City of Chicago Department of Water Management Water Fund

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



Lori E. Lightfoot, Mayor Jennie Huang Bennett, Chief Financial Officer Reshma Soni, City Comptroller Andrea R.H. Cheng, Ph.D., Commissioner

Water Fund An Enterprise Fund of The City of Chicago

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



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

2021 ANNUAL COMPREHENSIVE FINANCIAL REPORT OF THE CHICAGO WATER FUND

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PART I

INTRODUCTORY SECTION



DEPARTMENT OF WATER MANAGEMENT

June 29, 2022

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

I am pleased to submit to you the Annual Comprehensive Financial Report (ACFR) for the City of Chicago Department of Water Management, Water Fund, for the year ended December 31, 2021. Responsibility for both the accuracy of the data and completeness and fairness of the presentation, including all disclosures, rests with management. The purpose of the ACFR is to provide complete and accurate information, which complies with the requirements of the Municipal Code of the City of Chicago.

The financial section includes management's discussion and analysis (MD&A). This letter of transmittal is designed to complement the MD&A and should be read in conjunction with it.

REPORTING ENTITY

The Department of Water has been accounted for as a separate enterprise fund of the City of Chicago (City) which operates and maintains the City's water system. Effective January 1, 2003, the Water Department merged with the Sewer Department to form the Department of Water Management. The water system treats and distributes water to the City's residential and commercial businesses, and suburban customers. The water system provides water intake, filtration and treatment. Water is then distributed through over 4,295 miles of mains which covers a service area of roughly 806 square miles and is inhabited by approximately 5.3 million people or 44% of the State of Illinois.

ECONOMIC CONDITION AND OUTLOOK

Department of Water Management's primary source of revenue is a water service charge which is set by City ordinance. The water service charge covers the costs of operations, maintenance and debt service.

As of June 1, 2021, the metered water rate is set at \$30.79 per 1,000 cubic feet or \$4.13 per 1,000 gallons. The metered rate is also applicable to the system's suburban customers. It is not expected that there will be a significant change in the population, either industrial or suburban that would lead to a significant change in revenues. Effective June 1, 2022, the rate was increased to \$32.33 per 1,000 cubic feet or \$4.33 per 1,000 gallons.

MAJOR INITIATIVES

The Department of Water Management's, Water Division's Five-Year Capital Improvement Program (CIP) for the years 2022 – 2026 is forecasted to be approximately \$1.7 billion. The CIP addresses the renewal and replacement of the Water System's infrastructure and continues to focus on three major areas: purification plants, pumping stations, and water distribution system.

The primary capital expenditures are for the annual water main replacement program. The department is planning to continue water main installation; however, the department is currently evaluating the mileage of water mains to be replaced in 2022. After carefully reviewing the project locations, and in anticipation of the private drain pilot study results, the 2022 goals for capital construction will be finalized based on the findings.

There are approximately 380,000 lead water service line within the City of Chicago. DWM has launched two programs to replace lead service lines- the Homeowner-initiated Program and Equity Program – and in late 2022 the department will launch the Lead Service Line Replacement Program for breaks and leaks and new construction projects.

The Meter Save Program will target installation of meters and automatic meter reading devices to nonmetered customers on a volunteer basis. The department is currently running a pilot program using ultrasonic water meters. Upon completion of the pilot, new annual targets will be determined based on the outcome.

The CIP includes work for the rehabilitation and upgrade of the two purification plants. The work will include replacement of the phosphate feed system and outdated boiler systems; filter underdrain replacement; and filter building roof replacement at the Sawyer Water Purification Plant. At the Jardine Water Purification Plant, the replacement of the phosphate feed system; install sediment force main project; HVAC Improvements; and the upgrade of existing filter consoles.

The 5-year CIP also includes design and construction work on three of the departments' steam powered pumping station to convert them to electric power. During this period, construction will continue on the Central Park Pumping Station project, and the Western Avenue Pumping Station and-Mayfair Pumping Station projects will begin the design phase. Additionally, the 5-year CIP includes work for upgrades of pumps and motors at various existing electric powered stations.

The Department of Water Management may revise the list of specific improvements and revise cost allocations among improvements, as well as make substitutions to meet current needs and to provide for the most efficient operation of the Water System. In all, the 5-year CIP Program is annually updated to ensure continued economic and reliable delivery of water to all customers.

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

PROPRIETARY OPERATIONS

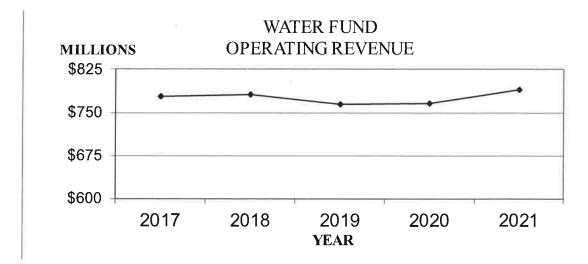
The Department of Water Management, Water Fund, is responsible for implementing and maintaining an internal control structure to ensure the integrity of the Water Fund's operations and to allow for the preparation of financial statements in conformity with accounting principles generally accepted in the United States of America. The internal control structure is designed to provide reasonable, rather than absolute assurance that the assets, resources and operations of the Department of Water Management, Water Fund, are handled in a manner that protects against waste, theft or neglect that may hinder or impair the financial operations of the Fund and are free from any material misstatements. This objective is being met by adequate supervision of employees, segregation of duties and multiple approval and budgetary controls over all expenditures.

The Water Fund's budget is developed and implemented along with the City's annual budget based upon an analysis of its historical operations and maintenance costs. The Commissioner of the Department of Water Management recommends the final proposed budget to the Budget Director. After approval by the Budget Director, the proposed budget is recommended to the Mayor for submission to the City Council for its approval following public hearings.

The budget process is designed to ensure that Department of Water Management, Water Fund, will have adequate funding to meet its operational objectives. The Department of Water Management, Water Fund, cannot by law, exceed the level of funding as established by the City Council-approved budget. The Budget Director uses an allotment system to manage each department's expenditures against its respective annual appropriation. The Budget Director, through the allotment system, has the authority to institute economic measures for Department of Water Management, Water Fund, to ensure that its expenditures do not exceed its revenues collections. The Water Fund uses encumbrances to control expenditures by preventing appropriated dollars from being used for any purpose other than that which they have been legally appropriated.

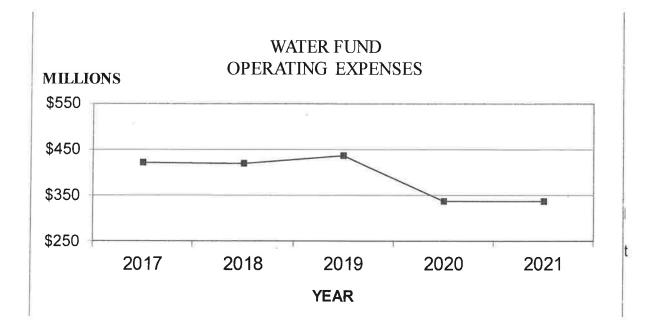
OPERATING REVENUES

Gross operating revenue for 2021 increased by \$24.9 million compared to 2020 operating revenues. This increase is primarily due to increases in water fees of \$20.0 million resulting from a water rate increase of 1.10% effective June 1, 2021, and an increase in pumpage, and other operating revenues of \$4.9 million Below is a graph representing gross operating revenues for the years 2017 through 2021.



OPERATING EXPENSES

Operating expenses before depreciation and amortization for 2021 increased by \$1.6 million compared to 2020 mainly due to an increase in the combined pension expenses resulting from current year inflow and outflow decreases in the pensions' proportionate shared amortization and pension activities due to the changes in actuarial assumptions; and an increase in overtime costs offset by decreases in workers' compensation expenses and provision for doubtful accounts. The decrease in provision for doubtful accounts was due to the implementation of the UBR Program, which extended the due dates of accounts receivable for eligible customers. During 2021, the Water Fund continued to make strategic financial policy changes that have reduced the overall expenses for the Water fund. Below is a graph representing operating expenses for the years 2017 through 2021.



DEBT ADMINISTRATION

The Department of Water Management, Water Fund, issues bonds to finance its capital improvements program. The City has covenanted to establish, maintain and collect at all times the fees, charges and rates sufficient to produce net revenues available for bonds, as adjusted, at least equal the greater of (A) 120 percent of the aggregate current annual debt service on the senior lien revenue bonds, or (B) the sum of the aggregate current annual debt service on the senior lien revenue bonds plus 110 percent of the aggregate current annual debt service on the senior lien revenue bonds plus 110 percent of the aggregate current annual second lien revenue bonds debt service, and that the City management maintain all covenant reserve account balances at specified amounts. The City conducts an annual review of the water service charge to ensure revenue is being generated to comply with the covenant. The ordinances authorizing the issuances of revenue bonds provide for the creation of separate accounts into which net revenues, as defined, or bond proceeds are to be credited, as appropriate. Any net revenues remaining after providing sufficient funds for all required deposits into bond accounts may be transferred to the Water Rate Stabilization Fund to be used for any lawful purpose of the Water Fund. The Department of Water Management, Water Fund, has provided certain annual financial information disclosure for its revenue bonds in the Statistical Section of this report.

LONG TERM FINANCIAL PLANNING

The Department of Water Management, Water Fund's capital activities are funded through Water Fund revenue bonds and Water fund revenue. The Department of Water Management, Water Fund has realized savings through advance refunding as interest rates have changed.

INDEPENDENT AUDIT

City ordinances require the Department of Water Management's, Water Fund, financial statements to be audited by independent certified accountants. The audit was conducted by Deloitte & Touche, LLP and a consortium of Chicago-based minority and women-owned certified public accounting firms. An unmodified audit opinion, rendered by Deloitte & Touche, LLP, is included in the financial section of this report.

AWARD

The Government Finance Officers Association of the United States and Canada (GFOA) awarded a Certificate of Achievement for Excellence in Financial Reporting to the Water Fund, an Enterprise Fund of the City of Chicago, for its ACFR, for the fiscal year ended December 31, 2020. This was the twenty second year that the government unit has achieved this prestigious award, which is the highest form of recognition for excellence in state and local government financial reporting. In order to be awarded a Certificate of Achievement, a government must publish an easily readable and efficiently organized ACFR. This report must satisfy both generally accepted accounting principles and applicable legal requirements.

A Certificate of Achievement is valid for a period of one year only. I believe that our current ACFR continues to meet the Certificate of Achievement Program's requirements and we are submitting it to the GFOA to determine its eligibility for another certificate.

ACKNOWLEDGMENTS

This report could not have been prepared without the dedication and effective assistance of the entire staff of Department of Water Management and Department of Finance. I wish to express my appreciation to them, and particularly those who contributed directly to the preparation of the report.

Respectfully submitted,

reaktChen

ANDREA CHENG, PhD, PE Commissioner



Government Finance Officers Association

Certificate of Achievement for Excellence in Financial Reporting

Presented to

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

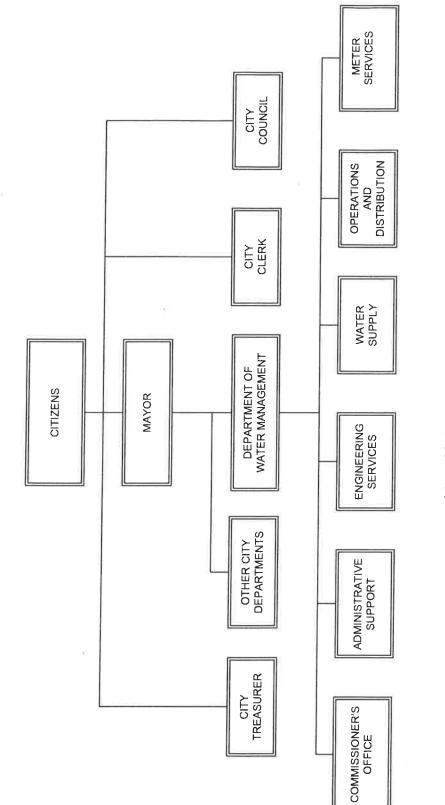
For its Annual Comprehensive Financial Report For the Fiscal Year Ended

December 31, 2020

Christophen P. Morrill

Executive Director/CEO

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



List of Principal Officials

Lori Lightfoot Mayor Andrea Cheng Commissioner

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PART II

FINANCIAL SECTION

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INDEPENDENT AUDITOR'S REPORT

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

Report on the Audits of the Financial Statements

Opinion

We have audited the financial statements of the Water Fund ("Water Fund"), an enterprise fund of the City of Chicago, Illinois (the "City"), as of and for the years ended December 31, 2021 and 2020, and the related notes to the financial statements, as listed in the table of contents.

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

Basis for Opinion

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

Emphasis of Matter

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

Responsibilities of Management for the Financial Statements

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

Auditor's Responsibilities for the Audits of the Financial Statements

Our objectives are to obtain reasonable assurance about whether the financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report

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

In performing an audit in accordance with GAAS, we:

- exercise professional judgment and maintain professional skepticism throughout the audit.
- identify and assess the risks of material misstatement of the financial statements, whether due to
 fraud or error, and design and perform audit procedures responsive to those risks. Such procedures
 include examining, on a test basis, evidence regarding the amounts and disclosures in the financial
 statements.
- obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Water Fund's internal control. Accordingly, no such opinion is expressed.
- evaluate the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluate the overall presentation of the financial statements.

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

Required Supplementary Information

Accounting principles generally accepted in the United States of America require that the Management's Discussion and Analysis, the Schedule of Changes in the Net Pension Liability and Related Ratios and the Schedule of Contributions be presented to supplement the basic financial statements. Such information is the responsibility of management and, although not a part of the basic financial statements, is required by the Governmental Accounting Standards Board who considers it to be an essential part of financial reporting for placing the basic financial statements in an appropriate operational, economic, or historical context. We have applied certain limited procedures to the required supplementary information in accordance with auditing standards generally accepted in the United States of America, which consisted of inquiries of management about the methods of preparing the information and comparing the information for consistency with management's responses to our inquiries, the basic financial statements, and other knowledge we obtained during our audits of the basic financial statements. We do not express an opinion or provide any assurance on the information because the limited procedures do not provide us with sufficient evidence to express an opinion or provide any assurance.

Supplementary Information

Our audits were conducted for the purpose of forming opinions on the financial statements that collectively comprise the Water Fund's basic financial statements. The additional supplementary information is presented for purposes of additional analysis and is not a required part of the basic financial statements. Such information is the responsibility of management and was derived from and

relates directly to the underlying accounting and other records used to prepare the basic financial statements. The information has been subjected to the auditing procedures applied in the audits of the basic financial statements and certain additional procedures, including comparing and reconciling such information directly to the underlying accounting and other records used to prepare the basic financial statements or to the basic financial statements themselves, and other additional procedures in accordance with auditing standards generally accepted in the United States of America by us and other auditors. In our opinion, based on our audits and the reports of other auditors, the Combining and Individual Fund Statements are fairly stated, in all material respects, in relation to the basic financial statements as a whole.

Other Information

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

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

Defoitte & Touche LLP

June 29, 2022

MANAGEMENT'S DISCUSSION AND ANALYSIS

The following discussion and analysis of the City of Chicago, Illinois (the "City"), Water Fund's ("Water Fund") financial performance provides an introduction and overview of the Water Fund's financial activities for the years ended December 31, 2021 and 2020. Please read this discussion in conjunction with the Water Fund's basic financial statements and the notes to basic financial statements following this section.

FINANCIAL HIGHLIGHTS

2021

- Gross operating revenues for 2021 increased by \$24.9 million compared to 2020 gross operating
 revenues. This increase is primarily due to increases in water fees of \$20.0 million resulting from a water
 rate increase of 1.10% effective June 1, 2021, and an increase in pumpage, and other operating
 revenues of \$4.9 million due to an increase in activities such as full payment certificates for property
 transfers and construction on third party property where water is used.
- Operating expenses before depreciation and amortization for 2021 increased by \$15.8 million compared to 2020 mainly due to a decrease in pension benefit resulting from current year inflow and outflow, pension activities due to the changes in actuarial assumptions, and an increase in overtime offset by a decrease in employee benefit expenses.
- The Water Fund's net position at December 31, 2021, was \$2,001.5 million. This is an increase of \$273.1 million over net position at December 31, 2020, due to an increase in revenue as the provision for doubtful accounts decreased due to the full year implementation of the Utility Billing Relief Program (UBR), which provides financial relief to low-income households, as well as an in increase in revenue collections.
- Utility plant additions in 2021 were \$179.7 million due to the continuing capital improvement program.

2020

- Gross operating revenues for 2020 increased by \$1.3 million compared to 2019 gross operating
 revenues. This increase is primarily due to an increase in water fees of \$5.9 million resulting from a
 water rate increase of 2.45% effective June 1, 2020, offset by a decrease in other operating revenues of
 about \$4.6 million due to a decrease in penalties for uncollected water fees to provide relief to
 customers during the COVID 19 pandemic.
- Operating expenses before depreciation and amortization for 2020 decreased by \$110.0 million compared to 2019 mainly due to decreases in pension expenses due to recognition of current year inflows resulting from changes in actuarial assumptions and reduction in the allocation of pension costs to the Water Fund compared to the Governmental and remaining Enterprise Funds, and court settlement offset by increases in salaries and workers' compensation expenses.
- The Water Fund's net position at December 31, 2020, was \$1,728.4 million. This is an increase of \$270.2 million over net position at December 31, 2019, due to an excess of revenues over expenses.

• Utility plant additions in 2020 were \$222.2 million due to the continuing capital improvement program.

OVERVIEW OF THE BASIC FINANCIAL STATEMENTS

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

The statements of net position present all of the Water Fund's assets, deferred outflows, liabilities, and deferred inflows using the accrual basis of accounting. The difference between assets, deferred outflows, liabilities, and deferred inflows is reported as net position. The increase or decrease in net position may serve as an indicator, over time, as to whether the Water Fund's financial position is improving or deteriorating.

The statements of revenues, expenses, and changes in net position present all current-year revenues and expenses, regardless of when cash is received or paid, and the ensuing change in net position.

The statements of cash flows report how cash and cash equivalents are provided and used by the Water Fund's operating, capital financing, and investing activities. These statements present the cash received and disbursed, the net increase or decrease in cash and cash equivalents for the year, and the cash and cash equivalents balance at year-end.

The notes to basic financial statements are an integral part of the basic financial statements; accordingly, such disclosures are essential for a full understanding of the information provided in the basic financial statements.

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 the additional supplementary and statistical data. The additional supplementary information section presents the schedule of utility plan and the statistical data section presents unaudited debt service coverage calculation and includes certain unaudited information related to the Water Fund's historical financial and nonfinancial operating results and capital activities.

FINANCIAL ANALYSIS

At December 31, 2021, the Water Fund's financial position continued to be strong with total assets and deferred outflows of \$6,080.5 million, total liabilities and deferred inflows of \$4,079.0 million, and net position of \$2,001.5 million. A comparative condensed summary of the Water Fund's net position at December 31, 2021, 2020, and 2019, is as follows (in thousands):

		Net Position	
	2021	2020	2019
Current assets Restricted and other assets—noncurrent Utility plant—net	\$ 905,470 2,268 5,128,500	\$859,024 2,442 5,064,573	\$ 876,671 2,620 4,953,026
Total assets	6,036,238	5,926,039	5,832,317
Deferred outflows	44,315	56,571	78,074
Total assets and deferred outflows	\$6,080,553	\$5,982,610	<u>\$5,910,391</u>
Current liabilities Long-term liabilities	\$ 444,355 3,518,421	\$ 435,049 3,613,527	\$ 409,595 3,774,025
Total liabilities	3,962,776	4,048,576	4,183,620
Deferred inflows	116,259	205,620	268,569
Total liabilities and deferred inflows	\$4,079,035	\$4,254,196	\$4,452,189
Net position: Net investment in capital assets Restricted for capital projects Unrestricted	\$2,746,413 3 (744,898)	\$2,574,298 8 (845,892)	\$2,351,097 375 (893,270)
Total net position	\$2,001,518	\$1,728,414	<u>\$1,458,202</u>

2021

Current assets of \$905.5 million at December 31, 2021, increased by \$46.4 million (5.4%) over 2020 due to increases in unrestricted investments of \$47.3 million (11.4%), resulting from the transfer of cash to unrestricted investments to obtain higher long term investment earnings, and net accounts receivable of \$14.5 million (7.9%) resulting from a decrease in allowance for uncollected prior years' water fees due to the full year implementation of the Utility Billing Relief (UBR) Program providing financial relief to low income households, offset by a decrease in total restricted assets of \$14.5 million.

The increase in current liabilities of \$9.3 million (2.1%) during 2021 is due to increases in due to other City funds of \$33.3 million (182.5%) related to timing differences in cash used for payments and current portion of long term debt of \$5.8 million (5.6%) due to the planned increases in debt service payments related to the capital program offset by a decrease in accrued liabilities of \$14.2 million (6.6%) resulting from a decrease in retainage payables and by a net decrease in restricted and unrestricted accounts payable of \$15.3 million (19.7%) that is directly related to the timing of payments of accounts payables.

Deferred outflows decreased by \$12.3 million (21.7%) during 2021 due to the decrease in pensions' proportionate share of pension liabilities; amortization and deferred inflows decreased by \$89.4 million (43.5%) during 2021 due to the full amortization of deferred inflows calculated in 2017 and amortized over four years, decreases in pension benefit and a decrease in the proportionate share amortization resulting from the difference between 2021 projected and actual earnings on pension plan investments.

At December 31, 2021, net position was \$2,001.5 million, an increase of \$273.1 million (15.8%) over 2020.

2020

Current assets of \$859.0 million at December 31, 2020, decreased by \$17.6 million (2.0%) over 2019 as a result of decreases in cash and cash equivalents of \$28.6 million (70.1%) resulting from the transfer to unrestricted investments to obtain higher investment earnings, which increased by \$15.2 million (3.8%); and decrease in net accounts receivable of \$10.9 million (5.6%) resulting from an increase in allowance for uncollected prior years' water fees, offset by an increase in due from other City funds of \$6.5 million (14.9%).

The increase in current liabilities of \$25.4 million (6.2%) during 2020 is due to increases in accrued liabilities of \$36.5 million (20.4%) resulting from additional IEPA loan draws in 2020 and an increase in workers' compensation liability, current portion of long term debt of \$5.3 million (5.4%) and due to other City funds of \$7.8 million (74%) offset by decreases in restricted and unrestricted accounts payable totaling \$7.3 million (8.6%) that is directly related to the timing of payments of accounts payables and a decrease in unearned revenue of \$16.3 million (100.0%). In 2020, the Water Fund changed its billing for unmetered accounts from billing every 6 months in advance to monthly billing, resulting in the decrease in unearned revenue.

Deferred outflows decreased by \$21.5 million (27.5%) during 2020 due to the amortization of changes in assumptions and deferred inflows decreased by \$62.9 million (23.4%) during 2020 due to the difference between 2020 projected and actual earnings on pension plan investments.

At December 31, 2020, net position was \$1,728.4 million, an increase of \$270.2 million (18.5%) over 2019.

The primary sources of the Water Fund's operating revenues are water usage charges. These revenues fund all Water Fund operating expenses, fund deposits, capital construction, and debt service requirements. A comparative condensed summary of the Water Fund's revenues, expenses, and changes in net position for the years ended December 31, 2021, 2020, and 2019, is as follows (in thousands):

	Revenues, Expenses, and Changes in Net Position			
	2021	2020	2019	
Operating revenues: Water sales—net Other operating revenues	\$ 748,590 27,135	\$ 714,310 22,268	\$ 717,496 26,882	
Total operating revenues	775,725	736,578	744,378	
Operating expenses Depreciation and amortization	323,105 86,877	307,263 82,495	417,267 79,870	
Total operating expenses	409,982	389,758	497,137	
Net operating income (loss)	365,743	346,820	247,241	
Nonoperating revenues Nonoperating expenses	3,771 (93,990)	21,707 (95,895)	24,515 (97,036)	
Net non operating income (loss)	(90,219)	(74,188)	(72,521)	
Transfers out	(2,420)	(2,420)	(2,420)	
Change in net position	273,104	270,212	172,300	
Net position—beginning of year	1,728,414	1,458,202	1,285,902	
Net position—end of year	\$2,001,518	\$1,728,414	\$1,458,202	

2021

Water sales—net and other operating revenues comprise the Water Fund's \$775.7 million operating revenues. The increase in 2021 total operating revenues of \$39.1 million (5.3%) from 2020 was primarily due to an increase in water sales—net of \$34.3 million (4.8%) resulting from a decrease in provision for doubtful accounts of about \$14.2 million (48.4%). This decrease was due to the implementation of the UBR Program, which extended due dates of accounts receivable for eligible customers, therefore decreasing the provision for doubtful accounts. The increase in other operating revenues of about \$4.9 million (21.9%) was due to an increase in activities.

In 2021, net nonoperating revenue of \$3.7 million was composed of net interest income, online convenient fees for water fees payments and net revenue that relates to constructions done by Department of Water Management for other City departments and private companies.

2020

Water sales and other operating revenues comprise the Water Fund's \$736.6 million operating revenues. The decrease in 2020 total operating revenues of \$7.8 million (1.0%) from 2019 was primarily due to an increase in provision for doubtful accounts of about \$9.1 million (44.6%) resulting from a decrease in collected water charges from prior years' accounts receivable and the implementation of the Utility Billing Relief program, which allows eligible customers to apply for relief on past due utility balances.

In 2020, net nonoperating revenue of \$21.7 million was composed of net interest income, internet convenient fees for water fees payments and net revenue that relates to constructions done by Department of Water Management for other City departments and private companies.

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

	Operating Expenses		
	2021	2020	2019
Source of supply Power and pumping Purification Transmission and distribution Customer accounting and collection Administrative and general Central services and general fund reimbursements Pension expense	\$ 102 45,167 62,334 74,791 26,521 14,933 133,128 (33,871)	\$ 200 40,705 61,778 71,718 26,991 13,913 139,839 (47,881)	\$ 369 42,746 67,790 71,810 27,178 12,990 124,049 70,335
Operating expenses before depreciation and amortization	323,105	307,263	417,267
Depreciation and amortization	86,877	82,495	79,870
Total operating expenses	\$409,982	\$389,758	\$497,137

2021

Operating expenses before depreciation and amortization for the year ended 2021 increased by \$15.8 million (5.2%) from the year ended 2020 primarily due to increases in combined pension expenses of \$14.0 million, power and pumping of \$4.5 million and purification of \$3.0 million, offset by a decrease in central services and general fund reimbursement of \$6.7 million due to operational efficiencies.

2020

Operating expenses before depreciation and amortization for the year ended 2020 decreased by \$110.0 million (26.4%) from the year ended 2019 primarily due to decreases in pension expenses of \$118.2 million, and purification of \$6.0 million, offset by an increase in central services and general fund reimbursement of \$15.8 million.

Pension expense decreased by \$118.2 million (168.1%) in 2020 due to recognition of current year inflows due to changes in actuarial assumptions and reduction in the allocation of pension costs to the Water Fund compared to the Governmental and certain Enterprise Funds.

A comparative summary of the Water Fund's cash flows for the years ended December 31, 2021, 2020, and 2019, is as follows (in thousands of dollars):

	Cash Flows		
	2021	2020	2019
Cash from activities:			
Operating	\$ 394,110	\$ 337,767	\$ 357,969
Capital and related financing	(367,406)	(368,391)	(431,519)
Investing	(56,280)	21,939	(156,921)
Net change in cash and cash equivalents	(29,576)	(8,685)	(230,471)
Cash and cash equivalents: Beginning of year	94,798	103,483	333,954
End of year	\$ 65,222	\$ 94,798	\$ 103,483

2021

As of December 31, 2021, the Water Fund's cash, and cash equivalents of \$65.2 million decreased by \$29.6 million from December 31, 2020, mainly due to the reduction in time to process accounts payable balances; offset by cash outflows of \$56.3 million from investing activities and \$367.4 million from capital and related financing activities mainly used in acquisition and construction of capital assets. Cash of \$24.7 million was provided by issuance of Illinois Environmental Protection Agency (IEPA) loans. Total cash and cash equivalents at December 31, 2021, are composed of unrestricted and restricted cash and cash equivalents of \$6.6 million and \$58.6 million, respectively.

2020

As of December 31, 2020, the Water Fund's cash and cash equivalents of \$94.8 million decreased by \$8.7 million from December 31, 2019, mainly due to the cash provided of \$337.8 million from operating activities, offset by cash inflows of \$22.0 million from investing activities and \$368.4 million from capital and related financing activities mainly used in acquisition and construction of capital assets. Cash of \$40.9 million was provided by issuance of Illinois Environmental Protection Agency (IEPA) loans. Total cash and cash equivalents at December 31, 2020, are composed of unrestricted and restricted cash and cash equivalents of \$12.2 million and \$82.6 million, respectively.

UTILITY PLANT AND DEBT ADMINISTRATION

2021

At the end of 2021 and 2020, the Water Fund had \$5,128.5 million and \$5,064.6 million, respectively, invested in utility plant, net of accumulated depreciation. During 2021, the Water Fund expended \$179.7 million on capital activities. This included \$0.3 million for structures and improvements, \$31.0 million for distribution plant, \$1.4 million for equipment, and \$147.0 million for construction in progress.

During 2021, net completed projects totaling \$110.9 million were transferred from construction in progress to applicable capital accounts. The major completed project was installation and replacements of water mains (\$108.9 million).

2020

At the end of 2020 and 2019, the Water Fund had \$5,064.6 million and \$4,953.0 million, respectively, invested in utility plant, net of accumulated depreciation. During 2020, the Water Fund expended \$222.2 million on capital activities. This included \$9.6 million for land and land rights, \$0.1 million for structures and improvements, \$105.6 million for distribution plant, \$7.6 million for equipment, and \$99.3 million for construction in progress.

During 2020, net completed projects totaling \$67.8 million were transferred from construction in progress to applicable capital accounts. The major completed projects were standby power generators/replacement of electrical switchgear and west pumproom switchgear (\$55.1 million) and installation and replacements of water mains (\$11.3 million).

The Water Fund's utility plant at December 31, 2021, 2020, and 2019, is summarized as follows (in thousands):

	Net Utility Plant at Year-End			
	2021	2020	2019	
Utility plant not depreciated: Land and land rights Construction in progress	\$ 16,483 451,161	\$ 16,483 431,409	\$ 6,858 417,223	
Total utility plant not depreciated	467,644	447,892	424,081	
Utility plant being depreciated: Structures and improvements Distribution plant Equipment	609,850 4,645,293 860,777	608,407 4,513,217 867,213	607,575 4,404,131 808,135	
Total utility plant being depreciated	6,115,920	5,988,837	5,819,841	
Less accumulated depreciation: Structures and improvements Distribution plant Equipment	(263,848) (712,242) (478,974)	(255,697) (660,084) (456,375)	(246,868) (609,794) (434,234)	
Total accumulated depreciation	(1,455,064)	(1,372,156)	(1,290,896)	
Total utility plant being depreciated—net	4,660,856	4,616,681	4,528,945	
Total utility plant—net	\$ 5,128,500	\$ 5,064,573	\$ 4,953,026	

The Water Fund's capital activities are funded through Water Fund revenue bonds, Illinois Environmental Protection Agency (IEPA) loans and Water Fund revenue. Additional information on the Water Fund's capital assets is presented in Note 5 of the notes to basic financial statements.

The Water Fund's long-term liabilities at December 31, 2021, 2020, and 2019, are summarized as follows (in thousands):

	Long-Term Liabilities at Year-End		
	2021	2020	2019
Revenue bonds and notes payable Add:	\$2,341,421	\$2,408,774	\$2,497,156
Bond discount/premium	132,072	148,935	166,916
Total revenue bonds/notes payable—net	2,473,493	2,557,709	2,664,072
Less current bonds/notes payable	(110,324)	(104,492)	(99,172)
Total long-term revenue bonds/ notes payable—net	2,363,169	2,453,217	2,564,900
Water pipe extension certificates	1,577	1,577	1,577
Total long-term liabilities	\$2,364,746	<u>\$2,454,794</u>	<u>\$2,566,477</u>

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

The Water Fund's revenue bonds at December 31, 2021, have underlying credit ratings with each of the four major rating agencies as follows:

	Standard & Fitch Moody's Poor's Ratings Kroll				
Second Lien Water Revenue Bonds	Baa2	А	A-	AA	

In July 2021, Moody's revised the outlook for the Water Second Lien Bonds from negative to stable.

In December 2021, Fitch Ratings revised the outlook for the Water Second Lien Bonds from negative to stable.

At December 31, 2021, the Water Fund was in compliance with the debt covenants as stated within the bond ordinances. Additional information on certain of the Water Fund's debt covenants is presented in Note 4 of the notes to the basic financial statements.

Requests for Information

This financial report is designed to provide the reader with a general overview of the Water Fund's finances. Questions concerning any of the information provided in this report, or requests for additional financial information, should be addressed to the City of Chicago Department of Finance.

BASIC FINANCIAL STATEMENTS

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

2021 2020 ASSETS CURRENT ASSETS: Cash and cash equivalents (Note 2) \$ 6,655 \$ 12,231 Investments (Note 2) 463,554 416,247 Accounts receivable-net of allowance for doubtful accounts of approximately \$215,269 in 2021 and \$207,319 in 2020 197,920 183,431 Interest receivable 2,404 1,178 Due from other City funds 51,432 49,805 Inventories 22,056 20,164 Cash and cash equivalents-restricted 58,567 82,567 Investments —restricted 102,879 93,393 3 8 Interest receivable—restricted Total current assets • 905,470 859,024 NONCURRENT ASSETS: 2,268 2,442 Other assets Utility plant (Note 5): Land and land rights 16,483 16,483 Structures and improvements 609,850 608,407 Distribution plant 4,645,293 4,513,217 Equipment 860,777 867,213 451,161 431,409 Construction in progress Total utility plant 6,583,564 6,436,729 Less accumulated depreciation (1,455,064) (1,372,156) Utility plant—net 5,128,500 5,064,573 Total noncurrent assets 5,130,768 5,067,015 44,315 56,571 **DEFERRED OUTFLOWS (Note 9)** TOTAL ASSETS AND DEFERRED OUTFLOWS \$ 6,080,553 \$ 5,982,610

	2021	2020
LIABILITIES		
CURRENT LIABILITIES: Accounts payable Due to other City funds	\$ 29,668 51,604	\$ 25,014 18,270
Accrued liabilities Liabilities payable from restricted assets:	201,634	215,797
Accounts payable	32,568	52,495
Interest payable Current portion of long-term	18,557	18,981
debt (Note 4)	110,324	104,492
Total current liabilities	444,355	435,049
NONCURRENT LIABILITIES: Long-term debt—net of current		
maturities (Note 4)	2,363,169	2,453,217
Net pension liability (Note 6) Water pipe extension	1,153,675	1,158,733
certificates	1,577	1,577
Total noncurrent liabilities	3,518,421	3,613,527
Total liabilities	3,962,776	4,048,576
DEFERRED INFLOWS (Note 9)	116,259	205,620
NET POSITION (Note 1): Net investment in capital		
assets	2,746,413	2,574,298
Restricted for capital projects	3	8
Unrestricted	(744,898)	(845,892)
Total net position	2,001,518	1,728,414
TOTAL	\$6,080,553	\$5,982,610

See notes to basic financial statements.

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

	2021	2020
OPERATING REVENUES:		
Water sales: Water sales	\$ 763,802	\$ 743,771
Less provision for doubtful accounts	(15,212)	(29,461)
Water sales—net	748,590	714,310
Other operating revenues	27,135	22,268
Total operating revenues	775,725	736,578
OPERATING EXPENSES:		
Source of supply	102	200
Power and pumping	45,167	40,705
Purification	62,334	61,778
Transmission and distribution Customer accounting and collection	74,791 26,521	71,718 26,991
Administrative and general	14,933	13,913
Central services and general fund reimbursements	133,128	139,839
Pension expense (Note 6)	(33,871)	(47,881)
Total operating expenses before depreciation and		
amortization	323,105	307,263
OPERATING INCOME BEFORE DEPRECIATION AND AMORTIZATION	452,620	429,315
DEPRECIATION AND AMORTIZATION	86,877	82,495
OPERATING INCOME	365,743	346,820
NONOPERATING REVENUES (EXPENSES):		
Interest income	1,734	17,033
Interest expense	(93,990)	(95,895)
Other	2,037	4,674
Total nonoperating expenses—net	(90,219)	(74,188)
TRANSFERS OUT	(2,420)	(2,420)
CHANGE IN NET POSITION	273,104	270,212
TOTAL NET POSITION—Beginning of year	1,728,414	1,458,202
TOTAL NET POSITION—End of year	\$2,001,518	<u>\$1,728,414</u>

See notes to basic financial statements.

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

	2021	2020
CASH FLOWS FROM OPERATING ACTIVITIES:		
Received from customers	\$ 761,236	\$ 731,199
Transactions with other City funds	(109,710)	(132,473)
Payments to vendors	(103,973)	(114,867)
Payments to employees	(153,443)	(146,092)
Net cash provided by operating activities	394,110	337,767
CASH FLOWS FROM CAPITAL AND RELATED FINANCING ACTIVITIES:		
Acquisition and construction of capital assets	(180,690)	(198,918)
Interest paid	(108,960)	(113,208)
Proceeds from issuance of bonds and IEPA loans	24,699	40,880
Principal paid on bonds	(104,492)	(99 <i>,</i> 399)
Construction reimbursements	2,037	2,254
Net cash used in capital and related financing activities	(367,406)	(368,391)
CASH FLOWS FROM INVESTING ACTIVITIES:		
Sales and purchases of investments—net	(62,573)	11,561
Investment interest	6,293	10,378
Net cash (Used in) provided by investing activities	(56,280)	21,939
NET CHANGE IN CASH AND CASH EQUIVALENTS	(29,576)	(8,685)
CASH AND CASH EQUIVALENTS—Beginning of year	94,798	103,483
CASH AND CASH EQUIVALENTS—End of year	\$ 65,222	\$ 94,798
RECONCILIATION OF CASH AND CASH EQUIVALENTS REPORTED IN THE STATEMENTS OF NET POSITION: Unrestricted	\$ 6,655	\$ 12,231
Restricted	5 6,655 58,567	\$ 12,231 <u>82,567</u>
TOTAL	<u>\$ 65,222</u>	<u>\$ 94,798</u>

(Continued)

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

	2021	2020
RECONCILIATION OF OPERATING INCOME TO NET CASH		
PROVIDED BY OPERATING ACTIVITIES:		
Operating income	\$ 365,743	\$ 346,820
Adjustments to reconcile:		
Depreciation and amortization	86,877	82 <i>,</i> 495
Pension expense other than contribution	(84,160)	(92,258)
Provision for doubtful accounts	15,212	29,461
Changes in assets and liabilities:		
Accounts receivable	(29,701)	(18,535)
Inventories	(1,892)	(569)
Due from other City funds	(4,047)	(6,461)
Unrestricted accounts payable	4,654	(2,549)
Due to other City funds	33,334	7,768
Accrued liabilities	8,090	7,900
Unearned revenue	-	(16,305)
		<u> </u>
NET CASH PROVIDED BY OPERATING ACTIVITIES	<u>\$ 394,110</u>	<u>\$ 337,767</u>
SUPPLEMENTAL DISCLOSURE OF NONCASH ITEMS—Property additions in 2021 and 2020 of \$32,568 and \$52,495, respectively, are in accounts payable.		

The fair value adjustment (loss)/gain to investments for 2021 and 2020 were (\$658.2) and \$5,122, respectively.

See notes to basic financial statements.

(Concluded)

NOTES TO BASIC FINANCIAL STATEMENTS AS OF AND FOR THE YEARS ENDED DECEMBER 31, 2021 AND 2020

1. ORGANIZATION AND SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

Organization—The Water Fund ("Water Fund") purifies and provides Lake Michigan water for the City of Chicago, Illinois (the "City") and approximately 125 suburbs. The Water Fund is included in the City's reporting entity as an enterprise fund.

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

Basis of Accounting—The accounting policies of the Water Fund are based upon accounting principles generally accepted in the United States of America as prescribed by the Governmental Accounting Standards Board (GASB). The accounting and financial reporting treatment applied to a fund is determined by its measurement focus. The accounts of the Water Fund are reported using the flow of economic resources measurement focus.

The Water Fund uses the accrual basis of accounting under which revenues are recognized when earned and expenses are recognized when the liability is incurred.

When both restricted and unrestricted resources are available for use, it is the City's policy to use restricted resources first, then unrestricted resources, as they are needed.

Annual Appropriated Budget—The Water Fund has a legally adopted annual budget, which is not required to be reported.

Management's Use of Estimates—The preparation of basic financial statements in conformity with accounting principles generally accepted in the United States of America requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the basic financial statements, and the reported amounts of revenues and expenses during the reporting period. Actual results could differ from those estimates.

Cash, Cash Equivalents, and Investments—Cash, cash equivalents, and investments generally are held with the City Treasurer as required by the Municipal Code of Chicago (the "Code"). Interest earned on pooled investments is allocated to participating funds based upon their average combined cash and investment balances. Due to contractual agreements or legal restrictions, the cash and investments of certain funds are segregated and earn and receive interest directly.

The Code permits deposits only to City Council-approved depositories, which must be organized state or national banks and federal and state savings and loan associations, located within the City, whose deposits are federally insured.

Investments 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, 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 Water Fund values its investments at fair value or amortized cost as applicable. U.S. government securities purchased at a price other than par with a maturity of less than one year are reported at amortized cost.

Repurchase agreements can be purchased only from banks and certain other institutions authorized to do business in the State. The City Treasurer requires that securities pledged to secure these agreements have a fair value equal to the cost of the repurchase agreements, plus accrued interest.

Investments generally may not have a maturity in excess of 30 years from the date of purchase. Certain other investment balances are held in accordance with the specific provisions of applicable bond ordinances.

Cash equivalents include certificates of deposit and other investments with maturities of three months or less when purchased.

Accounts Receivable—The Water Fund's accounts receivable is comprised of billings and collections for water services processed by the Department of Water Management. Management has provided an allowance for amounts recorded at year-end that may be uncollectible. In 2021 the Water Fund fully implemented the UBR Program, providing financial relief to low-income household by establishing payment plans and writing off past due legacy accounts receivable balances upon completion of the Program. The impact of this program was realized in 2021, resulting in a decrease in the provision for doubtful accounts.

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

Inventories—Inventories, composed mainly of materials and supplies, are stated at cost, determined principally on the average cost method.

Utility Plant—Utility plant is recorded at cost or, for donated assets at acquisition value. Utility plant is defined by the Water 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. Depreciation is provided using the straight-line method and begins in the year following the year of acquisition or completion. Estimated useful lives are as follows:

Structures and improvements	50–100 years
Distribution plant	25–100 years
Equipment	6–33 years

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

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

Deferred Inflows—Deferred inflows represent the differences between projected and actual actuarial experience 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 consist of assets for which constraints are placed thereon by external parties (such as lenders and grantors) and laws, regulations, and enabling legislation reduced by liabilities and deferred inflows of resources related to those assets. Unrestricted consists of the net amount of all other assets, deferred outflows, liabilities, and deferred inflows not categorized as either of the above.

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

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

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

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

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

Revenue Recognition—Revenue from water sales is recognized when the water is consumed by customers. Of the accounts receivable balances, \$78.7 million and \$75.2 million represent revenue recognized on water sales, which had not yet been billed to customers at December 31, 2021 and 2020, respectively. In 2020, the Water Fund changed its billing for unmetered accounts from billing every 6 months in advance to monthly billing, which eliminated the recording of unearned revenue.

Revenues and Expenses—The Water Fund distinguishes operating revenues and expenses from nonoperating items. Operating revenues and expenses generally result from providing services and

producing and delivering goods in connection with the Water Fund's principal ongoing operations. The principal operating revenues of the Water Fund are charges to customers for sales and services.

Operating expenses include the cost of sales and services, 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.

GASB Statement	Impact
GASB Statement No. 89, Accounting for Interest Cost Incurred before the End of a Construction Period ("GASB 89")	Establishes accounting requirements for interest cost incurred before the end of a construction period. As previously stated, the Water Fund prospectively adopted GASB 89 as of and for the year ended December 31, 2021. Adoption of this Statement did not have material impact to the basic financial statements.
GASB Statement No. 92, <i>Omnibus 2020</i> ("GASB 92")	Clarifies multiple financial reporting topics included in multiple GASB statements. The Water Fund adopted GASB 92 as of and for the year ended December 31, 2021. There was no material impact to the basic financial statements upon adoption.
GASB Statement No. 99, Omnibus 2022 ("GASB 99")	Clarifies multiple financial reporting topics included in multiple GASB statements. Certain portions of the statement are effective and implemented for the year ended December 31, 2021, including: extension of the use of LIBOR, accounting for SNAP distributions, disclosures of nonmonetary transactions, pledges of future revenues by pledging governments, clarification of certain provisions in Statement 34, as amended, and terminology updates related to Statement 53 and Statement 63. There was no material impact to the basic financial statements upon adoption. The remainder of the statement is applicable to the years ended December 31, 2023, and December 31, 2024, as noted below.

Adopted Accounting Standards-

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

2. RESTRICTED AND UNRESTRICTED CASH EQUIVALENTS AND INVESTMENTS

	Maturities (In Years)							
	Less	More						
	Than 1	1–5	6–10	Than 10	Fair Value			
Agency bonds	\$-	\$ 3,976	\$ -	\$ -	\$ 3,976			
Commercial paper	237,771	_	-	-	237,771			
Money market funds	5,039	-	-	-	5,039			
Corporate bonds	35,999	47,518	117,397	31,043	231,957			
Municipal bonds	-	24,074	34,442	12,276	70,792			
Corporate ABS	-	28,177	-	-	28,177			
Agency MBS				21,007	21,007			
Total	<u>\$278,809</u>	\$103,745	<u>\$151,839</u>	\$64,326	\$598,719			

Cash Equivalents and Investments—The Water Fund's cash equivalents and investments as of December 31, 2021, are as follows (in thousands):

Cash Equivalents and Investments—The Water Fund's cash equivalents and investments as of December 31, 2020, are as follows (in thousands):

	Maturities (In Years)								
	Less	More							
	Than 1	1–5	6–10	Than 10	Fair Value				
U.S. agencies	\$-	\$ 501	\$-	\$ -	\$ 501				
Commercial paper	359,019	-	-	-	359,019				
Certificates of deposit and									
other short-term	8,606	-	-	-	8,606				
Corporate bonds	10,119	29,463	-	27,315	66,897				
Municipal bonds	12,550	27,812	36,205	-	76,567				
Supranational bank	-	-	-	-	-				
Asset backed securities	28,069	36,819	-	38,901	103,789				
Total	\$418,363	\$94,595	\$36,205	\$66,216	\$615,379				

Investment Fair Value Measurements—The City 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

		2021				2020					
	Le	vel 1	Level 2	l 2 Level 3		Lev	vel 1	Le	vel 2	Lev	vel 3
Agency bonds	\$	-	\$ 3,976	\$	-	\$	-	\$	501	\$	-
Agency MBS		-	21,007		-		-		-		-
Corporate bonds		-	218,964		-		-	6	6,897		-
Municipal bonds		-	70,792		-		-	7	0,355		-
Corporate ABS		-	28,177		-		-	10	3,789		_
	\$	-	\$342,916	\$	-	\$	-	\$24	1,542	\$	-

The investments measured at fair value as of December 31, 2021 and 2020, were (in thousands):

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.

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

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 the Water Fund are \$255.8 million and \$373.8 million as of December 31, 2021 and 2020, respectively.

Interest Rate Risk—As a means of limiting its exposure to fair value losses arising from rising interest rates, the City's investment policy requires that investments generally may not have a maturity date in excess of 30 years from the date of purchase. Certain other investments are held in accordance with the specific provisions of applicable ordinances.

Credit Risk—With regard to credit risk, the Code limits the investments in securities to:

- 1) Interest-bearing general obligations of the United States and the State of Illinois;
- 2) United States treasury bills and other non-interest-bearing general obligations of the United States or United States government agencies when offered for sale at a price below the face value of same, so as to afford the city a return on such investment in lieu of interest;
- 3) Tax anticipation warrants, municipal bonds, notes, commercial paper or other instruments representing a debt obligation issued by the City of Chicago;
- 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 or demand deposits in banks or savings and loan associations designated as municipal depositories which are insured by federal deposit insurance; provided that any amount of the deposit in excess of the federal deposit insurance shall be collateralized as noted in Custodial Credit Risk—Cash and Certificates of Deposit below;
- 7) Bankers acceptance of banks whose senior obligations, at the time of purchase, are rated in either the AAA or AA rating categories by at least two accredited ratings agencies;
- 8) Tax-exempt securities exempt from federal arbitrage provisions applicable to investments of proceeds of the City's tax-exempt debt obligations;
- 9) Domestic money market mutual funds regulated by and in good standing with the Securities and Exchange Commission; provided that such money market mutual funds' portfolios are limited to investments authorized by this section;
- 10) Any other suitable investment instrument permitted by state laws governing municipal investments generally, subject to the reasonable exercise of prudence in making investments of public funds;
- 11) Except where otherwise restricted or prohibited, a non-interest-bearing savings account, noninterest-bearing checking account or other non-interest-bearing demand account established in a national or state bank, or a federal or state savings and loan association, when, in the determination of the treasurer, the placement of such funds in the non-interest bearing account is used as compensating balances to offset fees associated with that account that will result in cost savings to the City;
- 12) Bonds of companies organized in the United States with assets exceeding \$500.0 million that, at the time of purchase, are rated 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 four 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.

Total holdings across all funds held by the Water Fund shall have no less than an overall average rating of Aa on a quarterly basis, as rated by two accredited rating agencies. A schedule summarizing the Water Fund's exposure to credit risk as of December 31, 2021 and 2020, is as follows (in thousands):

Quality Rating	2021	2020
A/A Aa/AA	\$ 30,393 52,828	\$ 26,049 55,806
Aaa/AAA*	148,640	174,483
Baa/BBB P1/A1	129,087 186,971	- 133,427
P2/A2 Not rated	50,800	225,592 22
Total	\$ 598,719	\$615,379

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 to protect the City public fund deposits, depository institutions are to maintain collateral pledges on City deposits and certificates of deposit during the term of the deposit.

For certificates of deposit of banks or savings and loan associations designated as municipal depositories which are insured by federal deposit insurance, or demand deposits in bank 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 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 shortterm debt obligations are rated in the highest rating category by at least one accredited ratings agency throughout the term of the certificate of deposit or deposit.

The collateral required to secure City funds must be held in safekeeping and pursuant to collateral agreements which would prohibit release or substitution of pledged assets without proper written notification and authorization of the City Treasurer. The final maturity of acceptable collateral pledged shall not exceed 120 months.

The bank balance of cash and certificates of deposit with the City's various municipal depositories was \$107.1 million. 96.6% of the bank balance was either insured or collateralized with securities held by City agents in the City's name. \$3.6 million was uncollateralized at December 31, 2021, and thus was subject to custodial credit risk.

Investments reported in the basic financial statements as of December 31, 2021 and 2020, are summarized as follows (in thousands):

	2021	2020
Per Note 2: Investments—Water Fund	\$598,719	<u>\$615,379</u>
Per financial statements: Restricted investments—current Unrestricted investments	\$ 102,879 463,554	\$ 93,393 416,247
Investments included as cash and cash equivalents on the statements of net position	32,286	105,739
	\$598,719	\$615,379

3. RESTRICTED ASSETS AND ACCOUNTS

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

Water Revenue Bonds, Series 2000 and 1997 ("Senior Lien Revenue Bonds"):

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

Bond Debt Service Reserve Account—For each series, an amount equal to the least of (i) the maximum annual debt service requirement; (ii) 10% of the original principal amount less original issue discount; or (iii) 125% of the average annual debt service requirement. The required balance of the Series 2000, 1997, 1995, and 1993 bonds was met by the purchase of surety bonds. The required balance of the Series 2001 Second Lien Revenue Bonds is being met with a deposit of a portion of the proceeds of the Series 2001 Senior Lien Revenue Bonds.

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

Water Revenue Bonds, Series 2000, 2008, 2010A, 2010B, 2010C, 2012, 2014, 2016A-1, and Refunding Bonds, Series 2004 and 2001, 2017, 2017-2 ("Second Lien Revenue Bonds"):

Principal and Interest Account—Deposits are required to be transferred no later than the business day preceding each May 1 and November 1, in an amount sufficient to pay principal and interest as due on outstanding Second Lien Revenue Bonds.

Second Lien Bonds Account—On the date of issuance of any series of Second Lien Revenue Bonds that bear interest at a variable rate paying interest more than semiannually, an amount equal to the interest payable during a six-month period will be transferred to a restricted account. The amount transferred will be calculated based on the maximum rate payable on such bonds.

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

For accounts established by ordinances with balances, the amounts at December 31, 2021 and 2020, are as follows (in thousands):

	2021	2020
Second Lien Revenue Bonds Water rate stabilization Construction	\$ 37,127 91,754 32,568	\$ 30,303 93,170 52,495
Total	<u>\$161,449</u>	\$175,968

The 2021 and 2020 Water rate stabilization balance above includes a fair value adjustment of \$0.6 million and \$2.0 million, respectively.

At December 31, 2021 and 2020, management is not aware of any instances of noncompliance with the funding requirements and restrictions on assets as stated in the ordinances.

4. LONG-TERM DEBT

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

	2021	2020
\$100,000 Series 2000 Second Lien Water Revenue Bonds, issued December 22, 1999, due 2030, converted to fixed rate on May 23, 2016; interest rate; interest at 5.0%	\$ 100,000	\$ 100,000
\$81,500 Series 2001 Second Lien Water Revenue Refunding Bonds, issued December 13, 2001, due 2030; interest at 3.0% to 5.75%	80,430	80,500
\$2,643 Illinois Environmental Protection Agency Loan Agreement, signed June 30, 2003, due 2025; interest at 2.57%	662	817
\$3,605 Illinois Environmental Protection Agency Loan Agreement, signed October 16, 2003, due 2022; interest at 2.905%	238	469
\$344,575 Series 2004 Second Lien Water Revenue Refunding Bonds, issued August 5, 2004, due through 2027, converted to fixed rate on May 23, 2016, interest at 2.0% to 5.0%	213,090	251,615
\$549,915 Series 2008 Second Lien Water Revenue Bonds, issued April 16, 2008, due through 2038; interest at 4.0% to 5.25%	55,615	59,820
\$313,580 Series 2010A-C Second Lien Water Revenue Bonds, issued November 10, 2010, due through 2040; interest at 2.0% to 6.742%	292,740	300,355
\$6,000 Illinois Environmental Protection Agency Loan Agreement, signed January 21, 2011, due 2031; interest at 1.25%	3,187	3,484
\$9,077 Illinois Environmental Protection Agency Loan Agreement, signed February 2, 2010, due 2031; noninterest bearing	4,559	5,015
\$399,445 Series 2012 Second Lien Water Revenue Bonds, issued May 17, 2012, due through 2042; interest at 4.0% to 5.0%	347,705	357,310
\$1,528 Illinois Environmental Protection Agency Loan Agreement, signed July 8, 2010, due 2032; interest at 1.25%	897	974
\$1,502 Illinois Environmental Protection Agency Loan Agreement, signed September 15, 2013, due 2032; interest at 1.25%	892	967
\$6,092 Illinois Environmental Protection Agency Loan Agreement, signed October 25, 2013, due 2032; interest at 1.25%	3,617	3,922
\$6,542 Illinois Environmental Protection Agency Loan Agreement, signed May 27, 2014, due 2034; interest at 2.295%	4,431	4,734

(Continued)

	2021	2020
\$39,422 Illinois Environmental Protection Agency Loan Agreement, signed August 5, 2013, due 2034; interest at 1.93%	\$ 27,376	\$ 29,207
\$15,000 Illinois Environmental Protection Agency Loan Agreement, signed September 19, 2013, due 2034; interest at 1.93%	10,447	11,142
\$47,000 Illinois Environmental Protection Agency Loan Agreement, signed March 3, 2014, due 2035; interest at 1.995%	33,789	35,944
\$15,058 Illinois Environmental Protection Agency Loan Agreement, signed October 15, 2014, due 2035; interest at 1.995%	11,029	11,734
\$367,925 Series 2014 Second Lien Water Revenue Bonds, issued September 17, 2014, due 2044; interest at 3.0% to 5.0%	322,555	330,140
\$59,595 Series 2016A-1 Tax-Exempt Second Lien Water Revenue Bonds, issued May 23, 2016, due 2031; interest at 4.0% to 5.0%	59,595	59,595
\$62,179 Illinois Environmental Protection Agency Loan Agreement, signed May 18, 2016, due 2036; interest at 2.21%	48,843	51,671
\$44,668 Illinois Environmental Protection Agency Loan Agreement, signed May 27, 2014, due 2037; interest at 1.995%	37,245	39,203
\$19,584 Illinois Environmental Protection Agency Loan Agreement, signed November 17, 2015, due 2036; interest at 1.86%	15,399	16,316
\$199,355 Series 2017 Refunding Bonds, issued June 22, 2017, due 2036; interest at 5.0% to 5.25%	172,885	178,240
\$235,260 Series 2017-2 Refunding Bonds, issued December 21, 2017, due 2038; interest at 5.0%	197,255	202,670
\$81,147 Illinois Environmental Protection Agency Loan Agreement, signed June 3, 2016 due 2037; interest at 1.86%	68,653	72,306
\$40,782 Illinois Environmental Protection Agency Loan Agreement, signed July 21, 2016 due 2038; interest at 1.86%	34,690	36,471
\$22,491 Illinois Environmental Protection Agency Loan Agreement, signed December 13, 2016 due 2037; interest at 1.64%	19,018	20,050
\$28,761 Illinois Environmental Protection Agency Loan Agreement, signed August 18, 2016 due 2039; interest at 1.86%	25,627	26,898
\$5,460 Illinois Environmental Protection Agency Loan Agreement, signed May 11,2017 due 2039; interest at 1.64%	4,993	5,230

(Continued)

	2021	2020
\$106,077 Illinois Environmental Protection Agency Loan Agreement, signed April 13, 2018 due 2039; interest at 1.76%	\$ 96,371	\$ 101,036
\$11,420 Illinois Environmental Protection Agency Loan Agreement, signed June 21, 2018 due 2039; interest at 1.76%	10,449	10,939
\$40,432 Illinois Environmental Protection Agency Loan Agreement, signed July 26, 2017 due 2041; interest at 1.64%	37,139	
	2,341,421	2,408,774
Less current portion of long-term debt Add unamortized bond discount/premium—net	(110,324) 132,072	(104,492) 148,935
Long-term portion—net	\$ 2,363,169	\$ 2,453,217

(Concluded)

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

	Balance January 1, 2021	Additions	Reductions	Balance December 31, 2021	Due within One Year
Revenue bonds and loans Unamortized bond discount/	\$ 2,408,774	\$ 37,139	\$ (104,492)	\$ 2,341,421	\$ 110,324
premium—net	148,935		(16,863)	132,072	
Total	\$ 2,557,709	\$ 37,139	<u>\$ (121,355</u>)	\$ 2,473,493	\$ 110,324
	Balance January 1, 2020	Additions	Reductions	Balance December 31, 2020	Due within One Year
Revenue bonds and loans	January 1,	Additions \$ 11,017	Reductions \$ (99,399)	December 31,	One
Revenue bonds and loans Unamortized bond discount/ premium—net	January 1, 2020			December 31, 2020	One Year

Interest expense includes amortization of the deferred loss on bond refunding for 2021 and 2020 of \$2.0 million; net of amortization of bond premium of \$16.9 million and \$18.0 million, respectively.

As defined in the bond ordinances, net revenues are pledged for the payment of principal and interest on the bonds. Ordinances include covenants, which require that net revenues available for bonds, as adjusted, at least equal the greater of (i) 120% of the aggregate current annual debt service on the Senior Lien Revenue Bonds or (ii) the sum of the aggregate current annual debt service of the Senior Lien Revenue Bonds, plus 110% of the aggregate current annual Second Lien Revenue Bonds debt service, plus the aggregate outstanding debt service requirements for the fiscal year on the outstanding IEPA loans, plus the annual debt service requirement for the fiscal year on aggregate outstanding water commercial paper notes, plus the annual debt service requirement on any outstanding water line of credit and that City management maintains all covenant reserve account balances at specified amounts. The above requirements were met in 2021 and 2020.

Rate Increases—Water rates are set by ordinance and established in an amount designed to pay the costs of Water Fund operations and capital improvements, including any related debt service. Effective June 30, 2020, the water rate was set at \$30.46 per 1,000 cubic feet and was increased to \$30.79 per 1,000 cubic feet effective June 1, 2021.

Issuance of Debt—On July 26, 2017, a loan agreement was signed with the Illinois Environmental Protection Agency for a project that consists of the replacement of the obsolete electrical switchgear and existing temporary standby generators at the Jardine Water Purification Plant. Amounts initially drawn from this agreement are classified as advances until repayment terms are established. Once repayment terms are established, the total advances are converted to long-term debt. During the year ended December 31, 2021, the total funds drawn from this loan agreement is \$37.0 million. The loan agreement has an interest rate of 1.64% with maturity dates from January 4, 2022 to January 4, 2041

Years Ending December 31	Principal	Interest	Total Debt Service
2022	\$ 110,324	\$ 105,534	\$ 215,858
2023 2024	114,303	100,876	215,179
2024 2025	119,402 128,752	96,023 91,081	215,425 219,833
2026	134,720	85,503	220,223
2027–2031	669,482	336,152	1,005,634
2032–2036	554,723	203,738	758,461
2037–2041	419,750	81,513	501,263
2042–2046	89,965	7,844	97,809
Total	<u>\$2,341,421</u>	\$1,108,264	\$3,449,685

A schedule of bond and note debt service requirements to maturity at December 31, 2021, is as follows (in thousands):

Debt Covenants—The ordinances authorizing the issuance of outstanding Water Revenue Bonds require that net revenues available for bonds, as adjusted shall each fiscal year at least equal the greater of (i) 120% of the aggregate debt service requirement for the fiscal year on all the outstanding senior lien bonds, or (ii) the sum of (A) aggregate debt service requirements for the fiscal year on the outstanding senior lien bonds, plus (B) 110% of the aggregate debt service requirements for the fiscal year on the fiscal year on of the outstanding second lien bonds, plus (C) aggregate outstanding debt service requirements for the fiscal year on the fiscal year on the outstanding IEPA loans, plus (D) annual debt service requirement for the fiscal year on aggregate outstanding water commercial paper notes, plus (E) annual debt service requirement on any outstanding water line of credit. This requirement was met at December 31, 2021.

5. UTILITY PLANT

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

	Balance — January 1, 2021	Additions	Disposals, Adjustments and Transfers	Balance— December 31, 2021
Utility plant not depreciated:				
Land and land rights	\$ 16,483	\$-	\$-	\$ 16,483
Construction in progress	431,409	146,954	(127,202)	451,161
Total utility plant not depreciated	447,892	146,954	(127,202)	467,644
Utility plant being depreciated:				
Structures and improvements	608 <i>,</i> 407	271	1,172	609,850
Distribution plant	4,513,217	31,042	101,034	4,645,293
Equipment	867,213	1,407	(7,843)	860,777
Total utility plant being depreciated	5,988,837	32,720	94,363	6,115,920
Less accumulated depreciation:				
Structures and improvements	(255,697)	(8,151)	-	(263,848)
Distribution plant	(660,084)	(52,641)	483	(712,242)
Equipment	(456,375)	(24,811)	2,212	(478,974)
Total accumulated depreciation	(1,372,156)	(85,603)	2,695	(1,455,064)
Utility plant being depreciated—net	4,616,681	(52,883)	97,058	4,660,856
Utility plant-net	\$ 5,064,573	<u>\$ 94,071</u>	<u>\$ (30,144</u>)	\$ 5,128,500

	Balance — January 1, 2020	Additions	Disposals, Adjustments and Transfers	Balance— December 31, 2020
Utility plant not depreciated:				
Land and land rights Construction in progress	\$	\$ 9,625 99,308	\$ - (85,122)	\$ 16,483 431,409
	417,225		(05,122)	431,405
Total utility plant not depreciated	424,081	108,933	(85,122)	447,892
Utility plant being depreciated: Structures and improvements	607,575	98	734	608,407
Distribution plant	4,404,131	105,594	3,492	4,513,217
Equipment	808,135	7,606	51,472	867,213
Total utility plant being depreciated	5,819,841	113,298	55,698	5,988,837
Less accumulated depreciation:				
Structures and improvements	(246,868)	(8,829)	-	(255,697)
Distribution plant	(609,794)	(50,918)	628	(660,084)
Equipment	(434,234)	(22,506)	365	(456,375)
Total accumulated depreciation	(1,290,896)	(82,253)	993	(1,372,156)
Utility plant being depreciated—net	4,528,945	31,045	56,691	4,616,681
Utility plant—net	<u>\$ 4,953,026</u>	<u>\$ 139,978</u>	<u>\$ (28,431)</u>	<u>\$ 5,064,573</u>

6. PENSION PLANS

Plan Description—Eligible Water employees participate in one of two single-employer defined benefit pension plans (the "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 the Plans, employees who became members before January 1, 2011 are considered Tier 1 Employees. 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 utility 10 years of credited service for participants who are Tier 2 Employees or Tier 3 Employees.

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

Employees Covered by Benefit Terms—At December 31, 2021, the following City employees were covered by the benefit terms:

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

Contributions—For the Municipal Employees' and Laborers' Plans, Public Act 100-0023 (P.A. 100-0023) was enacted on July 06, 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; in payment year 2022, \$660.0 million. Additionally, P.A. 100-0023 requires that the City's contributions are at actuarially determined rates beginning in payment year 2023 and future funding 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 Water Fund's proportion of the contribution was determined based on the rates of Water Fund's salaries within each corresponding pension plan to the total budgeted salaries for 2021 and 2020.

The contribution to the two pension plans from the Water Fund was \$50.3 million and \$44.4 million for the years ended December 31, 2021 and 2020, respectively.

Net Pension Liability, Pension Expense, and Deferred Outflows of Resources and Deferred Inflows of Resources Related to Pensions—At December 31, 2021 and 2020, the Water Fund recorded a liability of \$1,154 million and \$1,159 million, respectively, for its proportionate share of the net pension liability. The net pension liability was measured as of December 31, 2021 and 2020, and the total

pension liability used to calculate the net pension liability was determined by an actuarial valuation as of those dates.

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

The change in the single discount rate and other assumptions increased the net pension liability by \$3.5 million for Laborers'. These changes are being amortized into expense over a 4-year period for Laborers'.

The Water Fund's proportion of the net pension liability was determined based on the rates of Water Fund's salaries within each corresponding pension plan to the total budgeted salaries for 2021 and 2020. At December 31, 2021 and 2020, the Water Fund's proportion was 6.4% and 6.6% of the Municipal Employees' plan, respectively, and 15.9% and 15.8%, respectively, of the Laborer's plan.

For the years ended December 31, 2021, and 2020, the Water Fund recognized pension benefit of (\$33.9) million and (\$47.9) million, respectively.

At December 31, 2021 and 2020, the Water Fund reported total deferred outflows of resources of \$19.0 million and \$17.0 million, respectively, and deferred inflows of resources of \$39.1 million and \$125.8 million, respectively, related to pensions from the following sources:

Municipal Employees' (dollars in thousands):

Years Ended December 31

	2021		2020	
	Deferred Outflows of Resources	Deferred Inflows of Resources	Deferred Outflows of Resources	Deferred Inflows of Resources
Differences between expected and actual experience Changes of assumptions Net difference between projected and	\$ 11,409 -	\$ - -	\$ 8,533 -	\$ 2,352 98,330
actual earnings on pension plan investments	-	16,675		6,723
Total	\$ 11,409	\$ 16,675	<u>\$ 8,533</u>	\$ 107,405

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:

2022	\$ 3,132
2023	(4,462)
2024	(833)
2025	(3,103)
2026	
Total	<u>\$(5,266)</u>

Laborers' (dollars in thousands):

	2021		2020	
	Deferred Outflows of Resources	Deferred Inflows of Resources	Deferred Outflows of Resources	Deferred Inflows of Resources
Differences between expected and actual experience Changes of assumptions Net difference between projected and actual earnings	\$ 108 7,522	\$ 5,638 84	\$ 678 7,855	\$ 2,958 528
on pension plan investments		16,744		14,888
Total	\$ 7,630	\$ 22 <i>,</i> 466	\$ 8,533	\$ 18,374

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

Years Ended December 31	
2022 2023	\$ (1,180) (7,185)
2024	(4,705)
2025 2026	(1,766)
Total	<u>\$(14,836)</u>

Deferred Outflow and Deferred Inflows Related to Changes in Proportionate Share of Contributions— For the years ended December 31, 2021 and 2020, the Water Fund reported a pension benefit of \$19.4 million and \$0, respectively, related to changes in its proportionate share of contributions. As of December 31, 2021 and 2020, the Water Fund reported deferred inflows of \$77.1 million and \$79.8 million, respectively, and deferred outflows of \$6.6 million and \$18.8 million, respectively, related to changes in its proportionate share of contributions. These deferred amounts will be recognized as a pension (benefit)/charge over a period of four years.

Actuarial Assumptions—The total pension liability in the December 31, 2021 and 2020 actuarial valuation was determined using the following actuarial assumptions, applied to all periods included in the measurement:

	Employees'	Laborers'
Inflation	2.50 %	2.25 %
Salary increases	3.50–7.75 (a)	3.00 (b)
Investment rate of return	7.00 (c)	7.25 (c)

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

(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 RP-20	014 Healthy Annuitant Mortality Table	Generational—Scale MP-2016
	Pre-Retirement RP-20	014 Employee Mortality Table	Generational—Scale MP-2016
Laborers'		2010 Amount-weighted Below-median ome General Healthy Retiree Mortality Tables,	
	Sex	Distinct	Generational—Scale MP-2020 2-dimensional
	Pre-Retirement Pub-2	2010 Amount-weighted Below-median	
	Inco	ome General Employee Mortality Tables, Sex Distinct	Generational—Scale MP-2020 2-dimensional

The actuarial assumptions used in the December 31, 2021 valuation were adjusted based on the results of actuarial experience study for the periods:

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

Laborers'—January 1, 2017–December 31, 2019

The long term expected rate of return on pension plan investments was determined using the buildingblock method in which best-estimate ranges of expected future real rates of return (expected returns, net of pension plan investment expense and inflation) are developed for each major asset class. These ranges are combined to produce the long-term expected rate of return by weighting the expected future real rates of return by the target asset allocation percentage and by adding expected inflation. The target allocation and best estimates of arithmetic real rates of return for each major asset class as of December 31, 2021 and 2020, are summarized in the following tables:

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

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

Discount Rate

Municipal Employees'—The Single Discount Rate used to measure the total pension liability as of December 31, 2021 and 2020 was 7.0% and 7.0% respectively. The projection of cash flows used to determine the discount rate assumed plan member contributions will be made according to the contribution rate applicable for each member's tier and that employer contributions will be made as specified by Public Act 100-0023. For this purpose, only employer contributions that are intended to fund benefits of current plan members and their beneficiaries are included. Projected employer contributions and contributions from future plan members that are intended to fund the service costs of future plan members and their beneficiaries are not included. Based on those assumptions, the pension plan's fiduciary net position was projected to be available to make all projected future benefit payments of current plan members. Therefore, the long term expected rate of return on pension plan investments was applied to all periods of projected benefit payments to determine the total pension liability.

Laborers'—A Single Discount Rate of 6.77% and 6.84% was used to measure the total pension liability as of December 31, 2021 and 2020, respectively. This Single Discount Rate was based on an expected rate of return on pension plan investments of 7.25% and 7.25% as of December 31, 2021 and 2020, and a municipal bond rate of 1.84% and 2% as of December 31, 2021 and 2020, respectively (based on the daily rate closest to but not later than the measurement date of the "20-Year Municipal GO AA Index" rate from Fidelity Index). The projection of cash flows used to determine this Single Discount Rate assumed that plan member contributions will be made at the current contribution rate and that employer contributions will be made at under the statutory funding policy. Based on these assumptions, the pension plan's fiduciary net position and future contributions were sufficient to finance the benefit payments through the year 2074 (for the 2021 valuation) and the year 2073 (for the 2020 valuation). As a result, the long-term expected rate of return on pension plan investments was applied to projected benefit payments through the year 2074 (for the 2021 valuation) and the year 2023 (for the 2020 valuation), and the municipal bond rate was applied to all benefit payments after that date.

Sensitivity of the Water Fund's Proportionate Share of the Net Pension Liability to Changes in the Discount Rate

Municipal Employees'—The following presents the Water Fund's allocated share of the net pension liability as of December 31, 2021 and 2020, calculated using the discount rate of 7.0%, as well as what the net pension liability would be if it were calculated using a discount rate that is 1 percentage point lower or 1 percentage point higher than the current rate (dollars in thousands):

2021	Current 1% Decrease	Discount Rate	1% Increase
Net pension liability December 31, 2021: Municipal Employees' discount rate Municipal Employees' net pension liability	6.00 % 1,049,998	7.00 % 904,174	8.00 % 782,940
2020	Current 1% Decrease	Discount Rate	1% Increase

Laborers'—The following presents the Water Fund's allocated share of the net pension liability as of December 31, 2021 and 2020, calculated using the discount rate of 6.77% and 6.84%, respectively, as well as what the net pension liability would be if it were calculated using a discount rate that is 1 percentage point lower or 1 percentage point higher than the current rate (dollars in thousands):

		Current	
2021	1% Decrease	Discount Rate	1% Increase
Net pension liability December 31, 2021: Laborers' discount rate Laborers' net pension liability	5.77 % \$304,118	6.77 % \$249,501	7.77 % \$203,656
		Current	
2020	1% Decrease	Discount Rate	1% Increase
Net pension liability December 31, 2020: Laborers' discount rate Laborers' net pension liability	5.84 % \$304,354	6.84 % \$250,711	7.84 % \$205,704

Pension Plan Fiduciary Net Position—Detailed information about the pension plans' fiduciary net position is available in the separately issued Pension Plans' financial reports.

7. RELATED-PARTY TRANSACTIONS

Included in operating expenses are reimbursements to the General Fund of the City for services provided by other City departments, employee fringe benefits, and certain payments made on behalf of the Water Fund. Such reimbursements amounted to \$139.0 million and \$133.7 million in 2021 and 2020, respectively.

8. COMMITMENTS AND CONTINGENCIES

The Water Fund has certain contingent liabilities resulting from litigation, claims, or commitments incident to the ordinary course of business. Management expects that final resolution of these contingencies will not have a material adverse effect on the financial position or results of operations of the Water Fund.

The Water Fund provides workers' compensation benefits and employee health benefits under self-insurance programs administered by the City 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 of claims that have been incurred but not reported. Changes in the claims liability amounts for the years ended December 31, 2021 and 2020, are as follows (in thousands):

	2021	2020
Balance—January 1 Claims incurred on current and prior-year events Claims paid on current and prior-year events	\$ 62,731 36,283 (31,854)	\$ 51,132 42,853 (31,254)
Balance—December 31	\$ 67,160	\$ 62,731

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

At December 31, 2021 and 2020, the Water Fund entered into contracts with outstanding commitments of approximately \$178.5 million and \$194.4 million, respectively, for construction projects.

9. DEFERRED OUTFLOWS/INFLOWS OR RESOURCES

	2021 (Dollars in	2020 Thousands)
Deferred outflows of resources: Deferred outflows from pension activities Changes in proportionate share of pension contribution Unamortized deferred bond refunding costs	\$ 19,040 6,612 <u>18,663</u>	\$ 17,066 18,845 20,660
Total deferred outflows of resources	<u>\$ 44,315</u>	<u>\$ 56,571</u>
Deferred inflows of resources: Deferred inflows from pension activities Changes in proportionate share of pension contribution	\$ (39,140) (77,119)	\$(125,780) (79,840)
Total deferred inflows of resources	<u>\$(116,259</u>)	<u>\$ (205,620)</u>

Refer to Note 6 Pension Plans—Deferred Outflows Related to Pension Activities and to Changes in Proportionate Share of Contribution sections.

10. SUBSEQUENT EVENTS

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

* * * * * *

REQUIRED SUPPLEMENTARY INFORMATION

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

Municipal Employees'	2021	2020	2019	2018	2017	2016	2015
TOTAL PENSION LIABILITY:							
Service cost*	\$ 246,066	\$ 236,302	\$ 228,465	\$ 223,528	\$ 572,534	\$ 619,743	\$ 226,816
Interest	1,228,905	1,190,694	1,159,253	1,123,348	915,711	878,369	909,067
Benefit changes	-	-	-	-	-	-	2,140,009
Differences between expected and actual	121.000	100.020	10 070	05 540		(127 110)	(100.025)
experience Assumption changes	121,988	100,938	16,676	95,540	(177,755) (7,431,191)	(127,119) (578,920)	(109,835) 8,711,755
Benefit payments including refunds	(1,010,191)	- (973,478)	- (952,652)	(916,198)	(888,174)	(859,672)	(826,036)
	<u> ()= () </u> /	<u> (- </u>					
Net change in total pension liability	586,768	554,456	451,742	526,218	(7,008,875)	(67,599)	11,051,776
Total pension liability—beginning	17,814,812	17,260,356	16,808,614	16,282,396	23,291,271	23,358,870	12,307,094
Total pension liability—ending (a)	18,401,580	17,814,812	17,260,356	16,808,614	16,282,396	23,291,271	23,358,870
PLAN FIDUCIARY NET POSITION:							
Contributions—employer	573,198	496,992	418,269	349,574	261,764	149,718	149,225
Contributions—employee	163,411	157,798	146,645	138,400	134,765	130,391	131,428
Net investment income	498,299	335,403	560,940	(204,975)	610,515	281,419	114,025
Benefit payments including refunds of	(4.040.404)	(072,470)	(052 (52)	(016 100)	(000 474)	(050 (72))	(026.026)
employee contribution Administrative expenses	(1,010,191) (6,687)	(973,478) (7,118)	(952,652) (6,740)	(916,198) (6,639)	(888,174) (6,473)	(859,672) (7,056)	(826,036) (6,701)
Other	-	-	-	-	5,394	-	-
Not shange in plan fidusions							
Net change in plan fiduciary net position	218,030	9,597	166,462	(639,838)	117,791	(305,200)	(438,059)
	210,050	5,557	100,402	(055,050)	117,751	(303,200)	(430,033)
Plan fiduciary net position—beginning	4,090,239	4,080,642	3,914,180	4,554,018	4,436,227	4,741,427	5,179,486
Plan fiduciary net position—ending (b)	4,308,269	4,090,239	4,080,642	3,914,180	4,554,018	4,436,227	4,741,427
	4,508,205	4,090,239	4,000,042	5,514,180	4,554,018	4,430,227	4,741,427
NET PENSION LIABILITY—Ending (a) - (b)	\$14,093,311	\$13,724,573	\$13,179,714	\$12,894,434	\$11,728,378	\$18,855,044	\$18,617,443
PLAN FIDUCIARY NET POSITION AS A							
PERCENTAGE OF THE TOTAL PENSION LIABILITY	23.41 %	22.96 %	23.64 %	23.29 %	27.97 %	19.05 %	20.30 %
ALLOCATED COVERED PAYROLL	<u>\$ 123,388</u>	<u>\$ 123,184</u>	<u>\$ 129,976</u>	\$ 123,292	\$ 119,698	\$ 109,644	<u>\$ 111,282</u>
EMPLOYER'S NET PENSION LIABILITY AS							
A PERCENTAGE OF ALLOCATED COVERED-							
PAYROLL	704.25 %	737.13 %	731.07 %	743.37 %	695.42 %	1,144.85 %	1,132.81 %
ALLOCATED NET PENSION LIABILITY	\$ 904,174	\$ 908,022	\$ 950,223	\$ 916,516	\$ 832,399	\$ 1,255,259	\$ 1,255,259
ALLOCATED PERCENTAGE	6.42 %	6.62 %	7.21 %	7.11 %	7.10 %	6.66 %	6.66 %
ALLOCATED FERCENTAGE	0.42 %	0.02 %	/.21 %	/.11 %	/.10 %	0.00 %	0.00 %

* 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

Ten year information will be provided prospectively starting with year 2015

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

Laborers'	2021	2020	2019	2018	2017	2016	2015
TOTAL PENSION LIABILITY:							
Service cost *	\$ 40.411	\$ 39.216	\$ 38,522	\$ 40.801	\$ 80.232	\$ 82,960	\$ 38,389
Interest	192,343	191,099	188,347	183,135	154,047	150,166	153,812
Benefit changes	-	-	-	-	150	-	384,033
Differences between expected and							
actual experience	(31,083)	(18,992)	(8,820)	15,143	(62,178)	(30,428)	(46,085)
Assumption changes	21,870	44,034	32,846	(11,788)	(1,074,754)	(62,905)	1,175,935
Benefit payments including refunds	(172,514)	(169,056)	(164,959)	(160,061)	(157,050)	(154,683)	(152,530)
Pension plan administrative expense	(3,837)	(3,616)	(3,691)	(3,933)	(3,985)	(4,080)	(3,844)
Net change in total pension liability	47,190	82,685	82,245	63,297	(1,063,538)	(18,970)	1,549,710
Total pension liability—beginning	2,858,334	2,775,649	2,693,404	2,630,107	3,693,645	3,712,615	2,162,905
Total pension liability—ending (a)	2,905,524	2,858,334	2,775,649	2,693,404	2,630,107	3,693,645	3,712,615
PLAN FIDUCIARY NET POSITION:							
Contributions—employer	84,969	73,744	59,346	47,844	35,457	12,603	12,412
Contributions—employee	17,637	18,064	18,143	17,837	17,411	17,246	16,844
Net investment income	138,105	163,057	184,027	(75,219)	207,981	57,997	(22,318)
Benefit payments including refunds of							
employee contribution	(172,514)	(169,056)	(164,959)	(160,061)	(157,050)	(154,683)	(152,530)
Administrative expenses	(3,837)	(3,616)	(3,691)	(3,933)	(3,985)	(4,080)	(3,844)
Other				661			
Net change in plan fiduciary							
net position	64,360	82,193	92,866	(172,871)	99,814	(70,917)	(149,436)
	,	,	,	(,	(,,	(= .= , .= = ,
Plan fiduciary net position—beginning	1,269,742	1,187,549	1,094,683	1,267,554	1,167,740	1,238,657	1,388,093
Plan fiduciary net position—ending (b)	1,334,102	1,269,742	1,187,549	1,094,683	1,267,554	1,167,740	1,238,657
NET PENSION LIABILITY—Ending (a) - (b)	\$1,571,422	\$1,588,592	\$1,588,100	\$1,598,721	\$ 1,362,553	\$2,525,905	\$2,473,958
PLAN FIDUCIARY NET POSITION AS A							
PERCENTAGE OF THE TOTAL PENSION							
LIABILITY	45.92 %	44.42 %	42.78 %	40.64 %	48.19 %	31.61 %	33.36 %
ALLOCATED COVERED PAYROLL **	\$ 33,679	\$ 32,699	\$ 34,288	\$ 33,855	\$ 32,031	\$ 30,606	<u>\$ 31,935</u>
EMPLOYER'S NET PENSION LIABILITY AS A PERCENT	AGE						
OF ALLOCATED COVERED PAYROLL	740.81 %	766.72 %	750.48 %	755.95 %	653.68 %	1,213.48 %	1,208.16 %
ALLOCATED NET PENSION LIABILITY	\$ 249,501	\$ 250,711	\$ 257,325	\$ 255,928	\$ 209,380	\$ 371,399	\$ 385,827
ALLOCATED PERCENTAGE	<u> </u>	<u> </u>	16.20 %	16.01 %	15.37 %	<u>14.70</u> %	15.60 %

* 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

Ten year information will be provided prospectively starting with year 2015

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

Municipal Employees':

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Years Ended December 31	Actuarially Determined Contributions	Contributions in Relation to the Actuarially Determined Contribution	-	Covered Payroll*	Contributions as a Percentage of Covered Payroll
2012	\$ 690,823	\$148,859	\$541,964	\$1,590,794	9.36 %
2013	820,023	148,197	671,826	1,580,289	9.38
2014	839,039	149,747	689,292	1,602,978	9.34
2015	677,200	149,225	527,975	1,643,481	9.08
2016	961,770	149,718	812,052	1,646,939	9.09
2017	1,005,457	261,764	743,693	1,686,533	15.52
2018	1,049,916	349,574	700,342	1,734,596	20.15
2019	1,117,388	418,269	699,119	1,802,790	23.20
2020	1,167,154	496,992	670,162	1,861,905	26.69
2021	1,218,361	573,198	645,163	2,001,181	28.64

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

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

Laborers':

Years Ended December 31	Actuarially Determined Contributions*	Contributions in Relation to the Actuarially Determined Contribution		Covered Payroll**	Contributions as a Percentage of Covered Payroll
2012	\$ 77,566	\$ 11,853	\$ 65,713	\$ 198,790	5.96 %
2013	106,199	11,583	94,616	200,352	5.78
2014	106,019	12,161	93,858	202,673	6.00
2015	79,851	12,412	67,439	204,773	6.06
2016	117,033	12,603	104,430	208,155	6.05
2017	124,226	35,457	88,769	208,442	17.01
2018	129,247	47,844	81,403	211,482	22.62
2019	148,410	59,346	89,064	211,608	28.05
2020	155,794	73,744	82,050	207,195	35.59
2021	155,245	84,969	70,276	212,122	40.06

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

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

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

(Continued)

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

Actuarial Methods and Assumptions	Municipal Employees'	Laborers'
Actuarial valuation date	December 31, 2021 (a)	December 31, 2021 (b)
Actuarial cost method	Entry age normal	Entry age normal
Asset valuation method Actuarial assumptions:	5-yr Smoothed Market	5-yr Smoothed Market
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)
Otherinformation	(k)	(1)

- (a) Actuarially determined contribution amount is determined as of December 31, with appropriate interest to the middle of the year.
- (b) Actuarially determined contribution rates are calculated as of December 31, which is 12 months prior to the end of the fiscal year in which contributions are reported.
- (c) (1.50%–6.50% for 2020–2022), varying by years of service.
- (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, 2017). For employees first hired on or after January 1, 2011 and before July 6, 2017, rates of retirement for each age from 62 to 80 were used (effective December 31, 2011). For employees first hired on or after July 6, 2017, rates of retirement for each age from 62 to 80 were December 31, 2017, valuation pursuant to an experience used (effective December 31, 2017).
- (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 thru December 31, 2019.
- 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 Amountweighted 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 assumptions provides a margin for mortality improvements.

- (k) Other assumptions: Same as those used in the December 31, 2021, actuarial funding valuations.
- (I) The actuarial valuation is based on the statutes in effect as of December 31, 2020.

(Concluded)

ADDITIONAL INFORMATION

ADDITIONAL SUPPLEMENTARY INFORMATION SCHEDULE OF UTILITY PLANT FOR THE YEAR ENDED DECEMBER 31, 2021 (In thousands)

			Accumulated Depreciation							
	Balance— January 1, 2021	Additions	Assets Adjustments/ Disposals	Transfers	Balance— December 31, 2021	Balance— January 1, 2021	Provision		Balance— December 31, 2021	Net Balance— December 31, 2021
LAND AND LAND RIGHTS:										
Power and pumping	\$ 13,767	\$ (9,625)	\$ -	\$ -	\$ 4,142	\$-	\$ -	\$ -	\$ -	\$ 4,142
Distribution reservoir	300	-	-	-	300	-	-	-	-	300
Purification	1,739	-	-	-	1,739	-	-	-	-	1,739
General and maintenance	677	9,625	-		10,302	-			-	10,302
Total land and land rights	16,483				16,483		_			16,483
STRUCTURES AND IMPROVEMENTS:										
Cribs	22,968	-	-	-	22,968	6,682	271	-	6,953	16,015
Lake and land tunnels	119,621	-	-	-	119,621	47,026	1,184	-	48,210	71,411
Intake structures	9,531	-	-	-	9,531	5,230	95	-	5,325	4,206
Power and pumping structures	145,428	2	-	628	146,058	46,701	1,543	-	48,244	97,814
Purification buildings	253,747	162	-	559	254,468	129,912	4,088	-	134,000	120,468
Distribution reservoirs	16,979	-	-	-	16,979	7,038	226	-	7,264	9,715
Offices, maintenance, and general	40,118	-	-	-	40,118	13,108	744	-	13,852	26,266
Contract retainage	15	107	(15)	-	107					107
Total structures and improvements	608,407	271	(15)	1,187	609,850	255,697	8,151		263,848	346,002
DISTRIBUTION PLANT:										
Mains and accessories	4,229,298	12,601	(486)	108,881	4,350,294	571,319	42,767	(483)	613,603	3,736,691
Meters and installations	260,087	4,234	-	_	264,321	77,064	9,620		86,684	177,637
Hydrants and valves	16,471	-	-	-	16,471	11,701	254	-	11,955	4,516
Contract retainage	7,361	14,207	(7,361)		14,207					14,207
Total distribution plant	4,513,217	31,042	(7,847)	108,881	4,645,293	660,084	52,641	(483)	712,242	3,933,051
EQUIPMENT:										
Power production	65,420	-	-	-	65,420	54,753	1,350	-	56,103	9,317
Pumping	302,295	190	(2,256)	807	301,036	145,357	8,251	-	153,608	147,428
Purification	440,620	386		-	441,006	209,363	12,782	-	222,145	218,861
Heavy machinery	23,790	-	(1,916)	-	21,874	20,286	1,694	(1,460)	20,520	1,354
Transportation	13,531	77	(795)	-	12,813	9,381	719	(752)	9,348	3,465
Miscellaneous	17,874	-		-	17,874	17,235	15	-	17,250	624
Contract retainage	3,683	754	(3,683)		754					754
Total equipment	867,213	1,407	(8,650)	807	860,777	456,375	24,811	(2,212)	478,974	381,803
Total structures and improvements,										
distribution plant, and equipment	5,988,837	32,720	(16,512)	110,875	6,115,920	1,372,156	85,603	(2,695)	1,455,064	4,660,856
CONSTRUCTION IN PROGRESS:										
Filtration plants	80,792	23,642	-	(559)	103,875	-	-	-	-	103,875
Pumping stations	56,750	27,299	-	(1,435)	82,614	-	-	-	-	82,614
Water mains	277,540	93,269	-	(108,881)	261,928	-	-	-	-	261,928
Contract retainage	16,327	2,744	(16,327)		2,744					2,744
Total construction in progress	431,409	146,954	(16,327)	(110,875)	451,161		_			451,161
TOTAL UTILITY PLANT	\$6,436,729	\$179,674	\$(32,839)	<u>\$ -</u>	\$6,583,564	\$1,372,156	\$85,603	<u>\$(2,695)</u>	\$1,455,064	\$5,128,500

PART III

STATISTICAL SECTION

STATISTICAL DATA

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

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

Revenue Capacity Information—These schedules contain information to help the reader assess the Water Fund's most significant local revenue source and water sales charge.

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

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

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

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

2012 2013 2014 2015 2016 2017 2018 2019 2020 2021 **OPERATING REVENUES:** \$ \$ 773.8 \$ \$ \$ 737.9 \$ 763.8 Watersales \$ 562.6 \$ 620.5 693.1 \$ 760.6 749.8 754.8 \$ 743.8 Provision for doubtful accounts (22.5) (23.6)(24.8) (20.2) (8.2) (20.4) (29.5) (15.2) Other operating revenues 26.9 13.7 16.6 22.1 19.2 25.6 29.4 27.4 22.2 27.1 761.4 Total operating revenues 576.3 637.1 692.7 769.4 759.0 774.0 744.4 736.5 775.7 OPERATING EXPENSES: Source of supply 0.2 0.1 0.3 0.2 0.1 0.1 0.2 0.4 0.2 0.1 Power and pumping 41.7 43.2 43.1 41.3 39.6 41.4 41.1 42.5 40.7 45.2 Purification 56.1 60.9 58.5 57.1 57.5 60.5 62.9 67.8 61.8 62.3 36.5 29.5 37.3 39.2 39.6 59.7 71.8 71.7 74.8 Transmission and distribution 43.7 Provision for doubtful accounts 25.4 15.7 Customer accounting and collection 11.6 11.9 15.3 18.2 22.1 27.2 27.0 26.5 10.0 14.7 Administrative and general 21.9 21.2 22.0 22.1 20.3 13.6 13.0 13.0 13.9 14.9 Central services and General Fund reimbursements 107.4 108.7 119.2 129.1 126.4 121.7 127.0 124.0 139.8 133.1 436.0 240.0 107.1 85.4 70.3 (47.9) (33.8) Pension expense ---289.5 300.6 298.7 417.0 Total operating expenses 737.8 538.4 402.2 411.4 307.2 323.1 **OPERATING INCOME BEFORE DEPRECIATION** AND AMORTIZATION 286.8 336.5 394.0 31.6 223.0 356.8 362.6 327.4 429.3 452.6 DEPRECIATION AND AMORTIZATION 48.4 49.6 58.0 56.4 68.0 71.1 74.6 79.9 82.5 86.8 **OPERATING INCOME** 238.4 286.9 336.0 (24.8)155.0 285.7 288.0 247.5 346.8 365.8 NONOPERATING REVENUES (EXPENSES): Interest income 0.3 0.4 3.1 0.6 17.0 1.7 (0.5) 10.3 5.1 21.0 Interest expenses (81.7) (92.2) (98.8) (106.1)(107.9)(108.3)(91.3) (97.0)(95.9) (94.0)Swap termination fee (101.7) -Other operating revenues 1.1 0.5 (0.5) 0.2 0.6 3.2 2.1 3.5 4.7 2.0 (74.2) Total nonoperating expenses-net (80.3) (91.3) (99.8) (102.8) (208.4)(94.8)(84.1)(72.5) (90.3) TRANSFERS OUT (0.6) (2.4) (2.7) (2.4) (2.4) ---(2.4) (2.1) CHANGE IN NET POSITION 158.1 195.6 236.2 (128.2)(55.8)188.8 201.5 172.3 270.2 273.1 TOTAL NET POSITION—Beginning of year 1,093.3 1,251.4 1,447.0 1,079.7 951.5 895.7 1,084.5 1,285.9 1,458.2 1,728.4 TOTAL NET POSITION—End of year \$ 1,251.4 \$ 1,447.0 \$ 1,683.2 \$ 951.5 895.7 \$ 1,084.5 \$ 1,285.9 \$ 1,458.2 \$ 1,728.4 \$ 2,001.5 \$

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

	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
NET POSITION: Net investment in capital assets Restricted for capital projects Unrestricted	\$ 1,062.3 1.3 	\$1,233.2 0.7 213.1	\$1,394.0 0.6 288.6	\$1,514.0 0.7 (563.2)	\$ 1,622.0 0.4 (726.7)	\$ 1,949.4 0.5 <u>(865.4</u>)	\$ 2,163.2 0.2 <u>(877.5</u>)	\$ 2,351.1 0.4 <u>(893.3</u>)	\$2,574.3 0.1 (846.0)	\$ 2,746.4 _ (744.9)
TOTAL NET POSITION	<u>\$1,251.4</u> *	\$1,447.0	\$1,683.2	<u>\$ 951.5</u> **	<u>\$ 895.7</u>	\$ 1,084.5	\$ 1,285.9	\$ 1,458.2	\$1,728.4	<u>\$ 2,001.5</u>

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

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

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

	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
OPERATING REVENUES:										
Watersales	\$ 562.6	\$620.5	\$693.1	\$ 773.8	\$760.6	\$749.8	\$ 754.8	\$ 737.9	\$743.8	\$763.8
Other operating revenues	13.7	16.6	22.1	19.2	25.6	29.4	27.4	26.9	22.2	27.1
Total operating revenues	576.3	637.1	715.2	793.0	786.2	779.2	782.2	764.8	766.0	790.9
OPERATING EXPENSES:										
Source of supply	0.2	0.1	0.3	0.2	0.1	0.1	0.2	0.4	0.2	0.1
Power and pumping	41.7	43.2	43.1	41.3	39.6	41.4	41.1	42.5	40.7	45.2
Purification	56.1	60.9	58.5	57.1	57.5	60.5	62.9	67.8	61.8	62.3
Transmission and distribution	36.5	29.5	43.7	37.3	39.2	39.6	59.7	71.8	71.7	74.8
Provision for doubtful accounts	15.7	25.4	22.5	23.6	24.8	20.2	8.2	20.4	29.5	15.2
Customer accounting and collection	10.0	11.6	11.9	14.7	15.3	18.2	22.1	27.2	27.0	26.5
Administrative and general	21.9	21.2	22.0	22.1	20.3	13.6	13.0	13.0	13.9	14.9
Central services and General Fund										
reimbursements	107.4	108.7	119.3	129.1	126.4	121.7	127.0	124.0	139.8	133.1
Pension expense				436.0	240.0	107.1	85.4	70.3	(47.9)	(33.9)
Total operating expenses	289.5	300.6	321.3	761.4	563.2	422.4	419.6	437.4	336.7	338.2
INTEREST INCOME (OTHER THAN FROM										
CONSTRUCTIONAL ACCOUNT)	0.3	0.4	<u>(0.5</u>)	3.1	0.6	10.2	5.1	21.0	17.0	1.7
NET REVENUES—As defined (Note 4)	\$287.1	\$336.9	\$ 393.4	\$ 34.7	\$223.6	\$ 367.0	\$ 367.7	\$348.4	\$446.3	\$454.4

Source: City of Chicago Department of Water Management and Comptroller's Office.

STATISTICAL DATA WATER SYSTEM ACCOUNTS TEN YEARS ENDED DECEMBER 31, 2012–2021

Years Ended December 31	Nonmetered	Metered	Total
2012	290,863	205,097	495,960
2013	273,426	220,759	494,185
2014	250,304	241,304	491,608
2015	227,801	266,284	494,085
2016	206,913	287,351	494,264
2017	190,276	303,877	494,153
2018	180,608	313,758	494,366
2019	178,348	316,262	494,610
2020	177,641	316,783	494,424
2021	176,931	317,398	494,329

STATISTICAL DATA TEN LARGEST SUBURBAN CUSTOMERS FOR THE YEAR ENDED DECEMBER 31, 2021 (In thousands)

Customer	Amount of Sales
Dupage Water Commission	\$113,250
Oaklawn, Illinois	42,415
Northwest Suburban Municipal Joint Action Water Agency	41,655
Bedford Park, Illinois	28,736
Harvey, Illinois	14,265
Melrose Park, Illinois	14,074
Cicero, Illinois	10,590
Village of McCook, Illinois	9,148
Village of Alsip, Illinois	8,034
City of Berwyn	7,598
Total	<u>\$ 289,765</u>

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

Prior Bonds Coverage Calculation										
Combined prior Bonds, Senior Lien, and Second Lien Debt Service Calculation	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
REVENUES AVAILABLE FOR BONDS: Net revenues—as defined (Note 4) Pension expense other than contribution (Note) ⁽¹⁾ Transfer from (to) Water Rate Stabilization account Other Available Funds (Note) ⁽²⁾	\$ 287.1 - (13.5) 63.8	\$ 336.9 - (13.5) 	\$ 393.4 - - 176.4	\$ 34.7 423.3 - 236.1	\$ 223.6 227.6 - 421.7	\$ 367.0 82.7 - 515.7	\$ 367.7 53.3 - 451.8	\$ 348.4 30.3 - 445.0	\$ 446.3 (92.3) - 467.1	\$ 454.4 (84.2) - 424.0
NET REVENUES AVAILABLE FOR BONDS	\$ 337.4	\$ 469.6	\$ 569.8	\$ 694.1	\$ 872.9	\$ 965.4	\$ 872.8	\$ 823.7	<u>\$ 821.1</u>	<u>\$ 794.2</u>
DEBT SERVICE REQUIREMENTS: Senior debt service requirements ⁽⁴⁾	<u>\$ 13.9</u>	<u>\$ 21.5</u>	<u>\$ 21.5</u>	<u>\$ 21.5</u>	<u>\$ 21.5</u>	<u>\$ 15.6</u>	<u>\$ 15.6</u>	<u>\$ 7.6</u>	<u>\$ -</u>	<u>\$ -</u>
Senior debt service coverage ratio	24.3	21.8	26.5	32.3	40.6	61.9	55.9	109.1	-	-
Second lien debt service requirements Subordinate lien debt service requirements	\$ 116.5 <u>1.2</u>	\$ 125.6 <u>1.3</u>	\$ 126.0 <u>1.9</u>	\$ 150.4 6.9	\$ 153.0 12.1	\$ 178.7 13.3	\$ 180.9 21.2	\$ 183.5 	\$ 178.5 <u>33.3</u>	\$ 178.6 38.3
Total second and subordinate lien debt service requirements	\$ 117.7	\$ 126.9	\$ 127.9	\$ 157.3	\$ 165.1	\$ 192.0	\$ 202.1	\$ 212.2	\$ 211.8	\$ 216.9
TOTAL COMBINED SENIOR, SECOND, AND SUBORDINATE LIEN DEBT SERVICE REQUIREMENTS	<u>\$ 131.6</u>	\$ 148.4	\$ 149.4	<u>\$ 178.8</u>	\$ 186.6	\$ 207.6	<u>\$ 217.7</u>	\$ 219.8	<u>\$ 211.8</u>	\$ 216.9
TOTAL COMBINED SENIOR AND SECOND LIEN DEBT SERVICE COVERAGE RATIO	2.6	3.2	3.8	3.9	4.7	4.7	4.0	3.7	3.9	3.7
WATER RATE STABILIZATION ACCOUNT YEAR-END BALANCE (3)	\$ 74.9	\$ 88.4	\$ 88.4	<u>\$ 91.2</u>	\$ 91.2	<u>\$ 90.5</u>	\$ 89.4	\$ 91.2	<u>\$ 93.2</u>	\$ 91.7
TOTAL POPULATION SERVED	5.296094	5.296094	5.296094	5.296094	5.296094	5.296094	5.296094	5.296094	5.296094	5.296094
TOTAL LONG TERM DEBT	\$ 2,030.0	\$ 1,997.0	\$ 2,382.0	\$ 2,391.0	\$ 2,468.0	\$ 2,401.0	\$ 2,457.0	\$ 2,398.0	\$ 2,409.0	\$ 2,341.4
LONG TERM DEBT PER CUSTOMER SERVED	\$ 383.3	\$ 377.1	\$ 449.8	\$ 451.5	\$ 466.0	\$ 453.4	\$ 463.9	\$ 452.8	\$ 454.8	\$ 442.1

Source: City of Chicago Comptroller's Office; U.S. Department of Commerce - Census Bureau

(1) Of the (\$33.9) million of pension expense for 2021, \$50.3 million is the portion of the City's pension contribution payable in 2021 to the pension funds and allocable to the Water Fund. The remaining portion of the pension expense for 2021, (\$84.2) million is recognized on the income statement of the Water Fund for 2021 pursuant to GASB 68 but is not due and payable by the City during 2021; accordingly, that portion is not included in Operating Expenses for purposes of calculation of the debt service coverage ratio.

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

(3) The 2021 water rate stabilization balance includes a fair value adjustment of \$0.6 million. A fair value adjustment was not included in 2016 and prior balances.

(4) The 2000 Senior Liend Debt service was fully defeased in 2020 and therefore no outstanding debt at 12/31/2021.

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

	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Senior lien bonds	\$ 60.7	\$ 49.0	\$ 37.5	\$ 26.2	\$ 15.0	\$ 9.6	\$ 4.6	\$-	\$-	\$-
Second lien bonds	1,951.1	1,921.6	2,258.6	2,222.3	2,261.8	2,142.7	2,070.8	1,920.2	1,920.2	1,841.9
Commercial paper	-	-	-	-	-	-	-	-	-	-
Subordinate lien—IEPA loan	18.4	26.3	85.7	142.9	191.6	248.7	381.9	477.8	488.6	499.5
Total long-term debt	2,030.2	1,996.9	2,381.8	2,391.4	2,468.4	2,401.0	2,457.3	2,398.0	2,408.8	2,341.4
Accretion of capital appreciation bonds	47.7	43.9	39.1	33.3	26.3	18.4	9.4	-	-	-
Unamortized bond discount/premium—net Unamortized deferred loss on	71.0	66.9	97.0	91.3	161.2	205.6	185.9	166.9	148.9	132.1
bond refunding	(36.2)									
Total	\$ 2,112.7	\$ 2,107.7	\$ 2,517.9	\$ 2,516.0	\$ 2,655.9	\$ 2,625.0	\$ 2,652.6	\$ 2,564.9	\$ 2,557.7	2,473.5

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

Years	Amount
2022 2023 2024 2025 2026	\$ 291,921 354,318 332,506 374,506 354,397
Total	<u>\$1,707,648</u>

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

STATISTICAL DATA WATER SYSTEM PUMPAGE AND CAPACITY TEN YEARS ENDED DECEMBER 31, 2012–2021

Years	Total Pumpage (MGD)	Average Daily Pumpage (MGD)	Maximum Daily Pumpage (MGD)	System's Rated Pumpage Capacity (MGD)	Maximum Daily Pumpage as % of Capacity
2012	289,545	793	1,248	2,160	58
2013	276,039	756	1,095	2,160	51
2014	274,552	752	1,023	2,160	47
2015	262,606	719	890	2,160	41
2016	255,872	701	934	2,160	43
2017	248,371	680	1,089	2,160	50
2018	249,845	685	859	2,160	40
2019	241,359	661	838	2,160	39
2020	234,426	641	842	2,160	39
2021	237,554	651	836	2,160	39

Note: Million Gallons Daily (MGD).

MISCELLANEOUS STATISTICAL DATA FOR THE YEARS ENDED DECEMBER 31, 2021 AND 2020

	2021	2020
AREA SERVED (In Square Miles):		
Chicago	228	228
125 suburbs	578	578
TOTAL AREA SERVED	806	806
WATER WORKS FACILITIES:		
Filtration plants	2	2
Continuous service capacity:		
South Water Filtration Plant (MGD)	720	720
Jardine Water Purification Plant (MGD)	1,440	1,440
Pumping stations—steam	3	3
Pumping stations—electric	9	9
Installed pumping capacity (MGD)	3,661	3,361
Crib intakes in service	2	2
Shore intakes (filtration plants)	2	2
Water supply tunnels (6 to 20 feet in diameter)—miles	64	64
DISTRIBUTION SYSTEM:		
Water mains (miles)	4,295	4,258
Fire hydrants	48,049	48,049
Valves	47,831	47,831
Nata Millian Callana Daily (MCD)		

Note: Million Gallons Daily (MGD).

STATISTICAL DATA OPERATING INFORMATION BY FUNCTION TEN YEARS ENDED DECEMBER 31, 2012–2021 (Number of employees)

Function	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Administration	62	61	62	61	61	64	63	63	56	52
Agency management	37	37	34	36	36	35	37	37	35	31
Safety and security	16	16	26	27	27	21	21	21	53	52
Capital design and construction services	8	8	9	9	9	10	10	10	13	13
Engineering services	4	4	4	6	6	7	7	7	6	7
Inspection services	30	29	29	27	27	26	27	27	27	27
Water quality	48	47	47	47	47	46	45	58	53	50
Water pumping	234	222	220	214	214	215	213	213	205	200
Water treatment	323	336	334	344	344	343	343	343	343	324
Systems installation	34	75	76	75	75	65	65	65	62	56
Systems maintenance	583	542	527	520	520	471	449	449	425	411
Billings and customer service	50	50	48	46	46	45	45	45	38	35
Water meter installation and repair	82	84	88	93	93	82	82	82	71	66
Total	1,511	1,511	1,504	1,505	1,505	1,430	1,407	1,420	1,387	1,324

STATISTICAL DATA POPULATION OF SERVICE AREA LAST FIVE CENSUS PERIODS

Years	Chicago		Suburban Customers		Total	Number of Suburbs Served
1980	3,005,072	(1)	1,152,614	(1)	4,157,686	75
1990	2,783,726	(1)	1,589,557	(2)	4,373,283	95
2000	2,896,016	(1)	2,410,021		5,306,037	125
2010	2,695,598	(1)	2,600,496		5,296,094	125
2020	2,695,598	(1)	2,600,496		5,296,094	123

(1) U.S. Department of Commerce—Census Bureau.

(2) 23 suburban customers not included (under the DWC contract; fully served May 1, 1992) with a population of 610,478, which increases total population to 4,983,761.

STATISTICAL DATA PRINCIPAL EMPLOYERS (NONGOVERNMENT) FOR THE YEAR ENDED DECEMBER 31, 2021, AND NINE YEARS AGO

	2021 (1)			2012 ⁽³⁾			
	Number of		Percentage of Total City	Number of		Percentage of Total City	
Employer	Employees	Rank	Employment	Employees	Rank	Employment	
Amazon.Com, Inc.	27,050	1	2.17 %	-	-	- %	
Advocate Aurora Health	25,906	2	2.08	-	-	-	
Northwest Memorial Healthcare	24,053	3	1.93	-	-	-	
University of Chicago	20,781	4	1.67	-	-	-	
Wal-Mart Stores Inc.	18,500	5	1.48	-	-	-	
Walgreen Boots Alliance Inc.	16,817	6	1.35	2,789	10	0.26	
JP Morgan & Co. ⁽⁴⁾	14,583	7	1.17	8,168	1	0.76	
United Continental Holdings Inc ⁽⁵⁾	13,171	8	1.06	7,521	2	0.70	
Amita Health	13,051	9	1.05	-	-	-	
Jewel-Os co ⁽⁶⁾	10,892	10	0.87	4,572	5	0.43	
Accenture LLP	-	-	-	5,590	3	0.52	
Northern Trust	-	-	-	5,448	4	0.51	
Ford Motor Company	-	-	-	4,187	6	0.39	
Bank of America NT & SA (7)	-	-	-	3,811	7	0.36	
ABM Janitorial Midwest Inc	-	-	-	3,398	8	0.32	
American Airlines	-	-	-	3,076	9	0.29	

Notes:

⁽¹⁾ Source; Reprinted with permission from the February 22, 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⁾ City of Chicago, Department of Revenue, Employer's Expense Tax Returns

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

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

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

⁽⁶⁾ Jewel-Osco formerly known as Jewel Foods Stores, Inc.

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

STATISTICAL DATA POPULATION AND INCOME STATISTICS TEN YEARS ENDED DECEMBER 31, 2012–2021

Year	Population ⁽¹⁾	Median Age ⁽²⁾	Number of Households ⁽²⁾	City Employment	Unemployment Rate ⁽³⁾	Per Capita Income ⁽⁴⁾	Total Income
2012	2,695,598	33.2	1,054,488	1,144,896	8.9	\$48,305	\$130,210,861,390
2013	2,695,598	33.5	1,062,029	1,153,725	8.3	49,071	132,275,689,458
2014	2,695,598	33.9	1,031,672	1,264,234	5.7	50,690	136,639,862,620
2015	2,695,598	34.2	1,053,229	1,273,727	5.7	53,886	145,254,993,828
2016	2,695,598	34.4	1,053,986	1,282,117	5.0	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	1080345	1,286,484	3.2	65,306	176,038,722,988
2020	2,695,598	N/A ⁽⁵⁾	N/A ⁽⁵⁾	1,165,441	8.2	67,671	182,413,812,258
2021	2,746,388	N/A ⁽⁵⁾	N/A ⁽⁵⁾	1,247,060	4.1	N/A ⁽⁵⁾	N/A ⁽⁵⁾

Notes:

⁽¹⁾ Source: U.S. Census Bureau.

⁽²⁾ Source: U.S. Census Bureau-American Community Survey Data Estimate. Data Not Available for 2021. Due to Covid-19 protocols the U.S. Census Bureau—American Community Survey (ACS) 1-year data for Median Age and Number of Households are not available for 2021. The reported values above are from the ACS 5-year data.

⁽³⁾ Source: Bureau of Labor of Statistics for 2021, Unemployment rate for Chicago-Naperville-Illinois Metropolitan Area.

⁽⁴⁾ Source: U.S. Department of Commerce Bureau of Economic Analysis Per Capital Personal Income for Chicago-Naperville-Illinois Metropolitan Area.

⁽⁵⁾ N/A means not available at time of publication.