### City of Chicago Department of Water Management Sewer Fund

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



Rahm Emanuel, Mayor Carole L. Brown, Chief Financial Officer Erin Keane, City Comptroller Barrett B. Murphy, Commissioner **Sewer Fund** An Enterprise Fund of The City of Chicago

### **Comprehensive Annual Financial Report For the Year Ended December 31, 2015 and 2014**



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

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**INTRODUCTORY SECTION** 



### 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, Sewer 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 Management, Sewer Fund, has been accounted for as a separate enterprise fund of the City of Chicago (City) which operates and maintains the City's Sewer system. Effective January 1, 2003 the Sewer Department merged with the Water Department to form the Department of Water Management. The Sewer system collects and transports sanitary and industrial waste and storm water to the interceptor sewers of the Metropolitan Water Reclamation District of Greater Chicago. The system provides sewage and drainage collection and conveyance through over 4,400 miles of sewers and a service area of roughly 230 square miles inhabited by approximately 2.7 million people.

#### ECONOMIC CONDITION AND OUTLOOK

The Sewer Fund's primary source of revenue is a sewer service charge which is set by City ordinance. The sewer service charge is billed through the water usage charge on customer billings. The sewer service charge covers the costs of operations, maintenance and debt service.

Because of its rate structure, sewer fund revenue is largely dependent upon water usage. As of January 1, 2015, the sewer service charge is set at 100 percent of the water service charge and the metered water rate is set at \$28.52 per 1,000 per cubic feet. There are no large industrial or commercial users that account for more than five percent of sewer system revenues. It is not expected that there will be a significant change in the population base of the City that would lead to a significant change in revenues.

#### **MAJOR INITIATIVES**

As of December 31, 2015, the Department of Water Management, Sewer Fund, has forecasted approximately \$1,863.5M under its Capital Improvement Program (CIP) over the next five years, (2016-2020). The Sewer Fund's five-year CIP addresses the aggressive efforts to increase the renewal and replacement of the Sewer System's infrastructure and continue to focus on two major areas: sewer replacement and sewer lining.

The Department of Water Management, Sewer Fund, will support the increased effort of infrastructure renewal by replacing 22 miles of new sewers and lining 53 miles of existing sewers and lining approximately 14,000 structures in 2016. The Chicago Department of Water Management estimates spending \$156.2 million on new sewers, \$69.5 million in lining existing sewers and \$18.6 million in lining catch basins and manholes structures to prevent failures leading to cave-ins in the street.

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 efficient operation of the Sewer System. A master plan for large trunk sewer improvements to provide regional solutions to the sewer system was completed in 2013. The plan continued to be reviewed and refined throughout 2015. This plan describes not only the current conditions, but presents solutions to solve regional flooding problems in a strategic fashion. The plan provides justification for funding large capital expenditures related to regional solutions. A request for proposals will be issued in 2016 to start Phase I design of the regional solutions.

In all, the 5-year CIP is reevaluated annually updated to ensure that areas of the City with the greatest need are given priority.

#### **PROPRIETARY OPERATIONS**

The Department of Water Management, Sewer Fund, is responsible for implementing and maintaining an internal control structure to ensure the integrity of the Sewer 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, Sewer Fund, are handled in a manner that protects against waste, theft or neglect that may hinder the financial operations of the Sewer Fund. This objective is being met by adequate supervision of employees, segregation of duties and multiple approval and budgetary controls over all expenditures.

The Sewer 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 it approval following public hearings.

The budget process is designed to ensure that the Department of Water Management, Sewer Fund, will have adequate funding to meet its operational objectives. The Department of Water Management, Sewer 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 the Department of Water Management, Sewer Fund, to ensure that its expenditures do not exceed its revenue collections. The Sewer Fund uses encumbrances to control expenditures by preventing appropriated dollars from being used for any purpose other than that for which they have been legally appropriated.

#### DEBT ADMINISTRATION

The Department of Water Management, Sewer Fund, issues bonds to finance its capital improvement program. The City has covenanted to establish, maintain and collect at all times fees, charges and rates sufficient to produce net revenues available for bonds equal to at least 115 percent of current annual debt service requirements on the outstanding senior lien bonds and equal to at least 100 percent of the maximum annual senior and second lien debt service requirement. The City conducts an annual review of the sewer service charge to ensure that sufficient revenue is being generated to comply with the rate covenant. The ordinances authorizing the issuance 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 Sewer Rate Stabilization Account to be used for any lawful purpose of the Sewer Fund.

The Department of Water Management, Sewer Fund, has entered into continuing disclosure undertakings with respect to bonds issued after July 3, 1995. The Sewer 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, Sewer Fund's, capital activities are funded through the Sewer Fund revenue bonds and Sewer Fund revenue. The Department of Water Management, Sewer Fund, has realized savings through advance refunding as interest rates have changed.

#### INDEPENDENT AUDIT

City ordinances require the Department of Water Management's, Sewer Fund, financial statements to be audited by independent certified public accountants. The audit was conducted by Deloitte & Touche LLP and a consortium of Chicago-based of 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 the Certificate of Achievement for Excellence in Financial Reporting to Chicago Department of Water Management - Sewer Fund, an Enterprise Fund of the City of Chicago, for its CAFR for the fiscal year ended December 31, 2014.

This was the twentieth year that the government 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 unit must publish an easily readable and efficiently organized CAFR. This report must satisfy both generally accepted accounting principles and applicable legal requirements.

The Certificate of Achievement is valid for a period of one year only. I believe our current report 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 the Department of Water Management and the Department of Finance. I wish to express my appreciation to them, and particularly those who contributed directly to the preparation of this report.

Respectfully submitted,

**Barrett B. Murphy** 

Commissioner



Government Finance Officers Association

Certificate of Achievement for Excellence in Financial Reporting

Presented to

## Sewer 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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**FINANCIAL SECTION** 



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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 Sewer Fund ("Sewer 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 Sewer 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 Sewer 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 Sewer 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 Sewer 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.

Deloitte & Jouche ILP

June 30, 2016

#### MANAGEMENT'S DISCUSSION AND ANALYSIS

The following discussion and analysis of the City of Chicago, Illinois (the "City"), Sewer Fund (the "Sewer Fund") financial performance provides an introduction and overview of the Sewer Fund's basic financial activities for the fiscal years ended December 31, 2015 and 2014. Please read this discussion in conjunction with the Sewer Fund's basic financial statements and the notes to basic financial statements following this section.

#### **FINANCIAL HIGHLIGHTS**

#### 2015

- Operating gross revenues for 2015 increased by \$53.3 million (15.8%) compared to prior-year operating revenues. This increase is primarily due to an increase in sewer billing rates.
- Operating expenses before depreciation and amortization for 2015 increased \$191.4 million compared to 2014. This increase of 160.5% is primarily due to an increase for pension expense related to the implementation of GASB 68.
- The Sewer Fund's total net position for 2015 decreased by \$358.5 million or 48.8% compared to 2014.
- The Sewer Fund's total assets and deferred outflows were greater than total liabilities by \$376.2 million (net position) at December 31, 2015. Net position comprises \$559.7 million of net investment in capital assets, \$116.1 million of restricted for capital projects, and (\$299.6) million of unrestricted.
- Capital asset additions, net, being depreciated for 2015 were \$284.1 million, principally due to completion of sewer construction and rehabilitation projects.

#### 2014

- Operating gross revenues for 2014 increased by \$46.5 million (15.9%) compared to prior-year operating revenues. This increase is primarily due to an increase in sewer billing rates. Increase in provision for doubtful accounts of about \$4.1 million affected the net revenue.
- Operating expenses before depreciation and amortization for 2014 increased \$9.9 million compared to 2013. This increase of 9.1% is primarily due to an increase in repairs, general fund, and administrative and general with a slight increase in maintenance and engineering.
- The Sewer Fund's total net position for 2014 increased by \$100.4 million or 15.8% compared to 2013.

- The Sewer Fund's total assets and deferred outflows were greater than total liabilities by \$734.7 million (net position) at December 31, 2014. Net position comprises \$520.6 million of net investment in capital assets, \$111.3 million of restricted for capital projects, and \$102.8 million of unrestricted.
- Capital asset additions, net, being depreciated for 2014 were \$210.4 million, principally due to completion of sewer construction and rehabilitation projects.
- In March 2014, Moody's Investors Service (Moody's) downgraded the ratings of the Wastewater senior lien revenue bonds from A1 to A2 and the Wastewater second lien revenue bonds from A2 to A3, each with a negative outlook.
- At December 31, 2014, the Sewer Fund was in compliance with the debt covenants as stated in the Master Trust Indentures. Details regarding the Sewer Fund's long-term debt are in Note 4 of the notes to the basic financial statements.

#### **OVERVIEW OF THE BASIC FINANCIAL STATEMENTS**

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

The statements of net position present all of the Sewer Fund's assets, deferred outflows, and liabilities using the accrual basis of accounting. The difference between assets, deferred outflows, and liabilities is reported as net position. The increase or decrease in net position may serve as an indicator, over time, whether the Sewer Fund's financial position is improving or deteriorating. However, the consideration of other nonfinancial factors may be necessary in the assessment of overall financial position and health of the Sewer Fund.

The statements of revenues, expenses, and changes in net position present all current fiscal 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 were provided and used by the Sewer Fund's operating, capital financing, and investing activities. These statements are prepared on a cash basis and 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 calculations and includes certain unaudited information related to the Sewer Fund's historical financial and nonfinancial operating results and capital activities.

#### **FINANCIAL ANALYSIS**

At December 31, 2015, the Sewer Fund's financial position continues to be strong with total assets and deferred outflows of \$3,079.7 million, total liabilities with deferred inflows of \$2,703.5 million, and net position of \$376.2 million. A comparative condensed summary of the Sewer Fund's net position at December 31, 2015, 2014, and 2013, is as follows:

		Net Position	
(In thousands)	2015	2014	2013
Current assets	\$ 389,922	\$ 357,811	\$ 296,167
Restricted and other assets	159,704	293,011	81,362
Utility plant—net	2,263,159	2,025,220	1,838,328
Deferred outflows	266,925	89,905	74,973
Total assets and deferred outflows	3,079,710	2,765,947	2,290,830
Current liabilities	256,423	249,313	192,303
Derivative instrument liability		71,861	52,705
Pension Liability	663,872		
Long-term liabilities	1,777,496	1,710,019	1,411,509
Total liabilities	2,697,791	2,031,193	1,656,517
Deferred Inflows	5,681		
Net position:			
Net invested in capital assets	559,715	520,627	481,946
Restricted for capital projects	116,107	111,333	73,858
Unrestricted	(299,584)	102,794	78,509
Total net position	\$ 376,238	<u>\$ 734,754</u>	\$ 634,313

#### 2015

Current assets increased by \$32.1 million (9.0%) due to an increase in cash and cash equivalents, accounts receivable and inventories with a decrease in due from other funds. Restricted and other assets decreased by \$133.3 million (45.5%) and utility plant—net increased by \$237.9 million (11.8%) due principally to capital activities for sewer construction and rehabilitation projects. Deferred outflows increased in the amount of \$177.0 million (196.9) primarily due to the adoption of Government Accounting Standards Board (GASB) Statement No. 68, Accounting and Financial Reporting for Pensions. During 2015, the Sewer Fund lined an additional 55.1 miles of sewers.

Current liabilities increased by \$7.1 million (2.9%), which is primarily related to increase related to accounts payable and accrued liabilities with offsetting decrease in due to other funds and unearned revenue. Derivative instrument liability decreased by \$71.9 million (100%) due to changes in the fair value of interest rate swaps. Long-term liabilities increased by \$67.5 million (3.9%). Pension liability in the amount of \$663.9 million and \$5.7 million in deferred inflows were recorded to the Sewer Fund basic financial statement in connection with the adoption of GASB Statement No. 68, Accounting and Financial Reporting for Pensions.

Net position may serve, over a period of time, as a useful indicator of the Sewer Fund's financial position. As of December 31, 2015, total net position was \$376.2 million, a decrease of \$358.5 million (48.8%) from 2014.

Current assets increased by \$61.6 million (20.8%) due to an increase in cash and cash equivalents, accounts receivable, and due from other funds with a decrease in inventories. Restricted and other assets increased by \$211.6 million (260.1%) primarily due to the issuance of debt in 2014 and utility plant—net increased by \$186.9 million (10.2%) due principally to capital activities for sewer construction and rehabilitation projects. Deferred outflows increased in the amount of \$14.9 million (19.9%) due to changes in the fair value of interest rate swaps. During 2014, the Sewer Fund lined an additional 21.1 miles of sewers.

Current liabilities increased by \$57.0 million (29.6%), which is primarily related to increases related to due to other funds, unearned revenue and accrued liabilities with offsetting decrease in accounts payable. Derivative instrument liability increased by \$19.2 million (36.3%) due to changes in the fair value of interest rate swaps. Long-term liabilities increased by \$298.5 million (21.1%).

Net position may serve, over a period of time, as a useful indicator of the Sewer Fund's financial position. As of December 31, 2014, total net position was \$734.7 million, an increase of \$100.4 million (15.8%) from 2013.

A summary of 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				
(In thousands)	2015	2014	2013		
Revenues:					
Operating revenues:					
Sewer service – net	\$ 374,770	\$ 321,100	\$ 278,649		
Other operating revenues	1,107	1,128	1,180		
Total operating revenues	375,877	322,228	279,829		
Nonoperating revenues	3,921	3,813	(2,754)		
Revenues before Capital grants	379,798	326,041	277,075		
Capital grants			2,500		
Total revenues	379,798	326,041	279,575		
Expenses:					
Operating expenses before deprecation					
and amortization	310,689	119,279	109,333		
Depreciation and amortization	40,444	36,701	31,280		
Interest expense	83,656	69,620	63,513		
Swap Termination Fee	70,243				
Total expenses	505,032	225,600	204,126		
Change in net position	(125,234)	100,441	75,449		
Net position—beginning of year (as restated)	501,472	634,313	558,864		
Net position—end of year	\$ 376,238	\$ 734,754	\$ 634,313		

Net sewer service revenues for the years ended 2015 and 2014 were \$374.8 million and \$321.1 million, respectively. Other revenue, which consists primarily of inspection fees and house drain fees, for the years ended 2015 and 2014 was \$1.1 million respectively. The increase in 2015 net sewer service revenue of \$53.3 million (15.8%) is primarily due to an increase in water and sewer rates of 15% and 4%, respectively.

Nonoperating revenues increased slightly by \$.1 million compared to 2014 as a result of proceeds primarily from other nonoperating revenue.

#### 2014

Net sewer service revenues for the years ended 2014 and 2013 were \$321.1 million and \$278.6 million, respectively. Other revenue, which consists primarily of inspection fees and house drain fees, for the years ended 2014 and 2013 was \$1.1 million and \$1.2 million, respectively. The increase in 2014 net sewer service revenue of \$42.5 million (15.2%) is primarily due to an increase in water and sewer rates of 15% and 4%, respectively.

Nonoperating revenues increased by \$6.6 million compared to 2013 as a result of proceeds primarily from investments.

A comparative summary of the Sewer Fund's operating expenses, as classified in the basic financial statements, for the years ended December 31, 2015, 2014, and 2013, is as follows:

	Operating Expenses			
(In thousands)	2015	2014	2013	
Repairs	\$ 42,131	\$ 40,435	\$ 38,910	
Pension	187,593			
General Fund reimbursements	40,007	36,740	32,144	
Maintenance	25,322	24,374	23,004	
Engineering	3,299	3,336	3,267	
Administrative and general	12,337	14,394	12,008	
Operating expenses before depreciation and				
amortization	310,689	119,279	109,333	
Depreciation and amortization	40,444	36,701	31,280	
Total operating expenses	\$351,133	\$155,980	\$140,613	

#### 2015

Overall, operating expenses before depreciation and amortization for 2015 increased by \$191.4 million (160.5%) in 2014 primarily due to increases in pension expense due to the implementation of GASB 68. Depreciation and amortization increased due to an increase in utility plant.

Overall, operating expenses before depreciation and amortization for 2014 increased by \$9.9 million (9.1%) in 2014 primarily due to increases in repairs, general fund, administrative and general with a slight increase in maintenance and engineering. Depreciation and amortization increased due to an increase in utility plant.

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

	Cash Flows		
(In thousands)	2015	2014	2013
Cash from activities:			
Operating	\$ 239,225	\$ 191,355	\$155,991
Capital and related financing	(356,905)	63,122	(264,353)
Investing	204,436	(208,731)	64,130
Net change in cash and cash equivalents	86,756	45,746	(44,232)
Cash and cash equivalents: Beginning of year	90,452	44,706	88,938
End of year	<u>\$ 177,208</u>	<u>\$ 90,452</u>	<u>\$ 44,706</u>

#### 2015

As of December 31, 2015, the Sewer Fund's cash and cash equivalents of \$177.2 million represented an increase of \$86.8 million from December 31, 2014, as compared to an increase of \$45.7 million from December 31, 2013 to December 31, 2014, primarily due to investment related activities in 2015. Total cash and cash equivalents at December 31, 2015, were composed of unrestricted and restricted cash and cash equivalents of \$37.4 million and \$69.2 million, respectively.

#### 2014

As of December 31, 2014, the Sewer Fund's cash and cash equivalents of \$90.5 million represented an increase of \$45.7 million from December 31, 2013, as compared to a decrease of \$44.2 million from December 31, 2012 to December 31, 2013, primarily due to construction-related activities in 2014. Total cash and cash equivalents at December 31, 2014, were composed of unrestricted and restricted cash and cash equivalents of \$69.2 million and \$21.2 million, respectively.

#### CAPITAL ASSET AND DEBT ADMINISTRATION

#### 2015

At the end of 2015 and 2014, the Sewer Fund had net utility plant of \$2,263.2 million and \$2,025.2 million, respectively. During 2015, the Sewer Fund had capital additions being depreciated of \$207.2 million, and completed projects totaling \$17.2 million were transferred from construction in progress to applicable facilities and structures capital accounts.

At the end of 2014 and 2013, the Sewer Fund had net utility plant of \$2,025.2 million and \$1,838.3 million, respectively. During 2014, the Sewer Fund had capital additions being depreciated of \$210.4 million, and completed projects totaling \$16.3 million were transferred from construction in progress to applicable facilities and structures capital accounts

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

	Net Utility Plant at Year-End				
(In thousands)	2015 2014 201				
Utility plant not depreciated: Land and land rights Construction in progress	\$	\$     560 25,703	\$		
Total utility plant not depreciated	92,899	26,263	16,854		
Utility plant being depreciated: Facilities and structures Furniture and equipment	2,671,508 30,575	2,462,714 32,196	2,252,341 32,742		
Total utility plant being depreciated	2,702,083	2,494,910	2,285,083		
Less accumulated depreciation: Facilities and structures Furniture and equipment	(509,550) (22,273)	(474,136) (21,817)	(442,064) (21,545)		
Total accumulated depreciation	(531,823)	(495,953)	(463,609)		
Utility plant being depreciated—net	2,170,260	1,998,957	1,821,474		
Utility plant—net	\$2,263,159	\$2,025,220	\$1,838,328		

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

The Sewer Fund's outstanding debt at December 31, 2015, 2014, and 2013, is summarized as follows:

	Long-Term Outstanding Debt at Year-End					
(In thousands)	2015	2014	2013			
Revenue bonds	\$1,686,179	\$1,638,935	\$1,369,459			
Add interest accretion on Series 1998						
capital appreciation bonds	54,193	49,615	45,272			
Unamortized net bond discount/premium	83,551	61,306	34,707			
Outstanding debt—net	\$1,823,923	\$1,749,856	\$1,449,438			

The Sewer Fund's revenue bonds at December 31, 2015, have underlying credit ratings with each of the three major rating agencies as follows:

	Moody's Investor Services	Standard & Poor's	Fitch Ratings	Kroll
Senior Lien Wastewater Revenue Bonds	Baa2	$\mathbf{A}$ +	NotRated	NotRated
Second Lien Wastewater Revenue Bonds	Baa3	А	AA	AA-

In March 2014, Moody's Investors Service (Moody's) downgraded the ratings of the Wastewater senior lien revenue bonds from A1 to A2 and the Wastewater second lien revenue bonds from A2 to A3, each with a negative outlook.

In February 2015, Moody's downgraded the ratings of the Wastewater senior lien revenue bonds from A2 to A3, and the Wastewater second lien revenue bonds from A3 to Baaa1, each with a negative outlook.

In May 2015, Moody's downgraded the ratings of the Sewer Fund senior lien revenue bonds from A3 to Baa2 and the Sewer Fund second lien revenue bonds from Baa1 to Baa3, each with a negative outlook. Also in May 2015, Standards & Poor's Financial Services downgraded the ratings of the Sewer Fund senior lien revenue bonds from AA to A and the Sewer Fund second lien revenue bonds from AA- to A-.

At December 31, 2014, the Sewer Fund was in compliance with the debt covenants as stated in the Master Trust Indentures. Details regarding the Sewer Fund's long-term debt are 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 Sewer 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)

100570	2015	2014			2015		2014
ASSETS			LIABILITIES				
CURRENT ASSETS:			CURRENT LIABILITIES:				
Cash and cash equivalents (Note 2)	\$ 37,383	\$ 69,205	Accounts payable	\$	2,320	\$	4,242
Investments (Note 2)	34,044	41,974	Due to other City funds		14,132		71,228
Accounts receivable-net of allowance for doubtful accounts			Unearned revenue		15,933		17,154
of approximately \$66,885 in 2015 and \$55,456 in 2014	107,060	91,339	Unearned swap up-front payment				922
Due from other City funds	26,192	29,416	Accrued liabilities unrestricted		40,225		31,047
Inventories	809	616	Liabilities payable from restricted assets:				
Cash and cash equivalents-restricted (Note 2)	139,825	21,247	Accounts payable		63,599		33,770
Investments—restricted (Note 2)	43,986	103,473	Accrued liabilities		37,985		20,666
Interest receivable	623	541	Current portion of long-term debt (Note 4)		46,427		39,837
			Interest payable		35,802		30,447
Total current assets	389,922	357,811					
			Total current liabilities unrestricted		256,423		249,313
NONCURRENT ASSETS:							
Investments—restricted (Note 2)	156,205	289,041	NONCURRENT LIABILITIES:				
			Net pension liability (Note 6)		663,872		
Other assets	3,499	3,970	Long-term debt-net of current maturities (Note 4)	1,7	777,496	1,	710,019
			Derivative instrument liability (Note 4)				71,861
Utility plant (Note 5):							
Land and land rights	560	560	Total noncurrent liabilities	2,4	441,368	1,'	781,880
Facilities and structures	2,671,508	2,462,714					
Furniture and equipment	30,575	32,196	Total liabilities	2,	697,791	2,0	031,193
Construction in progress	92,339	25,703					
			DEFERRED INFLOWS (Note 10)		5,681		
Total utility plant	2,794,982	2,521,173					
			NET POSITION (Note 1):				
Less accumulated depreciation	(531,823)	(495,953)	Net investment in capital assets		559,715		520,627
			Restricted for capital projects		116,107		111,333
Utility plant—net	2,263,159	2,025,220	Unrestricted	(2	299,584)		102,794
Total noncurrent assets	2,422,863	2,318,231	Total net position	:	376,238		734,754
DEFERRED OUTFLOWS (Note 10)	266,925	89,905					
TOTAL	\$3,079,710	\$2,765,947	TOTAL	\$3.	079,710	\$2.7	765,947
	<i>\$2,077,110</i>	<u>+ =,, 00,, 1, 1</u>		<u>\$95</u> ,		<i>φ=</i> ,	

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
ODED ATINC DEVENILIES.		
OPERATING REVENUES: Sewer service:		
Sewer service—gross	\$ 390,924	\$ 337,657
Less: provision for doubtful accounts	(16,154)	(16,557)
Sewer service—net	374,770	321,100
Other	1,107	1,128
Total operating revenues	375,877	322,228
OPERATING EXPENSES:		
Repairs	42,131	40,435
General Fund reimbursements	40,007	36,740
Pension expense (Note 6)	187,593	
Maintenance	25,322	24,374
Engineering	3,299	3,336
Administrative and general	12,337	14,394
Total operating expenses before depreciation and amortization	310,689	119,279
Depreciation and amortization	40,444	36,701
Total operating expenses	351,133	155,980
OPERATING INCOME	24,744	166,248
NONOPERATING REVENUE (EXPENSES):		
Investment income (loss)	2,600	2,984
Interest expense	(83,656)	(69,620)
Other	1,321	829
Swap termination fees	(70,243)	
Total nonoperating expenses—net	(149,978)	(65,807)
CHANGE IN NET POSITION	(125,234)	100,441
TOTAL NET POSITION—Beginning of year, as restated (Note 11)	501,472	634,313
TOTAL NET POSITION—End of year	\$ 376,238	\$734,754

See notes to basic financial statements.

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

	2015	2014
CASH FLOWS FROM OPERATING ACTIVITIES:		
Received from customers	\$ 358,014	\$ 310,970
Transactions with other City funds	(42,764)	(40,218)
Payments to vendors	(33,131)	(35,780)
Payments to employees	(42,894)	(43,617)
	(12,0) 1)	
Net cash provided by operating activities	239,225	191,355
CASH FLOWS FROM CAPITAL AND RELATED		
FINANCING ACTIVITIES:		
Acquisition and construction of capital assets	(275,866)	(167,115)
Proceeds from issuance of bonds	87,081	338,026
Interest paid on revenue bonds	(58,040)	(69,860)
Swap termination fees	(70,243)	(0),000)
Principal paid on bonds and notes	(39,837)	(37,929)
Net cash provided by (used in) capital and related		
financing activities	(356,905)	63,122
		7
CASH FLOWS FROM INVESTING ACTIVITIES:		
Sales and purchases of investments—net	200,252	(213,388)
Investment interest	4,184	4,657
Net cash (used in) provided by investing activities	204,436	(208,731)
NET CHANGE IN CASH AND CASH EQUIVALENTS	86,756	45,746
	,	
CASH AND CASH EQUIVALENTS—Beginning of year	90,452	44,706
CASH AND CASH EQUIVALENTS—End of year	\$ 177,208	\$ 90,452

(Continued)

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

	2015	2014
RECONCILIATION TO CASH AND CASH EQUIVALENTS REPORTED ON THE STATEMENTS OF NET POSITION:		
Unrestricted	\$ 37,383	\$ 69,205
Restricted	139,825	21,247
TOTAL	<u>\$ 177,208</u>	<u>\$ 90,452</u>
RECONCILIATION OF OPERATING INCOME TO		
CASH FLOWS FROM OPERATING ACTIVITIES:		
Operating income	\$ 24,744	\$ 166,248
Adjustments to reconcile:		
Depreciation and amortization	40,444	36,701
Pension expense other than contribution	183,165	
Provision for uncollectible accounts	16,154	16,557
Changes in assets and liabilities:		
Increase in due from other City funds	3,223	(2,489)
Increase in accounts receivable	(31,874)	(29,162)
Decrease in inventories	(193)	652
Increase in accrued liabilities	9,178	3,043
(Decrease) increase in accounts payable and due to other City funds	(3,473)	(1,541)
Increase (decrease) in unearned revenue	(2,143)	1,346
CASH FLOWS FROM OPERATING ACTIVITIES	\$ 239,225	\$ 191,355
SUPPLEMENTAL DISCLOSURE OF NONCASH ITEMS—Property		

additions in 2015 and 2014 of \$101,584 and \$54,611, respectively, have outstanding accounts payable and accrued liabilities.

See notes to basic financial statements.

(Concluded)

NOTES TO BASIC FINANCIAL STATEMENTS AS OF AND FOR THE YEARS ENDED DECEMBER 31, 2015 AND 2014 (In thousands)

#### 1. ORGANIZATION AND SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

**Organization**—The Sewer Fund (the "Sewer Fund") collects and transmits wastewater to the treatment facilities of the Metropolitan Water Reclamation District of Greater Chicago. The Sewer Fund is included in the City of Chicago, Illinois (the "City"), reporting entity as an enterprise fund.

The accompanying basic financial statements present only the Sewer Fund and are not intended to present the financial position of the City or the results of its operations and cash flows.

**Basis of Accounting**—The accounting policies of the Sewer 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 Sewer Fund are reported using the flow of economic resources measurement focus.

The Sewer 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 Sewer Fund has a legally adopted annual budget that is not required to be reported.

**Management's Use of Estimates**—The preparation of 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, disclosure of contingent assets and liabilities at the date of the 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, the 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 Sewer 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 market value equal to the cost of the repurchase agreement, 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—The Sewer Fund accounts receivable result from billings and collections for sewer services processed by the Department of Water Management. Management has provided an allowance for amounts recorded at year-end that 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 Sewer 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 first-in, first-out 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 Sewer Fund as assets with an initial cost of more than \$5,000 and an estimated useful life in excess of two years. Such assets are recorded at historical cost if purchased. 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:

Facilities and structures	75 years
Furniture and equipment	5–20 years
Sewer rehabilitation	50 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 consists of assets on which constraints are placed 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 and bond premiums 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.

**Capitalized Interest**—Interest expense is capitalized during construction of those capital projects that are paid for from the bond proceeds and are being amortized over the depreciable life of the related assets on a straight-line basis. Interest expense capitalized for 2015 and 2014 totaled \$7.9 million and \$4.4 million, respectively.

**Capital Grants**—Capital grants are reported as contributed revenue in the statements of revenues, expenses, and changes in net position.

**Revenue Recognition**—Sewer service revenue is billed as a percentage of the City's water billings and is recorded as revenue when the water is consumed by the customers. Of the accounts receivable balances, \$33.1 million and \$31.5 million represent revenue recognized on sewer service that had not yet been billed to customers at December 31, 2015 and 2014, respectively. Unearned revenue represents amounts collected from nonmetered customers prior to usage.

**Revenues and Expenses**—The Sewer 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 Sewer Fund's principal ongoing operations. The principal operating revenues of the Sewer 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 will be effective for the Sewer Fund beginning with its year ending 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 (see RSI and Notes 6 and 11). Beginning Net Position at January 1, 2015 was restated as a result of 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 will be effective for the Sewer Fund beginning with its year ending 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 Sewer Fund's Financial Statement as a result of the implementation of GASB 71.

**Upcoming Accounting Standards**—Other accounting standards that the Sewer 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 Sewer 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 Sewer 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. 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 Sewer 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 Sewer 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 Sewer Fund beginning with its year ending December 31, 2017.

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

**Cash Equivalents and Investments**—As of December 31, 2015, the Sewer Fund had the following cash equivalents and investments (in thousands):

	Investment Maturities (in Years)				_
	Less than 1	1–5	6–10	More than 10	Fair Value
U.S. agencies Commercial paper Certificates of deposits	\$ 40,356 32,379	\$ 123,026	\$ 4,007	\$4,288	\$ 171,677 32,379
and other short-term	107,551	000	7 907	4.026	107,551
Corporate bonds Municipal bonds		990 12,603	7,897	4,026 994	12,913 13,597
Subtotal	\$180,286	\$136,619	<u>\$11,904</u>	<u>\$ 9,308</u>	338,117
Share of City's pooled funds					68,680
Total					<u>\$ 406,797</u>

	Investment Maturities (in Years)				
	Less than 1	1–5	6–10	More than 10	- Fair Value
U.S. agencies Commercial paper Certificates of deposits	\$ 7,129 60,368	\$ 280,282	\$ 34,355	\$ -	\$ 321,766 60,368
and other short-term Corporate bonds Municipal bonds	81,944 5,540 <u>3,005</u>	3,982 2,804			81,944 9,522 5,809
Subtotal	\$157,986	\$287,068	<u>\$ 34,355</u>	<u>\$</u> -	479,409
Share of City's pooled funds					44,740
Total					\$524,149

As of December 31, 2014, the Sewer Fund had the following cash equivalents and investments (in thousands):

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

**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, noninterest-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 Sewer Fund's exposure to credit risk as of December 31, 2015 and 2014, is as follows (in thousands):

Quality Rating	2015	2014
Aaa/AAA Aa/AA A/A P1/A1 Not rated	\$ 19,407 165,188 951 <u>152,571</u>	\$ 15,784 318,308 3,005 60,368 81,944
Total	\$ 338,117	<u>\$479,409</u>

The Sewer 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 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.

A schedule summarizing the investments reported in the basic financial statements as of December 31, 2015 and 2014, is as follows (in thousands):

	2015	2014
Per Note 2:		
Investments—Sewer Fund	\$338,117	\$479,409
Investments—City Treasurer pooled fund	68,680	44,740
	\$406,797	\$524,149
Per financial statements:		
Restricted investments—current	\$200,191	\$103,473
Restricted investments—noncurrent	34,044	289,041
Unrestricted investments		41,974
Investments included as cash and cash equivalents on the		
statements of net position	172,562	89,661
	\$406,797	\$ 524,149

#### 3. RESTRICTED ASSETS AND ACCOUNTS

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

Wastewater Revenue Bonds, Refunding Bonds Series 1993 (the "Senior Lien Bonds"), and 1998A Wastewater Capital Appreciation Bonds:

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

*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 in this account was met by the purchase of surety bonds.

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

Wastewater Revenue Bonds, Series 2015, 2014, 2012, 2010, 2008, 2001, Refunding Series 2004, and Refunding Series 2006 (the "Second Lien Bonds"):

*Bond Principal and Interest Account*—No later than the business day immediately preceding January 1 and July 1, an amount to pay principal; redemption premium, if any; and interest on the bonds. The City is also required to make deposits in the Second Lien Bonds' account to meet other payment obligations under the indenture authorizing Second Lien Parity Bonds.

Debt Service Reserve Account—For each series, an amount equal to the least of (i) the highest future 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 in this account was met by the purchase of a surety bond.

*Construction Account*—Proceeds of the Second Lien Bonds were deposited in this account for the purpose of paying construction cost of projects as defined in the ordinance.

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

For accounts established by ordinances with balances, the amounts as of December 31, 2015 and 2014, are as follows (in thousands):

	2015	2014
Construction Bond principal and interest Sewer rate stabilization	\$ 225,158 82,229 32,629	\$310,848 70,284 32,629
Total	\$340,016	\$413,761

At December 31, 2015 and 2014, management was not aware of any instances of noncompliance with the above terms of the ordinances.

### 4. LONG-TERM DEBT

As of December 31, 2015 and 2014, long-term debt consisted of the following (in thousands):

	201	5		2014
\$109,998 Series 1998A Senior Lien Wastewater Transmission Revenue Bonds				
issued March 18, 1998, due through 2030; interest at 4.0% to 5.25% \$73,100 Series 2001 Second Lien Wastewater Transmission Revenue Bonds	\$ 35,1	68	\$	35,168
issued December 6, 2001, due through 2031; interest at 4.0% to 5.5% \$61,925 Series 2004B Second Lien Wastewater Transmission Revenue Bonds	58,5	575		62,095
issued July 29, 2004, due through 2016; interest at 3.0% to 5.25% \$155,030 Series 2006A & B Second Lien Wastewater Transmission Revenue Bonds issued November 1, 2006, due through 2039; Series A	16,1	.85		29,400
interest at 4.0% to 5.0% (4.0% at December 31, 2036);				
Series B interest at 4.0% to 5.0%	122,2	240		130,945
\$167,635 Series 2008A Second Lien Wastewater Transmission Revenue Bonds	,			)
issued November 5, 2008, due through 2038; interest at 3.5% to 5.5%	150,4	185		153,820
\$332,230 Series 2008C Second Lien Wastewater Transmission Revenue Bonds (2004A Refunded) issued October 16, 2008, due through 2039;				
interest rate; interest at 4.0% to 5.0% as of December 31, 2015	332,2	20		332,230
\$275,865 Series 2010A & B Second Lien Wastewater Transmission Revenue	552,2	.50		552,250
Bonds issued November 16, 2010, due through 2040; interest at 2.0% to 6.0%	266,1	05		269,135
\$1,546 Illinois Environmental Protection Agency Loan Agreement	200,	.00		207,155
signed May 28, 2008, due through 2027; interest at 2.50%	1.0	)27		1,101
\$276,470 Series 2012 Second Lien Wastewater Transmission Revenue Bonds				, -
issued September 13, 2012, due through 2042; interest at 3.0% to 5.0%	266,7	/05		271,660
\$15,000 Illinois Environmental Protection Agency Loan Agreement				,
signed January 20, 2010, due through 2031; interest at 0%	11,8	358		12,623
\$17,812 Illinois Environmental Protection Agency Loan Agreement				
signed October 8, 2010, due through 2032; interest at 1.25%	15,7	163		16,590
\$17,564 Illinois Environmental Protection Agency Loan Agreement				
signed September 22, 2011, due through 2033; interest at 1.25%	15,9	952		16,763
\$15,000 Illinois Environmental Protection Agency Loan Agreement				
signed October 2, 2012, due through 2034 interest at 2.295%	14,4	100		15,000
\$292,405 Series 2014 Second Lien Wastewater Transmission Revenue Bonds				
issued September 22, 2014, due through 2044; interest at 3.0% to 5.0%	292,4	105		292,405
\$87,080 Series 2015 Bonds issued October 19, 2015				
due through 2039; interest at 2.59% to 6.04%	87,0	)80		
Total revenue bonds	1,686,1	78	1,	638,935
Add accretion of Series 1998 Capital Appreciation Bonds	54,1	94		49,615
Add unamortized net bond (discount)/premium	83,5	51		61,306
Less current portion (payable from restricted assets)	(46,4	<u>27</u> )		(39,837)
Long-term portion—net	\$1,777,4	196	<u>\$1,</u>	710,019
During the years ended December 31, 2015 and 2014, long-term debt changed as follows (in thousands):

	Balance January 1, 2015	Additions	Reductions	Balance December 31, 2015	Due within One Year
Revenue bonds Accretion of series 1998 capital	\$1,638,935	\$ 87,081	\$(39,837)	\$1,686,179	\$46,427
appreciation bonds	49,615	4,578		54,193	
Unamortized net discount/premium	61,306	26,735	(4,490)	83,551	. <u> </u>
Total revenue bonds	\$1,749,856	\$118,394	\$(44,327)	\$1,823,923	\$46,427
	Balance January 1, 2014	Additions	Reductions	Balance December 31, 2014	Due within One Year
Revenue bonds Accretion of series 1998 capital	January 1,	Additions \$307,405	<b>Reductions</b> \$(37,929)	December 31,	One
Revenue bonds Accretion of series 1998 capital appreciation bonds	January 1, 2014			December 31, 2014	One Year
Accretion of series 1998 capital	January 1, 2014 \$1,369,459	\$307,405		December 31, 2014 \$1,638,935	One Year

Interest expense includes amortization of the loss on bond refunding for 2015 and 2014 of \$4.2 million; less amortization of net bond discount/premium of \$4.5 million and \$3.2 million, respectively; and accretion of Series 1998 capital appreciation bonds of \$4.6 million and \$4.3 million, respectively.

As defined in the ordinances, net revenues are pledged for the payment of principal and interest on the bonds. The ordinances require that net revenues available for bonds equal 115% of the senior lien debt service requirement and that net revenues available for bonds equal the sum of 100% of the aggregate annual senior lien debt service requirement and 100% of the aggregate annual second lien debt service requirement. The above requirements were met for 2015 and 2014.

**Rate Increases**—Sewer service rates are set by ordinance. The sewer service charge is established in an amount designed to pay the costs of Sewer Fund operations and capital improvements, including any related debt service. During 2015 and 2014, the charge for sewer service was increased and was an amount equal to 100% of the gross amount charged for water service, whether such water service is metered or nonmetered. The rate charged for water was increased and was \$28.52 per 1,000 cubic feet and \$24.80 per 1,000 cubic feet during 2015 and 2014, respectively.

**Issuance of Debt**—In October 2015, the City converted \$332.2 million outstanding of the Series 2008c Second Lien Wastewater Transmission Revenue Bonds to fixed rate Bonds at a premium. The bonds have interest rates ranging from 4.0 percent to 5.0 percent and maturity dates ranging from January 1, 2017 to January 1, 2039. The net proceeds of \$357.0 million will be used to pay the mandatory tender prices of the Series 2008c bonds (\$332.2 million) and to fund debt service reserve (\$24.8 million).

Second Lien Wastewater Transmission Revenue Bonds, Series 2015 (\$87.1 million) were sold at par in October 2015. The bonds have interest rates ranging from 2.591 percent to 6.042 percent and maturity dates from January 1, 2018 to January 1, 2039. The net proceeds of \$86.4 million were used to refund the line of credit notes used for the swap termination (\$70.2 million), to fund debt service reserves (\$10.5 million), and to fund capitalized interest \$5.7 million.

Following is a schedule of debt service requirements to maturity (in thousands):

Years Ending December 31	Principal	Interest	Total Debt Service
2016	\$ 46,427	\$ 77,342	<ul> <li>\$ 123,769</li> <li>128,642</li> <li>130,926</li> <li>130,963</li> <li>131,392</li> <li>657,696</li> <li>627,228</li> <li>566,206</li> <li>463,996</li> </ul>
2017	46,988	81,654	
2018	51,446	79,480	
2019	53,904	77,059	
2020	49,530	81,862	
2021–2025	277,590	380,106	
2026–2030	294,083	333,145	
2031–2035	377,695	188,511	
2036–2040	386,755	77,241	
2041–2044	<u>101,760</u>	<u>8,678</u>	<u>110,438</u>
Total	<u>\$1,686,178</u>	<u>\$1,385,078</u>	<u>\$3,071,256</u>

#### Derivatives

#### Pay-Fixed, Receive-Variable Interest Rate Swaps:

Objective of the Swaps—In order to protect against the potential of rising interest rates, the Sewer Fund has entered into various separate pay-fixed, receive-variable interest rate swaps at a cost less than what the Sewer Fund would have paid to issue fixed-rate debt.

	Changes in F	air Value	December 3	1, 2015	
Governmental Activities	Classification	Amount	Classification	Amount	Notional
Cash flow hedges—pay-fixed interest rate swaps	Deferred outflow of resources	<u>\$(71,861)</u>	Deferred outflow of resources	<u>\$</u>	<u>\$ -</u>

During 2015, the city terminated the swap associated with series 2008c second lien wastewater transmission variable rate revenue refunding bonds; the termination payment amounted to \$70.2 million.

### 5. UTILITY PLANT

During the years ended December 31, 2015 and 2014, utility plant changed 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	\$    560 25,703	\$ 	\$ _(30,140)	\$     560 92,339
Total utility plant not depreciated	26,263	96,776	(30,140)	92,899
Utility plant being depreciated: Facilities and structures Furniture and equipment	2,462,714 32,196	224,777	(15,983) (1,621)	2,671,508 30,575
Total utility plant being depreciated	2,494,910	224,777	(17,604)	2,702,083
Less accumulated depreciation: Facilities and structures Furniture and equipment	(474,136) (21,817)	(35,414) (2,017)	1,561	(509,550) (22,273)
Total accumulated depreciation	(495,953)	(37,431)	1,561	(531,823)
Utility plant being depreciated—net	1,998,957	187,346	(16,043)	2,170,260
Utility plant—net	\$2,025,220	\$284,122	\$(46,183)	\$2,263,159
	Balance January 1, 2014	Additions	Disposals and Transfers	Balance December 31, 2014
Utility plant not depreciated: Land and land rights Construction in progress	January 1,	Additions \$25,703	and	December 31,
Land and land rights	January 1, 2014 \$560	\$ -	and Transfers \$ -	<b>December 31,</b> 2014 \$ 560
Land and land rights Construction in progress	January 1, 2014 \$ 560 16,294	\$ 25,703	and Transfers \$ - (16,294)	December 31, 2014 \$ 560 25,703
Land and land rights Construction in progress Total utility plant not depreciated Utility plant being depreciated: Facilities and structures	January 1, 2014 \$ 560 16,294 16,854 2,252,341	\$ - 25,703 25,703 267,317	and Transfers (16,294) (16,294) (56,944)	December 31, 2014 \$ 560 25,703 26,263 2,462,714
Land and land rights Construction in progress Total utility plant not depreciated Utility plant being depreciated: Facilities and structures Furniture and equipment	January 1, 2014 \$ 560 16,294 16,854 2,252,341 32,742	\$ - 25,703 25,703 267,317 1,409	and Transfers \$ - (16,294) (16,294) (56,944) (1,955)	December 31, 2014 \$ 560 25,703 26,263 2,462,714 32,196
Land and land rights Construction in progress Total utility plant not depreciated Utility plant being depreciated: Facilities and structures Furniture and equipment Total utility plant being depreciated Less accumulated depreciation: Facilities and structures	January 1, 2014 \$ 560 16,294 16,854 2,252,341 32,742 2,285,083 (442,064)	$\frac{25,703}{25,703}$ 25,703 267,317 1,409 268,726 (32,072)	and Transfers \$ - (16,294) (16,294) (16,294) (56,944) (1,955) (58,899)	December 31, 2014 \$ 560 25,703 26,263 2,462,714 32,196 2,494,910 (474,136)
Land and land rights Construction in progress Total utility plant not depreciated Utility plant being depreciated: Facilities and structures Furniture and equipment Total utility plant being depreciated Less accumulated depreciation: Facilities and structures Furniture and equipment	January 1, 2014 \$ 560 16,294 16,854 2,252,341 32,742 2,285,083 (442,064) (21,545)	\$ - 25,703 25,703 267,317 1,409 268,726 (32,072) (1,989)	and Transfers \$ - (16,294) (16,294) (16,294) (56,944) (1,955) (58,899) 1,717	December 31, 2014 \$ 560 25,703 26,263 2,462,714 32,196 2,494,910 (474,136) (21,817)

### 6. PENSION PLANS

General Information about the Pension Plan

*Plan Description*—Eligible Sewer 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 <a href="https://www.meabf.org">www.labfchicago.org</a>.

*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 before 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 both pension plans from the Sewer Fund was \$4.4 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 Sewer Fund reported a liability of \$663.9 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 Sewer Fund's proportion of the net pension liability was determined based on the rates of budgeted Sewer Fund's salaries within each corresponding pension plan to the total budgeted salaries. At December 31, 2015, the Sewer Fund's proportion was 2.0 percent of the Municipal Plan, 12.1 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 Sewer Fund's allocated share of the net pension liability by \$170.4 million for Municipal and \$142.5 million for Laborers. This impact is being amortized into expense over a five year period for Municipal and a four year period for Laborers'. The change in benefits increased the Sewer Fund's allocated share of the net pension liability by \$41.9 million for Municipal and \$46.5 million for Laborers'. This impact is recognized as a portion of pension expense for 2015 in its entirety.

For the year ended December 31, 2015, the Sewer Fund recognized pension expense of \$187.6 million.

At December 31, 2015, the Sewer Fund reported total deferred outflows of resources of \$253.1 million and deferred inflows of resources of \$5.7 million related to pensions from the following sources:

Municipal (dollars in thousands):

	Deferred Outflows of Resources	Deferred Inflows of Resources
Differences between expected and actual experience Changes of assumptions	\$ - 136,319	\$ 1,719
Net difference between projected and actual earnings on pension plan investments	3,883	
Total	\$ 140,202	\$1,719

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	\$ 34,621
2017	34,621
2018	34,621
2019	34,621
2020	
Thereafter	

Laborers' (dollars in thousands):

	Deferred Outflows of Resources	
Differences between expected and actual experience Changes of assumptions	\$ - 101,103	\$ 3,962
Net difference between projected and actual earnings on pension plan investments	11,800	
Total	\$112,903	\$3,962

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	\$42,600
2017	\$42,690 42,690
2018	20,611
2019	2,950
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 (b)	
Investment rate of return	7.50 (c)	7.50 (d)	

(a) Varying by years of service

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

Mortality rates were based on the RP-2000 Health Annuitant Mortality Table for Males or Females, as appropriate for Municipal and Laborers'.

The mortality 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 buildingblock 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-Term	Expected	
	Target Allocation		Real Rate of Return		
Asset Class	Municipal	Laborers'	Municipal	Laborers'	
Domestic equity	26.0 %	22.0 %	4.90 %	5.90 %	
Non U.S. equity		13.0		7.90	
Global equity		14.0		6.50	
International equity	22.0		5.00		
Fixed income	27.0	16.0	0.20	2.60	
Hedge funds	10.0	8.0	3.00	3.80	
Private equity	5.0		8.60		
Private markets		11.0		6.90	
GAA		8.0		4.70	
Real estate	10.0	6.0	6.00	4.40	
Risk parity		2.0		5.00	
Total	100.0 %	100.0 %			

#### Discount Rate

Municipal—The discount rate used to measure the total pension liability was 3.73%. 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 the discount rate assumed member contributions will be made at the current contribution rate and that employer contributions will be made at the 1.25 multiple of member contributions from two years prior. For this purpose, only employer contributions that are intended to fund benefits of current plan members and their beneficiaries are included. Projected employer contributions and contributions from future plan members that are intended to fund the service costs of future plan members and their beneficiaries are not included. Based on those assumptions, the pension plan's fiduciary net position was not projected to be available to make all projected future benefit payments of current plan members. The projected benefit payments through 2023 were discounted at the expected long-term rate of return. Starting in 2024, the projected benefit payments were discounted at the municipal bond rate. Therefore, a single equivalent, blended discount rate of 3.73% 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 pension plan's fiduciary net position and future contributions were sufficient to finance the benefit payments through the year 2027. As a result, the long-term expected rate of return on pension plan investments was applied to all benefit payments after that date.

# Sensitivity of the Sewer Proportionate Share of the Net Pension Liability to Changes in the Discount Rate.

Municipal—The following presents the Sewer'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		
Net Pension Liability December 31, 2015	1% Decrease	Discount Rate	1% Increase
Municipal discount rate Municipal liability	2.73 % \$434,365	3.73 % \$364,150	4.73 % \$306,610

Laborers'—The following presents the Sewer'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:

	(do	(dollars in thousands)			
		Current			
Net Pension Liability December 31, 2015	1% Decrease Discount Rate 1% In		1% Increase		
Laborers' discount rate	3.04 %	4.04 %	5.04 %		
Laborers' liability	\$365,562	\$299,722	\$245,750		

*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 POSTEMPLOYMENT 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: A portion of the City's empl	over contribution	to the Pensio	n Funds is
used to finance the health insurance supplement be	nefit payments.		
Annual required contribution	\$ 9,174	\$ 2,402	\$ 11,576
Interest on net OPEB obligation	2,406	209	2,615
Adjustment to annual required contribution	(27,331)	(2,376)	(29,707)
Annual OPEB cost (gain)	(15,751)	235	(15,516)
Contributions made	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	12/31/2015	12/31/2015
Actuarial cost method	Entry age normal	Entry age normal
Amortization method	Level dollar	Level dollar
Remaining amortization method	1 year closed	1 year closed
Asset valuation method	No assets (Pay-as-you-go)	No assets (Pay-as-you-go)
Actuarial assumptions:		
OPEB investment Rate of return <sup>(a)</sup>	4.5 %	4.5 %
Projected salary increases <sup>(a)</sup> Inflation	3.0 %	3.0 %
Seniority/merit Healthcare cost trend rate <sup>(d)</sup>	(b) %	(c) %

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

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

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

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

	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

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 Employees' Laborers'	12/31/2015 12/31/2015	\$ -	\$8,147 2,133	\$8,147 2,133	\$ -	\$1,643,481 204,773	0.50 % 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	2014
	Health Plan	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			
		Percentage of	
Fiscal Year	Annual	Annual OPEB	Net OPEB
Ended	OPEB Cost	Cost Contributed	Obligation
12/31/2015	\$ 91,840	105.1 %	\$172,851
12/31/2014	112,432	113.9	177,562
12/31/2013	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).

			Unfunded			UAAL
		Actuarial	Actuarial			as a
Actuarial	Actuarial	Accrued	Accrued			Percentage
Valuation	Value of	Liability	Liability	Funded	Covered	of Covered
Date	Assets	(AAL)	(UAAL)	Ratio	Payroll	Payroll
12/31/2014	\$ -	\$780,637	\$780,637	- %	\$2,487,787	31.4 %
12/31/2013		964.626	964.626		2.425.000	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 M	<b>Nethods</b>			
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 Sewer 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 and certain other funds for services provided by other City departments, employee fringe benefits, and certain payments made on behalf of the Sewer Fund. Such reimbursements amounted to \$227.6 million and \$36.7 million in 2015 and 2014, respectively.

#### 9. COMMITMENTS AND CONTINGENCIES

The Sewer 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 Sewer Fund.

The Sewer Fund provides workers' compensation benefits and employee health benefits under selfinsurance 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 for claims that have been incurred, but not reported. Changes in the claims liability amount for the years ended December 31, 2015 and 2014, are as follows (in thousands):

	2015	2014
Balance—January 1 Claims incurred on current and prior-year events Claims paid on current and prior-year events	\$ 17,374 21,479 (13,724)	\$ 16,784 12,996 (12,406)
Balance—December 31	\$ 25,129	\$ 17,374

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 Sewer 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 Sewer Fund entered into contracts with outstanding commitments of approximately \$105.2 million and \$113.6 million, respectively, for construction projects.

### 10. DEFERRED OUTFLOWS / INFLOWS OF RESOURCES

(in thousands)	FY 2015	FY 2014
Deferred outflows of resources	\$253,105	\$ -
Accumulated decrease in fair value of hedging derivatives	13,820	89,905
Total deferred outflows of resources	\$266,925	\$89,905
Deferred inflows of resources:		
Deferred inflows	<u>\$ (5,681</u> )	

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

During fiscal year 2015, the Sewer 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	Adjustment	As Restated
Total net position—January 1, 2015	<u>\$734,754</u>	<u>\$(233,282</u> )	\$501,472

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

**REQUIRED SUPPLEMENTAL INFORMATION** 

REQUIRED SUPPLEMENTARY INFORMATION	
CITY OF CHICAGO, ILLINOIS	
SCHEDULE OF CHANGES IN THE NET PENSION LIABILITY AND RELATED RATIOS	2
	5
Last Fiscal Year (dollars are in thousands)	
Municipal Employees':	2015
Total pension liability Service cost	\$ 226,816
Interest	909,067
Benefit changes	2,140,009
Differences between expected and actual experience	(109,835)
Assumption changes	8,711,755
Benefit payments including refunds	(826,036)
Pension plan administrative expense	
Net change in total pension liability	11,051,776
Total pension liability—beginning	12,307,094
Total pension liability—ending <sup>(a)</sup>	23,358,870
Plan fiduciary net position	1 40 225
Contributions-employer	149,225
Contributions-employee Net investment income	131,428 114,025
Benefit payments including refunds of employee contribution	(826,036)
Administrative expenses	(6,701)
Other	(0,701)
Net change in plan fiduciary net position	(438,059)
Plan fiduciary net position—beginning	5,179,486
Plan fiduciary net position—ending <sup>(b)</sup>	4,741,427
Net pension liability—ending <sup>(a)-(b)</sup>	\$18,617,443
The pension monity ending	<u></u>
Plan fiduciary net position as a percentage of the total	
pension liability	20.30 %
Covered-employee payroll <sup>*</sup>	\$ 1,643,481
Employer's net pension liability as a percentage of	
covered-employee payroll	1,133
Allocated net pension liability	364,150
Allocated percentage	1.96 %
*Covered payroll is the amount in force as of the valuation date and likely differs from actual payroll duri	ing 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)

Laborers':	2015
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 <sup>(a)</sup>	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 Plan fiduciary net position—ending <sup>(b)</sup>	1,388,093 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	1,208.15 %
Allocated net pension liability Allocated percentage	299,722 12.12 %
*	

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

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

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

(Concluded)

#### SCHEDULE OF CONTRIBUTIONS Last Ten Years (dollars are in thousands)

#### Municipal Employees':

		Contributions in Relation to the			Contributions as a percentage of
	Actuarially	Actuarially		Covered	Covered
Years Ended	Determined	Determined	Contribution	Employee	Employee
December 31,	Contributions	Contribution	Deficiency	Payroll**	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, Therefore, the Fund is projected to become insolvent within the next 10 years (during 2025). the actuarially determined contribution is comprised of an employer normal cost payment and a 30-year, level dollar amortization payment on the unfunded actuarial accrued liability.

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

#### Laborers':

		Contributions in			Contributions as
		Relation to the			a percentage of
	Actuarially	Actuarially		Covered	Covered
Years Ended	Determined	Determined	Contribution	Employee	Employee
December 31,	Contributions	Contribution	Deficiency	Payroll **	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.

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

(Continued)

### SCHEDULE OF CONTRIBUTIONS

Actuarial Methods and Assumptions:	Municipal Employees'	Laborers'
Actuarial valuation date	12/31/2015 (a)	12/31/2015 (b)
Actuarial cost method Amortization method Remaining amortization period Asset valuation method	Entry age normal Level dollar, open 30 years 5-yr. Smoothed Market	Entry age normal Level dollar, open (c) 30 years 5-yr. Smoothed Market
Actuarial assumptions: Inflation Salary increases Investment rate of return Retirement Age Mortality Other information	3.0 % 4.5%-8.25% (d) 7.5 % (f) (h) (j) (l)	3.0 % 3.75 % (e) 7.5 % (g) (i) (k) (m)

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

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

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

(d) Varying by years of service.

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

(f) Net of investment expense.

- (g) Net of investment expense, including inflation.
- (h) For employees first hired prior to January 1, 2011, rates of retirement are based on the recent experience of the Fund (adopted December 31, 2010). For employees first hired on or after January 1, 2011, rates of retirement for each age from 62 to 80 were used (adopted December 31, 2011).
- (i) Experience-based table of rates that are specific to the type of eligibility condition. Last updated for the December 31, 2012, valuation pursuant to an experience study of the period January 1, 2004, through December 31, 2011.
- (j) Post-retirement mortality rates were based on the RP-2000 Healthy Mortality Tables with mortality improvements projected to 2010 using Scale AA. Pre-retirement mortality rates were based on the post-retirement mortality assumption, multiplied by 85% for males and 70% for females.
- (k) RP2000 Combined Healthy mortality table, sex distinct, set forward one year for males and setback two years for females. No adjustment is made for post-disabled mortality.

(1) Other assumptions: Same as those used in the December 31, 2015, actuarial funding valuations.

(m) Notes: Benefit changes based on the provisions in effect prior to Public Act 98-0641 were recognized in the Total Pension Liability as of December 31, 2015.

### 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	<b>\$</b> -	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

(Concluded)

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

# STATISTICAL DATA (UNAUDITED)

### STATISTICAL DATA

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

*Financial Trends*—These schedules contain trend information to help the reader understand how the Sewer Fund's financial performance and well-being have changed over time.

*Revenue Capacity*—These schedules contain information to help the reader assess the Sewer Fund's most significant revenue source and sewer sales charge.

*Debt Capacity*—These schedules present information to help the reader assess the affordability of the Sewer Fund's current levels of outstanding debt and the Sewer 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 Sewer Fund's financial report relates to the services the Sewer Fund provides and the activities it performs.

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

### STATISTICAL DATA NET POSITION BY COMPONENT EIGHT YEARS ENDED DECEMBER 31, 2008–2015 (In thousands) (Unaudited)

	2008	2009	2010	2011	2012	2013	2014	2015
NET POSITION: Net investment in capital assets	\$413.481	\$391,248	\$408,564	\$448.720	\$448.414	\$481.946	\$ 520,627	\$ 559,715
Restricted for capital projects		9,533	11,110	24,610	50,014	73,858	111,333	116,107
Unrestricted	54,333	52,920	64,828	25,588	60,436	78,509	102,794	(299,584)
TOTAL	\$467,814	\$453,701	\$484,502	\$498,918	\$558,864	\$634,313	\$734,754	\$ 376,238

The Sewer Fund intends to provide ten years of information as it becomes available.

### STATISTICAL DATA CHANGES IN NET POSITION EIGHT YEARS ENDED DECEMBER 31, 2008–2015 (In thousands) (Unaudited)

	2008	2009	2010	2011	2012	2013	2014	2015
OPERATING INCOME: Operating revenues Operating expenses Depreciation and amortization	\$160,005 98,487 20,982	\$175,163 109,643 21,878	\$198,229 113,881 23,775	\$203,349 113,930 25,074	\$253,912 113,575 27,187	\$279,829 109,333 31,280	\$322,228 119,279 36,701	\$ 375,877 310,689 40,444
Total operating income	40,536	43,642	60,573	64,345	113,150	139,216	166,248	24,744
NONOPERATING EXPENSES	(37,849)	(57,755)	(26,706)	(51,793)	(55,704)	(66,267)	(65,807)	(149,978)
INCOME (LOSS) BEFORE CAPITAL GRANTS	2,687	(14,113)	33,867	12,552	57,446	72,949	100,441	(125,234)
CAPITAL GRANTS			3,136	1,864	2,500	2,500		
CHANGE IN NET POSITION	\$ 2,687	<u>\$ (14,113)</u>	\$ 37,003	\$ 14,416	\$ 59,946	\$ 75,449	\$100,441	<u>\$(125,234)</u>

The Sewer Fund intends to provide ten years of information as it becomes available.

### STATISTICAL DATA HISTORICAL FINANCIAL OPERATIONS TEN YEARS ENDED DECEMBER 31, 2006–2015 (In thousands) (Unaudited)

	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
OPERATING REVENUES: Sewer sales Less: provision for bad debt Other operating revenue	\$134,323 2,114	\$137,021 1,660	\$158,698 1,307	\$173,906 1,257	\$197,455 774	\$202,323 1,026	\$252,943 969	\$291,110 (12,461) 1,180	\$337,657 (16,557) 1,128	\$390,924 (16,154) 1,107
Total operating revenues	136,437	138,681	160,005	175,163	198,229	203,349	253,912	279,829	322,228	375,877
OPERATING EXPENSES: Repairs Maintenance Administrative and general General Fund reimbursements Engineering	34,770 18,964 6,499 22,569 1,213	35,759 19,034 7,796 22,973 732	37,786 18,626 15,746 23,287 3,042	42,110 24,380 14,403 25,431 3,319	42,509 24,075 17,179 27,065 3,053	38,805 23,655 18,802 29,124 3,544	35,708 21,819 21,254 31,709 3,085	38,910 23,004 12,008 32,144 3,267	40,435 24,374 14,394 36,740 3,336	42,131 25,322 12,337 227,600 <u>3,299</u>
Total operating expenses	84,015	86,294	98,487	109,643	113,881	113,930	113,575	109,333	119,279	310,689
NONOPERATING REVENUES	1,063	939	817	234	643	2,870	867	(2,754)	3,813	3,921
NET REVENUES—As defined (Note 4)	<u>\$ 53,485</u>	<u>\$ 53,326</u>	<u>\$ 62,335</u>	<u>\$ 65,754</u>	<u>\$ 84,991</u>	<u>\$ 92,289</u>	<u>\$141,204</u>	<u>\$167,742</u>	\$206,762	<u>\$ 69,109</u>

Source: City of Chicago Comptroller's Office.

SEWER FUND								
STATISTICAL DATA								
FIVE LARGEST CUSTOME	RS							
(In thousands) (Unaudited)								
	2008	2009	2010	2011	2012	2013	2014	2015
	Amount							
	of Sales							
Department of Aviation	\$1,230	\$1,331	\$1,744	\$1,593	\$1,927	\$2,165	\$1,857	\$3,634
Humboldt Park	494	754	435	1.842	1.179	1,393	1,307	\$0,001
WR Grace and Company	285	347	155	1,012	1,175	1,375	1,507	
Calumet Park		270	315	316		635	652	
Pepsi Cola General Bottlers		237						
Lincoln Park	692			310	745	1,418		1.344
Northwestern University	541					,		,
Columbus Park			258					
Cook County Sheriff						1,141		
University of Chicago—HCC				339	1,428			
Uniquema							680	551
Ford Motor Co							695	928
University of Illinois at Chicago					1,647			834
Hometown			546					546
	\$3,242	\$2,939	\$3,298	\$4,400	\$6,926	\$6,752	\$5,191	\$7,837

CITY OF (	CHICAGO	), ILLINOI	S					
SEWER F	UND							
STATISTICA	L DATA							
CUSTOMER	S BY COMP	ONENT						
(In thousand	ls) (Unaudit	ted)						
	2008	2009	2010	2011	2012	2013	2014	2015
	Amount	Amount	Amount	Amount	Amount	Amount	Amount	Amount
	of Sales	of Sales	of Sales	of Sales	of Sales	of Sales	of Sales	of Sales
Residential	\$105,072	\$124,600	\$144,145	\$139,598	\$178,399	\$195,542	\$233,830	\$266,878
Industrial/								
commercial	34,363	38,376	44,540	50,915	57,598	74,696	82,811	95,473
Governmental	8,931	10,930	9,544	12,836	17,915	22,052	22,318	29,680
	\$148,366	<u>\$173,906</u>	<u>\$198,229</u>	\$203,349	\$253,912	\$292,290	\$338,959	\$392,031
The Sewer Fund	lintanda to pr		ofinformatio	n as it hasoma	available			

SEWER FUND			
STATISTICAL DATA			
RECENT SEWER SERVICE RATES			
(Unaudited)			
	Gross		
	Water	Sewe	r Rate
	Rate	Percent	Per
	Per 1,000	of	1,000
	Cubic	Water	Cubic
Effective Date	Feet	Bill	Feet
January 1, 2006	\$ 9.95	83 %	\$ 8.26
January 1, 2007	9.95	83	8.26
January 1, 2008	11.44	84	9.61
January 1, 2009	13.16	85	11.18
January 1, 2010	15.00	86	12.90
January 1, 2011	15.00	86	12.90
January 1, 2012	18.75	89	16.69
January 1, 2013	21.56	92	19.84
January 1, 2014	24.80	96	23.81
January 1, 2015	28.52	100	28.52

CITY OF CHICAGO, ILLIN	OIS				
SEWER FUND					
STATISTICAL DATA					
SEWER SYSTEM ACCOUNTS					
TEN YEARS ENDED DECEMBER	31, 2006–2015				
(Unaudited)					
	V	Vater Accoun	ts		
Years Ended	Non-				Sewer
December 31	Metered	Metered	Total	Exempt	Accounts
2006	322,193	171,861	494,054	58,599	435,455
2007	320,579	175,256	495,835	61,700	434,135
2008	319,205	178,457	497,662	63,929	433,733
2009	318,088	179,649	497,737	64,965	432,772
2010	314,002	183,618	497,620	65,450	432,170
2011	304,519	192,304	496,823	65,903	430,920
2012	290,863	205,097	495,960	61,502	434,458
2013	273,426	220,759	494,185	62,393	431,792
2014	250,304	241,304	491,608	62,856	428,752
2015	227,801	266,284	494,085	64,781	429,304
Source: City of Chicago Departm	ant of Water N	Acus comert			

#### STATISTICAL DATA **REVENUE BOND COVERAGE** TEN YEARS ENDED DECEMBER 31, 2006-2015 (In thousands) (Unaudited)

Combined 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 Pension Expense other than contribution (note 1)	\$53,485	\$53,326	\$62,335	\$65,754	\$84,991	\$92,289	\$141,204	\$167,742	\$206,762	\$ 69,109 183,165
Transfer to sewer rate stabilization account	4,000				10,000		5,000	3,000		
Net revenues available for bonds	49,485	53,326	62,335	65,754	74,991	92,289	136,204	164,742	206,762	252,274
PRIOR LIEN DEBT SERVICE REQUIREMENT										
NET REVENUES AVAILABLE FOR BONDS	\$49,485	\$53,326	\$62,335	\$65,754	\$74,991	\$92,289	\$136,204	\$164,742	\$206,762	\$252,274
DEBT SERVICE REQUIREMENTS:										
Senior lien debt service requirement	\$19,010	\$16,784	\$16,753	\$16,777	\$15,970	\$15,287	\$ 9,231	\$ -	\$ -	<u>\$</u> -
Senior lien debt service coverage (1.15 required)	2.60	3.18	3.72	3.92	4.70	6.04	11.43			
DEBT SERVICE REQUIREMENTS: 1998A first lien bonds 2000 second lien bonds 2001 second lien bonds 2001A second lien bonds 2004A and B second lien bonds 2006A and B second lien bonds 2008A second lien bonds	2,861 2,643 4,190 3,244 16,048	173 748 4,195 352 18,947 8,570	999 2,707 4,193 2,043 20,387 8,759	1,000 2,710 4,200 2,050 5,505 8,768 11,539	47 2,711 4,196 2,047 17,558 8,770 11,528	6,920 2,055 17,448 8,765 11,537	5,036 1,886 17,301 15,184 11,537	6,923 26,910 15,201 8,650	6,935 27,102 15,210 11,536	6,942 27,242 12,358 11,534
2008C second lien bonds IEPA Loans 2010A & B second lien bonds 2012A & B second lien bonds 2014 second lien bonds			2,291	11,792	542 101 2,284	485 383 19,332	2,732 665 21,036	2,786 866 21,039 17,485	3,346 2,916 21,054 17,486 3,292	14,725 3,309 21,627 17,483 19,127
Second lien debt service requirement	28,986	32,985	41,379	47,564	49,784	66,925	75,377	99,860	108,877	134,347
COMBINED SENIOR AND SECOND LIEN DEBT SERVICE REQUIREMENTS	\$47,996	\$49,769	\$58,132	\$64,341	\$65,754	\$82,212	\$ 84,608	<u>\$ 99,860</u>	\$108,877	\$134,347
COMBINED SENIOR AND SECOND LIEN DEBT SERVICE COVERAGE (1.0 REQUIRED)	1.03	1.07	1.07	1.02	1.14	1.12	1.61	1.65	1.90	1.88
SEWER RATE STABILIZATION ACCOUNT YEAR-END BALANCE	\$14,629	\$14,629	\$14,629	\$14,629	\$25,629	\$25,703	\$ 29,629	\$ 32,629	\$ 32,629	\$ 32,629

Source: City of Chicago Comptroller's Office.

(1) of the \$187.6 million of pension expense for 2015, \$4.4 million is the portion of the City's pension contribution payable in 2015 to the pension funds and allocable to the Sewer Fund. The remaining portion of the pension expense for 2015 (i.e. \$183.2 million) is recognized on the income statement of the Sewer 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.

Note:

CITY OF CHICAGO, ILLINOIS								
SEWER FUND								
STATISTICAL DATA								
LONG-TERM DEBT								
EIGHT YEARS ENDED DECEMBER 31,	2008–2015							
(In thousands) (Unaudited)								
	2008	2009	2010	2011	2012	2013	2014	2015
First lien	\$ 60,815	\$ 48,825	\$ 36,175	\$ 22,820	\$ 8,760	\$ -	\$ -	\$ -
Second lien	863,234	854,015	1,089,817	1,077,981	1,326,706	1,320,695	1,576,858	1,627,178
Subordinate lien—IEPA	,	,						
loan				11,288	28,308	48,764	62,077	59,000
Total revenue bonds and notes	924,049	902,840	1,125,992	1,112,089	1,363,774	1,369,459	1,638,935	1,686,178
Unamortized premium (discount)	14,791	14,240	15,883	16,142	37,701	34,707	61,306	83,551
Unamortized deferred loss	(45,376)	(43,332)	(38,063)	(32,276)				
Accretion of Series 1998 CAB	26,673	30,013	33,532	37,242	41,151	45,272	49,615	54,194
Sub-total	(3,912)	921	11,352	21,108	78,852	79,979	110,921	137,745
Total revenue bonds payable, net								
of unamortized premium (discount)	\$920,137	\$903,761	\$1,137,344	\$1,133,197	\$1,442,626	\$1,449,438	\$1,749,856	\$1,823,923
The Sewer Fund intends to provide ten years of		:4 h	:1-1-1-					

SEWER FUND	
SEWERFUND	
STATISTICAL DATA	
CAPITAL IMPROVEMENT PROGRAM	
2016–2020	
(In thousands) (Unaudited)	
Years	Amount
2016	\$ 310,948
2017	391,719
2018	384,669
2019	386,825
2020	389,316
Total	<u>\$1,863,477</u>
Note: The information presented in the table above reflects the Sewer Fund's expected	
allocation of resources to various projects, but does not necessarily represent an	
expectation of actual cash expenditures for these projects.	
Source: City of Chicago Department of Water Management.	

CITY OF CHICAGO, ILLINOIS								
SEWER FUND								
STATISTICAL DATA								
FULL-TIME EQUIVALENT SEWER FUNI	EMPLO	YEES B	Y FUNC	ΓΙΟΝ				
EIGHT YEARS ENDED DECEMBER 31, 2	2008-201	5						
(Unaudited)								
Function	2008	2009	2010	2011	2012	2013	2014	2015
Agency management	5	5	5	5	4	4	4	4
Capital design and construction services	21	21	21	23	23	24	26	24
Engineering services								
Inspection services	18	18	18	18	18	18	16	18
System installation	10	10	9	8	8	8	8	9
System maintenance and evaluations	517	521	521	521	523	523	521	521
Communications and coordination	29	31	27	26	17	16	16	15
	600	606	601	601	593	593	591	<u>591</u>
The Sewer Fund intends to provide ten years of in	nformation	as it becor	nes availat	ole.				
· · ·								
Source: City of Chicago's 2015, 2014, 2013, 2012	2, 2011, 201	0, 2009, 2	008, 2007	, 2006 Pro	gram and 1	Budget Sur	nmary.	
Note: Schedule includes only Department of Wate	er Manaœn	ent emplo	vees					

CITY OF CHICAGO, ILLINOIS		
SEWER FUND		
STATISTICAL DATA		
OPERATING INDICATORS BY FUNCTION		
(Unaudited)		
	2014	2015
Catch basins repaired	2,774	2,818

CITY OF CHICAGO, ILLINOIS		
SEWER FUND		
STATISTICAL DATA		
CAPITAL ASSET STATISTICS BY FUNCTION		
(In miles) (Unaudited)		
	2014	2015
	2014	2010
Sewers lined	59.0	55.1
New construction	21.1	25.4

CITY OF CHICAGO, ILLINOIS	
SEWER FUND	
STATISTICAL DATA	
POPULATION OF SERVICE AREA	
LAST FIVE CENSUS PERIODS	
(Unaudited)	
Years	Population
1970	3,369,357
1980	3,005,072
1990	2,783,726
2000	2,896,016
2010	2,695,598
Source: U.S. Department of Commerce—Census Bureau.	

### STATISTICAL DATA PRINCIPAL EMPLOYERS (NONGOVERNMENT) CURRENT YEAR AND NINE YEARS AGO (Unaudited)

		2015 <sup>(1</sup>	)	<b>2006</b> <sup>(1)</sup>			
	Number of		Percentage of Total City	Number of		Percentage 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. <sup>(2)</sup>	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 <sup>(3)</sup>				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				3,108	10	0.29	

NOTES:

<sup>(1)</sup> Source: Reprinted with permission, Crain's Chicago Business (January 19, 2015), 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. 2014 number of employees is a state wide number.

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

CITY OF	F CHICAGO,	ILLING	DIS					
SEWER	RFUND							
STATISTI	CAL DATA							
POPULAT	TION AND INCO	ME STA	TISTICS					
(Unaudite	ed)							
	(1)	Median	Number of	City	Une	employment		Total
Year	Population <sup>(1)</sup>	Age <sup>(2)</sup>	Households <sup>(2)</sup>	Employment	_	Rate <sup>(3)</sup>	Income <sup>(4)</sup>	Income <sup>(6)</sup>
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	33.9	1,031,672	1,264,234		5.7	50,690	136,639,862,620
2015	2,695,598	N/A	N/A	1,273,727	*	5.7	N/A <sup>(5)</sup>	N/A <sup>(5)</sup>
Notes:								
(1) Source: U	.S. Census Bureau.							
(2) Source: A	merican Fact Finder	r - United S	States Census Bur	eau data estimate	es.			
	available for 2015							
<sup>(3)</sup> Source: B	ureau of Labor Stati	istics 2015	, Unemployment	rate for Chicago-	Nap	erville-Illinois		
Metropol	itan Area.							
(4) Source: U	S. Department of C	Commerce,	Bureau of Econor	nic Analysis, Per	· Cap	oita Personal		
	or Chicago-Napervill							
(5) N/A mean	ns not available at ti	me of publ	ication.					
* Decemb	er 2015 data							