

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

**Annual Comprehensive Financial Report
For the Years Ended December 31, 2021 and 2020**



**Lori E. Lightfoot, Mayor
Jennie Huang Bennett, Chief Financial Officer
Reshma Soni, City Comptroller
Andrea Cheng, Commissioner**

Sewer Fund
An Enterprise Fund of
The City of Chicago

**Annual Comprehensive Financial Report
For the Year Ended December 31, 2021 and 2020**



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

**2021 ANNUAL COMPREHENSIVE FINANCIAL REPORT
OF THE CHICAGO SEWER FUND**

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PART I

INTRODUCTORY SECTION



CITY OF CHICAGO



DEPARTMENT OF WATER MANAGEMENT

June 29, 2022

To the Honorable Mayor Lori E. Lightfoot,
Members of the City Council and Citizens of the City of Chicago:

I am pleased to submit the Annual Comprehensive Financial Report (ACFR) for the City of Chicago Department of Water Management, Sewer Fund, for the year ended December 31, 2021. 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 ACFR is to provide complete and accurate information, which complies with the requirements of the Municipal Code of the City of Chicago.

The ACFR 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 \$30.79 per 1,000 per cubic feet. There are no large industrial or commercial users that account for more than five percent of sewer system revenues. It is not expected that there will be a significant change in the population base of the City that would lead to a significant change in revenues.

MAJOR INITIATIVES

The Department of Water Management's, Sewer Division's Five-Year Capital Improvement Program (CIP) for the years 2022 – 2026 is forecasted to be approximately \$1.2 billion. 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 12.3 miles of new sewers and lining 42 miles of existing sewers and lining approximately 9,400 structures in 2022. The Chicago Department of Water Management estimates spending \$119.8 million on new sewers, \$47.1 million in lining existing sewers and \$10 million in lining catch basins and manholes structures to prevent failures leading to cave-ins in the street.

The Department of Water Management began the preliminary design of the Regional Sewer Improvements – Area 4 in 2021. Area 4 is the sewer system generally south of 87th Street to the southern City-limits. This project will consist of regional a combined sewer tunnel to provide relief to the local sewer system during rain events.

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. 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.

Utility Billing Relief - During the summer of 2020, the City launched the Utility Billing Relief Program (UBR) to provide low-income City of Chicago residents with a reduced rate on their water, sewer and water-sewer tax as well as debt relief for those who demonstrate they can manage the reduced rate bills for one year. The program allows a 50% reduced rate on water, sewer and water-sewer tax; no late payment penalties or debt collection activity including water shut-off and debt forgiveness after successfully completing one year with no past due balance for those who meet the eligibility requirements. The UBR program is part of a series of reforms pursued by Mayor Lightfoot and the City Council to address regressive fines, fees and billing practices that have disproportionately created hardships for vulnerable residents.

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, now referred to as ACFR for the fiscal year ended December 31, 2020.

This was the twenty sixth 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 ACFR. 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,



ANDREA R.H. CHENG, PH.D., P.E.
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**

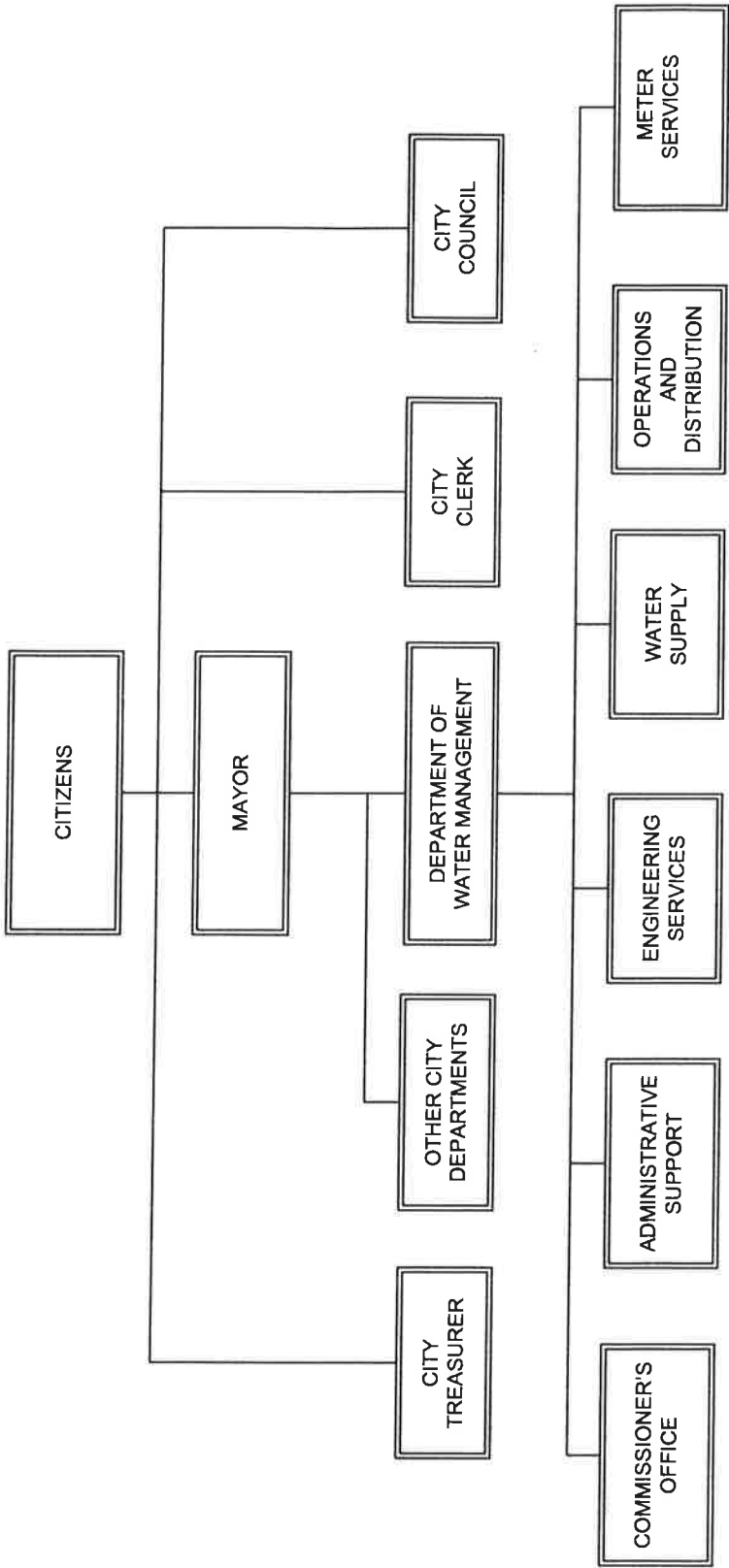
For its Annual Comprehensive
Financial Report
For the Fiscal Year Ended

December 31, 2020

Christopher P. Morill

Executive Director/CEO

CITY OF CHICAGO
DEPARTMENT OF WATER MANAGEMENT
 As of 12/31/21



List of Principal Officials

Lori Lightfoot	Mayor
Andrea Cheng	Commissioner

PART II
FINANCIAL SECTION

INDEPENDENT AUDITOR'S REPORT

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

Report on the Audits of the Financial Statements

Opinion

We have audited the 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, 2021 and 2020, and the related notes to the financial statements, as listed in the table of contents.

In our opinion, the accompanying financial statements referred to above present fairly, in all material respects, the financial position of the Sewer Fund of the City of Chicago, as of December 31, 2021 and 2020, and the respective changes in financial position, and cash flows thereof for the years then ended in accordance with accounting principles generally accepted in the United States of America.

Basis for Opinion

We conducted our audits in accordance with auditing standards generally accepted in the United States of America (GAAS). Our responsibilities under those standards are further described in the Auditor's Responsibilities for the Audit of the Financial Statements section of our report. We are required to be independent of the Sewer Fund, and to meet our other ethical responsibilities, in accordance with the relevant ethical requirements relating to our audits. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

Emphasis of Matter

As discussed in Note 1, the basic financial statements present only the Sewer Fund, an enterprise fund of the City, and do not purport to, and do not, present fairly the financial position of the City as of December 31, 2021 and 2020, the changes in its financial position, or, its cash flows for the years then ended in accordance with accounting principles generally accepted in the United States of America. Our opinion is not modified with respect to this matter.

Responsibilities of Management for the Financial Statements

Management is responsible for the preparation and fair presentation of the financial statements in accordance with accounting principles generally accepted in the United States of America, and for the design, implementation, and maintenance of internal control relevant to the preparation and fair presentation of financial statements that are free from material misstatement, whether due to fraud or error.

Auditor's Responsibilities for the Audits of the Financial Statements

Our objectives are to obtain reasonable assurance about whether the financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinion. Reasonable assurance is a high level of assurance but is not absolute assurance and therefore is not a guarantee that an audit conducted in accordance with GAAS will always detect a material misstatement when it exists. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control. Misstatements are considered material if there is a substantial likelihood that, individually or in the aggregate, they would influence the judgment made by a reasonable user based on the financial statements.

In performing an audit in accordance with GAAS, we:

- exercise professional judgment and maintain professional skepticism throughout the audit.
- identify and assess the risks of material misstatement of the financial statements, whether due to fraud or error, and design and perform audit procedures responsive to those risks. Such procedures include examining, on a test basis, evidence regarding the amounts and disclosures in the financial statements.
- obtain an understanding of internal control relevant to the audit 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 Sewer Fund's internal control. Accordingly, no such opinion is expressed.
- evaluate the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluate the overall presentation of the financial statements.

We are required to communicate with those charged with governance regarding, among other matters, the planned scope and timing of the audit, significant audit findings, and certain internal control-related matters that we identified during the audits.

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 be presented to supplement the basic financial statements. Such information is the responsibility of management and, 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 audits 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.

Supplementary Information

Our audits were conducted for the purpose of forming opinions on the financial statements that collectively comprise the Sewer Fund's basic financial statements. The additional supplementary information is presented for purposes of additional analysis and is not a required part of the basic financial statements. Such information is the responsibility of management and was derived from and relates directly to the underlying accounting and other records used to prepare the basic financial statements. The information has been subjected to the auditing procedures applied in the audits of the basic financial statements and certain additional procedures, including comparing and reconciling such information directly to the underlying accounting and other records used to prepare the basic financial statements or to the basic financial statements themselves, and other additional procedures in accordance with auditing standards generally accepted in the United States of America by us and other auditors. In our opinion, based on our audits and the reports of other auditors, the Combining and Individual Fund Statements are fairly stated, in all material respects, in relation to the basic financial statements as a whole.

Other Information

Management is responsible for the other information included in the annual comprehensive financial report. The other information comprises the introductory section and statistical section but does not include the basic financial statements and our auditor's report thereon.

In connection with our audits of the basic financial statements, our responsibility is to read the other information and consider whether a material inconsistency exists between the other information and the basic financial statements, or the other information otherwise appears to be materially misstated. If, based on the work performed, we conclude that an uncorrected material misstatement of the other information exists, we are required to describe it in our report.

Deloitte & Touche LLP

June 29, 2022

CITY OF CHICAGO, ILLINOIS SEWER FUND

MANAGEMENT'S DISCUSSION AND ANALYSIS

The following discussion and analysis of the City of Chicago, Illinois (the "City"), Sewer Fund's (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, 2021 and 2020. 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

2021

- Gross operating revenues for 2021 increased by \$21.8 million (6.1%). This increase is primarily due to increase in pumpage and a rate increase of 1.10% during 2021.
- Operating expenses before depreciation and amortization increased by \$20.6 million (17.2%) as compared to 2020 primarily due to a decrease in the change of deferred inflows and due to changes in assumptions. The increase in operating expenses is also due to a slight increase in the allocation of pension costs to the Sewer Fund compared to the Governmental and certain Enterprise funds, as well as current year recognition of deferred outflows due to differences between expected and actual experience and changes of assumptions at the Municipal Employees' Annuity and Benefit Fund of Chicago and due to changes of assumptions at the Laborers' and Retirement Board Employees' Annuity and Benefit Fund of Chicago.
- The Sewer Fund's total net position for 2021 increased by \$89.5 million, or 11.6% compared to 2020 due to an excess of revenues over expenses.
- The Sewer Fund's net position at December 31, 2021, was \$863.2 million. This increase of \$89.5 million is due to an increase of revenues as the provision of doubtful accounts decreased due to the full year implementation of the Utility Billing Relief Program, which provides financial relief to low income households, as well as an increase in revenue collections.
- Utility plant additions in 2021 were \$100.6 million, due to the continuing capital improvement program.

2020

- Operating gross revenues for 2020 decreased by \$17.6 million (4.7%). This decrease is primarily due to decrease in pumpage and penalty relief from the Utility Billing Relief program as compared to prior-year gross operating revenues. There was a rate increase of 2.45% during 2020.
- Operating expenses before depreciation and amortization decreased by \$17.9 million (13.0%) as compared to 2019 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 2020 increased by \$96.3 million, or 14.2% compared to 2019 due to an excess of revenues over expenses

- The Sewer Fund's total assets and deferred outflows were greater than total liabilities by \$773.7 million (net position) at December 31, 2020. Net position comprises \$931.0 million of net investment in capital assets, \$205.7 million of restricted for capital projects, and (\$363.0) million of unrestricted.
- Depreciable capital asset additions, net, for 2020 were \$300.4 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 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 debt-service coverage calculations and includes certain information related to the Sewer Fund's historical financial and nonfinancial operating results and capital activities.

FINANCIAL ANALYSIS

At December 31, 2021, the Sewer Fund's financial position continues to be strong with total assets and deferred outflows of \$3,650.3 million, total liabilities and deferred inflows of \$2,787.1 million, and net position of \$863.2 million. A comparative condensed summary of the Sewer Fund's net position at December 31, 2021, 2020, and 2019, is as follows:

(In thousands)	Net Position		
	2021	2020	2019
Current assets	\$ 548,961	\$ 548,532	577,848
Restricted and other assets—noncurrent	950	43,684	55,212
Utility plant—net	<u>3,085,400</u>	<u>2,994,162</u>	<u>2,889,843</u>
Total assets	3,635,311	3,586,378	3,522,903
Deferred outflows	<u>14,973</u>	<u>18,511</u>	<u>22,259</u>
Total assets and deferred outflows	<u>\$ 3,650,284</u>	<u>\$ 3,604,889</u>	<u>\$ 3,545,162</u>
Current liabilities	\$ 340,917	\$ 284,190	\$ 319,181
Pension liability	432,335	426,455	460,173
Long-term liabilities	<u>1,965,471</u>	<u>2,038,330</u>	<u>1,997,305</u>
Total liabilities	2,738,723	2,748,975	2,776,659
Deferred inflows	<u>48,369</u>	<u>82,204</u>	<u>91,092</u>
Total liabilities and deferred inflows	<u>\$ 2,787,092</u>	<u>\$ 2,831,179</u>	<u>\$ 2,867,751</u>
Net position:			
Net investment in capital assets	\$ 1,062,584	\$ 931,047	\$ 862,065
Restricted for capital projects	171,985	205,696	139,618
Unrestricted	<u>(371,377)</u>	<u>(363,033)</u>	<u>(324,272)</u>
Total net position	<u>\$ 863,192</u>	<u>\$ 773,710</u>	<u>\$ 677,411</u>

2021

Current assets remained the same with a slight increase of \$0.4 million (0.08%) which was primarily due to a slight decrease in cash and cash equivalents as payments to vendors were processed more rapidly compared to the prior year, and a slight increase in accounts receivable, which was offset by a decrease in investments and due from other funds as more liquid assets were moved to investments to obtain a higher long-term interest rate. Noncurrent restricted investments and other assets decreased by \$42.7 million (97.8%) and utility plant—net increased by \$91.2 million (3.1%) due primarily to capital activities for sewer construction and rehabilitation projects funded by the restricted investments. During 2021, the Sewer Fund lined an additional 48.8 miles of sewers.

Current liabilities increased by \$56.7 million (20.0%), which was primarily due to a decrease in accounts payable as payments were processed more expeditiously, offset by an increase in accrued liabilities and due to other funds and current portion of long-term debt due to planned increases in activity in the capital

program, which increased debt service payments. Long term debt decreased by \$72.9 million (3.6%) due to the issuance of Illinois Environmental Protection Agency (IEPA) loans. Net pension liability in the amount of \$432.3 million increased \$5.9 million (1.4%) compared to 2020 primarily as a result of changes in assumptions and increase in the allocation of pension costs to the Sewer Fund compared to the Governmental and certain Enterprise Funds.

Deferred outflows decreased by \$3.5 million (19.1%) and deferred inflows decreased by \$33.8 million (41.2%) during 2021 compared with 2020 due to amortization and the changes in assumptions during 2020.

As of December 31, 2021, total net position was \$863.2 million, an increase of \$89.5 million (11.6%) from 2020.

2020

Current assets decreased by \$29.3 million (5.1%) due to a decrease in cash and cash equivalents and accounts receivable, which was offset by an increase in investments and due from other funds as more liquid assets were moved to investments to achieve better investment returns. Noncurrent restricted investments and other assets decreased by \$11.5 million (20.9%) and utility plant—net increased by \$104.3 million (3.6%) due primarily to capital activities for sewer construction and rehabilitation projects funded by the restricted investments. During 2020, the Sewer Fund lined an additional 30.7 miles of sewers.

Current liabilities decreased by \$35.0 million (11.0%), which was primarily due to a decrease in unearned revenue, accounts payable, accrued liabilities offset by due to other funds and current portion of long-term debt. Long term debt increased by \$41.0 million (2.1%) due to the issuance of Illinois Environmental Protection Agency (IEPA) loans. Net pension liability in the amount of \$426.5 million decreased \$33.7 million (7.3%) compared to 2019 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 \$3.7 million (16.8%) and deferred inflows decreased by \$8.9 million (9.8%) compared with 2019 due to the difference between 2020 projected and actual earnings on pension plan investments.

As of December 31, 2020, total net position was \$773.7 million, an increase of \$96.3 million (14.2%) from 2019.

A summary of revenues, expenses, and changes in net position for the years ended December 31, 2021, 2020, and 2019, is as follows:

(In thousands)	Revenues, Expenses, and Changes in Net Position		
	2021	2020	2019
Revenues:			
Operating revenues:			
Sewer service—net	\$ 365,217	\$ 333,475	\$ 350,053
Other operating revenues	<u>1,052</u>	<u>484</u>	<u>1,023</u>
Total operating revenues	<u>366,269</u>	<u>333,959</u>	<u>351,076</u>
Operating expenses:			
Repairs	44,066	47,398	41,614
General Fund reimbursements	55,937	54,467	53,688
Pension expense (Note 6)	(4,979)	(23,853)	3,266
Maintenance	25,861	24,405	22,958
Engineering	5,328	4,776	3,515
Administrative and general	13,891	12,320	12,367
Depreciation and amortization	<u>55,749</u>	<u>53,140</u>	<u>52,933</u>
Total operating expenses	<u>195,853</u>	<u>172,653</u>	<u>190,341</u>
Operating income	<u>170,416</u>	<u>161,306</u>	<u>160,735</u>
Nonoperating revenues	2,165	12,128	11,737
Nonoperating expenses	<u>(83,099)</u>	<u>(80,466)</u>	<u>(80,112)</u>
Total nonoperating expenses/revenues	<u>(80,934)</u>	<u>(68,338)</u>	<u>(68,375)</u>
Income before capital grants	89,482	92,968	92,360
Capital grants	<u>-</u>	<u>3,331</u>	<u>(5)</u>
Change in net position	89,482	96,299	92,355
Net position beginning of year	<u>773,710</u>	<u>677,411</u>	<u>585,056</u>
Net position end of year	<u>\$ 863,192</u>	<u>\$ 773,710</u>	<u>\$ 677,411</u>

2021

Net sewer service revenues for the years ended 2021 and 2020 were \$365.2 million and \$333.5 million, respectively. Other revenue, which consists primarily of inspection fees and house drain fees, for the years ended 2021 and 2020 was \$1.1 million and \$0.5 million, respectively. The increase in 2021 net sewer service revenue of \$31.7 million is primarily due to an increase in pumpage and decrease in calculation for provision for doubtful accounts due to the full year implementation of the Utility Billing Relief (UBR) Program, which provides financial relief to low-income households through payment plans and allows the ability to write off legacy accounts receiving upon completion of the Program. In addition, a rate increase of 1.10% during 2021 based on the annual CPI adjustment.

Pension expense decreased to negative \$5.0 million in 2021 from a negative \$23.9 million in 2020 associated with an increase in the pension expense due to changes in assumptions and increase in the allocation of pension costs to the Sewer Fund compared to the Governmental and certain Enterprise Funds.

Nonoperating revenues decreased \$13.3 million compared to 2020 primarily as a result of the completion of the Community Development Block Grant – Disaster Recovery Program related to the 2013 flooding.

2020

Net sewer service revenues for the years ended 2020 and 2019 were \$333.5 million and \$350.1 million, respectively. Other revenue, which consists primarily of inspection fees and house drain fees, for the years ended 2020 and 2019 was \$484 thousand and \$1.0 million, respectively. The decrease in 2020 net sewer service revenue of \$17.6 million is primarily due to decrease in pumpage and penalty relief from the Utility Billing Relief program. There was a rate increase of 2.45% during 2020.

Pension expense decreased to negative \$23.9 million in 2020 from \$3.3 million in 2019 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 \$3.7 million compared to 2019 primarily as a result of proceeds from community development block grant.

A comparative summary of the Sewer Fund’s operating expenses, as classified in the basic financial statements, for the years ended December 31, 2021, 2020, and 2019, is as follows:

(In thousands)	Operating Expenses		
	2021	2020	2019
Repairs	\$ 44,066	\$ 47,398	\$ 41,614
Pension	(4,979)	(23,853)	3,266
General Fund reimbursements	55,937	54,467	53,688
Maintenance	25,861	24,405	22,958
Engineering	5,328	4,776	3,515
Administrative and general	13,891	12,320	12,367
	<u>140,104</u>	<u>119,513</u>	<u>137,408</u>
Operating expenses before depreciation and amortization			
Depreciation and amortization	<u>55,749</u>	<u>53,140</u>	<u>52,933</u>
Total operating expenses	<u>\$ 195,853</u>	<u>\$ 172,653</u>	<u>\$ 190,341</u>

2021

Overall, operating expenses before depreciation and amortization for 2021 increased by \$20.6 million 17.2% in 2021 primarily due to increase in pension expense as discussed above. Depreciation and amortization slightly increased due to an increase in utility plant assets.

2020

Overall, operating expenses before depreciation and amortization for 2020 decreased by \$17.9 million (13.0%) in 2020 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, 2021, 2020, and 2019, is as follows:

(In thousands of dollars)	Cash Flows		
	2021	2020	2019
Cash from activities:			
Operating	\$ 241,058	\$ 210,506	\$ 203,191
Capital and related financing	(283,993)	(257,940)	(233,675)
Noncapital financing activities	-	-	-
Investing	<u>51,721</u>	<u>40,065</u>	<u>(80,551)</u>
Net change in cash and cash equivalents	8,786	(7,369)	(111,035)
Cash and cash equivalents:			
Beginning of year	<u>128,239</u>	<u>135,608</u>	<u>246,643</u>
End of year	<u>\$ 137,025</u>	<u>\$ 128,239</u>	<u>\$ 135,608</u>

2021

As of December 31, 2021, the Sewer Fund's unrestricted and restricted cash and cash equivalents of \$137.0 million represented an increase of \$8.8 million from December 31, 2020, as compared to the decrease of \$7.4 million from December 31, 2019 to December 31, 2020, primarily due to investment related activities in 2021. Total unrestricted cash and cash equivalents at December 31, 2021 and 2020, was \$26.5 million and \$4.8 million, respectively.

2020

As of December 31, 2020, the Sewer Fund's unrestricted and restricted cash and cash equivalents of \$128.2 million represented a decrease of \$7.4 million from December 31, 2019, as compared to the decrease of \$111.0 million from December 31, 2018 to December 31, 2019, primarily due to investment related activities in 2020. Total unrestricted cash and cash equivalents at December 31, 2020 and 2019, was \$4.8 million and \$11.8 million, respectively.

UTILITY PLANT AND DEBT ADMINISTRATION

2021

At the end of 2021 and 2020, the Sewer Fund had net utility plant of \$3,085.4 million and \$2,994.2 million, respectively. During 2021, the Sewer Fund had capital additions being depreciated of \$100.6 million, and completed projects totaling \$41.5 million were transferred from construction in progress to applicable facilities and structures capital accounts.

2020

At the end of 2020 and 2019, the Sewer Fund had net utility plant of \$2,994.2 million and \$2,889.8 million, respectively. During 2020, the Sewer Fund had capital additions being depreciated of \$300.4 million, and completed projects totaling \$169.6 million were transferred from construction in progress to applicable facilities and structures capital accounts.

The Sewer Fund's net utility plant at December 31, 2021, 2020, and 2019, is summarized as follows:

(In thousands)	Net Utility Plant at Year-End		
	2021	2020	2019
Utility plant not depreciated:			
Land and land rights	\$ 560	\$ 560	\$ 560
Construction in progress	<u>138,006</u>	<u>72,682</u>	<u>196,790</u>
Total utility plant not depreciated	<u>138,566</u>	<u>73,242</u>	<u>197,350</u>
Utility plant being depreciated:			
Facilities and structures	3,726,958	3,645,972	3,367,515
Furniture and equipment	<u>33,668</u>	<u>33,757</u>	<u>33,810</u>
Total utility plant being depreciated	<u>3,760,626</u>	<u>3,679,729</u>	<u>3,401,325</u>
Less accumulated depreciation:			
Facilities and structures	(784,722)	(731,358)	(683,150)
Furniture and equipment	<u>(29,070)</u>	<u>(27,451)</u>	<u>(25,682)</u>
Total accumulated depreciation	<u>(813,792)</u>	<u>(758,809)</u>	<u>(708,832)</u>
Utility plant being depreciated—net	<u>2,946,834</u>	<u>2,920,920</u>	<u>2,692,493</u>
Utility plant—net	<u>\$ 3,085,400</u>	<u>\$ 2,994,162</u>	<u>\$ 2,889,843</u>

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, 2021, 2020, and 2019, is summarized as follows:

(In thousands)	Long-Term Outstanding Debt at Year-End		
	2021	2020	2019
Revenue bonds	\$ 1,895,795	\$ 1,953,134	\$ 1,895,495
Add interest accretion on Series 1998 capital appreciation bonds	68,806	73,356	75,114
Unamortized net bond discount/premium	<u>81,926</u>	<u>89,361</u>	<u>97,004</u>
Outstanding debt—net	<u>\$ 2,046,527</u>	<u>\$ 2,115,851</u>	<u>\$ 2,067,613</u>

The Sewer Fund’s revenue bonds at December 31, 2021, 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	A	A-	AA-

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

At December 31, 2021, 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

CITY OF CHICAGO, ILLINOIS SEWER FUND

STATEMENTS OF NET POSITION AS OF DECEMBER 31, 2021 AND 2020 (In thousands)

	2021	2020		2021	2020
ASSETS			LIABILITIES		
CURRENT ASSETS:			CURRENT LIABILITIES:		
Cash and cash equivalents (Note 2)	\$ 26,480	\$ 4,822	Accounts payable	\$ 3,965	\$ 2,389
Investments (Note 2)	196,379	233,885	Due to other City funds	82,739	47,589
Accounts receivable—net of allowance for doubtful accounts of approximately \$151,940 in 2021 and \$144,651 in 2020	109,904	98,578	Accrued liabilities unrestricted	57,737	53,252
Due from other City funds	18,303	28,528	Liabilities payable from restricted assets:		
Inventories	1,035	854	Accounts payable	31,917	47,832
Cash and cash equivalents—restricted (Note 2)	110,545	123,417	Accrued liabilities	43,177	14,345
Investments—restricted (Note 2)	85,432	57,543	Current portion of long-term debt (Note 4)	81,056	77,521
Interest receivable—restricted (Note 2)	<u>883</u>	<u>905</u>	Interest payable	<u>40,326</u>	<u>41,262</u>
Total current assets	<u>548,961</u>	<u>548,532</u>	Total current liabilities	<u>340,917</u>	<u>284,190</u>
NONCURRENT ASSETS:			NONCURRENT LIABILITIES:		
Investments—restricted (Note 2)	<u>-</u>	<u>42,682</u>	Net pension liability (Note 6)	432,335	426,455
Other assets	<u>950</u>	<u>1,002</u>	Long-term debt—net of current maturities (Note 4)	<u>1,965,471</u>	<u>2,038,330</u>
Utility plant (Note 5):			Total noncurrent liabilities	<u>2,397,806</u>	<u>2,464,785</u>
Land and land rights	560	560	Total liabilities	<u>2,738,723</u>	<u>2,748,975</u>
Facilities and structures	3,726,959	3,645,972	DEFERRED INFLOWS (Note 9)	<u>48,369</u>	<u>82,204</u>
Furniture and equipment	33,668	33,757	NET POSITION (Note 1):		
Construction in progress	<u>138,006</u>	<u>72,682</u>	Net investment in capital assets	1,062,584	931,047
Total utility plant	3,899,193	3,752,971	Restricted for capital projects	171,985	205,696
Less accumulated depreciation	<u>(813,793)</u>	<u>(758,809)</u>	Unrestricted	<u>(371,377)</u>	<u>(363,033)</u>
Utility plant—net	<u>3,085,400</u>	<u>2,994,162</u>	Total net position	<u>863,192</u>	<u>773,710</u>
Total noncurrent assets	<u>3,086,350</u>	<u>3,037,846</u>	TOTAL	<u>\$ 3,650,284</u>	<u>\$ 3,604,889</u>
Total assets	3,635,311	3,586,378			
DEFERRED OUTFLOWS (Note 9)	<u>14,973</u>	<u>18,511</u>			
TOTAL ASSETS AND DEFERRED OUTFLOWS	<u>\$ 3,650,284</u>	<u>\$ 3,604,889</u>			

See notes to basic financial statements.

CITY OF CHICAGO, ILLINOIS SEWER FUND

STATEMENTS OF REVENUES, EXPENSES, AND CHANGES IN NET POSITION FOR THE YEARS ENDED DECEMBER 31, 2021 AND 2020

(In thousands)

	2021	2020
OPERATING REVENUES:		
Sewer service:		
Sewer service—gross	\$377,514	\$356,267
Less—provision for doubtful accounts	<u>(12,297)</u>	<u>(22,792)</u>
Sewer service—net	365,217	333,475
Other	<u>1,052</u>	<u>484</u>
Total operating revenues	<u>366,269</u>	<u>333,959</u>
OPERATING EXPENSES:		
Repairs	44,066	47,398
General Fund reimbursements	55,937	54,467
Pension expense (Note 6)	(4,979)	(23,853)
Maintenance	25,861	24,405
Engineering	5,328	4,776
Administrative and general	<u>13,891</u>	<u>12,320</u>
Total operating expenses before depreciation and amortization	140,104	119,513
Depreciation and amortization	<u>55,749</u>	<u>53,140</u>
Total operating expenses	<u>195,853</u>	<u>172,653</u>
OPERATING INCOME	<u>170,416</u>	<u>161,306</u>
NONOPERATING REVENUE (EXPENSES):		
Investment income (loss)	(733)	8,381
Interest expense	(82,979)	(80,346)
Other	<u>2,898</u>	<u>3,747</u>
Total nonoperating expenses—net	<u>(80,814)</u>	<u>(68,218)</u>
TRANSFERS OUT	<u>(120)</u>	<u>(120)</u>
CAPITAL GRANTS	<u>-</u>	<u>3,331</u>
CHANGE IN NET POSITION	89,482	96,299
TOTAL NET POSITION—Beginning of year	<u>773,710</u>	<u>677,411</u>
TOTAL NET POSITION—End of year	<u>\$863,192</u>	<u>\$773,710</u>

See notes to basic financial statements.

CITY OF CHICAGO, ILLINOIS SEWER FUND

STATEMENTS OF CASH FLOWS FOR THE YEARS ENDED DECEMBER 31, 2021 AND 2020 (In thousands)

	2021	2020
CASH FLOWS FROM OPERATING ACTIVITIES:		
Received from customers	\$ 354,944	\$ 329,434
Transactions with other city funds	(30,621)	(38,244)
Payments to vendors	(29,443)	(29,509)
Payments to employees	<u>(53,822)</u>	<u>(51,175)</u>
Net cash provided by operating activities	<u>241,058</u>	<u>210,506</u>
CASH FLOWS FROM CAPITAL AND RELATED FINANCING ACTIVITIES:		
Acquisition and construction of capital assets	(130,995)	(225,715)
Proceeds from issuance of bonds	10,742	121,325
Interest paid on revenue bonds	(95,658)	(86,048)
Proceeds from Community Development Block Grant	-	3,331
Principal paid on bonds	<u>(68,082)</u>	<u>(70,833)</u>
Net cash provided in capital and related financing activities	<u>(283,993)</u>	<u>(257,940)</u>
CASH FLOWS FROM INVESTING ACTIVITIES:		
Sales and purchases of investments—net	48,877	33,123
Investment interest	<u>2,844</u>	<u>6,942</u>
Net cash provided by (used in) investing activities	<u>51,721</u>	<u>40,065</u>
NET CHANGE IN CASH AND CASH EQUIVALENTS	8,786	(7,369)
CASH AND CASH EQUIVALENTS—Beginning of year	<u>128,239</u>	<u>135,608</u>
CASH AND CASH EQUIVALENTS—End of year	<u>\$ 137,025</u>	<u>\$ 128,239</u>

(Continued)

CITY OF CHICAGO, ILLINOIS SEWER FUND

STATEMENTS OF CASH FLOWS FOR THE YEARS ENDED DECEMBER 31, 2021 AND 2020 (In thousands)

	2021	2020
RECONCILIATION TO CASH AND CASH EQUIVALENTS REPORTED ON THE STATEMENTS OF NET POSITION:		
Unrestricted	\$ 26,480	\$ 4,822
Restricted	<u>110,545</u>	<u>123,417</u>
TOTAL	<u>\$ 137,025</u>	<u>\$ 128,239</u>
RECONCILIATION OF OPERATING INCOME TO CASH FLOWS FROM OPERATING ACTIVITIES:		
Operating income	\$ 170,416	\$ 161,306
Adjustments to reconcile:		
Depreciation and amortization	55,749	53,140
Pension expense other than contribution	(24,917)	(40,972)
Provision for uncollectible accounts	12,297	22,792
Changes in assets and liabilities:		
Due from other City funds	10,225	(5,863)
Accounts receivable	(23,622)	(14,355)
Inventories	(180)	(122)
Accrued liabilities	4,486	9,094
Accounts payable and due to other City funds	36,604	38,448
Unearned revenue	<u>-</u>	<u>(12,962)</u>
CASH FLOWS FROM OPERATING ACTIVITIES	<u>\$ 241,058</u>	<u>\$ 210,506</u>

SUPPLEMENTAL DISCLOSURE OF NONCASH ITEMS:
Property additions in 2021 and 2020 of \$75,094 and \$62,177, respectively, have outstanding accounts payable and accrued liabilities.

The accretion adjustment of Series 1998 capital appreciation bonds for the years ended December 31, 2021 and 2020, were \$4,948 and \$5,390, respectively.

The fair value adjustment gain (loss) to investments for 2021 and 2020 were \$400.6 thousand and \$2,889 million, respectively.

See notes to basic financial statements.

(Concluded)

CITY OF CHICAGO, ILLINOIS SEWER FUND

NOTES TO BASIC FINANCIAL STATEMENTS

AS OF AND FOR THE YEARS ENDED DECEMBER 31, 2021 AND 2020

(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 derivative instruments, 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. In 2021, the Sewer Fund fully implemented the UBR Program, providing financial relief to low-income households by establishing payment plans and writing off past due legacy accounts receivable balances upon completion of the Program. The impact of this program was realized in 2021, resulting in a decrease in the provision of doubtful accounts.

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—The Sewer Fund prospectively adopted GASB 89, *Accounting for Interest Cost Incurred before the End of a Construction Period* ("GASB 89") as of January 1, 2021. Prior to the adoption of GASB 89, interest expense was capitalized during construction of those capital projects that were paid for from the bond proceeds and were being amortized over the depreciable life of the related assets on a straight-line basis. Subsequent to the adoption of GASB 89, interest expense on construction bond proceeds was expensed as incurred.

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, \$34.0 million and \$31.2 million represent revenue recognized on sewer service that had not

yet been billed to customers at December 31, 2021 and 2020, respectively. In 2020, the Sewer Fund changed its billing for unmetered accounts from billing every 6 months in advance to monthly billing, which eliminated the recording of unearned revenue.

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.

Debt—Debt is defined as a liability that arises from a contractual obligation to pay cash (or other assets that may be used in lieu of cash) in one or more payments to settle an amount that is fixed at the date the contractual obligation is established. For disclosure purposes, debt does not include leases, except for contracts reported as financed purchase of the underlying asset, or accounts payable.

Adopted Accounting Standards—

GASB Statement	Impact
GASB Statement No. 89, <i>Accounting for Interest Cost Incurred before the End of a Construction Period</i> (“GASB 89”)	Establishes accounting requirements for interest cost incurred before the end of a construction period. The Sewer Fund adopted GASB 89 as of and for the year ended December 31, 2021. There was no material impact to the basic financial statements upon adoption.
GASB Statement No. 92, <i>Omnibus 2020</i> (“GASB 92”)	Clarifies multiple financial reporting topics included in multiple GASB statements. The Sewer Fund adopted GASB 92 as of and for the year ended December 31, 2021. There was no material impact to the basic financial statements upon adoption.
GASB Statement No. 99, <i>Omnibus 2022</i> (“GASB 99”)	Clarifies multiple financial reporting topics included in multiple GASB statements. Certain portions of the statement are effective and implemented for the year ended December 31, 2021 including: extension of the use of LIBOR, accounting for SNAP distributions, disclosures of nonmonetary transactions, pledges of future revenues by pledging governments, clarification of certain provisions in Statement 34, as amended, and terminology updates related to Statement 53 and Statement 63. There was no material impact to the basic financial statements upon adoption. The remainder of the statement is applicable to the years ended December 31, 2023 and December 31, 2024 as noted below.

Upcoming Accounting Standards—GASB has issued the following pronouncements that may affect the future financial position, results of operations, cash flows, or financial presentation of the Sewer Fund upon implementation. Management has not yet evaluated the effect of implementation of these standards.

GASB Accounting Standard	Required Year of Adoption
GASB Statement No. 87, <i>Leases</i> (“GASB 87”)	2022
GASB Statement No. 91, <i>Conduit Debt Obligations</i> (“GASB 91”)	2022
GASB Statement No. 93, <i>Replacement of Interbank Offered Rates</i> (“GASB 93”)	2022
GASB Statement No. 94, <i>Public-Private and Public-Public Partnerships and Availability Payment Arrangements</i> (“GASB 94”)	2023
GASB Statement No. 96, <i>Subscription-based Information Technology Arrangements</i> (“GASB 96”)	2023
GASB Statement No. 97, <i>Certain Component Unit Criteria, and Accounting and Financial Reporting for Internal Revenue Code Section 457 Deferred Compensation Plans</i> (“GASB 97”)- Remaining provision	2022
GASB Statement No. 99, <i>Omnibus 2022</i> (“GASB 99”) – Remaining provisions	2023 & 2024
GASB Statement No. 100, <i>Accounting Changes and Error Corrections – An Amendment of GASB Statement No. 62</i>	2024
GASB Statement No. 101, <i>Compensated Absences</i>	2024

2. RESTRICTED AND UNRESTRICTED CASH EQUIVALENTS AND INVESTMENTS

Cash Equivalents and Investments—As of December 31, 2021, the Sewer Fund had the following cash equivalents and investments (in thousands):

	Maturities (in Years)				Fair Value
	Less than 1	1–5	6–10	More than 10	
Agency Bonds	\$ -	\$ 45,301	\$ 2,880	\$ -	\$ 48,181
Commercial paper	107,716	-	-	-	107,716
Corporate bonds	-	747	57,881	-	58,628
Money Market Funds	103,864	-	-	-	103,864
Municipal Bonds	22,651	26,219	-	-	48,870
Supernational Bonds	-	49,944	-	-	49,944
Total	<u>\$ 234,231</u>	<u>\$ 122,211</u>	<u>\$ 60,761</u>	<u>\$ -</u>	<u>\$ 417,203</u>

As of December 31, 2020, the Sewer Fund had the following cash equivalents and investments (in thousands):

	Maturities (in Years)				Fair Value
	Less than 1	1–5	6–10	More than 10	
Agency Bonds	\$ -	\$ -	\$ 10,813	\$ -	\$ 10,813
Commercial paper	146,557	-	-	-	146,557
Corporate bonds	30,044	29,838	-	-	59,882
Money Market Funds	110,401	-	-	-	110,401
Municipal Bonds	33,414	86,221	-	-	119,635
US Government	14,994	-	-	-	14,994
Total	<u>\$ 335,410</u>	<u>\$ 116,059</u>	<u>\$ 10,813</u>	<u>\$ -</u>	<u>\$ 462,282</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, 2021 and 2020, were (dollars in thousands):

	2021			2020		
	Level 1	Level 2	Level 3	Level 1	Level 2	Level 3
Supernational Bonds	\$ -	\$ 49,944	\$ -	\$ -	\$ -	\$ -
Corporate bonds	-	58,628	-	-	59,882	-
Municipal bonds	-	48,870	-	-	115,685	-
Agency bonds	-	48,181	-	-	10,813	-
Total investments at fair value	<u>\$ -</u>	<u>\$ 205,623</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ 186,380</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 \$211.6 million and \$275.9 million as of December 31, 2021 and 2020, respectively.

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 \$500,000,000 that, at the time of purchase, are rated investment grade 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.

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, 2021 and 2020, is as follows (in thousands):

Quality Rating	2021	2020
Aaa/AAA	\$ 202,735	\$ 125,930
A-1/P-1	43,027	126,485
A-2/P-2	64,689	35,065
Aa/AA	48,870	126,734
A/A	11,427	32,169
BBB	46,455	15,823
Not Rated	-	76
Total	<u>\$ 417,203</u>	<u>\$ 462,282</u>

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 or demand deposits in banks or savings and loan associations designed 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 100% 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 100% 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 or 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 \$107.1 million. 96.6% of the bank balance was either insured or collateralized with securities held by City agents in the City's name. \$3.6 million was uncollateralized at December 31, 2021, and thus was subject to custodial credit risk.

A schedule summarizing the investments reported in the basic financial statements as of December 31, 2021 and 2020, is as follows (in thousands):

	2021	2020
Per Note 2:		
Investments—Sewer Fund	\$ 417,203	\$ 462,282
Investments—City Treasurer pooled fund	<u>-</u>	<u>-</u>
	<u>\$ 417,203</u>	<u>\$ 462,282</u>
Per financial statements:		
Restricted investments—current	\$ 85,432	\$ 57,543
Restricted investments—noncurrent	-	42,682
Unrestricted investments	196,379	233,885
Investments included as cash and cash equivalents on the statements of net position	<u>135,392</u>	<u>128,172</u>
	<u>\$ 417,203</u>	<u>\$ 462,282</u>

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.

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, 2021 and 2020, are as follows (in thousands):

	2021	2020
Construction	\$ 33,781	\$ 64,045
Bond principal and interest	121,382	118,783
Sewer rate stabilization	<u>40,814</u>	<u>40,814</u>
Total	<u>\$ 195,977</u>	<u>\$ 223,642</u>

The 2021 and 2020 Sewer rate stabilization balance above includes a fair value adjustment of \$400.6 thousand and \$2,889 thousand, respectively.

At December 31, 2021 and 2020, management was not aware of any instances of noncompliance with the above terms of the ordinances.

4. LONG-TERM DEBT

As of December 31, 2021 and 2020, long-term debt consisted of the following (in thousands):

	2021	2020
\$62,423 Series 1998A Wastewater Transmission Revenue Bonds issued April 7, 1998, due through 2028; interest at 4.55% to 5.0%	\$ 27,634	\$ 31,792
\$73,100 Series 2001 Wastewater Transmission Revenue Bonds issued December 6, 2001, due through 2030; interest at 4.0% to 5.5%	37,525	37,755
\$332,230 Series 2008C Wastewater Transmission Revenue Bonds (2004A Refunded) issued October 16, 2008, due through 2039; interest rate at 4.0% to 5.0%	257,790	271,630
\$250,000 Series 2010B Wastewater Transmission Revenue Bonds issued November 16, 2010, due through 2040; interest 6.9%	250,000	250,000
\$1,546 Illinois Environmental Protection Agency Loan Agreement signed May 28, 2008, due through 2027; interest at 2.50%	545	630
\$276,470 Series 2012 Wastewater Transmission Revenue Bonds issued September 13, 2012, due through 2042; interest at 3.0% to 5.0%	232,185	238,590
\$15,000 Illinois Environmental Protection Agency Loan Agreement signed January 20, 2010, due through 2031; interest at 0%	7,268	8,033
\$17,812 Illinois Environmental Protection Agency Loan Agreement signed October 8, 2010, due through 2032; interest at 1.25%	10,576	11,468
\$17,564 Illinois Environmental Protection Agency Loan Agreement signed September 22, 2011, due through 2033; interest at 1.25%	10,870	11,744
\$15,000 Illinois Environmental Protection Agency Loan Agreement signed October 2, 2012, due through 2034; interest at 2.295%	10,506	11,192
\$292,405 Series 2014 Wastewater Transmission Revenue Bonds issued September 22, 2014, due through 2044; interest at 3.0% to 5.0%	260,510	266,455
\$87,080 Series 2015 Bonds issued October 19, 2015 due through January 1, 2039; interest at 2.59% to 6.04%	77,540	80,060
\$54,170 Illinois Environmental Protection Agency Loan Agreement signed October 22, 2013, due through 2035; interest at 1.93%	40,923	43,446
\$56,198 Illinois Environmental Protection Agency Loan Agreement signed October 8, 2014, due through 2036; interest at 1.99%	43,902	46,489
\$4,291 Illinois Environmental Protection Agency Loan Agreement signed January 22, 2016, due through 2036; interest at 1.86%	3,450	3,648
\$6,703 Illinois Environmental Protection Agency Loan Agreement signed November 4, 2016, due through 2037; interest at 1.75%	5,670	5,975
\$180,590 Series 2017A Wastewater Transmission Revenue Bonds issued June 21, 2017, due through 2052; interest at 4.0% to 5.25%	175,970	178,335
\$215,485 Series 2017B Wastewater Transmission Revenue Bonds issued June 21, 2017, due through 2044; interest at 5.0%	183,175	195,340

(Continued)

	2021	2020
\$63,808 Illinois Environmental Protection Agency Loan Agreement signed May 17, 2016, due through 2038; interest at 1.86%	\$ 54,398	\$ 57,191
\$27,370 Illinois Environmental Protection Agency Loan Agreement signed May 16, 2017, due through 2038; interest at 1.75%	24,012	25,215
\$17,942 Illinois Environmental Protection Agency Loan Agreement signed Apr 5, 2018, due through 2039; interest at 1.76%	16,181	16,694
\$59,960 Illinois Environmental Protection Agency Loan Agreement signed Apr 5, 2018, due through 2039; interest at 1.76%	54,441	57,166
\$26,084 Illinois Environmental Protection Agency Loan Agreement signed May 25, 2018 due through 2039; interest at 1.76%	24,466	25,573
\$30,490 Illinois Environmental Protection Agency Loan Agreement signed March 18, 2019 due through 2040; interest at 1.84%	29,364	29,781
\$58,706 Illinois Environmental Protection Agency Loan Agreement signed December 14, 2020 due through 2040; interest at 1.84%	<u>56,894</u>	<u>48,932</u>
Total revenue bonds	1,895,795	1,953,134
Add accretion of Series 1998A Capital Appreciation Bonds	68,806	73,356
Add unamortized net bond premium (discount)	81,926	89,361
Less current portion (payable from restricted assets)	<u>(81,056)</u>	<u>(77,521)</u>
Long-term portion—net	<u>\$1,965,471</u>	<u>\$2,038,330</u>

(Concluded)

Long-term debt during the years ended December 31, 2021 and 2020, changed as follows (dollars in thousands):

	Balance January 1, 2021	Additions	Reductions	Balance December 31, 2021	Due within One Year
Revenue bonds and loans	\$ 1,953,134	\$ 10,742	\$ (68,081)	\$ 1,895,795	\$ 71,300
Accretion of Series 1998 capital appreciation bonds	73,356	4,948	(9,498)	68,806	9,756
Unamortized net discount/premium	<u>89,361</u>	<u>-</u>	<u>(7,435)</u>	<u>81,926</u>	<u>-</u>
Total revenue bonds and loans	<u>\$ 2,115,851</u>	<u>\$ 15,690</u>	<u>\$ (85,014)</u>	<u>\$ 2,046,527</u>	<u>\$ 81,056</u>
	Balance January 1, 2020	Additions	Reductions	Balance December 31, 2020	Due within One Year
Revenue bonds and loans	\$ 1,895,495	\$ 121,325	\$ (63,686)	\$ 1,953,134	\$ 68,023
Accretion of Series 1998 capital appreciation bonds	75,114	5,390	(7,148)	73,356	9,498
Unamortized net discount/premium	<u>97,004</u>	<u>-</u>	<u>(7,643)</u>	<u>89,361</u>	<u>-</u>
Total revenue bonds and loans	<u>\$ 2,067,613</u>	<u>\$ 126,715</u>	<u>\$ (78,477)</u>	<u>\$ 2,115,851</u>	<u>\$ 77,521</u>

Interest expense includes amortization of the loss on bond refunding for 2021 and 2020 of \$.5 million and \$2.1 million; less amortization of net bond discount/premium of \$7.4 million and \$7.6 million, respectively; and accretion of Series 1998A capital appreciation bonds of \$4.9 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 IEPA loans, wastewater line of credit and commercial paper notes. The above requirements were met for 2021 and 2020.

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 2021, the charge for sewer service was increased and was an amount equal to 100% of the gross amount charged for water service, whether such water service is metered or nonmetered. The rate charged for water effective June 1, 2021 increased to \$30.79 per 1,000 cubic feet.

Issuance of Debt—A loan agreement was signed on December 14, 2020, with the Illinois Environment Protection Agency of a 5-year rehabilitation program conducted throughout the city. Approximately 26,900 lineal feet of 12-to-60-inch diameter sewer main will replace existing, aging sewer main as part of the continuation of the city's 3-year sewer lining contract which was awarded in 2016. Activities associated with this loan consist of lining approximately 42 miles of sewer main throughout the city. The amount drawn from this loan agreement by the Sewer fund in 2021 and 2020 was \$9.8 million and \$48.9 million, respectively. Total funds drawn from this loan are \$58.7 million. The loan agreement has an interest rate of 1.84% with a maturity from April 9, 2021 to April 9, 2040.

A loan agreement was signed on March 18, 2019, with the Illinois Environment Protection Agency as part of a 5-year rehabilitation program conducted throughout the city. Approximately 9 miles of 12-to-60-inch diameter sewer main will be replaced existing, aging sewer main. The amount drawn from this loan agreement by the Sewer fund in 2021 and 2020 was \$.7 million and \$29.8 million, respectively. Total funds drawn from this loan are \$30.5 million. The loan agreement has an interest rate of 1.84% with a maturity from April 7, 2021 to October 7, 2040.

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 be replaced existing, aging sewer main. The amount drawn from the loan agreement by the Sewer fund in 2020 and 2019 was \$1.1 million and \$16.5 million, respectively. In 2021, the Sewer Fund drew an additional \$.3 million. Total funds drawn from this loan are \$17.9 million. The loan agreement has an interest rate of 1.76% with a maturity from October 26, 2019 to April 26, 2039.

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

December 31	Principal	Interest	Total Debt Service
2022	\$ 71,300	\$ 93,513	\$ 164,813
2023	73,864	90,995	164,859
2024	76,531	88,367	164,898
2025	89,666	75,333	164,999
2026	74,283	90,633	164,916
2027–2031	427,926	349,823	777,749
2032–2036	517,104	205,104	722,208
2037–2041	401,571	82,804	484,375
2042–2046	106,635	21,065	127,700
2047–2051	46,460	6,933	53,393
2052–2053	10,455	209	10,664
Total	<u>\$ 1,895,795</u>	<u>\$ 1,104,779</u>	<u>\$ 3,000,574</u>

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 be at least equal to: (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 the outstanding second lien bonds, plus (C) 115% of the aggregate outstanding debt service requirements for the fiscal year on 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, 2021.

5. UTILITY PLANT

During the years ended December 31, 2021 and 2020, utility plant changed as follows (in thousands):

	Balance January 1, 2021	Additions	Disposals and Transfers	Balance December 31, 2021
Utility plant not depreciated:				
Land and land rights	\$ 560	\$ -	\$ -	\$ 560
Construction in progress	<u>72,682</u>	<u>106,851</u>	<u>(41,527)</u>	<u>138,006</u>
Total utility plant not depreciated	<u>73,242</u>	<u>106,851</u>	<u>(41,527)</u>	<u>138,566</u>
Utility plant being depreciated:				
Facilities and structures	3,645,972	100,580	(19,594)	3,726,958
Furniture and equipment	<u>33,757</u>	<u>-</u>	<u>(89)</u>	<u>33,668</u>
Total utility plant being depreciated	<u>3,679,729</u>	<u>100,580</u>	<u>(19,683)</u>	<u>3,760,626</u>
Less accumulated depreciation:				
Facilities and structures	(731,358)	(53,788)	424	(784,722)
Furniture and equipment	<u>(27,451)</u>	<u>(1,619)</u>	<u>-</u>	<u>(29,070)</u>
Total accumulated depreciation	<u>(758,809)</u>	<u>(55,407)</u>	<u>424</u>	<u>(813,792)</u>
Utility plant being depreciated—net	<u>2,920,920</u>	<u>45,173</u>	<u>(19,259)</u>	<u>2,946,834</u>
Utility plant—net	<u>\$ 2,994,162</u>	<u>\$ 152,024</u>	<u>\$ (60,786)</u>	<u>\$ 3,085,400</u>

	Balance January 1, 2020	Additions	Disposals and Transfers	Balance December 31, 2020
Utility plant not depreciated:				
Land and land rights	\$ 560	\$ -	\$ -	\$ 560
Construction in progress	<u>196,790</u>	<u>66,432</u>	<u>(190,540)</u>	<u>72,682</u>
Total utility plant not depreciated	<u>197,350</u>	<u>66,432</u>	<u>(190,540)</u>	<u>73,242</u>
Utility plant being depreciated:				
Facilities and structures	3,367,515	300,426	(21,969)	3,645,972
Furniture and equipment	<u>33,810</u>	<u>-</u>	<u>(53)</u>	<u>33,757</u>
Total utility plant being depreciated	<u>3,401,325</u>	<u>300,426</u>	<u>(22,022)</u>	<u>3,679,729</u>
Less accumulated depreciation:				
Facilities and structures	(683,150)	(49,195)	987	(731,358)
Furniture and equipment	<u>(25,682)</u>	<u>(1,769)</u>	<u>-</u>	<u>(27,451)</u>
Total accumulated depreciation	<u>(708,832)</u>	<u>(50,964)</u>	<u>987</u>	<u>(758,809)</u>
Utility plant being depreciated—net	<u>2,692,493</u>	<u>249,462</u>	<u>(21,035)</u>	<u>2,920,920</u>
Utility plant—net	<u>\$ 2,889,843</u>	<u>\$ 315,894</u>	<u>\$ (211,575)</u>	<u>\$ 2,994,162</u>

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, 2021, the following City employees were covered by the benefit terms:

	Municipal Employees’	Laborers’	Total
Inactive employees or beneficiaries currently receiving benefits	25,683	3,568	29,251
Inactive employees entitled to but not yet receiving benefits	21,304	1,473	22,777
Active employees	<u>32,925</u>	<u>2,602</u>	<u>35,527</u>
 Total number of members	 <u>79,912</u>	 <u>7,643</u>	 <u>87,555</u>

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 2021 and 2020.

The contribution to the two pension plans from the Sewer Fund was \$19.9 million and \$17.1 million for the years ended December 31, 2021 and 2020, respectively.

Net Pension Liability, Pension Expense, and Deferred Outflows of Resources and Deferred Inflows of Resources Related to Pensions—At December 31, 2021 and 2020, the Sewer Fund reported a liability of \$432.3 million and \$426.5 million, respectively, for its proportionate share of the net pension liability. The net pension liability was measured as of December 31, 2021 and 2020, 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 \$2.5 million for Laborers’. These changes are being amortized into expense/(benefit) 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 2021 and 2020. At December 31, 2021 and 2020, the Sewer Fund’s proportion was 1.8% and 1.8% of the Municipal Employees’ Plan and 11.5% and 11.3%, respectively, of the Laborers’ Plan.

For the years ended December 31, 2021 and 2020, the Sewer Fund recognized pension expense/(benefit) of (\$5.0) million and (\$23.9) million, respectively.

At December 31, 2021 and 2020, the Sewer Fund reported total deferred outflows of resources of \$8.7 million and \$8.4 million, respectively, and deferred inflows of resources of \$20.9 million and \$42.3 million, respectively, related to pensions from the following sources:

Municipal Employees’ (dollars in thousands):

	2021		2020	
	Deferred Outflows of Resources	Deferred Inflows of Resources	Deferred Outflows of Resources	Deferred Inflows of Resources
Differences between expected and actual experience	\$ 3,181	\$ -	\$ 2,316	\$ 638
Changes of assumptions	-	-	-	26,687
Net difference between projected and actual earnings on pension plan investments	-	4,649	-	1,825
Total	<u>\$ 3,181</u>	<u>\$ 4,649</u>	<u>\$ 2,316</u>	<u>\$ 29,150</u>

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:

Years Ended December 31	
2022	\$ 873
2023	(1,244)
2024	(232)
2025	(865)
2026	-
Total	<u>\$ (1,468)</u>

Laborers' (dollars in thousands):

	2021		2020	
	Deferred Outflows of Resources	Deferred Inflows of Resources	Deferred Outflows of Resources	Deferred Inflows of Resources
Differences between expected and actual experience	\$ 78	\$ 4,073	\$ 487	\$ 2,124
Changes of assumptions	5,434	61	5,640	379
Net difference between projected and actual earnings on pension plan investments	<u>-</u>	<u>12,096</u>	<u>-</u>	<u>10,690</u>
Total	<u>\$5,512</u>	<u>\$16,230</u>	<u>\$6,127</u>	<u>\$13,193</u>

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

**Years Ended
December 31**

2022	\$ (852)
2023	(5,190)
2024	(3,399)
2025	(1,277)
2026	<u>-</u>
Total	<u>\$ (10,718)</u>

Deferred Inflows and Related to Changes in Proportionate Share of Contributions—For the years ended December 31, 2021 and 2020, the Sewer Fund reported pension charge/(benefit) of (\$7.9 million) (\$8.1 million), respectively, related to changes in proportionate share of contributions. As of December 31, 2021 and 2020, the Sewer Fund reported deferred inflows of \$27.5 million and \$39.9 million, respectively, and deferred outflows of \$2.5 million and \$5.8 million, respectively, related to changes in its proportionate share of contributions. This deferred amount will be recognized as a pension charge/(benefit) over a period of four years.

Actuarial Assumptions—The total pension liability in the December 31, 2021 and 2020, 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%–6.5% for 2020–2022), varying by years of service

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

(c) Net of investment expense

Pension Plan		Mortality Table Name	Mortality Improvement
<i>Municipal Employees'</i>	<i>Post Retirement</i>	<i>RP-2014 Healthy Annuitant Mortality Table</i>	<i>Generational—Scale MP-2016</i>
	<i>Pre-Retirement</i>	<i>RP-2014 Employee Mortality Table</i>	<i>Generational—Scale MP-2016</i>
<i>Laborers'</i>	<i>Post Retirement</i>	<i>Pub-2010 Amount-weighted Below-median Income General Healthy Retiree Mortality Tables, Sex Distinct</i>	<i>Generational—Scale MP-2020 2-dimensional</i>
	<i>Pre-Retirement</i>	<i>Pub-2010 Amount-weighted Below-median Income General Employee Mortality Tables, Sex Distinct</i>	<i>Generational—Scale MP-2020 2-dimensional</i>

The actuarial assumptions used in the December 31, 2021, 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, 2017–December 31, 2019

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, 2021 and 2020, are summarized in the following table:

2021	Target Allocation		Long-Term Expected Real Rate of Return	
	Municipal Employees'	Laborers'	Municipal Employees'	Laborers'
Asset class:				
Domestic equity	26.0 %	- %	7.4 %	- %
U.S. equity	-	25.0	-	5.3
Non U.S. equity	-	20.0	-	5.3
Global equity	5.0	-	6.8	-
Global low volatility equity	-	5.0	- .0	4.3
Infrastructure	2.0	-	7.0	-
International equity	17.0	-	7.4	-
Fixed income	25.0	20.0	2.0	(0.8)
Hedge funds	10.0	10.0	5.6	2.8
Private debt	-	3.0	- .0	7.1
Private equity	5.0	4.0	11.4	8.8
Real estate	10.0	10.0	5.8	4.2
Other Investments	-	3.0	-	4.7
Total	<u>100.0 %</u>	<u>100.0 %</u>		

2020	Target Allocation		Long-Term Expected Real Rate of Return	
	Municipal Employees'	Laborers'	Municipal Employees'	Laborers'
Asset class:				
Domestic equity	26.0 %	- %	7.3 %	- %
U.S. equity	-	25.0	-	5.3
Non U.S. equity	-	20.0	-	5.3
Global equity	5.0	-	7.5	-
Global low volatility equity	-	5.0	-	4.2
Infrastructure	2.0	-	7.3	-
International equity	17.0	-	7.5	-
Fixed income	25.0	20.0	2.3	(1.2)
Hedge funds	10.0	10.0	5.5	2.8
Private debt	-	3.0	-	7.4
Private equity	5.0	4.0	10.8	9.1
Real estate	10.0	10.0	6.0	3.4
Private real assets	-	3.0	-	4.9
Total	<u>100.0 %</u>	<u>100.0 %</u>		

Discount Rate

Municipal Employees'—The Single discount rate used to measure the total pension liability as of December 31, 2021 and 2020, was 7%. 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 6.77% and 6.84% was used to measure the total pension liability as of December 31, 2021 and 2020, respectively. This Single Discount Rate was based on an expected rate of return on pension plan investments of 7.25% as of December 31, 2021 and 2020, and a municipal bond rate of 1.84% and 2.00% as of December 31, 2021 and 2020, 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 2074 (for the 2021 valuation) and the year 2073 (for the 2020 valuation). As a result, the long-term expected rate of return on pension plan investments was applied to projected benefit payments through the year 2074 (for the 2021 valuation) and the year 2073 (for the 2020 valuation), 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, 2021 and 2020, calculated using the discount rate of 7%, 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):

Net Pension Liability December 31, 2021	Current		
	1% Decrease	Discount Rate	1% Increase
Municipal Employees’ discount rate	6.00 %	7.00 %	8.00 %
Municipal Employees’ net pension liability	\$ 292,746	\$ 252,089	\$ 218,288

Net Pension Liability December 31, 2020	Current		
	1% Decrease	Discount Rate	1% Increase
Municipal Employees’ discount rate	6.00 %	7.00 %	8.00 %
Municipal Employees’ net pension liability	\$ 286,215	\$ 246,437	\$ 213,378

Laborers’—The following presents the Sewer Fund’s allocated share of the net pension liability as of December 31, 2021 and 2020, calculated using the discount rate of 6.77% and 6.84%, 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):

Net Pension Liability December 31, 2021	Current		
	1% Decrease	Discount Rate	1% Increase
Laborers’ discount rate	5.77 %	6.77 %	7.77 %
Laborers’ net pension liability	\$ 219,703	\$ 180,246	\$ 147,127

Net Pension Liability December 31, 2020	Current		
	1% Decrease	Discount Rate	1% Increase
Laborers’ discount rate	5.84 %	6.84 %	7.84 %
Laborers’ net pension liability	\$ 218,535	\$ 180,018	\$ 147,702

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 \$50.9 million and \$30.6 million in 2021 and 2020, 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, 2021 and 2020, are as follows (in thousands):

	2021	2020
Balance—January 1	\$ 30,757	\$ 23,183
Claims incurred on current and prior-year events	15,755	21,532
Claims paid on current and prior-year events	<u>(12,791)</u>	<u>(13,958)</u>
Balance—December 31	<u>\$ 33,721</u>	<u>\$ 30,757</u>

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

At December 31, 2021 and 2020, the Sewer Fund entered into contracts with outstanding commitments of approximately \$78.6 million and \$256.9 million, respectively, for construction projects.

9. DEFERRED OUTFLOWS/INFLOWS OF RESOURCES

	2021	2020
	(In thousands)	
Deferred outflows of resources:		
Deferred outflows from pension activities	\$ 8,694	\$ 8,443
Changes in proportionate share of pension contribution	2,465	5,754
Unamortized deferred bond refunding costs	<u>3,814</u>	<u>4,314</u>
Total deferred outflows of resources	<u>\$ 14,973</u>	<u>\$ 18,511</u>
Deferred inflows of resources:		
Deferred inflows from pension activities	\$ (20,880)	\$ (42,344)
Changes in proportionate share of pension contribution	<u>(27,489)</u>	<u>(39,860)</u>
Total deferred inflows of resources	<u>\$ (48,369)</u>	<u>\$ (82,204)</u>

Please refer to Note 6 Pension Plans—Deferred Outflows related to activities and changes in proportionate share of contributions sections.

10. SUBSEQUENT EVENTS

The Sewer Fund has evaluated subsequent events through June 29, 2022, the date the basic financial statements were available to be issued and concluded no subsequent events have occurred that would require recognition that have not already been recognized or that require disclosure that have not already been disclosed.

* * * * *

REQUIRED SUPPLEMENTARY INFORMATION

**CITY OF CHICAGO, ILLINOIS
SEWER FUND**

**REQUIRED SUPPLEMENTARY INFORMATION
SCHEDULE OF CHANGES IN THE NET PENSION LIABILITY AND RELATED RATIOS
LAST SEVEN FISCAL YEARS
(Dollars in thousands)**

Municipal Employees'	2021	2020	2019	2018	2017	2016	2015
TOTAL PENSION LIABILITY:							
Service cost*	\$ 246,066	\$ 236,302	\$ 228,465	\$ 223,528	\$ 572,534	\$ 619,743	\$ 226,816
Interest	1,228,905	1,190,694	1,159,253	1,123,348	915,711	878,369	909,067
Benefit changes	-	-	-	-	-	-	2,140,009
Differences between expected and actual experience	121,988	100,938	16,676	95,540	(177,755)	(127,119)	(109,835)
Assumption changes	-	-	-	-	(7,431,191)	(578,920)	8,711,755
Benefit payments including refunds	<u>(1,010,191)</u>	<u>(973,478)</u>	<u>(952,652)</u>	<u>(916,198)</u>	<u>(888,174)</u>	<u>(859,672)</u>	<u>(826,036)</u>
Net change in total pension liability	586,768	554,456	451,742	526,218	(7,008,875)	(67,599)	11,051,776
Total pension liability—beginning	<u>17,814,812</u>	<u>17,260,356</u>	<u>16,808,614</u>	<u>16,282,396</u>	<u>23,291,271</u>	<u>23,358,870</u>	<u>12,307,094</u>
Total pension liability—ending ^(a)	<u>18,401,580</u>	<u>17,814,812</u>	<u>17,260,356</u>	<u>16,808,614</u>	<u>16,282,396</u>	<u>23,291,271</u>	<u>23,358,870</u>
PLAN FIDUCIARY NET POSITION:							
Contributions—employer	573,198	496,992	418,269	349,574	261,764	149,718	149,225
Contributions—employee	163,411	157,798	146,645	138,400	134,765	130,391	131,428
Net investment income (loss)	498,299	335,403	560,940	(204,975)	610,515	281,419	114,025
Benefit payments including refunds of employee contribution	<u>(1,010,191)</u>	<u>(973,478)</u>	<u>(952,652)</u>	<u>(916,198)</u>	<u>(888,174)</u>	<u>(859,672)</u>	<u>(826,036)</u>
Administrative expenses	(6,687)	(7,118)	(6,740)	(6,639)	(6,473)	(7,056)	(6,701)
Other	-	-	-	-	5,394	-	-
Net change in plan fiduciary net position	218,030	9,597	166,462	(639,838)	117,791	(305,200)	(438,059)
Plan fiduciary net position—beginning	<u>4,090,239</u>	<u>4,080,642</u>	<u>3,914,180</u>	<u>4,554,018</u>	<u>4,436,227</u>	<u>4,741,427</u>	<u>5,179,486</u>
Plan fiduciary net position—ending ^(b)	<u>4,308,269</u>	<u>4,090,239</u>	<u>4,080,642</u>	<u>3,914,180</u>	<u>4,554,018</u>	<u>4,436,227</u>	<u>4,741,427</u>
NET PENSION LIABILITY—Ending ^{(a) - (b)}	<u>\$ 14,093,311</u>	<u>\$ 13,724,573</u>	<u>\$ 13,179,714</u>	<u>\$ 12,894,434</u>	<u>\$ 11,728,378</u>	<u>\$ 18,855,044</u>	<u>\$ 18,617,443</u>
PLAN FIDUCIARY NET POSITION AS A PERCENTAGE OF THE TOTAL PENSION LIABILITY							
	<u>23.41 %</u>	<u>22.96 %</u>	<u>23.64 %</u>	<u>23.29 %</u>	<u>27.97 %</u>	<u>19.05 %</u>	<u>20.30 %</u>
ALLOCATED COVERED PAYROLL**	<u>\$ 35,795</u>	<u>\$ 33,432</u>	<u>\$ 36,266</u>	<u>\$ 35,136</u>	<u>\$ 34,446</u>	<u>\$ 32,293</u>	<u>\$ 32,146</u>
EMPLOYER'S NET PENSION LIABILITY AS A PERCENTAGE OF ALLOCATED COVERED PAYROLL							
	<u>704.25 %</u>	<u>737.13 %</u>	<u>731.07 %</u>	<u>743.37 %</u>	<u>695.41 %</u>	<u>1,144.85 %</u>	<u>1,132.81 %</u>
ALLOCATED NET PENSION LIABILITY	<u>\$ 252,089</u>	<u>\$ 246,437</u>	<u>\$ 265,128</u>	<u>\$ 261,188</u>	<u>\$ 239,542</u>	<u>\$ 369,711</u>	<u>\$ 364,150</u>
ALLOCATED PERCENTAGE	<u>1.79 %</u>	<u>1.80 %</u>	<u>2.01 %</u>	<u>2.03 %</u>	<u>2.04 %</u>	<u>1.96 %</u>	<u>1.96 %</u>

* Includes pension plan administrative expense

** Allocated covered payroll is the amount in force as of the actuarial valuation date and likely differs from actual payroll during fiscal year

*** The Schedule of contribution amounts are presented City-wide, as the statutory requirement for contribution is for the City of Chicago and not the individual Enterprise Fund.

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

(Continued)

**CITY OF CHICAGO, ILLINOIS
SEWER FUND**

**REQUIRED SUPPLEMENTARY INFORMATION
SCHEDULE OF CHANGES IN THE NET PENSION LIABILITY AND RELATED RATIOS
LAST SEVEN FISCAL YEARS
(Dollars in thousands)**

Laborers'	2021	2020	2019	2018	2017	2016	2015
TOTAL PENSION LIABILITY:							
Service cost *	\$ 40,411	\$ 39,216	\$ 38,522	\$ 40,801	\$ 80,232	\$ 82,960	\$ 38,389
Interest	192,343	191,099	188,347	183,135	154,047	150,166	153,812
Benefit changes		-	-	-	150	-	384,033
Differences between expected and actual experience	(31,083)	(18,992)	(8,820)	15,143	(62,178)	(30,428)	(46,085)
Assumption changes	21,870	44,034	32,846	(11,788)	(1,074,754)	(62,905)	1,175,935
Benefit payments including refunds	(172,514)	(169,056)	(164,959)	(160,061)	(157,050)	(154,683)	(152,530)
Pension plan administrative expense	(3,837)	(3,616)	(3,691)	(3,933)	(3,985)	(4,080)	(3,844)
Net change in total pension liability	47,190	82,685	82,245	63,297	(1,063,538)	(18,970)	1,549,710
Total pension liability—beginning	<u>2,858,334</u>	<u>2,775,649</u>	<u>2,693,404</u>	<u>2,630,107</u>	<u>3,693,645</u>	<u>3,712,615</u>	<u>2,162,905</u>
Total pension liability—ending ^(a)	<u>2,905,524</u>	<u>2,858,334</u>	<u>2,775,649</u>	<u>2,693,404</u>	<u>2,630,107</u>	<u>3,693,645</u>	<u>3,712,615</u>
PLAN FIDUCIARY NET POSITION:							
Contributions—employer	84,969	73,744	59,346	47,844	35,457	12,603	12,412
Contributions—employee	17,637	18,064	18,143	17,837	17,411	17,246	16,844
Net investment income (loss)	138,105	163,057	184,027	(75,219)	207,981	57,997	(22,318)
Benefit payments including refunds of employee contribution	(172,514)	(169,056)	(164,959)	(160,061)	(157,050)	(154,683)	(152,530)
Administrative expenses	(3,837)	(3,616)	(3,691)	(3,933)	(3,985)	(4,080)	(3,844)
Other	-	-	-	661	-	-	-
Net change in plan fiduciary net position	64,360	82,193	92,866	(172,871)	99,814	(70,917)	(149,436)
Plan fiduciary net position—beginning	<u>1,269,742</u>	<u>1,187,549</u>	<u>1,094,683</u>	<u>1,267,554</u>	<u>1,167,740</u>	<u>1,238,657</u>	<u>1,388,093</u>
Plan fiduciary net position—ending ^(b)	<u>1,334,102</u>	<u>1,269,742</u>	<u>1,187,549</u>	<u>1,094,683</u>	<u>1,267,554</u>	<u>1,167,740</u>	<u>1,238,657</u>
NET PENSION LIABILITY—Ending ^{(a) - (b)}	<u>\$ 1,571,422</u>	<u>\$ 1,588,592</u>	<u>\$ 1,588,100</u>	<u>\$ 1,598,721</u>	<u>\$ 1,362,553</u>	<u>\$ 2,525,905</u>	<u>\$ 2,473,958</u>
PLAN FIDUCIARY NET POSITION AS A PERCENTAGE OF THE TOTAL PENSION LIABILITY							
	<u>45.92 %</u>	<u>44.42 %</u>	<u>42.78 %</u>	<u>40.64 %</u>	<u>48.19 %</u>	<u>31.61 %</u>	<u>33.36 %</u>
ALLOCATED COVERED PAYROLL **	<u>\$ 24,331</u>	<u>\$ 23,479</u>	<u>\$ 25,989</u>	<u>\$ 25,462</u>	<u>\$ 23,415</u>	<u>\$ 24,328</u>	<u>\$ 24,808</u>
EMPLOYER'S NET PENSION LIABILITY AS A PERCENTAGE OF ALLOCATED COVERED PAYROLL							
	<u>740.81 %</u>	<u>766.71 %</u>	<u>750.49 %</u>	<u>755.96 %</u>	<u>653.68 %</u>	<u>1,213.47 %</u>	<u>1,208.15 %</u>
ALLOCATED NET PENSION LIABILITY	<u>\$ 180,246</u>	<u>\$ 180,018</u>	<u>\$ 195,045</u>	<u>\$ 192,479</u>	<u>\$ 153,060</u>	<u>\$ 295,214</u>	<u>\$ 299,722</u>
ALLOCATED PERCENTAGE	<u>11.47 %</u>	<u>11.33 %</u>	<u>12.28 %</u>	<u>12.04 %</u>	<u>11.23 %</u>	<u>11.69 %</u>	<u>12.22 %</u>

* Includes pension plan administrative expense.

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

*** The Schedule of contribution amounts are presented City-wide, as the statutory requirement for contribution is for the City of Chicago and not the individual Enterprise Fund.

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

(Concluded)

**CITY OF CHICAGO, ILLINOIS
SEWER FUND**

**REQUIRED SUPPLEMENTARY INFORMATION
SCHEDULE OF CONTRIBUTIONS
LAST TEN YEARS
(Dollars in thousands)**

Municipal Employees'	Years Ended December 31	Contributions in Relation to the			Contributions as a percentage of Covered Payroll	
		Actuarially Determined Contributions	Actuarially Determined Contribution	Contribution Deficiency		Covered Payroll*
	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
	2020	1,167,154	496,992	670,162	1,861,905	26.69
	2021	1,218,361	573,198	645,163	2,001,181	28.64

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

The Schedule of contribution amounts are presented City-wide, as the statutory requirement for contribution is for the City of Chicago and not the individual Enterprise Fund.

Laborers'	Years Ended December 31	Contributions in Relation to the			Contributions as a percentage of Covered Payroll	
		Actuarially Determined Contributions*	Actuarially Determined Contribution	Contribution Deficiency		Covered Payroll**
	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	17.01
	2018	129,247	47,844	81,403	211,482	22.62
	2019	148,410	59,346	89,064	211,608	28.05
	2020	155,794	73,744	82,050	207,195	35.59
	2021	155,245	84,969	70,276	212,122	40.06

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

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

The Schedule of contribution amounts are presented City-wide, as the statutory requirement for contribution is for the City of Chicago and not the individual Enterprise Fund.

(Continued)

CITY OF CHICAGO, ILLINOIS SEWER FUND

REQUIRED SUPPLEMENTARY INFORMATION SCHEDULE OF CONTRIBUTIONS

Actuarial Methods and Assumptions	Municipal Employees'	Laborers'
Actuarial valuation date	December 31, 2021 (a)	December 31, 2021 (b)
Actuarial cost method	Entry age normal	Entry age normal
Asset valuation method	5-yr. Smoothed Market	5-yr. Smoothed Market
Actuarial assumptions:		
Inflation	2.50 %	2.25 %
Salary increases	3.50-7.75% (c)	3.00 % (d)
Investment rate of return	7.0 % (e)	7.25 % (f)
Retirement age	(g)	(h)
Mortality	(i)	(j)
Other information	(k)	(l)

(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%–6.50% for 2021–2023), 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).

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).

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, 2020, valuation pursuant to an experience study of the period January 1, 2017 through December 31, 2019.

(i) Post Retirement Mortality: scaling factors of 109% for males and 108% for females of the Pub-2010 amount-weighted below median income general healthy retiree mortality tables, sex distinct, with generational mortality improvement using MP-2020 2-dimension mortality improvement scales recently released by the SOA. This assumption provides a margin for mortality improvements. Pre Retirement Mortality: Scaling factors of 111% for males, and 115% for females of the PUB 2010 amount weighted below median income General Employee Mortality Tables, sex distinct, with generational mortality improvement using MP-2020 2-dimension mortality improvement scales recently released by SOA. This assumption provides a margin for mortality improvements.

(k) Other Assumptions: Same as those used in December 31, 2021, actuarial funding valuations.

(l) The actuarial valuation is based on the statutes in effect as of December 31, 2021.

(Concluded)

PART III
STATISTICAL SECTION

STATISTICAL DATA

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

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

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

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

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

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

**CITY OF CHICAGO, ILLINOIS
SEWER FUND**

**STATISTICAL DATA
NET POSITION BY COMPONENT
TEN YEARS ENDED DECEMBER 31, 2012–2021
(In thousands)**

	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
NET POSITION:										
Net investment in capital assets	\$ 448,414	\$ 481,946	\$ 520,627	\$ 559,715	\$ 648,644	\$ 735,564	\$ 827,773	\$ 862,065	\$ 931,047	\$ 1,062,584
Restricted for capital projects	50,014	73,858	111,333	116,107	117,295	116,376	115,576	139,618	205,696	171,985
Unrestricted	<u>60,436</u>	<u>78,509</u>	<u>102,794</u>	<u>(299,584)</u>	<u>(353,467)</u>	<u>(364,239)</u>	<u>(358,293)</u>	<u>(324,272)</u>	<u>(363,033)</u>	<u>(371,377)</u>
TOTAL	<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>	<u>\$ 773,710</u>	<u>\$ 863,192</u>
		*			**					

* Amounts were restated due to the implementation of GASB 65.

** Amounts were restated due to the implementation of GASB 68.

**CITY OF CHICAGO, ILLINOIS
SEWER FUND**

**STATISTICAL DATA
CHANGES IN NET POSITION
TEN YEARS ENDED DECEMBER 31, 2012–2021
(In thousands)**

	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
OPERATING REVENUES:										
Sewer sales	\$ 252,943	\$ 291,110	\$ 337,657	\$ 390,924	\$ 384,140	\$ 377,286	\$ 380,822	\$ 373,902	\$ 356,267	\$ 377,514
Provision for doubtful accounts	-	(12,461)	(16,557)	(16,154)	(16,320)	(20,813)	(12,611)	(23,849)	(22,792)	(12,297)
Other operating revenues	969	1,180	1,128	1,107	1,146	1,150	1,492	1,023	484	1,052
Total operating revenues	<u>253,912</u>	<u>279,829</u>	<u>322,228</u>	<u>375,877</u>	<u>368,966</u>	<u>357,623</u>	<u>369,703</u>	<u>351,076</u>	<u>333,959</u>	<u>366,269</u>
OPERATING EXPENSES:										
Repairs	35,708	38,910	40,435	42,131	36,408	41,881	43,654	41,614	47,398	44,066
General Fund reimbursements	31,709	32,144	36,740	40,007	50,760	47,522	51,188	53,688	54,467	55,937
Pension expense	-	-	-	187,593	104,864	34,397	18,938	3,266	(23,853)	(4,979)
Maintenance	21,819	23,004	24,374	25,322	21,941	24,660	24,909	22,958	24,405	25,861
Engineering	3,085	3,267	3,336	3,299	2,158	2,466	3,664	3,515	4,776	5,328
Administrative and general	21,254	12,008	14,394	12,337	11,801	12,591	13,472	12,367	12,320	13,891
Total operating expenses before depreciation and amortization	113,575	109,333	119,279	310,689	227,932	163,517	155,825	137,408	119,513	140,104
Depreciation and amortization	27,735	31,280	36,701	40,444	40,734	48,171	48,504	52,933	53,140	55,749
Total operating expenses	<u>141,310</u>	<u>140,613</u>	<u>155,980</u>	<u>351,133</u>	<u>268,666</u>	<u>211,688</u>	<u>204,329</u>	<u>190,341</u>	<u>172,653</u>	<u>195,853</u>
OPERATING INCOME	<u>112,602</u>	<u>139,216</u>	<u>166,248</u>	<u>24,744</u>	<u>100,300</u>	<u>145,935</u>	<u>165,374</u>	<u>160,735</u>	<u>161,306</u>	<u>170,416</u>
NON-OPERATING REVENUES (EXPENSES):										
Interest Income	1,021	(4,965)	2,984	2,600	1,025	4,348	2,436	11,663	8,381	(733)
Interest expense	(54,601)	(63,513)	(69,620)	(83,656)	(81,722)	(81,359)	(77,619)	(79,992)	(80,346)	(82,979)
Other	(192)	2,173	791	1,321	112	6	5,010	74	3,747	2,898
Transfer outs	-	-	-	-	(120)	(120)	(120)	(120)	(120)	(120)
Grants	2,500	2,500	-	-	16,639	6,419	2,274	(5)	3,331	-
Swap termination fee	38	38	38	(70,243)	-	-	-	-	-	-
	<u>(51,234)</u>	<u>(63,767)</u>	<u>(65,807)</u>	<u>(149,978)</u>	<u>(64,066)</u>	<u>(70,706)</u>	<u>(68,019)</u>	<u>(68,380)</u>	<u>(65,007)</u>	<u>(80,934)</u>
CHANGE IN NET POSITION	61,368	75,449	100,441	(125,234)	36,234	75,229	97,355	92,355	96,299	89,482
TOTAL NET POSITION—Beginning of year	<u>504,277</u>	<u>558,864</u>	<u>634,313</u>	<u>501,472</u>	<u>376,238</u>	<u>412,472</u>	<u>487,701</u>	<u>585,056</u>	<u>677,411</u>	<u>773,710</u>
TOTAL NET POSITION—End of year	<u>\$ 565,645</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>	<u>\$ 773,710</u>	<u>\$ 863,192</u>

*

**

* Amounts were restated due to the implementation of GASB 65

** Amounts were restated due to the implementation of GASB 68

**CITY OF CHICAGO, ILLINOIS
SEWER FUND**

**STATISTICAL DATA
HISTORICAL FINANCIAL OPERATIONS
TEN YEARS ENDED DECEMBER 31, 2012–2021
(In thousands)**

	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
OPERATING REVENUES:										
Sewer sales	\$252,943	\$291,110	\$337,657	\$390,924	\$384,140	\$377,286	\$380,822	\$373,902	\$356,267	\$377,514
Less provision for bad debt	-	(12,461)	(16,557)	(16,154)	(16,320)	(20,813)	(12,611)	(23,849)	(22,792)	(12,297)
Other operating revenue	969	1,180	1,128	1,107	1,146	1,150	1,492	1,023	484	1,052
Total operating revenues	253,912	279,829	322,228	375,877	368,966	357,623	369,703	351,076	333,959	366,269
OPERATING EXPENSES:										
Repairs	35,708	38,910	40,435	42,131	36,408	41,881	43,654	41,614	47,398	44,066
Maintenance	21,819	23,004	24,374	25,322	21,941	24,660	24,909	22,958	24,405	25,861
Administrative and general	21,254	12,008	14,394	12,337	11,801	12,591	13,472	12,367	12,320	13,891
General Fund reimbursements ⁽¹⁾	31,709	32,144	36,740	227,600	155,624	81,919	70,126	56,954	30,614	50,958
Engineering	3,085	3,267	3,336	3,299	2,158	2,466	3,664	3,515	4,776	5,328
Total operating expenses	113,575	109,333	119,279	310,689	227,932	163,517	155,825	137,408	119,513	140,104
NONOPERATING REVENUES	867	(2,754)	3,813	3,921	1,137	4,354	7,446	11,737	12,128	2,165
NET REVENUES—As defined	\$141,204	\$167,742	\$206,762	\$ 69,109	\$142,171	\$198,460	\$221,324	\$225,405	\$226,574	\$228,330

Source: City of Chicago Comptroller's Office.

Note 1:

⁽¹⁾ Of the \$(5.0) million of pension expense for 2021, \$19.9 million is the portion of the City's pension contribution payable in 2021 to the pension funds and allocable to the Sewer Fund. The remaining portion of the pension expense for 2021 (i.e. \$(24.9) million) is recognized on the income statement of the Sewer Fund for 2021 pursuant to GASB 68. Accordingly, that portion is not included in Operating Expenses for purposes of calculation of the debt service coverage ratio.

**CITY OF CHICAGO, ILLINOIS
SEWER FUND**

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

	Amount of Sales									
	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Department of Aviation	\$1,927	\$2,165	\$1,857	\$3,634	\$4,498	\$4,025	\$4,504	\$5,198	\$3,138	\$3,343
Humboldt Park	1,179	1,393	1,307	-	-	759	-	-	-	-
WR Grace and Company	-	-	-	-	-	-	589	-	1,314	1,322
Calumet Park	-	635	652	-	-	-	-	-	-	-
CPD—Lincoln Park	745	1,418	-	1,344	1,267	1,325	675	771	1,169	1,679
Cook County Sheriff	-	1,141	-	-	846	-	-	-	-	-
University of Chicago—HCC	1,428	-	-	-	-	-	-	-	-	-
Uniquema	-	-	680	551	-	-	-	622	590	-
Ford Motor Co	-	-	695	928	912	995	1,311	1,304	1,499	-
University of Illinois at Chicago	1,647	-	-	834	-	-	-	-	-	1,377
Hometown	-	-	-	-	546	551	560	567	-	1,383
	<u>\$6,926</u>	<u>\$6,752</u>	<u>\$5,191</u>	<u>\$7,291</u>	<u>\$8,069</u>	<u>\$7,655</u>	<u>\$7,639</u>	<u>\$8,462</u>	<u>\$7,710</u>	<u>\$9,104</u>

Source: City of Chicago Department of Water Management.

**CITY OF CHICAGO, ILLINOIS
SEWER FUND**

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

	Amount of Sales									
	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Residential	\$178,399	\$195,542	\$233,830	\$266,878	\$246,997	\$242,899	\$248,622	\$243,311	\$242,255	\$250,148
Industrial/ commercial	57,598	74,696	82,811	95,473	109,655	99,620	98,054	93,167	84,473	91,412
Governmental	<u>17,915</u>	<u>22,052</u>	<u>22,318</u>	<u>29,680</u>	<u>28,634</u>	<u>35,917</u>	<u>35,638</u>	<u>38,447</u>	<u>30,023</u>	<u>37,006</u>
	<u>\$253,912</u>	<u>\$292,290</u>	<u>\$338,959</u>	<u>\$392,031</u>	<u>\$385,286</u>	<u>\$378,436</u>	<u>\$382,314</u>	<u>\$374,925</u>	<u>\$356,751</u>	<u>\$378,566</u>

Source: City of Chicago Department of Water Management.

**CITY OF CHICAGO, ILLINOIS
SEWER FUND**

**STATISTICAL DATA
RECENT SEWER SERVICE RATES**

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, 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
June 1, 2020	4.08	30.46	100	30
June 1, 2021	4.13	30.79	100	30

Source: City of Chicago Department of Water Management.

**CITY OF CHICAGO, ILLINOIS
SEWER FUND**

**STATISTICAL DATA
SEWER SYSTEM ACCOUNTS
TEN YEARS ENDED DECEMBER 31, 2012–2021
(Unaudited)**

Years Ended December 31	Water Accounts			Exempt	Sewer Accounts
	Non- Metered	Metered	Total		
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
2020	177,641	316,783	494,424	63,608	430,816
2021	176,931	317,398	494,329	62,680	431,649

Source: City of Chicago Department of Water Management.

**CITY OF CHICAGO, ILLINOIS
SEWER FUND**

**STATISTICAL DATA
REVENUE BOND COVERAGE
TEN YEARS ENDED DECEMBER 31, 2012–2021
(In thousands)**

Combined Senior Lien and Second Lien Debt Service Calculation	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
REVENUES AVAILABLE FOR BONDS:										
Net revenues—as defined	\$ 141,204	\$ 167,742	\$ 206,762	\$ 69,109	\$ 142,171	\$ 198,460	\$ 221,324	\$ 225,405	\$ 226,574	\$ 228,330
Pension expense other than contribution (Note 1)	-	-	-	183,165	100,447	24,921	6,191	(12,572)	(40,972)	(24,917)
Transfer to sewer rate stabilization account	5,000	3,000	-	-	-	1,281	-	-	-	-
Other available funds (Note 2)	19,215	65,298	103,864	108,498	133,501	200,990	221,509	234,799	255,980	263,437
Net revenues available for bonds	155,419	230,040	310,626	360,772	376,119	423,090	449,024	447,632	441,582	466,850
PRIOR LIEN DEBT SERVICE REQUIREMENT	-	-	-	-	-	-	-	-	-	-
NET REVENUES AVAILABLE FOR BONDS	155,419	230,040	310,626	360,772	376,119	423,090	449,024	447,632	441,582	466,850
DEBT SERVICE REQUIREMENTS:										
Senior lien debt service requirement	9,231	-	-	-	-	-	-	10,525	13,654	13,720
Senior lien debt service coverage (1.15 required)	17	-	-	-	-	-	-	43	32	34
DEBT SERVICE REQUIREMENTS:										
2000 second lien bonds	-	-	-	-	-	-	-	-	-	-
2001 second lien bonds	5,036	6,923	6,935	6,942	6,947	6,951	6,957	6,964	2,304	2,304
2001A second lien bonds	1,886	-	-	-	-	-	-	-	-	-
2004A and B second lien bonds	17,301	26,910	27,102	27,242	-	-	-	-	-	-
2006A and B second lien bonds	15,184	15,201	15,210	12,358	12,364	2,734	-	-	-	-
2008A second lien bonds	11,537	8,650	11,536	11,534	11,535	8,031	4,421	4,448	-	-
2008C second lien bonds	2,732	2,786	3,346	14,725	31,907	31,809	32,023	24,375	30,775	24,445
IEPA Loans	665	866	2,916	3,309	4,934	10,612	12,933	18,117	21,727	27,387
2010A & B second lien bonds	21,036	21,039	21,054	21,627	21,646	21,654	21,785	17,245	17,250	17,250
2012A & B second lien bonds	-	17,485	17,486	17,483	17,485	17,480	17,482	17,477	17,482	17,482
2014 second lien bonds	-	-	3,292	19,127	19,180	19,188	19,192	19,192	19,215	19,215
2015 second lien bonds	-	-	-	-	-	6,902	6,849	6,810	7,012	6,915
2017A & B second lien bonds	-	-	-	-	-	16,751	25,634	28,045	29,484	29,483
Second lien debt service requirement	75,377	99,860	108,877	134,347	125,999	142,112	147,276	142,673	145,249	144,481
COMBINED SENIOR AND SECOND LIEN DEBT SERVICE REQUIREMENTS	\$ 84,608	\$ 99,860	\$ 108,877	\$ 134,347	\$ 125,999	\$ 142,112	\$ 147,276	\$ 153,198	\$ 158,903	\$ 158,201
COMBINED SENIOR AND SECOND LIEN DEBT SERVICE COVERAGE (1.15 REQUIRED)	1.84	2.30	2.85	2.69	2.99	2.98	3.05	2.92	2.78	2.95
SEWER RATE STABILIZATION ACCOUNT YEAR-END BALANCE	\$ 29,629	\$ 32,629	\$ 32,629	\$ 32,629	\$ 32,629	\$ 32,196	\$ 36,902	\$ 36,902	\$ 40,814	\$ 40,814
Total population served	2,695,598	2,695,598	2,695,598	2,695,598	2,695,598	2,695,598	2,695,598	2,695,598	2,695,598	2,746,388
Total revenue bonds and notes	\$ 1,363,774	\$ 1,369,459	\$ 1,638,935	\$ 1,686,178	\$ 1,692,820	\$ 1,861,381	\$ 1,893,561	\$ 1,895,495	\$ 1,953,134	\$ 1,895,795
Total debt per customer served	\$ 506	\$ 508	\$ 608	\$ 626	\$ 628	\$ 691	\$ 702	\$ 703	\$ 725	\$ 690

Source: City of Chicago Comptroller's Office.

Note:

- (1) Of the \$(5.0) million of pension expense for 2021, \$19.9 million is the portion of the City's pension contribution payable in 2021 to the pension funds and allocable to the Sewer Fund. The remaining portion of the pension expense for 2021 (i.e. \$(24.9) million) is recognized on the income statement of the Sewer Fund for 2021 pursuant to GASB 68 but is not due and payable by the City during 2021; 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.

**CITY OF CHICAGO, ILLINOIS
SEWER FUND**

**STATISTICAL DATA
LONG-TERM DEBT
TEN YEARS ENDED DECEMBER 31, 2012–2021
(In thousands)**

	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
First lien	\$ 43,928	\$ 35,168	\$ 35,168	\$ 35,168	\$ 35,168	\$ 35,168	\$ 35,168	\$ 35,168	\$ 31,792	\$ 27,634
Second lien	1,290,296	1,284,355	1,541,690	1,592,010	1,548,696	1,660,490	1,527,810	1,562,610	1,518,165	1,474,695
Subordinate lien—IEPA loan	<u>29,550</u>	<u>49,936</u>	<u>62,077</u>	<u>59,000</u>	<u>108,956</u>	<u>165,723</u>	<u>330,583</u>	<u>297,717</u>	<u>403,177</u>	<u>393,466</u>
Total revenue bonds and notes	<u>1,363,774</u>	<u>1,369,459</u>	<u>1,638,935</u>	<u>1,686,178</u>	<u>1,692,820</u>	<u>1,861,381</u>	<u>1,893,561</u>	<u>1,895,495</u>	<u>1,953,134</u>	<u>1,895,795</u>
Unamortized premium (discount)	37,701	34,707	61,306	83,551	77,642	113,074	104,893	97,004	89,361	81,926
Unamortized deferred loss	-	-	-	-	-	-	-	-	-	-
Accretion of Series 1998 CAB	<u>41,151</u>	<u>45,272</u>	<u>49,615</u>	<u>54,194</u>	<u>59,018</u>	<u>64,105</u>	<u>69,465</u>	<u>75,114</u>	<u>73,356</u>	<u>68,806</u>
Sub-total	<u>78,852</u>	<u>79,979</u>	<u>110,921</u>	<u>137,745</u>	<u>136,660</u>	<u>177,179</u>	<u>174,358</u>	<u>172,118</u>	<u>162,717</u>	<u>150,732</u>
Total revenue bonds payable—net of unamortized premium (discount)	<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>	<u>\$2,115,851</u>	<u>\$2,046,527</u>

Source: City of Chicago Comptroller's Office.

**CITY OF CHICAGO, ILLINOIS
SEWER FUND**

**STATISTICAL DATA
CAPITAL IMPROVEMENT PROGRAM
2022–2026
(In thousands)**

Years	Amount
2022	\$ 280,998
2023	227,292
2024	235,842
2025	236,231
2026	<u>238,669</u>
Total	<u>\$1,219,032</u>

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

Source: City of Chicago Department of Water Management.

**CITY OF CHICAGO, ILLINOIS
SEWER FUND**

**STATISTICAL DATA
FULL-TIME EQUIVALENT SEWER FUND EMPLOYEES BY FUNCTION
TEN YEARS ENDED DECEMBER 31, 2012–2021**

Function	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Agency management	4	4	4	4	4	4	5	5	4	4
Capital design and construction services	23	24	26	24	24	25	26	26	27	26
Inspection services	18	18	16	18	24	24	24	24	24	24
System installation	8	8	8	9	9	8	8	8	8	8
System maintenance and evaluations	523	523	521	521	515	426	412	412	368	358
Communications and coordination	<u>17</u>	<u>16</u>	<u>16</u>	<u>15</u>	<u>15</u>	<u>13</u>	<u>13</u>	<u>13</u>	<u>8</u>	<u>8</u>
	<u>593</u>	<u>593</u>	<u>591</u>	<u>591</u>	<u>591</u>	<u>500</u>	<u>488</u>	<u>488</u>	<u>439</u>	<u>428</u>

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

Source: City of Chicago’s 2021, 2020, 2019, 2018, 2017, 2016, 2015, 2014, 2013, 2012, Program and Budget Summary.

Note: Schedule includes only Department of Water Management employees.

**CITY OF CHICAGO, ILLINOIS
SEWER FUND**

**STATISTICAL DATA
OPERATING INDICATORS BY FUNCTION**

	2019	2020	2021
Catch basins repaired	<u>2,686</u>	<u>1,742</u>	<u>1,974</u>

**CITY OF CHICAGO, ILLINOIS
SEWER FUND**

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

	2019	2020	2021
Sewers lined	64.6	30.7	48.8
New construction	26.5	17.8	12.3

Source: City of Chicago Department of Water Management.

**CITY OF CHICAGO, ILLINOIS
SEWER FUND**

**STATISTICAL DATA
POPULATION OF SERVICE AREA
LAST SIX CENSUS PERIODS**

Years	Population
1970	3,369,357
1980	3,005,072
1990	2,783,726
2000	2,896,016
2010	2,695,598
2020	2,746,388

Source: U.S. Department of Commerce—Census Bureau.

CITY OF CHICAGO, ILLINOIS SEWER FUND

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

Employer	2021 ⁽¹⁾			2012 ⁽¹⁾		
	Number of Employees	Rank	Percentage of Total City Employment	Number of Employees	Rank	Percentage of Total City Employment
Amazon.Com, Inc.	27,050	1	2.17 %			
Advocate Aurora Health Care	25,906	2	2.08			
Northwestern Memorial Healthcare	24,053	3	1.93			
University of Chicago	20,781	4	1.67			
Walmart Inc	18,500	5	1.48			
Walgreens Boots Alliance Inc.	16,817	6	1.35	2,789	10	0.26 %
JPMorgan Chase & Co ⁽⁴⁾	14,583	7	1.17	8,168	1	0.76
United Continental Holdings Inc. ⁽⁵⁾	13,171	8	1.06	7,521	2	0.70
Amita Health	13,051	9	1.05	-		-
Jewel-Osco ⁽⁶⁾	10,892	10	0.87	4,572	5	0.43
Accenture LLP	-		-	5,590	3	0.52
Northern Trust	-		-	5,448	4	0.51
Ford Motor Company	-		-	4,187	6	0.39
Bank of America NT & SA ⁽⁷⁾	-		-	3,811	7	0.36
ABM Janitorial Midwest, INC	-		-	3,398	8	0.32
American Airlines	-		-	3,078	9	0.29

NOTES:

⁽¹⁾ Source: Reprinted with permission from the February 21, 2022, issue of Crain's Chicago Business.

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⁽²⁾ Source: Bureau of Labor Statistics data used in calculation of Total City Employment.

⁽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.

⁽⁴⁾ JP Morgan & Co. formerly known as J.P. Morgan Chase

⁽⁵⁾ United Continental Holdings Inc. formerly known as United Airlines

⁽⁶⁾ Jewel-Osco formerly know as Jewel Food Stores, Inc.

⁽⁷⁾ Bank of America NT & SA formerly known as Bank of America NT.

CITY OF CHICAGO, ILLINOIS SEWER FUND

STATISTICAL DATA POPULATION AND INCOME STATISTICS

Year	Population ⁽¹⁾	Median Age ⁽²⁾	Number of Households ⁽²⁾	City Employment	Unemployment Rate ⁽³⁾	Per Capita Income ⁽⁴⁾	Total Income
2012	2,695,598	33.2	1,054,488	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	4.7	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	35.2	1,080,345	1,286,484	3.2	65,306	176,038,722,988
2020	2,695,598	34.8	1,081,143	1,165,441	8.2	67,671	182,413,812,258
2021	2,746,388	N/A ⁽⁵⁾	N/A ⁽⁵⁾	1,247,060	4.1	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 2021

Due to Covid-19 protocols the U.S. Census Bureau - American Community Survey (ACS), 1-year data for Median Age and Number of Households are not available for 2020. The reported values above are from the AC 5-year data.

⁽³⁾ Source: Bureau of Labor Statistics 2021, 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.