is determined to of December 21 with accompanies interest				
	Actuarially determined contribution amount is determined as of December 31, with appropriate interes	to the initiale of the	ye?		
(h)		the and of the fice	1	O.W.	
(b)	Actuarially determined contribution rates are calculated as of December 31, which is 12 months prior t	the end of the fisca	ıl ye	ar	
	in which contributions are reported.		Ĺ		
(c)	in which contributions are reported.  The statutory contributions are based on a multiple of member contributions from the second prior year.		Ĺ		0
(c) (d)	in which contributions are reported.  The statutory contributions are based on a multiple of member contributions from the second prior year Varying by years of service.		Ĺ		0
(c) (d) (e)	in which contributions are reported.  The statutory contributions are based on a multiple of member contributions from the second prior year Varying by years of service.  Plus a service-based increase in the first 15 years.		Ĺ		0
(c) (d) (e) (f)	in which contributions are reported.  The statutory contributions are based on a multiple of member contributions from the second prior year Varying by years of service.  Plus a service-based increase in the first 15 years.  Net of investment expense.		Ĺ		0
(c) (d) (e) (f) (g)	in which contributions are reported.  The statutory contributions are based on a multiple of member contributions from the second prior year Varying by years of service.  Plus a service-based increase in the first 15 years.  Net of investment expense.  Net of investment expense, including inflation.	r. The statutory con	tribu	ation multiple is 1.00	
(c) (d) (e) (f) (g)	in which contributions are reported.  The statutory contributions are based on a multiple of member contributions from the second prior year Varying by years of service.  Plus a service-based increase in the first 15 years.  Net of investment expense.  Net of investment expense, including inflation.  For employees first hired prior to January 1, 2011, rates of retirement are based on the recent experience.	r. The statutory con	tribu	ntion multiple is 1.00	
(c) (d) (e) (f) (g) (h)	in which contributions are reported.  The statutory contributions are based on a multiple of member contributions from the second prior year Varying by years of service.  Plus a service-based increase in the first 15 years.  Net of investment expense.  Net of investment expense, including inflation.  For employees first hired prior to January 1, 2011, rates of retirement are based on the recent experient for employees first hired on or after January 1, 2011, rates of retirement for each age from 62 to 80 years.	r. The statutory con	tribu	December 31, 2010 nebr 31, 2011).	).
(c) (d) (e) (f) (g) (h)	in which contributions are reported.  The statutory contributions are based on a multiple of member contributions from the second prior year Varying by years of service.  Plus a service-based increase in the first 15 years.  Net of investment expense.  Net of investment expense, including inflation.  For employees first hired prior to January 1, 2011, rates of retirement are based on the recent experier For employees first hired on or after January 1, 2011, rates of retirement for each age from 62 to 80 v. Experience-based table of rates that are specific to the type of eligibility condition. Last updated for the	r. The statutory con	tribu	December 31, 2010 nebr 31, 2011).	).
(c) (d) (e) (f) (g) (h)	in which contributions are reported.  The statutory contributions are based on a multiple of member contributions from the second prior year Varying by years of service.  Plus a service-based increase in the first 15 years.  Net of investment expense.  Net of investment expense, including inflation.  For employees first hired prior to January 1, 2011, rates of retirement are based on the recent experier For employees first hired on or after January 1, 2011, rates of retirement for each age from 62 to 80 v Experience-based table of rates that are specific to the type of eligibility condition. Last updated for the experience study of the period January 1, 2004, through December 31, 2011.	r. The statutory con lice of the Fund (adopted Divere used (adopted Divere used (adopted Divereused )	tribu	December 31, 2010 nebr 31, 2011).	)).
(c) (d) (e) (f) (g) (h)	in which contributions are reported.  The statutory contributions are based on a multiple of member contributions from the second prior year Varying by years of service.  Plus a service-based increase in the first 15 years.  Net of investment expense.  Net of investment expense, including inflation.  For employees first hired prior to January 1, 2011, rates of retirement are based on the recent experier For employees first hired on or after January 1, 2011, rates of retirement for each age from 62 to 80 v Experience-based table of rates that are specific to the type of eligibility condition. Last updated for the experience study of the period January 1, 2004, through December 31, 2011.  Post-retirement mortality rates were based on the RP-2000 Healthy Mortality Tables with mortality in	ace of the Fund (adopted Doe December 31, 201	tribu	December 31, 2010 nebr 31, 2011). aluation pursuant to 0 2010 using Scale A	)).
(c) (d) (e) (f) (g) (h)	in which contributions are reported.  The statutory contributions are based on a multiple of member contributions from the second prior year Varying by years of service.  Plus a service-based increase in the first 15 years.  Net of investment expense.  Net of investment expense, including inflation.  For employees first hired prior to January 1, 2011, rates of retirement are based on the recent experier.  For employees first hired on or after January 1, 2011, rates of retirement for each age from 62 to 80 v.  Experience-based table of rates that are specific to the type of eligibility condition. Last updated for the experience study of the period January 1, 2004, through December 31, 2011.  Post-retirement mortality rates were based on the RP-2000 Healthy Mortality Tables with mortality in Pre-retirement mortality rates were based on the post-retirement mortality assumption, multiplied by	r. The statutory con ace of the Fund (adopted Doptere used (adopte	tributed teecem 22, va	December 31, 2010 nebr 31, 2011). aluation pursuant to 2010 using Scale A for females.	). an
(c) (d) (e) (f) (g) (h)	in which contributions are reported.  The statutory contributions are based on a multiple of member contributions from the second prior year Varying by years of service.  Plus a service-based increase in the first 15 years.  Net of investment expense.  Net of investment expense, including inflation.  For employees first hired prior to January 1, 2011, rates of retirement are based on the recent experience. For employees first hired on or after January 1, 2011, rates of retirement for each age from 62 to 80 v. Experience-based table of rates that are specific to the type of eligibility condition. Last updated for the experience study of the period January 1, 2004, through December 31, 2011.  Post-retirement mortality rates were based on the RP-2000 Healthy Mortality Tables with mortality in Pre-retirement mortality rates were based on the post-retirement mortality assumption, multiplied by RP2000 Combined Healthy mortality table, sex distinct, set forward one year for males and setback two	r. The statutory con ace of the Fund (adopted Doptere used (adopte	tributed teecem 22, va	December 31, 2010 nebr 31, 2011). aluation pursuant to 2010 using Scale A for females.	). an
(c) (d) (e) (f) (g) (h) (i)	in which contributions are reported.  The statutory contributions are based on a multiple of member contributions from the second prior year Varying by years of service.  Plus a service-based increase in the first 15 years.  Net of investment expense.  Net of investment expense, including inflation.  For employees first hired prior to January 1, 2011, rates of retirement are based on the recent experience. For employees first hired on or after January 1, 2011, rates of retirement for each age from 62 to 80 v. Experience-based table of rates that are specific to the type of eligibility condition. Last updated for the experience study of the period January 1, 2004, through December 31, 2011.  Post-retirement mortality rates were based on the RP-2000 Healthy Mortality Tables with mortality in Pre-retirement mortality rates were based on the post-retirement mortality assumption, multiplied by RP2000 Combined Healthy mortality table, sex distinct, set forward one year for males and setback two for post-disabled mortality.	r. The statutory con ace of the Fund (adopted Doptere used (adopte	tributed teecem 22, va	December 31, 2010 nebr 31, 2011). aluation pursuant to 2010 using Scale A for females.	). an
(c) (d) (e) (f) (g) (h) (i) (j)	in which contributions are reported.  The statutory contributions are based on a multiple of member contributions from the second prior year Varying by years of service.  Plus a service-based increase in the first 15 years.  Net of investment expense.  Net of investment expense, including inflation.  For employees first hired prior to January 1, 2011, rates of retirement are based on the recent experience. For employees first hired on or after January 1, 2011, rates of retirement for each age from 62 to 80 v. Experience-based table of rates that are specific to the type of eligibility condition. Last updated for the experience study of the period January 1, 2004, through December 31, 2011.  Post-retirement mortality rates were based on the RP-2000 Healthy Mortality Tables with mortality in Pre-retirement mortality rates were based on the post-retirement mortality assumption, multiplied by RP2000 Combined Healthy mortality table, sex distinct, set forward one year for males and setback two	ace of the Fund (adopted Doe December 31, 201 mprovements projec 55% for males and 76 pyears for females.	tribu bted cecem 2, væ ted t	December 31, 2010 nebr 31, 2011). aluation pursuant to 0 2010 using Scale A for females. djustment is made	). an

## 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 Accrued Liability (UAAL) (b-a)	Funded Ratio (a/b)	Covered Payroll (c)	Unfunded (Surplus) AAL as a Percentage of Covered Payroll ((b-a)/c)
Municipal Employees'							
2013	12/31/2013	\$ -	27,573	27,573	- %	\$1,580,289	1.74 %
2014	12/31/2014		17,495	17,495		1,602,978	1.09
2015	12/31/2015		8,147	8,147		1,643,481	0.50
Laborers'							
2013	12/31/2013		7,074	7,074	- %	200,352	3.53 %
2014	12/31/2014		4,593	4,593		202,673	2.27
2015	12/31/2015		2,133	2,133		204,773	1.04
City of Chicago							
2013	12/31/2012		997,281	997,281	- %	2,385,198	41.81 %
2014	12/31/2013		964,626	964,626		2,425,000	39.78
2015	12/31/2014		780,637	780,637		2,487,787	31.38

**ADDITIONAL SUPPLEMENTARY INFORMATION** 

# ADDITIONAL SUPPLEMENTARY INFORMATION SCHEDULE OF UTILITY PLANT FOR THE YEAR ENDED DECEMBER 31, 2015 (In thousands)

	Assets				Accumulated Depreciation					
	Balance— January 1, 2015	Additions	Adjustments/ Disposals	Transfers	Balance— December 31, 2015	Balance— January 1, 2015	Provision	Adjustments/ Disposals	Balance— December 31, 2015	Net Balance— December 31, 2015
LAND AND LAND RIGHTS: Power and pumping Distribution reservoir Purification General and maintenance	\$ 2,367 300 1,739 677	\$ 1,775	\$ -	\$ -	\$ 4,142 300 1,739 677	\$ -	\$ -	\$ -	\$ -	\$ 4,142 300 1,739 677
Total land and land rights	5,083	1,775	-		6,858					6,858
STRUCTURES AND IMPROVEMENTS: Cribs Lake and land tunnels Intake structures Power and pumping structures Purification buildings Distribution reservoirs Offices, maintenance, and general Contract retainage Total structures and improvements	17,337 118,377 9,531 133,199 244,278 16,979 39,417 416	501 2,394 39 3,053	(416) (416)	465 1,426 1,984	17,921 118,377 9,531 135,126 248,656 16,979 39,417 39 586,046	5,359 39,970 4,660 35,765 105,328 5,682 8,515	166 1,172 95 1,572 4,071 226 737		5,525 41,142 4,755 37,337 109,399 5,908 9,252	12,396 77,235 4,776 97,789 139,257 11,071 30,165 39
DISTRIBUTION PLANT: Mains and accessories Meters and installations Hydrants and valves Contract retainage	2,642,325 89,215 16,762 7,348	227,356 1,021 14,727	(1,978) (290) (7,348)	284,524 74,523	3,152,227 164,759 16,472 14,727	373,975 35,980 10,478	26,423 2,696 257	(1,933)	398,465 38,676 10,446	2,753,762 126,083 6,026 14,727
Total distribution plant	2,755,650	243,104	(9,616)	359,047	3,348,185	420,433	29,376	(2,222)	447,587	2,900,598
EQUIPMENT: Power production Pumping Purification Heavy machinery Transportation Miscellaneous Contract retainage	62,067 220,190 318,410 25,008 8,258 17,010	1,562 3,623 155 553	(269) (83) (178)	815 2,564	62,067 222,567 324,597 24,894 8,728 17,010	47,005 98,616 159,779 15,851 5,419 14,452	1,248 6,709 8,022 1,643 557 497	(239) (74)	48,253 105,325 167,801 17,255 5,902 14,949	13,814 117,242 156,796 7,639 2,826 2,061
Total equipment	651,121	6,001	(530)	3,379	659,971	341,122	18,676	(313)	359,485	300,486
Total structures and improvements, distribution plant, and equipment	3,986,305	252,158	(10,562)	366,301	4,594,202	966,834	56,091	(2,535)	1,020,390	3,573,812
CONSTRUCTION IN PROGRESS: Filtration plants Pumping stations Water mains Contract retainage	20,899 66,589 360,694 9,463	27,162 13,967 111,875 7,270	(9,463)	(4,627) (2,627) (359,047)	43,434 77,929 113,522 7,270					43,434 77,929 113,522 7,270
Total construction in progress	457,645	160,274	(9,463)	(366,301)	242,155					242,155
TOTAL UTILITY PLANT	\$4,449,033	\$414,207	\$(20,025)	\$ -	\$4,843,215	\$966,834	\$56,091	\$(2,535)	\$1,020,390	\$3,822,825

# STATISTICAL DATA (UNAUDITED)

#### STATISTICAL DATA

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.

STATISTICAL DATA
CHANGES IN NET POSITION (UNAUDITED)
THREE YEARS ENDED DECEMBER 31, 2013—2015
(In millions)

	2013	2014	2015
OPERATING REVENUES:			
Water sales	\$ 620.5	\$ 693.1	\$ 773.8
Provision for doubtful accounts	(25.4)	(22.5)	(23.6)
Other operating revenues	16.6	22.1	19.2
1 &			
Total operating revenues	611.7	692.7	769.4
OPERATING EXPENSES:			
Source of supply	0.1	0.3	0.2
Power and pumping	43.2	43.1	41.3
Purification	60.9	58.5	57.1
Transmission and distribution	29.5	43.7	37.3
Customer accounting and collection	11.6	11.9	14.7
Administrative and general	21.2	22.0	22.1
Central services and General Fund reimbursements	108.7	119.2	129.1
Pension expense			436.0
Total operating expenses	275.2	298.7	737.8
OPERATING INCOME BEFORE DEPRECIATION			
AND AMORTIZATION	336.5	394.0	31.6
DEPRECIATION AND AMORTIZATION	49.6	58.0	56.4
OPERATING INCOME	286.9	336.0	(24.8)
NONOPERATING REVENUES (EXPENSES):			
Interest income	0.4	(0.5)	3.1
Interest expenses	(92.2)	(98.8)	(106.1)
Other operating revenues	0.5	(0.5)	0.2
Other operating revenues	0.5	(0.3)	0.2
Total nonoperating expenses—net	(91.3)	(99.8)	(102.8)
TRANSFERS OUT			(0.6)
CHANGE IN NET POSITION	195.6	236.2	(128.2)
TOTAL NET POSITION—Beginning of year, as restated	1,251.4	1,447.0	1,079.7
TOTAL NET POSITION—End of year	\$ 1,447.0	\$ 1,683.2	\$ 951.5

STATISTICAL DATA
NET POSITION BY COMPONENTS (UNAUDITED)
SIX YEARS ENDED DECEMBER 31, 2010—2015
(In millions)

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

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

STATISTICAL DATA
HISTORICAL FINANCIAL OPERATIONS (UNAUDITED)
TEN YEARS ENDED DECEMBER 31, 2006—2015
(In millions)

	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
OPERATING REVENUES:										
Water sales	\$ 317.2	\$ 323.6	\$ 358.0	\$ 396.9	\$ 445.5	\$ 441.8	\$ 562.6	\$ 620.5	\$ 693.1	\$ 773.8
Other operating revenues	13.2	10.8	12.2	13.3	12.9	12.4	13.7	16.6	22.1	19.2
Total operating revenues	330.4	334.4	370.2	410.2	458.4	454.2	576.3	637.1	715.2	793.0
OPERATING EXPENSES:										
Source of supply	0.2	0.3	0.2	0.1	0.1	0.2	0.2	0.1	0.3	0.2
Power and pumping	49.8	52.2	54.7	47.5	42.9	38.2	41.7	43.2	43.1	41.3
Purification	41.9	44.2	48.4	49.4	49.7	66.5	56.1	60.9	58.5	57.1
Transmission and distribution	41.6	47.0	47.1	40.9	38.7	39.0	36.5	29.5	43.7	37.3
Provision for doubtful accounts	3.6	3.7	8.3	10.4	15.9	14.0	15.7	25.4	22.5	23.6
Customer accounting and collection	16.9	14.8	12.8	11.2	10.3	10.6	10.0	11.6	11.9	14.7
Administrative and general	15.1	14.9	18.1	16.1	18.5	17.1	21.9	21.2	22.0	22.1
Central services and General Fund reimbursements	74.0	83.7	87.2	98.5	103.0	96.6	107.4	108.7	119.3	129.1
Pension expense										436.0
Total operating expenses	243.1	260.8	276.8	274.1	279.1	282.2	289.5	300.6	321.3	761.4
INTEREST INCOME (OTHER THAN FROM										
CONSTRUCTIONAL ACCOUNT)	3.8	4.9	3.7	1.0	(0.3)	2.0	0.3	0.4	(0.5)	3.1
NET REVENUES—As defined (Note 4)	\$ 91.1	\$ 78.5	\$ 97.1	<u>\$ 137.1</u>	\$ 179.0	\$ 174.0	\$ 287.1	\$ 336.9	\$ 393.4	\$ 34.7

Source: City of Chicago Comptroller's Office.

CITY OF CHICAGO, ILLINOIS WATER FUND			
STATISTICAL DATA			
WATER SYSTEM ACCOUNTS (UNAUDITED)			
TEN YEARS ENDED DECEMBER 31, 2006—2015			
Years Ended			
December 31	Nonmetered	Metered	Total
2006	322,193	171,861	494,054
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
Source: City of Chicago Department of Water Management	· .		

CITY OF CHICAGO, ILLINOIS WATER FUND	
STATISTICAL DATA	
TEN LARGEST SUBURBAN CUSTOMERS (UNAUDITED)	
FOR THE YEAR ENDED DECEMBER 31, 2015	
(In thousands)	
(in thousands)	
	Amount of
Customer	Sales
	ф10 <b>2</b> 222
Dupage Water Commission	\$102,090
Oak Lawn, Illinois	39,028
Northwest Suburban Municipal Joint Action Water Agency	29,695
Bedford Park, Illinois	29,492
Harvey, Illinois	11,996
Melrose Park, Illinois	10,528
Cicero, Illinois	9,337
City of Des Plaines	9,116
Niles, Illinois	7,612
Alsip, Illinois	7,554
Total	\$256,448
Source: City of Chicago Department of Water Management.	

# STATISTICAL DATA REVENUE BOND COVERAGE (UNAUDITED) TEN YEARS ENDED DECEMBER 31, 2006—2015 (In millions)

#### PRIOR BONDS COVERAGE CALCULATION

COMBINED PRIOR BONDS, SENIOR LIEN, AND SECOND LIEN DEBT SERVICE CALCULATION	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
REVENUES AVAILABLE FOR BONDS: Net revenues—as defined (Note 4) Pension expense other than contribution (Note)	\$91.1	\$78.5	\$97.1	\$ 137.1	\$179.0	\$174.0	\$ 287.1	\$336.9	\$393.4	\$ 34.7 423.3
Transfer from (to) Water Rate Stabilization account & PAYGO Fund	(7.0)	7.9			(10.0)		(13.5)	(13.5)		
NET REVENUES AVAILABLE FOR BONDS	\$84.1	\$86.4	\$97.1	\$137.1	\$169.0	\$174.0	\$273.6	\$323.4	\$393.4	\$ 458.0
DEBT SERVICE REQUIREMENTS: Senior debt service requirements	\$29.7	\$38.0	<u>\$27.5</u>	\$ 33.8	\$ 29.1	\$ 14.1	<u>\$ 13.9</u>	\$ 21.5	\$ 21.5	\$ 21.5
Senior debt service coverage ratio	2.8	2.3	3.5	4.1	5.8	12.3	19.7	15.0	18.3	21.3
Second lien debt service requirements Subordinate lien debt service requirements	\$30.5 0.3	\$43.2 0.4	\$ 62.5 0.4	\$ 75.7 0.4	\$ 82.1 0.4	\$106.6 0.4	\$116.5 1.2	\$125.6 1.3	\$126.0 1.9	\$ 150.4 \$ 6.9
Total second and subordinate lien debt service requirements	\$30.8	\$43.6	\$62.9	\$ 76.1	\$ 82.5	\$107.0	\$117.7	\$126.9	\$127.9	\$ 157.3
TOTAL COMBINED SENIOR, SECOND, AND SUBORDINATE LIEN DEBT SERVICE REQUIREMENTS	\$60.5	<u>\$81.6</u>	\$90.4	\$109.9	<u>\$111.6</u>	<u>\$121.1</u>	<u>\$131.6</u>	<u>\$148.4</u>	<u>\$149.4</u>	\$ 178.8
TOTAL COMBINED SENIOR AND SECOND LIEN DEBT SERVICE COVERAGE RATIO	1.4	1.1	1.1	1.2	<u>1.5</u>	1.4	2.1	2.2	2.6	2.6
WATER RATE STABILIZATION ACCOUNT YEAR-END BALANCE	\$ 59.3	\$51.4	\$51.4	\$ 51.4	\$ 61.4	\$ 61.4	\$ 74.9	\$ 88.4	\$ 88.4	\$ 91.2

Note: Of the \$436.0 million of pension expense for 2015, \$12.7 million is the portion of the City's pension contribution payable in 2015 to the pension funds and allocable to the Water Fund. The remaining portion of the pension expense for 2015 (i.e. \$423.3 million) is recognized on the income statement of the Water Fund for 2015 pursuant to GASB 68 but is not due and payable by the City during 2015; accordingly, that portion is not included in Operating Expenses for purposes of calculation of the debt service coverage ratio.

Source: City of Chicago Comptroller's Office.

STATISTICAL DATA
LONG-TERM DEBT (UNAUDITED)
SIX YEARS ENDED DECEMBER 31, 2010—2015
(In millions)

	2010	2	2011	2012		2013	2014	l	2015
Senior lien bonds Second lien bonds	\$ 83 1,614		68.9 ,586.9	\$ 60. 1,951.		49.0 1,921.6	\$ 37 2,258	7.5 \$ 3.6	26.2 2,222.3
Commercial paper Subordinate lien—IEPA loan	51	.5 . <u>.6</u>	46.5 18.9	18.	<u>4</u> _	26.3	85	5.7	142.9
Total long-term debt	1,753	5.8 1	,721.2	2,030.	2	1,996.9	2,381	.8	2,391.4
Accretion of capital appreciation bonds	45	5.9	46.9	47.	7	43.9	39	9.1	33.3
Unamortized bond discount/premium-net Unamortized deferred loss on bond refunding	31 (41	.7 .2)	30.5 (38.7)	71. (36.		66.9	97	7.0	91.3
Due within one year	(46		(48.9)	(51.	0) _	(53.0)	(61	(0.1	(75.7)
Total	\$ 1,743	<u>\$.7</u> <u>\$ 1</u>	,711.0	\$ 2,061.	<u> </u>	2,054.7	\$ 2,456	<u>5.9</u> \$	3 2,440.3

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

STATISTICAL DATA
CAPITAL IMPROVEMENT PROGRAM (UNAUDITED)
2016–2020
(In thousands)

Years	Amount
2016 2017 2018 2019 2020	\$ 363,869 445,441 442,242 460,006 466,736
Total	<u>\$2,178,294</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.

# STATISTICAL DATA WATER SYSTEM PUMPAGE AND CAPACITY (UNAUDITED) TEN YEARS ENDED DECEMBER 31, 2006—2015

Years	Total Pumpage (MGD)	Average Daily Pumpage (MGD)	Maximum Daily Pumpage (MGD)	System's Rated Pumpage Capacity (MGD)	Maximum Daily Pumpage as % of Capacity
2006	310,527	851	1,373	2,160	64
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

Note: Million Gallons Daily (MGD).

Source: City of Chicago Department of Water Management.

#### MISCELLANEOUS STATISTICAL DATA (UNAUDITED) FOR THE YEARS ENDED DECEMBER 31, 2015 AND 2014

	2015	2014
AREA SERVED (IN SQUARE MILES): Chicago 125 suburbs	228 578	228 578
TOTAL AREA SERVED	806	806
WATER WORKS FACILITIES:		
Filtration plants	2	2
Continuous service capacity: South Water Filtration Plant (MGD) Jardine Water Purification Plant (MGD)	720 1,440	720 1,440
Pumping stations—steam	3	4
Pumping stations—electric	9	8
Installed pumping capacity (MGD)	3,661	3,661
Crib intakes in service	2	2 2
Shore intakes (filtration plants) Water supply tunnels (6 to 20 feet in diameter)—miles	2 64	64
DISTRIBUTION SYSTEM:		
Water mains (miles)	4,311	4,322
Fire hydrants	48,543	48,593
Valves	48,954	49,175

Note: Million Gallons Daily (MGD).

Source: City of Chicago Department of Water Management.

STATISTICAL DATA
OPERATING INFORMATION BY FUNCTION (UNAUDITED)
SIX YEARS ENDED DECEMBER 31, 2010—2015
(Number of employees)

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

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

#### 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

<sup>(1)</sup> 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, 2015, AND NINE YEARS AGO

		2015 (	1)	2006 (1)			
			Percentage of			Percentage o	
	Number of		Total City	Number of		Total City	
Employer	Employees	Rank	Employment	Employees	Rank	Employment	
Advocate Health Care	18,308	1	1.44 %				
University of Chicago	16,197	2	1.27				
Northwestern Memorial Healthcare	15,317	3	1.20				
JP Morgan Chase & Co. (2)	14,158	4	1.11	8,979	1	0.82 %	
United Continental Holdings Inc.	14,000	5	1.10	5,944	2	0.55	
Health Care Service Corporation	13,006	6	1.02				
Walgreen Boots Alliance Inc.	13,006	7	1.02				
Presence Health	10,500	8	0.82				
Abbott Laboratories	10,000	9	0.79				
Northwestern University	9,708	10	0.76				
Jewel Food Stores, Inc				5,453	3	0.50	
Northern Trust Corporation				4,610	4	0.42	
Accenture LLP				4,470	5	0.41	
SBC/AT&T (3)				3,834	6	0.35	
American Airlines				3,750	7	0.34	
Ford Motor Company				3,480	8	0.32	
Bonded Maintenance Company				3,298	9	0.30	
Bank of America NT & SA				3,108	10	0.29	
NOTES:							

<sup>(1)</sup> Source: Reprinted with permission, Crain's Chicago Business [January 18, 2016], Crain Communications, Inc.

<sup>(2)</sup> J.P. Morgan Chase formerly known as Banc One.

<sup>(3)</sup> AT&T Inc. formerly known as SBC Ameritech. 2015 number of employees is a state wide number.

<sup>(4)</sup> Source: City of Chicago, Department of Revenue, Employer's Expense Tax Returns.

## STATISTICAL DATA POPULATION AND INCOME STATISTICS (UNAUDITED) TEN YEARS ENDED DECEMBER 31, 2006–2015

Year	Population (1)	Median Age (2)	Number of Households (2)	City Employment	Unemployment Rate (3)	Per Capita Income (4)	Total Income
2006	2,896,016	33.5	1,040,000	1,228,075	5.2	\$41,887	\$121,305,422,192
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	N/A	N/A	1,264,234 *	5.7	N/A(5)	N/A (5)
2015	2,695,598	N/A	N/A	1,273,727 *	5.7	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 2015.
- (3) Source: Bureau of Labor Statistics 2015, 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 (in 2015 dollars).
- (5) N/A means not available at time of publication.

<sup>\*</sup> December 2015 data