MADISON METROPOLITAN SEWERAGE DISTRICT

FINANCIAL STATEMENTS AND SUPPLEMENTARY INFORMATION

YEARS ENDED DECEMBER 31, 2022 AND 2021

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INDEPENDENT AUDITORS' REPORT

Board of Commissioners
Madison Metropolitan Sewerage District
Madison, Wisconsin

Report on the Audit of the Financial Statements

Opinions

We have audited the accompanying financial statements of the business-type activities and fiduciary activities of the Madison Metropolitan Sewerage District (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 financial statements referred to above present fairly, in all material respects, the respective financial position of the business-type activities and fiduciary activities of the District's, as of December 31, 2022 and 2021, and the respective changes in financial position, and, where applicable, cash flows thereof for the years then ended in accordance with 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). Our responsibilities under those standards are further described in the Auditors' 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.

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 Madison Metropolitan Sewerage 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.

Auditors' 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 auditors' 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 will always detect a material misstatement when it exists. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control. Misstatements are considered material if there is a substantial likelihood that, individually or in the aggregate, they would influence the judgment made by a reasonable user based on the financial statements.

In performing an audit in accordance with GAAS, we:

- Exercise professional judgment and maintain professional skepticism throughout the audit.

- Identify and assess the risks of material misstatement of the financial statements, whether due to fraud or error, and design and perform audit procedures responsive to those risks. Such procedures include examining, on a test basis, evidence regarding the amounts and disclosures in the financial statements.

- Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the 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 Management Discussion and Analysis, Schedule of the District's Proportionate Share of the Net Pension Liability (Asset), the Schedule of the District's Pension Contributions, the Schedule of Changes in Total OPEB Liability and Related Ratios, the Schedule of the District's Proportionate Share of the Net OPEB Liability (Asset), and the Schedule of the District's OPEB Contributions as listed in the table of contents 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 GAAS, 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.

CliftonLarsonAllen LLP

CliftonLarsonAllen LLP

Milwaukee, Wisconsin
August 15, 2023

Management's Discussion and Analysis for 2022 and 2021

The management of the Madison Metropolitan Sewerage District (the District) offers this narrative overview and analysis of the District's financial performance for calendar years 2022 and 2021. It should be read in conjunction with the District's financial statements which follow this section. The 2022 and 2021 financial statements have been prepared in accordance with generally accepted accounting principles.

Financial Highlights

- Net position increased by $11.07 million (6.6 percent) from $168 million to $180 million in 2022. This compares to a $12 million (7.6 percent) increase in 2021.
- Operating revenues increased by $0.9 million (1.9 percent) from $46.9 million to $47.8 million in 2022. This compares to a $5.8 million (14.01 percent) increase in 2021.
- Operating expenses, excluding depreciation, increased by $3.2 million (13.5 percent) from $24.0 million to $27.3 million in 2022. This compares to an increase of $0.2 million (1.1 percent) in 2021.
- Financial information for fiduciary activities for the Yahara Watershed Improvement Network (Yahara WINS) is presented in the attached Fiduciary Statement of Net Position and Fiduciary Statement of Changes in Net Position.

Overview of the Financial Statements

This annual financial report includes this Management Discussion and Analysis report, the independent auditors' report, the basic financial statements and the financial statements of the fiduciary funds. The financial statements also include notes that explain in more detail some of the information in the financial statements.

Basic Financial Statements

The basic financial statements of the District report information of the District using accounting methods similar to those used by private sector companies. These statements offer short-term and long-term financial information about its activities.

The Statement of Net Position includes all the District's assets, deferred outflows, liabilities and deferred inflows and provides information about the nature and amounts of investments in resources (assets) and the obligations to District creditors (liabilities). It also provides the basis for evaluating the capital structure of the District and assessing the liquidity and financial flexibility of the District.

The District's revenues and expenses are accounted for in the Statement of Revenues, Expenses, and Changes in Net Position. This statement measures the success of the District's operations over the past year and can be used to determine whether the District has successfully recovered all its costs through its user fees and other charges, profitability, and credit worthiness.

The Statement of Cash Flows reports cash receipts, cash payments, and net changes in cash resulting from operations, investing and financing activities and provides answers to such questions as where did cash come from, what was cash used for, and what was the change in the cash balance during the reporting period.

Fiduciary Fund Financial Statements

Fiduciary funds are used to account for resources held for the benefit of parties outside the District. The District's fiduciary activities on behalf of the Yahara Watershed Improvement Network (Yahara WINS) group are reported in separate statements of fiduciary net position and changes in fiduciary net position. The District is responsible for ensuring that the assets reported in these funds are used for their intended purposes.

Net Position

A summary of the District's Statement of Net Position is presented in Table A-1.

Table A-1
Condensed Statement of Net Position
(000's)

	2022	2021	2020
Current Assets	$ 69,135	$ 56,288	$ 55,959
Noncurrent Assets			
Capital assets, net of accumulated depreciation	254,665	255,423	243,689
Other assets	9,787	8,839	6,826
Total assets	333,587	320,550	306,474
Deferred Outflows:			
Deferred outflows of resources related to Pension	9,035	5,866	4,130
Deferred outflows of resources related to OPEB	839	1,009	1,010
Total Deferred Outflows	9,874	6,875	5,140
Current Liabilities	16,753	18,498	18,293
Noncurrent Liabilities	133,235	129,954	130,254
Total liabilities	149,988	148,452	148,547
Deferred Inflows:			
Interceptor connection charges	11	50	105
Deferred inflows of resources related to Pension	10,906	7,686	5,250
Deferred inflows of resources related to OPEB	2,554	2,305	778
Total Deferred Inflows	13,471	10,041	6,133
Net Position:			
Invested in capital assets, net of related debt	114,341	116,545	105,584
Restricted for:			
Debt Service	30,531	29,403	26,606
Equipment Replacement	4,050	4,050	3,900
Net Pension asset	4,630	3,509	1,748
Unrestricted:	26,449	15,425	19,096
Total net position	$ 180,001	$ 168,932	$ 156,934

As of December 31, 2022, the District had total assets and deferred outflows of resources net of accumulated depreciation and deferred outflows of $343.5 million and total liabilities and deferred inflows of resources of $163.46 million, resulting in $180.0 million of net position. Net position increased by $11.07 million (6.6 percent) in 2022. This compares to a net position increase of $12 million (7.6 percent) in 2021. The 2022 increase was due to operating revenues increasing by $0.89 million. Capital assets net of related debt decreased $2.2 million, restricted assets increased by $2.2 million. Funds represented by the 2022 increase will be used to finance future construction, to increase reserves, and to offset a portion of future operating costs. Capital assets (land, structures, equipment, vehicles, etc.) comprise $254.7 million, 76.3 percent of total assets at the end of 2022. At the end of 2021 capital assets had a value of $255.4 million and represented 79.7 percent of total assets. Capital assets decreased by $0.758 million in 2022 compared to a $11.7 million increase in 2021. In 2021 the value of capital assets net of depreciation increased because the value of new assets added was more than the depreciation for the year.

Future principal payments on bonds total $139.6 million at the end of 2022 and represent 93.1 percent of the District's liabilities. At the end of 2021, future principal payments on bonds totaled $135.7 million and represented 91.4 percent of the District's liabilities. Future principal payments were $3.9 million more than at the end of 2021 because principal payments ($12.3 million) on debt in 2022 is less than the amount of new debt ($16.2 million) incurred. Future principal payments at the end of 2021 were $2.4 million more than at the end of 2020.

The District's restricted net position consists of reserves for the payment of debt service, for unexpected expenses for the repair and replacement of equipment and net pension assets. Restricted assets increased by $2.2 million in 2022 because debt service reserves increased $1.1 million and the net pension asset increased by $1.1 million. Restricted net position increased by $4.7 million in 2021.

Unrestricted net position, which is the District's unrestricted cash and investments, increased 11.5 million in 2022.

Revenues, Expenses, and Changes in Net Position

The District's revenues, expenses, and changes in net position are summarized in Table A-2.

Table A-2

Condensed Statement of Revenues, Expenses, and Changes in Net Position

(000's)

	2022	2021	2020
Operating Revenues	$ 47,762	$ 46,876	$ 41,114
Nonoperating Revenues	833	351	595
Total revenues	48,595	47,227	41,709
Depreciation Expense	9,983	9,303	8,557
Other Operating Expense	27,275	24,032	23,780
Nonoperating Expense	3,442	5,708	4,960
Total expense	40,700	39,043	37,297
Income (Loss) Before Capital Contributions	7,896	8,184	4,412
Capital Contributions	3,172	3,814	3,898
Increase in net position	11,068	11,998	8,310
Beginning of Year, Restated	168,932	156,934	148,624
Ending Net Position	$ 180,000	$ 168,932	$ 156,934

Revenues, Expenses, and Changes in Net Position (Continued)

Operating revenue for 2022 increased by $0.886 million, or 1.9 percent, from $46.9 million to $47.8 million. This compares to the 2021 operating revenue increase of $5.8 million, or 14.01percent. The 2022 increase was primarily due to higher revenues from service charges.

Non-operating revenues for 2022 were $.482 million (137 percent) higher than in 2021, due largely from investment revenues. Non-operating revenues for 2021 were 41.01 percent lower than in 2020. Depreciation expense in 2022 of $10.0 million increased from 2021, by $0.68 million or 7.3%, due to increases in capital assets. The 2021 depreciation expense of $9.3 million was a $0.70 million increase over 2020.

Other operating expenses for 2022 of $27.3 million were $3.2 million (13.5 percent) higher than 2021 expenses of $24.0 million. Other operating expenses for 2021 were 1.1 percent higher than 2020 expenses of $23.7 million. The increase in other operating expenses in 2022 was due largely to increases in salaries and benefits by $0.995 million and contracted services $0.695 million.

Non-operating expenses for 2022 of $3.4 million, which are comprised of interest on the District's outstanding debt, other construction expenses, and disposal of equipment, were $2.3 million (39.7%) lower than 2021 non-operating expenses. The decrease in non-operating expenses was because of no unrealized gains/losses on disposals on assets compared to 2021. Non-operating expenses in 2021 were $0.750 million higher than in 2020.

Capital contributions include contributed capital assets and interceptor and treatment plant connection charge revenues. The one-time connection charges are assessed against each property in the District at the time sewerage service is made available. The charges are made on an area basis.

A conveyance facility connection charge rate has been established for each major District interceptor sewer. The conveyance facility connection charge rates are adjusted annually to account for changes in construction costs.

In July 2017 the District adopted a new method of determining the treatment plant connection charge rate. The new method is based on the share of treatment plant capacity used by new users and the total value of the treatment plant facilities.

Capital contributions in 2022 of $3.1 million were $0.642 million less than 2021 capital contributions of $3.8 million. The 16.8 percent decrease compared to 2021 was due to fewer construction projects for interceptors.

Comparison of Actual Financial Results to Budget

Each year the District adopts annual operating, capital projects and debt service budgets and a six-year capital improvement plan. A comparison of the 2022 budgeted and actual amounts of operating revenues and expenses is shown in Table A-3.

The District does not include depreciation as an operating expense in its annual budget, rather, it budgets sufficient income to cover the subsequent year's debt service payments.

Operating revenues for 2022 of $47.7 million were $0.112 million (0.2 percent) less than budgeted primarily due to sewer services revenue shortfalls of $0.412 million. Non-operating budgeted revenues of $0.510 million for interest income, rent, and other miscellaneous items were $0.323 million (63.3 percent) more than budgeted due increases in interest income on investments.

Operating expenses for 2022, excluding depreciation, were $1.14 million less than budgeted. The most significant under budget items were contracted services, replacement parts and services and administrative expenses which were a combined $1.2 million less than budgeted. The over budget items were salaries and benefits, natural gas and chemicals by $0.453 million. Salaries and benefits were higher than budgeted due to fewer capital projects and more year-end leave benefit payouts.

Non-operating expenses, which include the net value of retired equipment, construction expenses and the interest costs on the District's outstanding debt, were $0.493 million less than budgeted due to lower construction expenses. The district does not budget for the disposal of equipment.

Budgeted income before capital contributions for 2022 of $16.0 million is largely due to $12.3 million budgeted for principal payments on the District's outstanding debt. The $8.1 million variance in the actual and budgeted income is primarily due to the $10.0 million unbudgeted amount for depreciation.

It is the District's policy to finance capital improvements for new users through borrowing. Sewerage system improvements typically have useful lives of more than twenty years, and the District typically issues twenty-year bonds. The system's users pay for the costs of the facilities they require for the conveyance and treatment of their wastewater over the life of the bonds. For this reason, the District does not budget to recover depreciation costs in addition to the debt service expenses, since this would in effect result in double-billing current users for these facilities. Charges to recover debt service expenses reflect the cost of the facilities currently in use. Charges to recover depreciation expenses would reflect the cost of replacing these same facilities at the end of their useful lives.

Table A-3
Comparison of Budget to Actual Results for 2022
(000's)

	Budget	Actual	Variance
Revenues			
From operations	$ 47,874	$ 47,762	$ 112
Nonoperating	510	833	(323)
Total revenues	48,384	48,595	(211)
Operating Expenses			
Depreciation expense		9,983	(9,983)
Other operating expenses:			
Salaries with benefits	12,980	13,165	(185)
Administrative	352	246	106
Legal and accounting	225	171	54
Insurance	345	294	51
Power	3,558	3,569	(11)
Natural gas	190	281	(91)
Chemicals	1,125	1,302	(177)
Motor and LP fuel	148	140	8
Water and sewer services	215	245	(30)
Contracted services	5,178	4,451	727
Engineering Consulting	-	5	(5)
Communication services	176	98	78
Replacement parts and services	2,858	2,471	387
Supplies	661	573	88
Miscellaneous	405	262	143
Total operating expenses	28,416	37,256	(8,840)
Nonoperating Expenses			
Construction Expenses	517	412	105
Interest expense	3,419	3,031	388
Total nonoperating expenses	3,936	3,443	493
Total expenses	32,352	40,699	(8,347)
Income before capital contributions	$ 16,032	$ 7,896	$ 8,136

Capital Assets

At the end of 2022 the District had $254.7 million invested in capital assets comprised of the Nine Springs Wastewater Treatment Plant, eighteen major pumping stations, over one hundred miles of interceptor sewers and force mains, and associated facilities. Table A-4 summarizes these assets.

Table A-4

Capital Assets
(000's)

	2022	2021	2020
Assets			
Land	$ 7,401	$ 7,401	$ 7,401
Structures and improvements	238,725	232,835	215,283
Mechanical equipment	165,595	162,950	146,608
Office furniture and equipment	6,064	5,533	5,377
Vehicles	5,445	4,787	3,704
Construction In progress	16,113	16,878	32,063
Total	439,343	430,384	410,436
Less accumulated depreciation	184,678	174,961	166,746
Net property and equipment	$ 254,665	$ 255,423	$ 243,690

The District's six-year capital improvement plan for 2022 through 2028 include $210 million of expenses. Larger projects are expected to be financed with Clean Water Fund loans administered by the State of Wisconsin. Smaller projects less than $500,000 will generally be financed with reserve funds. Reserve fund balances vary depending on construction scheduling, collection of connection charges, and interest earned on investments. A minimum reserve balance of $3.0 million is maintained to finance any unplanned capital improvement.

Total capital assets increased by $8.96 million or $439.3 million. During 2022, the District completed the NEI Joint grouting – MH10-101 to 10-106 project (0.245 million), Grass lake dike stabilation project ($0.767 million), WI Shoreline relief – phase 1 ($3.6 million), Pavement repairs project ($0.043 million), Final clarifier 4,5,6 effluent launder trough repl project ($0.352 million), Ops building Mech room refrigirent monitoring project ($0.1 million), Operations Building 1st floor remodeling project ($2.1 million), PS6 & PS10 VFD project ($0.439 million) and the Waukesha engine for blower 1 C431 project ($0.264 million). Additional metogro applicators ($0.767 million) were also purchased. The District added $5.0 million to construction in progress for projects not completed. The largest contributions to construction in progress came from the PS 13 & 14 Rehab Project ($3.0 million).

Debt Administration

The District collects debt service costs through service charges. Since the services of the District are not directly related to the value of property, and since a substantial amount of property within the District is exempt from paying property taxes, a tax levy would result in an inequitable cost recovery system. The District maintains cash and investments in a debt service fund in an amount no less than what is required to abate levying an ad valorem tax for the general obligation debt service. The District manages the debt service fund so that by October 1 of each year the balance in the fund is sufficient to meet the current year's debt service payments plus the subsequent year's debt service payments.

District debt service costs are allocated to used capacity and excess capacity in the facilities constructed with proceeds from the debt being retired. Excess capacity is defined as the difference between the design capacity and the used capacity of each project and is determined annually. Used capacity debt service is recovered based on the volume and pollutant loadings of the users. Excess capacity debt service is allocated in equal amounts to all users through an "actual customer" rate.

General obligation debt outstanding as of the end of 2022 was $139.6 million which represents the remaining balance on the Clean Water Fund loans from the State of Wisconsin. This compares to a 2021 year-end balance of $135.7 million and a 2020 year-end balance of $133.3 million. Interest on these loans is payable semi-annually at rates of 1.5 to 3.2 percent. Detailed information on the District's Clean Water Fund loans is included in the notes to the financial statements.

The District's outstanding debt is expected to increase by $87 million over the six-year period from 2022 to 2028 due to anticipated projects in the collection system and treatment plant. Annual debt service obligations increased 3% in 2022 and are projected to increase 4.1% percent annually from 2022 to 2028.

By statute, the District can borrow up to 5 percent of the equalized value of the taxable property within the District. At the end of 2022, the borrowing limit was $3.3 billion. At the end of 2021, that borrowing limit was $2.84 billion. Over the next six years, the total amount of anticipated debt would be no more than 6.9 percent of the current limit. At the end of 2022, the District's debt of $139.6 million was at 4.2 percent of this limit. At the end of 2021, the District's debt of $135.7 million was at 4.8 percent of the limit. During the last two years, the District did not experience any negative changes in debt credit rating or debt limitation.

Economic Factors

The District's customer base consists of residential users and commercial and industrial users that, for the most part, do not utilize large quantities of water or have strong wastewater discharges. This customer base characteristic results in a stable revenue base since the loss of any one user will not significantly impact the District's service charge revenues.

Contacting the District

This discussion and analysis is intended to provide information for our customers and creditors concerning the District's financial performance and to demonstrate the District's accountability for the money it receives. If you have questions about this information, or need additional information, contact the Madison Metropolitan Sewerage District, 1610 Moorland Road, Madison, Wisconsin 53713-3398.

MADISON METROPOLITAN SEWERAGE DISTRICT
STATEMENTS OF NET POSITION
DECEMBER 31, 2022 AND 2021

ASSETS

	2022	2021
Current assets:		
Cash and cash equivalents	$ 25,377,768	$ 13,879,449
Receivables, net of allowance for uncollectible amounts:		
Transmission and treatment of sewage and septage disposal	11,671,542	11,601,238
Servicing pumping stations	85,807	93,132
Other	205,850	168,953
Prepaid insurance	21,713	25,417
Other assets	1,565,856	1,611,052
Restricted assets - Cash and cash equivalents	30,206,328	28,909,244
Total current assets	69,134,864	56,288,485
Noncurrent assets:		
Restricted assets - Investments	4,887,256	5,064,751
Restricted assets - Net pension asset	4,629,677	3,509,297
Interceptor connection charges, less current portion	269,309	264,161
Capital assets:		
Capital assets not being depreciated	23,513,471	24,278,432
Capital assets being depreciated	415,829,761	406,105,618
	439,343,232	430,384,050
Less: accumulated depreciation	184,678,211	174,961,063
Capital assets, net of depreciation	254,665,021	255,422,987
Total noncurrent assets	264,451,263	264,261,196
Total assets	333,586,127	320,549,681
Deferred outflows of resources:		
Deferred outflows of resources related to pensions	9,034,994	5,865,411
Deferred outflows of resources related to OPEBs	838,979	1,009,269
Total deferred outflows of resources	9,873,973	6,874,680

MADISON METROPOLITAN SEWERAGE DISTRICT
STATEMENTS OF NET POSITION
DECEMBER 31, 2022 AND 2021

LIABILITIES

	2022	2021
Current liabilities:		
Vouchers payable	$ 1,710,470	$ 4,358,629
Accrued salaries	174,624	166,167
Payroll withholdings payable	144,454	121,497
Compensated absences, current portion	978,229	819,863
Net OPEB liability, current portion	194,187	495,317
Total current liabilities	3,201,964	5,961,473
Liabilities payable from restricted assets:		
Bonds payable, current portion	13,037,970	12,015,248
Accrued interest payable	512,830	521,043
Total current liabilities payable from restricted assets	13,550,800	12,536,291
Noncurrent liabilities, less current portion:		
Compensated absences	2,623,103	2,318,207
Bonds payable	126,550,419	123,663,169
Net OPEB liability	4,061,648	3,972,552
Total noncurrent liabilities	133,235,170	129,953,928
Total liabilities	149,987,934	148,451,692
Deferred inflows of resources:		
Deferred inflows of resources from interceptor connection charges	11,301	49,501
Deferred inflows of resources related to pensions	10,906,139	7,686,066
Deferred inflows of resources related to OPEBs	2,554,386	2,305,338
Total deferred inflows of resources	13,471,826	10,040,905

NET POSITION

	2022	2021
Net investment in capital assets	114,340,924	116,544,983
Restricted for:		
Debt service	30,530,754	29,402,952
Equipment replacement	4,050,000	4,050,000
Net pension asset	4,629,677	3,509,297
Unrestricted	26,448,985	15,424,532
Total net position	$ 180,000,340	$ 168,931,764

MADISON METROPOLITAN SEWERAGE DISTRICT
STATEMENTS OF REVENUES, EXPENSES, AND CHANGES IN NET POSITION
FOR THE YEAR ENDED DECEMBER 31, 2022 AND 2021

	2022	2021
OPERATING REVENUES		
Charges for services:		
Transmission and treatment of sewage	$ 45,960,857	$ 45,152,382
Servicing pumping stations	471,917	514,389
Septage disposal	1,077,888	967,427
Pretreatment monitoring	34,546	29,922
Struvite Harvesting	217,250	212,279
Total operating revenues	47,762,458	46,876,399
OPERATING EXPENSES		
Administration	6,367,755	5,783,536
Treatment	17,537,413	14,651,050
Collection	3,370,102	3,597,821
Depreciation	9,982,668	9,302,597
Total operating expenses	37,257,938	33,335,004
Operating income	10,504,520	13,541,395
NONOPERATING REVENUES (EXPENSES)		
Investment income (losses)	523,275	19,244
Rent	85,700	83,534
Other	224,463	247,642
Construction expenses	(411,623)	(2,120,505)
Disposal of property and equipment	-	(483,043)
Interest expense	(3,030,156)	(3,104,684)
Total nonoperating revenues (expenses)	(2,608,341)	(5,357,812)
Income (loss) before capital contributions	7,896,179	8,183,583
CAPITAL CONTRIBUTIONS		
Interceptor connection charges	3,172,397	3,814,145
Total capital contributions	3,172,397	3,814,145
CHANGE IN NET POSITION	11,068,576	11,997,728
NET POSITION		
BEGINNING OF YEAR	168,931,764	156,934,036
END OF YEAR	$ 180,000,340	$ 168,931,764

MADISON METROPOLITAN SEWERAGE DISTRICT
STATEMENT OF CASH FLOWS
FOR THE YEAR ENDED DECEMBER 31, 2022 AND 2021

	2022	2021
CASH FLOWS FROM OPERATING ACTIVITIES		
Receipts from customers and users	$ 47,662,582	$ 45,554,330
Payments to suppliers	(13,403,948)	(10,924,213)
Payments to employees	(14,374,612)	(13,453,379)
Net cash provided by operating activities	19,884,022	21,176,738
CASH FLOWS FROM NONCAPITAL FINANCING ACTIVITIES		
Rent receipts	85,700	83,534
Other receipts	224,463	247,642
Net cash provided by noncapital financing activities	310,163	331,176
CASH FLOWS FROM CAPITAL AND RELATED FINANCING ACTIVITIES		
Interest paid on long-term debt	(3,038,369)	(3,077,076)
Principal paid on long-term debt	(12,280,868)	(10,659,335)
Proceeds from issuance of long-term debt	16,190,840	13,053,338
Construction expenses	(411,623)	(2,154,118)
Acquisition of capital assets	(20,375,780)	(23,140,411)
Proceeds from sale of capital assets	8,687,199	-
Capital contributions received	3,129,049	3,969,776
Net cash used in capital and related financing activities	(8,099,552)	(22,007,826)
CASH FLOWS FROM INVESTING ACTIVITIES		
Net investment income	523,275	19,244
Purchase of investments	(943,851)	(2,306,638)
Proceeds from sales and maturities of investments	1,121,346	2,159,444
Net cash provided (used) by investing activities	700,770	(127,950)
NET INCREASE IN CASH AND CASH EQUIVALENTS	12,795,403	(627,862)
CASH AND CASH EQUIVALENTS BEGINNING OF YEAR	42,788,693	43,416,555
END OF YEAR	$ 55,584,096	$ 42,788,693

MADISON METROPOLITAN SEWERAGE DISTRICT
STATEMENT OF CASH FLOWS
FOR THE YEAR ENDED DECEMBER 31, 2022 AND 2021

	2022	2021
RECONCILIATION OF OPERATING INCOME TO NET CASH PROVIDED BY OPERATING ACTIVITIES		
Operating income	$ 10,504,520	$ 13,541,395
Adjustments to reconcile operating income to net cash provided by operating activities:		
Depreciation	9,982,668	9,302,597
Increase (decrease) from changes in:		
Receivables:		
Transmission and treatment of sewage and septage disposal	(70,304)	(1,528,966)
Servicing pumping stations	7,325	19,690
Other	(36,897)	187,207
Prepaid Insurance	3,704	(25,084)
Other assets	45,196	73,513
Net OPEB liability	(212,034)	(1,187,831)
Deferred outflows of resources related to OPEB	170,290	992
Deferred inflows of resources related to OPEB	249,048	1,527,194
Net pension asset	(1,120,380)	(1,760,795)
Deferred outflows of resources related to pension	(3,169,583)	(1,735,785)
Deferred inflows of resources related to pension	3,220,073	2,436,246
Vouchers payable	(184,280)	138,611
Other liabilities	494,676	187,754
NET CASH PROVIDED BY OPERATING ACTIVITIES	$ 19,884,022	$ 21,176,738

	2022	2021
RECONCILIATION OF CASH AND CASH EQUIVALENTS TO THE STATEMENTS OF NET POSITION		
Unrestricted	$ 25,377,768	$ 13,879,449
Restricted	30,206,328	28,909,244
TOTAL CASH AND CASH EQUIVALENTS	$ 55,584,096	$ 42,788,693

	2022	2021
NONCASH CAPITAL AND RELATED FINANCING ACTIVITIES		
Construction in progress reported in accounts payable	$ 735,708	$ 3,199,587
TOTAL NONCASH CAPITAL AND RELATED FINANCING ACTIVITIES	$ 735,708	$ 3,199,587

MADISON METROPOLITAN SEWERAGE DISTRICT
STATEMENT OF FIDUCIARY NET POSITION
DECEMBER 31, 2022 AND 2021

	Custodial Fund	
	2022	**2021**
ASSETS		
Cash and cash equivalents	$ 2,621,468	$ 2,371,677
Receivables:		
Accounts receivable	1,514,473	1,483,569
Total assets	4,135,941	3,855,246
LIABILITIES		
Current liabilities:		
Accounts payable and other liabilities	276,720	466,806
Unearned receivables	1,514,473	1,514,209
Total liabilities	1,791,193	1,981,015
NET POSITION		
Restricted for:		
Other governments	2,344,748	1,874,231
Total net position	$ 2,344,748	$ 1,874,231

MADISON METROPOLITAN SEWERAGE DISTRICT
STATEMENT OF CHANGES IN FIDUCIARY NET POSITION
FOR THE YEAR ENDED DECEMBER 31, 2022 AND 2021

	Custodial Fund	
	2022	**2021**
ADDITIONS		
Contributions:		
Members	$ 1,519,209	$ 1,413,783
Total contributions	1,519,209	1,413,783
Investment earnings		
Interest, dividends, and other	3,741	591
Net investment earnings	3,741	591
Total additions	1,522,950	1,414,374
DEDUCTIONS		
Administration	71,119	72,870
Phosphorus reduction	774,701	662,364
Water quality monitoring or modeling	206,613	162,658
Total deductions	1,052,433	897,892
NET INCREASE/(DECREASE) IN FIDUCIARY NET POSITION	470,517	516,482
NET POSITION		
BEGINNING OF YEAR	1,874,231	1,357,749
END OF YEAR	$ 2,344,748	$ 1,874,231

NOTE 1 – NATURE OF ACTIVITIES, REPORTING ENTITY, AND SIGNIFICANT ACCOUNTING POLICIES

Nature of Activities and Reporting Entity

Madison Metropolitan Sewerage District (the District) is a corporate body with the powers of a municipal corporation for the purpose of carrying out the collection, transmission, and treatment of wastewater. The District was created by judgment of the County Court for Dane County entered on February 8, 1930. The District, which serves the City of Madison and surrounding cities, villages and towns in the Greater Madison Metropolitan Area, covering approximately 184 square miles, is a special-purpose government. The District is governed by a nine-member Commission appointed for staggered three-year-terms. The Mayor of the City of Madison appoints five individuals as members of the commission. An executive council composed of the elected executive officers of each city and village that is wholly or partly within the boundaries of the district, except Madison, appoints three members of the commission by a majority vote. An executive council composed of the elected executive officers of each town that is wholly or partly within the boundaries of the district appoints one member of the commission by a majority vote. Accountability extends only to the appointment of the District's Commissioners. As the City of Madison and other cities, villages, and towns appoint the commissioners, the District and these entities are considered related organizations. The District is legally separate and fiscally independent of the County of Dane as well as any other state or local governments. It has unlimited taxing powers and has the right to set rates or charges for services provided without the approval of another government.

The Yahara Watershed Improvement Network adaptive management project, also known as Yahara WINS, is the adaptive management approach to reduce the amount of phosphorous in the Yahara River Watershed. The District is the custodian of the project’s segregated checking account. The Executive Committee of Yahara WINS authorizes the invoicing of partners in the project and the disbursement of funds out of the account. The District has the authority to make disbursements for contracts that have been approved by the Executive Committee up to the approved contract amount and other invoices up to a threshold of $1,000. The District adopted GASB Statement No. 84, *Fiduciary Activities.* As a result, the financial information attributed to Yahara WINS will be presented separately in the fiduciary statement of net position and fiduciary statement of changes in net position.

A summary of significant accounting policies follows:

Basis of Accounting

The accounting policies of the District conform to accounting principles generally accepted in the United States of America as applicable to local government enterprise funds. The accounts of the District are maintained, and the accompanying financial statements have been prepared, on the accrual basis of accounting. Under the accrual basis of accounting, revenues are recognized when earned, expenses are recognized when incurred, depreciation of assets is recognized, and all assets, deferred outflows, liabilities, and deferred inflows associated with the operation of the District are included in the statements of net position.

The principal operating revenues of the District are charges for service. Operating expenses for the District include costs directly related to administration, collection, and treatment of wastewater, and depreciation on capital assets. All revenues and expenses not meeting this definition are reported as nonoperating revenues and expenses.

NOTE 1 – NATURE OF ACTIVITIES, REPORTING ENTITY, AND SIGNIFICANT ACCOUNTING POLICIES (Continued)

Cash Equivalents
For purposes of the statement of cash flows, highly liquid investments with a maturity of three months or less when acquired are considered to be cash equivalents.

Deposits and Investments
Investments other than in the Local Government Investment Pool (LGIP) are reported at fair value, which is the amount at which an investment could be exchanged in a current transaction between willing parties. Fair values are based on quoted market prices. Adjustments necessary to report investments at fair value are recorded in the statement of revenues, expenses and change in net position as increases or decreases in investment income. The Local Government Investment Pool is reported at the per share value as reported by LGIP. Nonnegotiable certificates of deposit are deposits reported at cost and are not subject to fair value measurement.

The Wisconsin Local Government Investment Pool is part of the State Investment Fund (SIF), and is managed by the State of Wisconsin Investment Board. The SIF is not registered with the Securities and Exchange Commission, but operates under the statutory authority of Wisconsin Chapter 25. The SIF reports the fair value of its underlying assets annually. Participants in the LGIP have the right to withdraw their funds in total on one day's notice. At December 31, 2022 and 2021, the fair value of the District's share of the LGIP's assets was substantially equal to the amount as reported in these statements.

The District has adopted a formal investment policy and invests in accordance with Wisconsin State Statutes. Under state statute, investments are limited to:

- Time deposits in any credit union, bank, savings bank, trust company, or savings and loan association which is authorized to transact business in the state if the time deposits mature in not more than three years;
- Bonds or securities of any county, city, drainage district, vocational education district, village, town or school district of the state; bonds issued by a local exposition district, local professional baseball park district, local professional football district, local cultural arts district, the University of Wisconsin Hospitals and Clinics Authority or the Wisconsin Aerospace Authority;
- Bonds or securities issued or guaranteed by the federal government;
- Any security which matures within not more than seven years, if that security has a rating which is the highest or 2nd highest rating category assigned by Standard & Poor's corporation, Moody's investors service, or similar rating agency;
- Securities of an open-end management investment company or investment trust, if the company or trust does not charge a sales load, is registered under the investment company act of 1940, and if the portfolio is limited to bonds and securities issued by the federal government, bonds that are guaranteed as to principal and interest by the federal government;
- Repurchase agreements that are fully collateralized by bonds or securities of the federal government;
- The state local government investment pool.

NOTE 1 – NATURE OF ACTIVITIES, REPORTING ENTITY, AND SIGNIFICANT ACCOUNTING POLICIES (Continued)

Other Assets
Supplies are valued at cost under the specific identification method. The consumption method is used to account for supplies. Under the consumption method, supplies are recorded as expenses at the time they are consumed.

Receivables
Receivables are reported at their gross values and are considered to be fully collectible as they are primarily due from other municipalities, except for pretreatment. Receivables related to pretreatment have been reduced by an allowance for the estimated uncollectible amounts of $3,478 as of December 31, 2022 and 2021, and are included in other receivables.

Conveyance Facilities Connection Charges and Treatment Plant Connection Charges
Receivables from conveyance facilities connection charges and treatment plant connection charges are recognized when assessed and the revenue is delayed until the property owner connects with the intercepting sewer. No value has been placed on the future assessments against lands which are not currently served by intercepting sewers that were built with capacity to serve those lands.

Restricted Cash and Investments
Cash and investments are restricted for the purpose of unexpected repair and replacement and repayment of debt obligations.

Capital Assets
Capital assets are defined as assets with an initial cost of $5,000 or greater with an estimated useful life greater than one year. Capital assets are recorded at cost or the acquisition value at the time of contribution to the District. The costs of normal maintenance and repairs that do not add to the value of the asset or materially extend the life of the asset are not capitalized.

Major outlays for capital assets and improvements are capitalized as projects are constructed. For years prior to 2018, interest incurred during the construction phase of capital assets is included as part of the capitalized value of the assets constructed.

Depreciation of structures, improvements, mechanical equipment, office furniture and equipment, and vehicles is computed using the straight-line method over the following estimated useful lives of the assets:

Structures and improvements	50-75 Years
Heavy mechanical equipment	21-30 Years
Light mechanical equipment	10-20 Years
Office furniture and equipment	5-20 Years
Vehicles	7 Years

When capital assets are disposed, depreciation is removed from the respective accounts and the resulting gain or loss, if any, is recorded in nonoperating activities.

NOTE 1 – NATURE OF ACTIVITIES, REPORTING ENTITY, AND SIGNIFICANT ACCOUNTING POLICIES (Continued)

Compensated Absences

District employees earn sick leave of fifteen days per year which may be accumulated up to a maximum of 200 days. Each December, employees may elect to receive cash payments for 60 percent of their sick leave accumulated in excess of 100 days and 80 percent for sick leave accumulated in excess of 150 days, paid at their current rate of pay. Each December, employees are paid for all sick leave accumulated in excess of 200 days at their current rate of pay. Upon an employee's retirement or disability, 90 percent (100 percent for employees who have accrued at least 150 days of sick leave at any time during their employment) of previously earned but unpaid sick leave is converted to a cash value based on their current rate of pay, and this amount is contributed to the District's Retirement Health Savings Plan (RHSP) in the employee's name. Monies in this account can be used by the employee on a tax-free basis to pay for qualified medical expenses of the employee, their spouse and dependents. Any amounts remaining in the employee's RHSP account at the time of death of the retired or disabled employee may be used by the surviving spouse or eligible dependents on a tax-free basis to pay for qualified medical expenses. If there is no surviving spouse or dependents at the time of the employee's death, the remaining money in the account reverts to the District. No sick leave conversion amounts are paid to employees that terminate employment for reasons other than retirement or disability. The liability associated with accumulated sick pay for current and retired employees is reported as compensated absences liabilities in the statements of net position.

Employees earn vacation in varying amounts based on length of service. During an employee's first year of employment, vacation is prorated based on their start date and available for immediate use. Exempt employees must use vacation in half-day increments, and nonexempt employees may use vacation in quarter hour increments. After an employee's first year, vacation earned is available for use in the following year. Vacation may be accumulated to a maximum of 27 days. Upon an employee's retirement or disability, 100 percent of previously earned but unpaid vacation is converted to a cash value based on their current rate of pay, and this amount is contributed to the District's Retirement Health Savings Plan (RHSP) in the employee's name. Employees that terminate their employment for reasons other than retirement or disability are paid for earned vacation resulting from a carry over at their current rate of pay. Vacation earned in the year of termination is paid at varying percentages, depending upon the time of the year termination is effective. The liability associated with accumulated vacation is reported as compensated absences liabilities in the statement of net position.

NOTE 1 – NATURE OF ACTIVITIES, REPORTING ENTITY, AND SIGNIFICANT ACCOUNTING POLICIES (Continued)

Compensated Absences (Continued)
Nonexempt employees may also accumulate compensatory time for overtime work. All unused compensatory time is paid at their rate of pay on the second payroll in December. Exempt employees may accumulate compensatory time if they exceed 88 hours in a pay period, up to a maximum of 40 hours per calendar year. Exempt employees may carry compensatory time over at year-end, but must be used by March 31. After March 31, exempt employees' unused compensatory time is credited to the employee's base expense account using the employee's current rate of pay, and the accrued salaries liability is reduced accordingly. The liability associated with accumulated compensatory time is reported as accrued salaries liability in the statement of net position.

Pensions
For purposes of measuring the net pension liability (asset), deferred outflows of resources and deferred inflows of resources related to pensions, and pension expense (benefit), information about the fiduciary net position of the Wisconsin Retirement System (WRS) and additions to/deductions from WRS' fiduciary net position have been determined on the same basis as they are reported by WRS. For this purpose, benefit payments (including refunds of employee contributions) are recognized when due and payable in accordance with the benefit terms. Investments are reported at fair value.

Other Postemployment Benefits (OPEB) Retiree Health Insurance
The District offers health insurance coverage to retirees at a rate set by the insurance carrier. Retirees are responsible for the full payment of premiums directly to the District. In addition, the District will make Medicaid and Medicare Supplement plans available to those employees qualified for Medicaid and/or Medicare. If a retired employee elects to discontinue participation in the District's group health insurance plan, the individual will not be allowed to reenroll at a later date.

Other Postemployment Benefits (OPEB) Retiree Life Insurance.
The fiduciary net position of the Local Retiree Life Insurance Fund (LRLIF) has been determined using the flow of economic resources measurement focus and the accrual basis of accounting. Under this measurement focus and basis the net OPEB liability, deferred outflows of resources and deferred inflows of resources related to other postemployment benefits; OPEB expense; and information about the fiduciary net position of the LRLIF, including additions to/deductions from LRLIF's fiduciary net position, have been determined on the same basis as they are reported by LRLIF. For this purpose, benefit payments (including refunds of employee contributions) are recognized when due and payable in accordance with the benefit terms. Investments are reported at fair value.

Long-Term Debt
The District reports long-term debt at face value in the basic financial statements. Any bond premiums or discounts are capitalized and amortized over the term of the bond using the straight-line method.

NOTE 1 – NATURE OF ACTIVITIES, REPORTING ENTITY, AND SIGNIFICANT ACCOUNTING POLICIES (Continued)

Deferred Inflows
Deferred inflows are reported for conveyance facilities connection charges and treatment plant connection charges that will become collectible at the time the related properties are connected to the system.

Net Position: Net position is classified in three separate categories. The categories and their general descriptions, are as follows:

> Net investment in capital assets – consists of capital assets, net of accumulated depreciation, reduced by the outstanding balances of bonds, mortgages, notes, or other borrowings that are attributable to the acquisition, construction, or improvement of those assets.
>
> Restricted net position – consists of restricted assets reduced by liabilities and deferred inflows of resources related to those assets. Generally a liability or deferred inflow relates to restricted assets if the asset results from a resource flow that also results in the recognition of a liability or deferred inflows or if the liability will be liquidated with the restricted assets reported.
>
> Unrestricted net position – is the amount of the assets and deferred outflows, net of the liabilities and deferred inflows that are not included in the determination of net investment in capital assets or the restricted components of net position.

When both restricted and unrestricted resources are available for debt service, it is the District's policy to use restricted resources first, then unrestricted resources. For unexpected repairs, it is the District's policy to use unrestricted resources first and restricted resources only when needed.

Capital Contributions
Capital contributions consist of conveyance facilities connection charges and treatment plant connection charges and contributed capital assets.

Risk Management
The District is exposed to various risks of loss related to torts, theft of, damage to and destruction of assets, errors and omissions, natural disasters, and employee injury. The District carries property insurance for buildings on the Nine Springs Treatment Plant campus and several rental units off campus. The District retains the risk of loss for damage or destruction of other elements of the sewerage system and other infrastructure. For all other risks, the District carries commercial insurance. Claims have not exceeded coverage in any of the prior three fiscal years.

NOTE 1 – NATURE OF ACTIVITIES, REPORTING ENTITY, AND SIGNIFICANT ACCOUNTING POLICIES (Continued)

Pollution Remediation Obligations

The District owns land that has been remediated under a Superfund clean-up project. Ongoing monitoring and maintenance of the lands is reported as an operating expense. The District did not incur significant remediation expenses in either 2022 and 2021. Future expenses are expected to range from $10,000 to $30,000 annually.

NOTE 2 – CASH, CASH EQUIVALENTS, AND INVESTMENTS

As of December 31, cash, cash equivalents, and investments included the following:

	2022	2021
Petty cash	$ 500	$ 500
Deposits:		
Demand deposits	2,435,045	655,528
Savings accounts	5,560,225	9,913,984
Investments:		
U.S. agency obligations	4,887,256	448,592
U.S. agency mortgage backed securities	-	4,616,159
Insured deposit account	105,428	67,727
Local Government Investment Pool	47,482,898	32,150,954
Total District cash, cash equivalents, and investments	60,471,352	47,853,444
Fiduciary deposits - saving accounts	2,621,468	2,371,677
Total cash, cash equivalents, and investments	$ 63,092,820	$ 50,225,121

NOTE 2 – CASH, CASH EQUIVALENTS, AND INVESTMENTS (Continued)

The cash and investments are reported in the statements of net position as follows:

	2022	2021
Cash and cash equivalents		
Unrestricted	$ 25,377,768	$ 13,879,449
Restricted	30,206,328	28,909,244
Investments		
Restricted	4,887,256	5,064,751
Total District cash, cash equivalents, and investments	60,471,352	47,853,444
Fiduciary cash, cash equivalents, and investments	2,621,468	2,371,677
Total cash, cash equivalents, and investments	$ 63,092,820	$ 50,225,121

Deposits of governmental entities held by an official custodian in banks located in the same state as the governmental entity are insured by the Federal Deposit Insurance Corporation (FDIC) in the amount of $250,000 for time and savings deposits and $250,000 for demand deposits per financial institution. In addition, the state of Wisconsin has a State Guarantee Fund, which provides a maximum of $400,000 per financial institution above the amount provided by the FDIC. However, due to the relatively small size of the State Guarantee Fund in relation to the total coverage, total recovery of losses may not be available.

The carrying amount of the District's deposits totaled $7,995,271 and $10,569,512, with bank balances of $8,326,906 and $11,063,656 for the years ended December 31, 2022 and 2021, respectively. As of December 31, 2022 and 2021, the District had no uninsured or uncollateralized bank balances. The District does not have a formal policy related to custodial credit risk, but it is their practice to ensure deposits are fully insured or collateralized.

The investments in the Local Government Investment Pool (LGIP) are covered up to $400,000 by the State Guarantee Fund. Certificates of deposit held in the LGIP are covered by FDIC insurance, which applies to the proportionate public unit share of accounts.

The District also has investments in U.S. agency obligations purchased through a private sector securities dealer and held by a third-party custodian. These investments are readily marketable, specifically identifiable and include agency bonds and notes and mortgage backed securities.

Investment securities, in general, are exposed to various risks, such as interest rate, credit, and overall market volatility. Due to the level of risk associated with certain investment securities, it is reasonably possible that changes in the value of investment securities will occur in the near term and that such changes could materially affect the amounts reported in the statements of net position.

NOTE 2 – CASH, CASH EQUIVALENTS, AND INVESTMENTS (Continued)

Fair Value Measurement
The District uses fair value measurements to record fair value adjustments to certain assets and liabilities and to determine fair value disclosures.

The District follows an accounting standard that defines fair value, establishes a framework for measuring fair value, establishes a fair value hierarchy based on the quality of inputs used to measure fair value, and requires expanded disclosures about fair value measurements. In accordance with this standard, the District has categorized its investments, based on the priority of the inputs to the valuation technique, into a three-level fair value hierarchy. The fair value hierarchy gives the highest priority to quoted prices in active markets for identical assets or liabilities (Level 1) and the lowest priority to unobservable inputs (Level 3). If the inputs used to measure the financial instruments fall within different levels of the hierarchy, the categorization is based on the lowest level input that is significant to the fair value measurement of the instrument.

Financial assets and liabilities recorded on the statements of net position are categorized based on the inputs to the valuation techniques as follows:

Level 1 – Financial assets and liabilities are valued using inputs that are unadjusted quoted prices in active markets accessible at the measurement date of identical financial assets and liabilities.

Level 2 – Financial assets and liabilities are valued based on quoted prices for similar assets, or inputs that are observable, either directly or indirectly for substantially the full term through corroboration with observable market data.

Level 3 – Financial assets and liabilities are valued using pricing inputs which are unobservable for the asset, inputs that reflect the reporting entity's own assumptions about the assumptions market participants and would use in pricing the asset.

The District has the following assets that are subject to fair value measurements as of December 31:

December 31, 2022

Investment Type	Level 1	Level 2	Level 3	Total
Government agency bonds and notes	$ -	$ 348,145	$ -	$ 348,145
Government national mortgage association MBS	-	267,814	-	267,814
Federal national mortgage association MBS	-	1,521,440	-	1,521,440
Federal home loan mortgage corporation MBS	-	2,749,857	-	2,749,857
	$ -	$ 4,887,256	$ -	$ 4,887,256

December 31, 2021

Investment Type	Level 1	Level 2	Level 3	Total
Government agency bonds and notes	$ -	$ 448,592	$ -	$ 448,592
Government national mortgage association MBS	-	379,386	-	379,386
Federal national mortgage association MBS	-	1,173,902	-	1,173,902
Federal home loan mortgage corporation MBS	-	3,062,871	-	3,062,871
	$ -	$ 5,064,751	$ -	$ 5,064,751

NOTE 2 – CASH, CASH EQUIVALENTS, AND INVESTMENTS (Continued)

Interest Rate Risk
Interest rate risk is the risk that changes in interest rates will adversely affect the fair value of an investment. As of December 31, 2022, the District had the following investments and maturities:

		Investment Maturities (in Years)			
Investment Type	Fair Value	<1	1-5	6-10	>10
Local government investment pool **	$ 47,482,898	$ 47,482,898	$ -	$ -	$ -
Money market	105,428	105,428	-	-	-
Government agency bonds and notes	348,145	-	-	121,512	226,633
Government national mortgage association	267,814	136	668	3,389	263,621
Federal national mortgage association	1,521,440	239,473	227,427	8,723	1,045,817
Federal home loan mortgage corporation	2,749,857	482,717	1,173,693	7,886	1,085,561
	$ 52,475,582	$ 48,310,652	$ 1,401,788	$ 141,510	$ 2,621,632

As of December 31, 2021, the District had the following investments and maturities:

		Investment Maturities (in Years)			
Investment Type	Fair Value	<1	1-5	6-10	>10
Local government investment pool **	$ 32,150,954	$ 32,150,954	$ -	$ -	$ -
Money market	67,727	67,727	-	-	-
Government agency bonds and notes	448,592	-	448,592	-	-
Government national mortgage association	379,386	264	1,724	-	377,398
Federal national mortgage association	1,173,902	2,283	-	12,857	1,158,762
Federal home loan mortgage corporation	3,062,871	-	1,777,637	11,098	1,274,136
	$ 37,283,432	$ 32,221,228	$ 2,227,953	$ 23,955	$ 2,810,296

** Because the LGIP had a weighted average maturity of less than one year as of December 31, 2022 and 2021, it has been presented as an investment with a maturity of less than one year.

Credit Risk
Credit risk is the risk that an issuer or other counterparty to an investment will not fulfill its obligation. The LGIP is unrated with regard to the credit quality rating. The remaining investments of the District are U.S. agency securities that are explicitly guaranteed, and therefore credit rating is not applicable or has the highest rating issued by Moody's. The District has not developed policies governing the exposure of its cash deposits and investments to credit risk.

Concentration of Credit Risk
Concentration of credit risk is the risk of loss attributable to the magnitude of a government's investment in a single issuer. It is the policy of the District that funds deposited in any one bank or savings and loan association shall not exceed $1,500,000 at any given time. Investments in Wells Fargo Bank, the LGIP, and U.S. agency obligations are not limited as to amount.

Custodial Credit Risk - Investments
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.

All of the District's U.S. agency obligations are uninsured and unregistered investments for which the investments are held by the counterparty's trust department or agent in the District's name. The LGIP is not subject to the custodial credit risk. The District has not developed policies governing the exposure of its investments to custodial credit risk.

NOTE 2 – CASH, CASH EQUIVALENTS, AND INVESTMENTS (Continued)

Custodial Credit Risk - Deposits
For deposits, custodial credit risk is the risk that in the event of the failure of a depository financial institution, the District will not be able to recover deposits or will not be able to recover collateral securities that are in the possession of an outside party.

The District has not developed policies governing the exposure of its cash deposits and investments to custodial credit risk. The District's deposits are fully insured or collateralized.

NOTE 3 – RESTRICTED NET POSITION

Restricted net position of the District consisted of the following at December 31, 2022 and 2021:

	2022	2021
Restricted assets:		
Cash and cash equivalents:		
Debt service	$ 26,156,328	$ 24,859,244
Unexpected repair & replacement	4,050,000	4,050,000
Investments:		
Debt service	4,887,256	5,064,751
Net pension asset	4,629,677	3,509,297
Total restricted assets	39,723,261	37,483,292
Current liabilities payable from restricted assets	(512,830)	(521,043)
Restricted net position	$ 39,210,431	$ 36,962,249

Equipment Replacement
As a condition of receiving State of Wisconsin Clean Water Fund (CWF) loans, the District is required to establish an equipment replacement fund for mechanical equipment. To satisfy this requirement, the District has restricted $3.9 million of its investments and net position for unexpected equipment replacement. In addition, the District annually budgets for replacement of equipment.

According to the CWF equipment replacement percentage schedule option, the District must maintain a minimum replacement fund balance of five percent of the original cost of "mechanical equipment." For this purpose, the District uses the sum of its light mechanical equipment, office furniture and equipment, and vehicles. The District has three years from the date of the first principal payment on a Clean Water Fund loan to meet the required five percent addition for a project. The sum of these capital assets for the year ending December 31, 2022 is $81,923,480. The required five percent of this value is $4,096,174. The 2022 value of the equipment replacement fund is $4,050,000. The District adds annual contributions to the equipment replacement fund in order to meet future requirements. As of December 31, 2022, District has met this requirement within the three-year timeframe allowed. For the year ending December 31, 2021, the corresponding "mechanical equipment" total was $78,752,939 and the required five percent of this amount was $3,937,647.

NOTE 3 – RESTRICTED NET POSITION (Continued)

Debt Service

In accordance with state statutes and provisions of applicable loan covenants, the District maintains cash and investments in debt service funds in amounts no less than what is required to meet the balance of the current year debt service requirements.

Amounts available in the debt service funds on October 1, 2022 and 2021 were sufficient to finance the subsequent year's debt service requirements, and accordingly, the District was not required to place an amount on the tax roll for debt service.

NOTE 4 – CAPITAL ASSETS

During the year ended December 31, 2022, the changes in capital assets were as follows:

	Beginning Balance January 1, 2022	Additions & Reclassifications	Retirements & Reclassifications	Ending Balance December 31, 2022
Capital assets not being depreciated:				
Construction in progress	$ 16,877,522	$ 7,922,238	$ 8,687,199	$ 16,112,561
Land and easements	7,400,910	-	-	7,400,910
	24,278,432	7,922,238	8,687,199	23,513,471
Capital assets being depreciated:				
Structures and improvements	232,834,550	5,890,441	-	238,724,991
Heavy mechanical equipment	94,518,129	663,161	-	95,181,290
Light mechanical equipment	68,433,400	1,980,730	-	70,414,130
Office furniture and equipment	5,532,741	531,599	-	6,064,340
Vehicles	4,786,798	923,732	265,520	5,445,010
	406,105,618	9,989,663	265,520	415,829,761
Accumulated depreciation:				
Structures and improvements	82,326,274	3,711,687	-	86,037,961
Heavy mechanical equipment	45,056,896	2,481,668	-	47,538,564
Light mechanical equipment	40,358,792	3,182,064	-	43,540,856
Office furniture and equipment	4,366,723	199,783	-	4,566,506
Vehicles	2,852,378	407,466	265,520	2,994,324
	174,961,063	9,982,668	265,520	184,678,211
Capital assets being depreciated, net	231,144,555	6,995	-	231,151,550
Total capital assets, net	$ 255,422,987	$ 7,929,233	$ 8,687,199	$ 254,665,021

During the year ended December 31, 2021, the changes in capital assets were as follows:

	Beginning Balance January 1, 2021	Additions & Reclassifications	Retirements & Reclassifications	Ending Balance December 31, 2021
Capital assets not being depreciated:				
Construction in progress	$ 32,062,715	$ 21,140,114	$ 36,325,307	$ 16,877,522
Land and easements	7,400,910	-	-	7,400,910
	39,463,625	21,140,114	36,325,307	24,278,432
Capital assets being depreciated:				
Structures and improvements	215,282,070	17,610,427	57,947	232,834,550
Heavy mechanical equipment	87,851,167	8,166,751	1,499,789	94,518,129
Light mechanical equipment	58,757,494	9,688,997	13,091	68,433,400
Office furniture and equipment	5,377,321	155,420	-	5,532,741
Vehicles	3,703,842	1,082,956	-	4,786,798
	370,971,894	36,704,551	1,570,827	406,105,618
Accumulated depreciation:				
Structures and improvements	78,561,883	3,787,605	23,214	82,326,274
Heavy mechanical equipment	43,746,252	2,366,563	1,055,919	45,056,896
Light mechanical equipment	37,646,045	2,721,400	8,653	40,358,792
Office furniture and equipment	4,190,574	176,149	-	4,366,723
Vehicles	2,601,498	250,880	-	2,852,378
	166,746,252	9,302,597	1,087,786	174,961,063
Capital assets being depreciated, net	204,225,642	27,401,954	483,041	231,144,555
Total capital assets, net	$ 243,689,267	$ 48,542,068	$ 36,808,348	$ 255,422,987

NOTE 5 – PENSION PLAN

Plan Description

The WRS is a cost-sharing multiple-employer defined benefit pension plan. WRS benefits and other plan provisions are established by Chapter 40 of the Wisconsin Statutes. Benefit terms may only be modified by the legislature. The retirement system is administered by the Wisconsin Department of Employee Trust Funds (ETF). The system provides coverage to all eligible State of Wisconsin, local government, and other public employees. All employees, initially employed by a participating WRS employer on or after July 1, 2011, expected to work at least 1,200 hours a year (880 hours for teachers and school district educational support employees) and expected to be employed for at least one year from employee's date of hire are eligible to participate in the WRS.

ETF issues a standalone Annual Comprehensive Financial Report (ACFR), which can be found at https:// etf.wi.gov/about-etf/reports-and-studies/financial-reports-and-statements

Additionally, ETF issued a standalone Wisconsin Retirement System Financial Report, which can also be found using the link above.

Vesting

For employees beginning participation on or after January 1, 1990, and no longer actively employed on or after April 24, 1998, creditable service in each of five years is required for eligibility for a retirement annuity. Participants employed prior to 1990 and on or after April 24, 1998, and prior to July 1, 2011, are immediately vested. Participants who initially became WRS eligible on or after July 1, 2011, must have five years of creditable service to be vested.

Benefits Provided

Employees who retire at or after age 65 (54 for protective occupations and 62 for elected officials and executive service retirement plan participants, if hired on or before 12/31/2016) are entitled to a retirement benefit based on a formula factor, their final average earnings, and creditable service.

Final average earnings is the average of the participant's three highest annual earnings periods. Creditable service includes current service and prior service for which a participant received earnings and made contributions as required. Creditable service also includes creditable military service. The retirement benefit will be calculated as a money purchase benefit based on the employee's contributions plus matching employer's contributions, with interest, if that benefit is higher than the formula benefit.

Vested participants may retire at or after age 55 (50 for protective occupations) and receive an actuarially-reduced benefit. Participants terminating covered employment prior to eligibility for an annuity may either receive employee-required contributions plus interest as a separation benefit or leave contributions on deposit and defer application until eligible to receive a retirement benefit.

The WRS also provides death and disability benefits for employees.

NOTE 5 – PENSION PLAN (Continued)

Post-Retirement Adjustments

The Employee Trust Funds Board may periodically adjust annuity payments from the retirement system based on annual investment performance in accordance with s. 40.27, Wis. Stat. An increase (or decrease) in annuity payments may result when investment gains (losses), together with other actuarial experience factors, create a surplus (shortfall) in the reserves, as determined by the system's consulting actuary. Annuity increases are not based on cost of living or other similar factors. For Core annuities, decreases may be applied only to previously granted increases. By law, Core annuities cannot be reduced to an amount below the original, guaranteed amount (the "floor") set at retirement. The Core and Variable annuity adjustments granted during recent years are as follows:

Year	Core Fund Adjustment (%)	Variable Fund Adjustment (%)
2012	(7.0)	(7.0)
2013	(9.6)	9.0
2014	4.7	25.0
2015	2.9	2.0
2016	0.5	(5.0)
2017	2.0	4.0
2018	2.4	17.0
2019	0.0	(10.0)
2020	1.7	21.0
2021	5.1	13.0

Contributions

Required contributions are determined by an annual actuarial valuation in accordance with Chapter 40 of the Wisconsin Statutes. The employee required contribution is one-half of the actuarially determined contribution rate for General category employees, including Teachers, Executives and Elected Officials. Starting on January 1, 2016, the Executives and Elected Officials category was merged into the General Employee Category. Required contributions for protective employees are the same rate as general employees. Employers are required to contribute the remainder of the actuarially determined contribution rate. The employer may not pay the employee required contribution unless provided for by an existing collective bargaining agreement.

During the reporting period for the years ended December 31, 2022 and 2021, the WRS recognized $669,943 and $675,944 in contributions from the employer, respectively.

Contribution rates as of December 31, 2022 are:

Employee Category	Employee	Employer
General (including teachers, executives, and elected officials)	6.75%	6.75%
Protective with Social Security	6.75%	11.75%
Protective without Social Security	6.75%	16.35%

NOTE 5 – PENSION PLAN (Continued)

Contributions (Continued)
Contribution rates as of December 31, 2021 are:

General (including teachers, executives, and elected officials)	**Employee**	**Employer**
General (including teachers, executives, and elected officials)	6.75%	6.75%
Protective with Social Security	6.75%	11.65%
Protective without Social Security	6.75%	16.25%

Pension Assets, Pension Expense (Benefit), and Deferred Outflows of Resources and Deferred Inflows of Resources Related to Pension
At December 31, 2022, the Madison Metropolitan Sewerage District reported an asset of $4,629,677 for its proportionate share of the net pension asset. The net pension asset was measured as of December 31, 2021, and the total pension liability used to calculate the net pension asset was determined by an actuarial valuation as of December 31, 2020 rolled forward to December 31, 2021. No material changes in assumptions or benefit terms occurred between the actuarial valuation date and the measurement date. The District's proportion of the net pension asset was based on the District's share of contributions to the pension plan relative to the contributions of all participating employers. At December 31, 2021, the District's proportion was .05743885%, which was a decrease of .00122838% from its proportion measured as of December 31, 2020.

At December 31, 2021, the Madison Metropolitan Sewerage District reported an asset of $3,509,297 for its proportionate share of the net pension asset. The net pension asset was measured as of December 31, 2020, and the total pension liability used to calculate the net pension asset was determined by an actuarial valuation as of December 31, 2019 rolled forward to December 31, 2020. No material changes in assumptions or benefit terms occurred between the actuarial valuation date and the measurement date. The District's proportion of the net pension asset was based on the District's share of contributions to the pension plan relative to the contributions of all participating employers. At December 31, 2020, the District's proportion was .05621047%, which was an increase of .00194842% from its proportion measured as of December 31, 2019.

For the year ended December 31, 2022 and 2021, the District recognized pension expense (benefit) of $(397,897) and $(383,447), respectively.

NOTE 5 – PENSION PLAN (Continued)

Pension Assets, Pension Expense (Benefit), and Deferred Outflows of Resources and Deferred Inflows of Resources Related to Pension (Continued)

At December 31, 2022, the District reported deferred outflows of resources and deferred inflows of resources related to pensions from the following sources:

	Deferred Outflows of Resources	Deferred Inflows of Resources
Differences between expected and actual experience	$7,479,006	$539,317
Changes in assumptions	863,739	-
Net differences between projected and actual earnings on pension plan investments	-	10,356,971
Changes in proportion and differences between employer contributions and proportionate share of contributions	22,306	9,851
Employer contributions subsequent to the measurement date	669,943	-
Total	$9,034,994	$10,906,139

$669,943 reported as deferred outflows related to pension resulting from the WRS Employer's contributions subsequent to the measurement date will be recognized as a reduction of the net pension liability (asset) in the year ended December 31, 2023. Other amounts reported as deferred outflows of resources and deferred inflows of resources related to pension will be recognized in pension (benefit) expense as follows:

Year ended December 31:	Net Amortization of Deferred Outflows/(Inflows) of Resources
2023	$(210,289)
2024	(1,249,807)
2025	(549,630)
2026	(531,362)

NOTE 5 – PENSION PLAN (Continued)

Pension Assets, Pension Expense (Benefit), and Deferred Outflows of Resources and Deferred Inflows of Resources Related to Pension (Continued)
At December 31, 2021, the District reported deferred outflows of resources and deferred inflows of resources related to pensions from the following sources:

	Deferred Outflows of Resources	Deferred Inflows of Resources
Differences between expected and actual experience	$5,079,030	$1,094,014
Changes in assumptions	79,597	-
Net differences between projected and actual earnings on pension plan investments	-	6,588,418
Changes in proportion and differences between employer contributions and proportionate share of contributions	30,840	3,634
Employer contributions subsequent to the measurement date	675,944	-
Total	$5,865,411	$7,686,066

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

Actuarial Valuation Date:	December 31, 2020
Measurement Date of Net Pension Liability (Asset)	December 31, 2021
Experience Study:	January 1, 2018 – December 31, 2020 Published November 19, 2021
Actuarial Cost Method:	Entry Age
Asset Valuation Method:	Fair Market Value
Long-Term Expected Rate of Return:	6.8%
Discount Rate:	6.8%
Salary Increases: Wage Inflation: Seniority/Merit:	 3.0% 0.1% - 5.6%
Mortality:	2020 WRS Experience Mortality Table
Post-Retirement Adjustments*	1.7%

** No post-retirement adjustment is guaranteed. Actual adjustments are based on recognized investment return, actuarial experience, and other factors. 1.7% is the assumed annual adjustment based on the investment return assumption and the post-retirement discount rate.*

Actuarial assumptions are based upon an experience study conducted in 2021 that covered a three-year period from January 1, 2018 to December 31, 2020. Based on this experience study, actuarial assumptions used to measure the Total Pension Liability changed from prior year, including the discount rate, long-term expected rate of return, post-retirement adjustment, price inflation, mortality and separation rates. The Total Pension Liability for December 31, 2021 is based upon a roll-forward of the liability calculated from the December 31, 2020 actuarial valuation.

NOTE 5 – PENSION PLAN (Continued)

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

Actuarial Valuation Date:	December 31, 2019
Measurement Date of Net Pension Liability (Asset)	December 31, 2020
Actuarial Cost Method:	Entry Age
Asset Valuation Method:	Fair Market Value
Long-Term Expected Rate of Return:	7.0%
Discount Rate:	7.0%
Salary Increases: Inflation Seniority/Merit	 3.0% 0.1% - 5.6%
Mortality:	Wisconsin 2018 Mortality Table
Post-Retirement Adjustments*	1.9%

** No post-retirement adjustment is guaranteed. Actual adjustments are based on recognized investment return, actuarial experience and other factors. 1.9% is the assumed annual adjustment based on the investment return assumption and the post-retirement discount rate.*

Actuarial assumptions are based upon an experience study conducted in 2018 that covered a three-year period from January 1, 2015 to December 31, 2017. The total pension liability for December 31, 2020 is based upon a roll-forward of the liability calculated from the December 31, 2019 actuarial valuation.

Long-Term Expected Return on Plan Assets
The long-term expected rate of return on pension plan investments was determined using a building-block method in which best-estimate ranges of expected future real rates of return (expected returns, net of pension plan investment expense and inflation) are developed for each major asset class. These ranges are combined to produce the long-term expected rate of return by weighting the expected future real rates of return by the target asset allocation percentage and by adding expected inflation.

NOTE 5 – PENSION PLAN (Continued)

Long-Term Expected Return on Plan Assets (Continued)

The target allocation and best estimates of arithmetic real rates of return for each major asset class are summarized in the following table as of December 31, 2021:

Asset Allocation Targets and Expected Returns
As of December 31, 2021

Core Fund Asset Class	Asset Allocation %	Long-Term Expected Nominal Rate of Return %	Long-Term Expected Real Rate of Return %
Global Equities	52	6.8	4.2
Fixed Income	25	4.3	1.8
Inflation Sensitive Assets	19	2.7	0.2
Real Estate	7	5.6	3
Private Equity/Debt	12	9.7	7
Total Core Fund	115	6.6	4
Variable Fund Asset Class			
U.S. Equities	70	6.3	3.7
International Equities	30	7.2	4.6
Total Variable Fund	100	6.8	4.2

[1]Asset Allocations are managed within established ranges; target percentages may differ from actual monthly allocations
[2]New England Pension Consultants Long Term US CPI (Inflation) Forecast: 2.5%
[3]The investment policy used for the Core Fund involves reducing equity exposure by leveraging lower-volatility assets, such as fixed income securities. This results in an asset allocation beyond 100%. Currently, an asset allocation target of 15% policy leverage is used, subject to an allowable range of up to 20%.

NOTE 5 – PENSION PLAN (Continued)

Long-Term Expected Return on Plan Assets (Continued)

The target allocation and best estimates of arithmetic real rates of return for each major asset class are summarized in the following table as of December 31, 2020:

Asset Allocation Targets and Expected Returns
As of December 31, 2020

Core Fund Asset Class	Asset Allocation %	Long-Term Expected Nominal Rate of Return %	Long-Term Expected Real Rate of Return %
Global Equities	51	7.2	4.7
Fixed Income	25	3.2	0.8
Inflation Sensitive Assets	16	2.0	(0.4)
Real Estate	8	5.6	3.1
Private Equity/Debt	11	10.2	7.6
Multi-Asset	4	5.8	3.3
Total Core Fund	115	6.6	4.1
Variable Fund Asset Class			
U.S. Equities	70	6.6	4.1
International Equities	30	7.4	4.9
Total Variable Fund	100	7.1	4.6

New England Pension Consultants Long Term US CPI (Inflation) Forecast: 2.75%
Asset Allocations are managed within established ranges; target percentages may differ from actual monthly allocations

Single Discount Rate

A single discount rate of 6.8% was used to measure the Total Pension Liability, as opposed to a discount rate of 7.0% for the prior year. This single discount rate is based on the expected rate of return on pension plan investments of 6.80% and a municipal bond rate of 1.84% (Source: Fixed-income municipal bonds with 20 years to maturity that include only federally tax-exempt municipal bonds as reported in Fidelity Index's "20-year Municipal GO AA Index" as of December 31, 2021. In describing this index, Fidelity notes that the Municipal Curves are constructed using option-adjusted analytics of a diverse population of over 10,000 tax- exempt securities.). Because of the unique structure of WRS, the 6.8% expected rate of return implies that a dividend of approximately 1.7% will always be paid. For purposes of the single discount rate, it was assumed that the dividend would always be paid. The projection of cash flows used to determine this single discount rate assumed that plan member contributions will be made at the current contribution rate and that employer contributions will be made at rates equal to the difference between actuarially determined contribution rates and the member rate. Based on these assumptions, the pension plan's fiduciary net position was projected to be available to make all projected future benefit payments (including expected dividends) of current plan members. Therefore, the municipal bond rate of return on pension plan investments was applied to all periods of projected benefit payments to determine the total pension liability.

NOTE 5 – PENSION PLAN (Continued)

Sensitivity of the District's Proportionate Share of the Net Pension Liability (Asset) to Changes in the Discount Rate

The following presents the District's proportionate share of the net pension liability (asset) as of December 31, 2021 calculated using the discount rate of 6.80 percent, as well as what the District's proportionate share of the net pension liability (asset) would be if it were calculated using a discount rate that is 1-percentage-point lower (5.80 percent) or 1-percentage-point higher (7.80 percent) than the current rate:

	1% Decrease to Discount Rate (5.80%)	Current Discount Rate (6.80%)	1% Increase To Discount Rate (7.80%)
District's proportionate share of the net pension liability (asset)	$3,285,084	($4,629,677)	($10,326,832)

The following presents the District's proportionate share of the net pension liability (asset) as of December 31, 2020 calculated using the discount rate of 7.00 percent, as well as what the District's proportionate share of the net pension liability (asset) would be if it were calculated using a discount rate that is 1-percentage-point lower (6.00 percent) or 1-percentage-point higher (8.00 percent) than the current rate:

	1% Decrease to Discount Rate (6.00%)	Current Discount Rate (7.00%)	1% Increase To Discount Rate (8.00%)
District's proportionate share of the net pension liability (asset)	$3,340,364	($3,509,297)	($8,540,323)

Pension Plan Fiduciary Net Position

Detailed information about the pension plan's fiduciary net position is available in separately issued financial statements available at https://etf.wi.gov/about-etf/reports-and-studies/financial-reports-and-statements.

NOTE 6 – LONG-TERM DEBT

As of December 31, 2022 and 2021, the long-term debt of the District consisted of the following:

	2022	2021
Direct Placement General Obligation Sewerage System Promissory Notes		
Clean Water Fund Program Project Number 4010-17 $7,674,449 Series 2003A, issued July 23, 2003, for the Rehabilitation of Pumping Stations No. 1, 2, and 10, interest at 2.824%, interest payments on May 1 and November 1 of each year and principal payments on May 1 of each year, final payment due May 1, 2023.	$ 514,331	$ 1,014,536
Clean Water Fund Program Project Number 4010-16 $35,427,273 Series 2003B, issued August 27, 2003, for the Tenth Addition to Nine Springs, interest at 2.796% interest payments on May 1 and November 1 of each year and principal payments on May 1 of each year, final payment due May 1, 2023.	2,488,168	4,908,659
Clean Water Fund Program Project Number 4010-99 $279,437 Series 2005A, issued October 12, 2005, for the Rehabilitation of Pumping Stations No. 1, 2, and 10, amendment, interest at 2.428%, interest payments on May 1 and November 1 of each year and principal payments on May 1 of each year, final payment due May 1, 2025.	51,801	68,258
Clean Water Fund Program Project Number 4010-20 $1,730,252 Series 2006A, issued September 13, 2006, for the Effluent Equalization Project, interest at 2.365%, interest payments on May 1 and November 1 of each year and principal payments on May 1 of each year, final payment due May 1, 2026.	414,262	511,916
Clean Water Fund Program Project Number 4010-23 $2,622,948 Series 2007A, issued December 12, 2007, for the West Interceptor Extension Replacement Project, interest at 2.555%, interest payments on May 1 and November 1 of each year and principal payments on May 1 of each year, final payment due May 1, 2027.	817,483	968,965
Clean Water Fund Program Project Number 4010-26 $8,391,175 Series 2008A, issued November 12, 2008, for the Pumping Stations 6 and 8 Rehabilitation, interest at 2.368%, interest payments on May 1 and November 1 of each year and principal payments on May 1 of each year, final payment due May 1, 2028.	3,203,197	3,694,682
Clean Water Fund Program Project Number 4010-27 $8,876,034 Series 2010A, issued May 26, 2010, for the Pumping Station 10 to Lien Road Relief Sewer, interest at 2.369%, interest payments on May 1 and November 1 of each year and principal payments on May 1 of each year, final payment due May 1, 2030.	4,061,528	4,517,793

NOTE 6 – LONG-TERM DEBT (Continued)

	2022	2021
Direct Placement General Obligation Sewerage System Promissory Notes (Continued)		
Clean Water Fund Programs Project Number 4010-34 $47,544,072 Series 2012A, issued February 22, 2012, for the Eleventh Addition to Nine Springs, interest at 2.518%, interest payments on May 1 and November 1 of each year and principal payments beginning May 1, 2015, and each subsequent May 1, final payment due May 1, 2031.	$ 27,654,588	$ 30,362,467
Clean Water Funds Programs Project Number 4010-38 $2,955,949 Series 2012B, issued May 23, 2012, for the Operations Building HVAC Rehabilitation, interest at 3%, interest payments on May 1 and November 1 of each year and principal payments beginning on May 1, 2013 and each subsequent May 1, and final payment due May 1, 2032.	1,701,674	1,845,788
Clean Water Fund Programs Project Number 4010-40 $8,012,046 Series 2013A, issued May 8, 2013, for the Northeast Interceptor/Far East Interceptor to Southeast Interceptor Replacement, interest at 2.795%, interest payments on May 1 and November 1 of each year and principal payments beginning May 1, 2014, and each subsequent May 1, final payment due May 1, 2033.	4,951,289	5,331,343
Clean Water Fund Programs Project Number 4010-39 $14,425,956 Series 2013B, issued September 25, 2013, for the Pumping Station 18 Construction, interest at 2.643%, interest payments on May 1 and November 1 of each year and principal payments beginning May 1, 2015, and each subsequent May 1, final payment due May 1, 2033.	9,221,609	9,936,042
Clean Water Fund Programs Project Number 4010-37 $4,276,508 Series 2013C, issued November 27, 2013, for the Process Control System Upgrade, interest at 2.625%, interest payments on May 1 and November 1 of each year and principal payments beginning May 1, 2016, and each subsequent May 1, final payment due May 1, 2033.	2,845,347	3,066,029
Clean Water Fund Programs Project Number 4010-43 $11,554,883 Series 2014A, issued February 26, 2014, for the Pumping Station 18 Force Main Construction, interest at 2.72%, interest payments on May 1 and November 1 of each year and principal payments beginning May 1, 2015, and each subsequent May 1, final payment due May 1, 2033.	7,412,295	7,984,001
Clean Water Fund Programs Project Number 4010-42 $10,663,025 Series 2015A, issued February 25, 2015, for the Pumping Station 11 & 12 Rehabilitation, interest at 2.262%, interest payments on May 1 and November 1 of each year and principal payments beginning May 1, 2016, and each subsequent May 1, final payment due May 1, 2034.	6,935,055	7,433,287
Clean Water Fund Programs Project Number 4010-41 $12,094,707 Series 2015B, issued May 27, 2015, for the New Maintenance Facility Construction, interest at 2.25%, interest payments on May 1 and November 1 of each year and principal payments beginning May 1, 2016, and each subsequent May 1, final payment due May 1, 2035.	8,245,727	8,786,654

NOTE 6 – LONG-TERM DEBT (Continued)

	2022	2021
Direct Placement General Obligation Sewerage System Promissory Notes (Continued)		
Clean Water Fund Programs Project Number 4010-46 $7,196,557 Series 2016A, issued November 9, 2016, for the Rimrock Interceptor/Pumping Station 15 Rehabilitation/Pumping Station 12 Force Main Relocation projects, interest at 1.96%, interest payment on May 1 and November 1 of each year and principal payments beginning May 1, 2018, and each subsequent May 1, final payment due May 1, 2036.	$ 5,341,075	$ 5,669,887
Clean Water Fund Programs Project Number 4010-44 $1,439,043 Series 2017A, issued December 27, 2017, for the West Interceptor – Randall St. to Near PS2 Rehabilitation, interest at 1.76%, interest payment on May 1 and November 1 of each year and principal payments beginning May 1, 2018, and each subsequent May 1, final payment due May 1, 2037.	1,071,176	1,133,109
Clean Water Fund Programs Project Number 4010-52 $1,846,530 Series 2019A, issued September 25, 2019, for the PS10 Forceman and West Interceptor Rehabilitation, interest at 1.76%, interest payment on May 1 and November 1 of each year and principal payments beginning May 1, 2020, and each subsequent May 1, final payment due May 1, 2039.	1,579,858	1,658,997
Clean Water Fund Programs Project Number 4010-57 $23,540,644 Series 2020B, issued August 12, 2020, for the Pump Station 7 Upgrade, Liquid Processing Improvements and Headworks flow Metering Improvements projects, interest at 1.76%, interest payment on May 1 and November 1 of each year and principal payments beginning May 1, 2022, and each subsequent May 1, final payment due May 1, 2040.	21,799,993	22,038,996
Clean Water Fund Programs Project Number 4010-58 $10,088,624 Series 2020A, issued June 10, 2020, for the Northeast Interceptor Truax Extension Relief Sewer project and the Southwest Haywood Drive Replacement project, interest at 1.889%, interest payment on May 1 and November 1 of each year and principal payments beginning May 1, 2021, and each subsequent May 1, final payment due May 1, 2040.	8,971,327	9,386,596

NOTE 6 – LONG-TERM DEBT (Continued)

	2022	2021
Direct Placement General Obligation Sewerage System Promissory Notes (Continued)		
Clean Water Fund Programs Project Number 4010-61 $14,610,172 Series 2021A, issued June 23, 2021, for the rehabilitation of pumping stations 13 and 14, rehabilitation of the Spring Street relief interceptor in the City of Madison, improvements to the hot water and W1 piping at the Nine Springs wastewater treatment plant and remodeling of and improvements to the first floor of the Operations Building project, interest at 1.529%, interest payment on May 1 and November 1 of each year and principal payments beginning May 1, 2022, and each subsequent May 1, final payment due May 1, 2041.	$ 12,645,334	$ 5,360,412
Clean Water Fund Programs Project Number 4010-70 $8,686,674 Series 2022A, issued January 26, 2022, for the NSVI Mckee Road to Dunn Marsh, WI Shorewood relief sewer PH1 projects, interest at 1.611%, interest payment on May 1 and November 1 of each year and principal payments beginning May 1, 2022, and each subsequent May 1, final payment due May 1, 2041.	7,661,272	-
Total bonds payable	139,588,389	135,678,417
Less current maturities	(13,037,970)	(12,015,248)
Bonds payable, long-term	$ 126,550,419	$ 123,663,169

The District incurred $2,865,623 and $3,071,071 of total interest costs for December 31, 2022 and 2021, respectively.

A summary of the changes in long-term obligations of the District for the year ended December 31, 2022 was as follows:

	Beginning Balance January 1, 2022	Additions	Reductions	Ending Balance December 31, 2022	Amounts Due in One Year
Direct Placement general obligation sewerage system notes	$ 135,678,417	$ 16,190,836	$ 12,280,864	$ 139,588,389	$ 13,037,970
Subtotal	135,678,417	16,190,836	12,280,864	139,588,389	13,037,970
Compensated absences	3,138,070	615,056	151,794	3,601,332	978,229
Total long-term obligations	$ 138,816,487	$ 16,805,892	$ 12,432,658	$ 143,189,721	$ 14,016,199

A summary of the changes in long-term obligations of the District for the year ended December 31, 2021 was as follows:

	Beginning Balance January 1, 2021	Additions	Reductions	Ending Balance December 31, 2021	Amounts Due in One Year
Direct Placement general obligation sewerage system bonds	$ 136,553	$ -	$ 136,553	$ -	$ -
Direct Placement general obligation sewerage system notes	133,147,861	13,053,334	10,522,778	135,678,417	12,015,248
Subtotal	133,284,414	13,053,334	10,659,331	135,678,417	12,015,248
Compensated absences	3,008,882	133,136	3,948	3,138,070	819,863
Total long-term obligations	$ 136,293,296	$ 13,186,470	$ 10,663,279	$ 138,816,487	$ 12,835,111

NOTE 6 – LONG-TERM DEBT (Continued)

General Obligation Debt: All general obligation debt has been issued under the full faith and credit and unlimited taxing powers of the District. The District has complied with the restrictive covenants of each of the debt issues.

Future principal and interest payments due on direct placement long-term debt of the District are approximately as follows:

Year Ending December 31	Principal	Interest	Total
2023	$ 13,037,970	$ 2,920,133	$ 15,958,103
2024	10,265,555	2,625,351	12,890,906
2025	10,501,064	2,387,064	12,888,128
2026	10,724,016	2,143,375	12,867,391
2027	10,860,570	1,895,451	12,756,021
2028-2032	50,226,734	5,809,095	56,035,829
2033-2037	23,139,143	1,791,527	24,930,670
2038-2041	10,833,337	313,138	11,146,475
Total	$ 139,588,389	$ 19,885,134	$ 159,473,523

The equalized valuation of the District, as certified by the Wisconsin Department of Revenue, was $65,708,724,068 for 2022 and $56,782,329,262 for 2021. The legal debt limit and margin of indebtedness as of December 31, 2022 and 2021, in accordance with Section 67.03(1)(a) of the Wisconsin Statutes, follows:

	2022	2021
Debt limit (5 percent of equalization value)	$ 3,285,436,203	$ 2,839,116,463
Deduct long-term debt applicable to debt margin	139,588,391	135,678,417
Margin of indebtedness	$ 3,145,847,812	$ 2,703,438,046

NOTE 7 – COMMITMENT

As of December 31, 2022, the District had the following commitments with respect to unfinished capital projects:

Project		Remaining Commitment
2022 Pavement Repairs	$	43,007
Engine Generator and Blower Control Panel		460,217
Final Clarifier 4, 5 and 6 Effluent Laund		112,718
Grass Lake Dike Stabilization		604,561
Lagoon Dike Improvements		111,561
LBMCI Phase 6		32,453
LBMCI Phase 5		40,643
Liquid Processing Improvements Phase 2		45,091
Metrogro Applicator Purchases		713,417
NEI Joint Grouting - MH10-101 to 10-106		215,738
NEI Waunakee Ext Rehab - Phase 1		84,239
NSWTP Flow Splitter		5,038
NSWWTP Electrical Service Replacement		49,111
Operations Building 1st Floor Remodel		143,563
Operations Building Mech Room Refrigirent Monitor		5,509
Plant HVAC Improvements		129,748
PS4 Rehabilitation		140,652
PS 13 & 14 Rehab		2,939,691
PS 17 Force Main Relief - Phase 1		84,964
PS 17 Force Main Relief - Phase 2		365,229
PS 17 Rehabilitation		187,443
PS 6 to PS 10 Connector		125,583
PS6 & PS10 VariableFrequencyDrive - Replacement Project		406,653
Waukesha Engine for Blow 1 C431, Blower Building 1, Blower Engine Overhaul Project		30,043
WI Shorewood Relief Phase 1		651,720
WI Shorewood Relief Phase 2		163,923
WI Shorewood Relief Phase 3		29,722
Total Commitments	$	7,922,237

Projects will be financed through future draws on Clean Water Fund Loans and budgeted capital reserves.

NOTE 8 – MAJOR MUNICIPAL CUSTOMERS

During the years ended December 31, 2022 and 2021, the District had charges for transmission and treatment of sewage and conveyance facilities connection charges and treatment plant connection charges to one major municipal customer, the City of Madison, (defined as being greater than 10 percent of charges) of approximately $31,645,816 and $32,415,193, respectively. Accounts receivable as of December 31 from the City of Madison were as follows:

	2022	2021
Pumping stations	$ 69,996	$ 69,962
Sewer service	7,581,831	7,616,626
Conveyance facilities connection charges and treatment plant connection charges	191,702	223,236
Total receivables	$ 7,843,529	$ 7,909,824

NOTE 9 – POSTEMPLOYMENT BENEFITS OTHER THAN PENSIONS (HEALTH INSURANCE)

Plan Description
The Madison Metropolitan Sewerage District's defined benefit OPEB plan, Madison Metropolitan Sewerage District Postretirement Health Plan (MMSDPHP), provides OPEB for permanent full-time employees of the District. MMSDPHP is a single-employer defined benefit OPEB plan administered by the District. The District Commission establishes the terms of the plan. No assets are accumulated in a trust that meets the criteria in paragraph 4 of GASB Statement number 75.

Benefits Provided
MMSDPHP provides health insurance benefits for eligible retirees and their spouses through the District's group health insurance plan, which covers both active and retired members. Benefit provisions are established through personnel policy guidelines, or past practice and state that eligible retirees and their spouses receive lifetime healthcare insurance at established contribution rates.

The District pays 88% of the premiums of the insurance carrier for active employees. The employee is responsible for paying the difference. Retirees are responsible for 100% of the premiums applicable for their health insurance group.

Employees covered by benefit terms. For the year ended December 31, 2022 and 2021, the following employees were covered by the benefit terms as of December 31, 2021, the date of the most recent valuation:

Inactive plan members or beneficiaries currently receiving benefit payments	15
Active plan members	112

NOTE 9 – POSTEMPLOYMENT BENEFITS OTHER THAN PENSIONS (HEALTH INSURANCE) (Continued)

Total OPEB Liability

For the year ended December 31, 2022, the District's total OPEB liability of $3,336,926 was measured by an actuarial valuation as of December 31, 2021, rolled forward to 2022.

For the year ended December 31, 2021, the District's total OPEB liability of $3,566,576 was measured by an actuarial valuation as of December 31, 2021.

Actuarial Assumptions and Other Inputs

The total OPEB liability in the December 31, 2022 actuarial valuation was determined using the following actuarial assumptions and other inputs, applied to all periods included in the measurement, unless otherwise specified:

Salary Increases:	3.50%
Inflation:	2.50%
Plan Participation of Future Retirees:	80.00%
Discount Rate:	4.31%
Healthcare Cost Trend Rates:	6.00% decreasing to 4.5% by 2036

The discount rate was based on the S&P Municipal Bond 20-Year High- Grade Rate Index as of December 31, 2022.

Mortality rates were based on the PubG.H-2010 - General Mortality Table with Mortality Improvement using Scale MP-2020.

The actuarial assumptions used in the December 31, 2021 valuation were based on the results of an actuarial experience study for the period January 1, 2021–December 31, 2021.

Changes in the Total OPEB Liability

Balance as of December 31, 2021	$	3,566,576
Changes for the year:		
Service cost		426,538
Interest		78,063
Difference between expected and actual experience		-
Changes to assumptions or other input		(540,064)
Benefit payments		(194,187)
Other changes		-
Net change in total OPEB liability		(229,650)
Balance as of December 31, 2022	$	3,336,926

NOTE 9 – POSTEMPLOYMENT BENEFITS OTHER THAN PENSIONS (HEALTH INSURANCE) (Continued)

Changes in the Total OPEB Liability (continued)

Balance as of December 31, 2020	$	4,945,075
Changes for the year:		
Service cost		436,907
Interest		94,095
Difference between expected and actual experience		(886,452)
Changes to assumptions or other input		(883,701)
Benefit payments		(139,348)
Other changes		-
Net change in total OPEB liability		(1,378,499)
Balance as of December 31, 2021	$	3,566,576

Sensitivity of the net OPEB liability to changes in the discount rate

For the year ended December 31, 2022, the following presents the net OPEB liability of the District, as well as what the District's net OPEB liability would be if it were calculated using a discount rate that is 1-percentage-point lower (3.31%) or 1-percentage-point higher (5.31%) than the current discount rate:

	1% Decrease to Discount Rate (3.31%)	Current Discount Rate (4.31%)	1% Increase to Discount Rate (5.31%)
District's Net OPEB Liability	$3,105,680	$3,336,926	$3,588,207

NOTE 9 – POSTEMPLOYMENT BENEFITS OTHER THAN PENSIONS (HEALTH INSURANCE) (Continued)

Sensitivity of the net OPEB liability to changes in the discount rate (continued)
For the year ended December 31, 2021, the following presents the net OPEB liability of the District, as well as what the District's net OPEB liability would be if it were calculated using a discount rate that is 1-percentage-point lower (1.25%) or 1-percentage-point higher (3.25%) than the current discount rate:

	1% Decrease to Discount Rate (1.25%)	Current Discount Rate (2.25%)	1% Increase to Discount Rate (3.25%)
District's Net OPEB Liability	$3,328,268	$3,566,576	$3,822,176

Sensitivity of the net OPEB liability to changes in the healthcare cost trend rates
For the year ended December 31, 2022, the following presents the net OPEB liability of the District, as well as what the District's net OPEB liability would be if it were calculated using healthcare cost trend rates that are 1-percentage-point lower (5.0% decreasing to 3.5%) or 1-percentage-point higher (7.0% decreasing to 5.5%) than the current healthcare cost trend rates:

	1% Decrease to Healthcare Cost Trend Rate (5.0 – 3.5%)	Current Healthcare Cost Trend Rate (6.0 – 4.5%)	1% Increase to Healthcare Cost Trend Rate (7.0 – 5.5%)
District's Net OPEB Liability	$3,732,031	$3,336,926	$3,002,173

For the year ended December 31, 2021, the following presents the net OPEB liability of the District, as well as what the District's net OPEB liability would be if it were calculated using healthcare cost trend rates that are 1-percentage-point lower (5.0% decreasing to 3.5%) or 1-percentage-point higher (7.0% decreasing to 5.5%) than the current healthcare cost trend rates:

	1% Decrease to Healthcare Cost Trend Rate (5.0 – 3.5%)	Current Healthcare Cost Trend Rate (6.0 – 4.5%)	1% Increase to Healthcare Cost Trend Rate (7.0 – 5.5%)
District's Net OPEB Liability	$3,199,081	$3,566,576	$4,002,752

NOTE 9 – POSTEMPLOYMENT BENEFITS OTHER THAN PENSIONS (HEALTH INSURANCE) (Continued)

OPEB Expense and Deferred Outflows of Resources and Deferred Inflows of Resources Related to OPEB
For the year ended December 31, 2022, the District recognized OPEB expense of $296,544.

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

	Deferred Outflows of Resources	Deferred Inflows of Resources
Differences between expected and actual experience	$118,773	$832,778
Changes in assumptions	409,788	1,581,921
Total	$528,561	$2,414,699

Amounts reported as deferred outflows of resources and deferred inflows of resources related to OPEB will be recognized as OPEB expense as follows:

Year ended December 31:	Net Amortization of Deferred Outflows/(Inflows) of Resources
2023	$(208,058)
2024	(208,058)
2025	(208,058)
2026	(208,058)
2027	(205,997)
Thereafter	(847,909)

For the year ended December 31, 2021, the District recognized OPEB expense of $373,831. At December 31, 2021, the District reported deferred outflows of resources and deferred inflows of resources related to OPEB from the following sources:

	Deferred Outflows of Resources	Deferred Inflows of Resources
Differences between expected and actual experience	$148,415	$927,057
Changes in assumptions	471,197	1,246,685
Total	$619,612	$2,173,742

NOTE 9 – POSTEMPLOYMENT BENEFITS OTHER THAN PENSIONS (LIFE INSURANCE)

Plan Description
The LRLIF is a multiple-employer defined benefit OPEB plan. LRLIF benefits and other plan provisions are established by Chapter 40 of the Wisconsin Statutes. The Wisconsin Department of Employee Trust Funds (ETF) and the Group Insurance Board have statutory authority for program administration and oversight. The plan provides post-employment life insurance benefits for all eligible members.

OPEB Plan Fiduciary Net Position
ETF issues a standalone Annual Comprehensive Financial Report (ACFR), which can be found at https://etf.wi.gov/about-etf/reports-and-studies/financial-reports-and-statements

Benefits Provided

The LRLIF plan provides fully paid up life insurance benefits for post-age 64 retired members and pre-65 retirees who pay for their coverage.

Contributions
The Group Insurance Board approves contribution rates annually, based on recommendations from the insurance carrier. Recommended rates are based on an annual valuation, taking into consideration an estimate of the present value of future benefits and the present value of future contributions. A portion of employer contributions made during a member's working lifetime funds a post-retirement benefit.

Employers are required to pay the following contributions based on member contributions for active members to provide them with Basic Coverage after age 65. There are no employer contributions required for pre-age 65 annuitant coverage. If a member retires prior to age 65, they must continue paying the member premiums until age 65 in order to be eligible for the benefit after age 65.

Contribution rates as of both December 31, 2021 and 2020 are:

Coverage Type	Employer Contribution
50% Post Retirement Coverage	40% of employee contribution
25% Post Retirement Coverage	20% of employee contribution

NOTE 9 – POSTEMPLOYMENT BENEFITS OTHER THAN PENSIONS (LIFE INSURANCE) (Continued)

Contributions (Continued)

Member contributions are based upon nine age bands through age 69 and an additional eight age bands for those age 70 and over. Participating members must pay monthly contribution rates per $1,000 of coverage until the age of 65 (age 70 if active). The member contribution rates in effect for the year ended December 31, 2021 are as listed below:

Life Insurance Member Contribution Rates* For the year ended December 31, 2021		
Attained Age	**Basic**	**Supplemental**
Under 30	$0.0500	$0.0500
30-34	0.0600	0.0600
35-39	0.0700	0.0700
40-44	0.0800	0.0800
45-49	0.1200	0.1200
50-54	0.2200	0.2200
55-59	0.3900	0.3900
60-64	0.4900	0.4900
65-69	0.5700	0.5700

*Disabled members under age 70 receive a waiver-of-premium benefit.

During the reporting period ended December 31, 2022, the LRLIF recognized $3,182 in contributions from the employer.

During the reporting period ended December 31, 2021, the LRLIF recognized $3,267 in contributions from the employer.

Total OPEB Liability, OPEB Expenses and Deferred Outflows of Resources and Deferred Inflows of Resources

At December 31, 2022 the District reported a liability of $918,909 for its proportionate share of the net OPEB liability. The net OPEB liability was measured as of December 31, 2021, and the total OPEB liability used to calculate the net OPEB liability was determined by an actuarial valuation as of December 31, 2020 rolled forward to December 31, 2021. No material changes in assumptions or benefit terms occurred between the actuarial valuation date and the measurement date. The District's proportion of the net OPEB liability was based on the District's share of contributions to the OPEB plan relative to the contributions of all participating employers. At December 31, 2021, the district's proportion was 0.155474000%, which was a decrease of 0.00837600% from its proportion measured as of December 31, 2020.

For the year ended December 31, 2022, the District recognized OPEB expense of $108,129.

NOTE 9 – POSTEMPLOYMENT BENEFITS OTHER THAN PENSIONS (LIFE INSURANCE) (Continued)

Total OPEB Liability, OPEB Expenses and Deferred Outflows of Resources and Deferred Inflows of Resources (Continued)

At December 31, 2021 the District reported a liability of $901,293 for its proportionate share of the net OPEB liability. The net OPEB liability was measured as of December 31, 2020, and the total OPEB liability used to calculate the net OPEB liability was determined by an actuarial valuation as of December 31, 2019 rolled forward to December 31, 2020. No material changes in assumptions or benefit terms occurred between the actuarial valuation date and the measurement date. The District's proportion of the net OPEB liability was based on the District's share of contributions to the OPEB plan relative to the contributions of all participating employers. At December 31, 2020 the district's proportion was 0.16385000%, which was a decrease of 0.003034% from its proportion measured as of December 31, 2019.

For the year ended December 31, 2021, the District recognized OPEB expense of $109,139.

At December 31, 2022, the District reported deferred outflows of resources and deferred inflows of resources related to OPEBs from the following sources:

	Deferred Outflows of Resources	Deferred Inflows of Resources
Differences between expected and actual experience	$-0-	$46,744
Net differences between projected and investments earnings on plan investments	11,956	-0-
Changes in assumptions	277,635	44,540
Changes in proportion and differences between employer contributions and proportionate share of contributions	20,827	48,403
Total	$310,418	$139,687

Amounts reported as deferred outflows of resources and deferred inflows of resources related to OPEB will be recognized as OPEB expense as follows:

Year ended December 31:	Net Amortization of Deferred Outflows/(Inflows) of Resources
2023	$38,949
2024	37,562
2025	35,466
2026	48,242
2027	15,108
Thereafter	(4,596)

NOTE 9 – POSTEMPLOYMENT BENEFITS OTHER THAN PENSIONS (LIFE INSURANCE) (Continued)

Total OPEB Liability, OPEB Expenses and Deferred Outflows of Resources and Deferred Inflows of Resources (Continued)

At December 31, 2021, the district reported deferred outflows of resources and deferred inflows of resources related to OPEBs from the following sources:

	Deferred Outflows of Resources	Deferred Inflows of Resources
Differences between expected and actual experience	$-0-	$43,007
Net differences between projected and investments earnings on plan investments	13,122	-0-
Changes in assumptions	350,616	61,841
Changes in proportion and differences between employer contributions and proportionate share of contributions	25,919	26,748
Total	$389,657	$131,596

Actuarial Assumptions

For the year ended December 31, 2022, the Total OPEB Liability in the January 1, 2021, actuarial valuation was determined using the following actuarial assumptions, applied to all periods included in the measurement:

Actuarial Valuation Date:	January 1, 2021
Measurement Date of Net OPEB Liability (Asset)	December 31, 2021
Experience Study:	January 1, 2018 – December 31, 2020, Published November 19, 2021
Actuarial Cost Method:	Entry Age Normal
20 Year Tax-Exempt Municipal Bond Yield:	2.06%
Long-Term Expected Rated of Return:	4.25%
Discount Rate:	2.17%
Salary Increases Wage Inflation: Seniority/Merit:	 3.00% 0.1% - 5.6%
Mortality:	2020 WRS Experience Mortality Table

Actuarial assumptions are based upon an experience study conducted in 2021 that covered a three-year period from January 1, 2018 to December 31, 2020. Based on this experience study, actuarial assumptions used to measure the Total OPEB Liability changed from the prior year, including the price inflation, mortality and separation rates. The Total OPEB Liability for December 31, 2021 is based upon a roll-forward of the liability calculated from the January 1, 2021 actuarial valuation.

NOTE 9 – POSTEMPLOYMENT BENEFITS OTHER THAN PENSIONS (LIFE INSURANCE)
(Continued)

Actuarial Assumptions (Continued)
For the year ended December 31, 2021, the total OPEB liability in the January 1, 2020, actuarial valuation was determined using the following actuarial assumptions, applied to all periods included in the measurement:

Actuarial Valuation Date:	January 1, 2020
Measurement Date of Net OPEB Liability (Asset)	December 31, 2020
Actuarial Cost Method:	Entry Age Normal
20 Year Tax-Exempt Municipal Bond Yield:	2.12%
Long-Term Expected Rated of Return:	4.25%
Discount Rate:	2.25%
Salary Increases Inflation: Seniority/Merit:	 3.00% 0.1% - 5.6%
Mortality:	Wisconsin 2018 Mortality Table

Actuarial assumptions are based upon an experience study conducted in 2018 that covered a three-year period from January 1, 2015 to December 31, 2017. The Total OPEB Liability for December 31, 2020 is based upon a roll-forward of the liability calculated from the January 1, 2020 actuarial valuation.

Long-Term Expected Return on Plan Assets
The long-term expected rate of return is determined by adding expected inflation to expected long-term real returns and reflecting expected volatility and correlation. Investments for the LRLIF are held with Securian, the insurance carrier. Interest is calculated and credited to the LRLIF based on the rate of return for a segment of the insurance carriers' general fund, specifically 10-year A- Bonds (as a proxy, and not tied to any specific investments). The overall aggregate interest rate is calculated using a tiered approach based on the year the funds were originally invested and the rate of return for that year. Investment interest is credited based on the aggregate rate of return and assets are not adjusted to fair market value. Furthermore, the insurance carrier guarantees the principal amounts of the reserves, including all interest previously credited thereto.

NOTE 9 – POSTEMPLOYMENT BENEFITS OTHER THAN PENSIONS (LIFE INSURANCE)
(Continued)

Long-Term Expected Return on Plan Assets (Continued)
The target allocation and best estimates of geometric real rates of return for each major asset class are summarized in the following table as of December 31, 2021:

Asset Allocation Targets and Expected Returns
As of December 31, 2021

Asset Class	Index	Target Allocation	Long-Term Expected Geometric Real Rate of Return
US Intermediate Credit Bonds	Bloomberg US Interm Credit	45.00%	1.68%
US Long Credit Bonds	Bloomberg US Long Credit	5.00%	1.82%
US Mortgages	Bloomberg US MBS	50.00%	1.94%
Inflation			2.30%
Long-Term Expected Rate of Return			4.25%

The long-term expected rate of return remained unchanged from the prior year at 4.25%. The long-term expected rate of return is determined by adding expected inflation to expected long-term real returns and reflecting expected volatility and correlation. The expected inflation rate increased from 2.20% as of December 31, 2020 to 2.30% as of December 31, 2021.

The target allocation and best estimates of geometric real rates of return for each major asset class are summarized in the following table as of December 31, 2020:

Asset Allocation Targets and Expected Returns
As of December 31, 2020

Asset Class	Index	Target Allocation	Long-Term Expected Geometric Real Rate of Return
US Credit Bonds	Barclays Credit	50.00%	1.47%
US Mortgages	Barclays MBS	50.00%	0.82%
Inflation			2.20%
Long-Term Expected Rate of Return			4.25%

NOTE 9 – POSTEMPLOYMENT BENEFITS OTHER THAN PENSIONS (LIFE INSURANCE) (Continued)

Single Discount Rate

A single discount rate of 2.17% was used to measure the Total OPEB Liability for the current year, as opposed to a discount rate of 2.25% for the prior year. The significant change in the discount rate was primarily caused by the decrease in the municipal bond rate from 2.12% as of December 31, 2020 to 2.06% as of December 31, 2021. The Plan's fiduciary net position was projected to be insufficient to make all projected future benefit payments of current active and inactive members. Therefore, the discount rate for calculating the Total OPEB Liability is equal to the single equivalent rate that results in the same actuarial present value as the long-term expected rate of return applied to benefit payments, to the extent that the plan's fiduciary net position is projected to be sufficient to make projected benefit payments, and the municipal bond rate applied to benefit payment to the extent that the plan's fiduciary net position is projected to be insufficient. The plan's fiduciary net position was projected to be available to make projected future benefit payments of current plan members through December 31, 2036.

The projection of cash flows used to determine the single discount rate assumed that employer contributions will be made according to the current employer contribution schedule and that contributions are made by plan members retiring prior to age 65.

Sensitivity of the District's Proportionate Share of the Net OPEB Liability (Asset) to Changes in the Discount Rate

The following presents the District's proportionate share of the net OPEB liability (asset) calculated using the discount rate of 2.17%, as well as what the District's proportionate share of the net OPEB liability (asset) would be if it were calculated using a discount rate that is 1-percentage-point lower (1.17%) or 1-percentage-point higher (3.17%) than the current rate:

	1% Decrease to Discount Rate (1.17%)	Current Discount Rate (2.17%)	1% Increase To Discount Rate (3.17%)
District's proportionate share of the net OPEB liability (asset)	$1,246,628	$918,909	$672,314

The following presents the District's proportionate share of the net OPEB liability (asset) calculated using the discount rate of 2.25%, as well as what the District's proportionate share of the net OPEB liability (asset) would be if it were calculated using a discount rate that is 1-percentage-point lower (1.25%) or 1-percentage-point higher (3.25%) than the current rate:

	1% Decrease to Discount Rate (1.25%)	Current Discount Rate (2.25%)	1% Increase To Discount Rate (3.25%)
District's proportionate share of the net OPEB liability (asset)	$1,226,017	$901,293	$655,714

REQUIRED SUPPLEMENTARY INFORMATION

SCHEDULE OF MADISON METROPOLITAN SEWERAGE DISTRICT'S PROPORTIONATE SHARE OF THE NET PENSION LIABILITY (ASSET) WISCONSIN RETIREMENT SYSTEM LAST 10 MEASUREMENT PERIODS*

	For the Year Ended December 31,							
	2021	2020	2019	2018	2017	2016	2015	2014
MMSD's proportion of the net pension liability (asset)	0.05743885%	0.05621047%	0.05422627%	0.05377965%	0.05327834%	0.05213809%	0.05093867%	0.04901264%
MMSD's proportionate share of the net pension liability (asset)	$ 4,629,677	$ 3,509,297	$ 1,748,502	$ (1,913,311)	$ (1,581,897)	$ 429,742	$ 827,743	$ (1,203,885)
MMSD's covered payroll	$ 10,013,985	$ 9,968,984	$ 8,684,032	$ 8,362,063	$ 8,025,692	$ 7,638,412	$ 7,517,175	$ 7,095,005
Plan fiduciary net position as a percentage of the total pension liability (asset)	106.02%	105.26%	102.96%	96.45%	102.93%	99.12%	98.20%	102.74%

* Additional years' information will be displayed as it become available.

SCHEDULE OF MADISON METROPOLITAN SEWERAGE DISTRICT'S PENSION CONTRIBUTIONS WISCONSIN RETIREMENT SYSTEM LAST 10 FISCAL YEARS*

	2022	2021	2020	2019	2018	2017	2016	2015
Contractually required contributions	$ 669,943	$ 675,944	$ 672,995	$ 568,804	$ 560,258	$ 545,747	$ 504,135	$ 511,168
Contributions in relation to the contractually required contributions	$ (669,943)	$ (675,944)	$ (672,995)	$ (568,804)	$ (560,258)	$ (545,747)	$ (504,135)	$ (511,168)
Contribution deficiency (excess)	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
MMSD's covered payroll	$ 10,306,814	$ 10,013,985	$ 9,968,984	$ 8,684,032	$ 8,362,063	$ 8,025,692	$ 7,638,412	$ 7,517,175
Contributions as a percentage of covered payroll	6.50%	6.75%	6.75%	6.55%	6.70%	6.80%	6.60%	6.80%

* Additional years' information will be displayed as it become available.

MADISON METROPOLITAN SEWERAGE DISTRICT
REQUIRED SUPPLEMENTARY INFORMATION
DECEMBER 31, 2022 AND 2021

SCHEDULE OF CHANGES TOTAL OPEB LIABILITY AND RELATED RATIOS
MADISON METROPOLITAN SEWERAGE DISTRICT POSTRETIREMENT HEALTH PLAN
LAST 10 FISCAL YEARS*

	2022	2021	2020	2019	2018	2017
Service cost	$ 426,538	$ 436,907	$ 549,058	$ 448,119	$ 344,010	$ 362,832
Interest	78,063	94,095	130,207	143,341	121,580	110,618
Difference between expected and actual experience	-	(886,452)	-	(164,156)	-	296,624
Changes to assumptions or other input	(540,064)	(883,701)	397,816	(62,532)	(130,705)	20,618
Benefit payments	(194,187)	(139,348)	(252,144)	(247,895)	(178,292)	(194,432)
Other changes	-	-	-	(58,632)	(19,187)	(258,517)
Net change in total OPEB liability	(229,650)	(1,378,499)	824,937	58,245	137,406	337,743
Total OPEB liability - beginning	3,566,576	4,945,075	4,120,138	4,061,893	3,924,487	3,586,744
Total OPEB liability - ending	$ 3,336,926	$ 3,566,576	$ 4,945,075	$ 4,120,138	$ 4,061,893	$ 3,924,487
Covered employee payroll	$ 9,981,000	$ 9,643,036	$ 9,698,743	$ 8,259,342	$ 6,572,694	$ 7,814,320
District's net OPEB liability as a percentage of covered employee payroll	33.43%	36.99%	50.99%	49.88%	61.80%	50.22%

* Additional years’ information will be displayed as it become available.

MADISON METROPOLITAN SEWERAGE DISTRICT
REQUIRED SUPPLEMENTARY INFORMATION
DECEMBER 31, 2022 AND 2021

SCHEDULE OF MADISON METROPOLITAN SEWERAGE DISTRICT'S PROPORTIONATE SHARE OF THE NET OPEB LIABILITY (ASSET) LOCAL RETIREE LIFE INSURANCE FUND LAST 10 MEASUREMENT YEARS*

	2021	2020	2019	2018	2017
MMSD's proportion of the net OPEB liability (asset)	0.1554740%	0.1638500%	0.1668840%	0.1546980%	0.1562960%
MMSD's proportionate share of the net OPEB liability (asset)	$ 918,909	$ 901,293	$ 710,625	$ 399,173	$ 470,229
MMSD's covered-employee payroll	$ 6,660,000	$ 6,532,000	$ 6,561,000	$ 6,144,000	$ 6,572,694
Plan fiduciary net position as a percentage of the total OPEB liability (asset)	29.57%	31.36%	37.58%	48.69%	44.81%

* Additional years' information will be displayed as it become available.

SCHEDULE OF MADISON METROPOLITAN SEWERAGE DISTRICT'S OPEB CONTRIBUTIONS LOCAL RETIREE LIFE INSURANCE FUND LAST 10 FISCAL YEARS*

	2022	2021	2020	2019	2018
Contractually required contributions	$ 3,182	$ 3,267	$ 3,016	$ 2,980	$ 2,968
Contributions in relation to the contractually required contributions	$ (3,182)	$ (3,267)	$ (3,016)	$ (2,980)	$ (2,968)
Contribution deficiency (excess)	$ -	$ -	$ -	$ -	$ -
MMSD's covered-employee payroll	$ 6,660,000	$ 6,532,000	$ 6,561,000	$ 6,144,000	$ 6,572,694
Contributions as a percentage of covered-employee payroll	0.047778%	0.050015%	0.045969%	0.048503%	0.045157%

*Additional years' information will be displayed as it become available.

MADISON METROPOLITAN SEWERAGE DISTRICT
NOTES TO THE REQUIRED SUPPLEMENTARY INFORMATION

Changes in Benefit Terms and Assumptions related to Pension Liabilities (Assets)

Changes of benefit terms: There were no changes of benefit terms for any participating employer in WRS.

Changes of assumptions:

Based on a three-year experience study conducted in 2021 covering January 1, 2018 through December 31, 2020, the ETF Board adopted assumption changes that were used to measure the total pension liability beginning with the year-end December 31, 2021, including the following:

- Lowering the long-term expected rate of return from 7.0% to 6.8%
- Lowering the discount rate from 7.0% to 6.8%
- Lowering the price inflation rate from 2.5% to 2.4%
- Lowering the post-retirement adjustments from 1.9% to 1.7%
- Mortality assumptions were changed to reflect updated trends by transitioning from the Wisconsin 2018 Mortality Table to the 2020 WRS Experience Mortality Table.

Based on a three-year experience study conducted in 2018 covering January 1, 2015 through December 31, 2017, the ETF Board adopted assumption changes that were used to measure the total pension liability beginning with the year-ended December 31, 2018, including the following:

- Lowering the long-term expected rate of return from 7.2% to 7.0%
- Lowering the discount rate from 7.2% to 7.0%
- Lowering the wage inflation rate from 3.2% to 3.0%
- Lowering the price inflation rate from 2.7% to 2.5%
- Lowering the post-retirement adjustments from 2.1% to 1.9%
- Mortality assumptions were changed to reflect updated trends by transitioning from the Wisconsin 2012 Mortality Table to the Wisconsin 2018 Mortality Table.

Changes of benefit terms – OPEB-Health. There were no changes of benefit terms.

Changes of assumptions – OPEB-Health. Actuarial assumptions used to develop the OPEB liability changed, including the discount rate, healthcare cost trend rates, and mortality rates.

Health Insurance OPEB. No assets are accumulated in a trust that meets the criteria of paragraph 4 of the GASB Statement No. 75.

MADISON METROPOLITAN SEWERAGE DISTRICT
NOTES TO THE REQUIRED SUPPLEMENTARY INFORMATION (Continued)

Changes in Benefit Terms and Assumptions related to LRLIF OPEB Liabilities (Assets)

Benefit Terms: There were no recent changes in benefit terms.

Assumptions: In addition to the rate changes detailed in the tables above, the State of Wisconsin Employee Trust Fund Board adopted economic and demographic assumption changes based on a three year experience study performed for the Wisconsin Retirement System. These assumptions are used in the actuarial valuations of OPEB liabilities (assets) for the retiree life insurance programs and are summarized below.

The assumption changes that were used to measure the December 31, 2021 total OPEB liabilities, including the following:

- Lowering the price inflation rate from 2.5% to 2.4%
- Mortality assumptions were changed to reflect updated trends by transitioning from the Wisconsin 2018 Mortality Table to the 2020 WRS Experience Mortality Table.

The assumption changes that were used to measure the December 31, 2018 total OPEB liabilities, including the following:

- Lowering the long-term expected rate of return from 5.00% to 4.25%
- Lowering the wage inflation rate from 3.2% to 3.0%
- Lowering the price inflation rate from 2.7% to 2.5%
- Mortality assumptions were changed to reflect updated trends by transitioning from the Wisconsin 2012 Mortality Table to the Wisconsin 2018 Mortality Table.