City of Chicago Department of Water Management Sewer Fund

Comprehensive Annual Financial Report For the Years Ended December 31, 2019 and 2018



Lori E. Lightfoot, Mayor Jennie Huang Bennett, Chief Financial Officer Reshma Soni, City Comptroller Alfonzo Conner, Jr. Commissioner

Sewer Fund

An Enterprise Fund of The City of Chicago

Comprehensive Annual Financial Report For the Year Ended December 31, 2019 and 2018



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

2019 COMPREHENSIVE ANNUAL FINANCIAL REPORT OF THE CHICAGO SEWER FUND

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PART I INTRODUCTORY SECTION



DEPARTMENT OF WATER MANAGEMENT CITY OF CHICAGO

June 30, 2020

To the Honorable Mayor Lori E. Lightfoot, 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, 2019. 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 four sections: introductory, financial, required supplemental information 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 \$29.73 per 1,000 per cubic feet. There are no large industrial or 1000 EAST OHIO STREET, CHICAGO, ILLINOIS 60611

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

The Department of Water Management's, Sewer Division's Five-Year Capital Improvement Program (CIP) for the years 2020 – 2024 is forecasted to be approximately \$944 million. 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 effort of infrastructure renewal by replacing 22 miles of new sewers and lining 42 miles of existing sewers and lining approximately 5,000 structures in 2020. The Chicago Department of Water Management estimates spending \$127.4 million on new sewers, \$18.2 million in lining existing sewers and \$4.5 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 2016. A request for proposals was issued in 2016 to start Phase I design of the regional solutions and the selection process was completed. Contract negotiation are ongoing. In 2017, the Department of Water Management completed development of the Full Pipe Model which includes essentially all sewer mains in the City. The Full Pipe Model provides the ability to identify hydraulic deficiencies of small and large sized sewers, develop CIP candidates to improve local and trunk sewers, quantify the impact of green infrastructure, and support other system operation and management activities.

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 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. The objective of these controls is to provide reasonable, rather than absolute assurance, that the financial statements are free of any material misstatement. 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 its 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, 2018.

This was the twenty fourth 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,

Alfonzo Conner, Jr 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

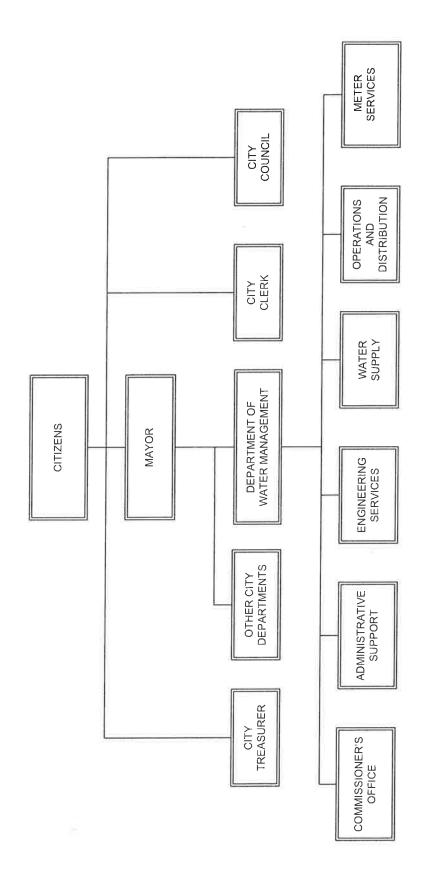
For its Comprehensive Annual Financial Report for the Fiscal Year Ended

December 31, 2018

Christopher P. Morrill

Executive Director/CEO

CITY OF CHICAGO DEPARTMENT OF WATER MANAGEMENT As of 12/31/19



List of Principal Officials

Lori Lightfoot Mayor Randy Conner Commissioner

PART II FINANCIAL SECTION



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INDEPENDENT AUDITORS' REPORT

To the Honorable Lori Lightfoot, Mayor And Members of the City Council City of Chicago, Illinois

Report on the Financial Statements

We have audited the accompanying financial statements of the Sewer Fund ("Sewer Fund"), an enterprise fund of the City of Chicago, Illinois (the "City"), as of and for the years ended December 31, 2019 and 2018, 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.

Auditors' 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, 2019 and 2018, 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, 2019 and 2018, changes in its financial position, or, where applicable, its cash flows, thereof, in conformity with accounting principles generally accepted in the United States of America. Our opinion is not modified with respect to this matter.

Other Matters

Required Supplementary Information

Accounting principles generally accepted in the United States of America require that Management's Discussion and Analysis, the Schedule of Changes in the Net Pension Liability and Related Ratios, and the Schedule of Contributions, 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 audit was 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 and statistical section are presented for purposes of additional analysis and are not a required part of the basic financial statements.

The introductory section and statistical section have not been subjected to the auditing procedures applied in the audit of the basic financial statements, and accordingly, we do not express an opinion or provide any assurance on them.

June 30, 2020

Defoite & Touche LLP

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, 2019 and 2018. 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

2019

- Operating gross revenues for 2019 decreased by \$7.4 million (33.5%). This decrease is primarily due to decrease in pumpage and increase in bad debt expense as compared to prior-year gross operating revenues. There was a rate increase of 0.82% during 2019.
- Operating expenses before depreciation and amortization decreased by \$18.4 million (11.8%) as compared to 2018 primarily due to a decrease in pension expense due to changes in assumptions and reduction in the allocation of pension costs to the Sewer Fund compared to the Governmental and certain Enterprise Funds.
- The Sewer Fund's total net position for 2019 increased by \$92.4 million, or 15.8% compared to 2018.
- The Sewer Fund's total assets and deferred outflows were greater than total liabilities by \$677.4 million (net position) at December 31, 2019. Net position comprises \$862.1 million of net investment in capital assets, \$139.6 million of restricted for capital projects, and (\$324.3) million of unrestricted.
- Depreciable capital asset additions, net, for 2019 were \$130.8 million, primarily due to the completion of sewer construction and rehabilitation projects.

2018

- Operating gross revenues for 2018 increased by \$3.5 million (0.9%) and remains fairly consistent as compared to prior-year gross operating revenues. This increase is due primarily to pumpage and rate increases during the year that were offset by continued conversion of non-metered customers to metered customers. There was a rate increase of 1.54% during 2018.
- Operating expenses before depreciation and amortization decrease by \$7.7 million (4.7%) as compared to 2017 primarily due to a decrease in pension expense.
- The Sewer Fund's total net position for 2018 increased by \$97.4 million or 20.0% compared to 2017.
- The Sewer Fund's total assets and deferred outflows were greater than total liabilities by \$585.1 million (net position) at December 31, 2018. Net position comprises \$827.8 million

of net investment in capital assets, \$115.6 million of restricted for capital projects, and (\$358.3) million of unrestricted.

• Depreciable capital asset additions, net, for 2018 were \$237.5 million, primarily due to the completion of sewer construction and rehabilitation projects.

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, liabilities, and deferred inflows using the accrual basis of accounting. The difference between assets, deferred outflows, liabilities and deferred inflows is reported as net position. The increase or decrease in net position may serve as an indicator, over time, 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 and related 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.

The required supplementary information section presents the schedule of changes in the net pension liability and related ratios and the schedule of contributions.

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, 2019, the Sewer Fund's financial position continues to be strong with total assets and deferred outflows of \$3,545.2 million, total liabilities and deferred inflows of \$2,867.8 million, and net position of \$677.4 million. A comparative condensed summary of the Sewer Fund's net position at December 31, 2019, 2018, and 2017, is as follows:

	Net Position			
(In thousands)	2019	2018	2017	
Current assets Restricted and other assets—noncurrent Utility plant—net	\$ 577,848 55,212 2,889,843	\$ 491,064 157,648 2,735,369	\$ 504,031 201,837 2,576,059	
Total assets	3,522,903	3,384,081	3,281,927	
Deferred outflows	22,259	75,820	108,421	
Total assets and deferred outflows	\$ 3,545,162	\$ 3,459,901	\$ 3,390,348	
Current liabilities Pension liability Long-term liabilities	\$ 319,181 460,173 1,997,305	\$ 254,076 453,667 2,005,573	\$ 280,884 392,602 1,982,359	
Total liabilities	2,776,659	2,713,316	2,655,845	
Deferred inflows	91,092	161,529	246,802	
Total liabilities and deferred inflows	\$ 2,867,751	\$ 2,874,845	\$ 2,902,647	
Net position: Net invested in capital assets Restricted for capital projects Unrestricted	\$ 862,065 139,618 (324,272)	\$ 827,773 115,576 (358,293)	\$ 735,564 116,376 (364,239)	
Total net position	\$ 677,411	\$ 585,056	\$ 487,701	

2019

Current assets increased by \$86.8 million (17.7%) due to an increase in investments and due from other funds, which were offset by a decrease in cash and cash equivalents and accounts receivable. Noncurrent restricted investments and other assets decreased by \$102.4 million (65.0%) and utility plant—net increased by \$154.5 million (5.7%) due primarily to capital activities for sewer construction and rehabilitation projects funded by the restricted investments. During 2019, the Sewer Fund lined an additional 64.6 miles of sewers.

Current liabilities increased by \$65.1 million (25.6%), which was primarily due to an increase in accounts payable, due to other funds, accrued liabilities, and current portion of long term debt, with unearned revenue remaining fairly consistent. Long-term liabilities decreased by \$8.3 million (0.4%). Net pension liability in the amount of \$460.2 million increased \$6.5 million (1.4%) compared to 2018 primarily as a result of changes in assumptions and reduction in the allocation of pension costs to the Sewer Fund compared to the Governmental and certain Enterprise Funds..

Deferred outflows decreased by \$53.6 million (70.6%) and deferred inflows decreased by \$70.4 million (43.6%) compared with 2018 due to the difference between 2019 projected and actual earnings on pension plan investments.

As of December 31, 2019, total net position was \$677.4 million, an increase of \$92.4 million (15.8%) from 2018.

2018

Current assets decreased by \$13.0 million (2.57%) due to a decrease in cash, cash equivalents, and investments which were offset by an increase in accounts receivable. Noncurrent restricted investments and other assets decreased by \$44.2 million (21.9%) and utility plant—net increased by \$159.3 million (6.2%) due primarily to capital activities for sewer construction and rehabilitation projects, funded by the restricted investments. During 2018, the Sewer Fund lined an additional 44.5 miles of sewers.

Current liabilities decreased by \$26.8 million (9.5%), which was primarily due to a decrease in accrued liabilities payable from restricted assets, with an offsetting increase in accounts payable from restricted assets and current liabilities not payable from restricted assets. Long-term liabilities increased by \$23.2 million (1.2%). Pension liability in the amount of \$453.7 million increased \$61.1 million (15.6%) compared to 2017 primarily as a result of a decrease in pension plan assets associated with investment losses caused by market results.

Deferred outflows decreased by \$32.6 (30.1%) and deferred inflows decreased by \$85.3 million (34.6%) compared with 2017 due to the difference between 2018 projected and actual earnings on pension plan investments.

As of December 31, 2018, total net position was \$585.1 million, an increase of \$97.4 million (20.0%) from 2017.

A summary of revenues, expenses, and changes in net position for the years ended December 31, 2019, 2018, and 2017, is as follows:

	levenues, Expenses, and Changes in Net Positio				
(In thousands)	2019	2018	2017		
Devenues					
Revenues: Operating revenues:					
Sewer service—net	\$350,053	\$368,211	\$356,473		
Other operating revenues	1,023	1,492	1,150		
Total operating revenues	351,076	369,703	357,623		
Operating expenses:					
Repairs	41,614	43,654	41,881		
General Fund reimbursements	53,688	51,188	47,522		
Pension expense (Note 6)	3,266	18,938	34,397		
Maintenance	22,958	24,909	24,660		
Engineering	3,515	3,664	2,466		
Administrative and general	12,367	13,472	12,591		
Depreciation and amortization	52,933	<u>48,504</u>	<u>48,171</u>		
Total operating expenses	190,341	204,329	211,688		
Operating income	160,735	165,374	145,935		
Nonoperating revenues Nonoperating expenses	11,737 (80,112)	7,446 (77,739)	4,354 (81,479)		
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Total nonoperating expenses/revenues	s <u>(68,375</u>)	(70,293)	<u>(77,125</u>)		
Income before capital grants	92,360	95,081	68,810		
Capital grants	(5)	2,274	6,419		
Change in net position	92,355	97,355	75,229		
Net position beginning of year	585,056	487,701	412,472		
Net position end of year	\$677,411	<u>\$585,056</u>	\$487,701		

2019

Net sewer service revenues for the years ended 2019 and 2018 were \$350.1 million and \$368.2 million, respectively. Other revenue, which consists primarily of inspection fees and house drain fees, for the years ended 2019 and 2018 was \$1.0 million and \$1.5 million, respectively. The decrease in 2019 net sewer service revenue of \$18.6 million is primarily due to decrease in pumpage and increase in bad debt expense compared to prior year. There was a rate increase of 0.82% during 2019.

Pension expense decreased to \$3.3 million from \$18.9 million in 2018 associated with a decrease in the pension expense due to changes in assumptions and reduction in the allocation of pension costs to the Sewer Fund compared to the Governmental and certain Enterprise Funds.

Nonoperating revenues increased by \$4.3 million compared to 2018 primarily as a result of an increase in investment income during 2019.

2018

Net sewer service revenues for the years ended 2018 and 2017 were \$368.2 million and \$356.5 million, respectively. Other revenue, which consists primarily of inspection fees and house drain fees, for the years ended 2018 and 2017 was \$1.5 million and \$1.1 million respectively. The 2018 net sewer service revenue of \$368.2 million remained fairly consistent as compared to prior year. This increase is primarily due to pumpage and rate increases during the year that were offset by continued conversion of non-metered customers to metered customers. There was a rate increase of 1.54% during 2018.

Pension expense decreased \$15.5 million (44.9%) from \$34.4 million in 2017 to \$18.9 million in 2018 associated with a decrease in the pension expense from the Laborers' and Retirement Board Employees' Annuity and Benefit Fund of Chicago (Laborers'). The amortization of the deferred outflow associated with the decrease in the discount rate assumption in 2015 was fully amortized in 2017 and is no longer a component of pension expense resulting in the reduction.

Nonoperating revenues increased by \$3.1 million compared to 2017 primarily as a result of grant proceeds from the Illinois Environmental Protection Agency (IEPA) and proceeds from settlements during 2018.

A comparative summary of the Sewer Fund's operating expenses, as classified in the basic financial statements, for the years ended December 31, 2019, 2018, and 2017, is as follows:

	Operating Expenses		
(In thousands)	2019	2018	2017
Repairs	\$ 41,614	\$ 43,654	\$ 41,881
Pension	3,266	18,938	34,397
General Fund reimbursements	53,688	51,188	47,522
Maintenance	22,958	24,909	24,660
Engineering	3,515	3,664	2,466
Administrative and general	12,367	13,472	12,591
Operating expenses before depreciation and			
amortization	137,408	155,825	163,517
Depreciation and amortization	52,933	48,504	48,171
Total operating expenses	\$ 190,341	\$ 204,329	<u>\$ 211,688</u>

2019

Overall, operating expenses before depreciation and amortization for 2019 decreased by \$18.4 million (11.8%) in 2019 primarily due to reduction in pension expense as discussed above. Depreciation and amortization slightly increased due to an increase in utility plant.

2018

Overall, operating expenses before depreciation and amortization for 2018 decreased by \$7.7 million (4.7%) in 2018 primarily due to reduction in pension expense as discussed above. Depreciation and amortization slightly increased due to an increase in utility plant.

A comparative summary of the Sewer Fund's cash flows for the years ended December 31, 2019, 2018, and 2017, is as follows:

	Cash Flows		
(In thousands of dollars)	2019	2018	2017
Cash from activities: Operating Capital and related financing Noncapital financing activities Investing	\$ 203,191 (233,675) - (80,551)	\$ 219,847 (289,955) 4,931 	\$ 213,928 (38,281) - (169,434)
Net change in cash and cash equivalents	(111,035)	83,645	6,213
Cash and cash equivalents: Beginning of year	246,643	162,998	<u>156,785</u>
End of year	<u>\$ 135,608</u>	<u>\$ 246,643</u>	<u>\$ 162,998</u>

2019

As of December 31, 2019, the Sewer Fund's unrestricted and restricted cash and cash equivalents of \$135.6 million represented a decrease of \$111.0 million from December 31, 2018, as compared to the increase of \$83.6 million from December 31, 2017 to December 31, 2018, primarily due to investment related activities in 2019. Total unrestricted cash and cash equivalents at December 31, 2019 and 2018, was \$11.8 million and \$73.1 million, respectively.

2018

As of December 31, 2018, the Sewer Fund's unrestricted and restricted cash and cash equivalents of \$246.6 million represented an increase of \$83.6 million from December 31, 2017, as compared to the increase of \$6.2 million from December 31, 2016 to December 31, 2017, primarily due to investment related activities in 2018. Total unrestricted cash and cash equivalents at December 31, 2018 and 2017, was \$73.1 million and \$55.3 million, respectively.

UTILITY PLANT AND DEBT ADMINISTRATION

2019

At the end of 2019 and 2018, the Sewer Fund had net utility plant of \$2,889.8 million and \$2,735.4 million, respectively. During 2019, the Sewer Fund had capital additions being depreciated of \$130.8 million, and completed projects totaling \$19.5 million were transferred from construction in progress to applicable facilities and structures capital accounts.

2018

At the end of 2018 and 2017, the Sewer Fund had net utility plant of \$2,735.4 million and \$2,576.1 million, respectively. During 2018, the Sewer Fund had capital additions being depreciated of \$237.5 million, and completed projects totaling \$59.0 million were transferred from construction in progress to applicable facilities and structures capital accounts.

The Sewer Fund's net utility plant at December 31, 2019, 2018, and 2017, is summarized as follows:

	Net Utility Plant at Year-End				
(In thousands)	2019	2018	2017		
Utility plant not depreciated: Land and land rights Construction in progress	\$ 560 196,790	\$ 560 91,925	\$ 560 88,343		
Total utility plant not depreciated	197,350	92,485	88,903		
Utility plant being depreciated: Facilities and structures Furniture and equipment	3,367,515 33,810	3,270,584 <u>33,473</u>	3,071,099 30,923		
Total utility plant being depreciated	3,401,325	3,304,057	3,102,022		
Less accumulated depreciation: Facilities and structures Furniture and equipment	(683,150) (25,682)	(636,620) (24,55 <u>3</u>)	(591,481) (23,385)		
Total accumulated depreciation	(708,832)	(661,173)	(614,866)		
Utility plant being depreciated—net	2,692,493	2,642,884	2,487,156		
Utility plant—net	\$ 2,889,843	<u>\$ 2,735,369</u>	\$ 2,576,059		

The Sewer Fund's capital activities are funded through Sewer Fund revenue bonds, Illinois Environmental Protection Agency Loans, 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, 2019, 2018, and 2017, is summarized as follows:

	Long-Term Outstanding Debt at Year-End			
(In thousands)	2019	2018	2017	
Revenue bonds Add interest accretion on Series 1998	\$ 1,895,495	\$ 1,893,561	\$ 1,861,381	
capital appreciation bonds	75,114	69,465	64,105	
Unamortized net bond discount/premium	97,004	104,893	113,074	
Outstanding debt—net	\$ 2,067,613	<u>\$ 2,067,919</u>	<u>\$ 2,038,560</u>	

The Sewer Fund's revenue bonds at December 31, 2019, 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	A+	NR	NR
Junior Lien Wastewater Revenue Bonds	Baa3	Α	AA-	AA-

At December 31, 2019, the Sewer Fund was in compliance with the debt covenants as stated within the bond ordinances. Additional information on certain of the Sewer Fund's debt covenants is presented in Note 4 of the notes to the basic financial statements.

REQUESTS FOR INFORMATION

This financial report is designed to provide the reader with a general overview of the 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.

BASIC FINANCIAL STATEMENTS

STATEMENTS OF NET POSITION AS OF DECEMBER 31, 2019 AND 2018 (In thousands)

ACCETO	2019	2018		2019	2018
ASSETS			LIABILITIES		
CURRENT ASSETS:			CURRENT LIABILITIES:		
Cash and cash equivalents (Note 2)	\$ 11,818	\$ 73,084	Accounts payable	\$ 3,144	\$ 3,291
Investments (Note 2)	206,370	97,690	Due to other City funds	32,355	9,096
Accounts receivable—net of allowance for			Unearned revenue	12,954	12,654
doubtful accounts of approximately \$125,683			Accrued liabilities unrestricted	44,168	41,227
in 2019 and \$108,981 in 2018	107,016	109,429	Liabilities payable from restricted assets:		
Due from other City funds	22,665	20,075	Accounts payable	76,664	69,149
Inventories	732	789	Accrued liabilities	37,636	13,222
Cash and cash equivalents—restricted (Note 2)	123,790	173,559	Current portion of long-term debt (Note 4)	70,308	62,346
Investments—restricted (Note 2)	102,770	14,249	Interest payable	41,952	43,091
Interest receivable—restricted (Note 2)	2,687	2,189			
			Total current liabilities	319,181	254,076
Total current assets	577,848	491,064			
			NONCURRENT LIABILITIES:		
NONCURRENT ASSETS:			Net pension liability (Note 6)	460,173	453,667
Investments—restricted (Note 2)	54,107	156,439	Long-term debt—net of current maturities (Note 4)	1,997,305	2,005,573
Other assets	1,105	1,209	Total noncurrent liabilities	2,457,478	2,459,240
Utility plant (Note 5):			Total liabilities	2,776,659	2,713,316
Land and land rights	560	560			
Facilities and structures	3,367,515	3,270,584	DEFERRED INFLOWS (Note 9)	91,092	161,529
Furniture and equipment	33,810	33,473			
Construction in progress	196,790	91,925	NET POSITION (Note 1):		
			Net investment in capital assets	862,065	827,773
Total utility plant	3,598,675	3,396,542	Restricted for capital projects	139,618	115,576
• •			Unrestricted	(324,272)	(358,293)
Less accumulated depreciation	(708,832)	(661,173)			
, , , , , , , , , , , , , , , , , , ,			Total net position	677,411	585,056
Utility plant—net	2,889,843	2,735,369	·	,	,
Total noncurrent assets	2,945,055	2,893,017			
Total assets	3,522,903	3,384,081			
DEFERRED OUTFLOWS (Note 9)	22,259	75,820			
, ,					1.0.450.000
TOTAL ASSETS AND DEFERRED OUTFLOWS	\$3,545,162	\$3,459,901	TOTAL	\$3,545,162	\$3,459,901

See notes to basic financial statements.

STATEMENTS OF REVENUES, EXPENSES, AND CHANGES IN NET POSITION FOR THE YEARS ENDED DECEMBER 31, 2019 AND 2018 (In thousands)

	2019	2018
OPERATING REVENUES: Sewer service:		
Sewer service—gross Less—provision for doubtful accounts	\$373,902 <u>(23,849</u>)	\$380,822 (12,611)
Sewer service—net	350,053	368,211
Other	1,023	1,492
Total operating revenues	351,076	369,703
OPERATING EXPENSES: Repairs General Fund reimbursements Pension expense (Note 6) Maintenance Engineering Administrative and general Total operating expenses before depreciation and amortization Depreciation and amortization Total operating expenses	41,614 53,688 3,266 22,958 3,515 12,367 137,408 52,933 190,341	43,654 51,188 18,938 24,909 3,664 13,472 155,825 48,504 204,329
OPERATING INCOME	160,735	165,374
NONOPERATING REVENUE (EXPENSES): Investment income Interest expense Other Total nonoperating expenses—net	11,663 (79,992) <u>74</u> (68,255)	2,436 (77,619) 5,010 (70,173)
TRANSFERS OUT	(120)	(120)
CAPITAL GRANTS	(5)	2,274
CHANGE IN NET POSITION TOTAL NET POSITION—Beginning of year TOTAL NET POSITION—End of year	92,355 585,056 \$677,411	97,355 487,701 \$585,056
		<u></u>

STATEMENTS OF CASH FLOWS FOR THE YEARS ENDED DECEMBER 31, 2019 AND 2018 (In thousands)

	2019	2018
CASH FLOWS FROM OPERATING ACTIVITIES: Received from customers Transactions with other City funds Payments to vendors Payments to employees	\$ 353,790 (72,995) (27,242) (50,362)	\$ 364,412 (61,740) (31,185) (51,640)
Net cash provided by operating activities	203,191	219,847
CASH FLOWS FROM CAPITAL AND RELATED FINANCING ACTIVITIES: Acquisition and construction of capital assets Proceeds from issuance of bonds Interest paid on revenue bonds Proceeds from Illinois Environmental Protection Agency (Payments to)/proceeds from Community Development Block Grant Principal paid on bonds and notes	(147,493) 65,308 (88,111) - (5) (63,374)	(234,702) 89,597 (89,707) 2,067 207 (57,417)
Net cash used in capital and related financing activities	(233,675)	(289,955)
CASH FLOWS FROM NONCAPITAL FINANCING ACTIVITIES— Proceeds from settlement agreement	_	4,931
CASH FLOWS FROM INVESTING ACTIVITIES: Sales and purchases of investments—net Investment interest	(88,160) 	139,815 9,007
Net cash provided by (used in) investing activities	(80,551)	148,822
NET CHANGE IN CASH AND CASH EQUIVALENTS	(111,035)	83,645
CASH AND CASH EQUIVALENTS—Beginning of year	246,643	162,998
CASH AND CASH EQUIVALENTS—End of year	<u>\$ 135,608</u>	<u>\$ 246,643</u>
		(Continued)

STATEMENTS OF CASH FLOWS FOR THE YEARS ENDED DECEMBER 31, 2019 AND 2018 (In thousands)

	2019	2018
RECONCILIATION TO CASH AND CASH EQUIVALENTS REPORTED ON THE STATEMENTS OF NET POSITION:		
Unrestricted Restricted	\$ 11,818 	\$ 73,084 <u>173,559</u>
TOTAL	<u>\$135,608</u>	\$246,643
RECONCILIATION OF OPERATING INCOME TO CASH FLOWS FROM OPERATING ACTIVITIES:		
Operating income Adjustments to reconcile:	\$160,735	\$165,374
Depreciation and amortization	52,933	48,504
Pension expense other than contribution	(12,572)	6,191
Provision for uncollectible accounts	23,849	12,611
Changes in assets and liabilities:		
(Decrease) increase in due from other City funds	(2,589)	2,163
Increase in accounts receivable	(21,436)	(16,885)
Decrease in inventories	57	186
Increase (decrease) in accrued liabilities	2,939	3,124
Decrease in accounts payable and due to		
other City funds	(1,025)	(404)
Decrease in unearned revenue	300	(1,017)
CASH FLOWS FROM OPERATING ACTIVITIES	\$203,191	\$219,847

SUPPLEMENTAL DISCLOSURE OF NONCASH ITEMS—Property additions in 2019 and 2018 of \$114,301 and \$82,446, respectively, have outstanding accounts payable and accrued liabilities.

The accretion adjustment of Series 1998 capital appreciation bonds for the years ended December 31, 2019 and 2018 were \$5,649 and \$5,360, respectively.

The fair value adjustment loss to investments for 2019 and 2018 were \$1,097 and \$7,805, respectively.

See notes to basic financial statements.

(Concluded)

NOTES TO BASIC FINANCIAL STATEMENTS AS OF AND FOR THE YEARS ENDED DECEMBER 31, 2019 AND 2018 (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 are limited to those authorized by the Code. Investments authorized by the Code include, but are not limited to, 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 (see Note 2). 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.

Repurchase agreements can be purchased only from banks and certain other institutions authorized to do business in the State. The City Treasurer requires that securities pledged to secure these agreements have a fair value equal to the cost of the repurchase 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 investments with maturities of three months or less when purchased.

Accounts Receivable—The Sewer Fund accounts receivable is comprised of 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 acquisition cost. 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 unamortized loss on bond refundings, differences between estimated and actual investment earnings related to pensions, and changes in actuarial assumptions related to pensions, and other pension related changes.

Deferred Inflows—Deferred inflows represent the differences between projected and actual actuarial experience and changes in assumptions 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 Insurance Costs, Bond Premiums Discounts, and Refunding Transactions— Bond insurance costs 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 2019 and 2018 totaled \$3.8 million and \$6.1 million, respectively.

Capital Grants—Capital grants are reported as contributed revenue in the statements of revenues, expenses, and changes in net position and are recognized when the related capital expenditure is incurred.

Revenue Recognition—Sewer service revenue is billed as 100% of the City's water billings and is recorded as revenue when the water is consumed by the customers. Of the accounts receivable balances, \$31.2 million and \$31.3 million represent revenue recognized on sewer service that had not yet been billed to customers at December 31, 2019 and 2018, 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, pension expense, 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—The City adopted GASB Statement No. 95, Postponement of The Effective Dates of Certain Authoritative Guidance ("GASB 95"), which provided temporary relief to governments and other stakeholders in light of the COVID-19 pandemic. GASB 95 postponed the effective date of certain provisions in the Statements and Implementation Guides that first become effective or were scheduled to become effective for periods beginning after June 15, 2018, and later. The effective dates of certain provisions within the following pronouncements were postponed by one year: Statement No. 83, Certain Asset Retirement Obligations, Statement No. 84, Fiduciary Activities, Statement No. 88 Certain Disclosures Related to Debt, including Direct Borrowings and Direct Placements, Statement No. 89, Accounting for Interest Cost Incurred before the End of a Construction Period, Statement No. 90, Majority Equity Interests, and Statement No. 91, Conduit Debt Obligations, Statement No. 92, Omnibus 2020, Statement No. 93, Replacement of Interbank Offered Rates. The effective date for GASB Statement No. 87, Leases was postponed by 18 months. The Sewer Fund has elected to postpone the implementation of the Standards included within Statement No. 95 and have disclosed the expected implementation dates below.

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. 83, *Certain Asset Retirement Obligations* ("GASB 83") addresses accounting and financial reporting for certain asset retirement obligations (AROs). A government that has legal obligations to perform future asset retirement activities related to its tangible capital assets will have to recognize a liability based on the guidance in this statement. GASB 83 also requires disclosure of information about the nature of a government's AROs, the methods and assumptions used for the estimates of the liabilities, and the estimated remaining useful life of the associated tangible capital assets. GASB 83 will be effective for the Sewer Fund beginning with its year ending December 31, 2020.

GASB Statement No. 84, *Fiduciary Activities* ("GASB 84") improves the guidance regarding the identification of fiduciary activities for accounting and financial reporting purposes and how those activities should be reported. GASB 84 will be effective for the Sewer Fund beginning with its year ending December 31, 2020.

GASB Statement No. 87, *Leases* ("GASB 87") requires recognition of certain lease assets and liabilities for leases that previously were classified as operating leases and recognized

as inflows of resources or outflows of resources based on the payment provisions of the contract. GASB 87 will establish a single model for lease accounting based on the foundational principle that leases are financings of the right to use an underlying asset. Under GASB 87, a lessee is required to recognize a lease liability and an intangible right-to-use lease asset, and a lessor is required to recognize a lease receivable and a deferred inflow of resources. GASB 87 will increase the usefulness of governments' financial statements by requiring reporting of certain lease liabilities that are currently not reported. GASB 87 will be effective for the Sewer Fund beginning with its year ending December 31, 2022.

GASB Statement No. 88, Certain Disclosures Related to Debt, Including Direct Borrowings and Direct Placements ("GASB 88") will improve the information that is disclosed in notes to government financial statements related to debt, including direct borrowings and direct placements. It also clarifies which liabilities governments should include when disclosing information related to debt. GASB 88 will be effective for the Sewer Fund beginning with its year ending December 31, 2020.

GASB Statement No. 89, Accounting for Interest Cost Incurred before the End of a Construction Period ("GASB 89") will enhance the relevance and comparability of information about capital assets and the cost of borrowing for a reporting period. GASB 89 requires that interest cost incurred before the end of a construction period be recognized as an expense in the period in which the cost is incurred for financial statements prepared using the economic resources measurement focus. As a result, interest cost incurred before the end of a construction period will not be included in the historical cost of a capital asset reported in a business-type activity or enterprise fund. GASB 89 will be effective for the Sewer Fund beginning with its year ending December 31, 2021.

GASB Statement No. 90, Majority Equity Interests an amendment of GASB Statements No. 14 and No. 61 ("GASB 90") aims to improve the consistency and comparability of reporting a government's majority equity interest in a legally separate organization and the relevance of financial statement information for certain component units. GASB 90 will be effective for the Sewer Fund beginning with its year ending December 31, 2020.

GASB Statement No. 91, *Conduit Debt Obligations* ("GASB 91") provides a single method of reporting conduit debt obligations by issuers and aims to eliminate diversity in practice associated with (1) commitments extended by issuers, (2) arrangements associated with conduit debt obligations, and (3) related note disclosures. GASB 91 will be effective for the Sewer Fund beginning with its year ending December 31, 2022.

GASB Statement No. 92, *Omnibus 2020* ("GASB 92") aims to enhance comparability in accounting and financial reporting and to improve the consistency of authoritative literature by addressing practice issues that have been identified during implementation and application of certain GASB Statements. GASB 92 will address a variety of topics and include specific provisions about individual Statements including Statement No. 87, *Leases*, Statement No. 73, *Accounting and Financial Reporting for Pensions and Related Assets That Are Not within the Scope of GASB Statement 68, and Amendments to Certain Provisions of GASB Statements 67 and 68*, Statement No. 74, *Financial Reporting for Postemployment Benefit Plans Other Than Pension Plans*, and Statement No. 84, *Fiduciary Activities*. GASB 92 will be effective for the Sewer Fund beginning with its year ending December 31, 2022 or when the Statement referred to is implemented, whichever is earlier.

GASB Statement No. 93, Replacement of Interbank Offered Rates ("GASB 93") establishes accounting and financial reporting requirements related to the replacement of Interbank Offered Rates in hedging derivative instruments and leases. It also identifies appropriate benchmark interest rates for hedging derivative instruments. GASB 93 will be effective for the Sewer Fund beginning with its year ending December 31, 2022.

GASB Statement No. 96, Subscription-based Information Technology Arrangements – ("GASB 96") This Statement provides guidance on the accounting and financial reporting for subscription-based information technology arrangements (SBITAs) for government end users (governments). GASB 96 will improve financial reporting by establishing a definition for SBITAs and providing uniform guidance for accounting and financial reporting for transactions that meet that definition. GASB 96 will be effective for the Sewer Fund beginning with its year ending December 31, 2023.

GASB Statement No. 97, Certain Component Unit Criteria, and Accounting and Financial Reporting for Internal Revenue Code Section 457 Deferred Compensation Plans – ("GASB 97") The Statement aims to provide more consistent financial reporting of defined contribution pension plans, defined contribution OPEB plans, and other employee benefit plans, while mitigating the costs associated with reporting those plans. GASB 97 will enhance the relevance, consistency, and comparability of (1) the information related to Section 457 plans that meet the definition of a pension plan and the benefits provided through those plans and (2) investment information for all Section 457 plans. Certain elements of GASB 97 are effective immediately, including the removal of the requirement to treat a primary government that performs the duties of a governing board as the governing board in absence of a governing board, and these elements have been implemented by the Sewer Fund for the year ended December 31, 2019 with no material impact. The remainder of GASB 97 will be effective for the Sewer Fund beginning with its year ending December 31, 2022.

2. RESTRICTED AND UNRESTRICTED CASH EQUIVALENTS AND INVESTMENTS

Cash Equivalents and Investments—As of December 31, 2019, the Sewer Fund had the following cash equivalents and investments (in thousands):

	Maturities (in Years)						
	'		More				
	Less than 1	1-5	6-10	than 10	Fair Value		
U.S. treasuries	\$ 54,378	\$ -	\$ -	\$ -	\$ 54,378		
U.S. agencies	-	4,697	9,982	-	14,679		
Short-term investments	54,329	=	-	=	54,329		
Commercial paper	=	-	-	-	-		
Corporate bonds Certificates of Deposits	97,867	54,814	-	-	152,681		
& Other Short Term	122,110	-	-	-	122,110		
Municipal bonds	32,117	67,767	<u>740</u>		100,624		
Total	<u>\$ 360,801</u>	\$ 127,278	\$ 10,722	<u>\$ -</u>	\$ 498,801		

As of December 31, 2018, the Sewer Fund had the following cash equivalents and investments (in thousands):

	Maturities (in Years)							
	Less than 1	1-5	6-10	than 10	Fair Value			
U.S. treasuries U.S. agencies Short-term investments	\$ 69,751 - 148,649	\$ - 4,579 -	\$ - 9,305 -	\$ - - -	\$ 69,751 13,884 148,649			
Commercial paper Corporate bonds Municipal bonds	- - 44,779	- 2,923 <u>63,572</u>	- 692 -	- - -	3,615 108,351			
Subtotal	\$ 263,179	<u>\$ 71,074</u>	<u>\$ 9,997</u>	<u>\$ -</u>	344,250			
Share of City's pooled funds					134,142			
Total					<u>\$ 478,392</u>			

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

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

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

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

Level 3—Unobservable Inputs

The investments measured at fair value as of December 31, 2019 and 2018 were (dollars in thousands):

		2019			2018			
	Level 1	Level 2	Level 3	Level 1	Level 2	Level 3		
U.S. agencies Corporate bonds Municipal bonds	\$ - - -	\$ 14,679 121,827 98,059	\$ - - -	\$ - - -	\$ 13,884 3,615 94,173	\$ - - -		
Total investments at fair value	<u>\$ -</u>	\$234,565	<u>\$ -</u>	<u>\$ -</u>	<u>\$111,672</u>	<u>\$ -</u>		

Investments that are valued through other observable inputs (Level 2), are valued using methods that include, but are not limited to, model processes, benchmark curves, benchmarking of like securities, sector groupings, and matrix pricing.

Money market investments and participating interest-earning investment contracts that have a remaining maturity at the time of purchase of one year or less and are held by governments other than the external investment pools are measured at amortized cost and are not reflected in the table above. The total of these investments at amortized cost for Sewer are \$264.2 million and \$232.6 million as of December 31, 2019 and 2018, respectively.

The Sewer Fund's share in the City's pooled fund of \$134.1 million as of December 31, 2018, is categorized as Level 2 in the fair value hierarchy; however, pooled funds are not reflected in the table above. During 2019, the City separated the pooled funds relating to The Sewer Fund into its segregate fund. As a result, The Sewer Fund shared no pooled funds with the City as of December 31, 2019.

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;
- (4) Commercial paper which: (1) at the time of purchase, is rated in the two highest classifications by at least two accredited ratings agencies; and (2) matures not more than 270 days after the date of purchase;
- (5) Reverse repurchase agreement if: (1) the term does not exceed 90 days; and (2) the maturity of the investment acquired with the proceeds of the reverse repurchase agreement does not exceed the expiration date of the reverse repurchase agreement; Reverse repurchase agreements may be transacted with primary dealers and financial institutions, provided that the City has on file a master repurchase agreement;
- (6) Certificates of deposit of banks or savings and loan associations designated as municipal depositories which are insured by federal deposit insurance; provided that any amount of the deposit in excess of the federal deposit insurance shall be collateralized as noted in Custodial Credit Risk—Cash and Certificates of Deposit below;
- (7) Bankers acceptance of banks whose senior obligations, at the time of purchase, are rated in either the AAA or AA rating categories by at least two accredited ratings agencies;
- (8) Tax-exempt securities exempt from federal arbitrage provisions applicable to investments of proceeds of the City's tax-exempt debt obligations;

- (9) Domestic money market mutual funds regulated by and in good standing with the Securities and Exchange Commission; provided that such money market mutual funds' portfolios are limited to investments authorized by this section;
- (10) Any other suitable investment instrument permitted by state laws governing municipal investments generally, subject to the reasonable exercise of prudence in making investments of public funds;
- (11) Except where otherwise restricted or prohibited, a non-interest-bearing savings account, non-interest-bearing checking account or other non-interest bearing demand account established in a national or state bank, or a federal or state savings and loan association, when, in the determination of the treasurer, the placement of such funds in the non-interest bearing account is used as compensating balances to offset fees associated with that account that will result in cost savings to the City;
- (12) Bonds of companies organized in the United States with assets exceeding \$1.0 billion 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. For purposes of this subsection, an "international financial institution" means a financial institution that has been established or chartered by more than one country and the owners or shareholders are generally national governments or other international institutions such as the United Nations;
- (14) United States dollar denominated debt instruments of foreign sovereignties that, at the time of purchase, are rated within 4 intermediate credit ratings of the United States sovereign credit rating by at least two accredited ratings agencies, but not less than an A-rating or equivalent rating;
- (15) Interest-bearing bonds of any county, township, city, village, incorporated town, municipal corporation, or school district, of the State of Illinois, of any other state, or of any political subdivision or agency of the State of Illinois or of any other state, whether the interest earned thereon is taxable or tax-exempt under federal law. The bonds shall be registered in the name of the city or held under a custodial agreement at a bank. The bonds shall be rated, at the time of purchase, not less than A-, or equivalent rating, by at least two accredited rating agencies with nationally recognized expertise in rating bonds of states and their political subdivisions;
- (16) Bonds registered and regulated by the Securities and Exchange Commission and for which the full faith and credit of the State of Israel is pledged for payment; provided that the bonds have an A-rating or above or equivalent rating by at least two accredited ratings agencies;
- (17) Bonds, notes, debentures, or other similar obligations of agencies of the United States rated, at the time of purchase, no less than AAA by at least two accredited rating agencies.

Total holdings across all funds held by the Sewer Fund 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, 2019 and 2018, is as follows (in thousands):

Quality Rating	2019	2018
Aaa/AAA* A-1/P-1 A-2/P-2 Aa/AA A/A	\$ 205,967 51,270 3,059 180,526 57,979	\$153,246 - - 191,004 -
Total	\$ 498,801	\$344,250

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's 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% 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% 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 \$455.3 million. 99.0% of the bank balance was either insured or collateralized with securities held by City agents in the City's name. \$4.8 million was uncollateralized at December 31, 2019, and thus was subject to custodial credit risk.

A schedule summarizing the investments reported in the basic financial statements as of December 31, 2019 and 2018, is as follows (in thousands):

	2019	2018
Per Note 2: Investments—Sewer Fund Investments—City Treasurer pooled fund	\$498,801 	\$344,250 _134,142
	\$498,801	<u>\$478,392</u>
Per financial statements: Restricted investments—current Restricted investments—noncurrent Unrestricted investments Investments included as cash and cash equivalents	\$102,770 54,107 206,370	\$ 14,249 156,439 97,690
on the statements of net position	135,554	210,014
	\$498,801	\$478,392

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, 1998A Wastewater Capital Appreciation Bonds and the Senior Lien 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 2017, 2015, 2014, 2012, 2010, 2008, 2001 (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, 2019 and 2018, are as follows (in thousands):

	2019	2018
Construction Bond principal and interest Sewer rate stabilization	\$131,504 112,260 36,902	\$201,908 105,437 36,902
Total	\$280,666	\$344,247

The 2019 and 2018 Sewer rate stabilization balance above includes a fair value adjustment of \$123 thousand and \$955 thousand, respectively.

At December 31, 2019 and 2018, management was not aware of any instances of noncompliance with the above terms of the ordinances.

4. LONG-TERM DEBT

As of December 31, 2019 and 2018, long-term debt consisted of the following (in thousands):

	2019	2018
\$62,423 Series 1998A Wastewater Transmission Revenue Bonds issued April 7, 1998, due through 2028; interest at 4.55% to 5.0% \$73,100 Series 2001 Wastewater Transmission Revenue Bonds issued	\$ 35,168	\$ 35,168
December 6, 2001, due through 2030; interest at 4.0% to 5.5% \$167,635 Series 2008A Wastewater Transmission Revenue Bonds issued	42,390	46,775
November 18, 2008, due through 2038; interest at 3.5% to 5.5% \$332,230 Series 2008C Wastewater Transmission Revenue Bonds (2004A Refunded) issued October 16, 2008, due through 2039;	4,300	8,375
interest rate at 4.0% to 5.0% \$275,865 Series 2010A & B Wastewater Transmission Revenue Bonds	283,575	300,575
issued November 16, 2010, due through 2040; interest at 2.0% to 6.9% \$1,546 Illinois Environmental Protection Agency Loan Agreement	250,000	254,365
signed May 28, 2008, due through 2027; interest at 2.50%	713	795
\$276,470 Series 2012 Wastewater Transmission Revenue Bonds issued September 13, 2012, due through 2042; interest at 3.0% to 5.0%	244,710	250,560
\$15,000 Illinois Environmental Protection Agency Loan Agreement signed January 20, 2010, due through 2031; interest at 0%	8,798	9,563
\$17,812 Illinois Environmental Protection Agency Loan Agreement signed October 8, 2010, due through 2032; interest at 1.25%	12,349	13,218
\$17,564 Illinois Environmental Protection Agency Loan Agreement signed September 22, 2011, due through 2033; interest at 1.25%	12,607	13,458
\$15,000 Illinois Environmental Protection Agency Loan Agreement signed October 2, 2012, due through 2034; interest at 2.295% \$292,405 Series 2014 Wastewater Transmission Revenue Bonds issued	11,863	12,519
September 22, 2014, due through 2044; interest at 3.0% to 5.0% \$87,080 Series 2015 Bonds issued October 19, 2015 due through	272,165	277,600
January 1, 2039; interest at 2.59% to 6.04% \$54,170 Illinois Environmental Protection Agency Loan Agreement	82,480	84,815
signed October 22, 2013, due through 2035; interest at 1.93% \$56,198 Illinois Environmental Protection Agency Loan Agreement	45,921	48,349
signed October 8, 2014, due through 2036; interest at 1.99% \$4,118 Illinois Environmental Protection Agency Loan Agreement	49,026	51,512
signed January 22, 2016, due through 2036; interest at 1.86% \$4,263 Illinois Environmental Protection Agency Loan Agreement	3,842	4,033
signed November 4, 2016, due through 2037; interest at 1.75% \$180,590 Series 2017A Wastewater Transmission Revenue Bonds	6,258	5,849
issued June 21, 2017, due through 2052; interest at 4.0% to 5.25% \$215,485 Series 2017B Wastewater Transmission Revenue Bonds	180,590	180,590
issued June 21, 2017, due through 2044; interest at 5.0% \$63,793 Illinois Environmental Protection Agency Loan Agreement	202,400	208,970
signed May 17, 2016, due through 2038; interest at 1.86% \$23,861 Illinois Environmental Protection Agency Loan Agreement	59,933	62,610
signed May 16, 2017, due through 2038; interest at 1.75%	24,356	23,862
\$19,888 Illinois Environmental Protection Agency Loan Agreement signed Apr 5, 2018, due through 2039; interest at 1.76%	16,274	-
\$60,000 Illinois Environmental Protection Agency Loan Agreement signed Apr 5, 2018, due through 2039; interest at 1.76%	45,777	
Total revenue bonds	\$ 1,895,495	\$ 1,893,561
Add accretion of Series 1998A Capital Appreciation Bonds Add unamortized net bond premium/(discount) Less current portion (payable from restricted assets)	75,114 97,004 (70,308)	69,465 104,893 (62,346)
Long-term portion—net	\$1,997,305	\$ 2,005,573

Long-term debt during the years ended December 31, 2019 and 2018, changed as follows (dollars in thousands):

	Balance January 1, 2019	Additions	Reductions	Balance December 31, 2019	Due within One Year
Revenue bonds and loans Accretion of Series 1998	\$1,893,561	\$65,308	\$(63,374)	\$1,895,495	\$63,160
capital appreciation bonds	69,465	5,649	-	75,114	7,148
Unamortized net discount/premium	104,893		<u>(7,889</u>)	97,004	
Total revenue bonds and loans	\$2,067,919	<u>\$70,957</u>	<u>\$(71,263</u>)	\$2,067,613	\$70,308
	Balance January 1, 2018	Additions	Reductions	Balance December 31, 2018	Due within One Year
Revenue bonds and loans	January 1,	Additions \$89,597	Reductions \$(57,417)	December 31,	One
Accretion of Series 1998 capital appreciation bonds	January 1, 2018			December 31, 2018	One Year
Accretion of Series 1998	January 1, 2018 \$1,861,381	\$89,597		December 31, 2018 \$1,893,561	One Year

Interest expense includes amortization of the loss on bond refunding for 2019 and 2018 of \$2.2 million; less amortization of net bond discount/premium of \$7.9 million and \$8.2 million, respectively; and accretion of Series 1998A capital appreciation bonds of \$5.6 million and \$5.4 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 and 115% of the annual subordinate lien debt service requirement and annual debt service requirement for the fiscal year on aggregate outstanding debt service on any outstanding Illinois Environmental Protection Agency (IEPA) loans, wastewater line of credit and commercial paper notes. The above requirements were met for 2019 and 2018.

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 2019, the charge for sewer service was increased and was an amount equal to 0.82% of the gross amount charged for water service, whether such water service is metered or nonmetered. The rate charged for water effective June 1, 2019, increased to \$29.73 per 1,000 cubic feet.

Issuance of Debt—A loan agreement was signed on April 5, 2018, with the Illinois Environment Protection Agency as part of a continuation of the city's 3 year sewer lining contract which was awarded in 2016. The amount drawn from the loan agreement by the Sewer fund in 2019 was \$46.5 million The loan agreement has an interest rate of 1.76% with a maturity from December 19, 2019 to December 19, 2038.

A loan agreement was signed on April 5, 2018, with the Illinois Environment Protection Agency as part of a 5 year rehabilitation program conducted throughout the city. Approximately 26,900 lineal feet of 12 to 60 inch diameter sewer main will replaced existing, aging sewer main. The amount drawn from the loan agreement by the Sewer fund in 2019 was \$16.5 million. The loan agreement has an interest rate of 1.76% with a maturity from October 26, 2019 to April 26, 2039.

A loan agreement was signed on May 17, 2016, with the Illinois Environment Protection Agency to line approximately 157 miles of existing sewer main. In 2018, the Sewer Fund drew \$63.8 million. In 2019, the Sewer fund drew \$0.01 million from this loan agreement. The loan agreement has an interest rate of 1.86% with the maturity dates from November 30, 2018 to May 30, 2038.

A loan agreement was signed on November 4, 2016, with the Illinois Environment Protection Agency to install approximately 5,300 lineal feet of reinforced concrete sewer main ranging from 24 to 55 inch diameter pipe on Avenue "L" corridor. The amount drawn from this loan agreement by the Sewer Fund in 2017 was \$4.3 million. In 2018, the Sewer Fund drew an additional \$1.8 million. In 2019, the Sewer fund drew an additional \$0.7 million from this loan agreement. Total funds drawn from this loan agreement are \$6.8 million. The loan agreement has an interest rate of 1.75% with the maturity dates from May 3, 2018 to November 3, 2037.

A loan agreement signed on May 16, 2017, with the Illinois Environment Protection Agency as part of a 5-year rehabilitation program conducted throughout the city. Approximately 27,600 linear feet of 12 to 60 inch diameter sewer main will replace existing aging sewer main. In 2018, the Sewer Fund drew \$23.9 million from this loan agreement. Total funds drawn from this loan agreement is \$23.9 million. In 2019, the Sewer fund drew an additional \$1.6 million from this loan agreement. Total funds drawn from this loan are \$25.5 million. The loan agreement has an interest rate of 1.75% with the maturity dates of May 7, 2019 to November 7, 2038.

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

December 31	Principal	Interest	Total Debt Service
2020	\$ 63,160	\$ 93,415	\$ 156,575
2021	63,249	93,387	156,636
2022	65,447	91,241	156,688
2023	67,904	88,829	156,733
2024	70,463	86,310	156,773
2025-2029	375,005	393,669	768,674
2030-2034	452,171	245,584	697,755
2035-2039	471,041	127,967	599,008
2040-2044	194,315	35,567	229,882
2045-2049	42,565	10,824	53,389
2050-2052	<u>30,175</u>	1,842	32,017
Total	<u>\$1,895,495</u>	\$1,268,635	\$3,164,130

Defeased Bonds—Defeased bonds have been removed from the balance sheet because the related assets have been placed in irrevocable trusts, together with interest earned thereon, will provide amount sufficient for payment of all principal and interest. There were no outstanding defeased bonds as of December 31, 2019.

Debt Covenants—The ordinances authorizing the issuance of outstanding Wastewater Transmission Revenue Bonds provide for the creation of separate accounts into which monies will be deposited, as appropriate. The ordinances require that net revenues available for bonds, as adjusted shall each fiscal year at least equal (A) 115% of the aggregate debt service requirement for the fiscal year on the outstanding senior lien bonds, plus (B) the sum of the aggregate annual debt service requirements for the fiscal year on of the outstanding second lien bonds, plus (C) 115% of the aggregate outstanding debt service requirements for the fiscal year on of the outstanding IEPA loans, plus (D) annual debt service requirement for the fiscal year on aggregate outstanding debt service on any outstanding wastewater line of credit and commercial paper notes. This requirement was met at December 31, 2019.

5. UTILITY PLANT

During the years ended December 31, 2019 and 2018, utility plant changed as follows (in thousands):

	Balance January 1, 2019	Additions	Disposals and Transfers	Balance December 31, 2019
Utility plant not depreciated: Land and land rights Construction in progress	\$ 560 91,925	\$ - 124,369	\$ - <u>(19,504</u>)	\$ 560 196,790
Total utility plant not depreciated	92,485	124,369	(19,504)	197,350
Utility plant being depreciated: Facilities and structures Furniture and equipment	3,270,584 33,473	129,784 <u>984</u>	(32,853) (647)	3,367,515 33,810
Total utility plant being depreciated	3,304,057	130,768	(33,500)	3,401,325
Less accumulated depreciation: Facilities and structures Furniture and equipment	(636,620) (24,553)	(47,781) (1,776)	1,251 647	(683,150) (25,682)
Total accumulated depreciation	(661,173)	<u>(49,557</u>)	1,898	(708,832)
Utility plant being depreciated—net	2,642,884	81,211	(31,602)	2,692,493
Utility plant—net	\$2,735,369	\$205,580	<u>\$(51,106</u>)	\$2,889,843

	Balance January 1, 2018	Additions	Disposals and Transfers	Balance December 31, 2018
Utility plant not depreciated: Land and land rights Construction in progress	\$ 560 88,343	\$ - 62,614	\$ - _(59,032)	\$ 560 91,925
Total utility plant not depreciated	88,903	62,614	(59,032)	92,485
Utility plant being depreciated: Facilities and structures Furniture and equipment Total utility plant being depreciated	3,071,099 30,923 3,102,022	234,644 2,826 237,470	(35,159) (276) (35,435)	3,270,584 33,473 3,304,057
Less accumulated depreciation: Facilities and structures Furniture and equipment	(591,482) (23,384)	(45,651) (1,445)	513 276	(636,620) (24,553)
Total accumulated depreciation	(614,866)	(47,096)	789	(661,173)
Utility plant being depreciated—net	2,487,156	190,374	(34,646)	2,642,884
Utility plant—net	<u>\$2,576,059</u>	\$252,988	<u>\$(93,678</u>)	\$2,735,369

6. PENSION PLANS

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

Benefits Provided—The Plans provide retirement, disability, and death benefits as established by State law. Benefits generally vest after 10 years of credited service. Employees qualify for an unreduced retirement age minimum formula annuity based on a combination of years of service and age of retirement. Employees may also receive a reduced retirement age minimum formula annuity if they do not meet the age and service requirements for the unreduced retirement age annuity. The requirements of age and service are different for employees depending on when they first became members of their respective Plans. For all the Plans, employees who became members before January 1, 2011 are considered Tier 1 Employees. For those employees who became members on or after January 1, 2011 but before July 6, 2017 are considered Tier 2 Employees. For those employees who became members on or after July 6, 2017 are considered Tier 3 Employees. Public Act 100-0023 (P.A. 100-0023), which established the requirements for Tier 3 employees, includes a provision for Tier 2 employees to elect to be considered as Tier 3 employees. The annuity is computed by multiplying the final average salary by a percentage ranging from 2.2% to 2.5% 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 are Tier 1 Employees and any eight consecutive years within the last 10 years of credited service for participants who are Tier 2 Employees or Tier 3 Employees.

Benefit terms provide for annual adjustments to each employee's retirement allowance subsequent to the employees' retirement date. For Tier 1 Employees, the annual adjustments for Municipal Employees' and Laborers' are 3.0%, compounded, for annuitants born before January 1, 1966 and 1.5%, simple, born after January 1, 1966 or later. For Tier 2 Employees and Tier 3 Employees, the annual adjustments are equal to the lesser of 3.0% and 50% of CPI-U of the original benefit.

Employees Covered by Benefit Terms—At December 31, 2019, the following City employees were covered by the benefit terms:

	Municipal Employees'	Laborers'	Total
Inactive employees or beneficiaries currently receiving benefits	25,544	3,653	29,197
Inactive employees entitled to but not yet receiving benefits Active employees	18,734 32,162	1,486 2,662	20,220 34,824
	76,440	7,801	84,241

Contributions—For the Municipal Employees' and Laborers' Plans, Public Act 100-0023 (P.A. 100-0023) was enacted on July 6, 2017. P.A. 100-0023 requires the City to contribute specific amounts to the Municipal Employees' and the Laborers' Plans in the aggregate amounts as follows: in payment year 2019, \$392.0 million; in payment year 2020, \$481.0 million; in payment year 2021, \$571.0 million; and in payment year 2022, \$660.0 million. Additionally, P.A. 100-0023 requires that beginning in payment year 2023, the City's annual contributions to MEABF and LABF each be an amount actuarially determined to be sufficient to produce a funding level of 90% by the year end of 2058.

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 Sewer Fund's proportion of the contribution was determined based on the rates of Sewer Fund's salaries within each corresponding pension plan to the total budgeted salaries for 2018.

The contribution to the two pension plans from the Sewer Fund was \$15.7 million and \$12.7 million for the years ended December 31, 2019 and 2018, respectively.

Net Pension Liability, Pension Expense, and Deferred Outflows of Resources and Deferred Inflows of Resources Related to Pensions—At December 31, 2019 and 2018, the Sewer Fund reported a liability of \$460.2 million and \$453.7 million, respectively, for its proportionate share of the net pension liability. The net pension liability was measured as of December 31, 2019 and 2018, respectively, and the total pension liability used to calculate the net pension liability was determined by an actuarial valuation as of that date.

Changes in Actuarial Assumptions—Changes in the municipal bond rate resulted in a decrease in the single discount rate for Laborers. See discount rate section below.

The change in the single discount rate and other assumptions increased the net pension liability by \$4.0 million for Laborers'. These changes are being amortized into expense over a 4 year period for Laborers'.

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 for 2019 and 2018. At December 31, 2019 and 2018, the Sewer Fund's proportion was 2.0% of the Municipal Employees' Plan and 12.3% and 12.0%, respectively, of the Laborers' Plan.

For the years ended December 31, 2019 and 2018, the Sewer Fund recognized pension expense of \$3.3 million and \$18.9 million, respectively.

At December 31, 2019 and 2018, the Sewer Fund reported total deferred outflows of resources of \$5.4 million and \$55.0 million, respectively, and deferred inflows of resources of \$90.8 million and \$159.7 million related to pensions from the following sources:

Municipal Employees' (dollars in thousands):

Year Ended

	2019		2018	
	Deferred Outflows of Resources	Deferred Inflows of Resources	Deferred Outflows of Resources	Deferred Inflows of Resources
Differences between expected and actual experience Changes of assumptions Net difference between projected and	\$ 1,422 -	\$ 1,942 62,125	\$ 1,548 35,293	\$ 3,635 95,006
actual earnings on pension plan investments		1,027	5,824	
Total	<u>\$ 1,422</u>	<u>\$ 65,094</u>	<u>\$ 42,665</u>	\$ 98,641

Amounts reported as deferred outflows of resources and deferred inflows of resources related to Municipal Employees' pensions will be recognized in pension expense/(benefit) as follows:

December 31	
2020 2021 2022 2023	\$(33,215) (30,562) 1,243 (1,138)
Total	<u>\$(63,672)</u>

Laborers' (dollars in thousands):

	2019		2018	
	Deferred Outflows of Resources	Deferred Inflows of Resources	Deferred Outflows of Resources	Deferred Inflows of Resources
Differences between expected and actual experience Changes of assumptions Net difference between projected and actual earnings on pension plan	\$ 972 3,044	\$ 1,893 19,351	\$ 1,388 -	\$ 3,701 57,403
investments		4,430	10,909	
Total	<u>\$ 4,016</u>	<u>\$ 25,674</u>	<u>\$ 12,297</u>	\$ 61,104

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

Y	ea	ar	Εı	nd	e	d	
D	e	ce	m	be	r	3	1

2020	\$(19,938)
2021	(1,009)
2022	1,967
2023	(2,678)
Total	\$(21,65 <u>8</u>)

Deferred Inflows Related to Changes in Proportionate Share of Contributions—For the years ended December 31, 2019 and 2018, the Sewer Fund reported pension (benefit)/charge of \$3.2 million and \$2.5 million, respectively, related to changes in proportionate share of contributions. As of December 31, 2019 and 2018, the Sewer Fund reported deferred inflows of \$0.3 million and \$1.8 million, respectively, and deferred outflows of \$10.4 million and \$12.2 million, respectively, related to changes in its proportionate share of contributions. This deferred amount will be recognized as a pension (benefit)/charge over a period of four years.

Actuarial Assumptions—The total pension liability in the December 31, 2019 and 2018 actuarial valuation was determined using the following actuarial assumptions, applied to all periods included in the measurement:

	Municipal Employees'	Laborers'
Inflation	2.50%	2.25%
Salary increases	3.5%-7.75% (a)	3.00% (b)
Investment rate of return	7.00% (c)	7.25% (c)

⁽a) (1.50%-6.50% for 2020-2022), varying by years of service

Post-retirement Mortality rates were based on the RP-2014 Healthy Annuitant Mortality Table (Blue Collar mortality table for Laborers') for males or females, as appropriate. Pre-retirement mortality rates were based on RP-2014 Employee Mortality Table (Blue Collar mortality table for Laborers'). The actuarial assumptions used in the December 31, 2019 valuation were adjusted based on the results of actuarial experience study for the periods:

Municipal Employees'—January 1, 2012-December 31, 2016

Laborers'-January 1, 2012-December 31, 2016

⁽b) Plus a service—based increase in the first 9 years

⁽c) Net of investment expense

The long term expected rate of return on pension plan investments was determined using the building-block method in which best-estimate ranges of expected future real rates of return (expected returns, net of pension plan investment expense and inflation) are developed for each major asset class. These ranges are combined to produce the long-term expected rate of return by weighting the expected future real rates of return by the target asset allocation percentage and by adding expected inflation. The target allocation and best estimates of arithmetic real rates of return for each major asset class as of December 31, 2019 and 2018, are summarized in the following table:

	Target All	Target Allocation		n Expected of Return
2019	Municipal Employees'	Laborers'	Municipal Employees'	Laborers'
Asset class:	,		F - 7	
	26.0.0/	0/	F 1 0/	0/
Domestic equity	26.0 %	- %	5.1 %	- %
U.S. equity	-	25.0	-	5.3
Non U.S. equity	-	20.0	-	5.3
Global equity	5.0	=	5.3	=
Global low volatility equity	-	5.0	-	4.4
Infrastructure	2.0	-	5.1	-
International equity	17.0	-	5.3	-
Fixed income	25.0	20.0	0.1	(0.3)
Hedge funds	10.0	10.0	3.3	2.8
Private debt	-	3.0	-	7.6
Private equity	5.0	4.0	8.6	8.8
Real estate	10.0	10.0	3.8	3.7
Private real assets		3.0	-	5.1
Total	<u>100.0</u> %	100.0 %		

			Long-Term Expected		
	Target All	Target Allocation		of Return	
	Municipal		Municipal	_	
2018	Employees'	Laborers'	Employees'	Laborers'	
Asset class:					
Domestic equity	26.0 %	- %	5.1 %	- %	
U.S. equity	-	25.0	=	5.7	
Non U.S. equity	-	20.0	=	5.2	
Global low volatility equity	=	5.0	=	4.7	
Infrastructure	2.0	-	5.0	=	
International equity	22.0	-	5.3	-	
Fixed income	25.0	20.0	8.0	(0.1)	
Hedge funds	10.0	10.0	3.4	3.5	
Private debt	-	3.0	=	7.6	
Private equity	5.0	4.0	8.3	8.7	
Real estate	10.0	10.0	4.7	4.9	
Private real assets		3.0	-	5.3	
Total	100.0 %	100.0 %			

Discount Rate

Municipal Employees'—The discount rate used to measure the total pension liability as of December 31, 2019 and 2018 was 7.00%. The projection of cash flows used to determine the discount rate assumed plan member contributions will be made according to the contribution rate applicable for each member's tier and that employer contributions will be made as specified by Public Act 100-0023. 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 projected to be available to make all projected future benefit payments of current plan members. Therefore, the long term expected rate of return on pension plan investments was applied to all periods of projected benefit payments to determine the total pension liability.

Laborers'—A Single Discount Rate of 7.00% and 7.11% was used to measure the total pension liability as of December 31, 2019 and 2018, respectively. This Single Discount Rate was based on an expected rate of return on pension plan investments of 7.25% as of December 31, 2019 and 2018, and a municipal bond rate of 2.75% and 3.71% as of December 31, 2019 and 2018, respectively (based on the rate closest to but not later than the measurement date of the "20-Year Municipal GO AA Index" rate from Fidelity Index). 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 under the statutory funding policy. Based on these assumptions, the pension plan's fiduciary net position and future contributions were sufficient to finance the benefit payments through the year 2073 (for the 2019 valuation) and the year 2072 (for the 2018 valuation). As a result, the long-term expected rate of return on pension plan investments was applied to projected benefit payments through the year 2073, and the municipal bond rate 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 Employees'—The following presents the Sewer Fund's allocated share of the net pension liability as of December 31, 2019 and 2018, calculated using the discount rate of 7.0%, as well as what the net pension liability would be if it were calculated using a discount rate that is 1 percentage point lower or 1 percentage point higher than the current rate (dollars in thousands):

	Current					
Net Pension Liability	1%	Discount	1%			
December 31, 2019	Decrease	Rate	Increase			
Municipal Employees' discount rate	6.00 %	7.00 %	8.00 %			
Municipal Employees' net pension liability	\$ 308,585	\$ 265,128	\$ 229,052			

	Current					
Net Pension Liability	1%	Discount	1%			
December 31, 2018	Decrease	Rate	Increase			
Municipal Employees' discount rate	6.00 %	7.00 %	8.00 %			
Municipal Employees' net pension liability	\$ 304,217	\$ 261,188	\$ 225,504			

Laborers'—The following presents the Sewer Fund's allocated share of the net pension liability as of December 31, 2019 and 2018, calculated using the discount rate of 7.0% and 7.11%, respectively, as well as what the net pension liability would be if it were calculated using a discount rate that is 1 percentage point lower or 1 percentage point higher than the current rate (dollars in thousands):

	Current					
Net Pension Liability	1%	Discount	1%			
December 31, 2019	Decrease	Rate	Increase			
Laborers' discount rate	6.00 %	7.00 %	8.00 %			
Laborers' net pension liability	\$ 235,610	\$ 195,045	\$ 161,060			
		Current				
Net Pension Liability	1%	Discount	1%			
December 31, 2018	Decrease	Rate	Increase			
Laborers' discount rate	6.11 %	7.11 %	8.11 %			
Laborers' net pension liability	\$ 231,214	\$ 192,479	\$ 160,039			

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 reports.

7. 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 \$56.9 million and \$70.1 million in 2019 and 2018, respectively.

8. 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 self-insurance programs administered by the City and by a third-party administrator for workers' compensation. 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, 2019 and 2018, are as follows (in thousands):

	2019	2018
Balance—January 1 Claims incurred on current and prior-year events Claims paid on current and prior-year events	\$ 22,550 13,456 (12,823)	\$ 22,378 12,796 (12,624)
Balance—December 31	\$ 23,183	\$ 22,550

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, 2019 and 2018, the Sewer Fund entered into contracts with outstanding commitments of approximately \$94.3 million and \$386.4 million, respectively, for construction projects.

9. DEFERRED OUTFLOWS/INFLOWS OF RESOURCES

(In thousands)	2019	2018
Deferred outflows of resources: Deferred outflows from pension activities Changes in proportionate share of	\$ 5,438	\$ 54,962
pension contribution Unamortized deferred bond refunding costs	10,393 6,428	12,228 8,630
Total deferred outflows of resources	\$ 22,259	\$ 75,820
Deferred inflows of resources: Deferred inflows from pension activities Changes in proportionate share of	\$(90,768)	\$(159,745)
pension contribution	(324)	(1,784)
Total deferred inflows of resources	<u>\$(91,092</u>)	<u>\$(161,529</u>)

10. SUBSEQUENT EVENTS

On March 11, 2020, the World Health Organization characterized the outbreak of a strain of the novel coronavirus ("COVID-19") as a pandemic in the face of the global spread of the virus. The COVID-19 pandemic has dramatically altered the behavior of businesses and people in a manner that is having negative effects on global and local economies. In addition, stock markets in the U.S. and globally, have seen significant declines and volatility attributed to concerns over COVID-19, and capital markets remain disrupted.

These adverse impacts have intensified and continue to evolve within the United States. The Sewer Fund provides an essential service and continues to operate throughout this pandemic. To date, the Sewer Fund has not experienced a decline in revenues or business interruption that has had a material effect on the Sewer Fund. However, due to this rapidly changing situation, no assurances can be given that this matter will not have a material effect on the Sewer Fund's financial condition, results of operations or cash flows in future periods.

The Sewer Fund has evaluated subsequent events through June 30, 2020, the date the basic financial statements were available to be issued.

* * * * * *



REQUIRED SUPPLEMENTARY INFORMATION SCHEDULE OF CHANGES IN THE NET PENSION LIABILITY AND RELATED RATIOS LAST FIVE FISCAL YEARS

(Dollars in thousands)

Municipal Employees'	2019	2018	2017	2016	2015
TOTAL PENSION LIABILITY:					
Service cost*	\$ 228,465	\$ 223,528	\$ 572,534	\$ 619,743	\$ 226,816
Interest	1,159,253	1,123,348	915,711	878,369	909,067
Benefit changes	-	-	-	-	2,140,009
Differences between expected and actual experience	16,676	95,540	(177,755)	(127,119)	(109,835)
Assumption changes	-	-	(7,431,191)	(578,920)	8,711,755
Benefit payments including refunds	(952,652)	(916,198)	(888,174)	(859,672)	(826,036)
Net change in total pension liability	451,742	526,218	(7,008,875)	(67,599)	11,051,776
Total pension liability—beginning	16,808,614	16,282,396	23,291,271	23,358,870	12,307,094
Total pension liability—ending ^(a)	17,260,356	16,808,614	16,282,396	23,291,271	23,358,870
PLAN FIDUCIARY NET POSITION:					
Contributions-employer	418,269	349,574	261,764	149,718	149,225
Contributions-employee	146,645	138,400	134,765	130,391	131,428
Net investment income (loss)	560,940	(204,975)	610,515	281,419	114,025
Benefit payments including refunds of					
employee contribution	(952,652)	(916,198)	(888,174)	(859,672)	(826,036)
Administrative expenses	(6,740)	(6,639)	(6,473)	(7,056)	(6,701)
Other	-	-	5,394	-	
Net change in plan fiduciary net position	166,462	(639,838)	117,791	(305,200)	(438,059)
Plan fiduciary net position—beginning	3,914,180	4,554,018	4,436,227	4,741,427	5,179,486
Plan fiduciary net position—ending (b)	4,080,642	3,914,180	4,554,018	4,436,227	4,741,427
NET PENSION LIABILITY—Ending (a) - (b)	\$ 13,179,714	\$12,894,434	\$ 11,728,378	\$ 18,855,044	\$ 18,617,443
PLAN FIDUCIARY NET POSITION AS A					
PERCENTAGE OF THE TOTAL PENSION LIABILITY	23.64 %	23.29 %	27.97 %	19.05 %	20.30 %
COVERED PAYROLL **	\$ 1,802,790	<u>\$ 1,734,596</u>	<u>\$ 1,686,533</u>	\$ 1,646,939	\$ 1,643,481
EMPLOYER'S NET PENSION LIABILITY AS A					
PERCENTAGE OF COVERED-EMPLOYEE PAYROLL	731.07 %	743.37 %	695.41 %	<u>1,144.85</u> %	<u>1,132.81</u> %
ALLOCATED NET PENSION LIABILITY	\$ 265,128	\$ 261,188	\$ 239,542	\$ 369,711	\$ 364,150
ALLOCATED PERCENTAGE	2.01 %	2.03 %	2.04 %	<u>1.96</u> %	1.96 %

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

(Continued)

 $^{^{}st}$ Includes pension plan administrative expense stst Covered payroll is the amount in force as of the actuarial valuation date and likely differs from actual payroll during fiscal year

REQUIRED SUPPLEMENTARY INFORMATION SCHEDULE OF CHANGES IN THE NET PENSION LIABILITY AND RELATED RATIOS LAST FIVE FISCAL YEARS

(Dollars in thousands)

Laborers'	2019	2018	2017	2016	2015
TOTAL PENSION LIABILITY:					
Service cost *	\$ 38,522	\$ 40,801	\$ 80,232	\$ 82,960	\$ 38,389
Interest	188,347	183,135	154,047	150,166	153,812
Benefit changes	-	-	150	-	384,033
Differences between expected and actual					
experience	(8,820)	15,143	(62,178)	(30,428)	(46,085)
Assumption changes	32,846	(11,788)	(1,074,754)	(62,905)	1,175,935
Benefit payments including refunds	(164,959)	(160,061)	(157,050)	(154,683)	(152,530)
Pension plan administrative expense	(3,691)	(3,933)	(3,985)	(4,080)	(3,844)
Net change in total pension liability	82,245	63,297	(1,063,538)	(18,970)	1,549,710
Total pension liability—beginning	2,693,404	2,630,107	3,693,645	3,712,615	2,162,905
Total pension liability—ending ^(a)	2,775,649	2,693,404	2,630,107	3,693,645	3,712,615
PLAN FIDUCIARY NET POSITION:					
Contributions-employer	59,346	47,844	35,457	12,603	12,412
Contributions-employee	18,143	17,837	17,411	17,246	16,844
Net investment income (loss)	184,027	(75,219)	207,981	57,997	(22,318)
Benefit payments including refunds of					
employee contribution	(164,959)	(160,061)	(157,050)	(154,683)	(152,530)
Administrative expenses	(3,691)	(3,933)	(3,985)	(4,080)	(3,844)
Other		661			-
Net change in plan fiduciary net position	92,866	(172,871)	99,814	(70,917)	(149,436)
Plan fiduciary net position—beginning	1,094,683	1,267,554	1,167,740	1,238,657	1,388,093
Plan fiduciary net position—ending (b)	1,187,549	1,094,683	1,267,554	1,167,740	1,238,657
NET PENSION LIABILITY—Ending (a) - (b)	\$ 1,588,100	\$ 1,598,721	\$ 1,362,553	\$ 2,525,905	\$ 2,473,958
PLAN FIDUCIARY NET POSITION AS A					
PERCENTAGE OF THE TOTAL PENSION LIABILITY	42.78 %	40.64 %	<u>48.19</u> %	31.61 %	<u>33.36</u> %
COVERED PAYROLL **	\$ 211,608	\$ 211,482	\$ 208,442	\$ 208,155	\$ 204,773
EMPLOYER'S NET PENSION LIABILITY AS A PERCENTAGE OF COVERED PAYROLL	750.49 %	755.96 %	653.68 %	1,213.47 %	1,208.15 %
ALLOCATED NET PENSION LIABILITY	\$ 195,045	\$ 192,479	\$ 153,060	\$ 295,214	\$ 299,722
					
ALLOCATED PERCENTAGE	12.28 %	12.04 %	<u>11.23</u> %	11.69 %	12.22 %

 $^{^{\}ast}$ Includes pension plan administrative expense.

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

(Concluded)

^{**} Covered payroll is the amount in force as of the actuarial valuation date and likely differs from actual payroll during fiscal year

REQUIRED SUPPLEMENTARY INFORMATION SCHEDULE OF CONTRIBUTIONS LAST TEN YEARS

(Dollars in thousands)

Municipal Employees' Years Ended	Actuarially Determined		Contributions in Relation to the Actuarially Determined	Contribution	Covered	Contributions as a percentage of Covered
December 31,	Co	ntributions	Contribution	Deficiency	Payroll*	Payroll
2010	\$	483,948	\$ 154,752	\$ 329,196	\$1,541,388	10.04 %
2011		611,756	147,009	464,747	1,605,993	9.15
2012		690,823	148,859	541,964	1,590,794	9.36
2013		820,023	148,197	671,826	1,580,289	9.38
2014		839,039	149,747	689,292	1,602,978	9.34
2015		677,200	149,225	527,975	1,643,481	9.08
2016		961,770	149,718	812,052	1,646,939	9.09
2017		1,005,457	261,764	743,693	1,686,533	15.52
2018		1,049,916	349,574	700,342	1,734,596	20.15
2019		1,117,388	418,269	699,119	1,802,790	23.20

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

Years Ended December 31,	Actuarially ears Ended Determined		Contributions in Relation to the Actuarially Determined Contribution Contribution Deficiency					Covered Payroll**	Contributions a a percentage of Covered Payroll		
2010	\$	46,665	\$	15,352	\$	31,313	\$	199,863		7.68 %	
2011		57,259		12,779		44,480		195,238		6.55	
2012		77,566		11,853		65,713		198,790		5.96	
2013		106,199		11,583		94,616		200,352		5.78	
2014		106,019		12,161		93,858		202,673		6.00	
2015		79,851		12,412		67,439		204,773		6.06	
2016		117,033		12,603		104,430		208,155		6.05	
2017		124,226		35,457		88,769		208,442	1	7.01	
2018		129,247		47,844		81,403		211,482	2	22.62	
2019		148,410		59,346		89,064		211,608	2	28.05	

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

(Continued)

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

REQUIRED SUPPLEMENTARY INFORMATION SCHEDULE OF CONTRIBUTIONS

Actuarial Methods and Assumptions	Municipal Employees'	Laborers'
Actuarial valuation date	December 31, 2019 (a) December 31, 2019 (b)
Actuarial cost method Asset valuation method	Entry age normal 5-yr. Smoothed Market	Entry age normal 5-yr. Smoothed Market
Actuarial assumptions: Inflation Salary increases Investment rate of return Retirement age Mortality Other information	2.5% 3.50%-7.75% (6 7.00% (6 (g) (i) (k)	

- (a) Actuarially determined contribution amount is determined as of December 31, with appropriate interest to the end 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) (1.50%–6.5% for 2020–2022), varying by years of service.
- (d) Plus a service-based increase consistent with bargaining contracts.
- (e) Net of investment expense.
- (f) Net of investment expense, including inflation.
- (g) For employees first hired prior to January 1, 2011, rates of retirement are based on the recent experience of the Fund (effective December 31, 2017).
 - (g) For employees first hired on or after January 1, 2011 and before July 6, 2017, rates of retirement for each age from 62 to 80 were used (effective December 31, 2011).
 - (g) For employees first hired on or after July 6, 2017, rates of retirement for each age from 60 to 80 were used (effective December 31, 2018).
- (h) Experience-based table of rates that are specific to the type of eligibility condition. Last updated for the December 31, 2019, actuarial valuation pursuant to an experience study of the period January 1, 2014, through December 31, 2018.
- (i) Post-retirement mortality rates were based on the RP-2014 Healthy Annuitant Mortality Tables, scaled by 106% for males and 98% for females, and projected generationally using scale MP-2017. Disabled mortality rates were based on RP-2014 Blue Collar Healthy Annuitant Mortality Tables, scaled by 107% for males and 99% for females, and projected generationally using scale MP-2017.
 - Pre-retirement mortality rates, scaled by 92% for males and 100% for females, projected generationally using scale MP-2017.
- (j) Post Retirement Mortality: Scaling factors of 117% for males, and 102% for females of the RP-2014 Blue Collar Healthy Annuitant mortality table, sex distinct, with generational mortality improvement using MP-2017 2-dimensional mortality improvement scales. No adjustment is made for post-disabled mortality. Other assumptions: Same as those used in the December 31, 2018, actuarial funding valuations. Pre Retirement Mortality: Scaling factors of 109% for males, and 103% for females of the RP-2014 Blue Collar Employee mortality table, sex distinct, with Pre Retirement Mortality: Scaling factors of 109% for males, and 103% for females of the RP-2014 Blue Collar Employee mortality table, sex distinct, with generational mortality improvement using MP-2017 2-dimensional mortality improvement scales.
- Other Assumptions: Same as those used in December 31, 2019, actuarial funding valuations.
- (1) The actuarial valuation is based on the statutes in effect as of December 31, 2019.

(Concluded)

PART III

STATISTICAL SECTION (UNAUDITED)

STATISTICAL DATA (UNAUDITED)

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** TEN YEARS ENDED DECEMBER 31, 2010-2019 (UNAUDITED) (In thousands)

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
NET POSITION: Net investment in capital assets Restricted for	\$408,564	\$448,720	\$448,414	\$481,946	\$520,627	\$ 559,715	\$ 648,644	\$ 735,564	\$ 827,773	\$ 862,065
capital projects Unrestricted	11,110 64,828	24,610 25,588	50,014 <u>60,436</u>	73,858 78,509	111,333 102,794	116,107 (299,584)	117,295 <u>(353,467</u>)	116,376 (364,239)	115,576 <u>(358,293</u>)	139,618 <u>(324,272</u>)
TOTAL	<u>\$484,502</u>	<u>\$498,918</u>	<u>\$558,864</u>	<u>\$634,313</u>	<u>\$734,754</u>	<u>\$ 376,238</u>	<u>\$ 412,472</u> **	<u>\$ 487,701</u>	<u>\$ 585,056</u>	<u>\$ 677,411</u>

^{*} Amounts were restated for the implementation of GASB 65
** Amounts were restated for the implementation of GASB 68

STATISTICAL DATA **CHANGES IN NET POSITION** TEN YEARS ENDED DECEMBER 31, 2010-2019 (UNAUDITED) (In thousands)

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
OPERATING INCOME: Operating revenues Operating expenses Depreciation and amortization	\$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	\$368,966 227,932 40,734	\$357,623 163,517 48,171	\$369,703 155,825 48,504	\$351,076 137,408 52,933
Total operating income	60,573	64,345	113,150	139,216	166,248	24,744	100,300	145,935	165,374	160,735
NONOPERATING EXPENSES—Net	(26,706)	(51,793)	<u>(55,704</u>)	(66,267)	(65,807)	(149,978)	(80,705)	<u>(77,125</u>)	(70,293)	(68,375)
INCOME (LOSS) BEFORE CAPITAL GRANTS	33,867	12,552	57,446	72,949	100,441	(125,234)	19,595	68,810	95,081	92,360
CAPITAL GRANTS	3,136	1,864	2,500	2,500			16,639	6,419	2,274	<u>(5</u>)
CHANGE IN NET POSITION	\$ 37,003	<u>\$ 14,416</u>	\$ 59,946	<u>\$ 75,449</u>	<u>\$100,441</u>	<u>\$(125,234</u>)	<u>\$ 36,234</u>	<u>\$ 75,229</u>	\$ 97,355	<u>\$ 92,355</u>

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

^{*} Amounts were restated due to the implementation of GASB 65.
** Amounts were restated due to the implementation of GASB 68.

STATISTICAL DATA HISTORICAL FINANCIAL OPERATIONS TEN YEARS ENDED DECEMBER 31, 2010–2019 (UNAUDITED) (In thousands)

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
OPERATING REVENUES:										
Sewer sales	\$ 197,455	\$202,323	\$252,943	\$291,110	\$337,657	\$390,924	\$384,140	\$377,286	\$380,822	\$373,902
Less provision for bad debt	-	-	-	(12,461)	(16,557)	(16,154)	(16,320)	(20,813)	(12,611)	(23,849)
Other operating revenue	774	1,026	969	1,180	1,128	1,107	1,146	1,150	1,492	1,023
Total operating revenues	198,229	203,349	253,912	279,829	322,228	375,877	368,966	357,623	369,703	351,076
OPERATING EXPENSES:										
Repairs	42,509	38,805	35,708	38,910	40,435	42,131	36,408	41,881	43,654	41,614
Maintenance	24,075	23,655	21,819	23,004	24,374	25,322	21,941	24,660	24,909	22,958
Administrative and general	17,179	18,802	21,254	12,008	14,394	12,337	11,801	12,591	13,472	12,367
General Fund reimbursements ⁽¹⁾	27,065	29,124	31,709	32,144	36,740	227,600	155,624	81,919	70,126	56,954
Engineering	3,053	3,544	3,085	3,267	3,336	3,299	2,158	2,466	3,664	<u>3,515</u>
Total operating expenses	113,881	113,930	113,575	109,333	119,279	310,689	227,932	163,517	155,825	137,408
NONOPERATING REVENUES	643	2,870	867	(2,754)	3,813	3,921	1,137	4,354	7,446	11,737
NET REVENUES—As defined	\$ 84,991	\$ 92,289	\$141,204	\$167,742	\$206,762	\$ 69,109	\$142,171	\$198,460	\$221,324	\$225,405

Source: City of Chicago Comptroller's Office.

Note 1:

⁽¹⁾ Of the \$3.3 million of pension expense for 2019, \$15.9 million is the portion of the City's pension contribution payable in 2019 to the pension funds and allocable to the Sewer Fund. The remaining portion of the pension expense for 2019 (i.e. (\$12.6) million) is recognized on the income statement of the Sewer Fund for 2019 pursuant to GASB 68.

Accordingly, that portion is not included in Operating Expenses for purposes of calculation of the debt service coverage ratio.

STATISTICAL DATA FIVE LARGEST CUSTOMERS (UNAUDITED) (In thousands)

					Amoun	t of Sales				
	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Department of										
Aviation	\$1,744	\$1,593	\$1,927	\$2,165	\$1,857	\$3,634	\$4,498	\$4,025	\$4,504	\$5,198
Humboldt Park	435	1,842	1,179	1,393	1,307	-	-	759	-	-
CPD—Columbus Park	-	-	-	-	-	-	-	-	-	-
WR Grace and										
Company	-	-	-	-	-	-	-	-	589	-
Calumet Park	315	316	-	635	652	-	-	-	-	-
CPD—Lincoln Park	-	310	745	1,418	-	1,344	1,267	1,325	675	771
Columbus Park	258	-	-	-	-	-	-	-	-	-
Cook County										
Sheriff	-	-	-	1,141	-	-	846	-	-	-
University of										
Chicago—HCC	-	339	1,428	-	-	-	-	-	-	-
Uniquema	-	-	-	-	680	551	-	-	-	622
Ford Motor Co	-	-	-	-	695	928	912	995	1,311	1,304
University of										
Illinois at										
Chicago	-	-	1,647	-	-	834	-	-	-	-
Hometown	<u>546</u>						546	<u>551</u>	<u>560</u>	567
	\$3,298	\$4,400	\$6,926	\$6,752	\$5,191	\$7,291	\$8,069	\$7,655	\$7,639	\$8,462

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

STATISTICAL DATA CUSTOMERS BY COMPONENT (UNAUDITED) (In thousands)

		Amount of Sales										
	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019		
Residential Industrial/	\$144,145	\$139,598	\$178,399	\$195,542	\$233,830	\$266,878	\$246,997	\$242,899	\$248,622	\$243,311		
commercial Governmental	44,540 9,544	50,915 12,836	57,598 17,915	74,696 22,052	82,811 22,318	95,473 29,680	109,655 28,634	99,620 35,917	98,054 <u>35,638</u>	93,167 38,447		
	\$198,229	\$203,349	\$253,912	\$292,290	\$338,959	\$392,031	\$385,286	\$378,436	\$382,314	\$374,925		

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

STATISTICAL DATA
RECENT SEWER SERVICE RATES
(Unaudited)

Effective Date	Gross Water Rate Per 1,000 Gallons	Gross Water Rate Per 1,000 Cubic Feet	Sewer Rate Percent of Water Bill	Per 1000 Cubic Feet
January 1, 2009	\$ 1.76	\$13.15	85 %	11
January 1, 2010	2.01	15.00	86	13
January 1, 2011	2.01	15.00	86	13
January 1, 2012	2.51	18.75	89	17
January 1, 2013	2.88	21.56	92	20
January 1, 2014	3.31	24.80	96	24
January 1, 2015	3.81	28.52	100	29
January 1, 2016	3.81	28.52	100	29
June 1, 2017	3.88	29.04	100	29
June 1, 2018	3.95	29.49	100	29
June 1, 2019	3.98	29.73	100	30

Source: City of Chicago Department of Water Management.

STATISTICAL DATA
SEWER SYSTEM ACCOUNTS
TEN YEARS ENDED DECEMBER 31, 2010-2019
(Unaudited)

	V	Vater Account	:s	_	
Years Ended	Non-			_	Sewer
December 31	Metered	Metered	Total	Exempt	Accounts
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
2016	206,913	287,351	494,264	67,130	427,134
2017	190,276	303,877	494,153	66,995	427,158
2018	180,608	313,758	494,366	66,982	427,384
2019	178,348	316,262	494,610	66,889	427,721

Source: City of Chicago Department of Water Management.

STATISTICAL DATA
REVENUE BOND COVERAGE
TEN YEARS ENDED DECEMBER 31, 2010-2019 (UNAUDITED)
(In thousands)

Combined Senior Lien and Second Lien Debt Service Calculation	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
REVENUES AVAILABLE FOR BONDS: Net revenues—as defined Pension Expense other than contribution (Note 1) Transfer to sewer rate stabilization account Other Available Funds (Note 2)	\$84,991 - 10,000 - 4,403	\$ 92,289 - - - 17,755	\$141,204 - 5,000 19,215	\$167,742 - 3,000 65,298	\$ 206,762 - - 103,864	\$ 69,109 183,165 - 108,498	\$142,171 100,447 - 133,501	\$198,460 24,921 1,281 200,990	\$221,324 6,191 - 221,509	\$ 225,405 (12,572) - 234,799
Net revenues available for bonds	79,394	110,044	155,419	230,040	310,626	360,772	376,119	423,090	449,024	447,632
PRIOR LIEN DEBT SERVICE REQUIREMENT										
NET REVENUES AVAILABLE FOR BONDS	\$79,394	\$110,044	\$155,419	\$230,040	\$310,626	\$360,772	\$376,119	\$423,090	\$449,024	\$447,632
DEBT SERVICE REQUIREMENTS: Senior lien debt service requirement	\$16,017	\$ 15,287	\$ 9,231	\$ -	\$	\$	\$	\$	\$	\$ 10,525
Senior lien debt service coverage (1.15 required)	4.96	7.20	16.84							42.53
DEBT SERVICE REQUIREMENTS: 2000 second lien bonds 2001 second lien bonds 2001A second lien bonds 2004A and B second lien bonds 2006A and B second lien bonds 2008C second lien bonds 1EPA Loans 2010A & B second lien bonds 2012A & B second lien bonds 2014 second lien bonds 2017A & B second lien bonds 2017A & B second lien bonds 2017A & B second lien bonds	2,711 4,196 2,047 17,558 8,770 11,528 542 101 2,284 - - - -	6,920 2,055 17,448 8,765 11,537 485 383 19,332 - - - - -	5,036 1,886 17,301 15,184 11,537 2,732 665 21,036	6,923 - 26,910 15,201 8,650 2,786 866 21,039 17,485 99,860	6,935 - 27,102 15,210 11,536 3,346 2,916 21,054 17,486 3,292 	- 6,942 - 27,242 12,358 11,534 14,725 3,309 21,627 17,483 19,127 - -	- 6,947 - 12,364 11,535 31,907 4,934 21,646 17,485 19,180 - -	- 6,951 - 2,734 8,031 31,809 10,612 21,654 17,480 19,188 6,902 16,751	- 6,957 - 4,421 32,023 12,933 21,785 17,482 19,192 6,849 25,634	- 6,964 - - 4,448 24,375 18,117 17,245 17,477 19,192 6,810 28,045
COMBINED SENIOR AND SECOND LIEN DEBT	45,737	00,923			100,077	134,347	123,555	_142,112	147,270	142,073
SERVICE REQUIREMENTS	\$65,754	\$ 82,212	\$ 84,608	\$ 99,860	\$108,877	\$134,347	\$ 125,999	\$142,112	\$147,276	\$153,198
COMBINED SENIOR AND SECOND LIEN DEBT SERVICE COVERAGE (1.15 REQUIRED)	1.21	1.34	1.84	2.30	2.85	2.69	2.99	2.98	3.05	2.92
SEWER RATE STABILIZATION ACCOUNT YEAR-END BALANCE	\$25,629	\$ 25,703	\$ 29,629	\$ 32,629	\$ 32,629	\$ 32,629	\$ 32,629	\$ 32,196	\$ 36,902	\$ 36,902

Source: City of Chicago Comptroller's Office.

Note

⁽¹⁾ Of the \$3.3 million of pension expense for 2019, \$15.9 million is the portion of the City's pension contribution payable in 2019 to the pension funds and allocable to the Sewer Fund.

The remaining portion of the pension expense for 2019 (i.e. (\$12.6) million) is recognized on the income statement of the Sewer Fund for 2019 pursuant to GASB 68 but is not due and payable by the City during 2019; accordingly, that portion is not included in Operating Expenses for purposes of calculation of the debt service coverage ratio.

⁽²⁾ As provided in the Ordinance, Gross Revenues remaining in any period after providing sufficient funds for Operations and Maintenance Costs, for paying required debt service on all bonds and notes secured by Sewer System revenues, for paying any required amounts into any other accounts established for any bonds or notes secured by Sewer System revenues and to make any deposits into the Sewer Rate Stabilization Account ("Other Available Funds"), can be applied to debt service for any future period.

STATISTICAL DATA
LONG-TERM DEBT
TEN YEARS ENDED DECEMBER 31, 2010–2019 (UNAUDITED)
(In thousands)

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
First lien Second lien Subordinate lien—IEPA loan	\$ 71,343 1,053,272 1,377	\$ 57,988 1,041,436 12,665	\$ 43,928 1,290,296 29,550	\$ 35,168 1,284,355 49,936	\$ 35,168 1,541,690 62,077	\$ 35,168 1,592,010 59,000	\$ 35,168 1,548,696 108,956	\$ 35,168 1,660,490 165,723	\$ 35,168 1,527,810 330,583	\$ 35,168 1,562,610 297,717
Total revenue bonds and notes	1,125,992	1,112,089	1,363,774	1,369,459	1,638,935	1,686,178	1,692,820	1,861,381	1,893,561	1,895,495
Unamortized premium (discount) Unamortized deferred loss Accretion of Series 1998 CAB	15,883 (38,063) 33,532	16,142 (32,276) 37,242	37,701 - 41,151	34,707 - 45,272	61,306 - 49,615	83,551 - 54,194	77,642 - 59,018	113,074 - 64,105	104,893 - 69,465	97,004 - 75,114
Sub-total	11,352	21,108	78,852	79,979	110,921	137,745	136,660	177,179	174,358	172,118
Total revenue bonds payable—net of unamortized premium (discount)	\$1,137,344	<u>\$1,133,197</u>	<u>\$1,442,626</u>	<u>\$1,449,438</u>	<u>\$1,749,856</u>	<u>\$1,823,923</u>	<u>\$1,829,480</u>	<u>\$2,038,560</u>	<u>\$2,067,919</u>	<u>\$2,067,613</u>

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

STATISTICAL DATA
CAPITAL IMPROVEMENT PROGRAM
2020–2024 (UNAUDITED)
(In thousands)

Years	Amount
2020 2021 2022 2023 2024	\$156,500 181,600 235,800 183,000 187,000
Total	<u>\$943,900</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.

STATISTICAL DATA FULL-TIME EQUIVALENT SEWER FUND EMPLOYEES BY FUNCTION TEN YEARS ENDED DECEMBER 31, 2010–2019 (Unaudited)

Function	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Agency management Capital design and	5	5	4	4	4	4	4	4	5	5
construction services	21	23	23	24	26	24	24	25	26	26
Inspection services	18	18	18	18	16	18	24	24	24	24
System installation System maintenance	9	8	8	8	8	9	9	8	8	8
and evaluations Communications and	521	521	523	523	521	521	515	426	412	412
coordination	27	26	17	<u>16</u>	16	15	15	13	13	13
	601	601	593	593	591	591	591	500	488	488

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

Source: City of Chicago's 2019, 2018, 2017, 2016, 2015, 2014, 2013, 2012, 2011, 2010, Program and Budget Summary.

Note: Schedule includes only Department of Water Management employees.

STATISTICAL DATA OPERATING INDICATORS BY FUNCTION (Unaudited)

	2018	2019
Catch basins repaired	\$2,872	<u>\$2,686</u>

STATISTICAL DATA CAPITAL ASSET STATISTICS BY FUNCTION (UNAUDITED) (In miles)

	2018	2019
Sewers lined	44.5	64.6
New construction	21.8	26.5

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)

	2019 ⁽¹⁾			2010 ⁽³⁾			
	Number of		Percentage of Total City	Number of		Percentage of Total City	
Employer	Employees	Rank	Employment	Employees	Rank	Employment	
Advocate Aurora Health Care	25,917	1	2.01 %	-	-	- %	
Northwestern Memorial Healthcare	21,264	2	1.65				
Amita Health	20,046	3	1.56				
University of Chicago	18,276	4	1.42	-	-	-	
Amazon.com, Inc.	14,610	5	1.14	-	-	-	
United Continental Holdings Inc. (2)	14,520	6	1.13	5,585	3	0.56	
JPMorgan Chase & Co	13,742	7	1.07	8,094	1	0.81	
Walgreen Boots Alliance Inc.	12,200	8	0.95	4,552	6	0.33	
Walmart Inc	11,549	9	0.90			-	
Jewel-Osco	10,410	10	0.81	5,307	4	0.52	
Northern Trust	-			5,833	2	0.58	
Bank of America NT & SA	-			4,668	5	0.44	
Accenture LLP	-			4,224	7	0.32	
CVS Corporation	-			4,067	8	0.30	
ABM Janitorial Midwest, INC				3,840	9	0.30	
American Airlines	-			3,153	10	0.27	

NOTES:

⁽¹⁾ Source: Reprinted with permission from the February 24, 2020 issue of Crain's Chicago Business. © 2020 Crain Communications Inc. All Rights Reserved.

⁽²⁾ Source: United Continental Holdings Inc. formerly known as United Airlines.ent.

⁽³⁾ Source: City of Chicago, Department of Revenue, Employer's Expense Tax Returns.

Prior to 2014, the source for information was the City of chicago, Bureau of Revenue Tax-Division report which is no longer available.

STATISTICAL DATA POPULATION AND INCOME STATISTICS (Unaudited)

Year	Population ⁽¹⁾	Median Age ⁽²⁾	Number of Households ⁽²⁾	City Employment	Unemployment Rate ⁽³⁾	Per Capita Income ⁽⁴⁾	Total Income
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	34.2	1,053,229	1,273,727	5.7	53,886	145,254,993,828
2016	2,695,598	34.4	1,053,986	1,282,117	5.4	55,621	149,931,856,358
2017	2,695,598	34.6	1,047,695	1,289,325	5.4	58,315	157,193,797,370
2018	2,695,598	34.9	1,077,886	1,288,755	4.0	61,089	164,671,386,222
2019	2,695,598	N/A (5)	N/A (5)	1,286,484	3.2	N/A (5)	N/A (5)

Notes:

- (1) Source: U.S. Census Bureau.
- (2) Source: U. S. Census Bureau—American Community Survey data estimates. Data not available for 2019
- (3) Source: Bureau of Labor Statistics 2019, Unemployment rate for Chicago-Naperville-Illinois Metropolitan Area.
- (4) Source: U.S. Department of Commerce, Bureau of Economic Analysis, Per Capita Personal Income for Chicago-Naperville-Illinois Metropolitan Area.
- (5) N/A means not available at time of publication.