



OHIO AUDITOR OF STATE  
**KEITH FABER**





**METROPOLITAN SEWER DISTRICT OF GREATER CINCINNATI  
HAMILTON COUNTY  
DECEMBER 31, 2022**

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**METROPOLITAN SEWER OF GREATER CINCINNATI  
HAMILTON COUNTY  
DECEMBER 31, 2021**

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# OHIO AUDITOR OF STATE KEITH FABER



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## INDEPENDENT AUDITOR'S REPORT

Metropolitan Sewer District of Greater Cincinnati  
Hamilton County  
1605 Gest Street  
Cincinnati, Ohio 45204

To the Hamilton County Board of Commissioners:

### Report on the Audit of the Financial Statements

#### **Opinions**

We have audited the financial statements of the Metropolitan Sewer District of Greater Cincinnati, Hamilton County, Ohio (the District), as of and for the years ended December 31, 2022 and 2021, and the related notes to the financial statements, which collectively comprise the District's basic financial statements as listed in the table of contents.

In our opinion, the accompanying financial statements referred to above present fairly, in all material respects, the financial position of the Metropolitan Sewer District of Greater Cincinnati, Hamilton County, Ohio as of December 31, 2022 and 2021, and the changes in financial position and its cash flows for the year then ended in accordance with the accounting principles generally accepted in the United States of America.

#### **Basis for Opinions**

We conducted our audit in accordance with auditing standards generally accepted in the United States of America (GAAS) and the standards applicable to financial audits contained in *Government Auditing Standards*, issued by the Comptroller General of the United States. 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 District, and to meet our other ethical responsibilities, in accordance with the relevant ethical requirements relating to our audit. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinions.

#### **Emphasis of Matter**

As discussed in Note 15 to the financial statements, the financial impact of COVID-19 and the continuing emergency measures may impact subsequent periods of the District. 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.

In preparing the financial statements, management is required to evaluate whether there are conditions or events, considered in the aggregate, that raise substantial doubt about the District's ability to continue as a going concern for twelve months beyond the financial statement date, including any currently known information that may raise substantial doubt shortly thereafter.

### ***Auditor's Responsibilities for the Audit of the Financial Statements***

Our objectives are to obtain reasonable assurance about whether the financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinions. 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 and *Government Auditing Standards* 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 and *Government Auditing Standards*, 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 District'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.
- conclude whether, in our judgment, there are conditions or events, considered in the aggregate, that raise substantial doubt about the District's ability to continue as a going concern for a reasonable period of time.

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

### ***Required Supplementary Information***

Accounting principles generally accepted in the United States of America require that the *management's discussion and analysis*, and schedules of net pension and other post-employment benefit liabilities and pension and other post-employment benefit contributions be presented to supplement the basic financial statements. Such information is the responsibility of management and, although not a part of the basic financial statements, is required by the Governmental Accounting Standards Board who considers it to be an essential part of financial reporting for placing the basic financial statements in an appropriate operational, economic, or historical context. We have applied certain limited procedures to the required supplementary information in accordance with auditing standards generally accepted in the United States of America, which consisted of inquiries of management about the methods of preparing the information and comparing the information for consistency with management's responses to our inquiries, the basic financial statements, and other knowledge we obtained during our audit of the basic financial statements.

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

***Supplementary information***

Our audit was conducted for the purpose of forming an opinion on the financial statements that collectively comprise the District's basic financial statements. The Schedule of Expenditures of Federal Awards as required by Title 2 U.S. Code of Federal Regulations (CFR) Part 200, Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards is presented for 2022 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 audit of the basic financial statements and certain additional procedures, including comparing and reconciling such information directly to the underlying accounting and other records used to prepare the basic financial statements or to the basic financial statements themselves, and other additional procedures in accordance with auditing standards generally accepted in the United States of America. In our opinion, the Schedule of Expenditures of Federal Awards is fairly stated, in all material respects, in relation to the basic financial statements as a whole.

**Other Reporting Required by *Government Auditing Standards***

In accordance with *Government Auditing Standards*, we have also issued our report dated May 12, 2023, on our consideration of the District's internal control over financial reporting and our tests of its compliance with certain provisions of laws, regulations, contracts and grant agreements and other matters. The purpose of that report is solely to describe the scope of our testing of internal control over financial reporting and compliance and the results of that testing, and not to provide an opinion on the effectiveness of the District's internal control over financial reporting or on compliance. That report is an integral part of an audit performed in accordance with *Government Auditing Standards* in considering the District's internal control over financial reporting and compliance.



Keith Faber  
Auditor of State  
Columbus, Ohio  
May 12, 2023

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**THE METROPOLITAN SEWER DISTRICT OF GREATER CINCINNATI  
HAMILTON COUNTY**

**MANAGEMENT DISCUSSION AND ANALYSIS  
(UNAUDITED)**

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This section of the Metropolitan Sewer District’s annual financial report presents our discussion and analysis of the District’s financial performance during the fiscal years ended December 31, 2022, and December 31, 2021. Please read it in conjunction with the District’s basic financial statements and footnotes, beginning on page 13.

**FINANCIAL HIGHLIGHTS FOR THE YEAR**

- Assets and deferred outflows exceeded liabilities and deferred inflows by \$1,288 million at the close of the 2022 fiscal year.
- The District’s net position increased by \$97.6 million in 2022, or 8.2%.
- During fiscal year 2022, the District’s total assets decreased \$15.5 million to \$2,375 million, a 0.6% decrease.
- Total long-term liabilities increased \$107.7 million to \$1,064 million in fiscal year 2022.
- The District’s debt service coverage ratio remains strong at 1.8 for fiscal year 2022.
- A refinance of the 2013A Bonds, occurred in April 2022, to a 2022A Revenue Bond, resulting in a new present value of savings of \$14.5 million.

**FINANCIAL STATEMENTS OVERVIEW**

Financial Reporting Entity– The Metropolitan Sewer District of Greater Cincinnati is a Hamilton County enterprise fund managed and operated by the City of Cincinnati. The District is operated pursuant to the authority of the Revised Code authorizing the formation of joint sewer districts, agreements between counties and municipal corporations. The District provides sewage treatment within a service area of approximately 400 square miles and encompasses portions of four counties in southwestern Ohio. The District provides wastewater removal and treatment to over 220,000 residential, commercial and industrial sewer connections and operates and maintains over 3,000 miles of sanitary and combined sewers, seven major wastewater treatment plants and 100 pump stations. As an enterprise fund, operations are reported on the full accrual basis of accounting: revenues are recognized when earned, and expenses are recognized when incurred. The County issues a separate Annual Comprehensive Financial Report which includes the District as a separate enterprise fund of the County. The financial statements of the District report information about the District using accounting methods similar to those used by private-sector companies. These statements provide both long-term and short-term information about the District’s overall financial status.

**Financial Statement Structure --**

In addition to the Independent Auditor’s Report, the annual financial report consists of three segments:

- The Management’s Discussion and Analysis provides explanations for, and analysis of the District’s financial activities based upon currently known facts, conditions, and decisions of the District’s management. While primarily focused on current year results compared with prior years, this discussion also addresses certain long-term issues, which may, in management’s opinion, impact the District’s financial performance.

**THE METROPOLITAN SEWER DISTRICT OF GREATER CINCINNATI  
HAMILTON COUNTY**

**MANAGEMENT DISCUSSION AND ANALYSIS  
(UNAUDITED)**

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- Basic Financial Statements, which depict the District's financial position as of December 31, 2022 and 2021, along with earnings performance and cash flow information. These statements include the Statement of Net Position, the Statement of Revenues, Expenses, and Changes in Net Position and the Statement of Cash Flows.
- The accompanying notes explain some of the financial statement data and provide more detailed information.

Required Basic Financial Statements -- The Statement of Net Position is the first required statement; it includes the District's assets and liabilities and provides information about the nature and amounts of investments in resources (assets) and nature and extent of obligations (liabilities) with the difference being reported as net position. It also provides the basis for computing the rates of return, evaluating the capital structure of the District, and assessing the liquidity and financial flexibility of the District. Over time, increases or decreases in the District's net position is one indicator of whether its financial health is improving or deteriorating. Other non-financial factors such as changes in economic conditions, population growth, and new or changed legislation also need to be considered in assessing the District's financial condition. The Statement of Revenues, Expenses, and Change in Net Position is the second required financial statement which demonstrates the changes in net position from one fiscal period to the next by accounting for revenues and expenditures and measuring the financial results of operations. This statement measures the profitability (i.e. change in net position) of the District's operations over the past year and can be used to determine whether the District has successfully recovered all of its costs through its user fees and other charges. The final required financial statement is the Statement of Cash Flows. The primary purpose of this statement is to provide information about the District's cash receipts, cash payments, and net changes in cash and cash equivalents resulting from operations, investing, and capital and noncapital financing activities. It also provides information regarding sources of cash, uses of cash, and changes in cash balances during the reporting period.

Notes to the audited financial statements contain information essential to understanding them, such as the District's significant accounting policies and information about certain financial statement account balances.

**THE METROPOLITAN SEWER DISTRICT OF GREATER CINCINNATI  
HAMILTON COUNTY**

**MANAGEMENT DISCUSSION AND ANALYSIS  
(UNAUDITED)**

FINANCIAL ANALYSIS

Table A below shows that in fiscal year 2022, 87.3% of the District’s net position reflects its investment in capital assets (e.g., buildings, sewer laterals, and equipment), less related debt still outstanding used to acquire those assets. These capital assets are used primarily in the collection and treatment of wastewater throughout the District’s service area.

- The related liabilities will be repaid with resources provided by system users through rates and fees. Long-term debt (net of the current portion) decreased by \$63.4 million in 2022, or -7.6%, and decreased by \$53.1 million in 2021, or -5.98%.
- Net position increased \$97.6 million in 2022 and increased \$114.9 million in 2021. Percentage increase/decreases over the two-year period of 8.2%, and 10.7%, respectively. Total expenses in both years were due to fluctuations attributable to accounting for pensions, and price increases.

Table A  
Condensed Summary of Net Position  
(In Thousands)

	2022	Percentage Increase (Decrease) over 2021	2021	Percentage Increase (Decrease) over 2020	2020	Percentage Increase (Decrease) over 2019
Current and other assets	\$ 95,623	1.0%	\$ 94,712	18.8%	\$ 79,756	19.6%
Noncurrent (restricted) Assets	\$ 377,329	-12.1%	\$ 429,415	-6.5%	\$ 459,288	-10.9%
Capital assets, net	\$1,902,834	1.9%	\$ 1,867,200	2.2%	\$ 1,827,577	4.0%
Total assets	2,375,786	-0.6%	2,391,327	1.0%	2,366,621	1.2%
Deferred Outflows	\$ 76,424	216.2%	\$ 24,169	-81.4%	\$ 129,753	44.6%
Current liabilities	\$ 85,881	2.7%	\$ 83,657	9.4%	\$ 76,484	-9.7%
Noncurrent liabilities	\$1,063,837	11.3%	\$ 956,132	-27.8%	\$ 1,324,567	10.3%
Total liabilities	\$1,149,718	10.6%	\$ 1,039,789	-25.8%	\$ 1,401,051	9.0%
Deferred Inflows	\$ 14,175	-92.3%	\$ 184,994	849.6%	\$ 19,481	152.1%
Net investment in capital assets	\$1,124,409	9.2%	\$ 1,029,342	8.9%	\$ 944,971	11.6%
Restricted	\$ 4,602	2.7%	\$ 4,482	-2.0%	\$ 4,573	-36.2%
Unrestricted	\$ 159,306	1.5%	\$ 156,889	24.2%	\$ 126,298	-55.1%
Total Net Position	\$1,288,317	8.2%	\$ 1,190,713	10.7%	\$ 1,075,842	-5.3%

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**THE METROPOLITAN SEWER DISTRICT OF GREATER CINCINNATI  
HAMILTON COUNTY**

**MANAGEMENT DISCUSSION AND ANALYSIS  
(UNAUDITED)**

Table B below shows total operating revenues for fiscal year 2022 of \$273.6 million, an increase of \$7.6 million, or 2.9%. Operating revenues were \$266.0 million, an increase of \$8.5 million, or 3.3% in 2021. Meanwhile, total expenses increased \$18.0 million, or 11.6%, in 2022 and decreased \$180.5 million, or 53.8%, in 2021. Decreases/Increases in total expenses in both those years was due to fluctuations attributable to accounting for pensions and price increases.

Table B  
Condensed Summary of Revenues  
Expenses and Changes in Net Position  
(In Thousands)

	2022	Percentage Increase (Decrease) over 2021	2021	Percentage Increase (Decrease) over 2020	2020	Percentage Increase (Decrease) over 2019
Operating revenues	\$ 273,618	2.9%	\$ 266,026	3.3%	\$ 257,484	-5.4%
Nonoperating revenues	(9,235)	5059.2%	(179)	-101.3%	13,930	-23.1%
Total revenues	264,383	-0.6%	265,847	-2.1%	271,414	-6.5%
Depreciation and amortization expense	\$ 67,319	-0.7%	\$ 67,813	2.1%	\$ 66,437	-0.3%
Other operating expenses	134,868	12.9%	119,506	-4.6%	125,252	-0.1%
Pension Expense	(51,387)	-13.3%	(59,287)	-152.0%	114,027	52.2%
Nonoperating expenses	22,332	-17.5%	27,078	-9.5%	29,934	-16.4%
Total expenses	\$ 173,132	11.6%	\$ 155,110	-53.8%	\$ 335,650	10.9%
Income from operations	\$ 91,251	-17.6%	\$ 110,737	-272.4%	\$ (64,236)	-120.4%
Capital contributions	\$ 6,354	53.7%	\$ 4,134	-5.6%	\$ 4,381	-29.3%
Change in net position	\$ 97,605	-15.0%	\$ 114,871	-291.9%	\$ (59,855)	875.8%
Total Net Position, beginning	1,190,713	10.7%	1,075,842	-5.3%	1,135,697	-0.5%
Total Net Position, ending	\$1,288,318	8.2%	\$ 1,190,713	10.7%	\$ 1,075,842	-5.3%

- Operating expenses, excluding depreciation, amortization and net pension expense, increased by \$15.4 million to \$134.9 million in 2022 from \$119.5 million in 2021. The increase was due to an increase in Purchased Services and Other Operating expenses. 2021 saw a decrease of \$5.8 million, or -4.6%, over the prior year. The decrease was due to utilities, fuel, supplies, purchased services and other expenses.
- Salary and wages increased \$5.9 million to \$60.7 million in 2022 compared to \$54.8 million in 2021. This was a combination of Salary and Wages and Benefits.
- Depreciation expense decreased \$0.5 million, or -0.7%, in 2022. Depreciation expense increased \$1.3 million, 2.1%, in 2021 compared to the prior year.

**THE METROPOLITAN SEWER DISTRICT OF GREATER CINCINNATI  
HAMILTON COUNTY**

**MANAGEMENT DISCUSSION AND ANALYSIS  
(UNAUDITED)**

- Non-operating expenses for 2022 were \$22.3 million, a decrease of \$4.7 million or -17.5%. 2021 decreased \$2.9 million, or -9.5%, due to changes in interest expense and the fair value of investments.
- The City of Cincinnati offered an Early Retirement Incentive Program (ERIP) in 2007. In 2016, the District paid the City \$8,723,061, its share of the remaining liability to the City Retirement System. This amount represents in full the liability for the years 2015-2021 and is being amortized over 7 years. ERIP amortization expense was \$1,273 million in 2021 final year, and \$1,250 million in 2020.

Table C reflects year-end capital balances. As of December 31, the District's investment in capital assets (net of accumulated depreciation) amounted to \$1,903 million in 2022, \$1,867 million in 2021. Capital assets increased \$98.7 million, or 3.3%, on system improvement projects, land acquired for those projects and equipment replacement in 2022. Capital contributions were \$6.4 million and \$4.1 million in 2022 and 2021, respectively.

Capital construction and sewer improvement projects were 30.2% in 2022 and 37.3% of the program in 2021. Additional information on the District's capital assets can be found in Note 5 to the financial statements.

	Percentage Increase (Decrease)		Percentage Increase (Decrease)		Percentage Increase (Decrease)	
	2022	over 2021	2021	over 2020	2020	over 2019
Land	\$ 12,313	0.0%	\$ 12,313	20.9%	\$ 10,188	0.0%
Buildings	341,939	0.0%	341,939	0.1%	341,666	0.0%
Leased Asset Building	15,000	0.0%	15,000	0.0%	15,000	0.0%
Equipment	779,400	3.8%	751,084	3.4%	726,265	4.3%
Sewer Laterals	1,472,819	3.6%	1,420,974	5.4%	1,348,645	3.0%
Construction in progress	507,895	3.8%	489,374	0.2%	488,533	14.1%
Subtotal	\$3,129,366	3.3%	\$ 3,030,684	3.4%	\$ 2,930,297	4.6%
Less accumulated depreciation	1,221,844	5.4%	1,159,172	5.5%	1,098,783	5.6%
Less accumulated depreciation Leased Asset	4,687	8.7%	4,312	9.5%	3,937	5.6%
Net capital assets	\$1,902,835	1.9%	\$ 1,867,200	1.9%	\$ 1,831,514	4.0%

**THE METROPOLITAN SEWER DISTRICT OF GREATER CINCINNATI  
HAMILTON COUNTY**

**MANAGEMENT DISCUSSION AND ANALYSIS  
(UNAUDITED)**

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Bond Issuances

The District finances its construction program through a combination of revenue bonds, state revolving loans through the State of Ohio and cash, with the primary source being tax-exempt revenue bonds. The District's revenue bond rates are:

- Moody's Investors Services                      Aa2
- Standard & Poor's Corporation                AA+

Revenue bond service Debt Coverage in 2022 was 282% and 289% in 2021, compared to an Agency policy of 150% (25% higher than indenture requirements). The total debt coverage for 2022 was 178% and 183% in 2021, compared to the indenture requirement of 125%.

Rate Increase - Hamilton County Commissioners approved a 3% rate increase of the District's sewer fee effective as of 1/1/2023.

GASB 68

During 2015, the Metropolitan Sewer District of Greater Cincinnati adopted GASB Statement 68, "Accounting and Financial Reporting for Pensions—an Amendment of GASB Statement 27," which significantly revised accounting for pension costs and liabilities. For reasons discussed below, many end users of this financial statement will gain a clearer understanding of the Metropolitan Sewer District of Greater Cincinnati's actual financial condition by adding deferred inflows related to pension and the net pension liability to the reported net position and subtracting deferred outflows related to pension.

Governmental Accounting Standards Board standards are national and apply to all government financial reports prepared in accordance with generally accepted accounting principles. When accounting for pension costs, GASB 27 focused on a funding approach. This approach limited pension costs to contributions annually required by law, which may or may not be sufficient to fully fund each plan's *net pension liability*. GASB 68 takes an earnings approach to pension accounting; however, the nature of Ohio's statewide pension systems and state law governing those systems requires additional explanation in order to properly understand the information presented in these statements.

Under the standards required by GASB 68, the net pension liability equals the Metropolitan Sewer District of Greater Cincinnati's proportionate share of each plan's collective:

1. Present value of estimated future pension benefits attributable to active and inactive employees' past service.
2. Minus plan assets available to pay these benefits.

GASB notes that pension obligations, whether funded or unfunded, are part of the "employment exchange" – that is, the employee is trading his or her labor in exchange for wages, benefits, and the promise of a future pension. GASB noted that the unfunded portion of this pension promise is a present

**THE METROPOLITAN SEWER DISTRICT OF GREATER CINCINNATI  
HAMILTON COUNTY**

**MANAGEMENT DISCUSSION AND ANALYSIS  
(UNAUDITED)**

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obligation of the government, part of a bargained-for benefit to the employee and should accordingly be reported by the government as a liability since they received the benefit of the exchange. However, the Metropolitan Sewer District of Greater Cincinnati is not responsible for certain key factors affecting the balance of this liability. The Metropolitan Sewer District of Greater Cincinnati employees are covered by two pension systems. They are the City of Cincinnati Retirement System (CRS), and the Ohio Public Employees Retirement System (OPERS). The City of Cincinnati Retirement System (CRS) is accounted for as a single employer defined benefit pension plan. For CRS, the employee shares the obligation of funding pension benefits with the employer. Both employer and employee contribution rates are set by the City of Cincinnati ordinance. The CRS system provides retirement and disability benefits, annual cost of living adjustments, and death benefits to plan members and beneficiaries. The City of Cincinnati makes employer contributions based on a percentage of covered payroll of all CRS members. For Ohio PERS, the employee shares the obligation of funding pension benefits with the employer. Both employer and employee contribution rates are capped by State statute. A change in these caps requires action of both Houses of the General Assembly and approval of the Governor. Benefit provisions are also determined by State statute. The employee enters the employment exchange with the knowledge that the employer's promise is limited not by contract but by law. The employer enters the exchange also knowing that there is a specific, legal limit to its contribution to the pension system. In Ohio, there is no legal means to enforce the unfunded liability of the pension system *as against the public employer*. State law operates to mitigate/lessen the moral obligation of the public employer to the employee, because all parties enter the employment exchange with notice as to the law. The pension system is responsible for the administration of the plan.

Most long-term liabilities have set repayment schedules or, in the case of compensated absences (i.e., sick and vacation leave), are satisfied through paid time-off or termination payments. There is no repayment schedule for the net pension liability. As explained above, changes in pension benefits, contribution rates, and return on investments affect the balance of the net pension liability but are outside the control of the local government. In the event that contributions, investment returns, and other changes are insufficient to keep up with required pension payments, State statute does not assign/identify the responsible party for the unfunded portion. Due to the unique nature of how the net pension liability is satisfied, this liability is separately identified within the long-term liability section of the statement of net position.

In accordance with GASB 68, the Metropolitan Sewer District of Greater Cincinnati's statements prepared on an accrual basis of accounting include an annual pension expense for their proportionate share of each plan's *change* in net pension liability not accounted for as deferred inflows/outflows.

The COVID-19 Crisis has the District reassessing the 2023 budget expenditures.

For additional information on the Management Discussion and Analysis please contact:

Metropolitan Sewer District of Greater Cincinnati  
Office of the Director  
1600 Gest Street, Cincinnati, OH 45204

**THE METROPOLITAN SEWER DISTRICT OF GREATER CINCINNATI  
HAMILTON COUNTY**

**MANAGEMENT DISCUSSION AND ANALYSIS  
(UNAUDITED)**

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**Metropolitan Sewer District**  
**Statement of Net Position**  
**For The Periods Ended December 31, 2022 And December 31, 2021**  
**(All amounts expressed in thousands)**

	2022	2021
<b>ASSETS</b>		
Current assets:		
Cash, cash equivalents and pooled investments held by the City of Cincinnati (Note 2)	\$ 22,478	\$ 19,918
Accounts receivable (Note 3)	42,007	41,438
Prepaid expenses and other (Note 14)	1,324	1,543
Total current assets	65,809	62,899
Noncurrent assets:		
Restricted assets:		
Cash, cash equivalents, and pooled investments held by the City of Cincinnati		
Construction account (Note 2)	19,590	57,193
Amount to be transferred to surplus account (Note 2)	62,675	66,352
Held by trustee: (Note 4)		
Cash and cash equivalents (Note 2)	4,652	4,537
Investments - Held to maturity (Note 2)	290,412	301,333
Total restricted assets	377,329	429,415
Other assets:		
Other	29,814	31,813
Total other assets	29,814	31,813
Capital assets: (Note 5)		
Land	12,313	12,313
Buildings	356,939	356,939
Sewer Laterals	1,472,819	1,420,974
Equipment	779,399	751,084
Construction in progress	507,895	489,374
Total capital assets	3,129,365	3,030,684
Less:		
Accumulated depreciation	(1,226,531)	(1,163,484)
Net capital assets	1,902,834	1,867,200
Total noncurrent assets	2,309,977	2,328,428
Total assets	2,375,786	2,391,327
Deferred outflow of resources		
Deferred charges on refunding	4,694	6,021
Deferred Pension and OPEB Outflows	71,730	18,148
Total Deferred Outflow of Resources	76,424	24,169

The notes to the financial statements are an integral part of the financial statements

**Metropolitan Sewer District**  
**Statement of Net Position**  
**For The Periods Ended December 31, 2022 And December 31, 2021**  
**(All amounts expressed in thousands)**

	2022	2021
<b>LIABILITIES</b>		
Current liabilities:		
Payable from current assets:		
Current portion of long-term debt (Note 6)	57,079	54,118
Current portion of compensated absences (Note 8)	5,677	4,692
Accounts payable	8,689	6,687
Accrued payroll expenses	3,267	2,638
Total current liabilities payable from current assets	74,712	68,135
Payable from restricted assets:		
Construction accounts payable	9,640	13,694
Accrued interest payable	1,529	1,828
Total current liabilities payable from restricted assets	11,169	15,522
Total current liabilities	85,881	83,657
Noncurrent liabilities:		
Accrued compensated absences (Note 8)	4,369	4,267
Long-term debt (Note 6)	770,907	834,319
Net Pension Liability CRS (Note 9)	287,387	115,415
Net Pension Liability OPERS	1,174	2,131
Net Other Post Employment Benefit Liability (Note 10)	0	0
Total noncurrent liabilities	1,063,837	956,132
Total liabilities	1,149,718	1,039,789
Deferred Inflow of resources		
Deferred Pension and OPEB Inflows	14,175	184,994
Net position:		
Net investment in capital assets	1,124,409	1,029,342
Restricted	4,602	4,482
Unrestricted (Note 15)	159,306	156,889
Total Net Position	\$ 1,288,317	\$ 1,190,713

The notes to the financial statements are an integral part of the financial statements

**Metropolitan Sewer District**  
**Statement of Revenue, Expenses and Changes in Fund Net Position**  
**For The Periods Ended December 31, 2022 And December 31, 2021**  
**(All amounts expressed in thousands)**

	2022	2021
<b>REVENUES</b>		
Operating revenues:		
Sewerage service charges	\$ 250,894	\$ 243,605
Sewer surcharges	18,747	17,856
All other revenues	3,977	4,565
Total operating revenues	273,618	266,026
<b>EXPENSES</b>		
Operating expenses:		
Personnel services:		
Salary and Wages	60,712	54,812
Pension Expense	(51,387)	(59,287)
Purchased services	36,941	33,882
Utilities, fuel and supplies	25,781	20,477
Depreciation and amortization	67,319	67,813
Other expenses	11,434	10,335
Total operating expenses	150,800	128,032
Operating income	122,818	137,994
<b>NONOPERATING</b>		
Nonoperating revenues (expenses):		
Interest income	4,057	4,463
Change in fair value of investments	(13,292)	(4,642)
Interest expense	(22,332)	(27,078)
	(31,567)	(27,257)
Total nonoperating revenues (expenses)		
Income (loss) before contributions	91,251	110,737
Capital contributions	6,354	4,134
Change in net position	97,605	114,871
Total net position, beginning	1,190,713	1,075,842
Total net position, ending	\$ 1,288,318	\$ 1,190,713

The notes to the financial statements are an integral part of the financial statements

**Metropolitan Sewer District**  
**Statement of Cash Flows**  
**For The Periods Ended December 31, 2022 And December 31, 2021**  
**(All amounts expressed in thousands)**

	2022	2021
Cash flows from Operating Activities:		
Cash received from customers	\$ 268,107	\$ 258,984
Cash payments for goods and services	(73,145)	(63,867)
Cash payments for personnel costs	(58,953)	(56,527)
Other operating revenues	3,437	3,348
Net Cash Provided by Operating Activities	139,446	141,938
Cash Flows from Capital and Related Financing Activities:		
Principal and interest payments on long-term debt	(82,082)	(81,043)
Acquisition and construction of capital assets	(105,756)	(97,719)
Loan and Grant proceeds	1,801	2,936
Transfer into construction account from trustee investment account	66,352	126,366
Transfer from operating cash account to trustee investment account	(66,352)	(61,485)
Tap-in fees	6,327	2,891
Proceeds from the sale of capital assets	181	120
Net Cash (Used) by Capital and Related Financing Activities	(179,529)	(107,934)
Cash Flows from Investing Activities:		
Purchase of government securities	13,407	(60,484)
Net increase (decrease) in fair value of cash and investments	(13,292)	(4,642)
Interest earned on investments	1,363	1,488
Net Cash Provided (Used) by Investing Activities	1,478	(63,638)
Net Increase (Decrease) in Cash and Cash Equivalents	(38,605)	(29,634)
Cash and Cash Equivalents at January 1	148,000	177,634
Cash and Cash Equivalents at December 31	\$ 109,395	\$ 148,000
Reconciliation of Operating Income to Net Cash Provided by Operating Activities:		
Income from operations	\$ 122,818	\$ 137,994
Adjustments to reconcile operating income to net cash provided by operating activities:		
Depreciation and amortization	67,319	67,813
Capital Expenses moved to Operating	90	40
Operating Expense Reimbursed by Interdepartment Billings	(597)	0
Changes in assets and liabilities:		
Net change in customer accounts receivable	(569)	(863)
Net change in prepaid assets	219	(633)
Net change in other assets	1,999	(16,957)
Net change in operating accounts payable	2,002	807
Net change in accrued payroll and related expenses	1,104	(2,062)
Net Pension Liability	171,015	(311,304)
Net Other Post Employment Benefit Liability (Note 10)	0	(2,069)
Net Change in cash received from customers	(78)	(8)
Net Change in Deferred Charges on Refunding Outflows	1,327	1,327
Net Change in Deferred Pension Outflows	(53,582)	104,257
Net Change in Deferred Pension Inflows (Note 10)	(170,819)	165,513
Net Change in Capital Expenses 7600 moved to Fixed Assets in Fund 701	(2,802)	(1,917)
Net Cash Provided by Operating Activities	\$ 139,446	\$ 141,938
Non-cash Transactions:		
Structures donated as contributed capital in aid of construction	\$ 3,990	\$ 2,546
Acquisition and construction of capital asset paid directly by WPCLF loan proceeds	0	3,314
Construction accounts payable related to acquisition of capital assets	9,640	13,694

The notes to the financial statements are an integral part of the financial statements

**THE METROPOLITAN SEWER DISTRICT OF GREATER CINCINNATI  
HAMILTON COUNTY**

**NOTES TO THE FINANCIAL STATEMENTS  
FOR THE YEARS ENDED DECEMBER 31, 2022, AND 2021**

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**NOTE 1 - ACCOUNTING POLICIES**

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A summary of the significant accounting policies applied in the accompanying financial statements follows:

**Organization**

The Metropolitan Sewer District of Greater Cincinnati (the District), an enterprise fund of the County of Hamilton, Ohio, collects and treats industrial and residential wastewater for municipalities and unincorporated areas of Hamilton County. The District was formed on April 10, 1968, pursuant to resolutions of the Board of County Commissioners of Hamilton County and Ordinances of the City of Cincinnati, providing for a consolidation of the City Sewer Department and the County Sewer District. The two entities executed an agreement with an initial 50-year term. Per the agreement, the City is responsible for operational management. The original agreement was set to expire in April 2018 but has since been extended indefinitely by the Federal District Court. The parties remain in mediation in Federal District Court to resolve their remaining disputes.

Under a contract with the City of Cincinnati, the Board designated the City as its agent for the maintenance and operation of the District. The annual budget, prepared on a non-GAAP budgetary basis of accounting, is approved by the Board and administered by the City. Budgetary control is exercised at the divisional level, and between personnel and all other costs. The County issues a separate Annual Comprehensive Financial Report which includes the District as a separate enterprise fund of the County.

**Basis of Accounting**

The accompanying financial statements were prepared on the accrual basis of accounting, whereby revenues and expenses are recognized in the period earned or incurred.

**Use of Estimates**

The preparation of financial statements in conformity with generally accepted accounting principles 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 financial statements and the reported amounts of revenues and expenses during the reporting period. Actual results could differ from those estimates.

**THE METROPOLITAN SEWER DISTRICT OF GREATER CINCINNATI  
HAMILTON COUNTY**

**NOTES TO THE FINANCIAL STATEMENTS  
FOR THE YEARS ENDED DECEMBER 31, 2022, AND 2021**

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**Statement of Cash Flows**

For purposes of the Statements of Cash Flows, all highly liquid investments with a maturity of three months or less when purchased are considered to be cash equivalents. Pooled cash and investments held by the City of Cincinnati are considered cash equivalents by the District.

**Investments**

The District is required by Ohio law to invest in only United States obligations; federal agency securities; Ohio bonds and other obligations or such obligations of political subdivisions of the state, provided that the subdivisions are located within Hamilton County; time certificates of deposit or deposit accounts in an eligible institution; and no-load money market mutual funds consisting only of investments mentioned above. Investments are required to mature within five years from the date of settlement, unless the investment is matched to a specific obligation or debt of the District.

GASB Statement No. 72, *Fair Value Measurement and Application*, addresses accounting and financial reporting issues related to fair value measurements. This Statement provides guidance for determining a fair value measurement for financial reporting purposes for applying fair value to certain investments and disclosures related to all fair value measurements.

**Prepays**

Payments made for services that will benefit periods beyond fiscal year end December 31, 2022, are recorded as prepaids using the consumption method. A current asset for the prepaid amount is recorded at the time of the purchase and an expense is reported in the year in which services are consumed.

**Inventory**

Supplies and materials are stated at the lower of cost or market on a first-in, first-out (FIFO) basis.

**Capital Assets**

Capital assets include land, construction in progress, buildings, sewer laterals and mains, studies and equipment. Capital assets are defined as assets with an initial, individual cost of more than \$5,000.

Capital assets are stated at historical cost for assets acquired after the District's inception in 1968. Assets which were acquired prior to 1968 and not identifiable with specific historical costs are not included in the capital assets balance. Assets acquired by the District through contributions, such as contributions from land developers and federal and state grants, are capitalized and recorded in the plant records at the contributors' reported cost. Construction costs include the cost of in-force labor. See Note 5 for more information on capital assets.

Land acquired for the District's use is titled to either the City of Cincinnati or Hamilton County. The cost of this land has been recorded on the books of the District since it has the full benefit of the land as an economic resource.

**THE METROPOLITAN SEWER DISTRICT OF GREATER CINCINNATI  
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**NOTES TO THE FINANCIAL STATEMENTS  
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Depreciation expense is computed on the straight-line method over the estimated useful lives of the respective assets. The estimated lives are as follows:

Building	40 years
Sewer Laterals	40 years
Equipment	5-25 years

Any gain or loss arising from the disposal of capital assets has been credited or charged to income.

**Unamortized Financing Costs**

The unamortized financing costs include insurance, consulting and attorney fees incurred in connection with the revenue bond obligations. These amounts are being amortized on the straight-line method over the lives of the revenue bonds. Bond premiums and discounts are being amortized on the interest method over the lives of the revenue bonds.

**Deferred Outflows/Inflows of Resources**

In addition to assets, the statement of financial position will sometimes report a separate section for deferred outflows of resources. Deferred outflows of resources represent a consumption of net assets that applies to a future period and will not be recognized as an outflow of resources (expense) until then. For the District, deferred outflows of resources are reported on the statement of net position for deferred charges on refunding, pension and other postemployment benefits (OPEB). A deferred charge on refunding results from the difference in the carrying value of refunded debt and its reacquisition price. This amount is deferred and amortized over the shorter of the life of the refunded or refunding debt. The deferred outflows of resources related to pension and OPEB are explained in Notes 9 and 10.

In addition to liabilities, the statement of financial position reports a separate section for deferred inflows of resources. Deferred inflows of resources represent an acquisition of net assets that applies to a future period and will not be recognized until that time. For the District, deferred inflows of resources have been recorded in the statement of net position for pension and OPEB, as explained in Notes 9 and 10.

**Pension/OPEB Plans**

Employees participate in either the City of Cincinnati's Retirement System or the Ohio Public Employees Retirement System. For purposes of measuring net pension liabilities and net OPEB assets, deferred outflows of resources and deferred inflows of resources related to pension and OPEB, and pension and OPEB expense, information about the fiduciary net position of the pension and OPEB plans and additions to/deductions from their fiduciary net position have been determined on the same basis as they are reported by the retirement systems. For this purpose, benefit payments (including refunds of employee contributions) are recognized when due and payable in accordance with the benefit terms. The retirement systems report investments at fair values.

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HAMILTON COUNTY**

**NOTES TO THE FINANCIAL STATEMENTS  
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**Compensated Absences**

Compensated absences include accrued vacation time, sick leave, compensatory time, and other related payments. Compensatory time and vacation time are paid out in full upon termination and are expensed in the year earned. Sick leave is paid out at various levels. The liability for sick leave is computed with the Termination Payment Method using an historical average of total years worked and total amount paid. The current amounts are an average of the annual expenditures. The entire compensated absence liability is reported on the financial statements.

**Net Position**

Net positions are the difference between assets, deferred outflows, deferred inflows, and liabilities. Net investment in capital assets are capital assets less accumulated depreciation and any outstanding long-term debt related to the acquisition, construction or improvement of those assets. Net positions are reported as restricted when there are legal limitations that are imposed on their use by county legislation or external restrictions by other governments, creditors or grantors. Restricted net positions of the District relate to debt service.

The District applies restricted resources when an expense is incurred for purposes for which both restricted and unrestricted net positions are available. The District does not have net position restricted by enabling legislation.

**Operating Revenues and Expenses**

Operating revenues are those revenues that are generated directly from the primary activity of the proprietary fund. For the District, these revenues are charges for services for wastewater treatment. Operating expenses are necessary costs incurred to provide the service that is the primary activity of the fund.

**Contributions of Capital**

Contributions of capital arise from outside contributions of capital assets or outside contributions of resources restricted to capital acquisition and construction.

**Customer Assistance Program (CAP)**

A Customer Assistance Program (CAP) was approved by the Board of Commissioners in April 2019 to take effect on July 31, 2019. This program is a 25% discount on sewer bills offered to low-income seniors over the age of 65. Depending on the number of customers that apply, the District estimates this could affect revenue in the amount of \$250,000 up to \$2.2 million, with 100% participation.

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**THE METROPOLITAN SEWER DISTRICT OF GREATER CINCINNATI  
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**NOTES TO THE FINANCIAL STATEMENTS  
FOR THE YEARS ENDED DECEMBER 31, 2022, AND 2021**

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**NOTE 2 - DEPOSITS AND INVESTMENTS**

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**Deposits**

State statutes classify monies held by the District into three categories.

Active deposits are public deposits necessary to meet current demands on the treasury. Such monies must be maintained either as cash in the District's Treasury, in commercial accounts payable or withdrawable on demand, including negotiable order of withdrawal (NOW) accounts, or in money market deposit accounts.

Inactive deposits are public deposits that the District has identified as not required for use within the current two-year period of designation of depositories. Inactive deposits must either be evidenced by certificates of deposit maturing not later than the end of the current period of designation of depositories, or by savings or deposit accounts including, but not limited to, passbook accounts.

Interim deposits are deposits of interim monies. Interim monies are those monies which are not needed for immediate use, but which will be needed before the end of the current period of designation of depositories. Interim deposits must be evidenced by time certificates of deposit maturing not more than one year from the date of deposit or by savings or deposit accounts including passbook accounts.

Protection of the District's deposits is provided by the Federal Deposit Insurance Corporation (FDIC), by eligible securities pledged by financial institution as security for repayment, by surety company bonds deposited with the finance director by the financial institution or by a single collateral pool established by the financial institution to secure the repayment of all public monies deposited with the institution.

Custodial credit risk is the risk that in the event of a bank failure, the government's deposits may not be returned to it. The District's policy for deposits is collateral is required for demand deposits and certificates of deposit at 105 percent, or 102 percent if the financial institution participates in the Treasurer of State's Ohio Pooled Collateral System, of all deposits not covered by federal deposit insurance. Obligations that may be pledged as collateral are obligations of the United States and its agencies and obligations of the State and its municipalities, school districts, and district corporations. Obligations pledged to secure deposits must be delivered to a bank other than the institution in which the deposit is made. Written custodial agreements are required. The District is required to categorize deposits and investments according to GASB Statement No. 3 *Deposits with Financial Institutions, Investments, and Reverse Purchase Agreements*. The carrying value of the District's cash and cash equivalent deposits was \$104,744,000 and \$143,463,000 at December 31, 2022 and 2021, respectively.

Amounts held by the City of Cincinnati are invested on the District's behalf in accordance with the Cincinnati Municipal Code. Amounts held by the City are collateralized as part of the City's cash and investment balances. For GASB 40 disclosure requirements, refer to the financial statements as of June 30, 2022, for the City of Cincinnati.

Although the pledging bank has an investment and securities pool used to collateralize all public deposits, which are held in the financial institution's name, noncompliance with federal requirements could

**THE METROPOLITAN SEWER DISTRICT OF GREATER CINCINNATI  
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**NOTES TO THE FINANCIAL STATEMENTS  
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potentially subject the District to a successful claim by the FDIC. The deposits not covered by federal depository insurance are considered uninsured and uncollateralized and subject to custodial credit risk.

**Investments**

State Statute, board of county commissioners resolutions, and the 1985 Trust Indenture as amended authorize the District to invest in obligations of U. S. Treasury, agencies and instrumentalities, certificates of deposit, repurchase agreements, money market deposit accounts, municipal depository funds, super NOW accounts, sweep accounts, separate trading of registered interest and principal of securities, mutual funds, bonds and other obligations of this State, and the State Treasurer's investment pool. Repurchase agreements are limited to 30 days and the market value of the securities must exceed the principal value of the agreement by at least 2 percent and be marked to market daily. Investments in stripped principal or interest obligations reverse repurchase agreements and derivatives are prohibited. The issuance of taxable notes for the purpose of arbitrage, the use of leverage and short selling are also prohibited. An investment must mature within five years from the date of purchase unless matched to a specific obligation or debt of the District and must be purchased with the expectation that it will be held to maturity. Investments may only be made through specified dealers and institutions. Payment for investments may be made only upon delivery of the securities representing the investments to the finance director or, if the securities are not represented by a certificate, upon receipt of confirmation of transfer from the custodian. The District has no investment policy that addresses interest rate risk.

Custodial Credit Risk – For an investment, custodial credit risk is the risk that, in the event of the failure of the counterparty the District will not be able to recover the value of its investments or collateral securities that are in the possession of an outside party. The Federal National Mortgage Association Notes, Federal Home Loan Mortgage Corporation Notes, and the Federal Home Loan Bank Notes are exposed to custodial credit risk in that they are uninsured, unregistered, and held by the counterparty's trust department or agent but not in the District's name. The District has no investment policy dealing with investment custodial risk beyond the requirement in state statute that prohibits payment for investments prior to the delivery of the securities representing such investments to the Treasurer or qualified trustee.

Funds held by the trustee are eligible investments as defined by the Trust Agreement and are in the name of the trustee for the benefit of the District.

Investments made by the District are summarized below. Trustee account investments are categorized according to credit risk into the following categories: (1) insured or registered, or securities held by the District or its agent (bank trust department) in the District's name; or (2) uninsured and unregistered, with securities held by the counterparty's trust department or agent in the District's name; or (3) uninsured, unregistered securities held by the counterparty, or its trust department or agent but not in the District's name. Money market funds are unclassified investments since they are not evidenced by securities that exist in physical or book entry form. As stated in GASB Statement No. 40, obligations of the U. S. government or obligations explicitly guaranteed by the U. S. government are not considered to have credit risk and do not require disclosure of credit quality.

The money market funds are invested in a treasury obligation fund with a Moody's credit rating of Aaa.

**THE METROPOLITAN SEWER DISTRICT OF GREATER CINCINNATI  
HAMILTON COUNTY**

**NOTES TO THE FINANCIAL STATEMENTS  
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*Concentration of Credit Risk:* The Metropolitan Sewer District uses the City of Cincinnati’s Investment Policy which addresses concentration of credit risk by requiring investments to be diversified to reduce risk of loss resulting from over concentration of assets in a specific issue or class of security. The following table includes the percentage of each investment type held by the District at December 31, 2022.

<u>Investment Type</u>	<u>Fair Value</u>	<u>% of Total</u>
Investments held by the City of Cincinnati	\$104,743,937	26.20
U.S. Agency Securities	\$87,246,720	21.83
U.S. Treasury Securities	\$203,109,577	50.81
Money Market Funds	\$4,651,625	1.16
	<u>\$399,751,859</u>	<u>100.00</u>

The classification of cash and cash equivalents and investments on the financial statements is based on criteria set forth in GASB Statement No. 9. A reconciliation between the classifications of cash and investments of the financial statements and the classification per GASB Statement No. 3 is as follows:

(all amounts in thousands)

<b>December 31, 2022</b>	<b>Cash and Cash Equivalents</b>	<b>Investments</b>
GASB Statement No. 9	\$109,395	\$290,412
Money Market Funds	(4,651)	4,651
Total	<u>\$104,744</u>	<u>\$295,063</u>

(all amounts in thousands)

<b>December 31, 2021</b>	<b>Cash and Cash Equivalents</b>	<b>Investments</b>
GASB Statement No. 9	\$148,000	301,378
Money Market Funds	(4,537)	4,537
Total	<u>\$143,463</u>	<u>305,915</u>

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**THE METROPOLITAN SEWER DISTRICT OF GREATER CINCINNATI  
HAMILTON COUNTY**

**NOTES TO THE FINANCIAL STATEMENTS  
FOR THE YEARS ENDED DECEMBER 31, 2022, AND 2021**

*Fair Value Measurements:* District categorizes its fair value measurements within the fair value hierarchy established by GASB Statement No. 72. The District has the following recurring fair value measurements as of December 31, 2022:

Investments by Fair Value Level	Fair Value Measurements Using (amounts in thousands)		
	Fair Value	Quoted Price In Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)
U.S. Treasury Securities	\$203,110	203,110	
U.S. Agency Securities	\$87,247		87,247
	\$290,347	\$ 203,110	\$ 87,247

U.S. Treasury securities classified in Level 1 of the fair value hierarchy are valued using quoted market prices. U.S. Agency securities classified in Level 2 of the fair value hierarchy are valued using pricing sources as provided by investment managers.

**NOTE 3 - ACCOUNTS RECEIVABLE**

Accounts receivable consist of the following:

	(all amounts in thousands)	
	<b>2022</b>	<b>2021</b>
Sewer charges and surcharges:		
Unbilled amount	\$22,644	\$21,407
Billed amount	30,348	33,170
Less Allowance for doubtful accounts	(13,208)	(14,932)
Other	2,223	1,793
Total	\$42,007	\$41,438

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**THE METROPOLITAN SEWER DISTRICT OF GREATER CINCINNATI  
HAMILTON COUNTY**

**NOTES TO THE FINANCIAL STATEMENTS  
FOR THE YEARS ENDED DECEMBER 31, 2022, AND 2021**

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**NOTE 4 - RESTRICTED ASSETS**

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The Trust Agreement for the Series A Revenue Bonds (see Long-Term Debt Note) requires the establishment of certain trust accounts including a Bond Account, Bond Reserve Account, and a Surplus Account to be held by the Trustee. The Bond Account will be used to accumulate periodic principal and interest payments. The Bond Reserve Account will be funded in an amount equal to the highest annual future debt service requirement. The Surplus Account is available to be used for any other Sewer System purpose. The Trust Agreement also requires the creation of a Construction Account to be held by the City to pay for project costs. At December 31, 2022 and 2021 the following balances (at fair value) were maintained in the trust accounts:

(all amounts in thousands)

	<u>2022</u>	<u>2021</u>
Held by trustee:		
Reserve	\$43,121	\$44,890
Bond retirement	4,605	4,537
Surplus	<u>247,337</u>	<u>256,443</u>
Total	<u>\$295,063</u>	<u>\$305,870</u>

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**THE METROPOLITAN SEWER DISTRICT OF GREATER CINCINNATI  
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**NOTES TO THE FINANCIAL STATEMENTS  
FOR THE YEARS ENDED DECEMBER 31, 2022, AND 2021**

**NOTE 5 - CAPITAL ASSETS**

(all amounts in thousands)					
<u>December 31, 2022</u>	<u>Beginning Balance</u>	<u>Lease Breakout</u>	<u>Increase</u>	<u>Decrease</u>	<u>Ending Balance</u>
Capital Assets, not being depreciated:					
Land	\$ 12,313		\$ -		\$ 12,313
Construction in progress	489,374		99,899	(81,378)	507,895
	<u>\$ 501,687</u>		<u>\$ 99,899</u>	<u>\$ (81,378)</u>	<u>\$ 520,208</u>
Capital Assets, being depreciated:					
Buildings	356,939	(15,000)	-	-	341,939
Leased Asset Building		15,000			15,000
Equipment	751,084		28,690	(374)	779,400
Sewer Laterals	1,420,974		55,743	(3,898)	1,472,819
	<u>2,528,997</u>	<u>0</u>	<u>84,433</u>	<u>(4,272)</u>	<u>2,609,158</u>
Total Capital Assets	3,030,684	-	184,332	(85,650)	3,129,366
Less accumulated depreciation:					
Buildings	177,963	(4,312)	6,799		180,450
Leased Asset Building		4,312	375		4,687
Equipment	386,172		21,002	(374)	406,800
Sewer Laterals	599,349		35,245		634,594
Total Accumulated Depreciation	<u>1,163,484</u>	<u>0</u>	<u>63,421</u>	<u>(374)</u>	<u>1,226,531</u>
Net Capital Assets	<u>\$ 1,867,200</u>	<u>\$ -</u>	<u>\$ 120,911</u>	<u>\$ (85,276)</u>	<u>\$ 1,902,835</u>

Capital Asset category Sewer Laterals is comprised of two asset types, one is Sewer Lateral which are depreciated and Study Assets which are amortized.

In 2022, Capital Assets depreciation expense was \$63,421,000 and Study Assets amortization expense was \$3,898,000 for a total depreciation and amortization expense of \$67,319,000 for the year.

**THE METROPOLITAN SEWER DISTRICT OF GREATER CINCINNATI  
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**NOTES TO THE FINANCIAL STATEMENTS  
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(all amounts in thousands)

<u>December 31, 2021</u>	<u>Beginning Balance</u>	<u>Increase</u>	<u>Decrease</u>	<u>Ending Balance</u>
Capital Assets, not being depreciated:				
Land	\$ 10,188	\$ 2,125		\$ 12,313
Construction in progress	488,533	104,032	(103,191)	489,374
	<u>\$ 498,721</u>	<u>\$ 106,157</u>	<u>\$ (103,191)</u>	<u>\$ 501,687</u>
Capital Assets, being depreciated:				
Buildings	356,666	273	-	356,939
Equipment	726,265	25,554	(735)	751,084
Sewer Laterals	1,348,645	78,642	(6,313)	1,420,974
	<u>2,431,576</u>	<u>104,469</u>	<u>(7,048)</u>	<u>2,528,997</u>
Total Capital Assets	2,930,297	210,626	(110,239)	3,030,684
Less accumulated depreciation:				
Buildings	170,678	7,285		177,963
Equipment	366,400	20,507	(735)	386,172
Sewer Laterals	565,642	33,707		599,349
Total Accumulated Depreciation	<u>1,102,720</u>	<u>61,499</u>	<u>(735)</u>	<u>1,163,484</u>
Net Capital Assets	<u>\$ 1,827,577</u>	<u>\$ 149,127</u>	<u>\$ (109,504)</u>	<u>\$ 1,867,200</u>

Capital Asset category Sewer Laterals is comprised of two asset types, one is Sewer Lateral which are depreciated and Study Assets which are amortized.

In 2021, Capital Assets depreciation expense was \$61,499,000 and Study Assets amortization expense was \$6,314,000 for a total depreciation and amortization expense of \$67,813,000 for the year.

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**NOTE 6 - LONG-TERM DEBT**

Long-term debt consisted of the following:

	(all amounts in thousands)				
	Principal Issue	Interest Rate %	Year of Maturity	2022	2021
Revenue Bonds					
2022	134,605	5.00	2038	\$ 132,040	
2020	74,525	5.00	2035	64,435	\$ 70,505
2019 - Direct Placement	107,970	4.00-5.00	2034	96,455	102,320
2015	52,520	3.00-5.00	2025	5,980	7,790
2014	162,650	4.00-5.00	2032	106,140	115,470
2013 (a)	258,695	0.45-5.00	2023	8,560	142,700
				<u>413,610</u>	<u>438,785</u>
Ohio Water and Sewer					
Rotary Commission	-	-	-	50	50
Ohio Public Works Commission	-	0.00-3.00	2041	243	281
Water Pollution Control Loan Fund	-	2.50-3.50		344,972	366,666
Lease Liability	15,000	2.00-5.00	2029	6,625	7,405
				<u>765,500</u>	<u>813,187</u>
Bond Premiums				62,496	75,250
Deferred loss on defeasance				(4,694)	(6,021)
Current maturities				(57,079)	(54,118)
Long-term portion				<u>\$ 766,223</u>	<u>\$ 828,298</u>

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Principal and interest payments on long-term debt for the next five years and thereafter are as follows:

(all amounts in thousands)

Year	Revenue Bonds		Direct Placement Bonds		WPCLF		OPWC		Lease Liability	
	Principal	Interest	Principal	Interest	Principal	Interest	Principal	Interest	Principal	Interest
2023	27,585	13,520	6,150	4,823	22,479	6,978	40	1	825	240
2024	29,600	11,503	6,450	4,515	22,974	6,449	25	-	860	207
2025	30,840	10,266	6,760	4,192	22,894	5,898	10	-	895	173
2026	32,915	8,971	7,090	3,855	23,033	5,355	10	-	930	137
2027	30,540	7,643	7,380	3,500	23,602	4,805	11	-	965	100
2028-2032	110,405	21,445	42,505	11,613	111,289	15,929	52	-	2,150	111
2033-2037	47,940	5,256	20,120	1,521	54,205	6,572	52	-	-	-
2038-2042	7,330	200	-	-	24,219	3,643	42	-	-	-
2043-2047					23,780	2,076	-			
2048-2052					16,497	478				
	<u>\$317,155</u>	<u>\$ 78,804</u>	<u>\$ 96,455</u>	<u>\$ 34,019</u>	<u>\$ 344,972</u>	<u>\$ 58,183</u>	<u>\$ 242</u>	<u>\$ 1</u>	<u>\$ 6,625</u>	<u>\$ 968</u>

Bond discount, premium, and loss on defeasance activity for the year:

<u>December 31, 2022</u>	<u>Beginning Balance</u>	<u>Amortized</u>	<u>Refunded</u>	<u>Issued</u>	<u>Ending Balance</u>
Bond Premium	\$ 75,250	\$ (4,680)	\$ (8,084)	\$ -	\$ 62,486
Loss on defeasance	(6,021)	1,327	-	-	(4,694)
Total	<u>\$ 69,229</u>	<u>\$ (3,353)</u>	<u>\$ (8,084)</u>	<u>\$ -</u>	<u>\$ 57,792</u>

<u>December 31, 2021</u>	<u>Beginning Balance</u>	<u>Amortized</u>	<u>Refunded</u>	<u>Issued</u>	<u>Ending Balance</u>
Bond Premium	\$ 81,131	\$ (5,881)	-	\$ -	\$ 75,250
Loss on defeasance	(7,348)	1,327	-	-	(6,021)
Total	<u>\$ 73,783</u>	<u>\$ (4,554)</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ 69,229</u>

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Long-term debt activity for 2022:

(all amounts in thousands)

<u>December 31, 2022</u>	<u>Beginning Balance</u>	<u>Additions</u>	<u>Reductions</u>	<u>Ending Balance</u>
Revenue Bonds	\$ 336,465	\$ 134,605	\$ 153,915	\$ 317,155
Revenue Bonds - Direct Placement	\$ 102,320		\$ 5,865	\$ 96,455
Ohio Water and Sewer Rotary Commission	50			\$ 50
Ohio Public Works Commission	281		39	\$ 242
Water Pollution Control Loan Fund	366,666		21,694	\$ 344,972
Lease Liability	7,405		780	6,625
Total	<u>\$ 813,187</u>	<u>\$ 134,605</u>	<u>\$ 182,293</u>	<u>\$ 765,499</u>

Long-term debt activity for 2021:

(all amounts in thousands)

<u>December 31, 2021</u>	<u>Beginning Balance</u>	<u>Additions</u>	<u>Reductions</u>	<u>Ending Balance</u>
Revenue Bonds	\$ 360,815		\$ 24,350	\$ 336,465
Revenue Bonds - Direct Placement	\$ 107,970		\$ 5,650	\$ 102,320
Ohio Water and Sewer Rotary Commission	50	-	-	\$ 50
Ohio Public Works Commission	355	-	74	\$ 281
Water Pollution Control Loan Fund	379,946	6,863	20,143	\$ 366,666
Lease Liability	8,150	-	745	7,405
Total	<u>\$ 857,286</u>	<u>\$ 6,863</u>	<u>\$ 50,962</u>	<u>\$ 813,187</u>

**Revenue Bonds – Direct Placement**

Effective November 26, 2019, the District issued \$107,970,000 Series A, the Direct Placement Bond dated November 26, 2019. The proceeds from the 2019 Series A Bonds were used to defease the 2009B Revenue Bonds and pay for cost of issuance. The 2019 Series A Bonds were issued at a premium of \$23,045,166. The 2019A Bonds are special obligations of the District, payable solely from the new revenues of the District and were issued on parity with the 2009 and 2010, 2013, 2014, 2015 bonds, secured equally and ratably under the Trust Agreement.

**Revenue Bonds**

- a) Effective April 20, 2022, the District issued \$134,605,000 Series A, Sewer Refunding Revenue Bonds dated April 20, 2022. The proceeds from the 2022A Series Bonds were used to defease portions of the 2013A revenue bonds and pay for the cost of issuance. The 2022A Bonds are special obligations of the District, payable solely from the net revenues of the District and were issued on parity with the 2013, 2014, 2015, 2019, 2020 bonds secured equally and ratably under the Trust Agreement.

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A portion of the proceeds was used to purchase U.S. Government Securities which were deposited in an irrevocable trust with an escrow agent to provide for all future debt service to refund \$125,985,000 of outstanding 2013A Bonds. As a result, these bonds are considered defeased and the liability of those bonds removed from the Balance Sheet.

The 2022A Bonds were sold at par, the District has, in effect reduced its aggregate debt services payments by \$18,109,320 and obtained a present value savings of \$14,522,761.

- b) Effective November 17, 2020, the District issued \$74,525,000 Series A, Sewer System Refunding Revenue Bonds dated November 17, 2020. The proceeds from the 2020 Series A Bonds were used to defease portions of the 2010A and 2010B revenue bonds and pay for the cost of issuance. The 2020 A bonds are special obligations of the District, payable solely from the net revenues of the District and were issued on parity with the 2010, 2013, 2014, 2015, 2019 bonds secured equally and ratably under the Trust Agreement.

A portion of the proceeds was used to purchase U.S. Government Securities which were deposited in an irrevocable trust with an escrow agent to provide for all future debt service to refund \$101,000,000 of outstanding 2010A and 2010B Bonds. As a result, these bonds are considered defeased and the liability of those bonds removed from the balance sheet.

Although the refunding resulted in the recognition of an account premium of \$18,870,385, the District has, in effect, reduced its aggregate debt service payments by \$18,190,000, and obtained a present value of savings of \$13,091,284.

- c) Effective March 3, 2015, the District issued \$52,520,000 Series A, Sewer System Refunding Revenue Bonds dated March 3, 2015. The proceeds from the 2015 Series A Bonds were used to defease portions of the 2005A revenue bonds and pay for the cost of issuance. The 2015A bonds are special obligations of the District, payable solely from the net revenues of the District and were issued on parity with the 1997, 2000, 2001, 2003A, 2003B, 2004, 2005A, 2005B, 2006, 2007, 2009A, and 2009B bonds, secured equally and ratably under the Trust Agreement.

A portion of the proceeds was used to purchase U.S. Government Securities which were deposited in an irrevocable trust with an escrow agent to provide for all future debt service to refund \$60,360,000 of outstanding 2005A Bonds. As a result, these bonds are considered defeased and the liability for those bonds removed from the balance sheet.

Although the refunding resulted in the recognition of an accounting loss of \$1,464,000 in accordance with GASB 23, Accounting and Financial Reporting for Refunding of Debt Reported by Proprietary Activities, the District has, in effect, reduced its aggregate debt service payments by \$16,845,000, and obtained a present value of savings of \$6,363,000.

- d) Effective November 19, 2014, the District issued \$162,650,000 Series A, Sewer System Refunding Revenue Bonds dated November 19, 2014. The proceeds from the 2014 Series A Bonds were used to defease portions of the 2003, 2005, and 2006 revenue bonds and pay for the cost of issuance. The 2014A bonds are special obligations of the District, payable solely from the net revenues of the

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District and were issued on parity with the 1997, 2000, 2001, 2003A, 2003B, 2004, 2005A, 2005B, 2006, 2007, 2009A, and 2009B bonds, secured equally and ratably under the Trust Agreement.

A portion of the proceeds was used to purchase U.S. Government Securities which were deposited in an irrevocable trust with an escrow agent to provide for all future debt service to refund \$750,000 of outstanding 2003 Series A Bonds, \$61,190,000, of outstanding 2005 Series B Bonds, \$60,620,000 of outstanding 2006 Series A Bonds, \$52,505,000 of outstanding 2007 Series A Bonds, and \$6,790,000 of outstanding 2009 Series A Bonds. As a result, these bonds are considered defeased and the liability for those bonds removed from the balance sheet.

Although the refunding resulted in the recognition of an accounting loss of \$14,949,000 in accordance with GASB 23, Accounting and Financial Reporting for Refunding of Debt Reported by Proprietary Activities, the District has, in effect, reduced its aggregate debt service payments by \$70,966,000, and obtained a present value of savings of \$24,543,000.

- e) Effective July 31, 2013, the District issued \$178,760,000 Series A, Sewer System Refunding Revenue Bonds and \$79,935,000 Series B, Sewer System Refunding Revenue Bonds dated July 31, 2013. A portion of the proceeds from the 2013 Series A and 2013 Series B Bonds were used to defease portions of the 2003 and 2004 revenue bonds and pay for the cost of issuance. The 2013A bonds are special obligations of the District, payable solely from the net revenues of the District and were issued on parity with the 1997, 2000, 2001, 2003A, 2003B, 2004, 2005A, 2005B, 2006, 2007, 2009A, 2009B, 2010A, and 2010B bonds, secured equally and ratably under the Trust Agreement.

A portion of the proceeds was used to purchase U.S. Government Securities which were deposited in an irrevocable trust with an escrow agent to provide for all future debt service to refund \$112,720,000 of outstanding 2003 Series A Bonds, and \$28,470,000 of outstanding 2004 Series A Bonds. As a result, these bonds are considered defeased and the liability for those bonds removed from the balance sheet.

The remaining proceeds from the 2013 Series A and 2013 Series B bonds were used to permanently fund certain previous capital expenditures and fund the new bond reserve requirements.

At December 31, 2022, and December 31, 2021 the amount of defeased debt outstanding was \$405,050,000 and \$296,085,000, respectively.

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Maturities for bonds over the next five years and thereafter are shown below:

(all amounts in thousands)

Year	2022 Bonds	2020 Bonds	2019 Bonds	2015 Bonds	2014 Bonds	2013 Bonds	Total
2023	970	6,360	6,150	1,900	9,795	8,560	\$ 33,735
2024	10,650	6,675	6,450	1,990	10,285		\$ 36,050
2025	10,940	7,000	6,760	2,090	10,810		\$ 37,600
2026	13,985	7,335	7,090	-	11,595		\$ 40,005
2027	14,985	3,400	7,380		12,155		\$ 37,920
2028-2033	39,375	19,530	42,505	-	51,500		\$ 152,910
2034-2037	33,805	14,135	20,120	-			\$ 68,060
2038-2043	7,330						\$ 7,330
	<u>\$132,040</u>	<u>\$ 64,435</u>	<u>\$96,455</u>	<u>\$ 5,980</u>	<u>\$ 106,140</u>	<u>\$ 8,560</u>	<u>\$413,610</u>

Under the terms of the amended revenue bond trust indenture, the District has agreed to certain covenants, among other things, to restrict additional borrowing, maintain rates sufficient to meet debt service requirements and maintain specified fund balances under trust agreements.

The Revenue bond issues as discussed above contain covenants which require the District to maintain a level of debt service coverage. The following calculation reflects the District's debt service coverage.

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(all amounts in thousands)

	<u>2022</u>	<u>2021</u>
Revenues:		
Total operating revenues	\$ 273,618	\$ 266,026
Interest income	4,057	4,463
Tap-in/connection fees	<u>3,990</u>	<u>2,607</u>
Total pledged revenue	281,665	273,096
Total operating and maintenance expenses less depreciation and amortization, pension expense	<u>134,868</u>	<u>119,506</u>
Net income available for debt service (a)	<u>\$ 146,797</u>	<u>\$ 153,590</u>
Principal and interest requirement on revenue bonds (b)	<u>\$ 52,078</u>	<u>\$ 53,169</u>
Principal and interest requirements on obligations (c)	<u>\$ 82,641</u>	<u>\$ 83,868</u>
Debt service coverage		
Revenue bonds (a) divided by (b)	<u>282%</u>	<u>289%</u>
All obligations (a) divided by (c)	<u>178%</u>	<u>183%</u>
Maximum debt service coverage required on revenue bonds	<u>125%</u>	<u>125%</u>

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**Ohio Water Development Authority Contracts**

All contracts between the Ohio Water Development Authority (OWDA) and the Metropolitan Sewer District require the District to prescribe and charge such rates for sewer usage which are sufficient (after expenses of operation and maintenance) to pay principal and interest on OWDA contracts. The principal is repayable in equal semi-annual installments to maturity.

**Water Pollution Control Loan Fund**

The District has received low interest loan commitments from the Ohio Water Pollution Control Loan fund for certain qualified projects. As the projects progress the commitments are drawn down. The principal is repayable in semi-annual installments to the date of maturity for each project.

**Ohio Water and Sewer Rotary Commission**

Advances from Ohio Water and Sewer Rotary Commission represent tap-in fees and acreage assessments to be forwarded to the Commission upon collection from customers. Such advances do not bear interest unless they are determined to be in default.

**Ohio Public Works Commission**

The District has entered into agreements with the Ohio Public Works Commission (OPWC) for financing of certain qualified capital projects. As the projects progress the commitments are drawn down as funds are paid by OPWC directly to the contractors. The principal is repayable in semi-annual installments to the date of maturity for each project.

**Interest on Long-Term Obligations**

The following interest costs were incurred and expensed or capitalized as part of the cost of the District's additions to capital assets.

(all amounts in thousands)

	<u>2022</u>	<u>2021</u>
Interest incurred	\$ 22,332	\$ 27,078
Less interest capitalization	-	-
Interest expense	<u>\$ 22,332</u>	<u>\$ 27,078</u>

The District has implemented the GASB 89 Accounting for Interest Cost incurred before the end of a construction period in 2018.

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**NOTE 7 – LEASE LIABILITY**

The District entered into a capital lease liability for a new engineering building in 2010. The leased asset was capitalized at the amount of the present value of the minimum lease payments at inception of the lease. Capital assets acquired under capital lease are as follows:

Buildings	\$15,000,000
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The following is a schedule of the future minimum lease liability payments required under the capital lease and the present value of the minimum lease payments as of fiscal year end.

(all amounts in thousands)

Fiscal Year Ending December 31,	Long-Term Debt
2023	1,065
2024	1,067
2025	1,067
2026	1,068
2027	1,064
2028-2029	2,262
Total Minimum Lease Liability Payments	7,593
Less: Amount Representing Interest	(968)
Present value of Minimum Lease Liability Payments	\$ 6,625

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**NOTE 8 – COMPENSATED ABSENCES**

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**Compensated Absences**

Compensated absences consist of vacation time, sick pay, and compensatory time. The following is a summary of activity for 2022 and 2021. \$5,677 is considered due within one year for compensated absences as of December 31, 2022.

(all amounts in thousands)

	<u>Beginning</u>		<u>Increase</u>	<u>Decrease</u>	<u>Ending</u>
	<u>Balance</u>				<u>Balance</u>
2022	\$ 8,959	\$ 5,284	\$ 4,197	\$ 10,046	
2021	\$ 10,399	\$ 5,158	\$ 4,758	\$ 8,959	

**NOTE 9 – DEFINED BENEFIT PENSION PLANS**

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The District employees are covered by one of two pension systems: the Ohio Public Employees Retirement System (OPERS) and the City of Cincinnati Retirement System (CRS). OPERS is a cost-sharing multi-employer defined benefit pension plan. CRS is accounted for as a single-employer defined benefit plan.

***Net Pension Liability***

For purposes of measuring the net pension liability, deferred outflows of resources and deferred inflows of resources related to pensions, and pension expense, information about the fiduciary net position of the pension plans and additions to/deductions from their fiduciary net position have been determined on the same basis as they are reported by the retirement systems. For this purpose, benefit payments (including refunds of employee contributions) are recognized when due and payable in accordance with the benefit terms. The retirement systems report investments at fair value.

The net pension liability reported on the statement of net position represents a liability to employees for pensions. Pensions are a component of exchange transactions, between an employer and its employees, of salaries and benefits for employee services. Pensions are provided to an employee, on a deferred-payment basis, as part of the total compensation package offered by an employer for employee services each financial period. The obligation to sacrifice resources for pensions is a present obligation because it was created as a result of employment exchanges that already have occurred.

The net pension liability represents the District’s actuarial present value (or with the OPERS cost-sharing, multiple-employer plan, the District’s proportionate share of the pension plan’s collective actuarial present value) of projected benefit payments attributable to past periods of service, net of each pension plan’s fiduciary net position. The net pension liability calculation is dependent on critical long-term variables, including estimated average life expectancies, earnings on investments, cost of living

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adjustments and other variables. While these estimates use the best information available, unknowable future events require adjusting this estimate annually. The District's share of each plan's unfunded benefits is presented as a long-term *net pension liability* on the accrual basis of accounting.

**A. Ohio Public Employees Retirement System (OPERS)**

Ohio Revised Code limits the District's obligation for liabilities to OPERS to annually required payments. The District cannot control benefit terms or the manner in which pensions from the cost-sharing, multiple-employer plan is financed; however, the District does receive the benefit of employees' services in exchange for compensation including pension.

GASB Statement No. 68 assumes the liability is solely the obligation of the employer, because (1) they benefit from employee services; and (2) State statute requires all funding to come from these employers. All contributions to date have come solely from these employers (which also includes costs paid in the form of withholdings from employees). State statute requires the pension plan to amortize unfunded liabilities within 30 years. If the amortization period exceeds 30 years, the pension plan's board must propose corrective action to the State legislature. Any resulting legislative change to benefits or funding could significantly affect the net pension liability. Resulting adjustments to net pension liability would be effective when the changes are legally enforceable.

***Plan Description – OPERS***

A limited number of the District employees participate in the Ohio Public Employees Retirement System (OPERS). OPERS administers three separate pension plans. The Traditional Pension Plan is a cost-sharing, multiple-employer defined benefit pension plan. The Member-Directed Plan is a defined contribution plan, and the Combined Plan is a cost-sharing, multiple-employer defined benefit pension plan with defined contribution features. While members (e.g., District employees) may elect the Member-Directed Plan or the Combined Plan, most employee members are in OPERS' Traditional Pension Plan; therefore, the following disclosures focus on the Traditional Pension Plan.

OPERS provides retirement, disability, survivor and death benefits, and annual cost of living adjustments to members of the Traditional Pension Plan. Authority to establish and amend benefits is provided by Chapter 145 of the Ohio Revised Code (ORC). OPERS issues a stand-alone financial report that includes financial statements, required supplementary information and detailed information about OPERS' fiduciary net position that may be obtained by visiting <https://www.opers.org/financial/reports.shtml>, by writing to Ohio Public Employees Retirement System, 277 East Town Street, Columbus, OH 43215-4642, or by calling 800-222-7377.

Senate Bill (SB) 343 was enacted into law with an effective date of January 7, 2013. In the legislation, members were categorized into three groups with varying provisions of the law applicable to each group. The following table provides age and service requirements for retirement and the retirement formula applied to final average salary (FAS) for the three-member groups under the Traditional Pension Plan as per the reduced benefits adopted by SB 343 (see OPERS' ACFR referenced above for additional information):

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<b>Group A</b> Eligible to retire prior to January 7, 2013, or five years after January 7, 2013	<b>Group B</b> 20 years of service credit prior to January 7, 2013 or eligible to retire ten years after January 7, 2013	<b>Group C</b> Members not in other Groups and members hired on or after January 7, 2013
<b>State and Local</b>	<b>State and Local</b>	<b>State and Local</b>
<b>Age and Service Requirements:</b> Age 60 with 60 months of service credit or Age 55 with 25 years of service credit	<b>Age and Service Requirements:</b> Age 60 with 60 months of service credit or Age 55 with 25 years of service credit	<b>Age and Service Requirements:</b> Age 57 with 25 years of service credit or Age 62 with 5 years of service credit
<b>Formula:</b> 2.2% of FAS multiplied by years of Service for the first 30 years and 2.5% for service years in excess of 30	<b>Formula:</b> 2.2% of FAS multiplied by year of service for the first 30 years and 2.5% for service years in excess of 30	<b>Formula:</b> 2.2% of FAS multiplied by years of service for the first 35 years and 2.5% for service years in excess of 35

Final average salary (FAS) represents the average of the three highest years of earnings over a member’s career for Groups A and B. Group C is based on the average of the five highest years of earnings over a member’s career.

Members who retire before meeting the age and years of service credit requirement for unreduced benefits receive a percentage reduction in the benefit amount.

When a benefit recipient has received benefits for 12 months, an annual cost of living adjustment (COLA) is provided. This COLA is calculated on the base retirement benefit at the date of retirement and is not compounded. For those retiring prior to January 7, 2013, the COLA will continue to be a 3% simple annual COLA. For those retiring subsequent to January 7, 2013, beginning in calendar year 2019, the COLA will be based on the average percentage increase in the Consumer Price Index, capped at 3%.

Funding Policy—The ORC provides statutory authority for member and employer contributions. For fiscal year 2022, member contribution rates were 10% of salary and employer contribution rates were 14%. Employer contribution rates are actuarially determined and are expressed as a percentage of covered payroll. The District’s contractually required contribution was \$256,000 for 2022.

***Pension Liabilities, Pension Expense, and Deferred Outflows of Resources and Deferred Inflows of Resources Related – OPERS***

The net pension liability for OPERS was measured as of December 31, 2021 and the total pension liability used to calculate the net pension liability was determined by an actuarial valuation as of that date. The District’s proportion of the net pension liability was based on the District’s share of contributions to the pension plan relative to the contributions of all participating entities. The District’s proportion, change in proportion and proportionate share of the net pension liability was 0.01349425%, a decrease of 0.000897%, and \$1,174,000, respectively. Pension expense for the District was a negative \$745,000.

At December 31, 2022, the District reported deferred outflows of resources and deferred inflows of resources related to pension from the following sources (amounts in thousands):

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	Deferred Outflows of <u>Resources</u>	Deferred Inflows of <u>Resources</u>	<u>Net</u>
MSD contributions subsequent to the measurement date	\$ 256	\$ -	\$ 256
Net difference between projected and actual investment earnings	-	(1,395)	(1,395)
Difference between expected and actual experience	60	(26)	34
Change in assumptions	147	-	147
Change in MSD's proportionate share	-	(116)	(116)
	<u>\$ 463</u>	<u>\$ (1,537)</u>	<u>\$ (1,074)</u>

\$256,000 reported as deferred outflows of resources related to pension resulting from District contributions subsequent to the measurement date will be recognized as a reduction of the net pension liability in the year ending December 31, 2023. Other amounts reported as deferred outflows of resources and deferred inflows of resources related to pension will be recognized in pension expense as follows (amounts in thousands):

Year Ended December 31:	Net Deferred Outflows/ (Inflows) of <u>Resources</u>
2023	\$ (284)
2024	(496)
2025	(328)
2026	<u>(222)</u>
	<u>\$ (1,330)</u>

***Actuarial Assumptions – OPERS***

Actuarial valuations of an ongoing plan involve estimates of the values of reported amounts and assumptions about the probability of occurrence of events far into the future. Examples include assumptions about future employment, mortality and cost trends. Actuarially determined amounts are subject to continual review or modification as actual results are compared with past expectations and new estimates are made about the future.

Projections of benefits for financial reporting purposes are based on the substantive plan (the plan as understood by the employers and plan members) and include the types of benefits provided at the time of each valuation. The total pension liability in the December 31, 2021 actuarial valuation was determined using the following actuarial assumptions:

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Wage inflation:

Current measurement period	2.75%
Prior measurement period	3.25%

Future salary increases  
(including inflation):

Current measurement period	2.75% to 10.75%
Prior measurement period	3.25% to 10.75%

COLA or Ad Hoc COLA	Pre 1/7/2013 retirees: 3% simple. Post 1/7/2013 retirees: 3% simple through 2022, then 2.05% simple
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Investment rate of return:

Current measurement period	6.90%
Prior measurement period	7.20%

Actuarial cost method	Individual entry age
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Pre-retirement mortality rates are based on 130% of the Pub-2010 General Employee Mortality tables (males and females) for State and Local Government divisions and 170% of the Pub-2010 Safety Employee Mortality tables (males and females) for the Public Safety and Law Enforcement divisions. Post-retirement mortality rates are based on 115% of the PubG-2010 Retiree Mortality Tables (males and females) for all divisions. Post-retirement mortality rates for disabled retirees are based on the PubNS-2010 Disabled Retiree Mortality Tables (males and females) for all divisions. For all of the previous described tables, the base year is 2010 and mortality rates for a particular calendar year are determined by applying the MP-2020 mortality improvement scales (males and females) to all of these tables.

The most recent experience study was completed for the five-year period ended December 31, 2020.

During 2021, OPERS managed investments in three investment portfolios: the Defined Benefit portfolio, the Health Care portfolio and the Defined Contribution portfolio. The Defined Benefit portfolio contains the investment assets of the Traditional Pension Plan, the defined benefit component of the Combined Plan and the annuitized accounts of the Member-Directed Plan. Within the Defined Benefit portfolio, contributions into the plans are all recorded at the same time, and benefit payments all occur on the first of the month. Accordingly, the money-weighted rate of return is considered to be the same for all plans within the portfolio. The annual money-weighted rate of return expressing investment performance, net of investment expenses and adjusted for the changing amounts actually invested, for the Defined Benefit portfolio was a gain of 15.3% for 2021.

The allocation of investment assets within the Defined Benefit portfolio is approved by the Board of Trustees in the annual investment plan. Plan assets are managed on a total return basis with a long-term objective of achieving and maintaining a fully funded status for the benefits provided through the defined benefit pension plans. The long-term expected rate of return on defined benefit investment assets was

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determined using a building-block method in which best-estimate ranges of expected future rates of return 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 rates of return by the target asset allocation percentage, adjusted for inflation. Best estimates of arithmetic rates of return were provided by the Board's investment consultant. For each major asset class that is included in the Defined Benefit portfolio's target asset allocation as of December 31, 2021, these best estimates are summarized in the following table:

Asset Class	Target Allocation	Weighted Average Long-Term Expected Real Rate of Return
Fixed Income	24.00%	1.03%
Domestic Equities	21.00%	3.78%
Real Estate	11.00%	3.66%
Private Equity	12.00%	7.43%
International Equities	23.00%	4.88%
Risk Parity	5.00%	2.92%
Other Investments	<u>4.00%</u>	2.85%
Total	<u>100.00%</u>	4.21%

**Discount Rate.** The discount rate used to measure the total pension liability was 6.9%. The projection of cash flows used to determine the discount rate assumed that contributions from plan members and those of the contributing employers are made at the statutorily required rates. 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.

**Sensitivity of the District's Proportionate Share of the Net Pension Liability to Changes in the Discount Rate.** The following table represents the District's proportionate share of the net pension liability calculated using the current period discount rate assumption of 6.9%, as well as what the District's proportionate share of the net pension liability would be if it were calculated using a discount rate that is one-percentage point lower (5.9%) and one-percentage point higher (7.9%) than the current rate (amounts in thousands):

	1% Decrease (5.9%)	Current Discount Rate (6.9%)	1% Increase (7.9%)
MSD's proportionate share of the net pension liability	\$ 3,095	\$ 1,174	\$ (425)

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**B. City of Cincinnati Retirement System (CRS)**

***Plan Description – CRS***

Employees who do not participate in OPERS participate in CRS. CRS is accounted for as a single employer defined benefit pension plan. CRS provides retirement and disability benefits, annual cost of living adjustments, and death benefits to plan members and beneficiaries. CRS is considered part of the City of Cincinnati's financial reporting entity and is included in the City's financial report as a pension trust fund.

The financial report that includes financial statements, required supplementary information and detailed information about CRS' fiduciary net position may be obtained by visiting <http://cincinnati-oh.gov/finance/financial-reports/>. Article XV of the Administrative Code of the City of Cincinnati provides the statutory authority vesting the general administration and responsibility for the proper operation of the System in the Board of Trustees of the City of Cincinnati Retirement System.

Information in the remainder of this footnote is provided for the District's portion, being reported as an agency fund of the City, which also participates in and contributes to CRS, with a measurement date of June 30, 2022.

A major plan revision was approved by the City Council on March 16, 2011 and adopted by the CRS's Board. The plan allows for a two- and half-year transition period from July 1, 2011 to January 1, 2014. Active members who are eligible or become eligible to retire and elect to retire during this transition period can retire with 30 years of creditable service or at age 60 with at least five years of creditable service and will receive benefits according to the current plan as described below.

A Collaborative Settlement Agreement (CSA) was executed on May 7, 2015 and approved by the United States District Court on October 5, 2015. The CSA impacts employees who were retired on or before July 1, 2011 and employees who were in service on July 1, 2011 and who were vested (had 5 years' service credit) on that date. Employees who are members of the CRS who did not meet those criteria remained subject to the plan provisions adopted in Ordinances No 84-2011 and 85-2011.

The CSA implemented a number of changes to the CRS, including, but not limited to:

- Normal retirement eligibility;
- Early retirement eligibility;
- Retiree healthcare eligibility;
- Cost of living adjustments payable to retirees;
- Establishment of a Deferred Retirement Option Program (DROP);
- Creation of a 115 Trust for retiree healthcare benefits;
- Changes to the composition of the Board of Trustees; and
- Payoff of the 2007 Early Retirement Incentive Program (ERIP) liability.

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<b>Groups C &amp; D</b> Eligible to retire on or before July 1, 2011; or December 31, 2013	<b>Group E</b> Eligible to retire on or before December 31, 2013	<b>Group F</b> Hired before January 1, 2010 and not eligible for other groups	<b>Group G</b> Hired on or after January 1, 2010
<b>Normal Retirement:</b> Age 60 with 5 years of service, or any age with 30 years of service	<b>Normal Retirement:</b> Age 60 with 5 years of service, or any age with 30 years of service	<b>Normal Retirement:</b> Age 60 with 5 years of service, or any age with 30 years of service	<b>Normal Retirement:</b> Age 67 with 5 years of service, or age 62 with 30 years of service
<b>Early Retirement:</b> Age 55 with 25 years of service	<b>Early Retirement:</b> Age 55 with 25 years of service	<b>Early Retirement:</b> Age 55 with 25 years of service	<b>Early Retirement:</b> Age 57 with 15 years of service
<b>Benefit Formula:</b>  2.5% of AHC times years of service	<b>Benefit Formula:</b> 2.5% of AHC times years of service up to greater of 20 years or years of service as of July 1, 2011, and 2.2% thereafter	<b>Benefit Formula:</b> 2.5% of AHC times years of service up to greater of 20 years or years of service as of July 1, 2011, and 2.2% thereafter	<b>Benefit Formula:</b>  2.2% of AHC times years of service up to 30 years; 2.0% over 30 years

Average Highest Compensation (AHC) represents the average of the highest three consecutive years of earnings for Groups C and D. Group E will have a benefit with up to a three-step formula. The first step is the AHC based upon three consecutive years of earnings for service through December 31, 2013. The second step is the AHC based upon five consecutive years of earnings for service on and after January 1, 2014. The third step is for service in excess of 20 years and is based on the AHC for three consecutive years of earnings. Similar, Group F will have a benefit with up to a three-step formula. The first step is the AHC based upon three consecutive years of earnings for service through June 30, 2011. The second step is the AHC based upon five consecutive years of earnings for service on and after July 1, 2011. The third step is for service in excess of 20 years and is based on the AHC for three consecutive years of earnings. The AHC for Group G is based on the average of the highest five consecutive years of earnings. Upon retirement, members will not receive a cost-of-living adjustment (COLA) for the first three retirement anniversary dates. Thereafter, a 3% simple COLA benefit will be provided. A COLA poverty exception is available for members who meet certain financial requirements.

In fiscal year 2021, an ERIP was offered to employees who met certain eligibility requirements. The ERIP provided two additional years of membership service credit to full-time employees who had 28 years or more of service credit (and were at least age 62 for Group G) or who had at least five years of service credit and were at least age 60 (or at least age 67 for Group G) by December 31, 2020. Only employees in CRS were eligible. The additional actuarial accrued liability associated with the fiscal year 2021 ERIP was approximately \$24,671,000 and is to be funded by separate contributions made by the Plan over a 15-year period. The annual payments are received by July 30 each fiscal year.

Members of the Active Employee Class, under the Collaborative Settlement Agreement, who have a minimum of 30 years' service credit are eligible to participate in the deferred retirement option plan (DROP). Upon entry into DROP, the member's monthly pension benefit is calculated as if they retired on



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that date. DROP participants continue to work as a District employee and if eligible, may continue to be enrolled in a District sponsored employee healthcare plan. Maximum participation in the DROP is five years. Members who participate in DROP continue to contribute 9% of their pensionable earnings to CRS. The participant’s monthly pension benefit amount (calculated as described above), as well as 75% of the participant’s required CRS employee contributions, and interest earnings on their DROP account balance, accumulate tax-deferred in an account held in trust by the CRS. Participants do not have access to the funds in their DROP account while employed and participating in the DROP.

Interest is paid on DROP account balances quarterly at the rate equal to the 10-year U.S. Treasury Note Business Day Series, as published by the United States Federal Reserve, with a cap of 5%. The variable interest rate is determined quarterly. The rate for the last business day of each calendar quarter is applied to the following quarter.

The balance of the participant’s DROP account is paid out in a lump sum or to another tax-qualified account (such as an IRA or 457 Deferred Compensation Plan) selected by the participant within 120 days of their retirement effective date.

Membership in the CRS pension as of the June 30, 2022, measurement date was as follows:

Retirees and beneficiaries (optionees) receiving benefits	4,206
Terminated plan members and beneficiaries (optionees) entitled to future benefits	247
Deferred retirement option plan (DROP) participants	184
Active plan members:	
Full-time	2,580
Part-time	1,238
Total	8,455
Inactive participants**	9,820

\*\* Participants who are former employees who have an employee account balance in the plan but are not otherwise vested in an employee provided benefit.

Funding Policy—Each member contributes at a rate of 9.0% of his pensionable wages for 2022. The percent contributed by employees is provided by Chapter 203 Section 73 of the Cincinnati Municipal Code. The District makes employer contributions based on a percentage of the covered payroll of all CRS members. For 2022, the contribution rate was 16.25%. The District’s contributions to the City of Cincinnati Retirement System’s Pension Fund for the year ending December 31, 2022, were \$6,707,092.

***Pension Liabilities, Pension Expense, and Deferred Outflows of Resources and Deferred Inflows of Resources Related to CRS***

The net pension liability was measured as of June 30, 2022, and the total pension liability used to calculate the net pension liability was determined by an actuarial valuation as of December 31, 2021. The District reported a net pension liability of \$287,387,000 and negative pension expense of \$44,613,000.

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At December 31, 2022, the District reported deferred outflows of resources related to pension from the following sources (amounts in thousands):

	<u>Deferred Outflows of Resources</u>
MSD contributions subsequent to the measurement date	\$ 3,568
Differences between expected and actual experience	858
Net difference between projected and actual investment earnings	4,890
Change in proportion	1,571
Change in assumptions	<u>55,560</u>
	<u>\$ 66,447</u>

\$3,568,000 reported as deferred outflows of resources related to pension resulting from District contributions subsequent to the measurement date will be recognized as a reduction of the net pension liability in the year ended December 31, 2023. Other amounts reported as deferred outflows of resources related to pension will be recognized in pension expense as follows (amounts in thousands):

	<u>Deferred Outflows Resources</u>
Year Ended December 31:	
2023	\$ 59,969
2024	34
2025	(5,444)
2026	<u>8,320</u>
	<u>\$ 62,879</u>

*Actuarial Assumptions:* Total pension liability was determined by the following actuarial valuations, using the following actuarial assumptions, applied to applicable periods included in the measurement:

Inflation	2.75%
Salary increases, including inflation	3.75% to 7.50%
Long-term investment rate of return, net of pension plan investment expense, including inflation	7.50%
Municipal bond index rate:	
Measurement date	3.54%
Prior measurement date	2.21%

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Single equivalent interest rate, net of pension plan investment expense, including inflation	
Measurement date	5.25%
Prior measurement date	7.50%

Active member mortality rates were based on the RP-2014 Mortality Table, with generational mortality improvement projections using the MP-2017 scale. Health inactive member mortality rates were based on the RP-2014 Mortality Table, with generational mortality improvement projections using the MP-2017 scale and set forward two years for both males and females. Disabled inactive member mortality rates were based on the RP-2014 Disabled Retiree Mortality Table, with generational improvement projections using the MP-2017 scale.

The actuarial assumptions used in the December 31, 2021, valuation was based on the results of the last actuarial experience study performed for the period January 1, 2012, to December 31, 2016, adopted on February 28, 2018.

*Long Term Expected Rate of Return.* The long-term expected rate of return on pension plan investments was determined using expected return and volatility figures which were developed by Marquette Associates using their asset allocation software. The program simulates a variety of economic environments based on macroeconomic variables, and this simulation allows us to model the underlying probabilities of capital market returns. By running the monthly simulations over a 10-year basis and performing 1,000 trials, they develop results for expectations of capital market performance. Expected risk and return values for all asset classes are updated every six months, as the underlying data and assumptions reflect current market values and trends.

The target asset allocation and best estimates of arithmetic real rates of return for each major class are summarized in the following table (\* geometric mean):

Asset Class	Target Allocation	Long-Term Expected Real Rate of Return*
Core Bonds	12.0 %	4.1 %
High Yield	2.0 %	9.0 %
Private Debt	3.0 %	8.6 %
All Cap U.S. Equity	21.5 %	6.9 %
Large-Cap Value Equity	3.5 %	6.7 %
Mid-Cap Value Equity	2.0 %	7.1 %
Small-Cap Value Equity	3.5 %	7.8 %
Non-U.S. All Cap	18.0 %	7.2 %
Emerging Markets-Small Cap	2.0 %	7.5 %
Real Estate Core Equity	7.5 %	6.6 %
Infrastructure	10.0 %	6.8 %
Risk Parity	2.5 %	4.8 %
Volatility Risk Premium	2.5 %	10.0 %
Private Equity-FOF	10.0 %	11.2 %
Total	100.0 %	

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*Discount Rate.* The discount rate used to measure the total pension liability was 5.25% as of June 30, 2022. The projection of cash flows used to determine the discount rate assumed that employee contributions will be made at the current contribution rate and that employer contributions will be made as set out in the CSA. Based on those assumptions, the pension plan’s fiduciary net position was projected to be available to make projected future benefit payments of current members through 2047. Projected benefit payments are discounted at the long-term expected return on assets of 7.50% to the extent the fiduciary net position is available to make the payments through 2047 and at the municipal bond rate of 3.54% to the extent they are not available after 2047. Consequently, the single equivalent rate used to determine the total pension liability as of June 30, 2022, is 5.25%. By comparison, the single equivalent rate used to determine the total pension liability as of June 30, 2021, was 7.50%.

*Sensitivity of the Employer’s Proportionate Share of the Net Pension Liability to Changes in the Discount Rate:* The following chart represents the District financial reporting entity’s proportionate share of the net pension liability calculated using the current period discount rate assumption of 5.25%, as well as the sensitivity to a 1% increase and 1% decrease in the current discount rate (amounts in thousands):

	1% Decrease (4.25%)	Current Discount Rate (5.25%)	1% Increase (6.25%)
MSD's Net Pension Liability	\$ 361,523	\$ 287,387	\$ 225,727

*Change in the Net Pension Liability:* Changes in the District financial reporting entity’s net pension liability for the measurement year ended June 30, 2022, were as follows (amounts in thousands):

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	Total Pension Liability	Plan Fiduciary Net Position	Net Pension Liability
Balances at June 30, 2021	\$ 459,331	\$ 343,916	\$ 115,415
Changes for the year:			
Service cost	4,055	-	4,055
Interest	34,899	-	34,899
Difference between expected and actual experience	1,931	-	1,931
Change in assumptions	125,010	-	125,010
Contributions - employer	-	7,304	(7,304)
Contributions - employee	-	3,864	(3,864)
Net investment income (loss)	-	(15,379)	15,379
Benefit payments, including refunds of employee contributions	(36,245)	(36,245)	-
Administrative expense	-	(333)	333
Other changes	-	(1,533)	1,533
Net changes	<u>129,650</u>	<u>(42,322)</u>	<u>171,972</u>
Balances at June 30, 2022	<u>\$ 588,981</u>	<u>\$ 301,594</u>	<u>\$ 287,387</u>

The total pension liability (TPL) at the end of the measurement year, June 30, 2022, is measured as of the valuation date of December 31, 2021, and projected to June 30, 2022. Valuations will be completed every year. Each valuation will be rolled forward six months to provide the GAAP basis liability. There were assumption changes during the period, which are reflected in the amounts. The TPL and service cost have been determined using the entry age actuarial cost method as required by GASB Statement No. 67.

**NOTE 10 – DEFINED BENEFIT OTHER POSTEMPLOYMENT BENEFIT (OPEB) PLANS**

The two retirement systems District employees participate in provide defined benefit postemployment benefits other than pension. The Ohio Public Employees Retirement System (OPERS) is a cost-sharing multiple-employer defined benefit OPEB plans. The City of Cincinnati Retirement System (CRS) is accounted for as a single-employer defined benefit OPEB plan.

***Net OPEB Assets***

For purposes of measuring the net OPEB assets, deferred outflows of resources and deferred inflows of resources related to OPEB, and OPEB expense, information about the fiduciary net position of the OPEB plans and additions to/deductions from their fiduciary net position have been determined on the same basis as they are reported by the retirement systems. For this purpose, benefit payments (including refunds of employee contributions) are recognized when due and payable in accordance with the benefit terms. The retirement systems report investments at fair value.

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The net OPEB asset reported on the statement of net position represents an asset to fund employee OPEB. OPEB is a component of exchange transactions—between an employer and its employees—of salaries and benefits for employee services. OPEB is provided to an employee—on a deferred-payment basis—as part of the total compensation package offered by an employer for employee services each financial period. The obligation to sacrifice resources for OPEB is a present obligation because it was created as a result of employment exchanges that already have occurred.

The net OPEB asset represents the District’s actuarial present value (or with the OPERS cost-sharing, multiple-employer plan, the District’s proportionate share of the OPEB plan’s collective actuarial present value) of projected benefit payments attributable to past periods of service, net of each OPEB plan’s fiduciary net position. The net OPEB asset calculation is dependent on critical long-term variables, including estimated average life expectancies, earnings on investments, cost of living adjustments, cost trends and other variables. While these estimates use the best information available, unknowable future events require adjusting this estimate annually.

The District’s share of each fully-funded benefits as long-term *net OPEB assets* on the accrual basis of accounting.

**A. Ohio Public Employees Retirement System (OPERS)**

Ohio Revised Code limits the District’s obligation for liabilities to OPERS to annual required payments. The District cannot control benefit terms or the manner in which OPEB from the cost-sharing, multiple-employer plan is financed; however, the District does receive the benefit of employees’ services in exchange for compensation including OPEB.

GASB Statement No. 75 assumes the liability is solely the obligation of the employer, because they benefit from employee services. OPEB contributions come from these employers and health care plan enrollees which pay a portion of the health care costs in the form of a monthly premium. The Ohio Revised Code permits but does not require the cost-sharing, multiple-employer retirement system to provide health care to eligible benefit recipients. Any change to benefits or funding could significantly affect the net OPEB asset. Resulting adjustments to the net OPEB asset would be effective when the changes are legally enforceable. The retirement systems may allocate a portion of the employer contributions to provide for these OPEB benefits.

***Plan Description— OPERS***

The District contributes to the health care plans administered by OPERS. OPERS is a cost-sharing, multiple-employer public employee retirement system comprised of three separate pension plans; the Traditional Pension Plan, a defined benefit plan; the Combined Plan, a combination defined benefit/defined contribution plan; and the Member-Directed Plan, a defined contribution plan.

OPERS maintains a cost-sharing, multiple-employer defined benefit post-employment health care trust, which funds multiple health care plans including medical coverage, prescription drug coverage and deposits to a Health Reimbursement Arrangement to qualifying benefit recipients of both the traditional pension and combined plans. This trust is also used to fund health care for member-directed plan

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participants, in the form of a Retiree Medical Account (RMA). At retirement or refund, member-directed plan participants may be eligible for reimbursement of qualified medical expenses for their vested RMA balance.

In order to qualify for postemployment health care coverage, age and service retirees under the traditional pension and combined plans must have twenty or more years of qualifying Ohio service credit. Health care coverage for disability benefit recipients and qualified survivor benefit recipients is available. The health care coverage provided by OPERS meets the definition of another post-employment benefit (OPEB) as described in GASB Statement No. 75. See OPERS' ACFR referenced below for additional information.

The Ohio Revised Code permits but does not require OPERS to provide health care to its eligible benefit recipients. Authority to establish and amend health care coverage is provided to the Board in Chapter 145 of the Ohio Revised Code.

Disclosures for the health care plan are presented separately in the OPERS financial report. Interested parties may obtain a copy by visiting <https://www.opers.org/financial/reports.shtml>, by writing to OPERS, 277 East Town Street, Columbus, Ohio 43215-4642, or by calling (614) 222-5601 or 800-222-7377.

Funding Policy—The Ohio Revised Code provides the statutory authority requiring public employers to fund postemployment health care through their contributions to OPERS. When funding is approved by OPERS' Board of Trustees, a portion of each employer's contribution to OPERS is set aside to fund OPERS health care plans. Beginning in 2018, health care is not being funded.

Employer contribution rates are expressed as a percentage of the earnable salary of active members. In 2022, state and local employers contributed at a rate of 14% of earnable salary. These are the maximum employer contribution rates permitted by the Ohio Revised Code. Active member contributions do not fund health care.

Each year, the OPERS Board determines the portion of the employer contribution rate that will be set aside to fund health care. The portion of employer contributions allocated to health care for members in the Traditional Pension Plan was 0% during calendar year 2022. For the Combined Plan, the portion of the employer contributions allocated to health care was 0% from January 1, 2022 to June 30, 2022, and was 2% from July 1, 2022 to December 31, 2022.

As recommended by OPERS' actuary, the portion of employer contributions allocated to health care beginning January 1, 2023 remains at 0% for the Traditional Pension Plan and 2% for the Combined Plan. The OPERS Board is also authorized to establish rules for the retiree or their surviving beneficiaries to pay a portion of the health care provided. Payment amounts vary depending on the number of covered dependents and the coverage selected. The employer contribution as a percentage of covered payroll deposited into the RMA for participants in the Member-Directed Plan for 2022 was 4%.

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***OPEB Asset, OPEB Expense, and Deferred Outflows and Inflows of Resources Related to OPEB—OPERS***

The net OPEB asset and total OPEB liability for OPERS were determined by an actuarial valuation as of December 31, 2020, rolled forward to the measurement date of December 31, 2021, by incorporating the expected value of health care cost accruals, the actual health care payment, and interest accruals during the year. The District’s proportion of the net OPEB asset was based on the District’s share of contributions to the respective retirement system relative to the contributions of all participating entities. The District’s proportion change in proportion and proportionate share of the net OPEB asset was 0.01318646%, a decrease of 0.000851%, and \$413,000, respectively. OPEB expense for the District was negative \$453,000.

At December 31, 2022, the District reported deferred outflows of resources and deferred inflows of resources related to OPEB from the following sources (amounts in thousands):

	<u>Deferred Outflows of Resources</u>	<u>Deferred Inflows of Resources</u>	<u>Net</u>
MSD contributions subsequent to the measurement date	\$ 5	\$ -	\$ 5
Net difference between projected and actual investment earnings	-	(197)	(197)
Difference between expected and actual experience	-	(62)	(62)
Change in assumptions	-	(168)	(168)
Change in MSD's proportionate share	-	(41)	(41)
	<u>\$ 5</u>	<u>\$ (468)</u>	<u>\$ (463)</u>

\$5,000 reported as deferred outflows of resources related to OPEB resulting from District contributions subsequent to the measurement date will be recognized as an increase of the net OPEB asset in the year ended December 31, 2023. Other amounts reported as deferred inflows of resources related to OPEB will be recognized in OPEB expense as follows (amounts in thousands):

	<u>Deferred Inflows of Resources</u>
<b>Year Ended December 31:</b>	
2023	\$ (303)
2024	(94)
2025	(43)
	<u>\$ (440)</u>



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***Actuarial Assumptions—OPERS***

Actuarial valuations of an ongoing plan involve estimates of the value of reported amounts and assumptions about the probability of occurrence of events far into the future. Examples include assumptions about future employment, mortality, and cost trends. Actuarially determined amounts are subject to continual review or modification as actual results are compared with past expectations and new estimates are made about the future.

Projections of health care costs for financial reporting purposes are based on the substantive plan and include the types of coverages provided at the time of each valuation and the historical pattern of sharing of costs between OPERS and plan members. The total OPEB liability was determined by an actuarial valuation as of December 31, 2010, rolled forward to the measurement date of December 31, 2021. The actuarial valuation used the following actuarial assumptions applied to all prior periods included in the measurement in accordance with the requirements of GASB Statement No. 74:

Wage inflation:

Current measurement period	2.75%
Prior measurement period	3.25%

Projected salary increases:

Current measurement period	2.75% to 10.75%, including wage inflation
Prior measurement period	3.25% to 10.75%, including wage inflation

Single discount rate: 6.00%

Investment rate of return 6.00%

Municipal bond rate:

Current measurement period	1.84%
Prior measurement period	2.00%

Health care cost trend rate:

Current measurement period	5.5% initial, 3.50% ultimate in 2034
Prior measurement period	8.5% initial, 3.50% ultimate in 2035

Actuarial cost method Individual entry age

Pre-retirement mortality rates are based on 130% of the Pub-2010 General Employee Mortality tables (males and females) for State and Local Government divisions and 170% of the Pub-2010 Safety Employee Mortality tables (males and females) for the Public Safety and Law Enforcement divisions. Post-retirement mortality rates are based on 115% of the PubG-2010 Retiree Mortality Tables (males and females) for all divisions. Post-retirement mortality rates for disabled retirees are based on the PubNS-2010 Disabled Retiree Mortality Tables (males and females) for all divisions. For all of the previous described tables, the base year is 2010 and mortality rates for a particular calendar year are determined by applying the MP-2020 mortality improvement scales (males and females) to all of these tables.

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The most recent experience study was completed for the five-year period ended December 31, 2020.

During 2021, OPERS managed investments in three investment portfolios: the Defined Benefit portfolio, the Health Care portfolio and the Defined Contribution portfolio. The Defined Benefit portfolio contains the investment assets of the Traditional Pension Plan, the defined benefit component of the Combined Plan and the annuitized accounts of the Member-Directed Plan. Within the Health Care portfolio, contributions into the plans are assumed to be received continuously throughout the year based on the actual payroll payable at the time contributions are made, and health care-related payments are assumed to occur mid-year. Accordingly, the money-weighted rate of return is considered to be the same for all plans within the portfolio. The annual money-weighted rate of return expressing investment performance, net of investment expenses and adjusted for the changing amounts actually invested, for the Health Care portfolio was a gain of 14.3% for 2021.

The allocation of investment assets within the Defined Benefit portfolio is approved by the Board of Trustees in the annual investment plan. Plan assets are managed on a total return basis with a long-term objective of achieving and maintaining a fully funded status for the benefits provided through the defined benefit pension plans. The long-term expected rate of return on defined benefit investment assets was determined using a building-block method in which best-estimate ranges of expected future rates of return 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 rates of return by the target asset allocation percentage, adjusted for inflation. Best estimates of arithmetic rates of return were provided by the Board's investment consultant. For each major asset class that is included in the Defined Benefit portfolio's target asset allocation as of December 31, 2021, these best estimates are summarized in the following table:

Asset Class	Target Allocation	Weighted Average Long-Term Expected Real Rate of Return (Arithmetic)
Fixed Income	34.00%	0.91%
Domestic Equities	25.00%	3.78%
REITs	7.00%	3.71%
International Equities	25.00%	4.88%
Risk Parity	2.00%	2.92%
Other Investments	<u>7.00%</u>	1.93%
Total	<u>100.00%</u>	3.45%

**Discount Rate.** A single discount rate of 6.0% was used to measure the OPEB liability on the measurement date of December 31, 2021. Projected benefit payments are required to be discounted to their actuarial present value using a single discount rate that reflects (1) a long-term expected rate of return on OPEB plan investments (to the extent that the health care fiduciary net position is projected to be sufficient to pay benefits), and (2) tax-exempt municipal bond rate based on an index of 20-year general obligation bonds with an average AA credit rating as of the measurement date (to the extent that the contributions

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for use with the long-term expected rate are not met). This single discount rate was based on the actuarial assumed rate of return on the health care investment portfolio of 6.0% and a municipal bond rate of 1.84%. The projection of cash flows used to determine this single discount rate assumed that employer contributions will be made at rates equal to the actuarially determined contribution rate. Based on these assumptions, the health care fiduciary net position and future contributions were sufficient to finance health care costs through 2121. As a result, the actuarial assumed long-term expected rate of return on health care investments was applied to projected costs through the year 2121, the duration of the projection period through which projected health care payments are fully funded.

***Sensitivity of the District's Proportionate Share of the Net OPEB Asset to Changes in the Discount Rate and Changes in the Health Care Cost Trend Rates.*** The following table present the net OPEB asset calculated using the single discount rate of 6.0% and the expected net OPEB asset if it were calculated using a discount rate that is 1.0% lower or 1.0% higher than the current rate (amounts in thousands):

	1% Decrease (5.0%)	Current Discount Rate (6.0%)	1% Increase (7.0%)
MSD' proportionate share of the net OPEB asset	\$ 243	\$ 413	\$ 554

***Sensitivity of the District's Proportionate Share of the Net OPEB Asset to Changes in the Health Care Cost Trend Rate.*** Changes in the health care cost trend rate may also have a significant impact on the net OPEB asset. The following table presents the net OPEB asset calculated using the assumed trend rates, and the expected net OPEB asset if it were calculated using a health care cost trend rate that is 1.0% lower or 1.0% higher than the current rate.

Retiree health care valuations use a health care cost-trend assumption that changes over several years built into the assumption. The near-term rates reflect increases in the current cost of health care; the trend starting in 2022 is 5.50%. If this trend continues for future years, the projection indicates that years from now virtually all expenditures will be for health care. A more reasonable alternative is that in the not-too-distant future, the health plan cost trend will decrease to a level at, or near, wage inflation. On this basis, the actuaries' project premium rate increases will continue to exceed wage inflation for approximately the next decade, but by less each year, until leveling off at an ultimate rate, assumed to be 3.50% in the most recent valuation.

	1% Decrease	Current Health Care Cost Trend Rate	1% Increase
MSD' proportionate share of the net OPEB asset	\$ 417	\$ 413	\$ 408

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**B. City of Cincinnati Retirement System (CRS)**

***Plan Description – CRS***

CRS provides health care coverage to eligible retirees, their spouse and dependent children and is accounted for as a single employer defined benefit OPEB plan. Active members in Group C who have earned fifteen years of membership service at the time of termination are eligible upon retirement. Other active members are eligible for retiree health care upon their retirement after reaching age 60 with 20 years of membership service, or any age with 30 years of service of which 20 years must be earned with CRS. Active members whose most recent membership enrollment date is on or after January 1, 2016 are not eligible for retiree health care benefits upon retirement.

CRS offers medical and prescription benefits to retirees before and during Medicare eligibility. Prescription benefits for Medicare eligible participants are provided through a Medicare Part D Employer Group Waiver Plan. CRS administers three health care plans that differ by deductibles, co-pays and out-of-pocket maximums. Two plans are closed groups. The third plan for eligible members who retire on or after January 1, 2016, follows the most advantageous plan offered to active District employees.

Membership in CRS OPEB as of the June 30, 2022, measurement date was as follows:

Retirees and beneficiaries (optionees) receiving benefits*	4,909
Terminated plan members and beneficiaries (optionees)	
Entitled to future benefits	371
Deferred retirement option plan (DROP) participants	184
Active plan members:	
Full-time	1,673
Part-time	210
Total	7,347

\* OPEB members include 1,398 spouses currently receiving retiree health benefits.

CRS is considered part of the City of Cincinnati’s financial reporting entity and is included in the City’s financial report as part of the pension trust fund. The financial report that includes the financial statements, required supplementary information and detailed information about CRS’ fiduciary net position may be obtained by visiting <http://cincinnati-oh.gov/finance/financial-reports/>. Information in the remainder of this footnote is provided for the District’s portion, being reported as an agency fund of the City, which also participates in and contributes to the CRS, with a measurement date of June 30, 2022.

Funding Policy — Most retirees are subject to premiums that range from 0% to 10%. Other retiree premiums range from 5% to 75% depending on their date of hire, years of service and age at retirement. All members electing to participant in the dental and/or vision plan are required to pay the full cost of coverage. As such, it was assumed that CRS has no liability under GASB Statement No. 74 for these benefits.

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***OPEB (Asset), OPEB Expense, and Deferred Outflows and Inflows of Resources Related to OPEB—CRS***

The District's net OPEB (asset) was measured as of June 30, 2022, and the total OPEB liability used to calculate the net OPEB asset was determined by an actuarial valuation as of December 31, 2021. The District reported a net OPEB asset of \$29,245,000 and negative OPEB expense of \$5,574,000.

At December 31, 2022, the District reported deferred outflows of resources and deferred inflows of resources related to OPEB from the following sources (amounts in thousands):

	<u>Deferred Outflows of Resources</u>	<u>Deferred Inflows of Resources</u>	<u>Net</u>
Differences between expected and actual experience	\$ 526	\$ (2,697)	\$ (2,171)
Net difference between projected and actual investment earnings	1,582	-	1,582
Change in proportion	151	(276)	(125)
Change in assumptions	<u>2,556</u>	<u>(9,197)</u>	<u>(6,641)</u>
	<u>\$ 4,815</u>	<u>\$ (12,170)</u>	<u>\$ (7,355)</u>

Amounts reported as deferred outflows of resources and deferred inflows of resources will be recognized in OPEB expense as follows (amounts in thousands):

	<u>Net Deferred Outflows/ (Inflows) of Resources</u>
Year Ended December 31:	
2023	\$ (4,302)
2024	(1,920)
2025	(3,630)
2026	<u>2,497</u>
	<u>\$ (7,355)</u>

*Actuarial Assumptions.* The total OPEB liability in the following actuarial valuations were determined using the following actuarial assumptions, applied to the applicable periods included in the measurement:

Inflation:	
CPI	2.75%
Medical CPI	3.25%
Salary increases, including wage inflation	3.75% - 7.50%, decreasing as years of service increase

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Long-term investment rate of return	7.50%
Municipal bond index rate:	
Measurement date	3.54%
Prior measurement date	2.16%
Single equivalent interest rate, net of OPEB plan investment expense, including price inflation	
Measurement date	7.50%
Prior measurement date	7.50%
Health care cost trends:	
Medicare supplement claims	
Pre-Medicare	8.00% for 2021, decreasing to an ultimate rate of 4.00% by 2036.
Post-Medicare	4.97% / 4.84% for Non-Model and Model Plans, respectively, for 2021, decreasing to an ultimate rate of 4.00% by 2036.

The demographic actuarial assumptions used in the December 31, 2019, valuation was based on the results of the most recent actuarial experience study, adopted by the Board on March 1, 2018.

Pre-retirement mortality rates were based on RP-2014 healthy employee dataset mortality with fully generational projected mortality improvements using MP-2017. RP-2014 healthy employee dataset mortality rates for males and females have been set forward 2 years. Post-retirement mortality rates for health lives were based on RP-2014 total dataset mortality with fully generational projected mortality improvements using MP-2017. RP-2014 total dataset mortality rates for males and females have been set forward 2 years. For disabled lives, RP-2014 disabled retiree mortality with fully generational projected mortality improvements using MP-2017.

Of the CSA employee members eligible for DROP benefits, 60% are assumed to decline participation and 40% are assumed to be elect participation. Those electing to participate are assumed to remain in DROP for 3 years.

Of the vested members who terminate, it is assumed that 60% will leave their contributions in the plan to be eligible for a benefit at their normal retirement date while remaining 40% elect to withdraw their contributions.

*Long Term Expected Rate of Return.* The long-term expected rate of return on pension plan investments was determined using expected return and volatility figures which were developed by Marquette Associates using their asset allocation software. The program simulates a variety of economic environments based on macroeconomic variables, and this simulation allows us to model the underlying probabilities of capital market returns. By running the monthly simulations over a 10-year basis and performing 1,000 trials, they develop results for expectations of capital market performance. Expected risk and return values for all asset classes are updated every six months, as the underlying data and assumptions reflect current market values and trends.

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The target asset allocation and best estimates of arithmetic real rates of return for each major class are summarized in the following table (\* geometric mean):

Asset Class	Target Allocation	Long-Term Expected Real Rate of Return*
Core Bonds	12.0 %	4.1 %
High Yield	2.0 %	9.0 %
Private Debt	3.0 %	8.6 %
All Cap U.S. Equity	21.5 %	6.9 %
Large-Cap Value Equity	3.5 %	6.7 %
Mid-Cap Value Equity	2.0 %	7.1 %
Small-Cap Value Equity	3.5 %	7.8 %
Non-U.S. All Cap	18.0 %	7.2 %
Emerging Markets-Small Cap	2.0 %	7.5 %
Real Estate Core Equity	7.5 %	6.6 %
Infrastructure	10.0 %	6.8 %
Risk Parity	2.5 %	4.8 %
Volatility Risk Premium	2.5 %	10.0 %
Private Equity-FOF	10.0 %	11.2 %
Total	100.0 %	

*Determination of Discount Rate (SEIR).* The plan uses the Bond Buyer G.O. 20 Year Bond Municipal Bond Index to satisfy the requirements under paragraph 48 of GASB Statement No. 74. As this Index is issued weekly, the value closest to, but after the reporting date is used in determining the appropriate rate. Based on this practice, the municipal bond index rate at June 30, 2022, was 3.54% and 2.16% at June 24, 2021.

The discount rate used to measure the total OPEB liability as of June 30, 2022, was 7.50%. The projection of cash flows used to determine the discount rate was performed in accordance with GASB Statement No. 74. The projection's basis was an actuarial valuation performed as of December 31, 2021. In addition to the actuarial methods and assumptions of the December 31, 2021, actuarial valuation, the following actuarial methods, and assumptions were used in the projection of cash flows:

- No future employee contributions were assumed to be made.
- No future employer contributions were assumed to be made.

Based on these assumptions, CRS' fiduciary net position was projected to never be depleted, as a result, the long-term expected rate of return was used in the determination of the single equivalent interest rate (SEIR). Here, the long-term expected rate of return of 7.50% on plan investments was applied to all periods, resulting in a SEIR at the measurement date of 7.50%

*Sensitivity of the net OPEB (asset) to changes in the discount rate and healthcare cost trend rates.* The following presents the net OPEB (asset) of the District, as well as what the District's net OPEB (asset) would be if it were calculated using a discount rate that is 1% lower or 1% higher than the current discount rate. Similarly, the following also presents what the District's net OPEB (asset) would be if it were calculated

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using a healthcare cost trend rate that is 1% lower or 1% higher than the current rate (amounts in thousands):

MSD' Net OPEB (Asset)	Healthcare Cost Trend Rates		
	1% Decrease	Current Rate	1% Increase
1% Increase (8.50%)		\$ (35,516)	
Current Discount Rate (7.50%)	\$ (36,292)	(29,245)	\$ (21,076)
1% Decrease (6.50%)		\$ (2,201)	

*Change in Net OPEB Liability/(Asset).* Changes in the District's financial reporting entity's net OPEB liability/(asset) for the measurement year ended June 30, 2022, were as follows (amounts in thousands):

	Total OPEB Liability	Plan Fiduciary Net Position	Net OPEB Liability/ (Asset)
Balances at June 30, 2021	\$ 72,153	\$ 103,560	\$ (31,407)
Changes for the year:			
Service cost	538	-	538
Interest	5,488	-	5,488
Difference between expected and actual experience	401	-	401
Change in assumptions	(8,566)	-	(8,566)
Net investment income (loss)	-	(4,618)	4,618
Benefit payments, including refunds of employee contributions	(4,654)	(4,654)	-
Administrative expense	-	(100)	100
Other changes	-	417	(417)
Net changes	(6,793)	(8,955)	2,162
Balances at June 30, 2022	\$ 65,360	\$ 94,605	\$ (29,245)

The total OPEB liability as of June 30, 2022, is based on the actuarial valuation results as of December 31, 2021. The total OPEB liability as of June 30, 2022, was determined using standard projection (roll forward) techniques. The roll forward calculation adds the normal cost (also called the service cost) for the projection period—for experience and assumption changes, the first half of 2022, subtracts the expected net benefit payments for the period, and then applies the SEIR used to measure the total OPEB liability as of the valuation date. The roll forward calculation for the expected change is determined using a similar procedure, except that the total OPEB liability and service cost are based on GASB Statement No. 75 results as of the prior measurement date, one year projection period used, and actual net benefit payments are subtracted. The difference between this expected total OPEB liability and the projected total OPEB liability as of June 30, 2022, before reflecting any changes of assumptions or other inputs is the experience (gain) or loss for the period.



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**NOTE 11 - RELATED PARTY TRANSACTIONS**

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Cincinnati Water Works provides billing and collection services on customers' accounts for the District. Fees for these services for 2022 and 2021 were and \$7,039,175 and \$6,135,855, respectively. Fees are also paid to other municipalities and villages within Hamilton County for collection of sewerage bills.

The City of Cincinnati provides "overhead" services to the District, such as check disbursement, investment and legal services, etc. The fees for these services for 2022 and 2021 were \$1,254,813 and \$2,505,040, respectively. In addition, the City's Municipal Garage provides gasoline and repairs vehicles for the District. Fees for these services were \$1,579,818 and \$1,556,704 for 2022 and 2021, respectively.

**NOTE 12 - COMMITMENTS AND CONTINGENCIES**

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The City of Cincinnati and the Board of County Commissioners of Hamilton County, Ohio are parties to a Global Consent Decree, which was lodged in 2003 with the U.S. District Court for the Southern District of Ohio, Western Division. This decree focuses on combined sewer overflows, the implementation of the Sanitary Sewer Overflow Correction plan established in the Interim Partial Consent Decree, and other wet weather issues. The court approved the decrees on June 9, 2004. In August 2010, the District's Revised Wet Weather Improvement Plan was approved by the federal government. The commitment was for the District to complete a Phase 1 group of projects totaling \$1.145 billion (in 2006 dollars). Work on Phase 1 is now complete and consent decree documents are posted on the District web site, msdgc.org, under consent decree.

As part of District's capital improvement program, the District has entered into a number of contracts for construction, design, and other services. Commitments under these contracts aggregate approximately \$111.6 million as of December 31, 2022, and \$85.5 million as of December 31, 2021.

**NOTE 13 - RISK MANAGEMENT**

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The District is part of the City of Cincinnati Risk Management Program. The City purchases commercial insurance to cover losses due to theft of, damage to, or destruction of assets and purchases general liability insurance for specific operations and professional liability insurance for certain operations. All other risks of loss are self-insured. Separately, the District carries property insurance pursuant to an all-risk policy on the District's buildings and equipment per the revenue bond trust agreement. There has been no reduction in insurance coverage from coverage in 2003. Insurance settlements for claims resulting from risks covered by commercial insurance have not exceeded the insurance coverage in any of the past four years.

**THE METROPOLITAN SEWER DISTRICT OF GREATER CINCINNATI  
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**NOTES TO THE FINANCIAL STATEMENTS  
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**NOTE 14 – PREPAID EXPENSES AND OTHER**

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Prepaid Insurance was \$245,342 and Accrued Interest Receivable was \$1,078,176 at December 31, 2022, for a total Prepaid Expenses and Other of \$1,323,518.

**NOTE 15 - SUBSEQUENT EVENTS**

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The United States and the State of Ohio declared a state of emergency in March 2020 due to the COVID-19 pandemic. The financial impact of COVID-19 and the ensuing emergency measures will impact subsequent periods of the District. The District's investment portfolio and investments of the pension and other employee benefit plan in which the District participates have incurred a significant decline in fair value, consistent with the general decline in financial markets. However, because the values of individual investments fluctuate with market conditions, and due to market volatility, the amount of losses that will be recognized in subsequent periods, if any, cannot be determined. In addition, the impact of the District's future operating costs, revenues, and any recovery from emergency funding, either federal or state, cannot be estimated.

There is a separate Consent Decree for the City Retirement System Plan court case, which may require additional employer share of pension contribution payments, however the exact dollar amount is unknown at this time.

The District experienced a catastrophic electrical failure of a high voltage substation transformer on March 5, 2023. The Ohio EPA and the U.S. EPA National Response Center were immediately notified. There were no impacts to local drinking water. The investigation into the cause of the substation transformer failure is ongoing.

**Metropolitan Sewer District (MSD), Hamilton County, Ohio**  
**Required Supplementary Information**  
**Schedule of the MSD's Proportionate Share of the Net Pension Liability**  
**Ohio Public Employees Retirement System - Traditional Pension Plan**  
**Last Nine Years (1) (2)**

**Table 1**  
**(Amounts in thousands)**

	MSD's Proportion of the Net Pension Liability	MSD's Proportionate Share of the Net Pension Liability	MSD's Covered Payroll	MSD's Proportionate Share of the Net Pension Liability as a Percentage of its Covered Payroll	Plan Fiduciary Net Position as a Percentage of the Total Pension Liability
2014	0.01499479%	\$ 1,766	\$ 2,443	72.29%	86.36%
2015	0.01517751%	1,825	2,479	73.62%	86.45%
2016	0.01475990%	2,541	2,336	108.78%	81.08%
2017	0.01727562%	3,923	2,200	178.32%	77.25%
2018	0.01708312%	2,680	2,377	112.75%	84.66%
2019	0.01599242%	4,380	2,257	194.06%	74.70%
2020	0.01564887%	3,093	2,136	144.80%	82.17%
2021	0.01439087%	2,131	2,136	99.77%	86.88%
2022	0.01349425%	1,174	1,950	60.21%	92.62%

(1) Amounts presented for each year were determined as of MSD's measurement date, which is the prior year-end.

(2) Information prior to 2014 is not available.

**Notes to Schedule:**

*Change in assumptions* . In 2017, changes in assumptions were made based upon an updated experience study that was completed for the five-year period ended December 31, 2015. Significant changes included a reduction of the discount rate from 8.0% to 7.5%, a reduction in the wage inflation rate from 3.75% to 3.25%, and transition from the RP-2000 mortality tables to the RP-2014 mortality tables.

In 2019, a reduction of the discount rate was made from 7.5% to 7.2%.

In 2022, changes in assumptions were made based upon an updated experience study that was completed for the five-year period ended December 31, 2020. Significant changes included a reduction of the discount rate from 7.2% to 6.9% , a reduction in wage inflation from 3.25% to 2.75%, and transition from RP-2014 mortality tables to to Pub-2010 mortality tables.

**Metropolitan Sewer District (MSD), Hamilton County, Ohio**  
**Required Supplementary Information**  
**Schedule of MSD's Pension Contributions**  
**Ohio Public Employees Retirement System - Traditional Pension Plan**  
**Last Ten Calendar Years**  
**Table 2**  
**(Amounts in thousands)**

	Contractually Required Contributions	Contributions in Relation to the Contractually Required Contributions	Contribution Deficiency (Excess)	MSD's Covered Payroll	Contributions as a Percentage of Covered Payroll
2013	\$ 318	\$ (318)	-	\$ 2,443	13.00%
2014	297	(297)	-	2,479	12.00%
2015	280	(280)	-	2,336	12.00%
2016	264	(264)	-	2,200	12.00%
2017	309	(309)	-	2,377	13.00%
2018	316	(316)	-	2,257	14.00%
2019	299	(299)	-	2,136	14.00%
2020	299	(299)	-	2,136	14.00%
2021	273	(273)	-	1,950	14.00%
2022	256	(256)	-	1,829	14.00%

**Metropolitan Sewer District (MSD), Hamilton County, Ohio**  
**Required Supplementary Information**  
**Schedule of the MSD's Proportionate Share of the Net OPEB Liability/(Asset)**  
**Ohio Public Employees Retirement System - Traditional Pension Plan**  
**Last Six Years (1) (2)**  
**Table 3**  
**(Amounts in thousands)**

	MSD's Proportion of the Net OPEB Liability/(Asset)	MSD's Proportionate Share of the Net OPEB Liability/(Asset)	MSD's Covered Payroll	MSD's Proportionate Share of the Net OPEB Liability/(Asset) as a Percentage of its Covered Payroll	Plan Fiduciary Net Position as a Percentage of the Total OPEB Liability
2017	0.01786139%	\$ 1,804	\$ 2,200	82.00%	54.05%
2018	0.01664978%	1,808	2,377	76.06%	54.14%
2019	0.01550127%	2,021	2,257	89.54%	46.33%
2020	0.01497864%	2,069	2,136	96.86%	47.80%
2021	0.01403706%	(250)	2,136	(11.70%)	115.57%
2022	0.01318646%	(413)	1,950	(21.18%)	128.23%

(1) Amounts presented for each year were determined as of MSD's measurement date, which is the prior year-end.  
(2) Information prior to 2017 is not available.

**Notes to Schedule:**

*Change in assumptions.* In 2018, the single discount rate changed from 4.23% to 3.85%.

In 2019, the single discount rate changed from 3.85% to 3.96%, the investment rate of return changed from 6.50% to 6.00%, and the health care cost trend rate changed from 7.50% initial to 10.00% initial.

In 2020, the single discount rate changed from 3.96% to 3.16% and the health care cost trend rate changed from 10.0% initial, 3.25% ultimate in 2029 to 10.5% initial, 3.50% ultimate in 2030.

In 2021, the single discount rate changed from 3.16% to 6.00% and the health care cost trend rate changed from 10.5% initial, 3.50% ultimate in 2030 to 8.5% initial, 3.50% ultimate in 2035.

In 2022, changes in assumptions were made based upon an updated experience study that was completed for the five-year period ended December 31, 2020. Significant changes included a reduction in wage inflation from 3.25% to 2.75%, and transition from RP-2014 mortality tables to Pub-2010 mortality tables.

**Metropolitan Sewer District (MSD), Hamilton County, Ohio**  
**Required Supplementary Information**  
**Schedule of MSD's OPEB Contributions**  
**Ohio Public Employees Retirement System - Traditional Pension Plan**  
**Last Ten Calendar Years**  
**Table 4**  
**(Amounts in thousands)**

	Contractually Required Contributions	Contributions in Relation to the Contractually Required Contributions	Contribution Deficiency (Excess)	MSD's Covered Payroll	Contributions as a Percentage of Covered Payroll
2013	\$ 24	\$ (24)	-	\$ 2,443	1.00%
2014	50	(50)	-	2,479	2.00%
2015	47	(47)	-	2,336	2.00%
2016	44	(44)	-	2,200	2.00%
2017	24	(24)	-	2,377	1.00%
2018	3	(3)	-	2,257	0.13%
2019	2	(2)	-	2,136	0.09%
2020	2	(2)	-	2,136	0.09%
2021	3	(3)	-	1,950	0.15%
2022	5	(5)	-	1,829	0.27%

**Metropolitan Sewer District (MSD), Hamilton County, Ohio**  
**Required Supplementary Information**  
**Schedule of MSD's Changes in Net Pension Liability and Related Ratios**  
**Cincinnati Retirement System**  
**Last Nine Years (1) (2)**  
**Table 5**  
**(Amounts in thousands)**

	2022	2021	2020	2019	2018
<b>Total pension liability</b>					
Service cost	\$ 4,055	\$ 11,344	\$ 7,108	\$ 4,489	\$ 4,260
Interest	34,899	24,870	30,825	32,602	30,470
Benefit changes	-	4,537	-	-	-
Difference between expected and actual experience	1,931	15,853	5,073	8,698	5,577
Changes of assumptions	125,010	(259,433)	151,500	101,687	9,403
Benefit payments and refunds	(36,245)	(34,438)	(33,311)	(32,110)	(31,436)
Other	-	-	-	-	-
<b>Net change in total pension liability</b>	<b>129,650</b>	<b>(237,267)</b>	<b>161,195</b>	<b>115,366</b>	<b>18,274</b>
<b>Total pension liability - beginning</b>	<b>459,331</b>	<b>696,598</b>	<b>535,403</b>	<b>420,037</b>	<b>401,763</b>
<b>Total pension liability - ending (a)</b>	<b>588,981</b>	<b>459,331</b>	<b>696,598</b>	<b>535,403</b>	<b>420,037</b>
<b>Plan net position</b>					
Contributions - employer	7,304	6,400	6,531	6,381	6,080
Contributions - member	3,864	3,723	3,775	3,677	3,521
Contributions - ERIP payoff	-	-	-	-	-
Net investment income (loss)	(15,379)	88,994	(3,973)	14,394	26,180
Benefit payments and refunds	(36,245)	(34,438)	(33,311)	(32,110)	(31,436)
Administrative expense	(333)	(334)	(355)	(278)	(277)
Other	(1,533)	8,730	(1,005)	(1,439)	(1,893)
<b>Net change in plan net position</b>	<b>(42,322)</b>	<b>73,075</b>	<b>(28,338)</b>	<b>(9,375)</b>	<b>2,175</b>
<b>Plan net position - beginning</b>	<b>343,916</b>	<b>270,841</b>	<b>299,179</b>	<b>308,554</b>	<b>306,379</b>
<b>Plan net position - ending (b)</b>	<b>301,594</b>	<b>343,916</b>	<b>270,841</b>	<b>299,179</b>	<b>308,554</b>
<b>Net pension liability - ending (a) - (b)</b>	<b>\$ 287,387</b>	<b>\$ 115,415</b>	<b>\$ 425,757</b>	<b>\$ 236,224</b>	<b>\$ 111,483</b>
<b>Ratio of plan net position to total pension liability</b>	<b>51.21%</b>	<b>74.87%</b>	<b>38.88%</b>	<b>55.88%</b>	<b>73.46%</b>
<b>Covered payroll</b>	<b>\$ 42,611</b>	<b>\$ 40,549</b>	<b>\$ 41,462</b>	<b>\$ 40,764</b>	<b>\$ 37,809</b>
<b>Net pension liability as a percentage of covered payroll</b>	<b>672.78%</b>	<b>284.63%</b>	<b>1026.86%</b>	<b>579.49%</b>	<b>294.86%</b>

(continued)

(1) Information prior to 2014 was not available. MSD will continue to present information for years available until a full ten-year trend is available.

(2) The measurement year is from July 1 through June 30.

See Notes to the Required Supplementary Pension Information.

**Metropolitan Sewer District (MSD), Hamilton County, Ohio**  
**Required Supplementary Information**  
**Schedule of MSD's Changes in Net Pension Liability and Related Ratios**  
**Cincinnati Retirement System**  
**Last Nine Years (1) (2)**  
**Table 5 (continued)**  
**(Amounts in thousands)**

	2017	2016	2015	2014
<b>Total pension liability</b>				
Service cost	\$ 3,764	\$ 5,639	\$ 5,346	\$ 4,919
Interest	29,256	25,454	28,680	28,146
Benefit changes	5,344	(13,545)	-	-
Difference between expected and actual experience	649	734	(2,698)	-
Changes of assumptions	-	(111,431)	30,007	(3,381)
Benefit payments and refunds	(30,612)	(29,102)	(31,057)	(29,953)
Other	-	(35,654)	-	-
<b>Net change in total pension liability</b>	<b>8,401</b>	<b>(157,905)</b>	<b>30,278</b>	<b>(269)</b>
<b>Total pension liability - beginning</b>	<b>393,362</b>	<b>551,267</b>	<b>520,989</b>	<b>521,258</b>
<b>Total pension liability - ending (a)</b>	<b>401,763</b>	<b>393,362</b>	<b>551,267</b>	<b>520,989</b>
<b>Plan net position</b>				
Contributions - employer	5,647	4,639	5,596	7,252
Contributions - member	3,246	1,599	3,115	2,761
Contributions - ERIP payoff	-	8,723	-	-
Net investment income	38,292	(2,065)	9,455	49,002
Benefit payments and refunds	(30,612)	(29,102)	(31,057)	(29,953)
Administrative expense	(288)	(962)	(302)	(261)
Other	(3,065)	24,110	-	-
<b>Net change in plan net position</b>	<b>13,220</b>	<b>6,942</b>	<b>(13,193)</b>	<b>28,801</b>
<b>Plan net position - beginning</b>	<b>293,159</b>	<b>286,217</b>	<b>299,410</b>	<b>270,609</b>
<b>Plan net position - ending (b)</b>	<b>306,379</b>	<b>293,159</b>	<b>286,217</b>	<b>299,410</b>
<b>Net pension liability - ending (a) - (b)</b>	<b>\$95,384</b>	<b>\$ 100,203</b>	<b>\$265,050</b>	<b>\$ 221,579</b>
<b>Ratio of plan net position to total pension liability</b>	<b>76.26%</b>	<b>74.53%</b>	<b>51.92%</b>	<b>57.47%</b>
<b>Covered payroll</b>	<b>\$34,942</b>	<b>\$ 31,809</b>	<b>\$ 31,232</b>	<b>\$ 30,550</b>
<b>Net pension liability as a percentage of covered payroll</b>	<b>272.98%</b>	<b>315.01%</b>	<b>848.65%</b>	<b>725.30%</b>



**Metropolitan Sewer District (MSD), Hamilton County, Ohio**  
**Required Supplementary Information**  
**Schedule of MSD's Pension Contributions**  
**Cincinnati Retirement System**  
**Last Ten Calendar Years**  
**Table 6**  
**(Amounts in thousands)**

	Actuarially Determined Employer Contributions	Actual Employer Contributions	Contribution Deficiency (Excess)	MSD's Covered Payroll	Contributions as a Percentage of Covered Payroll
2013	\$ 13,051	\$ (6,179)	\$ 6,872	\$ 31,369	19.70%
2014	16,087	(5,303)	10,784	30,550	17.36%
2015	13,756	(4,328)	9,428	31,232	13.86%
2016	12,356	(5,169)	7,187	31,809	16.25%
2017	8,541	(5,941)	2,600	34,942	17.00%
2018	10,879	(6,226)	4,653	38,536	16.16%
2019	11,541	(6,455)	5,086	40,053	16.12%
2020	12,226	(6,521)	5,705	40,289	16.19%
2021	12,927	(6,498)	6,429	40,339	16.11%
2022	13,805	(6,940)	6,865	42,946	16.16%

See Notes to the Required Supplementary Pension Information.

**Metropolitan Sewer District (MSD), Hamilton County, Ohio**  
**Required Supplementary Information**  
**Notes to the Required Pension Information**  
**Cincinnati Retirement System**  
**Table 7**

*Actuarial Assumptions:*

Actuarially determined contribution rates are calculated as of June 30, one year prior to the end of the fiscal year in which contributions are reported.

Actuarial cost method	Entry age
Amortization method	Level dollar
Amortization period	Open 30 year period
Asset valuation method	Five-year smoothed market value
Inflation	2.75%
Salary increases, including wage inflation	3.75% to 7.50%
Investment rate of return	7.50%, net of pension plan investment expense, and including inflation
Municipal bond index rate	3.54%
Single equivalent discount rate	5.25%

*Changes of Benefit Terms:*

In 2017, there were several changes in benefit provisions as a result of Ordinance 336-2016 adopted by the City Council on October 26, 2016. In addition to incorporating many of the changes mandated by the Collaborative Settlement Agreement (CSA), the Ordinance also:

- Established benefit and eligibility provisions for Group E and F members not covered under the CSA similar to employees who are covered under the CSA.
- Established a universal cost-of-living adjustment (COLA) suspension period for all members.
- Established a universal 3% simple COLA rate for all members

In 2016, there were several changes in benefit provisions as a result of the Collaborative Settlement Agreement (CSA) between the City and various plaintiff groups representing certain active and retired members of CRS as approved by the Court on October 5, 2015 and generally effective January 1, 2016.

*Changes in Actuarial Assumptions and Methods:*

In 2018, actuarial assumptions and methods were changed based on the results of the actuarial experience study dated February 28, 2018. These changes include reducing the price inflation assumption from 3.00% to 2.75%; updating the retirement, withdrawal and disability rates, updating the mortality rates for all members to a generational approach using the RP-2014 mortality tables, updating the merit salary scale; increasing the assumed administrative expense as a percentage of payroll added to the normal cost from 0.75% to 0.80%; updating the assumed proportion of deferred vested members who elect to receive a deferred benefit and who will elect to withdraw their contributions; and updating the assumed percentage of members who are married for the purposes of valuing pre-retirement survivor benefits.

**Metropolitan Sewer District (MSD), Hamilton County, Ohio**  
**Required Supplementary Information**  
**Notes to the Required Pension Information**  
**Cincinnati Retirement System**  
**Table 7 (continued)**

*Changes in Actuarial Assumptions and Methods (continued):*

In 2019, the System's fiduciary net position was projected to be available to make projected future benefit payment for current members through 2046. Projected benefit payments beyond 2046 were discounted at the municipal bond rate of 3.50%, resulting in a single equivalent discount rate of 5.56%.

In 2020, the System's fiduciary net position was projected to be available to make projected future benefit payment for current members through 2041. Projected benefit payments beyond 2041 were discounted at the municipal bond rate of 2.21%, resulting in a single equivalent discount rate of 3.56%.

In 2021, the expected long-term rate of return of 7.50% was used for the discount rate with the projected future fiduciary net position not being depleted.

In 2022, the System's fiduciary net position was projected to be available to make projected future benefit payment for current members through 2047. Projected benefit payments beyond 2047 were discounted at the municipal bond rate of 3.54%, resulting in a single equivalent discount rate of 5.25%.

**Metropolitan Sewer District (MSD), Hamilton County, Ohio**  
**Required Supplementary Information**  
**Schedule of MSD's Changes in Net OPEB Liability/(Asset) and Related Ratios**  
**Cincinnati Retirement System**  
**Last Four Years (1) (2)**  
**Table 8**  
**(Amounts in thousands)**

	2022	2021	2020	2019	2018
<b>Total OPEB liability</b>					
Service cost	\$ 538	\$ 584	\$ 1,381	\$ 1,155	\$ 945
Interest	5,488	5,096	6,168	6,480	5,841
Benefit changes	-	3,035	(32,814)	-	-
Difference between expected and actual experience	401	255	(10,869)	475	3,030
Changes of assumptions	(8,566)	-	(11,168)	12,822	7,173
Benefit payments	(4,654)	(4,814)	(5,104)	(5,881)	(4,962)
<b>Net change in total OPEB liability</b>	<b>(6,793)</b>	<b>4,156</b>	<b>(52,406)</b>	<b>15,051</b>	<b>12,027</b>
<b>Total OPEB liability - beginning</b>	<b>72,153</b>	<b>67,997</b>	<b>120,403</b>	<b>105,352</b>	<b>93,325</b>
<b>Total OPEB liability - ending (a)</b>	<b>65,360</b>	<b>72,153</b>	<b>67,997</b>	<b>120,403</b>	<b>105,352</b>
<b>Plan net position</b>					
Net investment income (loss)	(4,618)	26,077	(1,139)	4,080	7,354
Benefit payments	(4,654)	(4,814)	(5,104)	(5,881)	(4,962)
Administrative expense	(100)	(98)	(102)	(79)	(78)
Other	417	(302)	(132)	(206)	(78)
<b>Net change in plan net position</b>	<b>(8,955)</b>	<b>20,863</b>	<b>(6,477)</b>	<b>(2,086)</b>	<b>2,236</b>
<b>Plan net position - beginning</b>	<b>103,560</b>	<b>82,697</b>	<b>89,174</b>	<b>91,260</b>	<b>89,024</b>
<b>Plan net position - ending (b)</b>	<b>94,605</b>	<b>103,560</b>	<b>82,697</b>	<b>89,174</b>	<b>91,260</b>
<b>Net OPEB liability/(asset) - ending (a) - (b)</b>	<b>\$ (29,245)</b>	<b>\$ (31,407)</b>	<b>\$ (14,700)</b>	<b>\$ 31,229</b>	<b>\$ 14,092</b>
<b>Ratio of plan net position to total OPEB liability/(asset)</b>	<b>144.74%</b>	<b>143.53%</b>	<b>121.62%</b>	<b>74.06%</b>	<b>86.62%</b>
<b>Covered employee payroll</b>	<b>\$ 26,992</b>	<b>\$ 28,755</b>	<b>\$ 31,926</b>	<b>\$ 33,066</b>	<b>\$ 33,158</b>
<b>Net OPEB liability/(asset) as a percentage of covered employee payroll</b>	<b>(108.35%)</b>	<b>(109.22%)</b>	<b>(46.04%)</b>	<b>94.44%</b>	<b>42.50%</b>

(1) Information prior to 2018 was not available. MSD will continue to present information for years available until a full ten-year trend is available.

(2) The measurement year is from July 1 through June 30.

See Notes to the Required Supplementary OPEB Information.

**Metropolitan Sewer District (MSD), Hamilton County, Ohio**  
**Required Supplementary Information**  
**Schedule of MSD's OPEB Contributions**  
**Cincinnati Retirement System**  
**Last Seven Calendar Years (1)**  
**Table 9**  
**(Amounts in thousands)**

	Actuarially Determined Employer Contributions	Actual Employer Contributions	Contribution Deficiency (Excess)	MSD's Covered Employee Payroll	Contributions as a Percentage of Covered Employee Payroll
2016	\$ 248	\$ -	\$ 248	\$ 31,384	0.00%
2017	714	-	714	32,369	0.00%
2018	534	-	534	32,440	0.00%
2019	974	-	974	32,794	0.00%
2020	537	-	537	31,951	0.00%
2021	-	-	-	29,652	0.00%
2022	-	-	-	29,962	0.00%

(1) Information prior to 2016 is not available.

See Notes to the Required Supplementary OPEB Information.

**Metropolitan Sewer District (MSD), Hamilton County, Ohio**  
**Required Supplementary Information**  
**Notes to the Required OPEB Information**  
**Cincinnati Retirement System**  
**Table 10**

*Actuarial Assumptions:*

Actuarially determined contribution rates are calculated as of June 30, one year prior to the end of the fiscal year in which contributions are reported.

Actuarial cost method	Entry age
Amortization method	Level dollar
Amortization period	Open 30 year period
Asset valuation method	Five-year smoothed market value
Inflation	CPI: 2.75%; Medical CPI: 3.25%
Salary increases, including wage inflation	3.75% to 7.50%
Investment rate of return	7.50%, net of pension plan investment expense, and including inflation
Initial health care cost trend rates	
Pre Medicare	8.00%
Medicare	4.97% (Non-Model Plan) / 4.84% (Model Plan)
Ultimate health care cost trend rates	
Pre Medicare	4.00%
Medicare	4.00%
Year ultimate health care cost trend rates reached	
Pre Medicare	2036
Medicare	2036

*Change of Benefit Terms:*

In 2021, the Plan offered an early retirement incentive program which provided two additional years of service that would count towards benefits and eligibility. Eligible members were those projected to be eligible for normal retirement as of July 1, 2020 or have earned at least 28 years of service as of July 1, 2020.

In 2020, the Plan moved all Medicare Part A and Part B eligible, and Medicare Part B only eligible Plan participants to the new fully insured Medicare Advantage plan offered by Anthem, effective January 1, 2020.

In 2017, the Plan changes included in Ordinance 336-2016 were adopted by the City Council on October 26, 2016. In addition to incorporating many of the changes mandated by the CSA, the Ordinance also:

- Excluded members hired after December 31, 2015 from eligibility to receive retiree health benefits;
- Established benefit and eligibility provisions for Group E and F members, not covered under the CSA, similar to employees who are covered under the CSA.
- Specified eligibility and postemployment contribution requirements for the retiree health benefits payable to members and beneficiaries entitled to deferred benefits.
- Modified eligibility and postemployment contribution requirements to retiree health benefits paid as the result of an in-service death.

In 2016, there were several changes in benefit provisions as a result of the Collaborative Settlement Agreement (CSA) between the City and various plaintiff groups representing certain active and retired members of CRS as approved by the Court on October 5, 2015 and generally effective January 1, 2016.

**Metropolitan Sewer District (MSD), Hamilton County, Ohio**  
**Required Supplementary Information**  
**Notes to the Required OPEB Information**  
**Cincinnati Retirement System**  
**Table 10 (continued)**

*Changes in Actuarial Assumptions and Methods:*

In 2020, the expected long-term rate of return of 7.50% was used for the discount rate with the projected future net position not being depleted. The claims assumptions and retiree contributions were updated to reflect actual 2020 premiums.

The medical trend assumptions were updated to include several factors. First, the initial trends for the Medicare Advantage plans were set at 0% for medical and 7% for drug, while the trends for the contribution rates for the plans were set at a -5.7% to account for the health insurance tax reduction. The ultimate health care trend was set at 4%, with each trend period set at 15 years.

The claim cost curves were updated based on the experience of the retirees in the Secure, Select and Model plans. The data provided claim experience for all covered members (retirees, covered spouses, and covered children) by age. Additional information was provided for the new Medicare Advantage Plans, which were applied to the 2020 claim curves above.

The percentage of members to not qualify for premium-free Medicare Part A coverage was lowered from 15% to 10%.

In 2019, the December 31, 2018 valuation included a change in the Municipal Bond Index Rate from 3.89% to 3.50%; a decrease in the discount rate (SEIR) from 6.13% to 5.07%, part-time employees were included in the Plan's population, and the health care cost trend rates were updated to reflect the current market place.

In 2018, actuarial assumptions and methods were changed based on recent plan experience done concurrently with the December 31, 2017 valuation, including a change in the Municipal Bond Index Rate from 3.65% to 3.89%; a decrease in the discount rate (SEIR) from 6.31% to 6.13%, a decrease in the price inflation assumption from 3.00% to 2.75%, an update of the retirement, withdrawal, and disability rates; an update of the mortality rates for all members to a generational approach using the RP-2014 mortality tables; an update of the merit salary scales; and updates to the following to better reflect the anticipated experience of the plan: assumed rates of health care inflation, assumed rates of health benefit plan participation, contribution rates for the Select Plan and the Model Plan, and DROP participation rates.

In 2017, future contribution rates for retiree health benefit recipients are now based upon the projected retiree health care costs associated with each projection year's closed group of participants.

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**METROPOLITAN SEWER DISTRICT OF GREATER CINCINNATI  
HAMILTON COUNTY**

**SCHEDULE OF EXPENDITURES OF FEDERAL AWARDS FOR  
THE YEAR ENDED DECEMBER 31, 2022**

<b>FEDERAL GRANTOR</b>	<b>Pass Through</b>	<b>Federal</b>	
<i>Pass Through Grantor</i>	<b>Entity</b>	<b>AL#</b>	
<u>Program / Cluster Title</u>	<u>Number</u>	<b>(CFDA)</b>	<u>Expenditures</u>
		<b>Number</b>	
U.S. DEPARTMENT OF HOMELAND SECURITY			
Passed through Ohio Emergency Management Agency:			
Hazard Mitigation Grant Program	OEMA-FEMA-DR-4424-OH	97.039	<u>\$2,442,957</u>
<b>Total Federal Awards Expenditures</b>			<u><u>\$2,442,957</u></u>

*The accompanying notes are an integral part of this schedule.*

**METROPOLITAN SEWER DISTRICT OF GREATER CINCINNATI  
HAMILTON COUNTY**

**NOTES TO THE SCHEDULE OF EXPENDITURES OF FEDERAL AWARDS  
2 CFR 200.510(b)(6)  
FOR THE YEAR ENDED DECEMBER 31, 2022**

**NOTE A – BASIS OF PRESENTATION**

The accompanying Schedule of Expenditures of Federal Awards (the Schedule) includes the federal award activity of Metropolitan Sewer District of Greater Cincinnati (the District) under programs of the federal government for the year ended December 31, 2022. The information on this Schedule is prepared in accordance with the requirements of Title 2 U.S. Code of Federal Regulations Part 200, *Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards* (Uniform Guidance). Because the Schedule presents only a selected portion of the operations of the District, it is not intended to and does not present the financial position, changes in net position, or cash flows of the District.

**NOTE B – SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES**

Expenditures reported on the Schedule are reported on the cash basis of accounting. Such expenditures are recognized following the cost principles contained in Uniform Guidance wherein certain types of expenditures may or may not be allowable or may be limited as to reimbursement.

**NOTE C – INDIRECT COST RATE**

The District has elected not to use the 10-percent de minimis indirect cost rate as allowed under the Uniform Guidance.

# OHIO AUDITOR OF STATE KEITH FABER



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## INDEPENDENT AUDITOR'S REPORT ON INTERNAL CONTROL OVER FINANCIAL REPORTING AND ON COMPLIANCE AND OTHER MATTERS REQUIRED BY GOVERNMENT AUDITING STANDARDS

Metropolitan Sewer District of Greater Cincinnati  
Hamilton County  
1605 Gest Street  
Cincinnati, Ohio 45204

To the Hamilton County Board of Commissioners:

We have audited, in accordance with auditing standards generally accepted in the United States of America and the standards applicable to financial audits contained in *Government Auditing Standards* issued by the Comptroller General of the United States (*Government Auditing Standards*), the financial statements of the Metropolitan Sewer District of Greater Cincinnati, Hamilton County, (the District) as of and for the years ended December 31, 2022 and 2021, and the related notes to the financial statements, which collectively comprise the District's basic financial statements and have issued our report thereon dated May 12, 2023. We also noted the financial impact of COVID-19 and the continuing emergency measures which may impact subsequent periods of the District.

### ***Report on Internal Control Over Financial Reporting***

In planning and performing our audit of the financial statements, we considered the District's internal control over financial reporting (internal control) as a basis for designing audit procedures that are appropriate in the circumstances for the purposes of expressing our opinion on the financial statements, but not for the purpose of expressing an opinion on the effectiveness of the District's internal control. Accordingly, we do not express an opinion on the effectiveness of the District's internal control.

*A deficiency in internal control* exists when the design or operation of a control does not allow management or employees, in the normal course of performing their assigned functions, to prevent, or detect and correct misstatements on a timely basis. *A material weakness* is a deficiency, or a combination of deficiencies, in internal control, such that there is a reasonable possibility that a material misstatement of the District's financial statements will not be prevented, or detected and corrected, on a timely basis. *A significant deficiency* is a deficiency, or a combination of deficiencies, in internal control that is less severe than a material weakness, yet important enough to merit attention by those charged with governance.

Our consideration of internal control was for the limited purpose described in the first paragraph of this section and was not designed to identify all deficiencies in internal control that might be material weaknesses or significant deficiencies. Given these limitations, during our audit we did not identify any deficiencies in internal control that we consider to be material weaknesses. However, material weaknesses or significant deficiencies may exist that were not identified.

***Report on Compliance and Other Matters***

As part of obtaining reasonable assurance about whether the District's financial statements are free from material misstatement, we performed tests of its compliance with certain provisions of laws, regulations, contracts, and grant agreements, noncompliance with which could have a direct and material effect on the financial statements. However, providing an opinion on compliance with those provisions was not an objective of our audit and accordingly, we do not express such an opinion. The results of our tests disclosed no instances of noncompliance or other matters that are required to be reported under *Government Auditing Standards*.

***Purpose of This Report***

The purpose of this report is solely to describe the scope of our testing of internal control and compliance and the results of that testing, and not to provide an opinion on the effectiveness of the District's internal control or on compliance. This report is an integral part of an audit performed in accordance with *Government Auditing Standards* in considering the District's internal control and compliance. Accordingly, this communication is not suitable for any other purpose.



Keith Faber  
Auditor of State  
Columbus, Ohio  
May 12, 2023

# OHIO AUDITOR OF STATE KEITH FABER



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Columbus, Ohio 43215  
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## INDEPENDENT AUDITOR'S REPORT ON COMPLIANCE WITH REQUIREMENTS APPLICABLE TO THE MAJOR FEDERAL PROGRAM AND ON INTERNAL CONTROL OVER COMPLIANCE REQUIRED BY THE UNIFORM GUIDANCE

Metropolitan Sewer District of Greater Cincinnati  
Hamilton County  
1605 Gest Street  
Cincinnati, Ohio 45204

To the Hamilton County Board of Commissioners:

### **Report on Compliance for the Major Federal Program**

#### ***Opinion on the Major Federal Program***

We have audited Metropolitan Sewer District of Greater Cincinnati's, Hamilton County, Ohio (the District), compliance with the types of compliance requirements identified as subject to audit in the U.S. Office of Management and Budget (OMB) *Compliance Supplement* that could have a direct and material effect on Metropolitan Sewer District of Greater Cincinnati's major federal program for the year ended December 31, 2022. Metropolitan Sewer District of Greater Cincinnati's major federal program is identified in the *Summary of Auditor's Results* section of the accompanying schedule of findings.

In our opinion, Metropolitan Sewer District of Greater Cincinnati complied, in all material respects, with the compliance requirements referred to above that could have a direct and material effect on its major federal program for the year ended December 31, 2022.

#### ***Basis for Opinion on the Major Federal Program***

We conducted our audit of compliance in accordance with auditing standards generally accepted in the United States of America (GAAS); the standards applicable to financial audits contained in *Government Auditing Standards* issued by the Comptroller General of the United States (*Government Auditing Standards*); and the audit requirements of Title 2 U.S. *Code of Federal Regulations* Part 200, *Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards* (Uniform Guidance). Our responsibilities under those standards and the Uniform Guidance are further described in the *Auditor's Responsibilities for the Audit of Compliance* section of our report.

We are required to be independent of the District and to meet our other ethical responsibilities, in accordance with relevant ethical requirements relating to our audit. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion on compliance for the major federal program. Our audit does not provide a legal determination of the District's compliance with the compliance requirements referred to above.

#### ***Responsibilities of Management for Compliance***

The District's Management is responsible for compliance with the requirements referred to above and for the design, implementation, and maintenance of effective internal control over compliance with the requirements of laws, statutes, regulations, rules, and provisions of contracts or grant agreements applicable to the District's federal programs.

### ***Auditor's Responsibilities for the Audit of Compliance***

Our objectives are to obtain reasonable assurance about whether material noncompliance with the compliance requirements referred to above occurred, whether due to fraud or error, and express an opinion on the District's compliance based on our audit. 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, *Government Auditing Standards*, and the Uniform Guidance will always detect material noncompliance when it exists. The risk of not detecting material noncompliance resulting from fraud is higher than for that resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control. Noncompliance with the compliance requirements referred to above is considered material, if there is a substantial likelihood that, individually or in the aggregate, it would influence the judgment made by a reasonable user of the report on compliance about the District's compliance with the requirements of the major federal program as a whole.

In performing an audit in accordance with GAAS, *Government Auditing Standards*, and the Uniform Guidance, we:

- exercise professional judgment and maintain professional skepticism throughout the audit.
- identify and assess the risks of material noncompliance, 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 District's compliance with the compliance requirements referred to above and performing such other procedures as we considered necessary in the circumstances.
- obtain an understanding of the District's internal control over compliance relevant to the audit in order to design audit procedures that are appropriate in the circumstances and to test and report on internal control over compliance in accordance with the Uniform Guidance, but not for the purpose of expressing an opinion on the effectiveness of the District's internal control over compliance. Accordingly, no such opinion is expressed.

We are required to communicate with those charged with governance regarding, among other matters, the planned scope and timing of the audit and any significant deficiencies and material weaknesses in internal control over compliance that we identified during the audit.

### **Report on Internal Control Over Compliance**

*A deficiency in internal control over compliance* exists when the design or operation of a control over compliance does not allow management or employees, in the normal course of performing their assigned functions, to prevent, or detect and correct, noncompliance with a type of compliance requirement of a federal program on a timely basis. *A material weakness in internal control over compliance* is a deficiency, or combination of deficiencies, in internal control over compliance, such that there is a reasonable possibility that material noncompliance with a type of compliance requirement of a federal program will not be prevented, or detected and corrected, on a timely basis. *A significant deficiency in internal control over compliance* is a deficiency, or a combination of deficiencies, in internal control over compliance with a type of compliance requirement of a federal program that is less severe than a material weakness in internal control over compliance, yet important enough to merit attention by those charged with governance.

Our consideration of internal control over compliance was for the limited purpose described in the *Auditor's Responsibilities for the Audit of Compliance* section above and was not designed to identify all deficiencies in internal control over compliance that might be material weaknesses or significant deficiencies in internal control over compliance. Given these limitations, during our audit we did not identify any deficiencies in internal control over compliance that we consider to be material weaknesses, as defined above. However, material weaknesses or significant deficiencies in internal control over compliance may exist that were not identified.

Metropolitan Sewer District of Greater Cincinnati  
Hamilton County  
Independent Auditor's Report on Compliance with Requirements  
Applicable to the Major Federal Program and on Internal Control Over Compliance  
Required by the Uniform Guidance  
Page 3

Our audit was not designed for the purpose of expressing an opinion on the effectiveness of internal control over compliance. Accordingly, no such opinion is expressed.

The purpose of this report on internal control over compliance is solely to describe the scope of our testing of internal control over compliance and the results of this testing based on the requirements of the Uniform Guidance. Accordingly, this report is not suitable for any other purpose.



Keith Faber  
Auditor of State  
Columbus, Ohio  
May 12, 2023

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**METROPOLITAN SEWER DISTRICT OF GREATER CINCINNATI  
HAMILTON COUNTY**

**SCHEDULE OF FINDINGS  
2 CFR § 200.515  
DECEMBER 31, 2022**

**1. SUMMARY OF AUDITOR'S RESULTS**

<b>(d)(1)(i)</b>	<b>Type of Financial Statement Opinion</b>	Unmodified
<b>(d)(1)(ii)</b>	<b>Were there any material weaknesses in internal control reported at the financial statement level (GAGAS)?</b>	No
<b>(d)(1)(ii)</b>	<b>Were there any significant deficiencies in internal control reported at the financial statement level (GAGAS)?</b>	No
<b>(d)(1)(iii)</b>	<b>Was there any reported material noncompliance at the financial statement level (GAGAS)?</b>	No
<b>(d)(1)(iv)</b>	<b>Were there any material weaknesses in internal control reported for major federal programs?</b>	No
<b>(d)(1)(iv)</b>	<b>Were there any significant deficiencies in internal control reported for major federal programs?</b>	No
<b>(d)(1)(v)</b>	<b>Type of Major Programs' Compliance Opinion</b>	Unmodified
<b>(d)(1)(vi)</b>	<b>Are there any reportable findings under 2 CFR § 200.516(a)?</b>	No
<b>(d)(1)(vii)</b>	<b>Major Programs (list):</b>	AL #97.039 - FEMA Hazard Mitigation Grant Program
<b>(d)(1)(viii)</b>	<b>Dollar Threshold: Type A/B Programs</b>	Type A: > \$ 750,000 Type B: all others
<b>(d)(1)(ix)</b>	<b>Low Risk Auditee under 2 CFR § 200.520?</b>	No

**2. FINDINGS RELATED TO THE FINANCIAL STATEMENTS  
REQUIRED TO BE REPORTED IN ACCORDANCE WITH GAGAS**

None

**3. FINDINGS AND QUESTIONED COSTS FOR FEDERAL AWARDS**

None



# OHIO AUDITOR OF STATE KEITH FABER



**METROPOLITAN SEWER DISTRICT OF GREATER CINCINNATI  
HAMILTON COUNTY**

**AUDITOR OF STATE OF OHIO CERTIFICATION**

This is a true and correct copy of the report, which is required to be filed pursuant to Section 117.26, Revised Code, and which is filed in the Office of the Ohio Auditor of State in Columbus, Ohio.



**Certified for Release 5/30/2023**

88 East Broad Street, Columbus, Ohio 43215  
Phone: 614-466-4514 or 800-282-0370

This report is a matter of public record and is available online at  
[www.ohioauditor.gov](http://www.ohioauditor.gov)