

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

**Annual Comprehensive Financial Report
For the Year Ended December 31, 2022**



**Brandon J. Johnson, Mayor
Jill Jaworski, Chief Financial Officer
Reshma Soni, City Comptroller
Andrea R.H. Cheng, Ph.D., Commissioner**

Sewer Fund
An Enterprise Fund of
The City of Chicago

**Annual Comprehensive Financial Report
For the Year Ended December 31, 2022**



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

**2022 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 30, 2023

To the Honorable Brandon Johnson,
Members of the City Council and Residents of the City of Chicago:

I am pleased to submit to you the Annual Comprehensive Financial Report (ACFR) for the City of Chicago Department of Water Management (DWM) Sewer Fund for the year ended December 31, 2022. Responsibility for the accuracy of the data and completeness and fairness of the presentation, including all disclosures, rests with DWM management. The purpose of the ACFR is to provide complete and accurate information in compliance with the requirements of the Municipal Code of the City of Chicago.

The ACFR is presented in three sections: Introductory, Financial, and Statistical. The financial section includes Management's Discussion and Analysis (MD&A). This letter of transmittal is designed to complement the MD&A and should be read in conjunction with it.

REPORTING ENTITY

The Sewer Fund is a separate enterprise fund of the City of Chicago (City) which funds operations and maintenance of the City's sewer system. On 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 approximately 4,500 miles of sewers, 205,000 collection structures, 146,000 manholes, 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, the Sewer Fund revenue is largely dependent upon water usage. Since January 1, 2015, the sewer service charge is set at 100 percent of the water service charge. As of January 1, 2023, the metered water rate is set at \$32.33 per 1,000 per cubic feet, and effective June 1, 2023, the rate increased to \$33.95 per 1,000 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

Five-Year Capital Improvement Program - The Department of Water Management's, Sewer Division's Five-Year Capital Improvement Program (CIP) for the years 2023 – 2027 is forecasted to be approximately \$1.9 billion. The 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 Sewer Fund will support the effort of infrastructure renewal by replacing, rehabbing, and lining sewer mains. Rehab and lining of catch basins and manholes is also a core part of the CIP. Additionally, DWM has begun expanding the sewer rehabilitation program to include lining of large diameter trunk sewers. These sewers range in size from 72-inch to 204-inch diameter pipe. Aspects of the CIP will include lead service line replacements, and it is the responsibility of DWM management to ensure funding is correctly allocated between the Sewer and Water Funds dependent upon which piece of DWM infrastructure is receiving a capital investment.

DWM's CIP also includes plans to begin the preliminary design of the Regional Sewer Improvements – Area 4. Area 4 is the sewer system generally south of 87th Street to the southern City-limits consisting of roughly 39,000 households and businesses. This project will consist of regional a combined sewer tunnel to provide relief to the local sewer system during rain events.

DWM 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. The Five-Year CIP is reevaluated on an ongoing basis and updated annually in coordination with the Office of Budget and Management to ensure that areas of the City with the greatest need are given priority.

PROPRIETARY OPERATIONS

The 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 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.

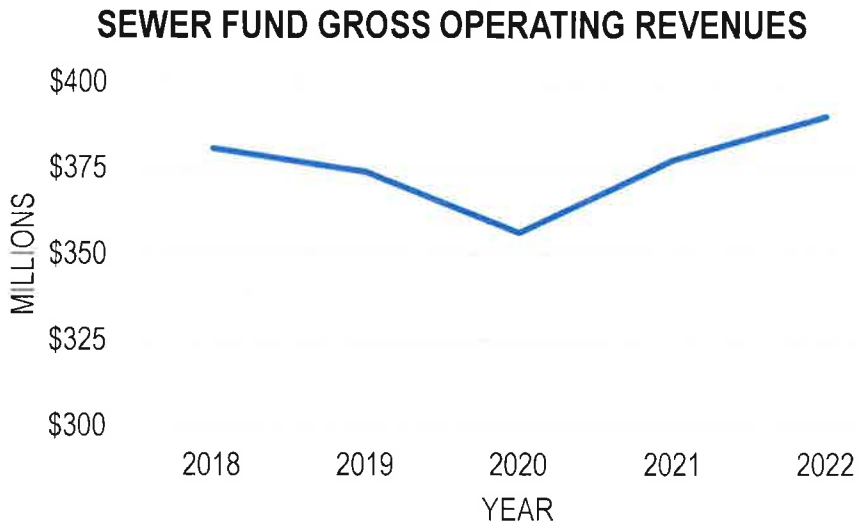
The Sewer Fund's budget is developed and implemented along with the City's annual budget based upon an analysis of its historical operations and maintenance costs. The DWM Commissioner recommends the final proposed budget to the City's Budget Director. After approval by the Budget Director, the proposed 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 Sewer Fund will have adequate funding to meet its operational objectives. By law the Sewer Fund cannot exceed the level of funding as established by the City Council-approved budget. The City's Budget Director uses an allotment system to manage each department's expenditures against its respective annual appropriation. Through the allotment system, the City's Budget Director has the authority to institute economic measures for the 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.

OPERATING REVENUES

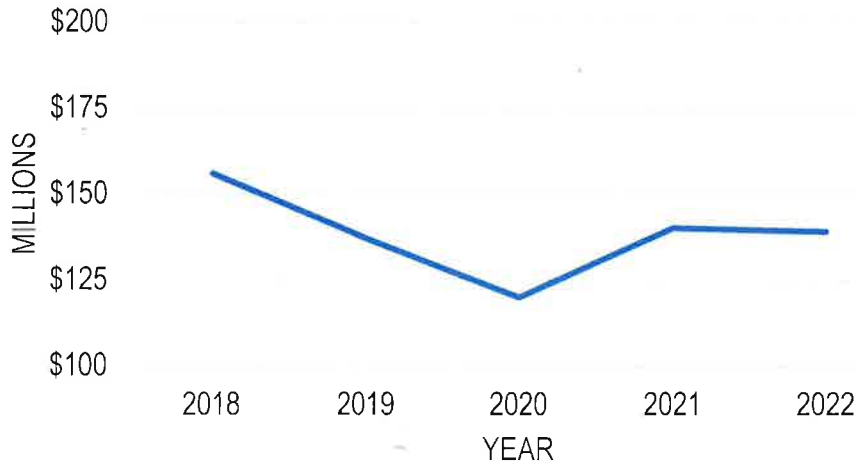
Gross operating revenue for 2022 increased by \$12.5 million (3.3%) over 2021. This is primarily due to the 5% sewer rate increase of effective June 1, 2022, a slight increase in water pumpage, and stable cliental base. Below is a graph representing gross operating revenues for the years 2018 through 2022.



OPERATING EXPENSES

Operating expenses before depreciation and amortization decreased by \$1.0 million (0.7%) during 2022 primarily due an increase in pension expense as well as current year recognition of deferred outflows due to differences between expected and actual experience and changes of assumptions, offset by the reclass of expenses to depreciation and amortization related to right-of-use asset amortization due to the implementation of GASB 87. Below is a graph representing operating expenses for the years 2018 through 2022.

SEWER FUND OPERATING EXPENSES



DEBT ADMINISTRATION

The Sewer Fund issues bonds to finance its capital improvement program. The City has covenanted to establish, maintain and collect 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 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 Sewer Fund's capital activities are funded through the Sewer Fund revenue bonds and Sewer Fund revenue. The Sewer Fund has realized savings through advance refunding as interest rates have changed.

INDEPENDENT AUDIT

City ordinances require the 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

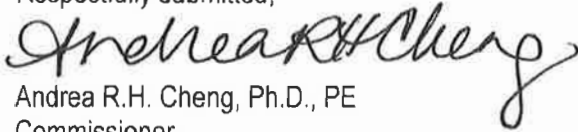
The Government Finance Officers Association of the United States and Canada (GFOA) awarded a Certificate of Achievement for Excellence in Financial Reporting to the Sewer Fund, an Enterprise Fund of the City of Chicago, for its ACFR, for the fiscal year ended December 31, 2021. This was the twenty-seventh 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,

A handwritten signature in black ink that reads "Andrea R.H. Cheng". The signature is written in a cursive, flowing style.

Andrea R.H. Cheng, Ph.D., PE
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**

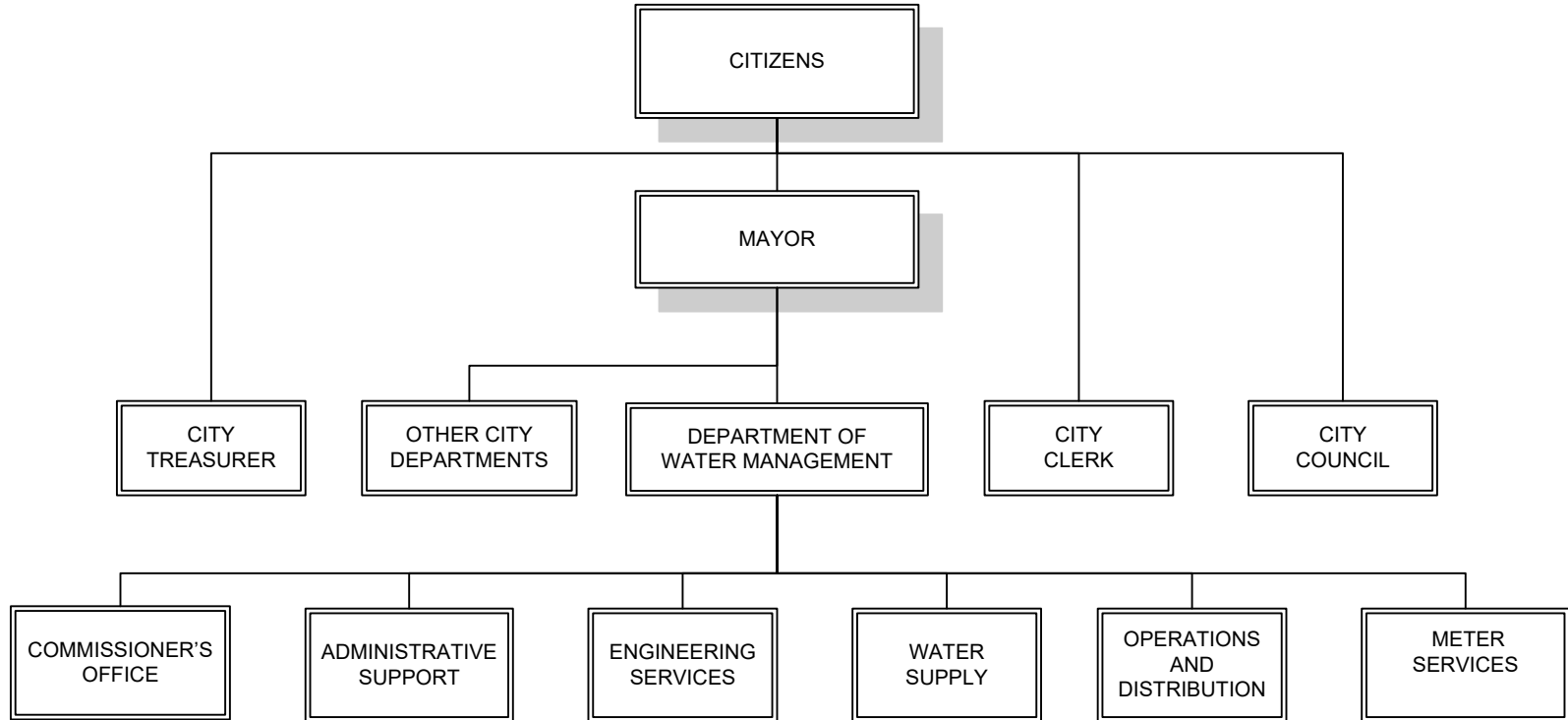
For its Annual Comprehensive
Financial Report
For the Fiscal Year Ended

December 31, 2021

Christopher P. Morill

Executive Director/CEO

CITY OF CHICAGO
 DEPARTMENT OF WATER MANAGEMENT
 As of 12/31/22



List of Principal Officials

Brandon Johnson
 Andrea Cheng

Mayor
 Commissioner

PART II
FINANCIAL SECTION

INDEPENDENT AUDITOR'S REPORT

To the Honorable Brandon Johnson, Mayor
and Members of the City Council
City of Chicago, Illinois

Report on the Audit 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 year ended December 31, 2022, and the related notes to the financial statements, which collectively comprise the Sewer Fund's basic financial statements as listed in the table of contents.

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, 2022, and the respective changes in financial position, and cash flows thereof for the year then ended in accordance with accounting principles generally accepted in the United States of America.

Basis for Opinion

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

Emphasis of Matters

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, 2022, the changes in its financial position, or, where applicable, its cash flows for the year 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.

As discussed in Note 1, the Sewer Fund presented its financial statements to reflect the effects of the adoption of Governmental Accounting Standards Board Statement No. 87, *Leases*, on January 1, 2022. 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 Audit 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 audit.

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 audit of the basic financial statements. We do not express an opinion or provide any assurance on the information because the limited procedures do not provide us with sufficient evidence to express an opinion or provide any assurance.

Other Information

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. Our opinion on the basic financial statements does not cover the other information, and we do not express an opinion or any form of assurance thereon.

In connection with our audit 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 30, 2023

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 year ended December 31, 2022. 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

- Gross operating revenues for 2022 increased by \$12.5 million (3.3%). This increase is primarily due to a rate increase of 5% during as of June 1, 2022.
- Operating expenses before depreciation and amortization decreased by \$1.0 million (0.7%) during 2022 primarily due to the decrease in repairs expense which was partially offset by the increase in pension expense as well as current year recognition of deferred outflows due to differences between expected and actual experience and changes of assumptions.
- The Sewer Fund's net position at December 31, 2022, was \$937.3 million. This is an increase of \$74.1 million over net position at December 31, 2021.
- Utility plant additions in 2022 were \$164.7 million, due to the continuing capital improvement program upgrades.
- In 2022, the Sewer Fund implemented GASB Statement No. 87, *Leases* ("GASB 87"). The implementation created a right to use asset of \$85.0 million and GASB 87 lease payable of \$84.4 million related to leases where the Sewer Fund is a lessee. The Sewer Fund does not have any lessor agreements.

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, 2022, the Sewer Fund's financial position continues to be strong with total assets and deferred outflows of \$3,745.1 million, total liabilities and deferred inflows of \$2,807.8 million, and net position of \$937.3 million. A comparative condensed summary of the Sewer Fund's net position at December 31, 2022 and 2021, is as follows:

(In thousands)	Net Position	
	2022	2021
Current assets	\$ 470,029	\$ 548,961
Restricted and other assets—noncurrent	85,914	950
Utility plant—net	<u>3,159,865</u>	<u>3,085,400</u>
Total assets	3,715,808	3,635,311
Deferred outflows	<u>29,287</u>	<u>14,973</u>
Total assets and deferred outflows	<u>\$ 3,745,095</u>	<u>\$ 3,650,284</u>
Current liabilities	\$ 327,836	\$ 340,917
Pension liability	442,211	432,335
Lease liability	63,630	-
Long-term liabilities	<u>1,928,328</u>	<u>1,965,471</u>
Total liabilities	2,762,005	2,738,723
Deferred inflows	<u>45,755</u>	<u>48,369</u>
Total liabilities and deferred inflows	<u>\$ 2,807,760</u>	<u>\$ 2,787,092</u>
Net position:		
Net investment in capital assets	\$ 1,087,602	\$ 1,062,584
Restricted for capital projects	69,193	171,985
Unrestricted	<u>(219,460)</u>	<u>(371,377)</u>
Total net position	<u>\$ 937,335</u>	<u>\$ 863,192</u>

Current assets decreased by \$78.9 million (14.4%) which was primarily due to a decrease in cash and cash equivalents and investments as there were increased capital expenditures during 2022. Noncurrent restricted investments and other assets increased by \$85.0 million (8943.6%) due to the implementation of GASB 87 and the addition of the right to lease asset where the Sewer Fund is a lessee.

Utility plant—net increased by \$74.5 million (2.4%) due primarily to capital activities for sewer construction and rehabilitation projects funded by the restricted investments. During 2022, the Sewer Fund lined an additional 43 miles of sewers.

Current liabilities decreased by \$13.1 million (3.8%) which was primarily due to a decrease in accrued liabilities and due to other funds. Long term debt increased by \$37.1 million (1.9%) due to the issuance of Illinois Environmental Protection Agency (IEPA) loans. Net pension liability in the amount of \$442.2 million increased \$9.9 million (2.3%) compared to 2021 primarily as a result of changes in assumptions and short-term impacts of the global market volatility on investment income.

Deferred outflows increased by \$14.3 million (95.6%) and deferred inflows decreased by \$2.6 million (5.4%) during 2022 compared with 2021 due to amortization and the changes in assumptions of pensions

As of December 31, 2022, total net position was \$937.3 million, an increase of \$74.1 million (8.6%) from 2021.

A summary of revenues, expenses, and changes in net position for the years ended December 31, 2022, 2021 is as follows:

(In thousands)	Revenues, Expenses, and Changes in Net Position	
	2022	2021
Revenues:		
Operating revenues:		
Sewer service—net	\$ 366,876	\$ 365,217
Other operating revenues	836	1,052
Total operating revenues	367,712	366,269
Operating expenses:		
Repairs	27,513	44,066
General Fund reimbursements	55,478	55,937
Pension expense (Note 6)	21,466	(4,979)
Maintenance	14,406	25,861
Engineering	6,162	5,328
Administrative and general	14,093	13,891
Depreciation and amortization	78,728	55,749
Total operating expenses	217,846	195,853
Operating income	149,866	170,416
Nonoperating revenues	5,009	2,165
Nonoperating expenses	(80,732)	(83,099)
Total nonoperating expenses/revenues	(75,723)	(80,934)
Change in net position	74,143	89,482
Net position beginning of year	863,192	773,710
Net position end of year	\$ 937,335	\$ 863,192

Net sewer service revenues for the years ended 2022 and 2021 were \$366.9 million and \$365.2 million, respectively. Other revenue, which consists primarily of inspection fees and house drain fees, for the years ended 2022 and 2021 was \$0.8 million and \$1.1 million, respectively. The increase in 2022 net sewer service revenue of \$1.7 million is primarily due to an increase in annual sewer rates by 5.0% as of June 1, 2022, based on the annual CPI adjustment, offset by an increase in allowance for doubtful accounts due to timing differences of collections.

Pension expense increased to \$21.5 million in 2022 due to changes in assumptions and impacts from pension fund investments due to global market volatility.

In 2022, net non-operating loss of \$75.6 million was composed of net invest income/loss, interest expense, and other revenue the relates to the Build America Bonds federal program subsidy. The decrease in net non-operating loss of \$5.0 million is mainly due to increase in the other revenue of \$22.2 million that was

partially offset by the increase in investment losses of \$16.4 million due to the impacts of the global market volatility.

A comparative summary of the Sewer Fund's operating expenses, as classified in the basic financial statements, for the years ended December 31, 2022 and 2021, is as follows:

(In thousands)	Operating Expenses	
	2022	2021
Repairs	\$ 27,513	\$ 44,066
Pension	21,466	(4,979)
General Fund reimbursements	55,478	55,937
Maintenance	14,406	25,861
Engineering	6,162	5,328
Administrative and general	<u>14,093</u>	<u>13,891</u>
Operating expenses before depreciation and amortization	139,118	140,104
Depreciation and amortization	<u>78,728</u>	<u>55,749</u>
Total operating expenses	<u>\$ 217,846</u>	<u>\$ 195,853</u>

Overall, operating expenses before depreciation and amortization for 2022 remained relatively consistent with prior year as the increase in pension expense of \$26.4 million was offset by the decrease in repairs and maintenance by \$16.5 million and \$11.4 million, respectively. The increase in depreciation and amortization by \$23.0 million is primarily due to the amortization of right of use assets of \$20.6 million from the impact of the implementation of GASB 87.

A comparative summary of the Sewer Fund's cash flows for the years ended December 31, 2022 and 2021, is as follows:

(In thousands of dollars)	Cash Flows	
	2022	2021
Cash from activities:		
Operating	\$ 166,220	\$ 241,058
Capital and related financing	(243,392)	(283,993)
Investing	<u>82,205</u>	<u>51,721</u>
Net change in cash and cash equivalents	5,033	8,786
Cash and cash equivalents:		
Beginning of year	<u>137,025</u>	<u>128,239</u>
End of year	<u>\$ 142,058</u>	<u>\$ 137,025</u>

As of December 31, 2022, the Sewer Fund's unrestricted and restricted cash and cash equivalents of \$142.1 million represented an increase of \$5.1 million from December 31, 2021, primarily due to investment related activities in 2022. Total unrestricted cash and cash equivalents at December 31, 2022 and 2021, was \$10.4 million and \$26.5 million, respectively.

UTILITY PLANT AND DEBT ADMINISTRATION

At the end of 2022 and 2021, the Sewer Fund had net utility plant of \$3,159.9 million and \$3,085.4 million, respectively. During 2022, the Sewer Fund had capital additions being depreciated of \$164.7 million, and completed projects totaling \$85.0 million were transferred from construction in progress to applicable facilities and structures capital accounts.

The Sewer Fund's net utility plant at December 31, 2022 and 2021, is summarized as follows:

(In thousands)	Net Utility Plant at Year-End	
	2022	2021
Utility plant not depreciated:		
Land and land rights	\$ 560	\$ 560
Construction in progress	<u>126,179</u>	<u>138,006</u>
Total utility plant not depreciated	<u>126,739</u>	<u>138,566</u>
Utility plant being depreciated:		
Facilities and structures	3,869,924	3,726,958
Furniture and equipment	<u>32,751</u>	<u>33,668</u>
Total utility plant being depreciated	<u>3,902,675</u>	<u>3,760,626</u>
Less accumulated depreciation:		
Facilities and structures	(839,158)	(784,722)
Furniture and equipment	<u>(30,391)</u>	<u>(29,070)</u>
Total accumulated depreciation	<u>(869,549)</u>	<u>(813,792)</u>
Utility plant being depreciated—net	<u>3,033,126</u>	<u>2,946,834</u>
Utility plant—net	<u>\$ 3,159,865</u>	<u>\$ 3,085,400</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, 2022 and 2021 is summarized as follows:

(In thousands)	Long-Term Outstanding Debt at Year-End	
	2022	2021
Revenue bonds	\$ 1,876,190	\$ 1,895,795
Add interest accretion on Series 1998 capital appreciation bonds	63,529	68,806
Unamortized net bond discount/premium	<u>74,790</u>	<u>81,926</u>
Outstanding debt—net	<u>\$ 2,014,509</u>	<u>\$ 2,046,527</u>

The Sewer Fund’s revenue bonds at December 31, 2022, 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	Baa1	A+	NR	NR
Junior Lien Wastewater Revenue Bonds	Baa2	A	A	AA-

In November 2022, Fitch upgraded the Second Lien Wastewater Transmission Revenue Bonds to A from A-.

In November 2022, Moody’s upgraded the Senior Lien Wastewater Transmission Revenue Bonds to Baa1 from Baa2 and the Second Lien Wastewater Transmission Revenue Bonds to Baa2 from Baa3

At December 31, 2022, the Sewer Fund was in compliance with the debt covenants as stated within the bond ordinances.

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

STATEMENT OF NET POSITION AS OF DECEMBER 31, 2022 (In thousands)

ASSETS

CURRENT ASSETS:

Cash and cash equivalents (Note 2)	\$ 10,408
Investments (Note 2)	113,331
Accounts receivable—net of allowance for doubtful accounts of approximately \$172,336 in 2022	113,950
Due from other City funds	30,041
Inventories	669
Cash and cash equivalents—restricted (Note 2)	131,650
Investments—restricted (Note 2)	68,970
Interest receivable—restricted (Note 2)	<u>1,010</u>
Total current assets	<u>470,029</u>

NONCURRENT ASSETS:

Other assets	899
Right to use lease asset (Note 5)	85,015

Utility plant (Note 5):

Land and land rights	560
Facilities and structures	3,869,924
Furniture and equipment	32,751
Construction in progress	<u>126,179</u>

Total utility plant 4,029,414

Less accumulated depreciation (869,549)

Utility plant—net 3,159,865

Total noncurrent assets 3,245,779

Total assets 3,715,808

DEFERRED OUTFLOWS (Note 9) 29,287

TOTAL ASSETS AND DEFERRED OUTFLOWS \$ 3,745,095

See notes to basic financial statements.

LIABILITIES

CURRENT LIABILITIES:

Accounts payable	\$ 4,766
Due to other City funds	42,142
Accrued liabilities unrestricted	58,843
Lease liability (Note 10)	20,791
Liabilities payable from Restricted Assets	
Accounts payable	45,196
Accrued liabilities	30,626
Current portion of long-term debt (Note 4)	86,181
Interest payable	<u>39,291</u>
Total current liabilities	<u>327,836</u>

NONCURRENT LIABILITIES:

Lease liability (Note 10)	63,630
Net pension liability (Note 6)	442,211
Long-term debt—net of current maturities (Note 4)	<u>1,928,328</u>

Total noncurrent liabilities 2,434,169

Total liabilities 2,762,005

DEFERRED INFLOWS (Note 9) 45,755

NET POSITION (Note 1):

Net investment in capital assets	1,087,602
Restricted for capital projects	69,193
Unrestricted	<u>(219,460)</u>

Total net position \$ 937,335

TOTAL LIABILITIES, DEFERRED INFLOWS, AND NET POSITION \$ 3,745,095

CITY OF CHICAGO, ILLINOIS SEWER FUND

STATEMENT OF REVENUES, EXPENSES, AND CHANGES IN NET POSITION FOR THE YEAR ENDED DECEMBER 31, 2022 (In thousands)

OPERATING REVENUES:

Sewer service:

Sewer service—gross	\$ 390,059
Less—provision for doubtful accounts	<u>23,183</u>

Sewer service—net 366,876

Other 836

Total operating revenues 367,712

OPERATING EXPENSES:

Repairs	27,513
General Fund reimbursements	55,478
Pension expense (Note 6)	21,466
Maintenance	14,406
Engineering	6,162
Administrative and general	<u>14,093</u>

Total operating expenses before depreciation and amortization 139,118

Depreciation and amortization 78,728

Total operating expenses 217,846

OPERATING INCOME 149,866

NONOPERATING REVENUE (EXPENSES):

Investment income (loss)	(17,178)
Interest expense	(83,918)
Other	<u>25,493</u>

Total nonoperating expenses—net (75,603)

TRANSFERS OUT (120)

CHANGE IN NET POSITION 74,143

TOTAL NET POSITION—Beginning of year 863,192

TOTAL NET POSITION—End of year \$ 937,335

See notes to basic financial statements.

CITY OF CHICAGO, ILLINOIS SEWER FUND

STATEMENT OF CASH FLOWS FOR THE YEAR ENDED DECEMBER 31, 2022 (In thousands)

CASH FLOWS FROM OPERATING ACTIVITIES:	
Received from customers	\$ 363,666
Transactions with other city funds	(137,545)
Payments to vendors	(7,360)
Payments to employees	<u>(52,541)</u>
Net cash provided by operating activities	<u>166,220</u>
CASH FLOWS FROM CAPITAL AND RELATED FINANCING ACTIVITIES:	
Acquisition and construction of capital assets	(130,703)
Proceeds from issuance of bonds	51,716
Interest paid on revenue bonds	(92,089)
Subsidy from federal program	25,493
Principal payment on leases	(21,212)
Principal paid on bonds	<u>(76,597)</u>
Net cash provided in capital and related financing activities	<u>(243,392)</u>
CASH FLOWS FROM INVESTING ACTIVITIES:	
Sales and purchases of investments—net	77,983
Investment interest	<u>4,222</u>
Net cash provided by (used in) investing activities	<u>82,205</u>
NET CHANGE IN CASH AND CASH EQUIVALENTS	5,033
CASH AND CASH EQUIVALENTS—Beginning of year	<u>137,025</u>
CASH AND CASH EQUIVALENTS—End of year	<u>\$ 142,058</u>

(Continued)

CITY OF CHICAGO, ILLINOIS SEWER FUND

STATEMENT OF CASH FLOWS FOR THE YEAR ENDED DECEMBER 31, 2022 (In thousands)

RECONCILIATION TO CASH AND CASH EQUIVALENTS REPORTED ON THE STATEMENTS OF NET POSITION:	
Unrestricted	\$ 10,408
Restricted	<u>131,650</u>
TOTAL	<u>\$ 142,058</u>
RECONCILIATION OF OPERATING INCOME TO CASH FLOWS FROM OPERATING ACTIVITIES:	
Operating income	\$ 149,866
Adjustments to reconcile:	
Depreciation and amortization	58,111
Amortization of right-of-use asset	20,618
Provision for uncollectible accounts	23,183
Changes in assets, deferred outflows, liabilities, and deferred inflows:	
Due from other City funds	(11,738)
Accounts receivable	(27,229)
Inventories	366
Deferred inflows	(7,552)
Accrued liabilities	1,106
Accounts payable and due to other City funds	<u>(40,511)</u>
CASH FLOWS FROM OPERATING ACTIVITIES	<u>\$ 166,220</u>

SUPPLEMENTAL DISCLOSURE OF NONCASH ITEMS:
Property additions in 2022 of \$75,822, have outstanding
accounts payable and accrued liabilities.

The accretion adjustment of Series 1998 capital appreciation
bonds for the year ended December 31, 2022 , was \$4,478.

The fair value adjustment gain (loss) to investments for 2022
was \$(5,495.1).

See notes to basic financial statements.

(Concluded)

CITY OF CHICAGO, ILLINOIS SEWER FUND

NOTES TO BASIC FINANCIAL STATEMENTS

AS OF AND FOR THE YEAR ENDED DECEMBER 31, 2022

(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, deferred outflows, liabilities, and deferred inflows and 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.

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

Inventories—Inventories, composed mainly of materials and supplies, are stated at cost, determined principally on the first-in, first-out method.

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

Facilities and structures	75 years
Furniture and equipment	5–20 years
Sewer rehabilitation	50 years

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

Deferred Outflows—Deferred outflows represent unamortized loss on bond refundings, differences between estimated and actual investment earnings related to pensions, and changes in actuarial assumptions related to pensions, and other pension related changes.

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

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

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

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

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

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

Capitalized Interest—Interest expense 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, \$28.7 million represent revenue recognized on sewer service that had not yet been billed to customers at December 31, 2022.

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.

Leases—The Sewer Fund follows GASB 87, which defines the leasing arrangement as the right to use an underlying asset as a lessor or lessee. As lessee, the Sewer Fund recognizes a lease liability and an intangible right of use lease asset at the beginning of a lease unless the lease is considered a short-term lease or transfers ownership of the underlying asset. The right to use lease assets are measured based on the net present value of the future lease payments at inception using the incremental borrowing rate. Remeasurement of a lease liability occurs when there is a change in the lease term and/or other changes that are likely to have a significant impact on the lease liability. The Sewer Fund calculates the amortization of the discount on the lease liability and report that amount as outflows of resources. Payments are allocated first to accrued interest liability and then to the lease liability.

Adopted Accounting Standards—

GASB Statement	Impact
GASB Statement No. 87, <i>Leases</i> (“GASB 87”)	This statement will better meet the information needs of financial statement users by improving accounting and financial reporting for leases. The statement introduces a single lease model that defines a lease as a contract that conveys control of the right to use another entity’s nonfinancial asset (the underlying asset) as specified in the contract for a period of time in an exchange or exchange-like transaction. A lessor recognizes a lease receivable and a deferred inflow of resources, and a lessee recognizes a lease payable and an intangible right-to-use lease asset. The Sewer Fund adopted GASB 87 as of January 1, 2022. The adoption of GASB 87 resulted in a right-to-use assets and lease liability. Right-of-use assets and lease liabilities were \$105.6 million. The adoption of GASB 87 had no impact on the beginning net position.
GASB Statement No. 91, <i>Conduit Debt Obligations</i> (“GASB 91”)	Establishes a single method of reporting conduit debt obligations by issuers and clarifies associated accounting requirements. The Water Fund adopted GASB 91 as of and for the year ended December 31, 2022. There was no material impact to the basic financial statements upon adoption.
GASB Statement No. 93, <i>Replacement of Interbank Offered Rates</i> (“GASB 93”)— Remaining provisions	Addresses accounting and financial reporting implications that result from the replacement of an interbank offered rate (IBOR). The Water Fund adopted GASB 93 as of and for the year ended December 31, 2022. There was no material impact to the basic financial statements upon adoption.

GASB Statement	Impact
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 provisions	Requires that a Section 457 plan be classified as either a pension plan or another employee benefit plan depending on whether the plan meets the definition of a pension plan. The Water Fund adopted the remaining provisions of GASB 97 as of and for the year ended December 31, 2022. There was no material impact to the basic financial statements upon adoption.

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 Water 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. 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. 99, Omnibus 2022 (“GASB 99”)—Remaining provisions.	2023 & 2024
GASB Statement No. 100, <i>Accounting Change and Error Corrections—An Amendment of GASB Statement No. 62</i> (“GASB 100”)	2024
GASB Statement No. 101, <i>Compensated Absences</i> (“GASB 101”)	2024

2. RESTRICTED AND UNRESTRICTED CASH EQUIVALENTS AND INVESTMENTS

Cash Equivalents and Investments—As of December 31, 2022, 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	\$ -	\$ 53,520	\$ 2,484	\$ -	\$ 56,004
Commercial paper	17,408	-	-	-	17,408
Corporate bonds	-	676	51,419	-	52,095
Money Market Funds	132,739	-	-	-	132,739
Municipal bonds	3,757	15,097	-	2,126	20,980
Supernational Bonds	-	45,095	-	-	45,095
Total	\$ 153,904	\$ 114,388	\$ 53,903	\$ 2,126	\$ 324,321

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, 2022, were (dollars in thousands):

	2022		
	Level 1	Level 2	Level 3
Supernational Bonds	\$ -	\$ 45,095	\$ -
Corporate bonds	-	52,095	-
Municipal bonds	-	20,880	-
Agency bonds	-	<u>56,004</u>	-
 Total investments at fair value	 <u>\$ -</u>	 <u>\$ 174,074</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 \$150.2 million as of December 31, 2022.

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, 2022, is as follows (in thousands):

Quality Rating

Aaa/AAA	\$ 227,351
A-1/P-1	5,570
A-2/P-2	11,838
Aa/AA	26,017
A/A	11,585
BBB	<u>41,960</u>
 Total	 <u><u>\$ 324,321</u></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 \$307.6 million. 100.0% of the bank balance was either insured or collateralized with securities held by City agents in the City’s name. There were no uncollateralized bank balances at December 31, 2022.

A schedule summarizing the investments reported in the basic financial statements as of December 31, 2022, is as follows (in thousands):

Per Note 2:	
Investments—Sewer Fund	\$ 324,321
	<u>\$ 324,321</u>
Per financial statements:	
Restricted investments—current	\$ 68,970
Unrestricted investments	113,331
Investments included as cash and cash equivalents on the statement of net position	<u>142,020</u>
	<u>\$ 324,321</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, 2022, are as follows (in thousands):

Construction	\$ 34,334
Bond principal and interest	125,472
Sewer rate stabilization	<u>40,814</u>
Total	<u>\$ 200,620</u>

The 2022 Sewer rate stabilization balance above includes a fair value adjustment of \$(3.0) million.

At December 31, 2022, management was not aware of any instances of noncompliance with the above terms of the ordinances.

4. LONG-TERM DEBT

As of December 31, 2022, long-term debt consisted of the following (in thousands):

\$62,423 Series 1998A Wastewater Transmission Revenue Bonds issued April 7, 1998, due through 2028; interest at 4.55% to 5.0%	\$ 23,670
\$73,100 Series 2001 Wastewater Transmission Revenue Bonds issued December 6, 2001, due through 2030; interest at 4.0% to 5.5%	37,285
\$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%	239,905
\$250,000 Series 2010B Wastewater Transmission Revenue Bonds issued November 16, 2010, due through 2040; interest 6.9%	250,000
\$1,546 Illinois Environmental Protection Agency Loan Agreement signed May 28, 2008, due through 2027; interest at 2.50%	457
\$276,470 Series 2012 Wastewater Transmission Revenue Bonds issued September 13, 2012, due through 2042; interest at 3.0% to 5.0%	225,480
\$15,000 Illinois Environmental Protection Agency Loan Agreement signed January 20, 2010, due through 2031; interest at 0%	6,503
\$17,812 Illinois Environmental Protection Agency Loan Agreement signed October 8, 2010, due through 2032; interest at 1.25%	9,674
\$17,564 Illinois Environmental Protection Agency Loan Agreement signed September 22, 2011, due through 2033; interest at 1.25%	9,985
\$15,000 Illinois Environmental Protection Agency Loan Agreement signed October 2, 2012, due through 2034; interest at 2.295%	9,803
\$292,405 Series 2014 Wastewater Transmission Revenue Bonds issued September 22, 2014, due through 2044; interest at 3.0% to 5.0%	254,320
\$87,080 Series 2015 Bonds issued October 19, 2015 due through January 1, 2039; interest at 2.59% to 6.04%	74,905
\$54,170 Illinois Environmental Protection Agency Loan Agreement signed October 22, 2013, due through 2035; interest at 1.93%	38,350
\$56,198 Illinois Environmental Protection Agency Loan Agreement signed October 8, 2014, due through 2036; interest at 1.99%	41,263
\$4,291 Illinois Environmental Protection Agency Loan Agreement signed January 22, 2016, due through 2036; interest at 1.86%	3,249
\$6,703 Illinois Environmental Protection Agency Loan Agreement signed November 4, 2016, due through 2037; interest at 1.75%	5,360
\$180,590 Series 2017A Wastewater Transmission Revenue Bonds issued June 21, 2017, due through 2052; interest at 4.0% to 5.25%	173,485
\$215,485 Series 2017B Wastewater Transmission Revenue Bonds issued June 21, 2017, due through 2044; interest at 5.0%	173,725

(Continued)

\$63,808 Illinois Environmental Protection Agency Loan Agreement signed May 17, 2016, due through 2038; interest at 1.86%	\$ 51,553
\$27,370 Illinois Environmental Protection Agency Loan Agreement signed May 16, 2017, due through 2038; interest at 1.75%	22,788
\$17,942 Illinois Environmental Protection Agency Loan Agreement signed Apr 5, 2018, due through 2039; interest at 1.76%	15,384
\$59,960 Illinois Environmental Protection Agency Loan Agreement signed Apr 5, 2018, due through 2039; interest at 1.76%	51,668
\$26,084 Illinois Environmental Protection Agency Loan Agreement signed May 25, 2018 due through 2039; interest at 1.76%	23,337
\$30,490 Illinois Environmental Protection Agency Loan Agreement signed March 18, 2019 due through 2040; interest at 1.84%	28,951
\$58,706 Illinois Environmental Protection Agency Loan Agreement signed December 14, 2020 due through 2040; interest at 1.84%	54,286
\$50,804 Illinois Environmental Protection Agency Loan Agreement signed September 30, 2020 due through 2042; interest at 1.35%	<u>50,804</u>
Total revenue bonds	1,876,190
Add accretion of Series 1998A Capital Appreciation Bonds	63,529
Add unamortized net bond premium (discount)	74,790
Less current portion (payable from restricted assets)	<u>(86,181)</u>
Long-term portion—net	<u>\$ 1,928,328</u>

(Concluded)

Long-term debt during the year ended December 31, 2022, changed as follows (dollars in thousands):

	2022	Additions	Reductions	2022	Year
Revenue bonds and loans	\$1,895,795	\$51,716	\$(71,321)	\$1,876,190	\$76,241
Accretion of Series 1998 capital appreciation bonds	68,806	4,479	(9,756)	63,529	9,940
Unamortized net discount/premium	<u>81,926</u>	<u>-</u>	<u>(7,136)</u>	<u>74,790</u>	<u>-</u>
Total revenue bonds and loans	<u>\$2,046,527</u>	<u>\$56,195</u>	<u>\$(88,213)</u>	<u>\$2,014,509</u>	<u>\$86,181</u>

Interest expense includes amortization of the loss on bond refunding for 2022 of \$0.5 million; net of amortization of net bond discount/premium of \$7.1 million; and accretion of Series 1998A capital appreciation bonds of \$4.5 million.

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. The rate charged for water, effective June 1, 2022, increased to \$32.33 per 1,000 cubic feet.

Issuance of Debt—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 replace existing, aging sewer main. In 2022, the Sewer Fund drew an additional \$0.9 million. Total funds drawn from this loan are

\$31.4 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 September 30, 2020, with the Illinois Environment Protection Agency. The loan proceeds will be utilized for the rehabilitation of sewers by lining a total of 250,000 LF of sewers ranging in diameter between 8-inches and 60 inches. The amount drawn from the loan agreement by the Sewer Fund in 2022 was \$50.8 million. The loan agreement has an interest rate of 1.35% with a maturity from February 9, 2023 to August 9, 2042.

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

December 31	Principal	Interest	Total Debt Service
2023	\$ 76,241	\$ 91,580	\$ 167,821
2024	78,828	89,029	167,857
2025	91,994	75,964	167,958
2026	76,643	91,232	167,875
2027	79,158	88,719	167,877
2028–2032	461,492	314,447	775,939
2033–2037	533,198	182,136	715,334
2038–2042	355,266	63,997	419,263
2043–2047	74,965	16,542	91,507
2048–2052	48,405	4,993	53,398
Total	<u>\$ 1,876,190</u>	<u>\$ 1,018,639</u>	<u>\$ 2,894,829</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, 2022.

5. UTILITY PLANT

During the year ended December 31, 2022, utility plant changed as follows (in thousands):

	Balance January 1, 2022	Additions	Disposals and Transfers	Balance December 31, 2022
Utility plant not depreciated:				
Land and land rights	\$ 560	\$ -	\$ -	\$ 560
Construction in progress	<u>138,006</u>	<u>73,215</u>	<u>(85,042)</u>	<u>126,179</u>
Total utility plant not depreciated	<u>138,566</u>	<u>73,215</u>	<u>(85,042)</u>	<u>126,739</u>
Utility plant being depreciated:				
Facilities and structures	3,726,958	170,266	(27,300)	3,869,924
Furniture and equipment	<u>33,668</u>	<u>-</u>	<u>(917)</u>	<u>32,751</u>
Total utility plant being depreciated	<u>3,760,626</u>	<u>170,266</u>	<u>(28,217)</u>	<u>3,902,675</u>
Less accumulated depreciation:				
Facilities and structures	(784,722)	(55,645)	1,209	(839,158)
Furniture and equipment	<u>(29,070)</u>	<u>(1,321)</u>	<u>-</u>	<u>(30,391)</u>
Total accumulated depreciation	<u>(813,792)</u>	<u>(56,966)</u>	<u>1,209</u>	<u>(869,549)</u>
Utility plant being depreciated—net	<u>2,946,834</u>	<u>164,657</u>	<u>(86,505)</u>	<u>3,033,126</u>
Utility plant—net	<u>\$ 3,085,400</u>			<u>\$ 3,159,865</u>

As of December 31, 2022, the total amount of right-of-use lease assets by major class, and the related accumulated amortization, disclosed separately from other capital assets, is as follows (in thousands):

	Balance January 1, 2022	Additions	Deductions	Balance December 31, 2022
Leased assets being amortized:				
Leased—equipment	<u>\$ 105,633</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ 105,633</u>
Total leased assets not depreciated	<u>105,633</u>	<u>-</u>	<u>-</u>	<u>105,633</u>
Less accumulated amortization:				
Leased—equipment	<u>-</u>	<u>(20,618)</u>	<u>-</u>	<u>\$ (20,618)</u>
Total accumulated amortization	<u>-</u>	<u>(20,618)</u>	<u>-</u>	<u>(20,618)</u>
Total—net of accumulated amortization	<u>\$ 105,633</u>	<u>\$ (20,618)</u>	<u>\$ -</u>	<u>\$ 85,015</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, 2022, the following City employees were covered by the benefit terms:

	Municipal Employees’	Laborers’	Total
Inactive employees or beneficiaries currently receiving benefits	25,894	3,527	29,421
Inactive employees entitled to but not yet receiving benefits	22,586	1,388	23,974
Active employees	<u>35,369</u>	<u>2,624</u>	<u>37,993</u>
 Total number of members	 <u>83,849</u>	 <u>7,539</u>	 <u>91,388</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 2022.

The contribution to the two pension plans from the Sewer Fund was \$29.0 million for the year ended December 31, 2022.

Net Pension Liability, Pension Expense, and Deferred Outflows of Resources and Deferred Inflows of Resources Related to Pensions—At December 31, 2022, the Sewer Fund reported a liability of \$442.2 million for its proportionate share of the net pension liability. The net pension liability was measured as of December 31, 2022 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 decreased the net pension liability by \$11.9 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 2022. At December 31, 2022, the Sewer Fund’s proportion was 1.7% of the Municipal Employees’ Plan and 10.9% of the Laborers’ Plan.

For the year ended December 31, 2022, the Sewer Fund recognized pension expense of \$21.5 million.

At December 31, 2022, the Sewer Fund reported total deferred outflows of resources of \$25.2 million, and deferred inflows of resources of \$13.8 million related to pensions from the following sources:

Municipal Employees’ (dollars in thousands):

	Deferred Outflows of Resources
Differences between expected and actual experience	\$ 2,926
Changes of assumptions	1,959
Net difference between projected and actual earnings on pension plan investments	<u>5,550</u>
Total	<u><u>\$ 10,435</u></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**

2023	\$ 1,983
2024	2,945
2025	2,343
2026	<u>3,164</u>
Total	<u>\$ 10,435</u>

Laborers' (dollars in thousands):

	Deferred Outflows of Resources	Deferred Inflows of Resources
Differences between expected and actual experience	\$ -	\$ 4,593
Changes of assumptions	2,517	9,175
Net difference between projected and actual earnings on pension plan investments	<u>12,254</u>	<u>-</u>
Total	<u>\$ 14,771</u>	<u>\$ 13,768</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**

2023	\$(2,889)
2024	(1,188)
2025	828
2026	<u>4,252</u>
Total	<u>\$ 1,003</u>

Deferred Inflows and Related to Changes in Proportionate Share of Contributions—For the year ended December 31, 2022, the Sewer Fund reported pension benefit of \$15.9 million related to changes in proportionate share of contributions. As of December 31, 2022, the Sewer Fund reported deferred inflows of \$32.0 million, and deferred outflows of \$0.8 million 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, 2022, 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	2.50%-14.00% (a)	3.00 % (b)
Investment rate of return	6.75 % (c)	7.25 % (c)

- (a) varying by years of service and employer
- (b) Plus a service—based increase in the first 9 years
- (c) Net of investment expense

Pension Plan	Mortality Table Name	Mortality Improvement
Municipal Employees' Post Retirement	Pub G-2010 Retiree Amount-weighted Below Median mortality Tables (sex specific)	Generational—Scale MP-2021
Beneficiary	PubG-2010 Contingent Survivor Table Amount-weighted Below Median Mortality table (sex specific)	Generational—Scale MP-2021
Pre-Retirement	PubG-2010 Employee Amount-weighted Below Median mortality table (sex specific)	Generational—Scale MP-2021
Laborers' Post Retirement	Pub-2010 Amount-weighted Below-median Income General Healthy Retiree Mortality Tables, Sex Distinct	Generational—Scale MP-2020 2-dimensional
Pre-Retirement	Pub-2010 Amount-weighted Below-median Income General Employee Mortality Tables, Sex Distinct	Generational—Scale MP-2020 2-dimensional

The mortality actuarial assumptions used in the December 31, 2022, valuation were based on the results of actuarial experience study for the period as noted below:

Municipal Employees'—January 1, 2017–December 31, 2021

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, 2022, are summarized in the following table:

2022	Target Allocation		Long-Term Expected Real Rate of Return	
	Municipal Employees'	Laborers'	Municipal Employees'	Laborers'
Asset class:				
Domestic equity	26.0 %	- %	7.1 %	- %
U.S. equity	-	25.0	-	5.2
Non U.S. equity	-	20.0	-	5.4
Global equity	5.0		6.8	-
Global low volatility equity	-	5.0	-	4.5
Infrastructure	3.0	-	6.9	-
International equity	17.0	-	7.4	-
Fixed income	22.0	20.0	4.9	1.6
Hedge funds	10.0	10.0	5.3	3.1
Private debt	4.0	3.0	10.1	8.2
Private equity	4.0	4.0	11.4	9.3
Real estate	9.0	10.0	6.8	4.5
Private real assets	-	3.0		4.8
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, 2022 was 6.57 percent. 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 through the year 2078. Therefore, the long-term expected rate of return on pension plan investments of 6.75 percent was applied to projected benefits for all periods through 2077 and the municipal bond index rate of 3.72 percent was applied thereafter to determine total pension liability.

Laborers'—A Single Discount Rate of 7.13 percent was used to measure the total pension liability as of December 31, 2022. This Single Discount Rate was based on an expected rate of return on pension plan investments of 7.25 percent and a municipal bond rate of 4.05 percent (based on the daily rate closest to but not later than the measurement date of the Fidelity "20-Year Municipal GO AA 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 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 2076. As a result, the long-term expected rate of return on pension plan investments was applied to

projected benefit payments through the year 2076, 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, 2022, calculated using the discount rate of 6.57%, 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, 2022	Current		
	1% Decrease	Discount Rate	1% Increase
Municipal Employees’ discount rate	5.57 %	6.57 %	7.57 %
Municipal Employees’ net pension liability	\$ 297,233	\$ 257,701	\$ 224,676

Laborers’—The following presents the Sewer Fund’s allocated share of the net pension liability as of December 31, 2022, calculated using the discount rate of 7.13% 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, 2022	Current		
	1% Decrease	Discount Rate	1% Increase
Laborers’ discount rate	6.13 %	7.13 %	8.13 %
Laborers’ net pension liability	\$ 219,540	\$ 184,510	\$ 154,997

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 \$76.9 million in 2022.

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 year ended December 31, 2022, are as follows (in thousands):

Balance—January 1	\$ 33,721
Claims incurred on current and prior-year events	12,625
Claims paid on current and prior-year events	<u>(12,521)</u>
Balance—December 31	<u>\$ 33,825</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, 2022, the Sewer Fund entered into contracts with outstanding commitments of approximately \$88.6 million for construction projects.

9. DEFERRED OUTFLOWS/INFLOWS OF RESOURCES

(In thousands)

Deferred outflows of resources:	
Deferred outflows from pension activities	\$ 25,207
Changes in proportionate share of pension contribution	766
Unamortized deferred bond refunding costs	<u>3,314</u>
Total deferred outflows of resources	<u>\$ 29,287</u>
Deferred inflows of resources:	
Deferred inflows from pension activities	\$ (13,768)
Changes in proportionate share of pension contribution	<u>(31,987)</u>
Total deferred inflows of resources	<u>\$ (45,755)</u>

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

10. LEASES

As Lessee:

The Sewer Fund leases equipment from other vendors. These leases have terms between three and five years.

The expected future minimum principal and interest payments that are included in the measurement of the lease liability as of December 31, 2022 are as follows (in thousands):

Years Ending December 31	Principal	Interest	Amount
2023	\$ 20,791	\$ 2,806	\$ 23,597
2024	21,410	2,038	23,448
2025	20,893	1,230	22,123
2026	20,972	439	21,411
2027	<u>355</u>	<u>2</u>	<u>357</u>
Total	<u>\$ 84,421</u>	<u>\$ 6,515</u>	<u>\$ 90,936</u>

The lease liability activity for the year ended December 31, 2022 is summarized as follows:

	Balance at January 1, 2022	Additions	Reductions	Balance at December 31, 2022	Current Portion
Lease liability	<u>\$ 105,633</u>	<u>\$ -</u>	<u>\$ (21,212)</u>	<u>\$ 84,421</u>	<u>\$ 20,791</u>

11. SUBSEQUENT EVENTS

The Sewer Fund has evaluated events occurring subsequent to December 31, 2022, and through June 30, 2023, the date the financial statements were available to be issued. The City did not identify any subsequent events to be disclosed apart from those discussed below.

On April 11, 2023, S&P upgraded the rating on the City of Chicago Second Lien Wastewater Transmission Revenue Bonds to 'A+' from 'A'. The outlook is stable.

In May 2023, the City sold its \$452,575,000 aggregate principal amount of Second Lien Wastewater Transmission Revenue Bonds, comprising Project Series 2023A (the "Wastewater 2023A Bonds") and Refunding Series 2023B (the "Wastewater 2023B Bonds" and together with the Wastewater 2023A Bonds, the "Wastewater Series 2023AB Bonds"). The City issued the Wastewater 2023AB Bonds on May 11, 2023. The Wastewater 2023A Bonds were issued at interest rates of 5.25% and 5.50% with mandatory sinking fund or maturity dates between January 1, 2040 and January 1, 2062. The Wastewater 2023B Bonds were issued at an interest rate of 5.00% with maturity dates between January 1, 2029 and January 1, 2039.

Proceeds of the Wastewater 2023A Bonds were used to finance portions of certain Wastewater Transmission System capital projects, fund capitalized interest on the Wastewater 2023A Bonds, and to pay costs of issuance for the Wastewater 2023A Bonds. Proceeds of the Water 2023B Bonds were used to refund certain outstanding Wastewater Transmission Revenue Bonds, and to pay costs of issuance for the Wastewater 2023B Bonds.

In May 2023, City legally defeased \$30,050,000 of outstanding Second Lien Wastewater Transmission Revenue Bonds, Series 2008C. The defeasance was funded by excess cash released from Debt Service Reserve Funds of the Second Lien Wastewater Transmission Revenue Bonds, Series 2008C and Series 2015.

* * * * *

REQUIRED SUPPLEMENTARY INFORMATION

**CITY OF CHICAGO, ILLINOIS
SEWER FUND**

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

Municipal Employees'	2022	2021	2020	2019	2018	2017	2016	2015
TOTAL PENSION LIABILITY:								
Service cost*	\$ 263,993	\$ 246,066	\$ 236,302	\$ 228,465	\$ 223,528	\$ 572,534	\$ 619,743	226,816
Interest	1,269,645	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	84,258	121,988	100,938	16,676	95,540	(177,755)	(127,119)	(109,835)
Assumption changes	143,996	-	-	-	-	(7,431,191)	(578,920)	8,711,755
Benefit payments including refunds	<u>(1,055,585)</u>	<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	706,307	586,768	554,456	451,742	526,218	(7,008,875)	(67,599)	11,051,776
Total pension liability—beginning	<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>	<u>12,307,094</u>
Total pension liability—ending ^(a)	<u>19,107,887</u>	<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	959,550	573,198	496,992	418,269	349,574	261,764	149,718	149,225
Contributions—employee	176,339	163,411	157,798	146,645	138,400	134,765	130,391	131,428
Net investment income (loss)	(429,912)	498,299	335,403	560,940	(204,975)	610,515	281,419	114,025
Benefit payments including refunds of employee contribution	(1,055,585)	(1,010,191)	(973,478)	(952,652)	(916,198)	(888,174)	(859,672)	(826,036)
Administrative expenses	(6,873)	(6,687)	(7,118)	(6,740)	(6,639)	(6,473)	(7,056)	(6,701)
Other	-	-	-	-	-	5,394	-	-
Net change in plan fiduciary net position	(356,481)	218,030	9,597	166,462	(639,838)	117,791	(305,200)	(438,059)
Plan fiduciary net position—beginning	<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>	<u>5,179,486</u>
Plan fiduciary net position—ending ^(b)	<u>3,951,788</u>	<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>15,156,099</u>	<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>20.68 %</u>	<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>\$ 36,832</u>	<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>699.67 %</u>	<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>\$ 257,701</u>	<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>1.70 %</u>	<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 EIGHT FISCAL YEARS
(Dollars in thousands)**

Laborsers'	2022	2021	2020	2019	2018	2017	2016	2015
TOTAL PENSION LIABILITY:								
Service cost *	\$ 39,331	\$ 40,411	\$ 39,216	\$ 38,522	\$ 40,801	\$ 80,232	\$ 82,960	38,389
Interest	193,347	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	(27,236)	(31,083)	(18,992)	(8,820)	15,143	(62,178)	(30,428)	(46,085)
Assumption changes	(109,355)	21,870	44,034	32,846	(11,788)	(1,074,754)	(62,905)	1,175,935
Benefit payments including refunds	(177,162)	(172,514)	(169,056)	(164,959)	(160,061)	(157,050)	(154,683)	(152,530)
Pension plan administrative expense	(3,607)	(3,837)	(3,616)	(3,691)	(3,933)	(3,985)	(4,080)	(3,844)
Net change in total pension liability	(84,682)	47,190	82,685	82,245	63,297	(1,063,538)	(18,970)	1,549,710
Total pension liability—beginning	<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>	<u>2,162,905</u>
Total pension liability—ending ^(a)	<u>2,820,842</u>	<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	116,176	84,969	73,744	59,346	47,844	35,457	12,603	12,412
Contributions—employee	19,069	17,637	18,064	18,143	17,837	17,411	17,246	16,844
Net investment income (loss)	(161,680)	138,105	163,057	184,027	(75,219)	207,981	57,997	(22,318)
Benefit payments including refunds of employee contribution	(177,162)	(172,514)	(169,056)	(164,959)	(160,061)	(157,050)	(154,683)	(152,530)
Administrative expenses	(3,607)	(3,837)	(3,616)	(3,691)	(3,933)	(3,985)	(4,080)	(3,844)
Other	-	-	-	-	661	-	-	-
Net change in plan fiduciary net position	(207,204)	64,360	82,193	92,866	(172,871)	99,814	(70,917)	(149,436)
Plan fiduciary net position—beginning	<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>	<u>1,388,093</u>
Plan fiduciary net position—ending ^(b)	<u>1,126,898</u>	<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>\$ 1,693,944</u>	<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>39.95 %</u>	<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>\$ 23,319</u>	<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>791.26 %</u>	<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>\$ 184,510</u>	<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>10.89 %</u>	<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'	Contributions in Relation to the				Contributions as a percentage of Covered Payroll
	Actuarially Determined Contributions	Actuarially Determined Contribution	Contribution Deficiency	Covered Payroll*	
Years Ended December 31					
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
2022	1,262,413	959,550	302,863	2,166,182	44.30

* 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'	Contributions in Relation to the				Contributions as a percentage of Covered Payroll
	Actuarially Determined Contributions*	Actuarially Determined Contribution	Contribution Deficiency	Covered Payroll**	
Years Ended December 31					
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
2022	153,023	116,176	36,847	214,083	54.27

* 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

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

Actuarial Methods and Assumptions	Municipal Employees'		Laborers'	
	December 31, 2021	(a)	December 31, 2021	(b)
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	7.00%	(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) Varying by years of service and employer.
- (d) Plus service based increases in the first 9 years.
- (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, 2022). 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 rates were based on the RP-2014 Healthy Annuitant Mortality Tables, set forward two years for males and one year for females, and projected generationally using scale MP-2016. Pre-retirement mortality rates were based on 120% of the RP-2014 Employee Mortality Tables projected generationally using scale MP-2016.
- (j) 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 the generational mortality improvement using MP-2020 2-dimensional mortality improvement scales recently released by the SOA. This assumption provides a margin for mortality improvements.
- (k) Other assumptions: Same as those used in the December 31, 2021, actuarial funding valuations.
- (l) The actuarial valuation is based on the statutes in effect as of December 31, 2020.

(Concluded)

PART III

**STATISTICAL SECTION
(UNAUDITED)**

STATISTICAL DATA

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

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

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

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

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

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

**CITY OF CHICAGO, ILLINOIS
SEWER FUND**

**STATISTICAL DATA
NET POSITION BY COMPONENT
TEN YEARS ENDED DECEMBER 31, 2013–2022
(In thousands)**

	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
NET POSITION:										
Net investment in capital assets	\$481,946	\$520,627	\$ 559,715	\$ 648,644	\$ 735,564	\$ 827,773	\$ 862,065	\$ 931,047	\$1,062,584	\$1,087,602
Restricted for capital projects	73,858	111,333	116,107	117,295	116,376	115,576	139,618	205,696	171,985	69,193
Unrestricted	<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>	<u>(219,460)</u>
TOTAL	<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>	<u>\$ 937,335</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, 2013–2022
(In thousands)**

	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
OPERATING REVENUES:										
Sewer sales	\$291,110	\$337,657	\$ 390,924	\$384,140	\$377,286	\$380,822	\$373,902	\$356,267	\$377,514	\$390,059
Provision for doubtful accounts	(12,461)	(16,557)	(16,154)	(16,320)	(20,813)	(12,611)	(23,849)	(22,792)	(12,297)	(23,183)
Other operating revenues	1,180	1,128	1,107	1,146	1,150	1,492	1,023	484	1,052	836
Total operating revenues	<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>	<u>367,712</u>
OPERATING EXPENSES:										
Repairs	38,910	40,435	42,131	36,408	41,881	43,654	41,614	47,398	44,066	27,513
General Fund reimbursements	32,144	36,740	40,007	50,760	47,522	51,188	53,688	54,467	55,937	55,478
Pension expense	-	-	187,593	104,864	34,397	18,938	3,266	(23,853)	(4,979)	21,466
Maintenance	23,004	24,374	25,322	21,941	24,660	24,909	22,958	24,405	25,861	14,406
Engineering	3,267	3,336	3,299	2,158	2,466	3,664	3,515	4,776	5,328	6,162
Administrative and general	12,008	14,394	12,337	11,801	12,591	13,472	12,367	12,320	13,891	14,093
Total operating expenses before depreciation and amortization	109,333	119,279	310,689	227,932	163,517	155,825	137,408	119,513	140,104	139,118
Depreciation and amortization	31,280	36,701	40,444	40,734	48,171	48,504	52,933	53,140	55,749	78,728
Total operating expenses	<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>	<u>217,846</u>
OPERATING INCOME	<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>	<u>149,866</u>
NON-OPERATING REVENUES (EXPENSES):										
Interest Income (loss)	(4,965)	2,984	2,600	1,025	4,348	2,436	11,663	8,381	(733)	(17,178)
Interest expense	(63,513)	(69,620)	(83,656)	(81,722)	(81,359)	(77,619)	(79,992)	(80,346)	(82,979)	(80,612)
Other	2,173	791	1,321	112	6	5,010	74	3,747	2,898	22,187
Transfer outs	-	-	-	(120)	(120)	(120)	(120)	(120)	(120)	(120)
Grants	2,500	-	-	16,639	6,419	2,274	(5)	3,331	-	-
Swap termination fee	38	38	(70,243)	-	-	-	-	-	-	-
	<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>	<u>(75,723)</u>
CHANGE IN NET POSITION	75,449	100,441	(125,234)	36,234	75,229	97,355	92,355	96,299	89,482	74,143
TOTAL NET POSITION—Beginning of year	<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>	<u>863,192</u>
TOTAL NET POSITION—End of year	<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>	<u>\$937,335</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, 2013–2022
(In thousands)**

	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
OPERATING REVENUES:										
Sewer sales	\$ 291,110	\$ 337,657	\$ 390,924	\$ 384,140	\$ 377,286	\$ 380,822	\$ 373,902	\$ 356,267	\$ 377,514	\$ 390,059
Less provision for bad debt	(12,461)	(16,557)	(16,154)	(16,320)	(20,813)	(12,611)	(23,849)	(22,792)	(12,297)	(23,183)
Other operating revenue	<u>1,180</u>	<u>1,128</u>	<u>1,107</u>	<u>1,146</u>	<u>1,150</u>	<u>1,492</u>	<u>1,023</u>	<u>484</u>	<u>1,052</u>	<u>836</u>
Total operating revenues	<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>	<u>367,712</u>
OPERATING EXPENSES:										
Repairs	38,910	40,435	42,131	36,408	41,881	43,654	41,614	47,398	44,066	27,513
Maintenance	23,004	24,374	25,322	21,941	24,660	24,909	22,958	24,405	25,861	14,406
Administrative and general	12,008	14,394	12,337	11,801	12,591	13,472	12,367	12,320	13,891	14,093
General Fund reimbursements ⁽¹⁾	32,144	36,740	227,600	155,624	81,919	70,126	56,954	30,614	50,958	55,478
Pension Expense	-	-	-	-	-	-	-	-	-	21,466
Engineering	<u>3,267</u>	<u>3,336</u>	<u>3,299</u>	<u>2,158</u>	<u>2,466</u>	<u>3,664</u>	<u>3,515</u>	<u>4,776</u>	<u>5,328</u>	<u>6,162</u>
Total operating expenses	<u>109,333</u>	<u>119,279</u>	<u>310,689</u>	<u>227,932</u>	<u>163,517</u>	<u>155,825</u>	<u>137,408</u>	<u>119,513</u>	<u>140,104</u>	<u>139,118</u>
NONOPERATING REVENUES	<u>(2,754)</u>	<u>3,813</u>	<u>3,921</u>	<u>1,137</u>	<u>4,354</u>	<u>7,446</u>	<u>11,737</u>	<u>12,128</u>	<u>2,165</u>	<u>(15,801)</u>
NET REVENUES—As defined	<u>\$ 167,742</u>	<u>\$ 206,762</u>	<u>\$ 69,109</u>	<u>\$ 142,171</u>	<u>\$ 198,460</u>	<u>\$ 221,324</u>	<u>\$ 225,405</u>	<u>\$ 226,574</u>	<u>\$ 228,330</u>	<u>\$ 212,793</u>

Source: City of Chicago Comptroller's Office.

Note 1:

⁽¹⁾ \$29.0 million is the portion of the City's pension cash contribution payable in 2021 to the pension funds and allocable to the Sewer Fund. Accordingly, this portion is 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									
	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Department of Aviation	\$2,165	\$1,857	\$3,634	\$4,498	\$4,025	\$4,504	\$5,198	\$3,138	\$3,343	\$ 5,169
Humboldt Park	1,393	1,307	-	-	759	-	-	-	-	-
WR Grace and Company	-	-	-	-	-	589	-	1,314	1,322	1,521
Calumet Park	635	652	-	-	-	-	-	-	-	-
CPD—Lincoln Park	1,418	-	1,344	1,267	1,325	675	771	1,169	1,679	2,899
Cook County Sheriff	1,141	-	-	846	-	-	-	-	-	-
University of Chicago—HCC	-	-	-	-	-	-	-	-	-	-
Uniquema	-	680	551	-	-	-	622	590	-	-
Ford Motor Co	-	695	928	912	995	1,311	1,304	1,499	-	1,166
University of Illinois at Chicago	-	-	834	-	-	-	-	-	1,377	-
Hometown	-	-	-	546	551	560	567	-	1,383	2,242
	<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>	<u>\$12,997</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									
	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Residential	\$195,542	\$233,830	\$266,878	\$246,997	\$242,899	\$248,622	\$243,311	\$242,255	\$250,148	\$268,927
Industrial/ commercial	74,696	82,811	95,473	109,655	99,620	98,054	93,167	84,473	91,412	92,719
Governmental	<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>24,705</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>	<u>\$386,351</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, 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
June 1, 2022	4.33	32.33	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, 2013–2022
(Unaudited)**

Years Ended December 31	Water Accounts			Exempt	Sewer Accounts
	Non- Metered	Metered	Total		
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
2022	172,048	322,226	494,274	60,006	434,268

Source: City of Chicago Department of Water Management.

**CITY OF CHICAGO, ILLINOIS
SEWER FUND**

**STATISTICAL DATA
REVENUE BOND COVERAGE
TEN YEARS ENDED DECEMBER 31, 2013–2022
(In thousands)**

Combined Senior Lien and Second Lien Debt Service Calculation	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
REVENUES AVAILABLE FOR BONDS:										
Net revenues—as defined	\$ 167,742	\$ 206,762	\$ 69,109	\$ 142,171	\$ 198,460	\$ 221,324	\$ 225,405	\$ 226,574	\$ 228,330	\$ 212,793
Pension expense other than contribution (Note 1)	-	-	183,165	100,447	24,921	6,191	(12,572)	(40,972)	(24,917)	(7,552)
Transfer to sewer rate stabilization account	3,000	-	-	-	1,281	-	-	-	-	-
Other available funds (Note 2)	65,298	103,864	108,498	133,501	200,990	221,509	234,799	255,980	263,437	207,660
Net revenues available for bonds	230,040	310,626	360,772	376,119	423,090	449,024	447,632	441,582	466,850	412,901
PRIOR LIEN DEBT SERVICE REQUIREMENT	-	-	-	-	-	-	-	-	-	-
NET REVENUES AVAILABLE FOR BONDS	<u>230,040</u>	<u>310,626</u>	<u>360,772</u>	<u>376,119</u>	<u>423,090</u>	<u>449,024</u>	<u>447,632</u>	<u>441,582</u>	<u>466,850</u>	<u>412,901</u>
DEBT SERVICE REQUIREMENTS:										
Senior lien debt service requirement	-	-	-	-	-	-	10,525	13,654	13,720	13,720
Senior lien debt service coverage (1.15 required)	-	-	-	-	-	-	42.53	32.34	34.03	30.09
DEBT SERVICE REQUIREMENTS:										
2000 second lien bonds	-	-	-	-	-	-	-	-	-	-
2001 second lien bonds	6,923	6,935	6,942	6,947	6,951	6,957	6,964	2,304	2,304	2,301
2001A second lien bonds	-	-	-	-	-	-	-	-	-	-
2004A and B second lien bonds	26,910	27,102	27,242	-	-	-	-	-	-	-
2006A and B second lien bonds	15,201	15,210	12,358	12,364	2,734	-	-	-	-	-
2008A second lien bonds	8,650	11,536	11,534	11,535	8,031	4,421	4,448	-	-	-
2008C second lien bonds	2,786	3,346	14,725	31,907	31,809	32,023	24,375	30,775	24,445	30,491
IEPA Loans	866	2,916	3,309	4,934	10,612	12,933	18,117	21,727	27,387	28,724
2010A & B second lien bonds	21,039	21,054	21,627	21,646	21,654	21,785	17,245	17,250	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	17,482
2014 second lien bonds	-	3,292	19,127	19,180	19,188	19,192	19,192	19,215	19,215	19,221
2015 second lien bonds	-	-	-	-	6,902	6,849	6,810	7,012	6,915	6,909
2017A & B second lien bonds	-	-	-	-	16,751	25,634	28,045	29,484	29,483	29,507
Second lien debt service requirement	99,860	108,877	134,347	125,999	142,112	147,276	142,673	145,249	144,481	151,885
COMBINED SENIOR AND SECOND LIEN DEBT SERVICE REQUIREMENTS	<u>\$ 99,860</u>	<u>\$ 108,877</u>	<u>\$ 134,347</u>	<u>\$ 125,999</u>	<u>\$ 142,112</u>	<u>\$ 147,276</u>	<u>\$ 153,198</u>	<u>\$ 158,903</u>	<u>\$ 158,201</u>	<u>\$ 165,605</u>
COMBINED SENIOR AND SECOND LIEN DEBT SERVICE COVERAGE (1.15 REQUIRED)	<u>2.30</u>	<u>2.85</u>	<u>2.69</u>	<u>2.99</u>	<u>2.98</u>	<u>3.05</u>	<u>2.92</u>	<u>2.78</u>	<u>2.95</u>	<u>2.49</u>
SEWER RATE STABILIZATION ACCOUNT YEAR-END BALANCE	<u>\$ 32,629</u>	<u>\$ 32,629</u>	<u>\$ 32,629</u>	<u>\$ 32,629</u>	<u>\$ 32,196</u>	<u>\$ 36,902</u>	<u>\$ 36,902</u>	<u>\$ 40,814</u>	<u>\$ 40,814</u>	<u>\$ 40,814</u>
TOTAL CUSTOMER ACCOUNTS	<u>431,792</u>	<u>428,752</u>	<u>429,304</u>	<u>427,134</u>	<u>427,158</u>	<u>427,384</u>	<u>427,721</u>	<u>430,816</u>	<u>431,649</u>	<u>434,268</u>
TOTAL REVENUE BONDS AND NOTES	<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>	<u>\$1,876,190</u>
TOTAL DEBT PER CUSTOMER SERVED	<u>\$ 3,172</u>	<u>\$ 3,823</u>	<u>\$ 3,928</u>	<u>\$ 3,963</u>	<u>\$ 4,358</u>	<u>\$ 4,431</u>	<u>\$ 4,432</u>	<u>\$ 4,534</u>	<u>\$ 4,392</u>	<u>\$ 4,320</u>

Source: City of Chicago Comptroller's Office.

Note:

(1) \$29.0 million is the portion of the City's pension cash contribution payable in 2022 to the pension funds and allocable to the Sewer Fund. Accordingly, this portion is 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, 2013–2022
(In thousands)**

	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
First lien	\$ 35,168	\$ 35,168	\$ 35,168	\$ 35,168	\$ 35,168	\$ 35,168	\$ 35,168	\$ 31,792	\$ 27,634	\$ 23,670
Second lien	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	1,429,105
Subordinate lien—IEPA loan	<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>	<u>423,415</u>
Total revenue bonds and notes	<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>	<u>1,876,190</u>
Unamortized premium (discount)	34,707	61,306	83,551	77,642	113,074	104,893	97,004	89,361	81,926	74,790
Unamortized deferred loss	-	-	-	-	-	-	-	-	-	-
Accretion of Series 1998 CAB	<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>	<u>63,529</u>
Sub-total	<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>	<u>138,319</u>
Total revenue bonds payable—net of unamortized premium (discount)	<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>	<u>\$2,014,509</u>
Customer accounts	<u>431,792</u>	<u>428,752</u>	<u>429,304</u>	<u>427,134</u>	<u>427,158</u>	<u>427,384</u>	<u>427,721</u>	<u>430,816</u>	<u>431,649</u>	<u>434,268</u>
Total outstanding debt per customer served	<u>\$ 3,357</u>	<u>\$ 4,081</u>	<u>\$ 4,249</u>	<u>\$ 4,283</u>	<u>\$ 4,772</u>	<u>\$ 4,839</u>	<u>\$ 4,834</u>	<u>\$ 4,911</u>	<u>\$ 4,741</u>	<u>\$ 4,639</u>

Source: City of Chicago Comptroller's Office.

**CITY OF CHICAGO, ILLINOIS
SEWER FUND**

**STATISTICAL DATA
CAPITAL IMPROVEMENT PROGRAM
2023–2027
(In thousands)**

Years	Amount
2023	\$ 291,381
2024	253,118
2025	508,050
2026	437,740
2027	<u>444,082</u>
Total	<u>\$1,934,371</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, 2013–2022

Function	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Agency management	4	4	4	4	4	5	5	4	4	4
Capital design and construction services	24	26	24	24	25	26	26	27	26	26
Inspection services	18	16	18	24	24	24	24	24	24	24
System installation	8	8	9	9	8	8	8	8	8	8
System maintenance and evaluations	523	521	521	515	426	412	412	368	358	352
Communications and coordination	<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>11</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>	<u>425</u>

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

Source: City of Chicago's 2022, 2021, 2020, 2019, 2018, 2017, 2016, 2015, 2014, 2013, 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**

	2020	2021	2022
Catch basins repaired	<u>1,742</u>	<u>1,974</u>	<u>2,116</u>

**CITY OF CHICAGO, ILLINOIS
SEWER FUND**

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

	2020	2021	2022
Sewers lined	30.7	48.8	42.6
New construction	17.8	12.3	11.5

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	2022 ⁽¹⁾			2013 ⁽¹⁾		
	Number of Employees	Rank	Percentage of Total City Employment	Number of Employees	Rank	Percentage of Total City Employment
Amazon.Com, Inc.	28,994	1	2.20 %	-	-	- %
Advocate Aurora Health Care	26,841	2	2.03	-	-	-
Northwestern Memorial Healthcare	24,120	3	1.83	-	-	-
University of Chicago	21,618	4	1.64	-	-	-
Walmart Inc	17,344	5	1.31	2,869	9	0.26
Walgreens Boots Alliance Inc.	17,300	6	1.31	-	-	-
JPMorgan Chase & Co ⁽⁴⁾	15,565	7	1.18	8,199	2	0.75
United Continental Holdings Inc. ⁽⁵⁾	14,293	8	1.08	8,499	1	0.78
Amita Health	14,216	9	1.08	-	-	-
Jewel-Osco ⁽⁶⁾	11,436	10	0.87	4,441	6	0.41
Accenture LLP	-	-	-	5,821	3	0.53
Northern Trust	-	-	-	5,353	4	0.49
Ford Motor Company	-	-	-	5,103	5	0.47
Bank of America NT & SA ⁽⁷⁾	-	-	-	3,399	7	0.31
ABM Janitorial Midwest, INC	-	-	-	3,392	8	0.31
American Airlines	-	-	-	2,749	10	0.25

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 known 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
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	35.8	1,139,537	1,247,060	4.1	71,192	197,717,964,896
2022	2,665,039	N/A ⁽⁵⁾	N/A ⁽⁵⁾	1,319,764	4.1	65,781	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 2022

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 2022, 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.